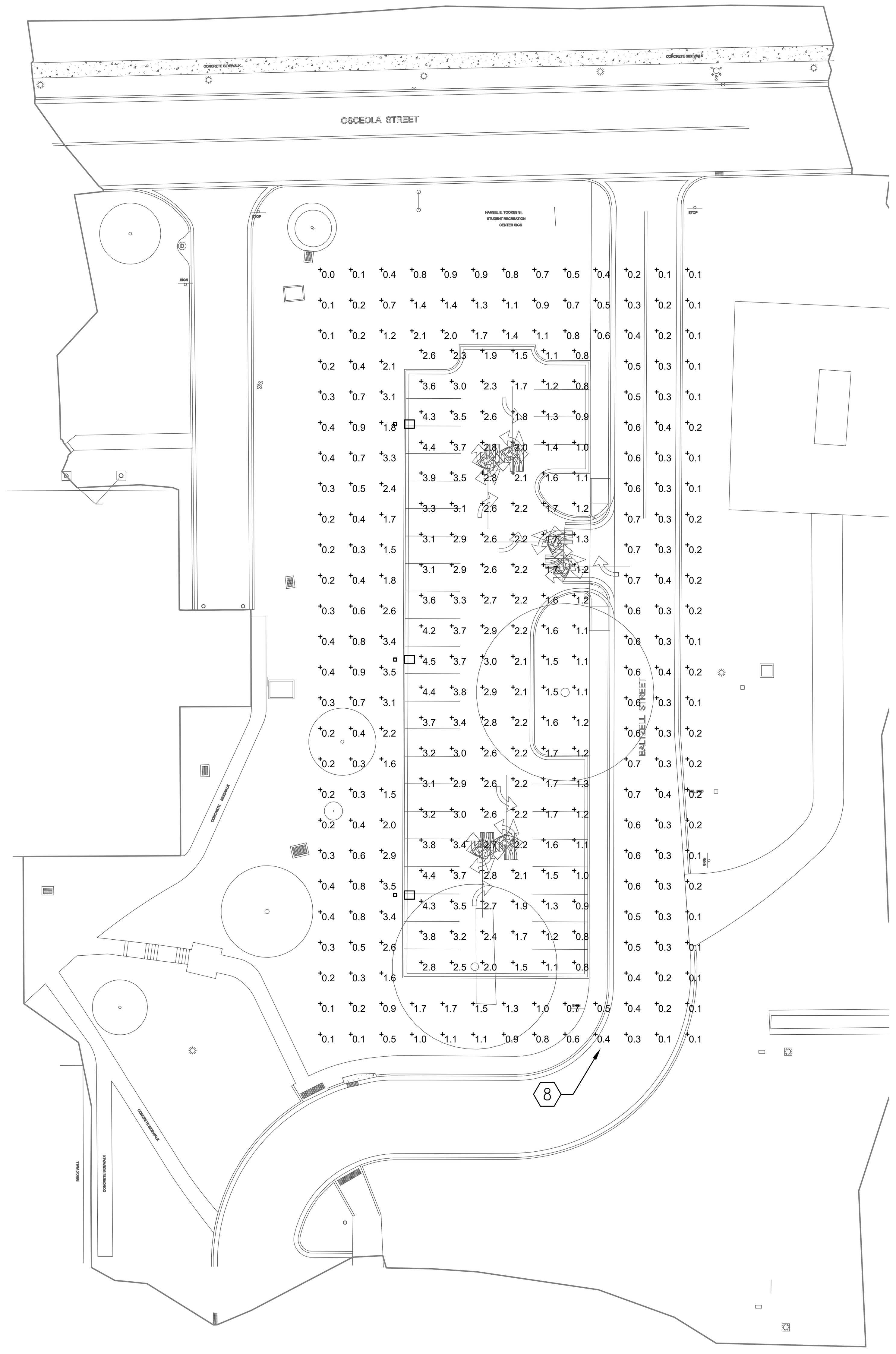
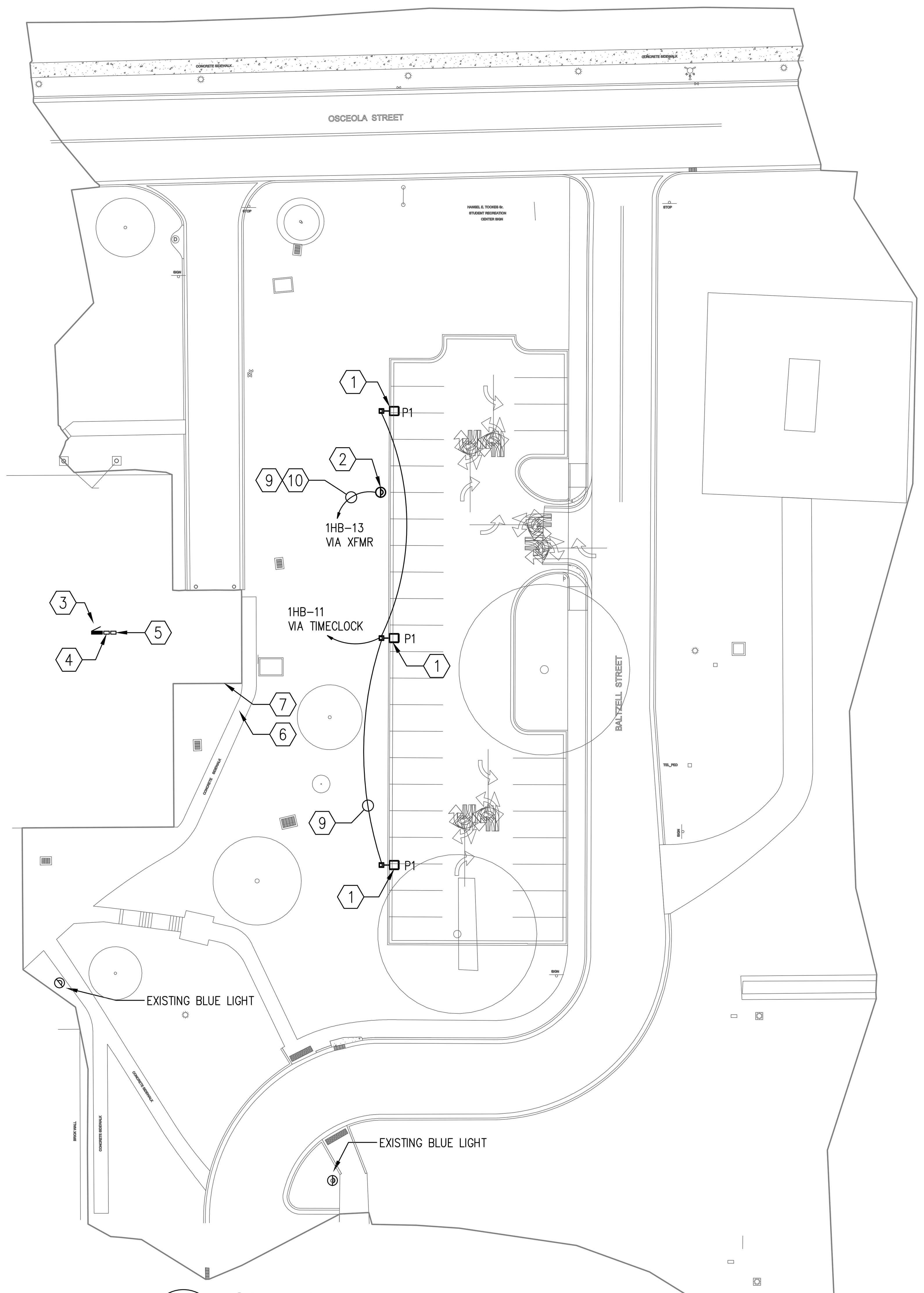


