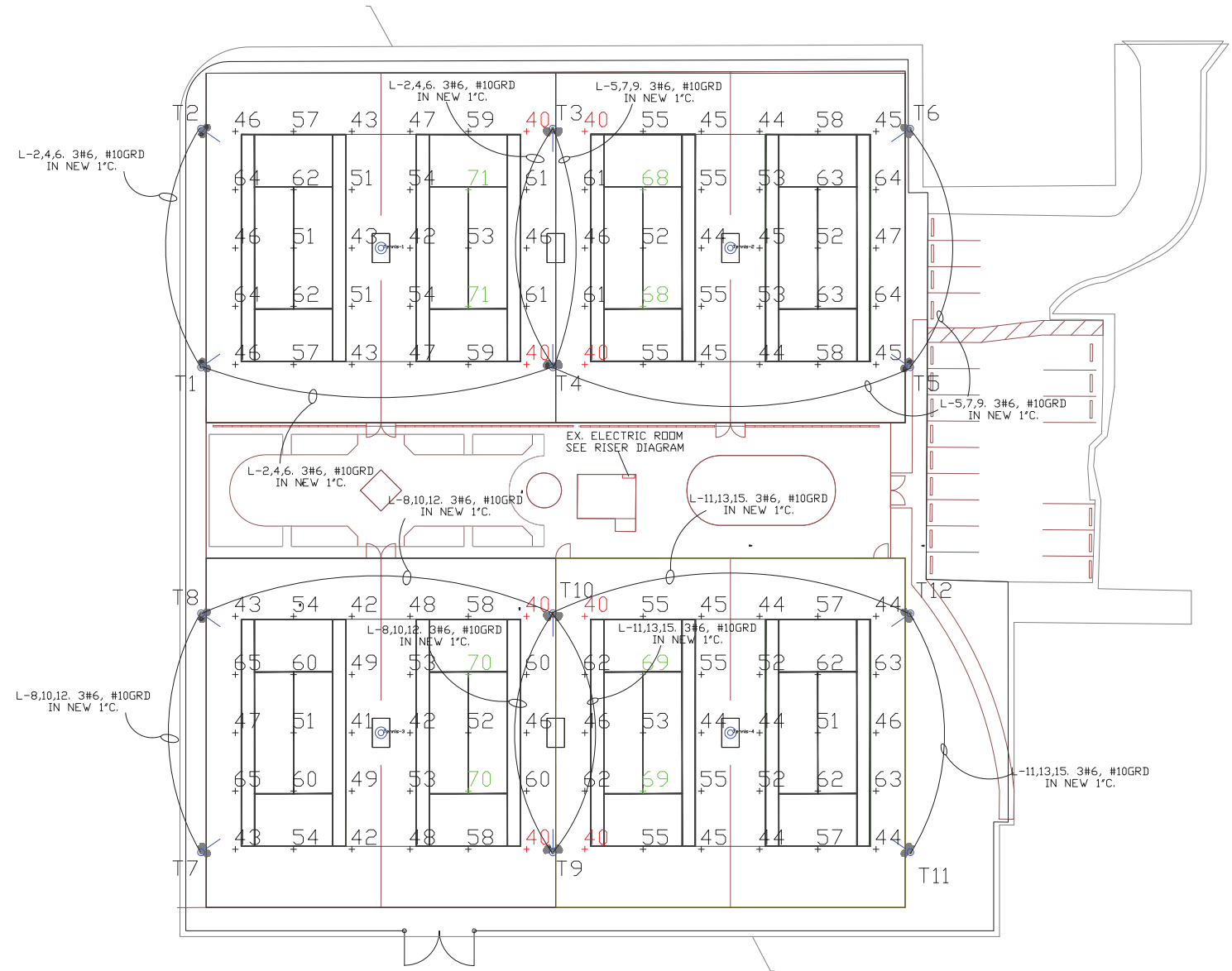
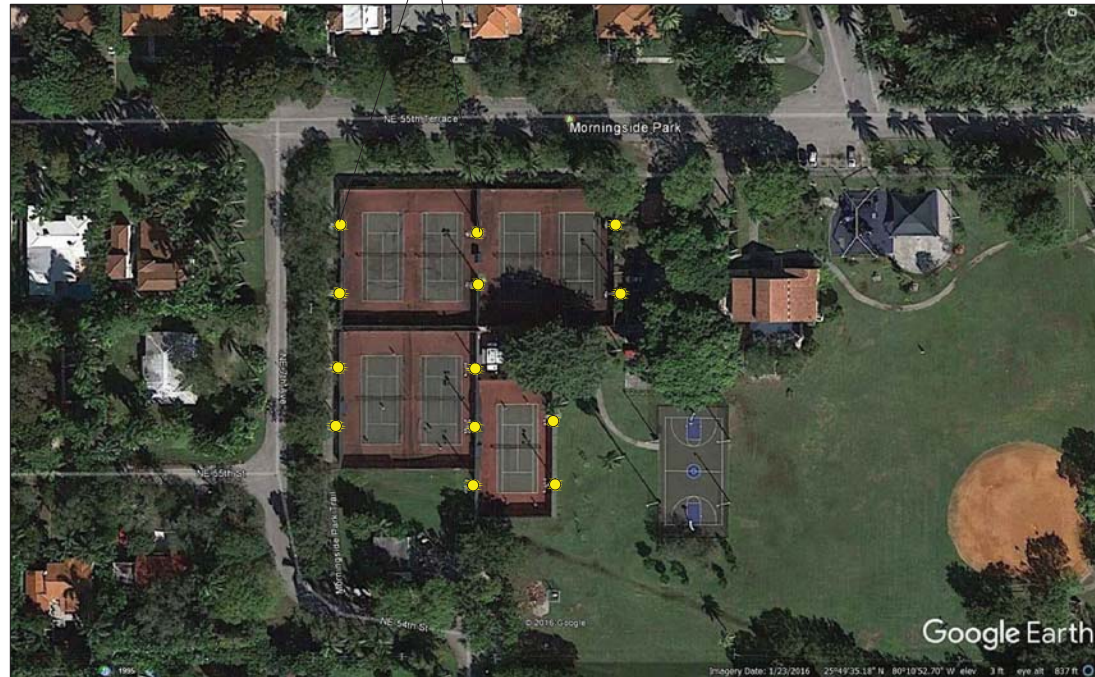


