FLORIDA BUILDING CODE 2020 FLORIDA EXISTING BUILDING CODE 2020

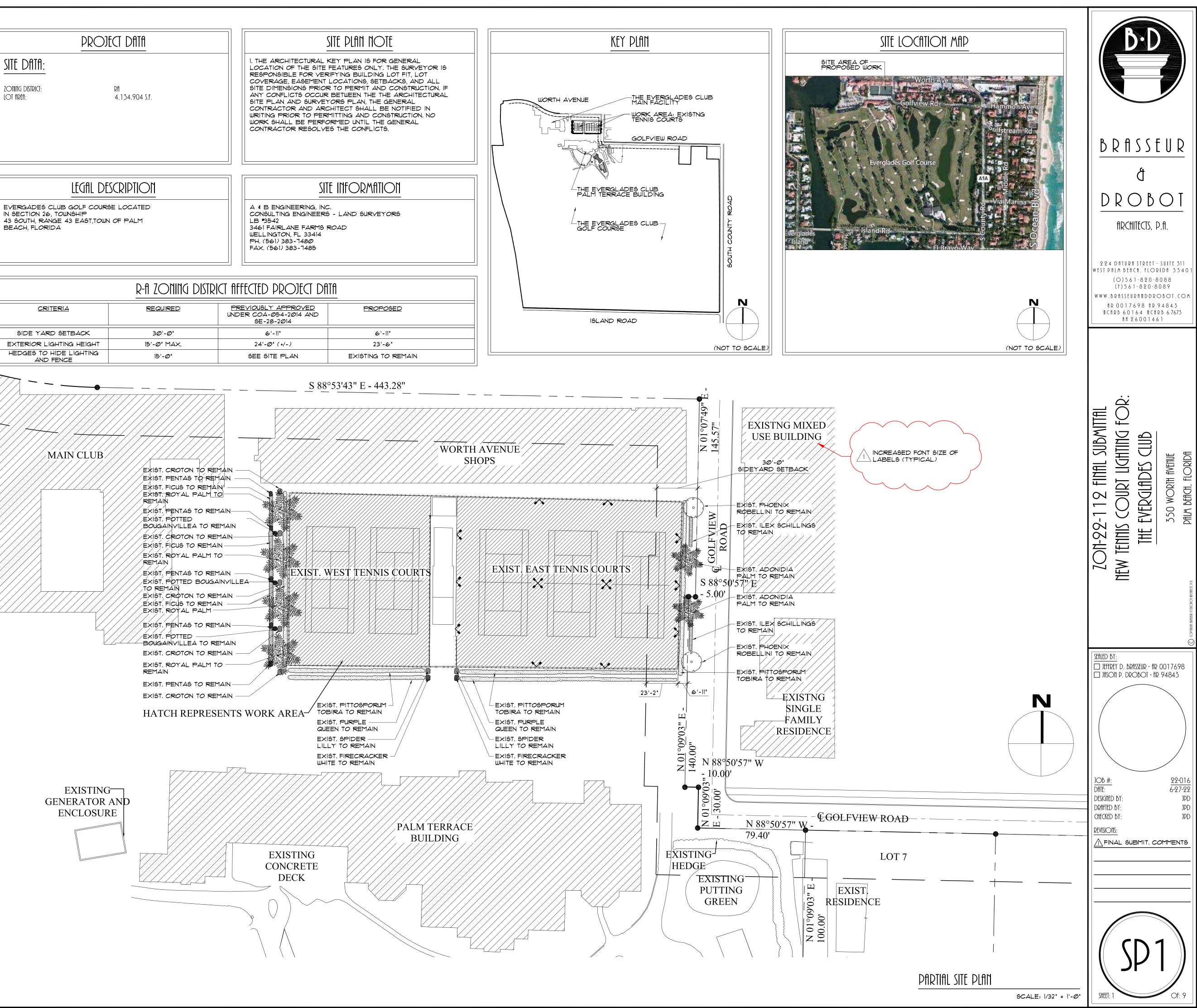
ALTERATION LEVEL 2 WIND SPEED = 170 MPH V (ULT), 132 MPH V (ASD) WIND IMPORTANCE FACTOR - 1.0 EXPOSURE D

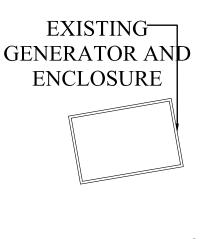
PROJECT INDEX

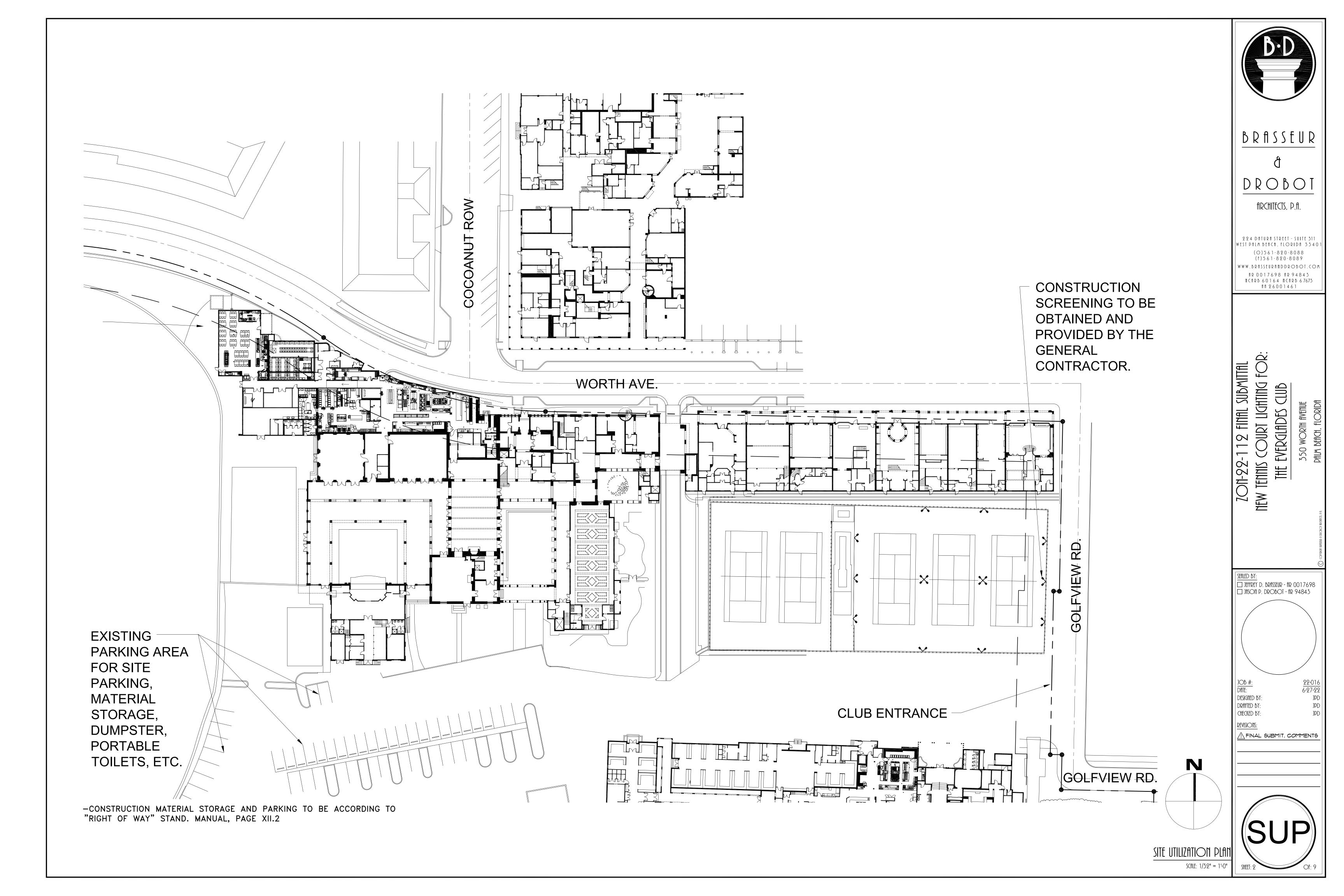
site plan, site vicinity map, area calculations site utilization plan f11.0 MATERIALS REMOVAL PLAN AND FLOOR PLAN ELEVATIONS f13.0 imfige key plfin fl4.0 MAGES fl5.0 IMAGES f16.0 imficies Imficies