LIGHTING CALCULATIONS

SCALE: 1"=30'-0"

0 15' 30'



SITE PLAN

SCALE: 1"=30'-0"

0 15' 30'

WORK NOTES:

(THIS SHEET ONLY)

1. PROVIDE NEW TYPE P1 AREA LIGHT, WITH POLE, PER SCHEDULE; PROVIDE BASE PER DETAIL.
2. PROVIDE NEW TYPE BL EMERGENCY BLUE-LIGHT TERMINAL, PER SCHEDULE. PROVIDE BASE PER DETAIL, WITH 1" POWER CONDUIT AND 1" COMMUNICATIONS CONDUIT TO BUILDING.
3. EXISTING PANEL 1HB (277/480V). SEE PANEL SCHEDULE.
4. PROVIDE NEW ELECTRONIC PROGRAMMABLE ASTRONOMICAL TIMECLOCK AT PANEL 1HB, TO SERVE NEW PARKING LOT AREA LIGHTS.
5. PROVIDE NEW 750VA 277:120V STEP-DOWN TRANSFORMER AT PANEL 1HB, TO SERVE NEW BLUE-LIGHT TERMINAL. PROVIDE TRANSFORMER WITH PRIMARY AND SECONDARY FUSE BLOCKS, AND NEMA-1 ENCLOSURE.
6. INSTALL NEW COMMUNICATIONS AND POWER CONDUITS UNDER EXISTING SIDEWALK.
7. POWER & COMMUNICATIONS CONDUITS SERVING NEW LIGHTING POLES AND BLUE-LIGHT SHALL RISE ON EXTERIOR OF WALL, 24" MAX AFG, THEN PENETRATE INTO EQUIPMENT ROOM; FIELD-VERIFY EXACT LOCATION.
8. NUMBERS INDICATE CALCULATED HORIZONTAL ILLUMINANCE AT THE SURFACE, IN FOOTCANDLES. CALCULATIONS ARE BASED ON PERFORMANCE DATA PROVIDED BY THE LIGHTING FIXTURE MANUFACTURER, ASSUMING A LIGHTING LOSS FACTOR OF 1.0, USING "VISUAL" LIGHTING SOFTWARE APPLICATION.
9. NEW UNDERGROUND POWER RACEWAY (TYPICAL): 1" C.-2 #10, #10 GND. SEE TRENCH DETAIL.
10. NEW UNDERGROUND COMMUNICATIONS RACEWAY: 1" C.-(PULL STRING); COMMUNICATIONS CABLING PER FAMU ITS. EXTEND RACEWAY/CABLING TO IT CLOSET.

