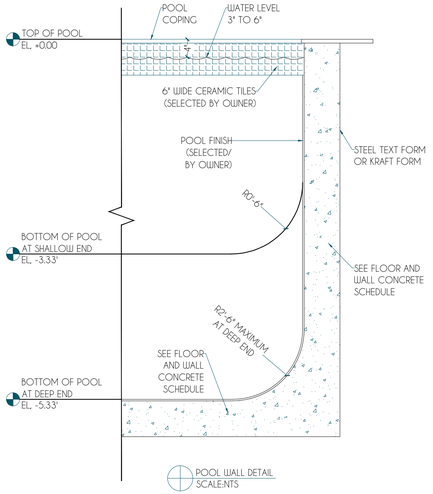
STRUCTURAL NOTES:

1. ALL POOL CONCRETE SHALL DEVELOP A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF f'c=3,500 PSI.
2. ALL PILE CONCRETE SHALL DEVELOP A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF f'c=5,000 PSI.
3. ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF Fy=60,000 PSI.
4. ALL DECK CONCRETE (WHEN INSTALLED UNDER THESE PLANS) SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF F'C=2500 PSI.
5. THE DESIGN OF THIS PROJECT HAS INCORPORATED A RATIONAL DESIGN APPROACH BASED ON ACCEPTED ENGINEERING PRINCIPLES.
6. ALL REINFORCING STEEL SPLICES SHALL BE 24" IN LENGTH FOR #3 BARS AND 30" FOR #4 UNLESS OTHERWISE NOTED ON PLANS.
7. ALL REINFORCING STEEL HOOKS SHALL DEVELOP A LENGTH OF 9" FOR #3 BARS AND 11" FOR #4 BARS UNLESS OTHERWISE NOTED ON PLANS.
8. DEVELOPMENT FOR REINFORCING STEEL SHALL BE 18" FOR #3 BARS AND 24" FOR #4 BARS UNLESS OTHERWISE NOTED ON PLANS.
9. A 3" MINIMUM CLEAR CONCRETE COVER SHALL BE PROVIDED.

FLOOR AND WALL CONCRETE SCHEDULE FOR SWIMMING POOL		
	THICKNESS	REINFORCEMENT
WALL	6"	#3@9" VERTICAL & HORIZONTAL
FLOOR	8"	#3@6" BOTTOM EACH WAY

FLOOR AND WALL CONCRETE SCHEDULE FOR SPA		
	THICKNESS	REINFORCEMENT
WALL	10"	#3@6" VERTICAL & HORIZONTAL BOTH FACES
FLOOR	8"	#3@6" BOTTOM EACH WAY

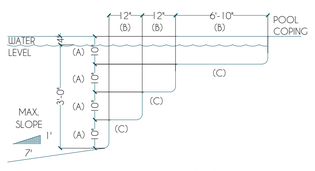


POOL WALL DETAIL
SCALE:NTS

ITEM	FLOTATION ANALYSIS CALCULATION	ELEVATION	UNITS
A	TOP OF POOL WALL ELVATION (NGVD)	11.37	FT
B	DISTANCE FROM TOP OF WALL TO WATER LEVEL	0.33	FT
C	DEPTH OF POOL AT SHALLOW END	3	FT
D	DEPTH OF POOL AT DEEP END	5	FT
E	SLAB THICKNESS	0.67	FT
F	ELEVATION OF POOL BOTTOM	5.37	FT
G	FLOOD CRITERIA (NGVD) ZONE X (ELEV.=N/A)	8	FT
H	INITIAL WATER HEAD= G-F	2.63	FT
I	LESS HYDROSTATIC RELIEF VALVE (FBC 1618.24)	2	FT
J	ADJUSTABLE WATER HEAD H-I	0.63	FT
K	WATER WEIGHT	62.4	LB/FT3
L	**UPLIFT PRESSURE= J x K**	**39.104**	**PSF**
(UP) POOL UPLIFT PRESSURE AREA = L x M		**53,963.52**	**POUND**
M	POOL AREA	1380.00	SQ.FT
N	CONCRETE'S VOLUME OF SIDE WALL (BOTH)	276.00	FT3
O	CONCRETE'S VOLUME OF SHALLOW END WALL	30.00	FT3
P	CONCRETE'S VOLUME OF DEEP END WALL	50.00	FT3
Q	CONCRETE'S VOLUME OF BOTTOM SLAB	920.00	FT3
R	CONCRETE'S VOLUME OF SWIMOUT	0.00	FT3
S	CONCRETE'S VOLUME OF SPA	190.06	FT3
T	CONCRETE WEIGHT	150.00	LB/FT3
(DOWN) TOTAL POOL WEIGHT=(N + O + P + Q + R + S) x T		**219,909.10**	**POUND**
TOTAL POOL WEIGHT CONCRETE > POOL UPLIFT PRESSURE (OK)			
PROPOSED THICKNESS FOR POOL WALLS =		**6 INCHES**	
PROPOSED THICKNESS FOR POOL SLAB =		**8 INCHES**	

