MIAMIBEACH

Building Department
1700 Convention Center Drive, 2nd Flr
Miami Beach, Fl 33139

NOTICE TO THE CITY OF MIAMI BEACH BUILDING DEPARTMENT OF EMPLOYMENT AS SPECIAL INSPECTOR UNDER THE FLORIDA BUILDING CODE

I have been retained by: _____ to perform special inspector services under the Florida Building Code at the 6030 Alton Road project on the below listed structures as of 10/19/15 (date). I am a professional engineer licensed in the State of Florida.

Process Number: BLS-06312 **Master Permit (IF APPLICABLE):** _____

- [x] Special Inspector for Pilings, FBC 1822.1.20
- [ ] Special Inspector for Lightweight Insulating Concrete, FBC 1917.2
- [x] Special Inspector for Soil Compaction, FBC 1820.3.1
- [ ] Special Inspector for Precast Units and Attachments, FBC 1927.12.2 (By P.E. or R.A..)
- [ ] Special Inspector for Reinforced Masonry, FBC 2122.4 (By P.E or R.A)
- [ ] Special inspection for Steel Bolted & Welded Connections, FBC 2218.2 (By P.E. or R.A..)
- [ ] Special Inspector for Trusses over 35 feet long or 6 feet high, FBC 2319.17.2.4.2 (By P.E. or R. A..)
- [ ] Special Inspector for _____

NOTE: Only the marked boxes apply.

The following individual's employed by this firm or me are authorized representatives to perform inspections

1. Luis de la Hoz
2. _____
3. _____
4. _____

* Special inspectors utilizing authorized representatives shall insure the authorized representative is qualified by education or licensure to perform the duties assigned by the Special Inspector. The qualifications shall include: licensure as a professional engineer or architect; graduation from an engineering education program in civil or structural engineering; graduation from an architectural education program; successful completion of the NCEES Fundamentals Examination; or registration as a building inspector or general contractor.

I will notify the City of Miami Beach Building Department of any changes regarding authorized personnel performing inspection services.

I, understand that **all mandatory inspections, as required by the Florida Building Code, shall be requested by the permit holder and approved by the Building Department Inspectors. Inspections performed by the Special inspector hired by the Owner are in addition to the mandatory inspections performed by the Building Department.** A Special Inspection Log for each building must be displayed in a convenient location on the site for inspection by the Building Department Inspectors. Further, upon completion of the work under each building permit, I will submit to the Building Department at the time of final inspection the completed Inspection Log form and sealed statement that, to the best of my knowledge, belief and professional judgment those portions outlined above meet the intent of the Florida Building Code and are in subsequent accordance with the approved plans.

LUIS OSCAR DE LA HOZ OLIVERA * LICENSE No. 73932 * STATE OF FLORIDA * PROFESSIONAL ENGINEER

Signed and Sealed

License Number

Date: 10/19/15

Architect/Engineer Signature:	
Architect/Engineer Name Printed:	Luis O. de la Hoz
Address:	8857 NW 179th St.
Phone Number:	305-503-8816
Owner/Agent Signature:	
Owner/Agent Name Printed:	
Building Department Accepted By:	11/17/15

B15046312

GENERAL NOTES & CONDITIONS:

1. ALL FLOOR & WALLS OF POOL TO BE PNEUMATICALLY APPLIED CONC. WITH A MIN. 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I.
2. ALL REINFORCING STEEL TO CONFORM TO A.S.T.M. A615 GRADE 60.
3. ALL POOL PIPING TO BE SCHEDULE 40 PVC NON THREADED NSF PIPE WITH SOLVENT WELD JOINTS.
4. IN ALL CASES, THE POOL CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT EXISTING STRUCTURES FROM FAILURE BY SHEATHING AND/OR SHORING, OR OTHER METHODS AS REQUIRED. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE SAFETY OF EXISTING STRUCTURES.
5. THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR POOL CONSTRUCTION IN EASEMENT OR REQUIRED SETBACK AREAS. PLOT PLANS NOT PREPARED FROM LEGAL SURVEYS OF THE EXISTING LOT AND RESIDENCE ARE SO INDICATED. POOL CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND ESTABLISH LOT LINES. IF NECESSARY, POOL CONTRACTOR AND/OR OWNER SHALL VERIFY SHOWN AND ALL DIMENSIONS PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL ESTABLISH LOCATIONS OF UTILITIES AT THE SITE MINIMUM CLEARANCE DIMENSIONS SHALL BE HELD AND SHALL BE AS REQUIRED BY THE LOCAL REGULATORY AGENCY. IN GENERAL, HOLD A DISTANCE OF 10 FEET FROM OVERHEAD ELECTRIC LINES TO POOL'S WATER EDGE.
7. ALL POOL ENCLOSURES SHALL CONFORM TO FLORIDA STATUTES 515.27 AND 515.29, AND F.B.C. 2014 CHAPTER 41(61.1 - 14
8. WHERE POOLS ABUT OR ARE PLACED NEARBY SEA WALL OR BULKHEADS, SPECIAL CARE SHALL BE EMPLOYED. THE WALLS SHALL BE IN GOOD CONDITION, NOT PERMITTING ANY SHIFTING OR REMOVAL, OR LOOSENING OF THE SUPPORTING SOIL AWAY FROM THE POOL. IF THE WALLS DO NOT FULLY CONTAIN THE SOILS BEHIND THEM, THEY SHALL BE REPLACED OR REPAIRED. CONTINUAL MAINTENANCE OF THE WALLS IS REQUIRED BY THE PROPERTY OWNER. WHEN EXCAVATING FOR THE POOL, THE SEA-WALL TIEBACKS SHALL NOT BE CUT. WHEN DEADMEN FALL WITHIN THE EXCAVATION, NOTIFY THE ENGINEER IMMEDIATELY FOR FURTHER INSTRUCTIONS.
9. THE CONTRACTOR SHALL BACKFILL POOL SHELL WITH CAUTION. THE PLUMBING SHALL NOT BE DISTURBED. BACKFILL SHALL BE PERFORMED WITH CLEAN SAND, FREE OF ORGANIC MATERIALS AND SHALL BE PLACED IN 12 INCH THICK LAYERS. EACH LAYER SHALL BE COMPACTED TO 90% OF THE SOILS MAXIMUM DENSITY BY TAMPERING SOLIDLY. SOILS BELOW THE DECK SHALL BE PLACED IN SIMILAR MANNER.
10. WHERE DECKS ARE INDICATED BY OTHERS, THE DECK DESIGN NOTES SHOWN ON THE TYPICAL SECTION DO NOT APPLY. DECK DESIGN SHALL BE BY OTHERS.
11. DO NOT DRAIN POOL UNDER HIGH GROUND WATER OR STORM CONDITIONS.
12. WARNING: DO NOT EMPTY POOL AFTER CONSTRUCTION FOR REPAIRS OR ANY OTHER REASON BEFORE CONSULTING WITH A POOL OR POOL REPAIR CONTRACTOR. HYDROSTATIC UPLIFT PRESSURES MUST BE ELIMINATED TO PREVENT POOL FROM FLOATING ABOVE GROUND, AND CAUSING DAMAGE TO THE STRUCTURAL INTEGRITY OF THE POOL.
13. THIS PLAN REMAINS THE PROPERTY OF THE DESIGN ENGINEERS. IT IS NOT TRANSFERABLE FROM ONE CONTRACTOR TO ANOTHER WITHOUT THE WRITTEN PERMISSION OF THE DESIGN ENGINEERS.
14. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE F.B.C. 2014 EDITION, AND ARTICLE 680 N.E.C., 2014 EDITION. ALL BOND WIRES SHALL BE PROTECTED WITH APPROVED MATERIAL. THE CONTRACTOR SHALL INSURE THAT AN ELECTRICAL BONDING INSPECTION IS CALLED FOR AND APPROVED PRIOR TO PLACEMENT OF CONCRETE OVER THE BOND WIRE CONNECTIONS. CONNECTIONS DIRECTLY FROM THE POOL LIGHT TO A TRANSFORMER BOX IS PROHIBITED. ALL METAL PARTS IN THE POOL AREA, IN ADDITION TO ALL METAL DOORS, WINDOWS, SCREENED ENCLOSURES, OR OTHERS ITEMS CONTAINING METAL WITHIN A DISTANCE OF 5 FEET FROM THE POOL WATER'S EDGE, SHALL ALSO BE GROUNDED.
15. POOL LIGHT TO BE GROUNDED TO COMMON BONDING GRID CONSISTING OF (1) #8 CONTINUOUS COPPER WIRE LOOPED AROUND POOL PERIMETER. LOOP SHALL BE GROUNDED TO PANEL VIA POOL WALL STEEL, DECK REINFORCING, AND PUMP MOTOR CASING.
16. FILTER BACKWASH SHALL COMPLY WITH THE FLORIDA BUILDING CODE, 2014 EDITION.
17. POOL WATER DISPOSAL TO BE IN ACCORDANCE WITH FLORIDA BUILDING CODE, 2014 EDITION.
18. ALL TREADS SHALL HAVE SLIP- RESISTING SURFACES PER ANSI/NSPI-5-2010. 6.1.5
19. ACCESS GATE REQUIREMENTS PER F.B.C. 2015 R4101.17.1 THROUGH R4101.17.1.4
    - GATES SHALL BE EQUIPPED WITH A SELF-LATCHING & LOCKING DEVICE, 54" ABOVE FINISH GRADE ELEVATION.
    - THE DEVICE SHALL BE PLACED ON THE POOL SIDE OF THE GATE.
    - GATES SHALL OPEN OUTWARD AWAY FROM POOL.
    - THE GATE SHALL HAVE NO OPENINGS GREATER THAN 1/2" WITHIN 18" OF THE RELEASE MECHANISM.
20. THIS POOL HAS BEEN DESIGNED TO ALL APPLICABLE REQUIREMENTS OF THE FLORIDA BUILDING CODE, CHAPTER 41 SECTION R4101 2010 EDITION.
21. THIS POOL HAS BEEN DESIGNED TO ALL APPLICABLE REQUIREMENTS OF THE ASCE 7-10 STANDARDS
22. ALL MAIN DRAIN GRATE COVERS, SKIMMERS, VACUUM FITTINGS AND ALL OTHER SUCTION OUTLET SHALL COMPLY WITH ASTM 112-19-8-1 AND ANSI-1 REQUIREMENTS (VGBA COMPLIMENT)
23. ENTRAPMENT PROTECTION FOR SUCTION OUTLETS HAS BEEN DESIGNED PER ANSI/APSP-1 2010 AND ASME A112.19.8-2010