THIS DRAWING IS TO BE USED BY THE CONTRACTOR FOR THE SPECIFIC PURPOSE OF COORDINATING FOR THE INSTALLATION OF THE SPORTS LIGHTING SCOPE OF WORK - THE WORK IS TO BE PERFORMED BY MUSCO LIGHTING.

SCOPE OF WORK

1. REMOVE AND DISPOSE OF 13 EXISTING POLES AND FIXTURES.
2. PROVIDE AND INSTALL 12 NEW MUSCO LSG POLES IN NEW LOCATIONS ACCORDING TO DETAIL.
3. INSTALL NEW CONDUIT AND WIRE TO NEW POLE LOCATIONS.
4. INSTALL NEW PANEL AND CONTACTOR CABINET IN EXISTING ELECTRIC ROOM ACCORDING TO RISER DIAGRAM.
5. RECONFIGURATION OF TENNIS COURTS IS TO BE DONE UNDER SEPARATE PERMIT.

EXISTING POLES TO REMOVED AND DISPOSED. TYPICAL OF 13.



NO.	DATE	BY	REVISION

ELECTRICAL CONTRACTING SERVICE, INC.
 2375 W 77 ST.
 HIALEAH, FL. 33016
 (305)556-0041
 (305)820-0553

VERIFY SCALES	FIELD:
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWN: DRAWN
0 1"	DESIGNED: DESIGN
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	APPROVED: APPROVED
	SCALE: SCALE