LIGHTING FIXTURE SCHEDULE

CODE	DESCRIPTION	MFGR.	MOD. NO.	LAMPS	NOTES
P1	ARCHICTECTURAL AREA LIGHT ON 25'-0" POLE	SIGNIFY GARDCO	GL18 1 4 180LA 6490 NW UNV BLK PCR5	LED 180 WATTS	POLE : UNITED LIGHTING STANDARDS RPSQ 25 5 7 BLK D1 PROVIDE COMPATIBLE 'ROAM' MODULE. PROVIDE ROAM MODULES, LOGIC, & PROGRAMMING AS REQUIRED
BL	EMERGENCY BLUE LIGHT TERMINAL	CODE BLUE CORP.	CB I-S (CUSTOM FOR FAMU)	LED	PROVIDE CAMPUS STANDARD BLUE-LIGHT TERMINAL, WITH CONCRETE BASE PER DETAIL. COORDINATE COMMUNICATIONS CABLING, STARTUP, AND COMMISSIONING WITH FAMU ITS.
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James M. Lamb, State of Florida, Professional Engineer, License No. 52688. This item has been digitally signed and sealed by James M. Lamb on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

ARD Project # 9201

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

No.	REVISIONS	DATE	BY

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LICENSED PROFESSIONAL

James M Lamb

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Reason: I am approving this document
Location: -
Date: 2022-02-22 09:07:06
Foxit PhantomPDF Version: 9.7.2

DATE:

KHA PROJECT 142848000

DATE JAN. 2020

SCALE AS SHOWN

DESIGNED BY JML

DRAWN BY TAW

CHECKED BY JML

ELECTRICAL SITE PLAN

FAMU REC. CENTER PARKING

PREPARED FOR FAMU

TALLAHASSEE FL

SHEET NUMBER

E1.0

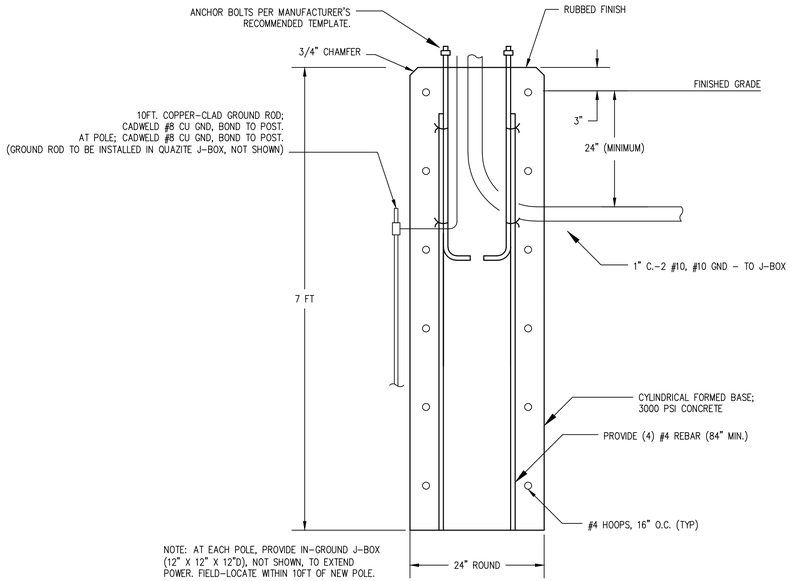
EXISTING PANEL: 1HB

MAIN: 250A MLO
SERVICE: 277/480V, 3-PHASE, 4-WIRE
LOCATION: SEE PLAN
RATING: 14,000 AIC
TYPE: NEMA-1, SURFACE

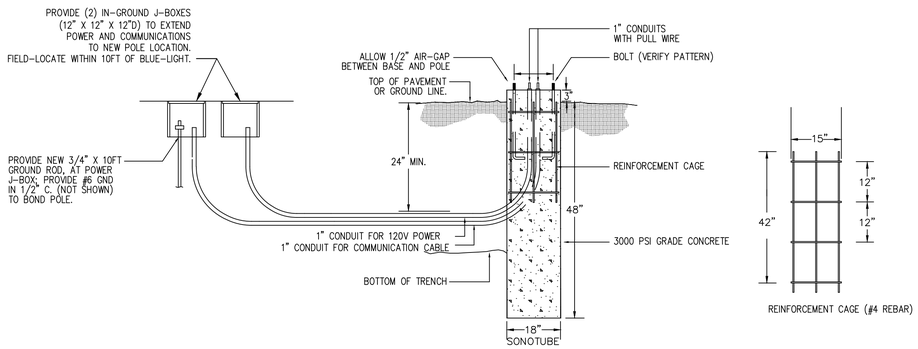
NOTE: EXISTING PANEL IS SQUARE-D TYPE NF. ALL CIRCUITS ARE EXISTING, EXCEPT WHERE INDICATED AS NEW.