PUMP MOTOR ENERGY EFFICIENCY REQUIREMENTS

24. PUMP AND PUMP MOTORS MUST BE TWO OR MORE SPEEDS.
25. CONTROLS NEED TO BE CAPABLE OF OPERATING AT A MINIMUM OF TWO DIFFERENT SPEEDS.
26. DEFAULT CIRCULATION MUST BE THE RESIDENTIAL FILTRATION SPEED. THE HIGHER-SPEED OVERRIDE IS NOT TO EXCEED ONE NORMAL CYCLE OR 24 HOURS, WHICHEVER IS LESS.
27. SOLAR POOL HEATING SYSTEMS ARE PERMITTED TO RUN AT HIGHER SPEEDS DURING PERIODS OF USABLE
28. SWEEP ELBOWS ARE RECOMMENDED.
29. RESIZE PIPING SO VELOCITY AT MAX FLOW DOES NOT EXCEED 8 FPS IN THE RETURN LINE AND 6 FPS IN THE SUCTION LINE, AND ALSO MEETS VGB/ANSI-7 ENTRAPMENT AVOIDANCE REQUIREMENTS.

FILTRATION AND PLUMBING

30. DESIGN FLOW RATE MUST NOT TURN OVER POOL WATER VOLUME IN LESS THAN SIX HOURS OR 36 GPM, WHICHEVER IS GREATER.
31. WATER FLOW VELOCITY AT A MAXIMUM FLOW RATE MUST NOT EXCEED 8 FT/SEC IN THE RETURN LINE AND 6FT/SEC IN THE SUCTION LINE.
32. SOLAR ACCESS STUBS MUST BE SEPARATED BY A MINIMUM 18" (HORIZONTAL OR VERTICAL) OF STRAIGHT PIPE.
28. SIZE THE PUMP BASED ON: POOL GALLONS/360 MINUTES AND SELECTING A PUMP FROM EITHER THE APSP OR CEC DATABASE WITH CURVE A OR C LISTED FLOW RATE EQUAL TO OR LESS THAN CALCULATED FILTRATION FLOW RATE.
29. A TIME SWITCH MUST BE INSTALLED TO ALLOW POOL OWNERS TO RUN THE POOL FILTRATION PUMP ONLY DURING OFF-PEAK PERIOD AND FOR THE MINIMUM TIME NECESSARY TO MAINTAIN THE WATER IN THE CONDITION REQUIRED BY APPLICABLE PUBLIC PUBLIC HEALTH STANDARDS.
30. FILTERS MUST HAVE A MINIMUM AREA BASED ON THE 6 HOUR TURNOVER FLOW RATE.
    1) POOL GAL/360=FLOW RATE (IN GPM) 2) DIVIDE GPM BY A NUMBER SHOWN TO FIND THE FILTERS MINIMUM SQ FEET CARTRIDGE=.375 SAND=15 DE=2
31. MINIMUM DIAMETER OF BACKWASH VALVES MUST BE TWO INCHES OR THE DIAMETER OF THE RETURN PIPE, WHICHEVER IS GREATER.
32. BACKWASH OR MULTI-PORT VALVES MUST BE A MINIMUM OF 2" OR THE DIAMETER OF THE RETURN PIPE, WHICHEVER IS GREATER.
33. DIRECTIONAL INLET FITTINGS ARE REQUIRED.
34. FOR POOL FILTRATION PUMPS, A LENGTH OF STRAIGHT PIPE THAT IS AT LEAST 4 PIPE DIAMETERS SHALL BE INSTALLED BEFORE THE PUMP.

PUMP CONTROLS

35. ALL RESIDENTIAL FILTRATION PUMP CONTROLS FOR USE WITH A MULTI-SPEED PUMP MUST HAVE THE CAPABILITY OF OPERATING A MINIMUM OF TWO SPEEDS WITH A DEFAULT TO THE LOWER/FILTRATION SPEED AFTER ONE NORMAL FILTRATION CYCLE OR 24 HOURS, WHICHEVER IS LESS. (IF EXISTING CONTROLS ARE REPLACED, THE NEW CONTROLS MUST MEET REQUIREMENT.)

SITE PREPARATION:

36. EXCAVATION SHALL REMOVE ALL GRASS, WEEDS, ROOTS, AND ANY DEBRIS.
37. EXISTING SOFT SILT AND ORGANIC SOIL LAYER SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.
38. SAND AND LIME ROCK SOIL CAN BE STOCKEDPILED AND USED AS BACKFILL.
39. ONCE THE ORGANIC LAYER HAS BEEN REMOVED, THE DENUCKED SURFACE SHALL BE COMPACTED.
40. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 INCHES IN LOOSE THICKNESS.
41. EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH VIBRATORY COMPACTION EQUIPMENT.
42. FILL SHALL CONSIST OF CLEAN SAND, LIME STONE OR GRAVEL. FILL MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3" AND NO MORE THAN 10% PASSING THE No. 200 SIEVE.

SOIL STATEMENT:

43. FOUNDATION SYSTEM CONSIST OF AUGER CAST PILES DESIGNED IN ACCORDANCE WITH SOIL REPORT BY ----------, DATED ----------, 2015

BARRIER PROVIDED FOR OUTDOOR RESIDENTIAL SWIMMING POOL TO SATISFY THE FOLLOWING REQUIREMENTS:

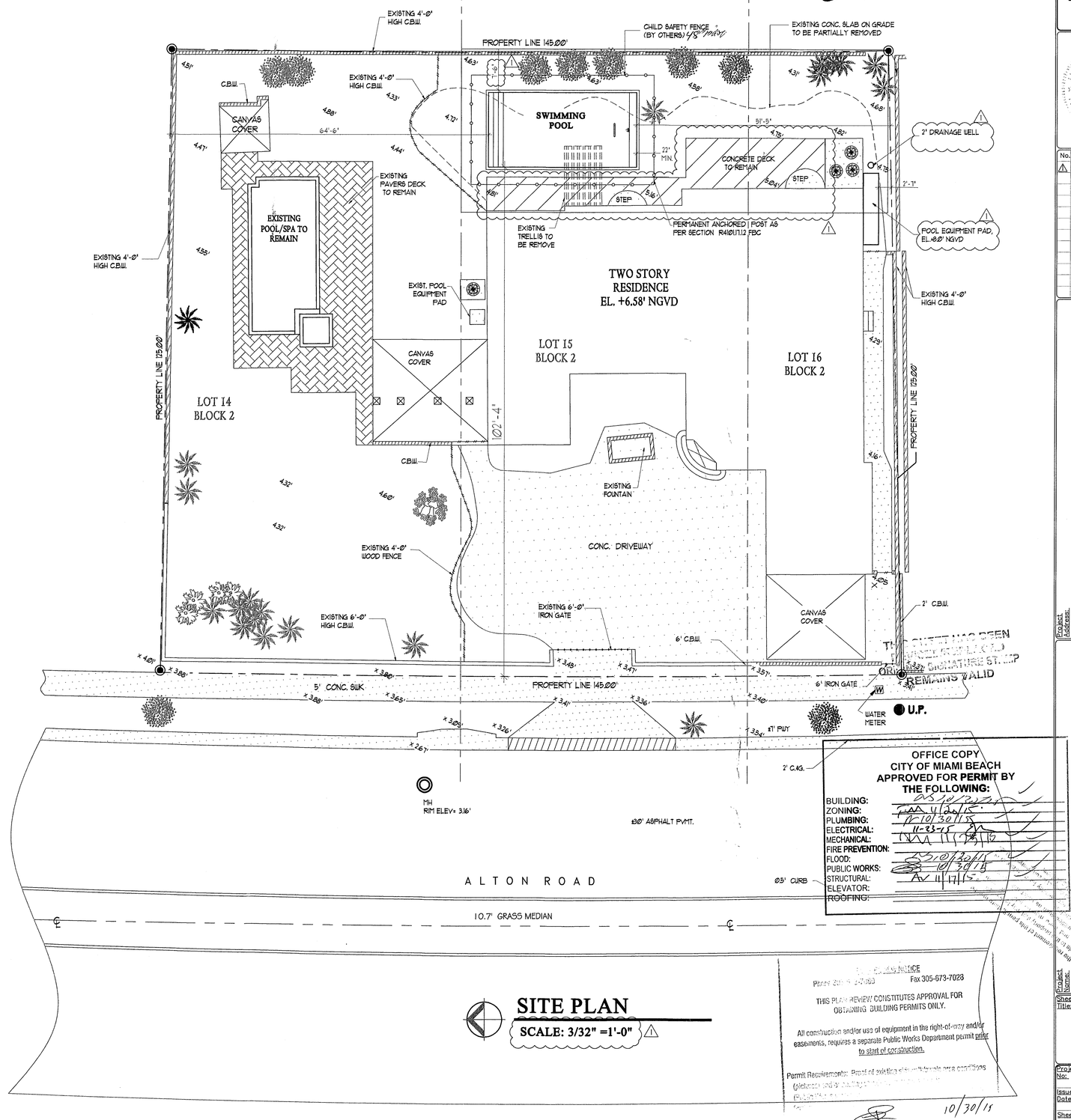
1. THE BARRIER MUST COMPLETELY SURROUND THE SWIMMING POOL AND MUST OBSTRUCT ACCESS TO THE SWIMMING POOL.
2. THE BARRIER MUST BE AT LEAST 4 FEET (48 INCHES) HIGH.
3. THE SPACE BETWEEN THE BOTTOM OF THE BARRIER AND THE GROUND CANNOT EXCEED 2 INCHES.
4. ANY OPENING IN THE BARRIER MUST BE SMALL ENOUGH TO PREVENT THE PASSAGE OF A 4-INCH-DIAMETER SPHERE THROUGH THE OPENINGS.
5. FENCE SHALL BE NON-CLIMBABLE.