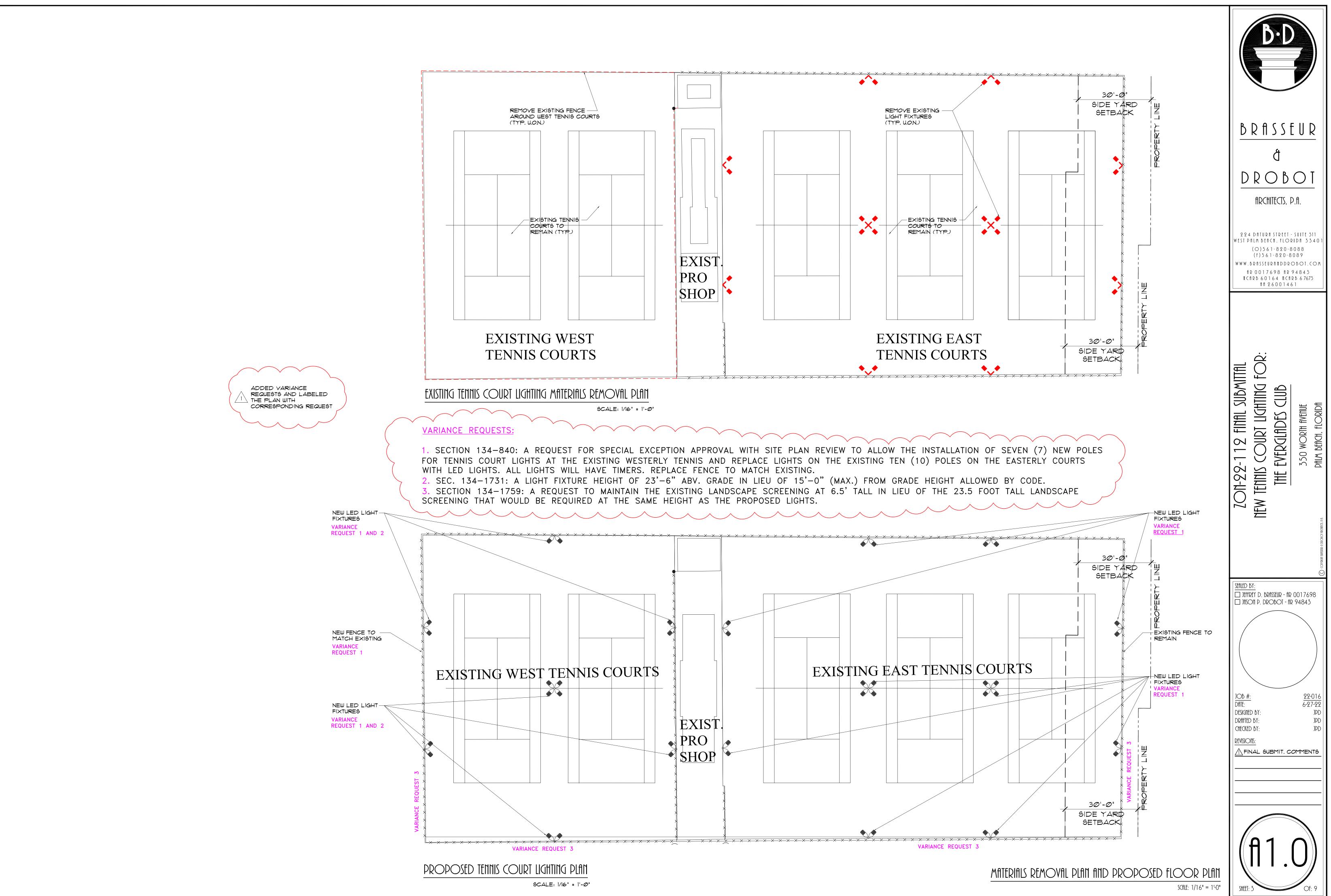
f12.

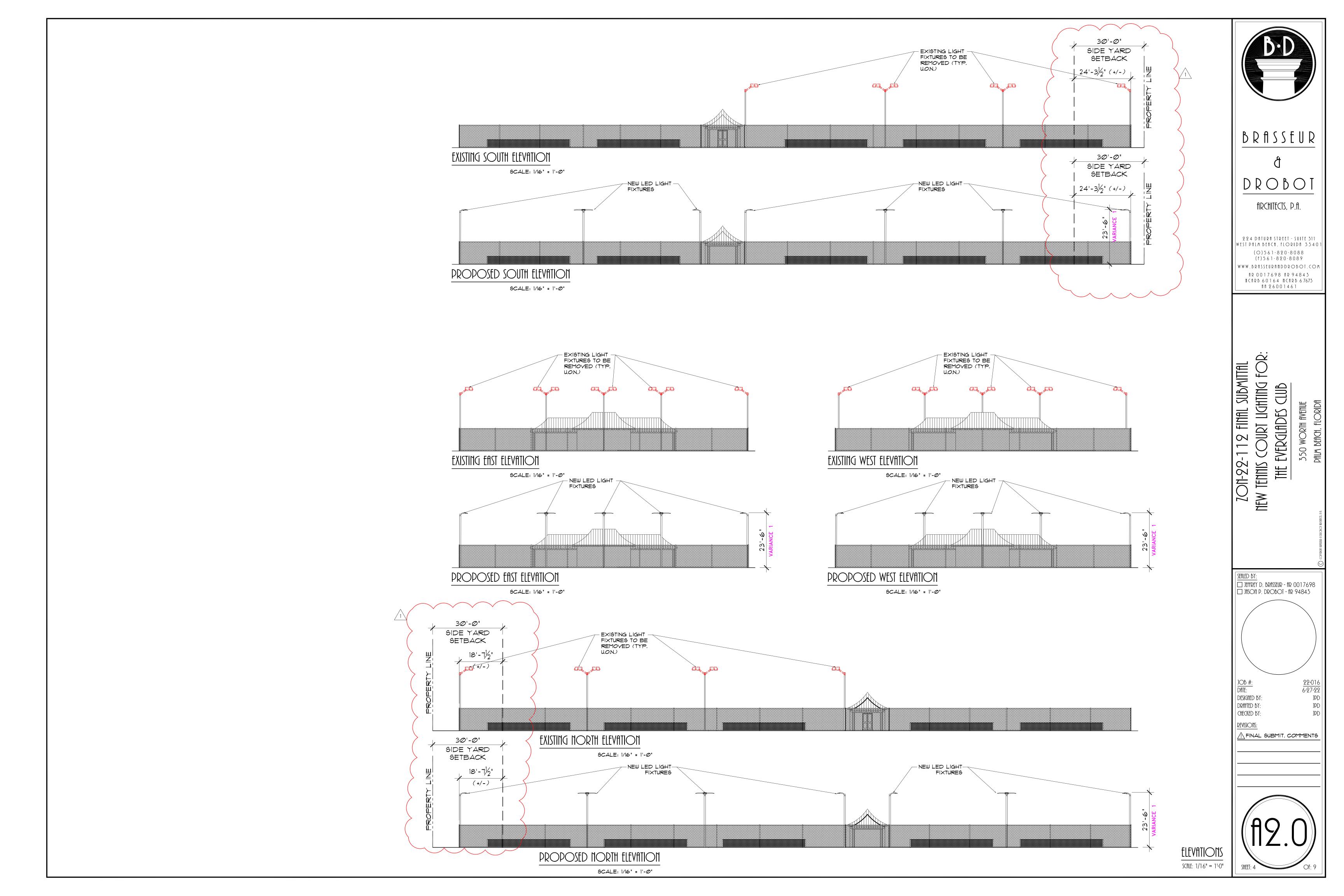
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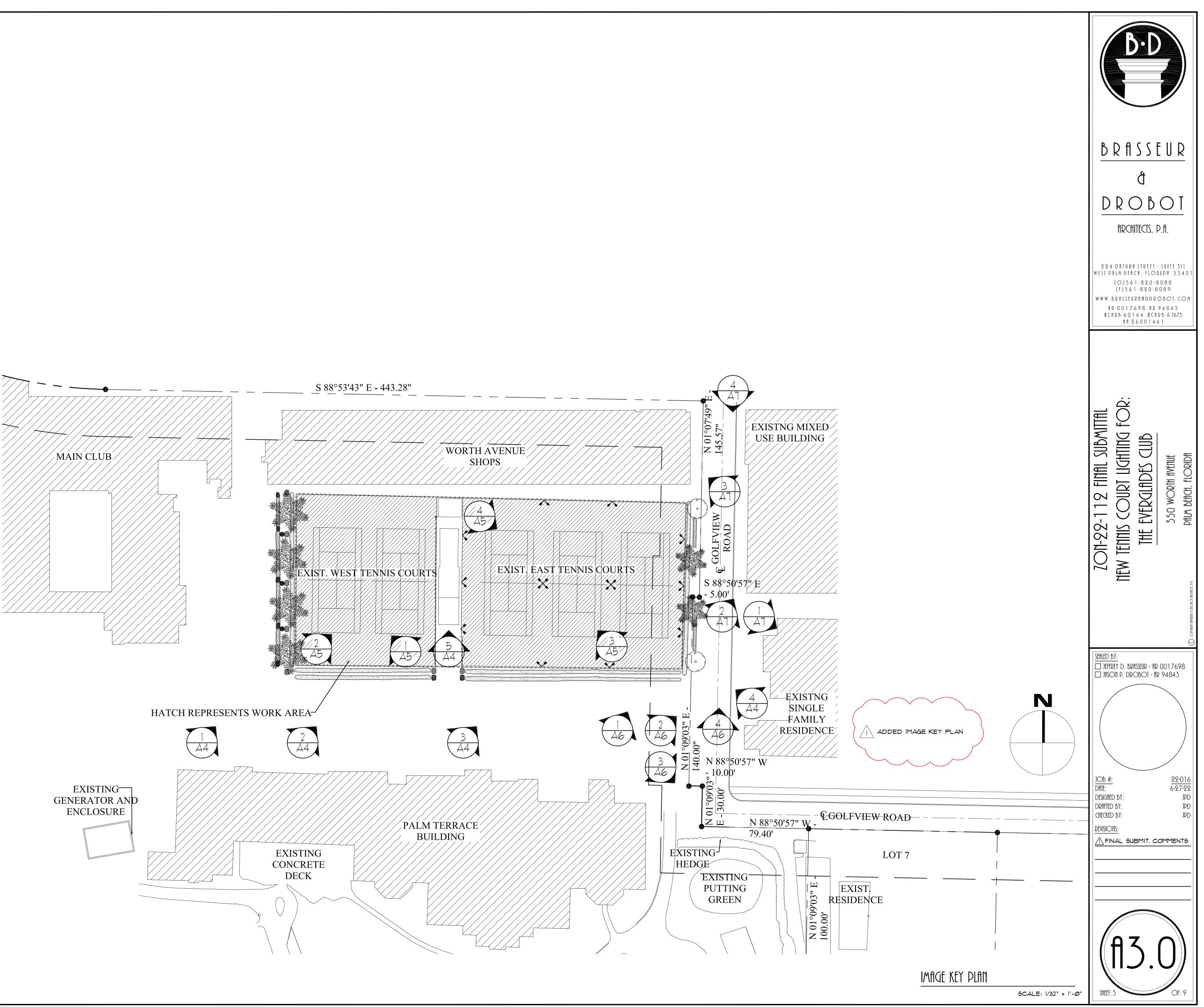