CKT	DESCRIPTION	BKR	P	LOAD	KVA A	KVA B	KVA C	LOAD	BKR	P	DESCRIPTION	CKT
1	LIGHTING	20	1		---				20	1	LIGHTING	2
3	LIGHTING	20	1			---			20	1	LIGHTING	4
5	LIGHTING	20	1				---		20	1	LIGHTING	6
7	LIGHTING	20	1		---				20	1	LIGHTING-MECH EQ YARD	8
9	EXTERIOR LIGHTING	20	1			---			20	1	SPARE	10
11	N PARKING LOT LIGHTING *	20	1	0.54			---		20	1	SPARE	12
13	N PARKING LOT BLUELIGHT *	15	1	0.10	---				20	1	SPARE	14
15	SPARE	20	1			---			20	1	SPARE	16
17	SPARE	20	1				---		20	1	SPARE	18
19	SPARE	20	1		---				20	1	SPARE	20
21	SPARE	20	1			---			20	1	SPARE	22
23	SPARE	20	1				---		20	1	SPARE	24
25	AHU-1	60	3		---				20	3	HHWP-1	26
27						---						28
29							---					30
31	CHWP-2	20	3		---				20	3	HHWP-2	32
33						---						34
35							---					36
37	CHWP-1	20	3		---				50	3	XFMR TB1	38
39						---						40
41							---					42
					---	---	---					

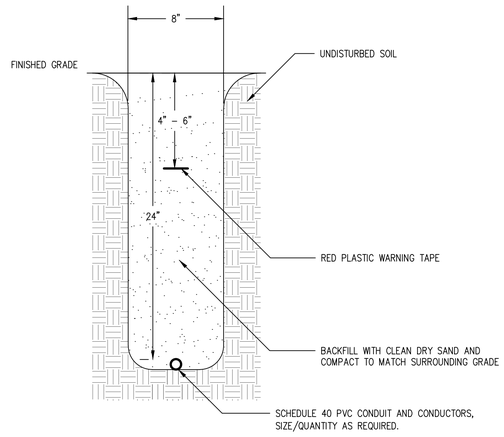
* NEW LOAD; USE EXISTING SPARE CIRCUIT BREAKER.
** NEW LOAD; REPLACE EXISTING 20A/1P BREAKER WITH NEW 15A/1P BREAKER; PROVIDE ACCESSORY TO LOCK BREAKER *



TYPE P1 BASE DETAIL
N.T.S.



TYPE BL BASE DETAIL
N.T.S.



TRENCH DETAIL
SCALE: N.T.S.

ARD Project # 9201

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DRAWN BY TAW
CHECKED BY JML

ELECTRICAL DETAILS

FAMU REC. CENTER PARKING

PREPARED FOR FAMU

TALLAHASSEE FL

SHEET NUMBER E1.1

ELECTRICAL SPECIFICATIONS

BASIC ELECTRICAL MATERIALS AND METHODS

1. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.
2. IDENTIFICATION DEVICE COLORS: USE THOSE PRESCRIBED BY ANSI A13.1, NFPA 70, AND THESE SPECIFICATIONS.
3. COLORED ADHESIVE MARKING TAPE FOR RACEWAYS, WIRES, AND CABLES: SELF-ADHESIVE VINYL TAPE, NOT LESS THAN 1 INCH WIDE BY 3 MILS THICK (25 MM WIDE BY 0.08 MM THICK).
4. TAPE MARKERS FOR CONDUCTORS: VINYL OR VINYL-CLOTH, SELF-ADHESIVE, WRAPAROUND TYPE WITH PREPRINTED NUMBERS AND LETTERS.
5. ENGRAVED-PLASTIC LABELS, SIGNS, AND INSTRUCTION PLATES: ENGRAVING STOCK, MELAMINE PLASTIC LAMINATE PUNCHED OR DRILLED FOR MECHANICAL FASTENERS 1/16-INCH (1.6-MM) MINIMUM THICKNESS FOR SIGNS UP TO 20 SQ. IN. (129 SQ. CM) AND 1/8-INCH (3.2-MM) MINIMUM THICKNESS FOR LARGER SIZES. ENGRAVED LEGEND IN BLACK LETTERS ON WHITE BACKGROUND.
6. PULL STRINGS: PROVIDE PULL STRINGS IN ALL SPARE OR EMPTY CONDUITS AND RACEWAYS.
7. COORDINATE NAMES, ABBREVIATIONS, COLORS, AND OTHER DESIGNATIONS USED FOR ELECTRICAL IDENTIFICATION WITH CORRESPONDING DESIGNATIONS INDICATED IN THE CONTRACT DOCUMENTS OR REQUIRED BY CODES AND STANDARDS. USE CONSISTENT DESIGNATIONS THROUGHOUT PROJECT.
8. LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION. EXISTING UTILITIES MAY NOT BE SHOWN ON PLANS.
9. INSTALL CONTINUOUS UNDERGROUND PLASTIC MARKERS (WITH LABEL AND EMBEDDED METAL TAPE OR WIRE) 6" TO 8" BELOW FINISHED GRADE DURING TRENCH BACKFILLING, FOR EXTERIOR UNDERGROUND POWER, CONTROL, SIGNAL, AND COMMUNICATION.
10. REPAIR, REFINISH AND TOUCH UP DISTURBED FINISH MATERIALS AND OTHER SURFACES TO MATCH ADJACENT UNDISTURBED SURFACES.
11. ALL WORK SHALL COMPLY WITH NFPA 70, 2014 ED; FLORIDA BUILDING CODE, SIXTH ED; AND FAMU FACILITIES PLANNING AND CONSTRUCTION DEPARTMENT DESIGN STANDARDS, LATEST EDITION.
12. EQUIPMENT INDICATED TO BE REMOVED SHALL BE DISPOSED OF OR DELIVERED TO THE OWNER, AT THE OWNER'S OPTION. WHERE DIRECTED TO DISPOSE, DISPOSE OF EQUIPMENT AND MATERIAL REMOVED IN A SAFE, LEGAL, APPROVED MANNER.
13. SUBMIT MANUFACTURER'S CUTSHEETS AND OTHER DATA, FOR ALL EQUIPMENT TO BE INSTALLED, FOR ENGINEER'S REVIEW AND APPROVAL PRIOR TO ORDERING.
14. PROVIDE ARC-FLASH HAZARD LABELS ON NEW PANELS, TRANSFORMERS, AND SAFETY SWITCHES PRIOR TO FINAL COMPLETION.