48 HOURS BEFORE DIGGING
CALL
TOLL FREE
1-800-432-4770
SUNSHINE STATE ONE CALL CENTER
OF FLORIDA

BASE FLOOD ELEVATION(MIN.)=---------- +8.0' NGVD
SIDE WALK ELEVATION @ CENTER OF PROPERTY= ----------+3.41' NGVD
ADJUSTED GRADE ELEVATION=----------+5.71' NGVD

LOT SIZE(considering lot16 and 15) =------125.0' X 86.5'
REQUIRED REAR YARD AREA(15%) = 1621 SF
EXISTING REAR YARD AREA= ---------2619 SF(24.2%)
REQUIRED SODDED OR LANSCAPED AREA(70 %) = ---------1134.7 SF
PROPOSED POOL AREA=----------450.0 SF.
PROPOSED DECK AREA =----------529.8' SF.
OTHER IMPERVIOUS AREA=----------76.7 SF.
TOTAL IMPERVIOUS AREA=----------605.7 SF.
TOTAL PERVIOUS AREA=------1937.3 SF.> 1134.7 SF

LA GORCE GOLF SUB.
(P.B.14, PG.43)



OFFICE COPY
CITY OF MIAMI BEACH
APPROVED FOR PERMIT BY
THE FOLLOWING:

BUILDING:	
ZONING:	11/20/15
PLUMBING:	11-10-30-15
ELECTRICAL:	11-23-15
MECHANICAL:	11/17/15
FIRE PREVENTION:	
FLOOD:	10/30/15
PUBLIC WORKS:	10/30/15
STRUCTURAL:	11/17/15
ELEVATOR:	
ROOFING:	

NOTICE
Fax 305-673-7028
THIS PLAN REVIEW CONSTITUTES APPROVAL FOR OBTAINING BUILDING PERMITS ONLY.
All construction and/or use of equipment in the right-of-way and/or easements, requires a separate Public Works Department permit prior to start of construction.
Permit Requirements: Proof of existing [illegible] area conditions
10/30/15

SITE PLAN
SCALE: 3/32" =1'-0"

LOH
Luis G. de la Hoz PE# 73932
8857 NW 178th ST
Miami, FL 33018
Phone: (305) 903-8816
lodelahoz@yahoo.es

LUIS G. DE LA HOZ
PE# 73932

No.	Revision/Issues	Date
1	BDC	10-10-2015

Project Address:
6030 ALTON ROAD
MIAMI BEACH, FLORIDA

Project Name:
RESIDENTIAL SWIMMING POOL

Sheet Title:
SITEPLAN, ELECTRICAL RISER AND NOTES

Project No: 029

Issue Date: 08-24-2015

Sheet No:

FRONT

GENERAL NOTES & CONDITIONS:

1. ALL FLOOR & WALLS OF POOL TO BE PNEUMATICALLY APPLIED CONC. WITH A MIN. 28 DAY COMPRESSIVE STRENGTH OF 5000 P.S.I.
2. ALL REINFORCING STEEL TO CONFORM TO A.S.T.M. A615 GRADE 60.
3. ALL POOL PIPING TO BE SCHEDULE 40 PVC NON THREADED NSF PIPE WITH SOLVENT WELD JOINTS.
4. IN ALL CASES, THE POOL CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT EXISTING STRUCTURES FROM FAILURE BY SHEATHING AND/OR SHORING, OR OTHER METHODS AS REQUIRED. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE SAFETY OF EXISTING STRUCTURES.
5. THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR POOL CONSTRUCTION IN EASEMENT OR REQUIRED SETBACK AREAS. PLOT PLANS NOT PREPARED FROM LEGAL SURVEYS OF THE EXISTING LOT AND RESIDENCE ARE SO INDICATED. POOL CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND ESTABLISH LOT LINES. IF NECESSARY, POOL CONTRACTOR AND/OR OWNER SHALL VERIFY SHOWN AND ALL DIMENSIONS PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL ESTABLISH LOCATIONS OF UTILITIES AT THE SITE MINIMUM CLEARANCE DIMENSIONS SHALL BE HELD AND SHALL BE AS REQUIRED BY THE LOCAL REGULATORY AGENCY. IN GENERAL, HOLD A DISTANCE OF 10 FEET FROM OVERHEAD ELECTRIC LINES TO POOL'S WATER EDGE.
7. ALL POOL ENCLOSURES SHALL CONFORM TO FLORIDA STATUTES 515.27 AND 515.29, AND F.B.C. 2014 CHAPTER 4 [101.1] - 14
8. WHERE POOLS ABUT OR ARE PLACED NEARBY SEA WALL OR BULKHEADS, SPECIAL CARE SHALL BE EMPLOYED. THE WALLS SHALL BE IN GOOD CONDITION, NOT PERMITTING ANY SHIFTING OR REMOVAL, OR LOOSENING OF THE SUPPORTING SOIL AWAY FROM THE POOL. IF THE WALLS DO NOT FULLY CONTAIN THE SOILS BEHIND THEM, THEY SHALL BE REPLACED OR REPAIRED. CONTINUAL MAINTENANCE OF THE WALLS IS REQUIRED BY THE PROPERTY OWNER. WHEN EXCAVATING FOR THE POOL, THE SEA-WALL TIEBACKS SHALL NOT BE CUT. WHEN DEADMEN FALL WITHIN THE EXCAVATION, NOTIFY THE ENGINEER IMMEDIATELY FOR FURTHER INSTRUCTIONS.
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11. DO NOT DRAIN POOL UNDER HIGH GROUND WATER OR STORM CONDITIONS.
12. WARNING! DO NOT EMPTY POOL AFTER CONSTRUCTION FOR REPAIRS OR ANY OTHER REASON BEFORE CONSULTING WITH A POOL OR POOL REPAIR CONTRACTOR. HYDROSTATIC UPLIFT PRESSURES MUST BE ELIMINATED TO PREVENT POOL FROM FLOATING ABOVE GROUND, AND CAUSING DAMAGE TO THE STRUCTURAL INTEGRITY OF THE POOL.
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18. ALL TREADS SHALL HAVE SLIP- RESISTING SURFACES PER ANSI/NSPI-5-2010. 6.15
19. ACCESS GATE REQUIREMENTS PER F.B.C. 2015 R4101.17.1 THROUGH R4101.17.1.4
    - GATES SHALL BE EQUIPPED WITH A SELF-LATCHING & LOCKING DEVICE, 54" ABOVE FINISH GRADE ELEVATION.
    - THE DEVICE SHALL BE PLACED ON THE POOL SIDE OF THE GATE.
    - GATES SHALL OPEN OUTWARD AWAY FROM POOL.
    - THE GATE SHALL HAVE NO OPENINGS GREATER THAN 1/2" WITHIN 18" OF THE RELEASE MECHANISM.
20. THIS POOL HAS BEEN DESIGNED TO ALL APPLICABLE REQUIREMENTS OF THE FLORIDA BUILDING CODE, CHAPTER 41 SECTION R4101 2010 EDITION.
21. THIS POOL HAS BEEN DESIGNED TO ALL APPLICABLE REQUIREMENTS OF THE ASCE 7-10 STANDARDS
22. ALL MAIN DRAIN GRATE COVERS, SKIMMERS, VACUUM FITTINGS AND ALL OTHER SUCTION OUTLET SHALL COMPLY WITH ASTM 112-19-B-1 AND ANSI-1 REQUIREMENTS (VGBA COMPLIMENT)
23. ENTRAPMENT PROTECTION FOR SUCTION OUTLETS HAS BEEN DESIGNED PER ANSI/APSP-7 2010 AND ASME A112.19.8-2010

PUMP MOTOR ENERGY EFFICIENCY REQUIREMENTS

24. PUMP AND PUMP MOTORS MUST BE TWO OR MORE SPEEDS.
25. CONTROLS NEED TO BE CAPABLE OF OPERATING AT A MINIMUM OF TWO DIFFERENT SPEEDS.
26. DEFAULT CIRCULATION MUST BE THE RESIDENTIAL FILTRATION SPEED. THE HIGHER-SPEED OVERRIDE IS NOT TO EXCEED ONE NORMAL CYCLE OR 24 HOURS, WHICHEVER IS LESS.
27. SOLAR POOL HEATING SYSTEMS ARE PERMITTED TO RUN AT HIGHER SPEEDS DURING PERIODS OF USABLE
28. SWEEP ELBOWS ARE RECOMMENDED.
29. RESIZE PIPING SO VELOCITY AT MAX FLOW DOES NOT EXCEED 8 FPS IN THE RETURN LINE AND 6 FPS IN THE SUCTION LINE, AND ALSO MEETS VGB/ANSI-1 ENTRAPMENT AVOIDANCE REQUIREMENTS.

FILTRATION AND PLUMBING

30. DESIGN FLOW RATE MUST NOT TURN OVER POOL WATER VOLUME IN LESS THAN SIX HOURS OR 36 GPM, WHICHEVER IS GREATER.
31. WATER FLOW VELOCITY AT A MAXIMUM FLOW RATE MUST NOT EXCEED 8 FT/SEC IN THE RETURN LINE AND 6FT/SEC IN THE SUCTION LINE.
32. SOLAR ACCESS STUBS MUST BE SEPARATED BY A MINIMUM 18" (HORIZONTAL OR VERTICAL) OF STRAIGHT PIPE.
33. SIZE THE PUMP BASED ON: POOL GALLONS/360 MINUTES AND SELECTING A PUMP FROM EITHER THE APSP OR CEC DATABASE WITH CURVE A OR C LISTED FLOW RATE EQUAL TO OR LESS THAN CALCULATED FILTRATION FLOW RATE.
34. A TIME SWITCH MUST BE INSTALLED TO ALLOW POOL OWNERS TO RUN THE POOL FILTRATION PUMP ONLY DURING OFF-PEAK PERIOD AND FOR THE MINIMUM TIME NECESSARY TO MAINTAIN THE WATER IN THE CONDITION REQUIRED BY APPLICABLE PUBLIC PUBLIC HEALTH STANDARDS.
35. FILTERS MUST HAVE A MINIMUM AREA BASED ON THE 6 HOUR TURNOVER FLOW RATE. 1) POOL GAL/360=FLOW RATE (IN GPM) 2) DIVIDE GPM BY A NUMBER SHOWN TO FIND THE FILTERS MINIMUM SQ FEET CARTRIDGE=.375 SAND=15 DE=2
36. MINIMUM DIAMETER OF BACKWASH VALVES MUST BE TWO INCHES OR THE DIAMETER OF THE RETURN PIPE, WHICHEVER IS GREATER.
37. BACKWASH OR MULTI-PORT VALVES MUST BE A MINIMUM OF 2" OR THE DIAMETER OF THE RETURN PIPE, WHICHEVER IS GREATER.
38. DIRECTIONAL INLET FITTINGS ARE REQUIRED.
39. FOR POOL FILTRATION PUMPS, A LENGTH OF STRAIGHT PIPE THAT IS AT LEAST 4 PIPE DIAMETERS SHALL BE INSTALLED BEFORE THE PUMP.