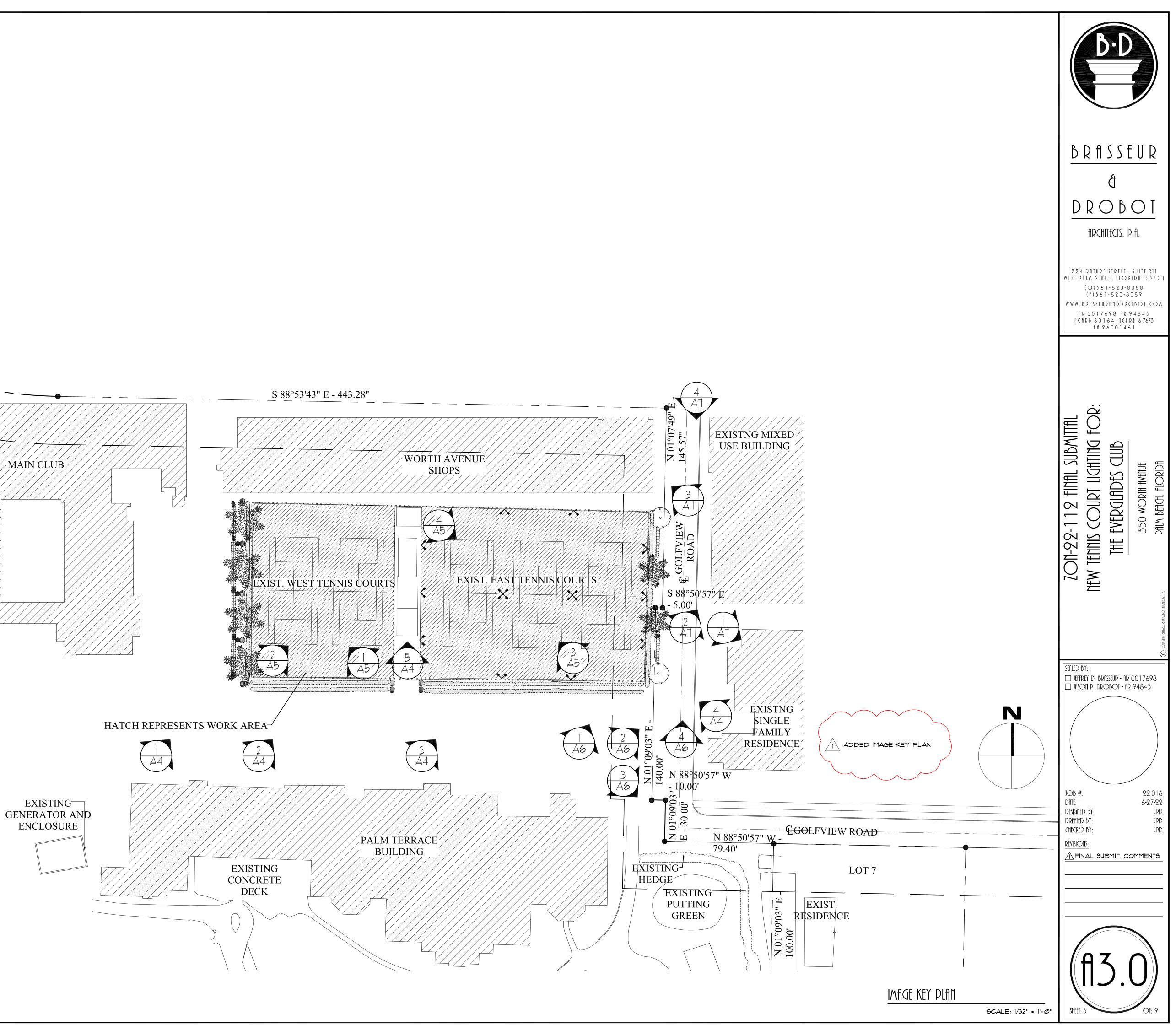






































IMfIGES

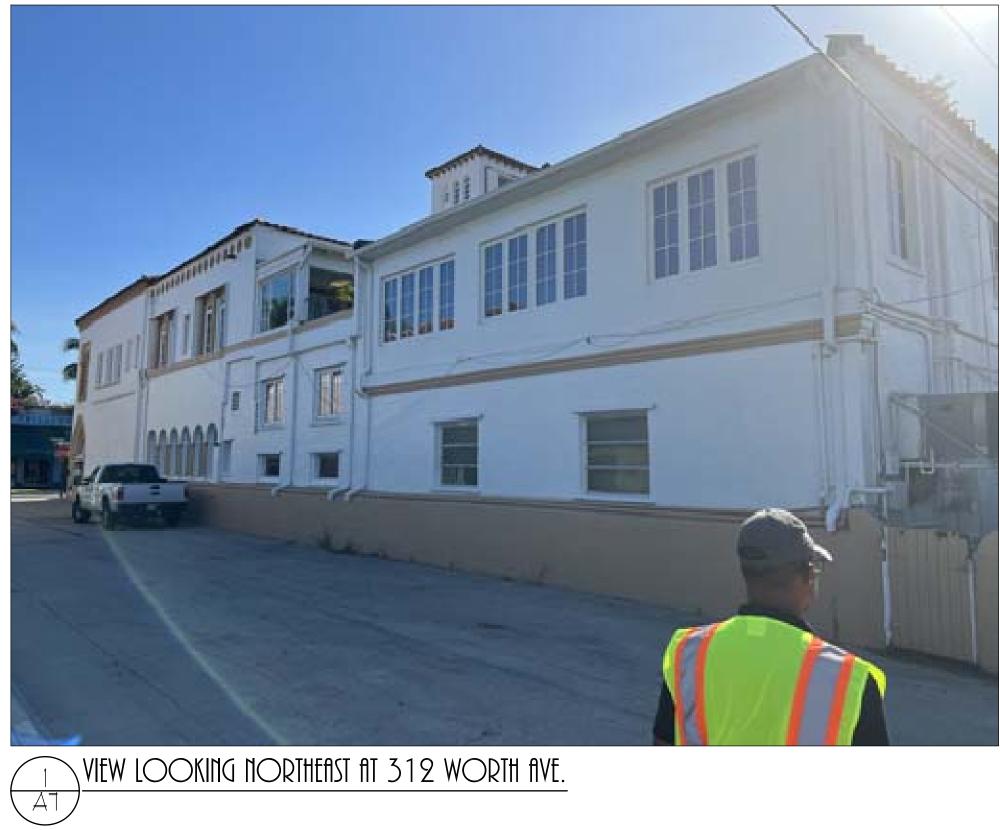














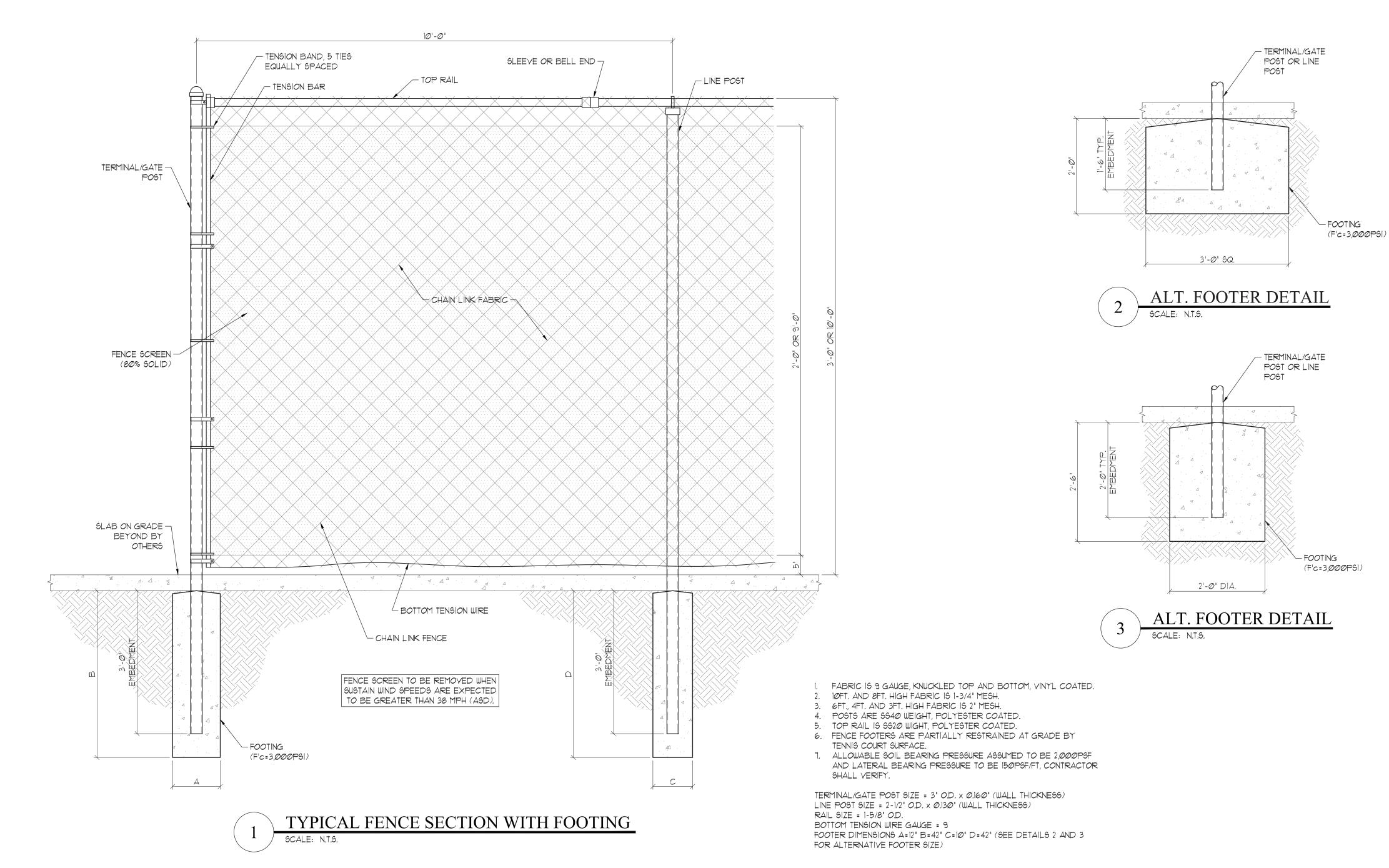




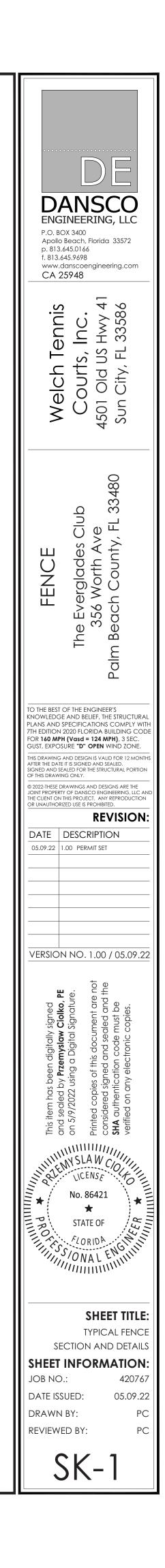
ADDED ADDITIONAL PHOTOS OF VIEW ALONG GOLFVIEW RD. INTO TENNIS COURTS AND ADJACENT NEIGHBORS



BRfISSEUR Ď DROBOIfirctilitects, p.fl. 224 DATURA STREET - SUITE 311 WEST PALM BEACH, FLORIDA 33401 (〇) 5 6 1 - 8 2 0 - 8 0 8 8 (f) 5 6 1 - 8 2 0 - 8 0 8 9 WWW.BRASSEURANDDROBOT.COM fir 0017698 fir 94843 Ncfirb 60164 Ncfirb 67673 fifi 26001461 2-112 FINAL SUBMITTAL IS COURT LIGHTING FOR: E EVERGLADES CLUB **VORTH AVENUE** Ĩ lm befich, 350 \ 2-1 \sim ZOII-2 ΠEW SEFILED BY: ☐ JEFFREY D. BRASSEUR - AR 0017698 ☐ JASON P. DROBOT - AR 94843 <u>22-016</u> 6-27-22 <u>10b #:</u> Dfite: DESIGNED BY: JPD DRAFTED BY: JPD CHECKED BY: 1D[REVISIONS: A FINAL SUBMIT. COMMENTS IMAGES



DESIGN CRITERIA:	
BUILDING CODE	1th EDITION 2020 FBC
RISK CATEGORY	1
TOPOGRAPHIC FACTOR, KZT	1.0
WIND EXPOSURE	"D"
BASIC WIND SPEED, V (3-SEC GUST)	160MPH (Vasd=124MPH)