POOL SPECIFICATION TABLE		
SIZE	20 X 69	FT
SHALLOW END	3.00	FT
BOTTOM OF POOL	5.00	FT
PERIMETER	178	LF
AREA	1380	SQFT
CAPACITY	41,290	GLS
PUMP*	2.7	HP
FILTER	300	SQ.FT
TILE	6" (BY OWNER)	
TYPE OF PATIO	SLIP RESISTANT	
BLOWER	N/A	HP
WATER HEATER (GAS)	400,000	BTU
TURNOVER RATE	5.93	HRS
*RESIDENTIAL POOL FILTER PUMP MOTORS WITH A CAPACITY OF 1 HP OR GREATER SHALL HAVE THE CAPABILITY OF OPERATING AT TWO OR MORE SPEEDS PER FBC RE R403.12		

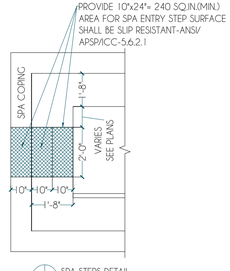
SPA SPECIFICATION TABLE		
SIZE	8 X 9.5	FT
DEPTH	3.00	FT
PERIMETER	35.00	LF
AREA	76	SQFT
CAPACITY	1706	GLS
PUMP*	1.50	HP
FILTER	SAME AS POOL	SQ.FT
TILE	6" (BY OWNER)	
TYPE OF PATIO	SLIP RESISTANT	
BLOWER	2	HP
WATER HEATER (GAS)	400000	BTU
TURNOVER RATE	0.52	HRS
*RESIDENTIAL POOL FILTER PUMP MOTORS WITH A CAPACITY OF 1 HP OR GREATER SHALL HAVE THE CAPABILITY OF OPERATING AT TWO OR MORE SPEEDS PER FBC RE R403.12		