PUMP CONTROLS

40. ALL RESIDENTIAL FILTRATION PUMP CONTROLS FOR USE WITH A MULTI-SPEED PUMP MUST HAVE THE CAPABILITY OF OPERATING A MINIMUM OF TWO SPEEDS WITH A DEFAULT TO THE LOWER/FILTRATION SPEED AFTER ONE NORMAL FILTRATION CYCLE OR 24 HOURS, WHICHEVER IS LESS. (IF EXISTING CONTROLS ARE REPLACED, THE NEW CONTROLS MUST MEET REQUIREMENT.)

SITE PREPARATION:

41. EXCAVATION SHALL REMOVE ALL GRASS, WEEDS, ROOTS, AND ANY DEBRIS.
42. EXISTING SOFT SILT AND ORGANIC SOIL LAYER SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.
43. SAND AND LIME ROCK SOIL CAN BE STOCKEDPILED AND USED AS BACKFILL.
44. ONCE THE ORGANIC LAYER HAS BEEN REMOVED, THE DEMUCKED SURFACE SHALL BE COMPACTED.
45. FILL MATERIAL SHALL BE PLACED IN LIFTS NOT EXCEEDING 12 INCHES IN LOOSE THICKNESS.
46. EACH LIFT SHALL BE THOROUGHLY COMPACTED WITH VIBRATORY COMPACTION EQUIPMENT.
47. FILL SHALL CONSIST OF CLEAN SAND, LIME STONE OR GRAVEL. FILL MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3" AND NO MORE THAN 10% PASSING THE No. 200 SIEVE.

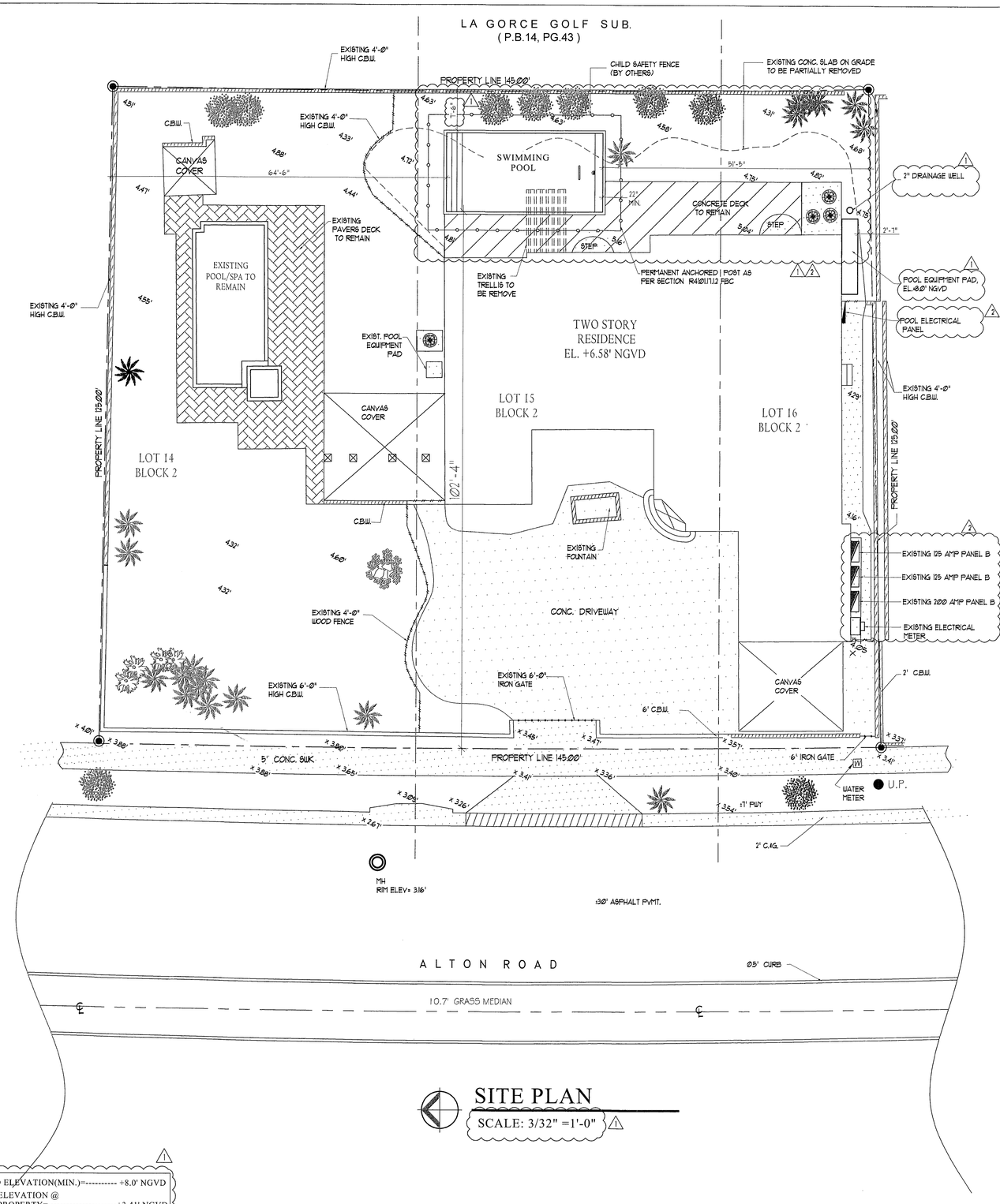
SOIL STATEMENT:

48. FOUNDATION SYSTEM CONSIST OF AUGER CAST PILES DESIGNED IN ACCORDANCE WITH SOIL REPORT BY SOUTH FLORIDA SG & ENGINEERING, DATED OCTOBER 10, 2015

BARRIER PROVIDED FOR OUTDOOR RESIDENTIAL SWIMMING POOL TO SATISFY THE FOLLOWING REQUIREMENTS:

1. THE BARRIER MUST COMPLETELY SURROUND THE SWIMMING POOL AND MUST OBSTRUCT ACCESS TO THE SWIMMING POOL.
2. THE BARRIER MUST BE AT LEAST 4 FEET (48 INCHES) HIGH.
3. THE SPACE BETWEEN THE BOTTOM OF THE BARRIER AND THE GROUND CANNOT EXCEED 2 INCHES.
4. ANY OPENING IN THE BARRIER MUST BE SMALL ENOUGH TO PREVENT THE PASSAGE OF A 4-INCH-DIAMETER SPHERE THROUGH THE OPENING.
5. FENCE SHALL BE NON-CLIMBABLE.

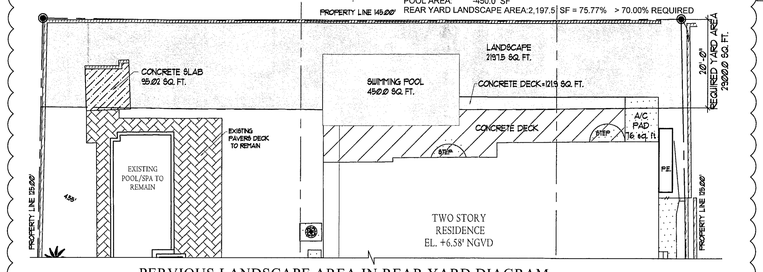
48 HOURS BEFORE DIGGING
CALL
TOLL FREE
1-800-432-4770
SUNSHINE STATE ONE CALL CENTER
OF FLORIDA



SITE PLAN

SCALE: 3/32" =1'-0" ⚠1

REQUIRED REAR YARD AREA: 2900.0 SF (15% OF THE LOT DEPTH= 18'-9" OR, 20 FEET MINIMUM)
DECK AREA INTO REAR YARD: -121.9 SF
CONC. SLAB: -95.02 SF
POOL AREA: -450.0 SF
REAR YARD LANDSCAPE AREA:2,197.5 SF = 75.77% > 70.00% REQUIRED



PERVIOUS LANDSCAPE AREA IN REAR YARD DIAGRAM

⚠1

BASE FLOOD ELEVATION(MIN.)=---------- +8.0' NGVD
SIDE WALK ELEVATION @ CENTER OF PROPERTY= ----------+3.41' NGVD
ADJUSTED GRADE ELEVATION=----------+5.71' NGVD

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No.	Revision/Issues	Date
⚠1	BDC	10-16-2015
⚠2	BDC	11-13-2015