GROUNDING AND BONDING

1. EQUIPMENT GROUNDING CONDUCTORS: COMPLY WITH NFPA 70, ARTICLE 250, FOR TYPES, SIZES, AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS, UNLESS SPECIFIC TYPES, LARGER SIZES, OR MORE CONDUCTORS THAN REQUIRED BY NFPA 70 ARE INDICATED.
2. INSTALL INSULATED EQUIPMENT GROUNDING CONDUCTORS IN ALL FEEDERS AND BRANCH CIRCUITS.
3. ALL GROUNDING CONDUCTORS SHALL BE COPPER; COMPLY WITH SECTION "CONDUCTORS AND CABLES" AND ASTM B, AS APPLICABLE.
4. EQUIPMENT GROUNDING CONDUCTORS: INSULATED WITH GREEN-COLORED INSULATION.
5. GROUNDING ELECTRODE CONDUCTORS: STRANDED COPPER CABLE.
6. GROUND RODS: 3/4" X 10FT, COPPER-CLAD STEEL, UNLESS NOTED OTHERWISE.
7. UNDERGROUND CONDUCTORS: BARE, TINNED, STRANDED, UNLESS OTHERWISE INDICATED.
8. CONNECTORS: COMPLY WITH IEEE 837 AND UL 467; LISTED FOR USE FOR SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND CONNECTED ITEMS.
9. IN RACEWAYS, USE INSULATED EQUIPMENT GROUNDING CONDUCTORS.
10. EXOTHERMIC-WELDED CONNECTIONS: USE FOR CONNECTIONS TO STRUCTURAL STEEL AND FOR UNDERGROUND CONNECTIONS.
11. GROUNDING CONDUCTORS: ROUTE ALONG SHORTEST AND STRAIGHTEST PATHS POSSIBLE, UNLESS OTHERWISE INDICATED. AVOID OBSTRUCTING ACCESS OR PLACING CONDUCTORS WHERE THEY MAY BE SUBJECTED TO STRAIN, IMPACT, OR DAMAGE.
12. BONDING STRAPS AND JUMPERS: INSTALL SO VIBRATION BY EQUIPMENT MOUNTED ON VIBRATION ISOLATION HANGERS OR SUPPORTS IS NOT TRANSMITTED TO RIGIDLY MOUNTED EQUIPMENT.

CONDUCTORS AND CABLES

1. CONDUCTOR MATERIAL: COPPER COMPLYING WITH NEMA WC 5 OR 7; SOLID CONDUCTOR FOR NO. 10 AWG AND SMALLER, STRANDED FOR NO. 8 AWG AND LARGER.
2. CONDUCTOR INSULATION TYPES: TYPE THHN-THWN COMPLYING WITH NEMA WC 5 OR 7.
3. MULTICONDUCTOR CABLE: NOT PERMITTED FOR LINE-VOLTAGE APPLICATIONS.
4. SERVICE ENTRANCE, EXPOSED FEEDERS, AND FEEDERS CONCEALED IN CONCRETE OR BELOW SLAB OR BELOW GRADE: TYPE THHN-THWN, SINGLE CONDUCTORS IN RACEWAY.
5. BRANCH CIRCUITS: TYPE THHN-THWN, SINGLE CONDUCTORS IN RACEWAY.
6. USE MANUFACTURER-APPROVED PULLING COMPOUND OR LUBRICANT WHERE NECESSARY; COMPOUND USED MUST NOT DETERIORATE CONDUCTOR OR INSULATION. DO NOT EXCEED MANUFACTURER'S RECOMMENDED MAXIMUM PULLING TENSIONS AND SIDEWALL PRESSURE VALUES.
7. INSTALL EXPOSED CABLES PARALLEL AND PERPENDICULAR TO SURFACES OF EXPOSED STRUCTURAL MEMBERS, AND FOLLOW SURFACE CONTOURS WHERE POSSIBLE.
8. MAKE SPLICES AND TAPS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL AND THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN UNSPLICED CONDUCTORS.
9. WIRING AT OUTLETS: INSTALL CONDUCTOR AT EACH OUTLET, WITH AT LEAST 6 INCHES (150 MM) OF SLACK.
10. ALL CONDUCTORS SHALL BE INSTALLED IN RACEWAY.