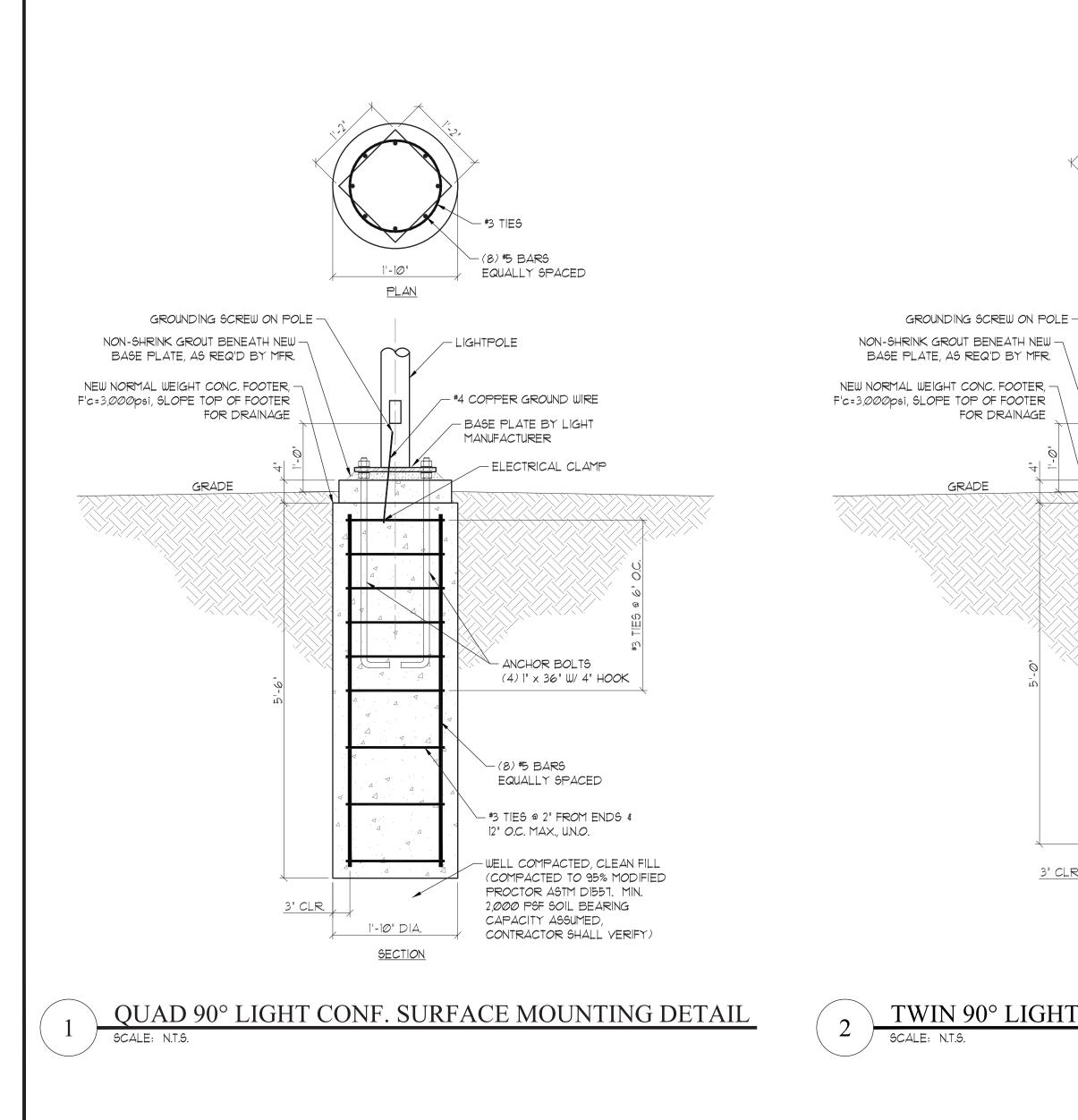


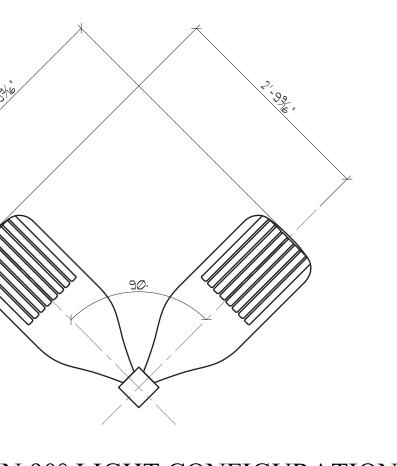
DESIGN CRITERIA:

BUILDING CODE 7th EDITION 2020 FBC RISK CATEGORY TOPOGRAPHIC FACTOR, KZT 10 WIND EXPOSURE "D" BASIC WIND SPEED, V (3-SEC GUST) 160MPH (Vasd=124MPH)

PLAN NOTES:

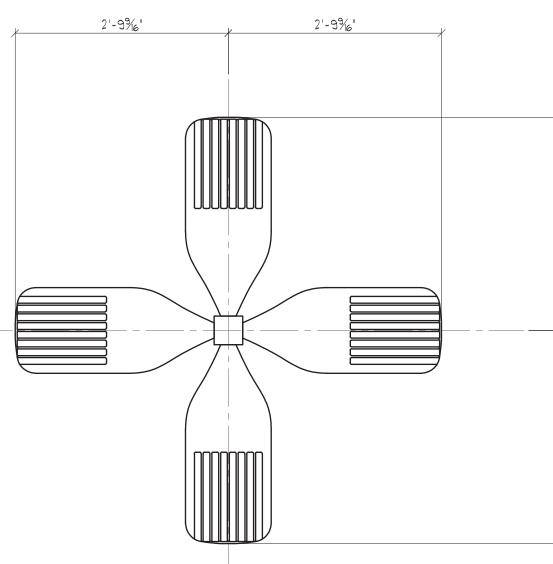
- DE 15 RESPONSIBLE FOR FOUNDATION AND ANCHORAGE DETAIL FOR STEEL LIGHT POLE AS SHOWN ON THE DRAWINGS. DE IS NOT RESPONSIBLE FOR DESIGN OF LIGHT POLE AND LIGHT SUPPORTING ARM.
- MEANS AND METHODS OF CONSTRUCTION, TEMPORARY SUPPORT FOR POLES BEING ERECTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- MIN. F1554 GRADE 36 ANCHOR BOLTS. EXTERIOR EXPOSED STEEL SHALL BE HOT DIPPED GALVANIZED OR PRIME & PAINTED, TYP. LIGHT POLE MANUFACTURER'S APPROVED CORROSION RESISTING COATING IS ACCEPTABLE.
- REINFORCING STEEL SHALL BE ASTM A615/A615M-15ael GRADE 60, f'y = 60KSI. LAP SPLICE SHALL BE AS FOLLOWS: *5 BAR 25", *4 BAR 20", *3 BAR 15". ALL DIMENSIONS PERTAINING TO THE LOCATION OF REINFORCING ARE TO THE CENTER LINE OF EACH BAR EXCEPT WHERE THE COVER DIMENSION IS SHOWN TO THE FACE OF THE CONCRETE.
- MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3,000PSI. 6. ALLOWABLE SOIL BEARING PRESSURE ASSUMED IS 2,000PSF, CONTRACTOR SHALL VERIFY.
- TYPICAL DETAILS AND SCHEDULES SHALL APPLY WHERE MORE SPECIFIC INFORMATION IS NOT SHOWN.