Project Address:
6030 ALTON ROAD
MIAMI BEACH, FLORIDA

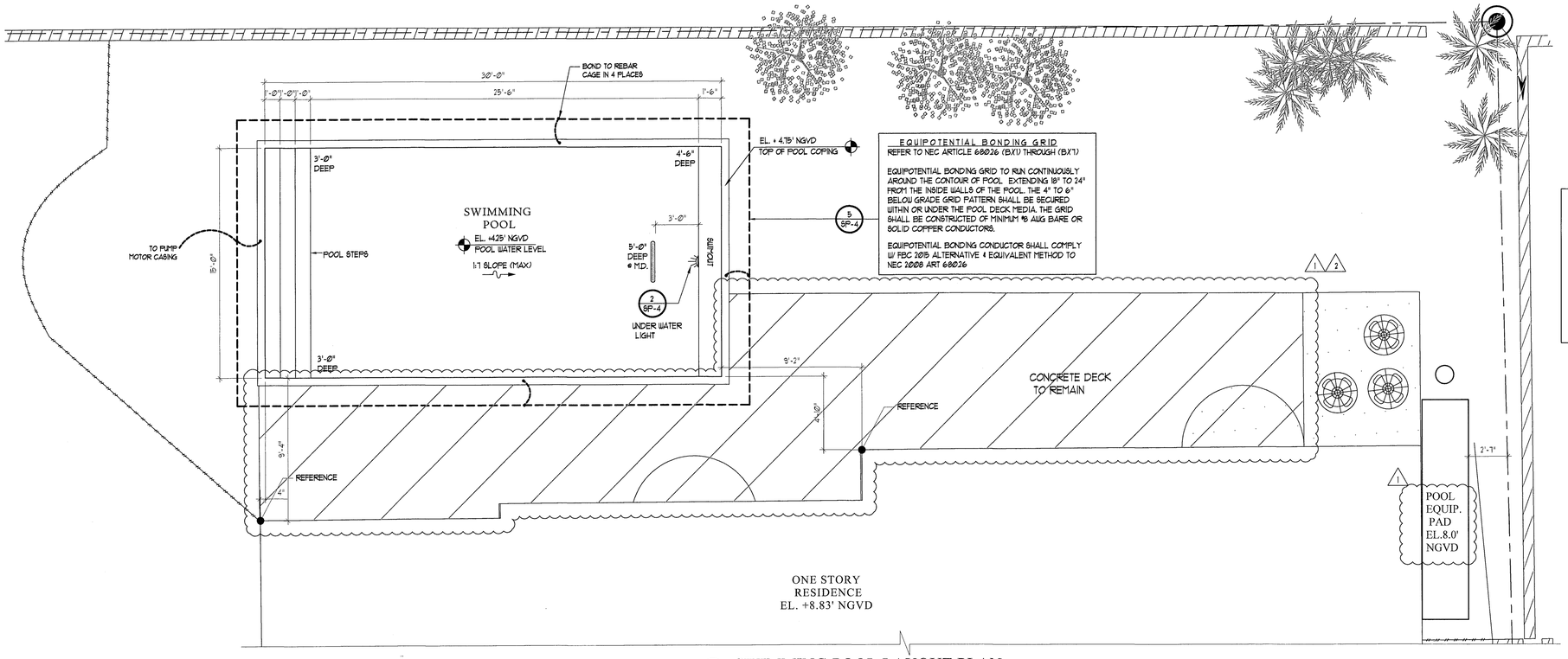
Project Name:
RESIDENTIAL SWIMMING POOL

Sheet Title:
SITEPLAN, ELECTRICAL RISER AND NOTES

Project No.: 029

Issue Date: 08-24-2015

Sheet No.: SP.1



EQUIPOTENTIAL BONDING GRID

REFER TO NEC ARTICLE 680.26 (B)(1) THROUGH (B)(3)

EQUIPOTENTIAL BONDING GRID TO RUN CONTINUOUSLY AROUND THE CONTOUR OF POOL. EXTENDING 18" TO 24" FROM THE INSIDE WALLS OF THE POOL. THE 4" TO 6" BELOW GRADE GRID PATTERN SHALL BE SECURED WITHIN OR UNDER THE POOL DECK MEDIA. THE GRID SHALL BE CONSTRUCTED OF MINIMUM #8 AWG BARE OR SOLID COPPER CONDUCTORS.

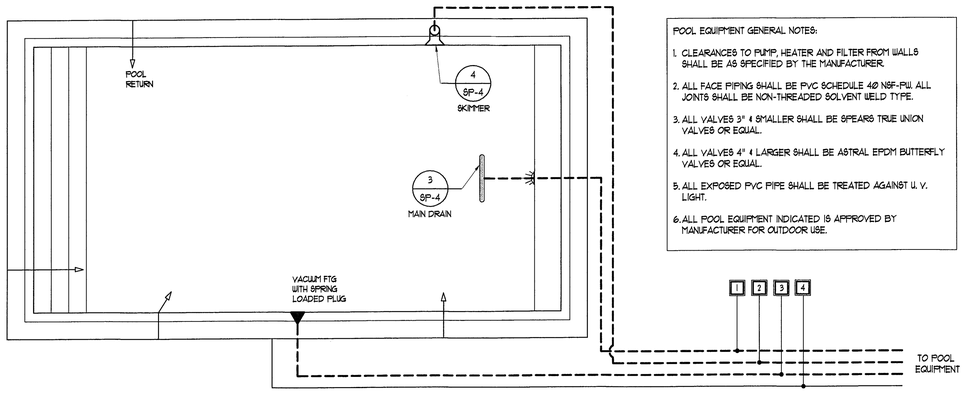
EQUIPOTENTIAL BONDING CONDUCTOR SHALL COMPLY W/ FBC 2015 ALTERNATIVE 4 EQUIVALENT METHOD TO NEC 2008 ART 680.26

POOL SPECIFICATIONS:

POOL SHAPE:	AS SHOWN
MAXIMUM LENGTH:	30'-0"
MAXIMUM WIDTH:	15'-0"
DEEP END:	5'-0"
POOL AREA:	450 SQFT
POOL PERIMETER:	90 LF
POOL VOLUME:	13,465 GALS
TURN OVER RATE:	2.49 HOUR
INTERIOR FINISH:	DIAMOND BRITE
WATERLINE TILE:	YES
PATIO FINISH:	BY OTHERS
PATIO AREA:	N/A
DECK-O-DRAIN:	40.0 LF

SWIMMING POOL LAYOUT PLAN

SCALE: 1/4" = 1'-0"



SWIMMING POOL PIPING PLAN

SCALE: 1/4" = 1'-0"

POOL EQUIPMENT GENERAL NOTES:

1. CLEARANCES TO PUMP, HEATER AND FILTER FROM WALLS SHALL BE AS SPECIFIED BY THE MANUFACTURER.
2. ALL FACE PIPING SHALL BE PVC SCHEDULE 40 NSF-PW. ALL JOINTS SHALL BE NON-THREADED SOLVENT WELD TYPE.
3. ALL VALVES 3" & SMALLER SHALL BE SPEARS TRUE UNION VALVES OR EQUAL.
4. ALL VALVES 4" & LARGER SHALL BE ASTRAL EPDM BUTTERFLY VALVES OR EQUAL.
5. ALL EXPOSED PVC PIPE SHALL BE TREATED AGAINST U. V. LIGHT.
6. ALL POOL EQUIPMENT INDICATED IS APPROVED BY MANUFACTURER FOR OUTDOOR USE.

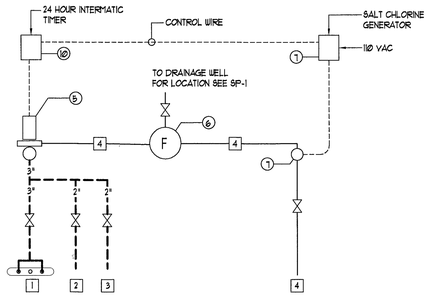
PLAN LEGEND

——— PVC SCHEDULE 40 NSF APPROVED PIPE (SUPPLY LINE) MAX VELOCITY 10 F.P.S.

- - - PVC SCHEDULE 40 NSF APPROVED PIPE (SUCTION LINE) MAX VELOCITY 6 F.P.S.

SWIMMING POOL PIPING LEGEND

I.D. No.	DESCRIPTION	SIZE
1	POOL SUCTION LINE (130 GPM @ 6 FPS)	3"
2	POOL SKIMMER LINE	2"
3	POOL VACUUM LINE	2"
4	WATER SUPPLY LINE TO POOL RETURN FTGS	2-1/2"



SWIMMING POOL FILTRATION SYSTEM FLOW DIAGRAM

SCALE: N.T.S.

SWIMMING POOL • SCHEDULE OF EQUIPMENT

POOL FITTINGS

MARK	QTY.	ITEM	MFR	CAT. No.	DESCRIPTION
1	1	POOL MAIN DRAIN	AQUASTAR POOL PRODUCTS	32CDAVRGxxx (COLOR TO BE SELECTED BY OWNER)	32" CHANNEL DRAIN ANTI-ENTRAPMENT SUCTION OUTLET COVER W/ 4" SOCKET DEEP PVC SUMP 236 GPM AT 3.4 FPS EACH. COMPLIANT WITH THE VIRGINIA GRAEME - BAKER POOL AND SPA SAFETY ACT (ANSI/APSP 16-2011 AND NSF/ANSI 50-2009a).
2	1	POOL VACUUM FITTING	HAYWARD	W400AUMP	VAC-LOCK SAFETY FITTING FOR SUCTION SIDE AUTOMATIC POOL CLEANERS. VACUUM FTG 1-1/2" X 2" SLIP SOCKET. VACUUM FITTINGS SHALL BE MOUNTED NO MORE THAN 15 INCHES BELOW THE WATER LEVEL, FLUSH WITH THE POOL WALLS, AND SHALL BE PROVIDED WITH A SPRING LOADED SAFETY COVER WHICH SHALL BE IN PLACE AT ALL TIMES.
3	1	POOL SKIMMER UNIT	HAYWARD	SP-1082-IR	SKIMMER TOP LOADING NSF APPROVED ASSEMBLY WITH EQUALIZER FITTING OULET CONNECTION, WHITE ABS PLASTIC.
4	4	WALL RETURN FITTINGS	HAYWARD	SP1419D	RETURN FTG 1 1/2" X 3/4" WHITE ABS PLASTIC, DIRECTIONALLY ADJUSTABLE. EYEBALL RETURN FITTING ON WALL

PUMP & FILTRATION EQUIPMENT SYSTEM

5	1	POOL FILTER PUMP	PENTAIR	011018	INTELLIFLO PUMP- SINGLE PHASE- 230 VAC/6 AMP. UP-RATED 3 HP, VARIABLE SPEED. 130 GPM @ 60 TDH
6	1	POOL FILTER UNIT	PENTAIR	CCP320	CARTRIDGE FILTER WITH AIR RELIEF, SINGLE ELEMENT. 320.00 SQFT FILTER AREA PROVIDED. MAXIMUN FLOW 130 GPM