RACEWAYS AND BOXES

1. UNLESS OTHERWISE NOTED, PROVIDE NEMA 1 ENCLOSURES IN INDOOR LOCATIONS, NEMA 3R ENCLOSURES IN OUTDOOR LOCATIONS.
2. MINIMUM RACEWAY SIZE: 3/4" TRADE SIZE FOR INDOOR RACEWAYS; OUTDOOR UNDERGROUND RACEWAYS SHALL BE 1" TRADE SIZE, MINIMUM.
3. PROTECT STUB-UPS FROM DAMAGE WHERE CONDUITS RISE THROUGH SLABS. ARRANGE SO CURVED PORTIONS OF BENDS ARE NOT VISIBLE ABOVE FINISHED SLAB.
4. MAKE BENDS AND OFFSETS SO ID IS NOT REDUCED. KEEP LEGS OF BENDS IN SAME PLANE AND KEEP STRAIGHT LEGS OF OFFSETS PARALLEL, UNLESS OTHERWISE INDICATED.
5. INSTALL EXPOSED RACEWAYS PARALLEL OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS AND FOLLOW SURFACE CONTOURS AS MUCH AS POSSIBLE.
6. FLEXIBLE CONNECTIONS: USE MAXIMUM OF 36 INCHES (1830 MM) OF FLEXIBLE CONDUIT FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT; AND FOR ALL MOTORS. USE LFMC IN DAMP OR WET LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.
7. ALL RACEWAY ABOVE GRADE SHALL BE METALLIC; EXPOSED EXTERIOR RACEWAY SHALL BE IMC OR RGSC. UNDERGROUND RACEWAY SHALL BE IMC, RGSC, OR SCHEDULE 40 RNC. TRANSITION FROM METALLIC RACEWAY TO RNC BELOW GRADE.
8. EMT MAY BE USED IN INTERIOR CONCEALED LOCATIONS, AND EXPOSED WITHIN EQUIPMENT ROOMS. PROVIDE COMPRESSION FITTINGS FOR EMT.
9. IN-GROUND JUNCTION BOXES AND PULL BOXES SHALL BE CONCRETE POLYMER (QUAZITE, OR APPROVED EQUAL), 12" X 12" X 12"D (MINIMUM), AND SHALL BE SUPPLIED WITH ANSI TIER-15 BOLT-DOWN COVERS. COVERS SHALL HAVE MOLDED-IN IDENTIFICATION ("ELECTRICAL", "LIGHTING", "COMMUNICATIONS", OR OTHERWISE, AS APPROPRIATE). PROVIDE 6" GRAVEL FILL BELOW BOTTOM OF BOX, FOR DRAINAGE.
10. NO CONDUIT RUN SHALL EXCEED 175FT BETWEEN JUNCTION- OR PULL-BOXES.
11. LOCATE ALL UTILITIES PRIOR TO EXCAVATION. FILL, COMPACT, SOD, AND SEED ALL EXCAVATION/TRENCHING. NO OPEN TRENCHES SHALL BE UNATTENDED.

WIRING DEVICES

1. STRAIGHT-BLADE-TYPE RECEPTACLES: COMPLY WITH NEMA WD 1, NEMA WD 6, DSCC W-C-596G, AND UL 498. STRAIGHT-BLADE AND LOCKING RECEPTACLES: HEAVY-DUTY GRADE.
2. GFCI RECEPTACLES: STRAIGHT BLADE, HEAVY-DUTY GRADE, WITH INTEGRAL NEMA WD 6, CONFIGURATION 5-20R DUPLEX RECEPTACLE; COMPLYING WITH UL 498 AND UL 943.
3. SINGLE- AND DOUBLE-POLE SWITCHES: COMPLY WITH DSCC W-C-896F AND UL 20.
4. SNAP SWITCHES: HEAVY-DUTY GRADE, QUIET TYPE.
5. DEVICE & COVERPLATE FINISH: PER ARCHITECTS DIRECTION, UNLESS OTHERWISE INDICATED OR REQUIRED BY NFPA 70.
6. INSTALL DEVICES AND ASSEMBLIES LEVEL, PLUMB, AND SQUARE WITH BUILDING LINES.
7. ARRANGEMENT OF DEVICES: UNLESS OTHERWISE INDICATED, MOUNT FLUSH, WITH LONG DIMENSION VERTICAL. GROUP ADJACENT SWITCHES UNDER SINGLE, MULTIGANG WALL PLATES.
8. REMOVE WALL PLATES AND PROTECT DEVICES AND ASSEMBLIES DURING PAINTING.
9. AFTER INSTALLING WIRING DEVICES AND AFTER ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST FOR PROPER POLARITY, GROUND CONTINUITY, AND COMPLIANCE WITH REQUIREMENTS.
10. TEST GFCI OPERATION WITH BOTH LOCAL AND REMOTE FAULT SIMULATIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