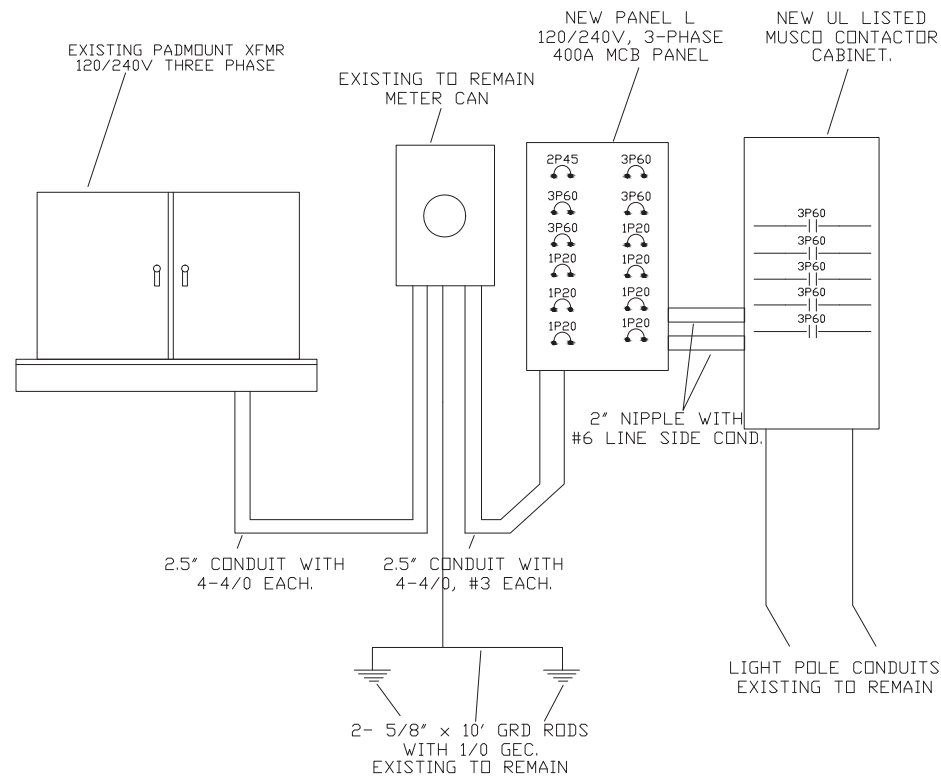
SITE PLAN

**MORNINGSIDE PARK
 TENNIS LIGHTING
 5215 NE 7TH AVE.
 MIAMI, FL. 33137**

DATE:	2/7/17
P.A. NO.	NDNE
DR. NO.	NDNE
SHEET	1 OF 2

RISER DIAGRAM

SCOPE- INSTALL NEW CONTACTOR CABINET AND REPLACE EXISTING PANEL.



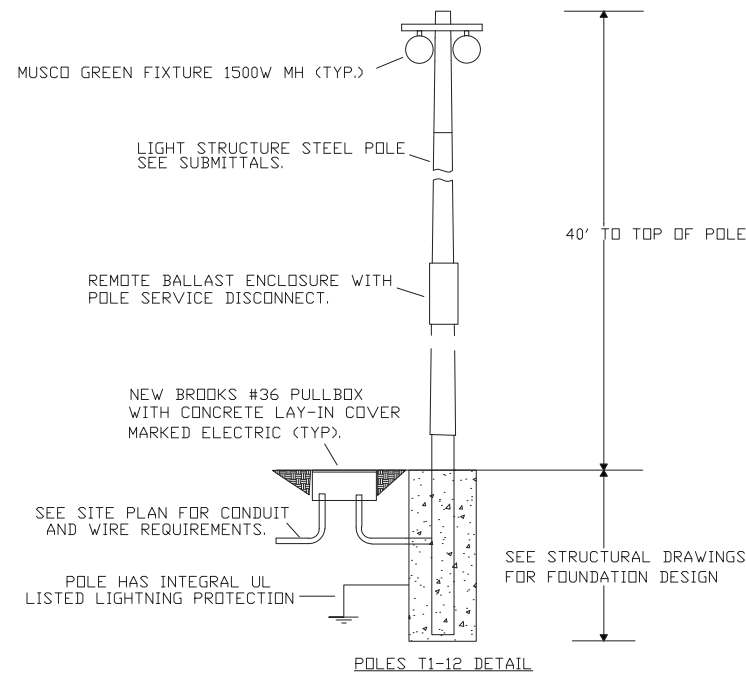
NEW PANEL L

VOLTAGE: 120/240V 3-PHASE		400A M.C.B.	
AMPERAGE: 400		10,000 AIC	
ENCLOSURE TYPE: NEMA 1		MAIN LUGS <u> 2 </u> SETS SIZE: <u> 4/0 </u>	

WIRE #	AMPS			LOAD	POLES	AMPS	CIR. #	CIR. #	AMPS	POLES	LOAD	AMPS			WIRE
	A	B	C									A	B	C	
#8	34			BASKETBALL LIGHTS	2P	45	1	2	60	3P	POLES T1,2,3,4 COURT 1	38			#6
#6		45		POLES T3,4,5,6 COURT 2	3P	60	3	4					45		
		38					7	8	60	3P	POLES T7,8,9,10 COURT 3	45			#6
#6			38	POLES T9,10,11,12 COURT 4	3P	60	9	10					38		
	45						13	14	20	1P	BLDG. EXTERIOR LIGHTS	9			#12
							15	16			SPACE				
#12		8		BUILDING LIGHTS	1P	20	17	18	20	1P	RECEPTACLES			5	#12
#12		5		RECEPTACLES	1P	20	19	20	20	1P	LIGHTING CONTROL	3			#12
							21	22			SPACE				
#12		5		RECEPTACLES	1P	20	23	24	20	1P	WATER FOUNTAIN			4	#12
							25	26							
							27	28							
							29	30							
							31	32							
							33	34							
							35	36							

TOTAL AMPS: BUS A_217 BUS B_193 BUS C_181 CONNECTED Kva_90
 CONNECTED LOAD OF 217 AMPS MAXIMUM
 217A x 125% = 272A
 VOLTAGE DROP CALCULATIONS HAVE BEEN PERFORMED FOR BRANCH CIRCUIT AND FEEDERS, AND ARE REFLECTED ON PANEL SCHEDULE.