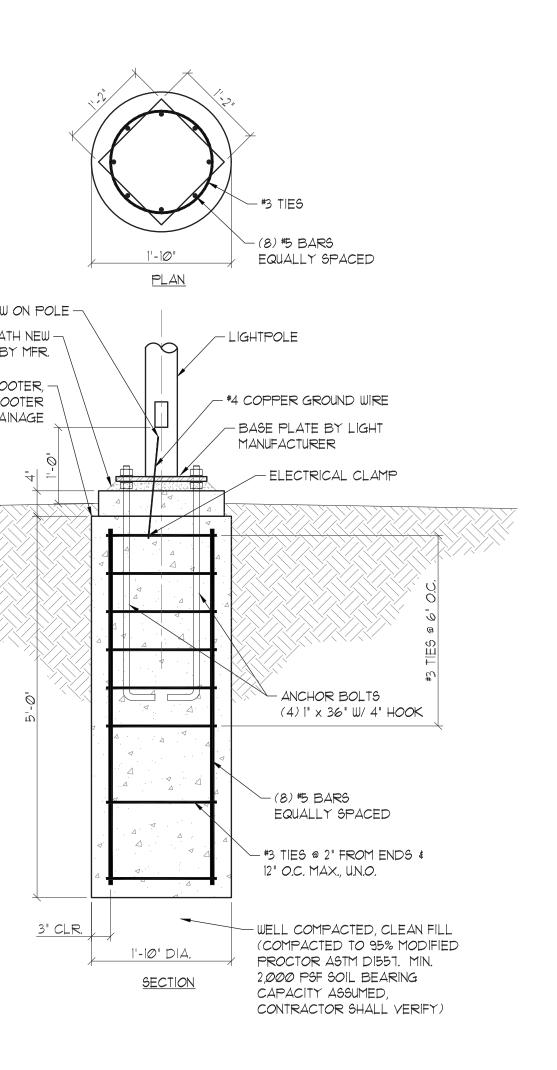


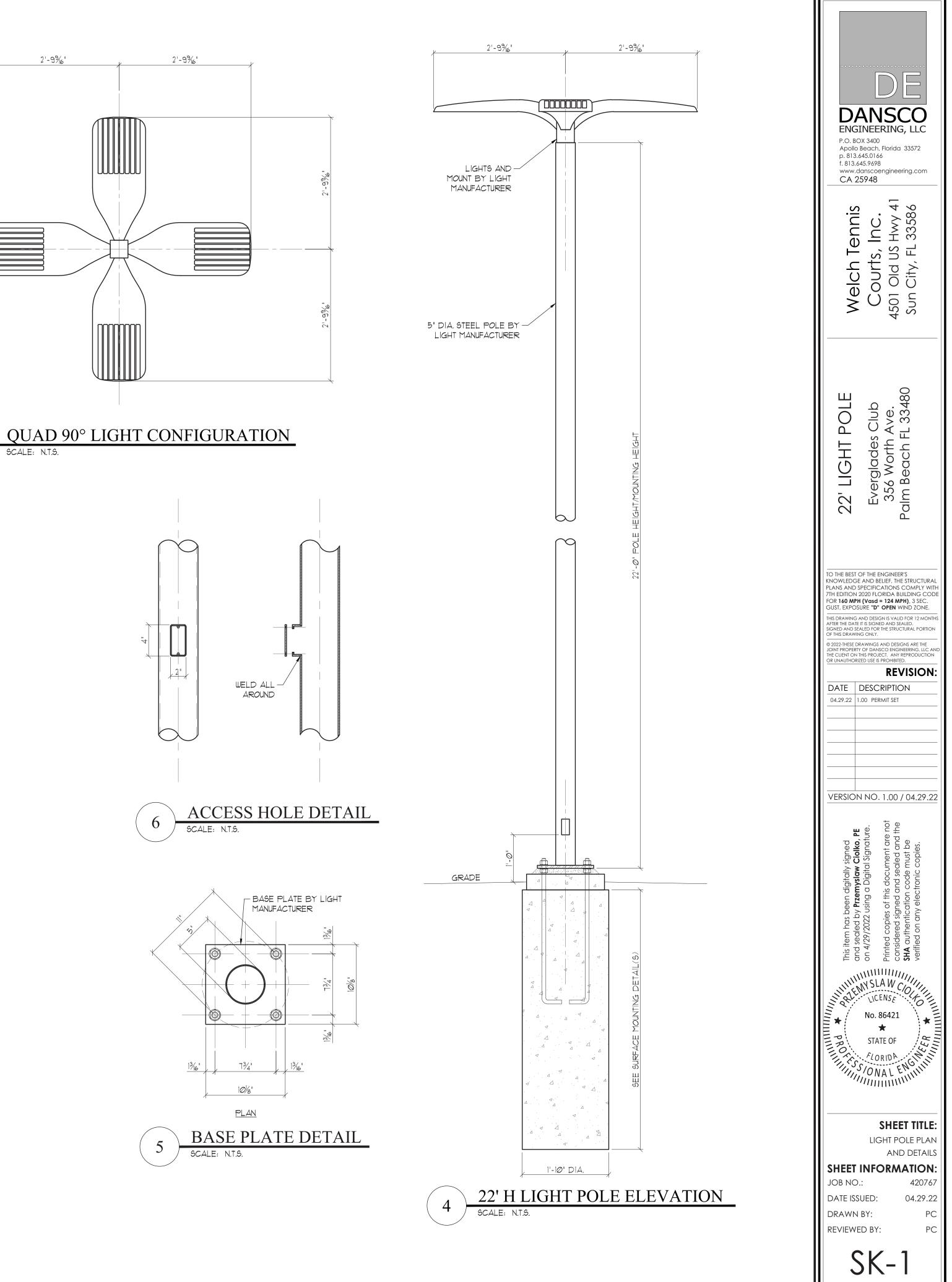
TWIN 90° LIGHT CONFIGURATION SCALE: N.T.S.