ENCLOSED SWITCHES

1. ENCLOSED SWITCHES SHALL BE MANUFACTURED BY SQUARE-D, CUTLER-HAMMER, GE, OR SIEMENS.
2. ALL ENCLOSED SWITCHES SHALL BE LOCKABLE.
3. MOUNT INDIVIDUAL WALL-MOUNTING SWITCHES WITH TOPS AT UNIFORM HEIGHT, UNLESS OTHERWISE INDICATED.
4. ENCLOSED SWITCHES SHALL BE UL LISTED FOR THE APPLICATION USED; ENCLOSURES SHALL BE NEMA-3R UNLESS NOTED OTHERWISE.
5. MOTOR STARTERS SHALL BE NEMA-RATED, WITH OVERLOADS SIZED PER LOAD. COORDINATE COIL VOLTAGE WITH CONTROLS.

PANELBOARDS

1. MANUFACTURERS: PANELBOARDS SHALL BE MANUFACTURED BY SQUARE-D, CUTLER-HAMMER, GE, OR SIEMENS.
2. PHASE AND GROUND BUSES: HARD-DRAWN COPPER, 98 PERCENT CONDUCTIVITY.
3. CONDUCTOR CONNECTORS: SUITABLE FOR USE WITH CONDUCTOR MATERIAL.
4. SERVICE EQUIPMENT LABEL: UL LABELED FOR USE AS SERVICE EQUIPMENT FOR PANELBOARDS WITH MAIN SERVICE DISCONNECT SWITCHES.
5. FUTURE DEVICES: MOUNTING BRACKETS, BUS CONNECTIONS, AND NECESSARY APPURTENANCES REQUIRED FOR FUTURE INSTALLATION OF DEVICES.
6. PANELBOARD SHORT-CIRCUIT RATING: SERIES RATED TO INTERRUPT SYMMETRICAL SHORT-CIRCUIT CURRENT AVAILABLE AT TERMINALS.
7. MAIN OVERCURRENT PROTECTIVE DEVICES: CIRCUIT BREAKER.
8. MOLDED-CASE CIRCUIT BREAKER: UL 489, WITH INTERRUPTING CAPACITY TO MEET AVAILABLE FAULT CURRENTS.
9. MOUNT PLUMB AND RIGID WITHOUT DISTORTION OF BOX. MOUNT RECESSED PANELBOARDS WITH FRONTS UNIFORMLY FLUSH WITH WALL FINISH.
10. INSTALL FILLER PLATES IN UNUSED SPACES.
11. PROVIDE NEW TYPE-WRITTEN PANEL DIRECTORIES, SHOWING ALL EXISTING AND NEW CIRCUITS.
12. PANELBOARD NAMEPLATES: LABEL EACH PANELBOARD WITH ENGRAVED METAL OR LAMINATED-PLASTIC NAMEPLATE MOUNTED WITH CORROSION-RESISTANT SCREWS.
13. ALL BRANCH BREAKERS SHALL BE BOLT-ON TYPE.

LIGHTING

1. ALL POLES & POST-TOP FIXTURES SHALL BE UNIVERSITY STANDARD. ANY ALTERNATE OR SUBSTITUTES MUST BE APPROVED BY FAMU PROJECT MANAGER.
2. BALLAST AND OR DRIVERS SHALL BE UNIVERSAL VOLTAGE TYPE.
3. PROVIDE BASES PER DETAIL; PROVIDE ANCHOR BOLTS PER POLE VENDOR'S REQUIREMENTS AND TEMPLATE.
4. PROVIDE SURGE PROTECTOR (UL-1449 LISTED TYPE 2; PHILIPS #SP1, OR EQUAL), AT EACH FIXTURE OR BLUE-LIGHT.
5. PROVIDE ALL HARDWARE, SUPPORTS, FASTENERS, ACCESSORIES, SHORTING CAPS, AND OTHER HARDWARE AS REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION.