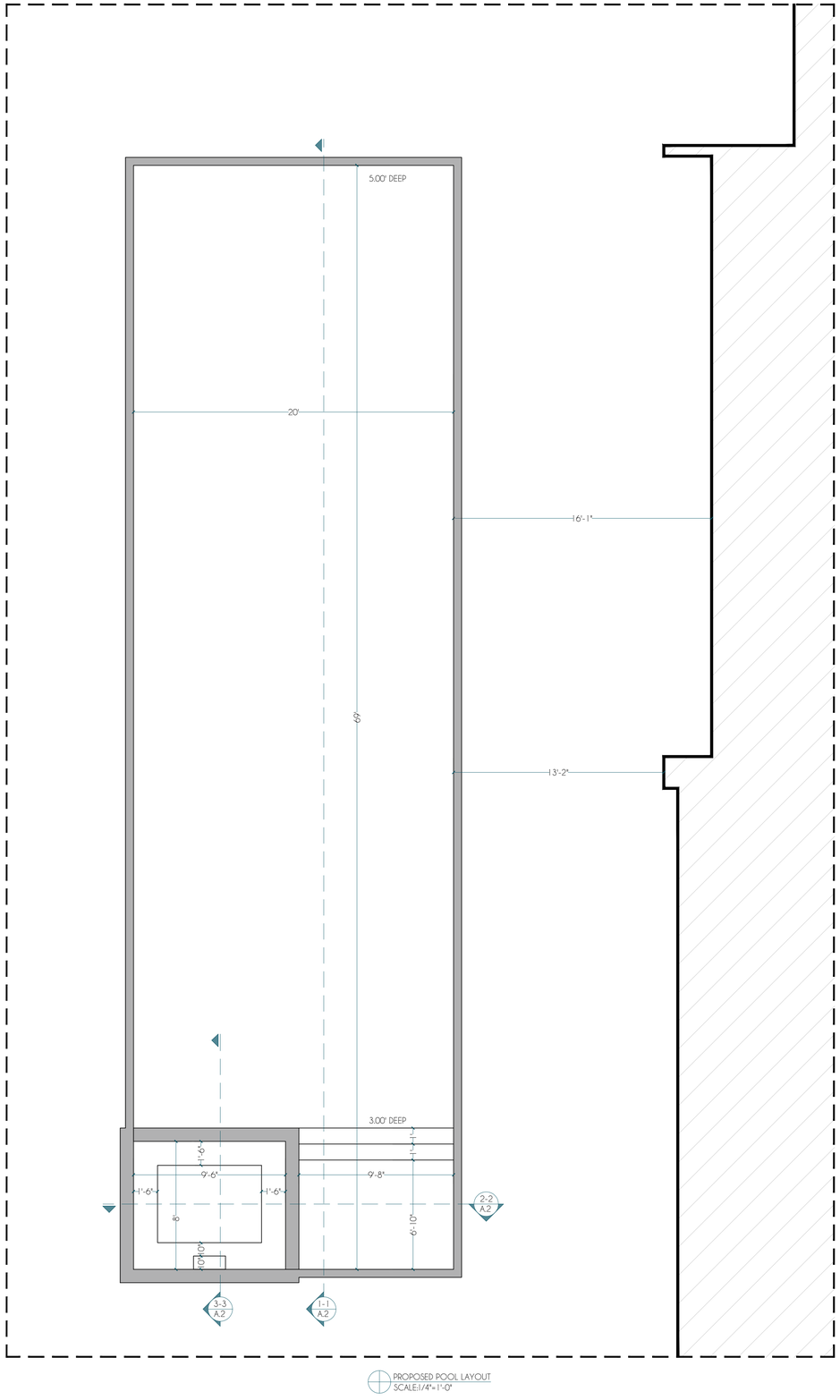
COMPLYING WITH ANSI/NSPI 5.6 FLOOR SLOPES

(A) RISER HEIGHT MUST BE UNIFORM (TOP & BOTTOM MAY VARY) (12" MAX)
(B) CONTRASTING TILE AT EDGE (OPTIONAL)
(C) TREADS SHALL HAVE SLIP-RESISTANT SURFACES-ANSI/ASAP-ICC-5 6.1.5

POOL STEPS DETAIL
SCALE:NTS



SPA STEPS DETAIL
SCALE:NTS



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

REVISION:

NO. DESCRIPTION

ENGINEER

VICTOR RAMOS P.E.LIC No: 87496
7700 N KENDALL DR, SUITE 706, MIAMI FL 33156
(786) 830-3551

Victor Ramos
Digitally signed by Victor Ramos
Date: 2025.05.19 14:04:31 -04'00'

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DESIGNER:

TERRA ENGINEERING CONSULTING

PROJECT:

NEW CONCRETE SWIMMING POOL & SPA

ADDRESS:

6200 SW 123RD TERRACE, MIAMI, FL 33156

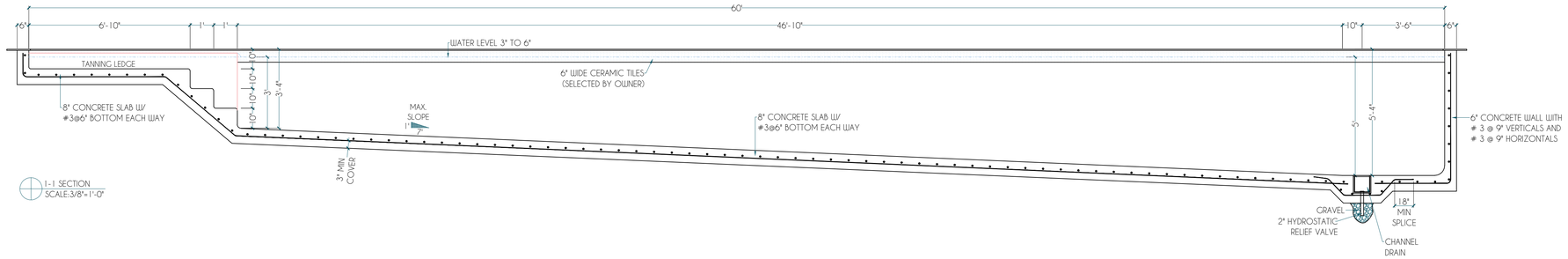
PROJECT DATE: 5.9.2025
DRAWING BY: MR
CHECKED: FD

SHEET TITLE:

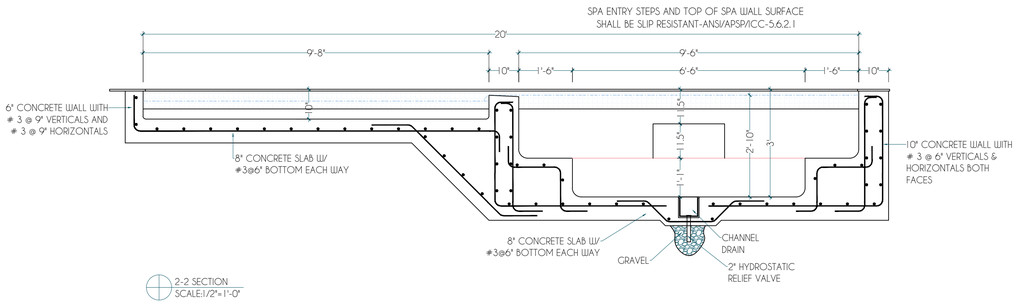
STRUCTURAL PLAN

SHEET No:

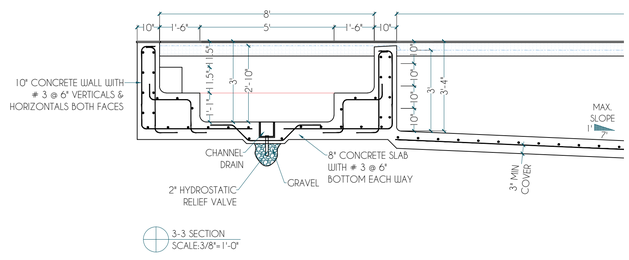
A. 1



1-1 SECTION
SCALE:3/8"=1'-0"



2-2 SECTION
SCALE:1/2"=1'-0"



3-3 SECTION
SCALE:3/8"=1'-0"

REVISION:

NO. DESCRIPTION

ENGINEER

VICTOR RAMOS P.E.LIC No: 87496
7700 N KENDALL DR, SUITE 706, MIAMI FL 33156
(786) 830-3551

Victor Ramos
Digitally signed by Victor Ramos
Date: 2025.05.19 14:01:42 -04'00'

VICTOR RAMOS LICENSE 87496 STATE OF FLORIDA PROFESSIONAL ENGINEER

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DESIGNER:

TERRA
ENGINEERING
CONSULTING

PROJECT:

NEW CONCRETE SWIMMING POOL & SPA

ADDRESS:

6200 SW 123RD TERRACE, MIAMI, FL 33156

PROJECT DATE: 5.9.2025
DRAWING BY: MR
CHECKED: FD

SHEET TITLE:

STRUCTURAL PLAN

SHEET No:

A.2