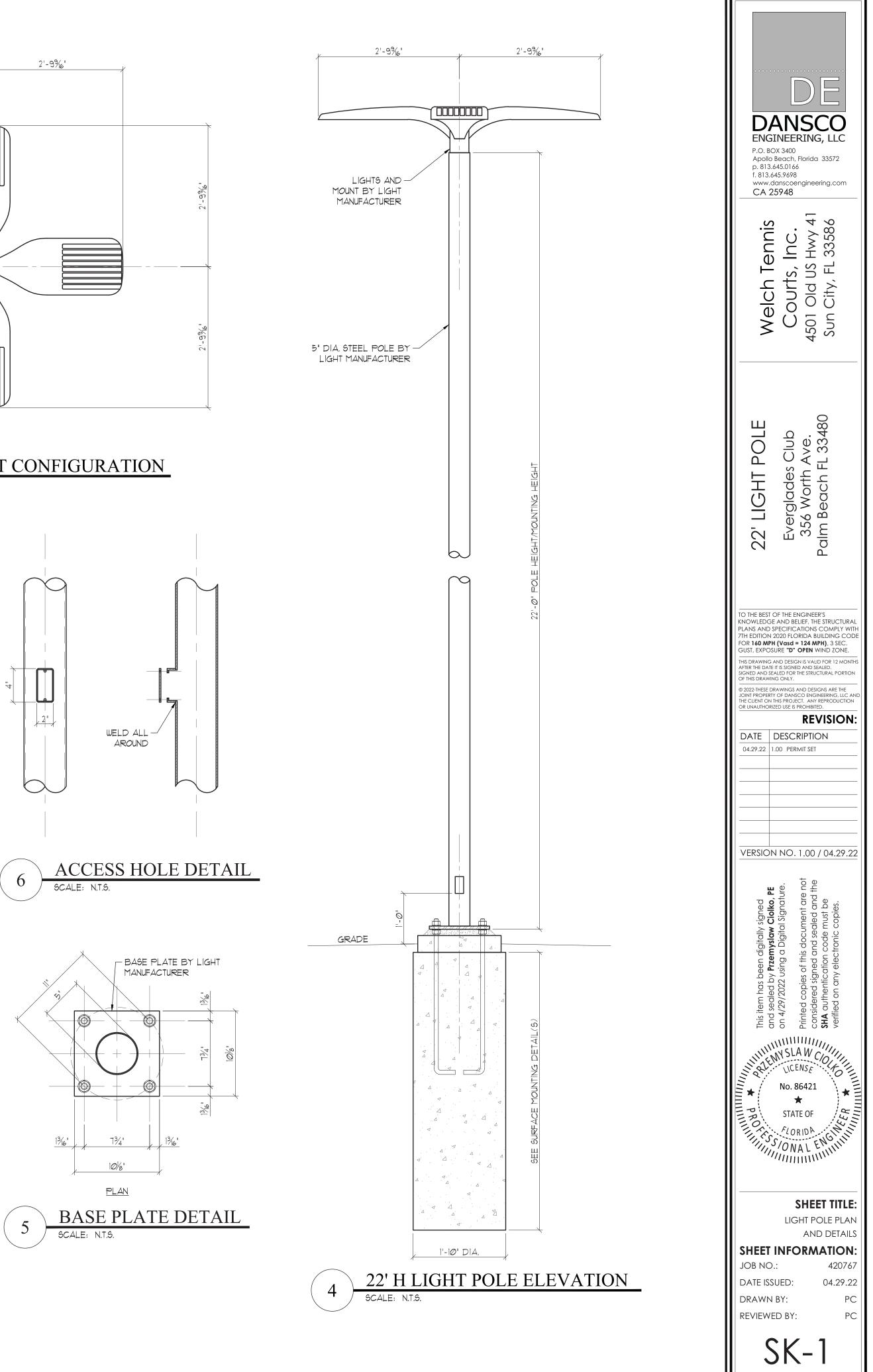
9

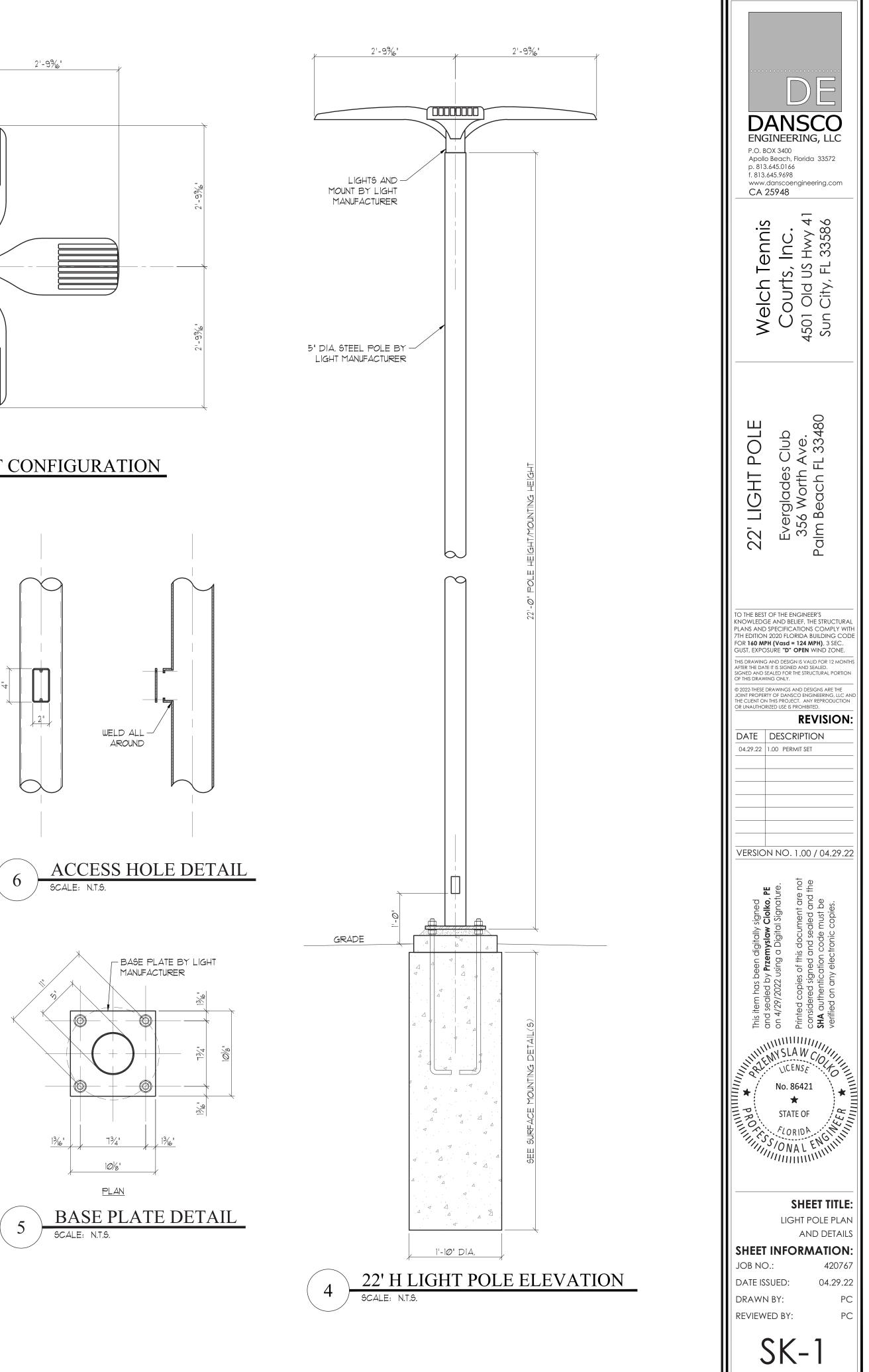


SCALE: N.T.S.

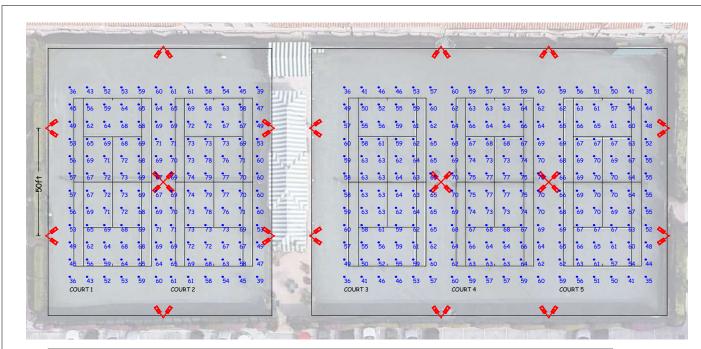








TWIN 90° LIGHT CONF. SURFACE MOUNTING DETAIL



The light levels shown are maintained using a .94 light loss factor (LLF). Light loss factors are used to adjust the light output of a luminaire operating in a controlled laboratory environment to the output obtained under actual field conditions. The LLF used in these calculations includes both recoverable and non-recoverable factors. Recoverable factors include luminaire dirt depreciation (LDD). Non-recoverable factors include optical system variations, and depreciation in initial luminaire lumen output. The use of the light loss factor shown requires making certain assumptions about the lighting system, the specific application, and the maintenance of the system over time. Therefore, actual light levels measured in the field may vary from the calculated values, especially in regards to individual location measurements.

Calculations use a LED Maintained Lamp Lumen factor based upon 50,000 hours of life, derived from IES TM21-11, and based upon an In-situ case temperature of 55° C.

Based on the information provided, all dimensions and luminaire Locations shown represent recommended positions. The engineer and / or architect must determine applicability of the layout to existing or future field conditions.

Filename: EVERGLADES3.AGI Date:5/18/2022

Luminaire Sched	ule								
Project: EVERGLADES GLUB									
Symbol	Qty	Label	Arrangement	Lum, Lumens	LLF	Description	Lum. Watts	Total Watts	
N	14	с	TWIN 70	60978	0.940	ZNL-60L-CT-50 (ZONE LARGE) @ 26' MTG. HT.	448	12544	
	3	D	QUAD 90	60978	0.940	ZNL-60L-CT-50 (ZONE LARGE) @ 26' MTG. HT.	448	5376	



Calculation S	Summary							
Project: EVERGLADES CLUB								
Label	CalcType	Units	Avg	Max	Min	Max/Min		
COURT 1	Illuminance	Fc	62.25	73	36	2.03		
COURT 2	Illuminance	Fc	65.36	79	39	2.03		
COURT 3	Illuminance	Fc	57.53	65	36	1.81		
COURT 4	Illuminance	Fc	66.69	77	57	1.35		
COURT 5	Illuminance	Fc	60.42	70	35	2.00		

Everglades Club Palm Beach, FL	LSI Industries 10000 Alliance Road Cincinnati, OH 45242 Voice Number : 513-666-4242	Lighting
Date:5/18/2022	Pag	e 1 of 1

Catalog #: _____ Project: _____

Prepared By: ____ Date: ___

____ Type: ____

ZONE[™] Medium (ZNM)

Outdoor Sports Light





OVERVIEW						
Lumen Output	24,000 - 48,000					
Wattage	176 - 401					
Efficacy Range (LPW)	122 - 150					
Weight lbs (kg)	30 (13.6)					

QUICK LINKS

Ordering Guide

Performance

Photometrics

Dimensions

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Fixtures are finished with LSI's DuraGrip[®] polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 95%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. • Minimum CRI of 70
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical

• High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection.