SALT WATER CHLORINE GENERATOR

7	1	POOL SALT CHLORINE GENERATOR	PENTAIR	INTELLICHLOR IC15 520888	FOR POOLS GREATER THAN 15,000 GALLONS. INPUT: 88-132 VAC, 50/60 HZ, 65 WATTS OUTPUT: 24 VAC/4 AMPS TO INTERNAL BLADES OF CELL CHLORINE: 06 LBS PER 24 HOUR (212 gm-24 HOUR)

UNDERWATER LIGHTING SYSTEM

8	1	POOL UNDERWATER LIGHT	PENTAIR	INTELLIBRITE 601012	INTELLIBRITE 5G COLOR POOL LIGHT-500 WATT EQUIVALENT, 12 VOLT/55 WATTS, 100 FT. CORD LENGHT. USE PENTAIR AQUATIC SYSTEMS PLASTIC NICHES P/N 78206700 AND CORD SEAL KIT P/N 670044
9	2	JUNCTION BOX	PENTAIR	78310500	JUNCTION BOX IN WEATHER PROOF NON-CORROSIVE ENCLOSURE REQUIRED. (3) 1" PORTS
10	1	CONTROL & TIMER	INTERMATIC	T100004RT (OR EQUAL)	INTERMATIC T100004RT SERIES CONTROL PANEL WITH T104M & 300 WATT TRANSFORMER
11	1	TRANSFORMERS	INTERMATIC	PX100	TRANSFORMER BOX IN WEATHER PROOF ENCLOSURE. A.J. GIAMMANCO SAF-T-VOLT DUAL WINDING TYPE.

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No.	Revision/Issues	Date
1	BDC	10-10-2015
2	BDC	11-13-2015

Project Address:
6030 ALTON ROAD
MIAMI BEACH, FLORIDA

Project Name:
RESIDENTIAL SWIMMING POOL

Sheet Title:
AREA PLAN PIPING LAYOUT

Project No: 029

Issue Date: 08-24-2015

Sheet No:
SP.2

STRUCTURAL NOTES:

1.00 - FOUNDATION:
GENERAL CONTRACTOR SHALL PERFORM THE SITE PREPARATION, EXCAVATION AND MONITORING WORK IN ACCORDANCE WITH THE RECOMMENDATIONS PRESENTED IN THE SUBSURFACE EXPLORATION REPORT PREPARED BY SOUTH FLORIDA S.G. & ENGINEERING, DATED OCTOBER 10/2015
CONTRACTOR TO OBTAIN A COPY OF THE GEOTECHNICAL REPORT AND FOLLOW THE INSTRUCTIONS INDICATED IN THE REPORT.

1.01- THE FOUNDATION SYSTEM SHALL CONSIST OF 14" ROUND AUGER-CAST PILES.

1.02- FOUNDATION DESIGN HAS BEEN BASED ON MAXIMUM SERVICE LOADS AS FOLLOW:

PILE DIAMETER = 14 IN. PILE CAPACITY : 35 TONS. COMPRESSION
17 TONS. TENSION
2TONS. LATERAL
PILE LENGTH = 35'-0" BELOW GRADE (APPROXIMATELY SEE GEOTECHNICAL REPORT)

1.03- PILE REINFORCEMENTS:
6#6 VERTICAL BARS W/#3 TIES @ 12" c/c EXTENDING 20'-0" BELOW GRADE + 1 #7 BAR. CENTER BAR SHALL EXTEND FULL LENGTH.
ALL REINFORCEMENT IN TENSION PILES SHALL EXTEND FULL LENGTH.
CENTRALIZERS AND SPACERS SHALL BE INSTALLED IN EACH PILE TO VERIFY THAT A CONTINUOUS PILE OF CONSTANT CROSS SECTION HAS BEEN CONSTRUCTED AND TO GUARANTEE THE CORRECT PLACEMENT OF THE BARS MAINTAINING 3" COVER.

GROUT : MINIMUM 5000 PSI (28 DAYS.) GROUT MIX SHALL BE TESTED ACCORDING TO ASTM C109 BY A CERTIFIED TESTING AGENCY.

1.04- PILE INSTALLATION SHALL BE SUPERVISED BY PILE CONTRACTOR STATE REGISTERED P.E.

MINIMUM CENTER TO CENTER SPACING BETWEEN PILES : 3 FEET.
MINIMUM EDGE DISTANCE FROM CENTER OF PILE : 16 INCHES

1.05- PILE INSTALLATION SHALL CONFORM TO THE FLORIDA BUILDING 2014.

1.06- CONTRACTOR SHALL PROVIDE TO THE STRUCTURAL ENGINEER OF RECORD AN AS-BUILT PLAN SHOWING PRECISE IDENTIFICATION AND LOCATION OF EVERY PILE FOR REVIEW AND APPROVAL PRIOR TO POURING OF PILE CAPS.

1.07- THE ABOVE FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT AND BORINGS BY SOUTH FLORIDA S.G. & ENGINEERING ON OCTOBER 9, 2015

2.00- GENERAL:

2.01- ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE FLORIDA BUILDING CODE, 2014 EDITION, ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS, THE ACI 318-08 BUILDING CODE, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL ORDINANCES.

2.02- THESE DRAWINGS AND SPECIFICATIONS COMPLY, TO THE BEST OF MY KNOWLEDGE WITH THE APPLICABLE MINIMUM BUILDING CODE.

2.03- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS OF EXISTING STRUCTURES AFFECTING NEW CONSTRUCTION BEFORE COMMENCING ANY WORK ANY VARIATIONS IN ACTUAL FIELD CONDITIONS/DIMENSIONS FROM THOSE SHOWN IN THE CONTRACT DRAWINGS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR DETERMINING THE NEED OF REDESIGN PRIOR TO CONTRACTOR'S SUBMITTAL OF SHOP WORKING DRAWINGS FOR REVIEW.

2.04- THESE DRAWINGS SHALL BE WORKED TOGETHER WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OULETS, RECESSES, OPENINGS, REGLETS, BOLT SETTINGS, SLEEVES, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.

2.04- THESE DRAWINGS SHALL BE WORKED TOGETHER WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS TO LOCATE DEPRESSED SLABS, SLOPES, DRAINS, OULETS, RECESSES, OPENINGS, REGLETS, BOLT SETTINGS, SLEEVES, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.

2.05- WHEN PERFORMING WORK BELOW GRADE, CARE SHALL BE TAKEN TO AVOID DAMAGING ANY EXISTING UTILITIES. ALL UNKNOWN UTILITIES DISCOVERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTEN- TION OF THE ARCHITECT/ENGINEER. ANY DAMAGE TO THE EXISTING UTILITIES SHALL BE REPORTED TO ALL AFFECTED PARTIES, INCLUDING THE ARCHITECT/ENGINEER.

2.06- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING HIS CONSTRUCTION DOCUMENTS WITH THE REVISED DRAWINGS AND SPECIFICATIONS, FIELD ORDERS, CHANGE ORDERS AND CLARIFICATIONS SKETCHES ISSUED DURING THE COURSE OF CONSTRUCTION.

2.07- TYPICAL DETAILS AND NOTES ON THESE DRAWINGS SHALL APPLY UNLESS SPECIFICALLY NOTED DO OTHERWISE. CONSTRUCTION DETAILS AND SECTIONS NOT COMPLETELY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS AND SECTIONS SHOWN OR NOTED FOR SIMILAR CONDITIONS.

2.08- THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT.

2.09- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL ACCUMULATED WATER FROM EXCAVATIONS AND DEWATERING OPERATIONS IN SUCH A WAY AS TO NOT CAUSE INCONVENIENCE TO THE WORK AND DAMAGE TO THE STRUCTURAL ELEMENTS.

2.10- SHOP DRAWINGS ARE AN AID FOR FIELD PLACEMENT AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.

2.11- THE CONTRACTOR SHALL SUPPLY THE ENGINEER THREE COPIES OF SHOP DRAWINGS A MINIMUM OF ONE WEEK PRIOR TO PLACEMENT. THE REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. THE REVIEW DOES NOT GUARANTEE IN ANY WAY THAT THE SHOP DRAWINGS ARE CORRECT NOR DOES IT INFER THAT THEY SUPERSEDE THE STRUCTURAL DRAWINGS. 2.12- SUBMITTALS TO STRUCTURAL ENGINEER:
I. CONCRETE TEST REPORT FOR CAST-IN-PLACE CONCRETE AS PER ACI 301-02.
II. REINFORCING STEEL SHOP DRAWINGS IF APPLICABLE.

3.00- CONCRETE/SHOTCRETE.

3.01- ALL CONCRETE WORK SHALL CONFORM ALL REQUIREMENTS OF ACI 301-02 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS'.

3.02- CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 5000 PSI

3.03- FORM WORK SHALL COMPLY WITH ACI 347-88 'RECOMMENDED PRACTICE FOR CONCRETE WORK'.

3.04- MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF ANY CONCRETE WORK.

3.05- NO WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.

3.06- THE OWNER SHALL CONTRACTOR AN INDEPENDENT TESTING LABORATORY TO PERFORM CONCRETE CYLINDER TESTS AS FOLLOWS: FOUR CYLINDER TEST FOR ANY 50 CUBIC YARDS OF CONCRETE POURED, OR THREE CYLINDER TESTS PER ANY DAY, FOUR LESS THAT 50 CUBIC YARDS. ONE CYLINDER SHALL BE TESTED AT 7 DAYS, TWO AT 28 DAYS.

3.07- TRANSPORTING, PLACING, CURING AND DEPOSITING OF CONCRETE SHALL COMPLY WITH ACI 301-02.

3.08- ALL PNEUMATICALLY PLACED CONCRETE SHALL CONFORM ALL REQUIREMENTS OF ACI 506.2 SPECIFICATIONS FOR MATERIALS, PROPORTIONING AND APPLICATION OF SHOTCRETE. 3.09- ALL PNEUMATICALLY PLACED CONCRETE SHALL COMPLY WITH FBC 2014, CHAPTER 19, SECTIONS 1913 & 1929.