ROAM LIGHTING CONTROLS:

1. PROVIDE SUITABLE ROAM WIRELESS GATEWAY(S), POWER CONNECTIONS TO ROAM GATEWAYS, AND DATA CONNECTION(S). PROVIDE NUMBER OF ROAM GATEWAYS REQUIRED TO COMMUNICATE WITH ALL ROAM NODES. MOUNT WIRELESS GATEWAY ON 12FT POLE IN 6FT DEEP CONCRETE BASE IDENTICAL TO THAT OF THE HOLOPHANE 12FT LIGHT POLE BASE, PREFERABLY WITHIN 10 FEET OF THE ELECTRICAL DISTRIBUTION AND WITH LINE OF SIGHT TO THE ROAM FIXTURES BEING CONTROLLED. COORDINATE WITH MANUFACTURER FOR OPTIMAL PLACEMENT.
2. PROVIDE ALL REQUIRED CONDUIT FOR POWER (120 VOLT CONTROL CIRCUIT SHALL HAVE 3/4" GALVANIZED RIGID STEEL CONDUIT WHERE EXPOSED, WITH 2 #10 AND #10 GROUND). USE AN AVAILABLE SPARE 20A/1P BREAKER IN A NEARBY PANEL. COORDINATE WITH FAMU I.T. DEPARTMENT, AND DATA / COMMUNICATION CONTRACTOR. PRESENT ROAM NODES (PER HOLOPHANE) ARE ACUITY BRANDS "ROA" REN127 NM1 (TO RECEIVE U.L. APPROVAL OCT. 2012).
3. PROVIDE ROAM MODULE COMPATIBLE WITH THIS FIXTURE / ASSEMBLY (FOR EACH), AND WHICH IS FULLY COMPATIBLE WITH THE OTHER OUTDOOR LIGHTING ROAM NODES / SYSTEM AND PER FAMU DESIGN GUIDELINES AND REQUIREMENTS. AS REQUIRED, PROVIDE ALL ITEMS REQUIRED TO ADAPT ROAM NODES AND ITEMS TO THE FIXTURE / ASSEMBLY. ROAM MODULE SHALL HAVE AGENCY APPROVALS TO INCLUDE U.L. (AVAILABLE AFTER APPROXIMATELY OCT. 2012 PER MANUFACTURER). COORDINATE WITH MANUFACTURER, CONTACT INFORMATION REFER TO WWW.ROAMSERVICES.NET'. SEE #5 AND #6 BELOW REGARDING COORDINATE FOR U.L. APPROVED DEVICES.
4. PROVIDE SUBMITTALS AND COORDINATE ALL WIRELESS / ROAM DEVICES, GATEWAYS, ELECTRICAL CONNECTIONS AND DATA CONNECTIONS INCLUDING PROTOCOL WITH FAMU FACILITIES AND I.T. DEPARTMENT AND OTHER TRADES PRIOR TO ORDERING OR INSTALLING.
5. ALL ROAM DEVICES SHALL U.L. APPROVAL PER MANUFACTURER, ROAM NODES WITH U.L. APPROVAL SHOULD BE AVAILABLE OCT 2012. CONTRACTOR SHALL COORDINATE TO ENSURE THE U.L. APPROVED DEVICES ARE PROVIDED. CONTACT INFORMATION FOR COORDINATION WITH MANUFACTURER: www.roamservices.net (WEBSITE). Elliot.Mintzer@AcuityBrands.com or Elliot.Mintzer@holophane.com (HOLOPHANE) CAUTION: THE U.L. APPROVED ROAM DEVICE MAY BE GIVEN A DIFFERENT PART NUMBER - COORDINATE WITH MANUFACTURER TO ENSURE U.L. APPROVED EQUIVALENT TO REN127 NM1 ROAM NODE.
6. FIXTURES SHALL BE RETROFIT WITH ROAM NODES (U.L. APPROVED VERSION). IN THE EVENT A U.L. APPROVED ROAM NODE IS NOT AVAILABLE OCT 2012, THE LIGHTING SHALL INCLUDE STANDARD PHOTOCELL SENSOR, AND MAY BE OPERATED UNTIL U.L. APPROVED ROAM NODE IS AVAILABLE. TO ALLOW FOR THIS CONTINGENCY, FIXTURES (HOLOPHANE) SHALL INCLUDE OPTION P27 (TWISTLOCK PHOTOCELL FOR 120-277 VOLT) IN LIEU OF THE "-ROA" OPTION IN THE FIXTURE PART F; IN OTHER WORDS, PROVIDE BOTH THE "P2" AND THE "-ROA" OPTIONS IN BIDS FOR THE FIXTURES, AND PROVIDE A ROAM NODE FOR EACH FIXTURE.
7. INCLUDE ALL REQUIRED CONFIGURATION, PROGRAMMING, COMMISSIONING, AND STARTUP AS REQUIRED TO INTEGRATE NEW FIXTURES WITH EXISTING ROAM CONTROL NETWORK.

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LICENSED PROFESSIONAL

DATE:

KHA PROJECT 142848000
DATE JAN. 2020
SCALE AS SHOWN
DESIGNED BY JML
DRAWN BY TAW
CHECKED BY JML

ELECTRICAL NOTES

FAMU REC. CENTER PARKING
PREPARED FOR FAMU
TALLAHASSEE FL

SHEET NUMBER
E2.1