THIS DRAWING IS TO BE USED BY THE CONTRACTOR FOR THE SPECIFIC PURPOSE OF COORDINATING FOR THE INSTALLATION OF THE SPORTS LIGHTING SCOPE OF WORK - THE WORK IS TO BE PERFORMED BY MUSCO LIGHTING.



NO.	DATE	BY	REVISION

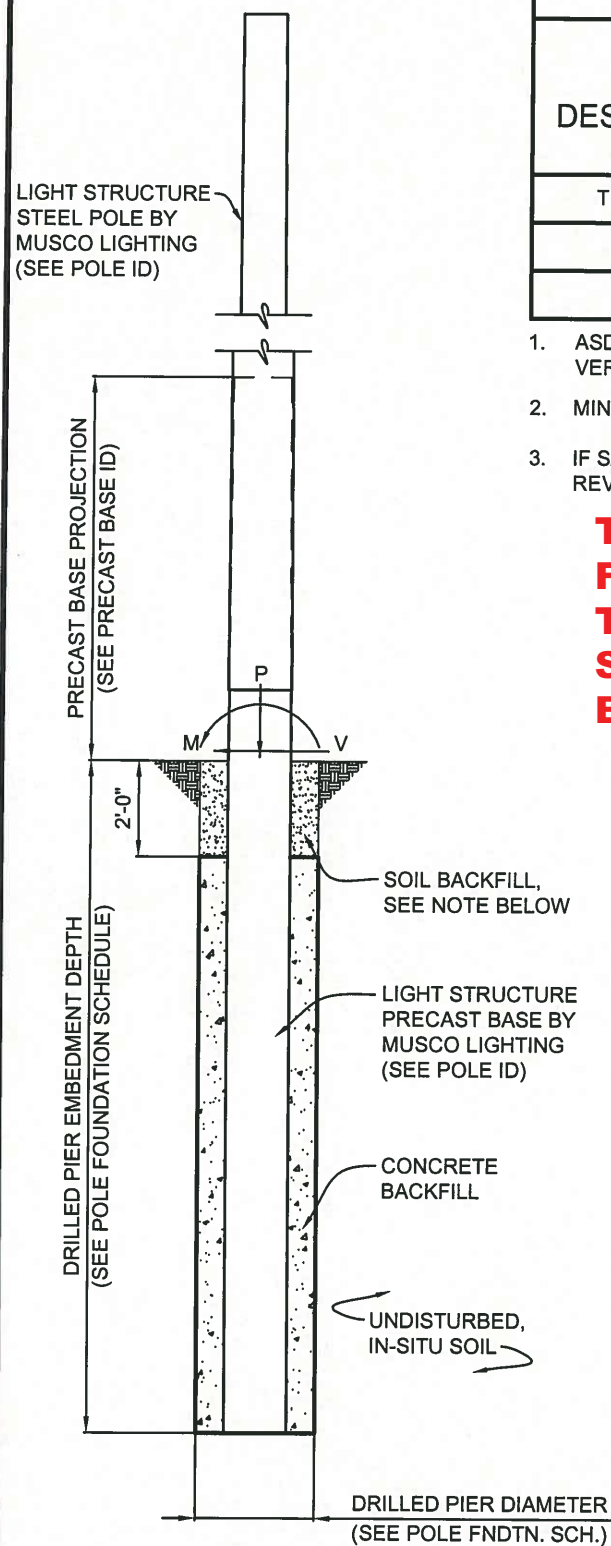
ELECTRICAL CONTRACTING SERVICE, INC.
 2375 W 77 ST.
 HIALEAH, FL. 33016
 (305)556-0041
 (305)820-0553

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FIELD: DRAWN: DRAWN DESIGNED: DESIGN APPROVED: APPROVED SCALE: SCALE
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RISER DIAGRAM

MORNINGSIDE PARK
 TENNIS LIGHTING
 5215 NE 7TH AVE.
 MIAMI, FL. 33137

DATE:	2/7/17
P.A. NO.	NONE
DR. NO.	NONE
SHEET	2 OF 2



POLE FOUNDATION SCHEDULE						
POLE DESIGNATION	FORCES (1.)			DRILLED PIER		
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH (3.)	CONCRETE BACKFILL YD ³ (2.)
T1, T2, T5, T6	37,425	1,535	1,025	30	12'-0"	1.5
T3, T4	46,995	1,785	1,205	30	12'-0"	1.5
T7-T10	68,697	2,194	1,314	30	12'-0"	1.5

- ASD LOAD COMBINATION D + 0.6W
VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT).
- MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.
- IF SANDY LIMESTONE AND / OR CALCAREOUS SAND IS NOT REACH AT OR BEFORE -7'-0", CONTACT ENGINEER FOR REVISED FOUNDATIONS.