4.00- REINFORCING STEEL:

4.01- REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 318-08.

4.02- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTMA 615 (61) GRADE 60.

4.03- ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185-94.

4.04- REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES DURING PLACING OF CONCRETE.

4.05- ALL TOP REINFORCING SHALL TERMINATE WITH STANDARD HOOKS AT DISCONTINUOS EDGES OR ENDS.

4.06- ALL BOTTOM BARS SHALL BEAR 6" MINIMUM OVER SUPPORTS, U.O.N.

4.07- ALL REINFORCING BARS MARKED CONTINUOUS SHALL BE LAPPED 36 DIA. AT SPLICES AND CORNERS UNLESS OTHERWISE NOTED. LAP CONTINUOS TOP BARS AT CENTER BETWEEN SUPPORTS AS REQUIRED. TERMINATE CONTINUOS BARS AT NON-CONTINUOS ENDS WITH STANDARD HOOKS, U.O.N.

4.08- MINIMUM CONCRETE COVER FOR REINFORCEMENT:

I. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"

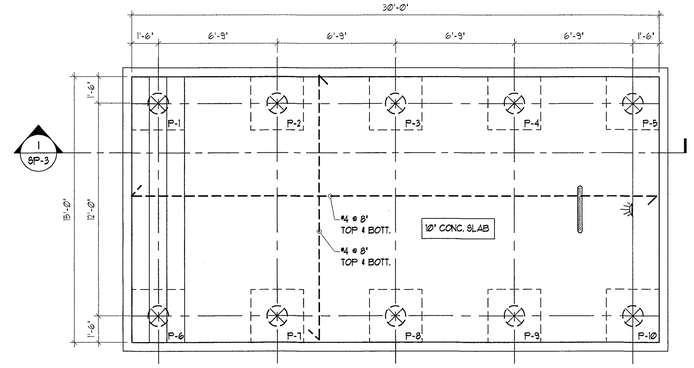
II. CONCRETE EXPOSED TO EARTH OR WEATHER
#6 BARS AND LARGER: 2"
#5 BARS AND SMALLER: 1.5"

III. CONCRETE NOT EXPOSED TO WEATHER OR IN IN CONTACT WITH EARTH:
SLABS AND WALLS: 1.5"
BEAMS AND COLUMNS: 1.5"

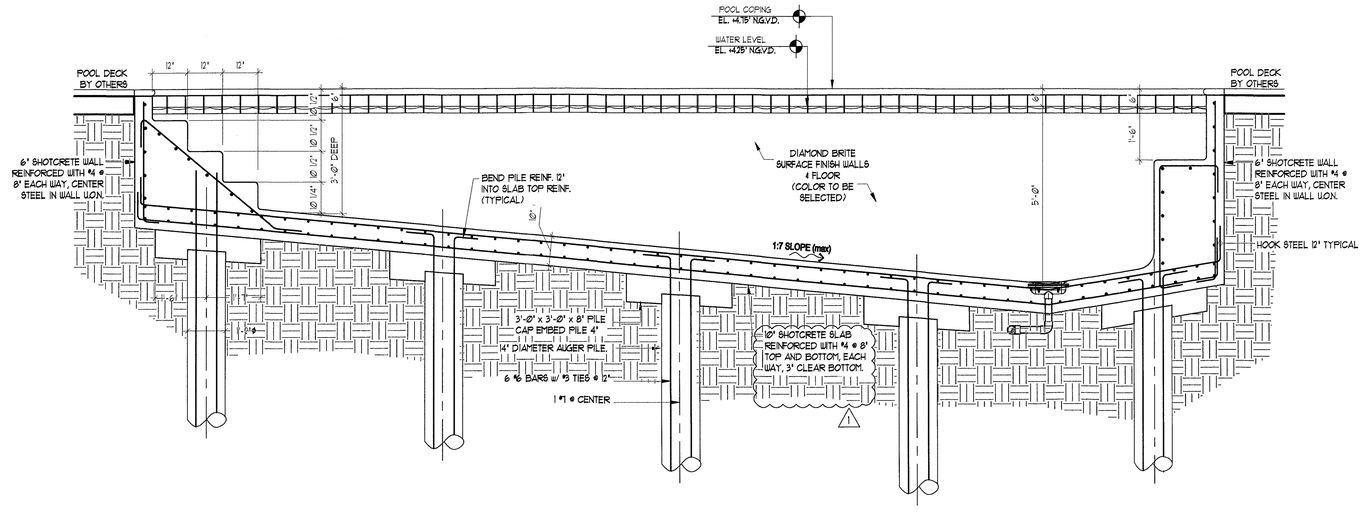
LEGEND

14" AUGER CAST PILING

3' X 3' X 8" PILE CAP EMBED PILE 4".



SWIMMING POOL PILING LAYOUT
SCALE: 1/4" = 1'-0"



SWIMMING POOL LONGITUDINAL SECTION
1/SP-3 SCALE: 1/2" = 1'-0"

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LUIS OSCAR DE LA HOZ QUIJANO — LICENSE NUMBER 73932 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

LUIS O. DE LA HOZ
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No.	Revision/Issues	Date
1	BDC	10-10-2015

Project Address:
6030 ALTON ROAD
MIAMI BEACH, FLORIDA

Project Name:
RESIDENTIAL SWIMMING POOL

Sheet Title:
PILING LAYOUT, SECTION

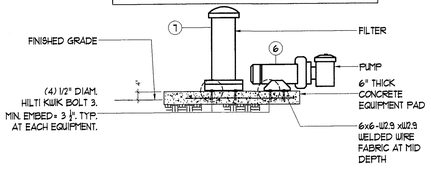
Project No.: 029

Issue Date: 08-24-2015

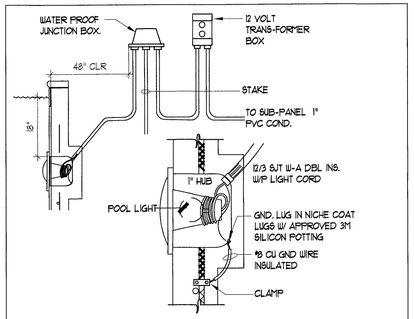
Sheet No:
SP.3

GENERAL NOTES:

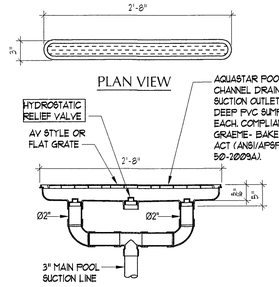
1. POOL MECHANICAL EQUIPMENT ANCHORAGE HAS BEEN DESIGNED TO COMPLY WITH F.B.C. SECT. 301.3
2. ALL EQUIPMENT SHALL BE PLACED ON A SINGLE EQUIPMENT SLAB. SEPARATE SLABS ARE NOT PERMITTED.
3. CLEARANCES TO PUMP, HEATER AND FILTER FROM WALLS SHALL BE AS SPECIFIED BY THE MANUFACTURER.
4. ALL FACE PIPING SHALL BE PVC SCHEDULE 40 NSF-PW. ALL JOINTS SHALL BE NON-THREADED SOLVENT WELD TYPE.
5. ALL EXPOSED PVC PIPE SHALL BE PROTECTED AGAINST EXPOSURE TO ULTRA VIOLET LIGHT.
6. ALL POOL EQUIPMENT INDICATED IS APPROVED BY MANUFACTURER FOR OUTDOOR USE.



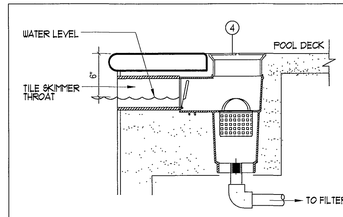
1 SP-4 **POOL FILTER & PUMP ANCHORAGE DETAIL**
SCALE: N.T.S.



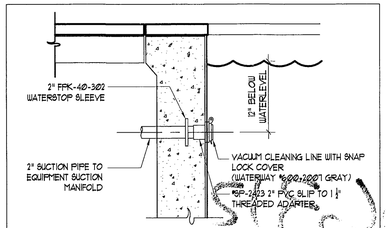
2 SP-4 **WET NICHE LIGHT DETAIL**
SCALE:3/4" = 1'-0" Specifications: 55 Watts 12V



3 SP-4 **SUCTION POOL LINEAR DRAIN DETAIL**
SCALE: N.T.S.



4 SP-4 **POOL SKIMMER DETAIL**
SCALE: N.T.S.



5 SP-4 **VACUUM LINE DETAIL**
SCALE: N.T.S.

ELECTRICAL NOTES:

1. ALL WORK SHALL BE PERFORMED TO MEET THE REQUIREMENTS OF THE GOVERNING EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C 2011), LOCAL AND STATE CODES (FBC 2014) AND ANY OTHER APPLICABLE CODES AND STANDARDS.
2. ALL WIRING SHALL BE COPPER (CU) THWN INSULATION.
3. ALL CIRCUIT BREAKERS SHALL BE RATED AT MINIMUM OF 10,000 AIC.
4. PRIOR TO INSTALLATION OF ROUGH ELECTRICAL WIRING, CHECK NAMEPLATE DATA OF ALL EQUIPMENT FOR REQUIRED VOLTAGES, MINIMUM CIRCUIT AMPACITY, AND OVER CURRENT PROTECTION.
5. ELECTRICAL PLANS AND CALCULATIONS WERE BASED ON INFORMATION PROVIDED BY OWNER AGENT. ELECTRICAL CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND ADJUST ACCORDINGLY, CHANGES TO BE REFLECTED IN THE DRAWINGS.
6. THE ELECTRICAL DESIGN IS BASED UPON THE AVAILABLE INFORMATION AT DESIGN TIME AND THE CONTRACTOR SHALL REVIEW NAMEPLATE DATA AND MANUFACTURER SUPPLIED LITERATURE FOR ALL PIECES OF EQUIPMENT PRIOR TO ROUGH ELECTRICAL WIRING. THE CONTRACTOR SHALL CHECK ALL EQUIPMENT FOR PROPER VOLTAGE, PHASE AND AMP RATING PRIOR TO INSTALLATION. THE CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO ANY FIELD ADJUSTMENT.
7. ALL BRANCH CIRCUITS SHALL BE PROPERLY PHASE BALANCED.
8. ALL NEW CONDUCTORS SHALL BE RUN IN CONDUIT (METALLIC TYPE) UNLESS OTHER SPECIFICATIONS APPLY AS PER NEC, AND LOCAL CODES
9. IF PVC CONDUITS ARE USED FOR UNDERGROUND FEEDERS, AN EQUIPMENT GROUND CONDUCTOR SIZED IN ACCORDANCE WITH N.E.C. 250 - 122 MUST BE INSTALLED AND CONDUIT SIZE INCREASED AS REQUIRED.
10. TYPEWRITTEN PANEL TALLY SHALL BE FURNISHED AFTER JOB IS COMPLETED REFLECTING ALL CHANGES AND ADDITIONS.
11. RISERS ARE DIAGRAMMATIC ONLY. THEY DO NOT SHOW EVERY BEND REQUIRED FOR THE INSTALLATION. ELECTRICAL CONTRACTOR TO FIND BEST POSSIBLE ROUTE FOR ALL CIRCUITS.
12. THIS DRAWING IS A GUIDE FOR THE INSTALLATION OF ELECTRICAL SERVICE. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE A FUNCTIONING SYSTEM.
13. CONTRACTOR TO VERIFY ADJUSTMENT FACTORS FOR MORE THAN THREE CURRENT-CARRYING CONDUCTORS IN A CONDUIT ACCORDING TO TABLE 310-15(b)(2)(a) NEC.
14. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ARCHITECT TO FIELD VERIFY INSTALLATION FOR OUTLETS, LIGHTING FIXTURES AND ELECTRICAL EQUIPMENT.
15. ELECTRICAL CONTRACTOR TO VERIFY EXISTING CONDITIONS AND CODE VIOLATIONS TO FIX.
16. ALL POOL AND SPA EQUIPMENT SHALL BE INSTALLED ACCORDING TO NEC 680 2008 EDITION

RESIDENTIAL POOL PUMPS AND PUMP MOTORS ACCORDING TO FBC 403.9
POOL FILTRATION PUMP MOTORS SHALL MEET THE FOLLOWING REQUIREMENTS.

17. POOL PUMP MOTORS SHALL NOT BE SPLIT-PHASE, SHADED-POLE OR CAPACITOR START-INDUCTION RUN TYPES.
18. POOL PUMPS AND POOL PUMP MOTORS WITH A TOTAL HORSEPOWER (HP) OF GREATER THAN OR EQUAL TO 1 HP SHALL HAVE THE CAPABILITY OF OPERATING AT TWO OR MORE SPEEDS. THE LOW SPEED SHALL HAVE A ROTATION RATE OF NO MORE THAN 1/2 OF THE MOTOR'S MAXIMUM ROTATION RATE.
19. POOL PUMPS MOTOR CONTROLS SHALL HAVE THE CAPABILITY OF OPERATING THE POOL PUMP AT A MINIMUM OF TWO SPEEDS. THE DEFAULT CIRCULATION SPEED SHALL BE THE RESIDENTIAL FILTRATION SPEED, WITH A HIGHER SPEED OVERRIDE CAPABILITY FOR A TEMPORARY PERIOD NOT TO EXCEED ONE NORMAL CYCLE OR 24 HOURS, WHICHEVER IS LESS.
EXCEPTION: SOLAR POOL HEATING SYSTEMS SHALL BE PERMITTED TO RUN AT HIGHER SPEEDS DURING PERIODS OF USABLE SOLAR HEAT GAIN.

FBC-EC-403.9
403.9 POOLS (MANDATORY). POOLS SHALL BE PROVIDED WITH ENERGY-CONSERVING MEASURES IN ACCORDANCE WITH SECTIONS 403.9.1 THROUGH 403.9.53, AND COMPLIANCE CRITERIA FOUND IN
APPENDIX D-FLORIDA STANDARDS, FLORIDA STANDARD No. 2 (FL-2), FLORIDA REGULATORY REQUIREMENTS FOR ENERGY EFFICIENCY FOR RESIDENTIAL INGROUND SWIMMING POOLS AND SPAS, AND FLORIDA STANDARD No. 3 (FL-3), FLORIDA REGULATORY REQUIREMENTS FOR PORTABLE SPA ENERGY EFFICIENCY.

403.9.1 POOL AND SPA HEATERS. ALL POOL HEATERS SHALL BE EQUIPPED WITH A READILY ACCESSIBLE ON-OFF SWITCH THAT IS MOUNTED OUTSIDE THE HEATER TO ALLOW SHUTTING OFF THE HEATER WITHOUT ADJUSTING THE THERMOSTAT SETTING.

A. ALL POOL ELECTRICAL WORK SHALL COMPLY WITH NEC.

B. NO OVERHEAD ELECTRICAL WIRING SHALL BE LOCATED WITHIN 10' OF POOL'S WATER EDGE UNLESS IT 18' OR HIGHER.

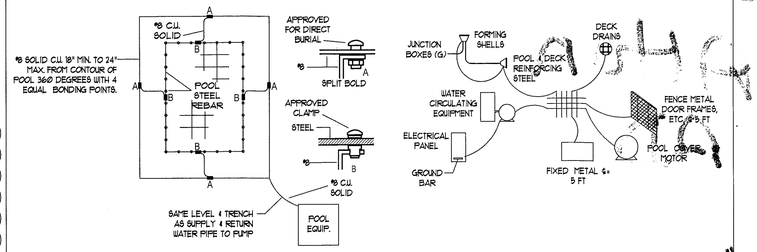
C. GROUND ALL BOXES, LIGHTS, MOTORS, ETC WITH #8 GROUND WIRE.

D. DECK AROUND POOL REQUIRE (4) EQUAL SIDES BONDED WITHIN 3' OF THE RIM.

E. ALL SWIMMING POOL PUMPS REQUIRE GFCI BREAKES AS PER NEC 680.22B & COMPLY WITH THE CODE REQUIREMENT 430.32 NEC.

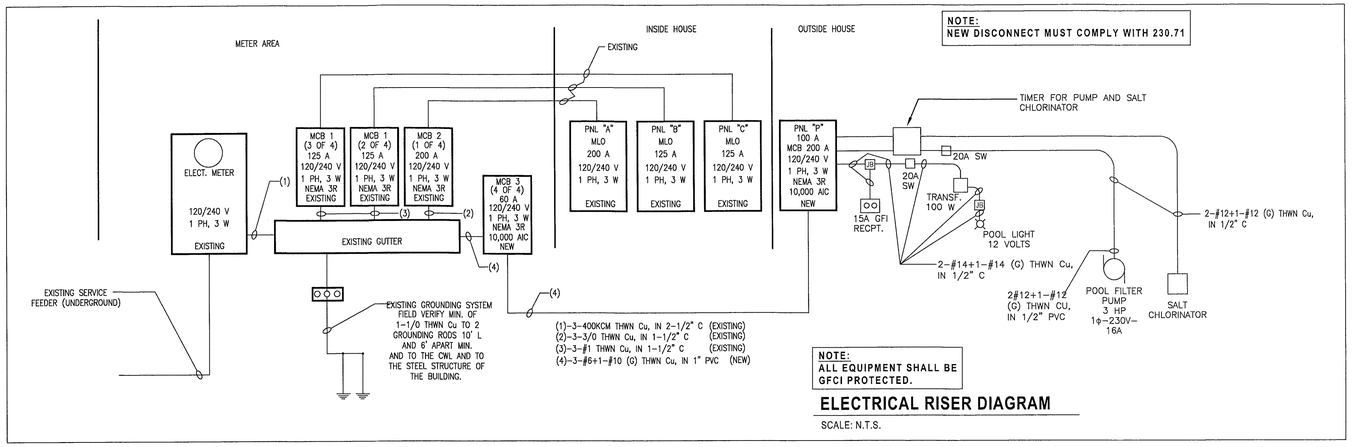
GENERAL LOAD CALCULATION		
HOUSE AREA (SQ-F)=	5,523	SQ-F
LIGHTING LOAD 3 VA/SQ-F)=	16,569	VA
LAUND. DIN. & S.APP.CIRC.=	6,000	VA
OTHER EQUIPMENT LOAD		
REFRIGERATOR=	1,000	VA
HOOD =	400	VA
MICROWAVE=	1,000	VA
DISHWASHER=	1,500	VA
WASHER=	1,500	VA
DRYER=	5,000	VA
GARAGE DOOR=	800	VA
WHs=	4,500	VA
RANGE=	10,000	VA
EXISTING POOL LOAD	9,000	VA
NEW POOL LOAD=	4,120	VA
TOTAL EQUIPMENT LOAD=	38,820	VA
(1)-GENERAL LOAD=	61,389	VA
CONNECTED LOAD=	82,189	VA
(2)-A/C LOAD (100%) =	20,800	V A
(3)-1ST 10,000 VA (GL) AT 100%=	10,000	VA
(4)-REMAINDER GL AT 40% [(1)-(3)]*0.4=	20,556	VA
TOTAL DEMAND (3)+(4)+(2)=	51,356	VA
AMPS=	214	

NEW LOAD (POOL PNL "P")			Trip	Cond	Wire
POOL FILTER PUMP=	3,680	VA	20(2P)	1/2"	#12
POOL LIGHTS=	140	VA	15(1P)	1/2"	#14
POOL SALT CHLORINATOR=	300	VA	15(1P)	1/2"	#14
CONNECTED LOAD=	4,120	VA			
AMPS=	17				



6 SP-4 SWIMMING POOL COMMON BONDING GRID DETAILS
SCALE: N.T.S.

Installation must comply with all of the requirements of NEC 680



ELECTRICAL RISER DIAGRAM
SCALE: N.T.S.

LOH
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No.	Revision/Issues	Date
1	BDC	10-10-2015
2	BDC	11-13-2015

Project Address: 6030 ALTON ROAD MIAMI BEACH, FLORIDA

Project Name: RESIDENTIAL SWIMMING POOL

Sheet Title: DETAILS

Project No: 029

Issue Date: 08-24-2015

Sheet No: SP.4

11-23-15

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