- 0-10V dimming (10% 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L90 Calculated Life: >100k Hours (See Lumen Maintenance on Page 3)
- Total harmonic distortion: <20%
- Operating temperature: 24L to 36L: -40°C to +50°C (-40°F to +122°F). 42L and 48L: -40°C to +40°C (-40°F to +104°F
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth[™] motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink[™] wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 8 for more details).

Installation

 Designed to mount to square or round poles.

- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block (accepts up to 12 ga. wire) and 5' dimming and power leads extended to the housing exterior.
- Utilizes LSI's B3 drill pattern for easy fastening of LSI products.

Warrantv

• LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsiindustries. com/resources/terms-and-warranty.aspx for more information.

Listinas

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
 - IDA compliant; with 3000K color temperature selection.
 - Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applicationsapplicationsare qualified.
- DesignLights Consortium[®] (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights. org/QPL to confirm which versions are gualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)





ORDERING GUIDE

Back to Quick Links

TYPICAL ORDER EXAMPLE:	ZNM 48L C	r unv 50 ale	BCS1 BLK IH		
Prefix	Output	Distribution	Orientation	Voltage	Color Temperature
ZNM - Zone Medium	24L - 24,000 lms	CT - Court Optic	(Blank) - Standard (no rotation)	UNV - Universal Voltage (120-277V)	50 - 5,000 CCT
	30L - 30,000 lms	FT - Forward Throw	L - Optics rotated left 90°	HV - High Voltage (347 - 480V)	40 - 4,000 CCT
	36L - 36,000 lms		R - Optics rotated right 90°		30 - 3,000 CCT
	42L - 42,000 lms				
	48L - 48,000 lms				
	Custom Lumen Packages 1				

(Blank) - None BRZ - Bronze	
Wireless Controls System ALSC - AirLink Synapse Control System BLK - Black ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor BLK - Black ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor BLK - Black ALBCS01 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24'mounting height) ^{2,4} BLW - White ALBCS02 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height) ^{2,4} BLW - White PLP - Platinum Plus GRN - Green EXT - 0-10v Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41 5 IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height ^{3,4} A	(Blank) - None IH - Integral Houseside Shield IL - Integral Louver (Sharp Spill Light Cutoff)

Accessory Ordering Information⁶

Controls Accessories	
Description	Order Number
Twist Lock Photocell (120V) for use with CR7P	122514
Twist Lock Photocell (208-277) for use with CR7P	122515
Twist Lock Photocell (347V) for use with CR7P	122516
Twist Lock Photocell (480V) for use with CR7P	1225180
AirLink 5 Pin Twist Lock Controller	61409
AirLink 7 Pin Twist Lock Controller	661410
Pole-Mounted Occupancy Sensor (24V)	663284CLR ⁸
Shorting Cap for use with CR7P ⁸	149328