THIS DRAWING IS TO BE USED BY THE CONTRACTOR FOR THE SPECIFIC PURPOSE OF COORDINATING FOR THE INSTALLATION OF THE SPORTS LIGHTING SCOPE OF WORK - THE WORK IS TO BE PERFORMED BY MUSCO LIGHTING.

PRECAST BASE IDENTIFICATION					
PRECAST BASE TYPE	PRECAST BASE WEIGHT	PRECAST BASE LENGTH	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT	OUTSIDE DIAMETER
3B	2,470 LBS	20'-0"	8'-0"	12'-0"	13.38"

POLE IDENTIFICATION				
POLE DESIGNATION	POLE TYPE	PRECAST BASE TYPE	FIXTURE CONFIGURATION (FIX. PER XARM)	FIXTURE AND ACCESSORIES EPA (FT ²)
T1, T2, T5, T6	LSS40B	3B	2 (2)	4.2
T3, T4	LSS40B	3B	4 (2) / (2)	7.6
T7-T10	LSS50C	3B	3 (3)	5.7

POLE FOUNDATION ELEV.

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE:

THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 3 (TABLE 1819.6) OR BETTER. COMPACTION, 95% FOR COHESIVE SOIL AND 98% FOR A COHESIONLESS SOIL BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

DESIGN NOTES

DESIGN PARAMETERS:

WIND: Vult = 175 MPH, Vasd = 136 MPH (EXPOSURE C, RISK CATEGORY II)
PER FBC, 2014 EDITION (ASCE 7-10), SECTIONS 1609 AND 1620
DESIGN WIND PARAMETERS ARE AS NOTED, ACTUAL EXPOSURE MUST BE VERIFIED FOR THE SITE BY THE PROPER GOVERNING OFFICIAL.

GEOTECHNICAL PARAMETERS:

ALLOWABLE END BEARING SOIL PRESSURE: 2,000 PSF
ALLOWABLE LATERAL SOIL BEARING PRESSURE:
100 PSF/FT (GRADE TO -7'-0"); 400 PSF/FT (BELOW -7'-0")
IN ACCORDANCE WITH THE 2014 EDITION OF THE FLORIDA BUILDING CODE, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE SOILS AND FOUNDATION REPORT, PROJECT NO. HR15-1091R, PREPARED BY HR ENGINEERING SERVICES, INC.; MEDLEY, FL.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION OR WHEN THE FREE DROP EXCEEDS 6'-0".

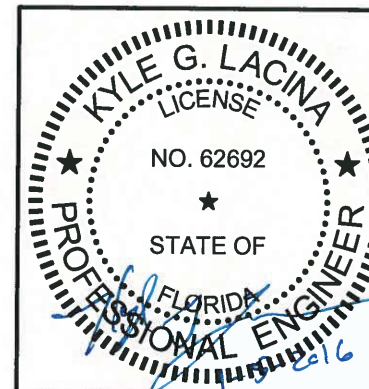
CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.

CONCRETE:

CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. 3,000 PSI CONCRETE SPECIFIED FOR EARLY POLE ERECTION, ACTUAL REQUIRED MINIMUM ALLOWABLE CONCRETE STRENGTH IS 1,000 PSI. ALL PIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL.

GENERAL NOTES:

FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA.

KYLE G. LACINA - NO. PE 62692
LICENSE RENEWAL DATE: FEBRUARY 28, 2017

STRUCTURAL ENGINEERS, P.C. - NO. 26361

DRAWING NO. COVERED BY THIS SEAL: C1

MORNINGSIDE PARK
TENNIS
LIGHTING
MIAMI, FL



STRUCTURAL ENGINEERS, P.C.
114 NICHOLAS DRIVE
MARSHALLTOWN, IOWA 50158
PHONE NUMBER: 641-752-6334
EMAIL: MSL.INFO@SEPC.BIZ

DRAWING TITLE:
POLE AND FOUNDATION
SCALE: SEE PLAN
NOTES:
SCAN #131826A

PROJECT NUMBER
131826

DATE
05 JANUARY 2016

DRAWING NUMBER
C1

OF ONE