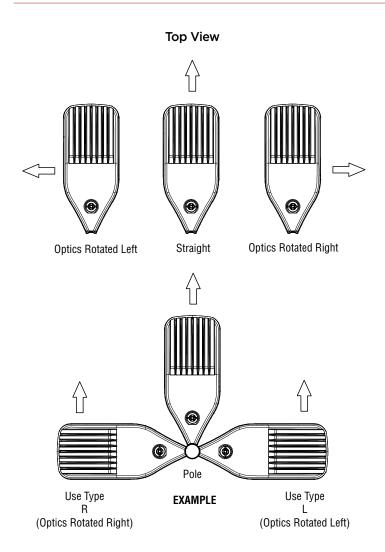
Mounting Accessories	
Description	Order Number ⁹
Universal Mounting Bracket	684616CLR
Adjustable Slip Fitter (2" - 2 3/8" Tenon)	688138CLR
Horizontal Slip Fitter (2" - 2 3/8" Tenon)	652761CLR
Quick Mount Pole Bracket (Square Pole)	687073CLR
Quick Mount Pole Bracket (4-5" Round Pole)	689903CLR
15 Tilt Quick Mount Pole Bracket (Square Pole)	688003CLR
15 Tilt Quick Mount Pole Bracket (4-5" Round Pole)	689905CLR
Wall Mount Bracket	382132CLR
Integral Louver/Shield	690981
Internal Houseside Shield	743415
10' Linear Bird Spike Kit (3' Recommended per Luminaire)	736795

Fusing Accessories					
Description	Order Number				
Single Fusing (120V)	FK120				
Single Fusing (277V)	FK277				
Double Fusing (480V)	DFK480				
Double Fusing (347V)	DFK347				

FOOTNOTES:

- 1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- 2. Consult factory for site layout.
- 3. Consult Facotry for 347-480V.
- 4. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store. Consult Facotry for 347-480V.
- 5. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
- 6. Accessories are shipped separately and field installed.
- 7. Fusing must be located in hand hole of pole.
- 8. "CLR" denotes finish. See Finish options.

OPTICS ROTATION



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with IMSBT & IL/IH Options



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P







PERFORMANCE

Back to Quick Links

DELIVEREI	DELIVERED LUMENS*											
Lumen Package			3000K CCT				4000K CCT		5000K CCT			
	Distribution	CRI	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Wattage
24L	СТ		26393	150	B3-U0-G2	26393	150	B3-U0-G2	26393	150	B3-U0-G2	176
24L	FT		25964	148	B3-U0-G4	25964	148	B3-U0-G4	25964	148	B3-U0-G4	170
30L	СТ		32960	142	B3-U0-G3	32960	142	B3-U0-G3	32960	142	B3-U0-G3	232
30L	FT		32424	140	B3-U0-G4	32424	140	B3-U0-G4	32424	140	B3-U0-G4	232
36L	СТ	70	38916	135	B3-U0-G3	38916	135	B3-U0-G3	38916	135	B3-U0-G3	288
30L	FT70	70	38283	133	B4-U0-G5	38283	133	B4-U0-G5	38283	133	B4-U0-G5	200
42L	СТ		44859	127	B4-U0-G3	44859	127	B4-U0-G3	44859	127	B4-U0-G3	354
42L	FT		44130	125	B4-U0-G5	44130	125	B4-U0-G5	44130	125	B4-U0-G5	554
48L	СТ		49615	124	B4-U0-G3	49615	124	B4-U0-G3	49615	124	B4-U0-G3	401
40L	FT		48809	122	B4-U0-G5	48809	122	B4-U0-G5	48809	122	B4-U0-G5	401

*LEDs are frequently updated therefore values are nominal

ELECTRICA	ELECTRICAL DATA*										
Lumen Package	120V	208V	240V	277V	347V	480V					
24L	1.47	0.85	0.73	0.64	0.51	0.37					
30L	1.93	1.12	0.97	0.84	0.67	0.48					
36L	2.40	1.38	1.20	1.04	0.83	0.60					
42L	2.95	1.70	1.48	1.28	1.02	0.74					
48L	3.34	1.93	1.67	1.45	1.16	0.84					

RECOMMENDED LUMEN M	AINTENANCE ¹
----------------------------	-------------------------

Ambient Temp	Lumen Multiplier				
C	0 hrs. ²	25K hrs. ²	50K hrs. ²	75K hrs. ³	100K hrs. ³
0 C - 25 C	100%	95%	89%	94%	79%
40 C	100%	94%	87%	80%	74%

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

FOOTNOTES:

1. Lumen maintenance values at 40C are calculated per TM-21 based on LM-80 data and in-situ testing.

 In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.

3. In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.





PHOTOMETRICS

Back to Quick Links

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See <u>http://www.lsi-industries.com/products/led-lighting-solutions.aspx</u> for detailed photometric data.

ZNM-48L-CT-40

LUMINAIRE DATA

Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	48,211
Watts	400
Efficacy	121
IES Type	Type III - Very Short
BUG Rating	B4-U0-G3

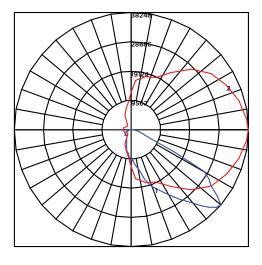
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	9897	21%
Medium (30-60)°	32201	67%
High (60-80)°	5593	12%
Very High (80-90)°	520	1%
Uplight (90-180)°	0	0%
Total Flux	48211	100%

ISO FOOTCANDLE

20' Mounting Height/15' Grid Spacing 20 FC 10 FC 5 FC 2 FC

POLAR CURVE



ZNM-48L-FT-40

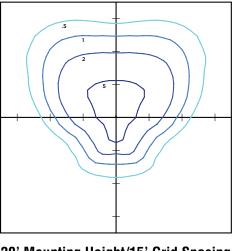
LUMINAIRE DATA

Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	48,055
Watts	400
Efficacy	120
IES Type	Type IV - Short
BUG Rating	B4-U0-G5

Zonal Lumen Summary

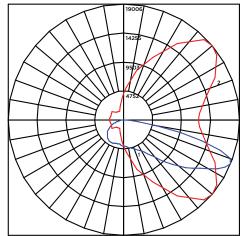
Zone	Lumens	%Luminaire
Low (0-30)°	6199	13%
Medium (30-60)°	20250	42%
High (60-80)°	20684	43%
Very High (80-90)°	922	2%
Uplight (90-180)°	0	0%
Total Flux	48055	100%

ISO FOOTCANDLE





POLAR CURVE

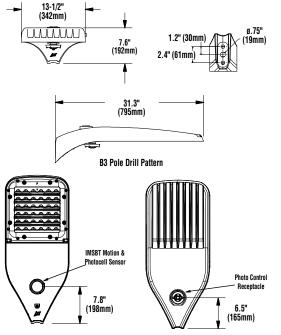




PRODUCT DIMENSIONS

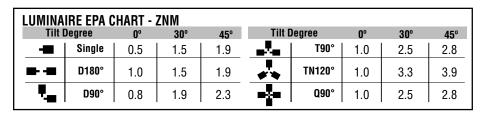
ZONE Medium Outdoor Sports Light

Back to Quick Links



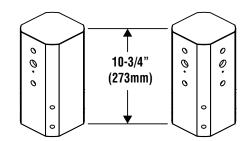
Bottom View

Top View



TENON BRACKETS (with 3" Reduced Drill Pattern)

BKA-XNM-*-CLR - Tenon mount fitter slip-fits 2-3/8" O.D. tenon (2.0 pipe tenon).



BKA-XNM-S or D180-*-CLR Single/D180 (Drilled 2 Sides)

BKA-XNM-D90, T90 or Q90-*-CLR D90/T90/Q90 (Drilled 4 Sides)





CONTROLS

AirLink Wireless Lighting Controller

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

Click the link below to learn more details about AirLink.

https://www.lsi-industries.com/documents/datasheets/airlink-outdoor-specsheet.pdf

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click the link below to learn more details about IMSBT.

https://www.lsi-industries.com/documents/datasheets/imsbt-specsheet.pdf

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click the link below to learn more details about AirLink Blue.

https://www.lsi-airlink.com/airlink-blue/

POLES & BRACKETS

BKA UMB CLR

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.

Click the link below to learn more details about poles & brackets.

https://www.lsi-industries.com/products/poles-and-brackets-area-street.aspx

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The 3G rated UMB allows for seamless integration of LSI luminaires onto existing/ retrofit or new construction poles. The UMB was designed for

square or round (tapered or straight) poles with

two mounting hole spacings between 3.5" - 5".



BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a onto a 2" iron pipe , 2 3/8 OD tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.



BKS PQM15 CLR

The Pole Quick Mount Bracket allows for preset 15° uptilt of LSI luminaires for greater throw of light and increased vertical illumination as well as fast installation onto poles with LSI's 3" or 5" bolt pattern.

BKS PQMH CLR

The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.



Square Pole 14'-39'





Round Pole 10'-30'

Tapered Pole 20'-39'



