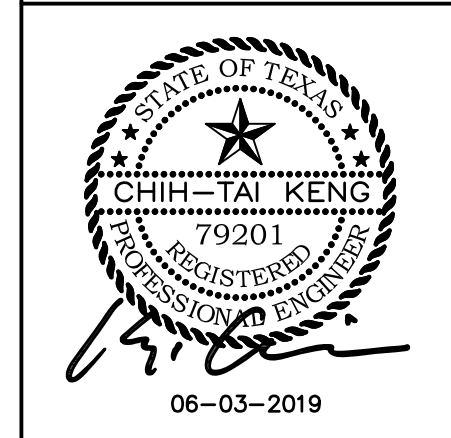


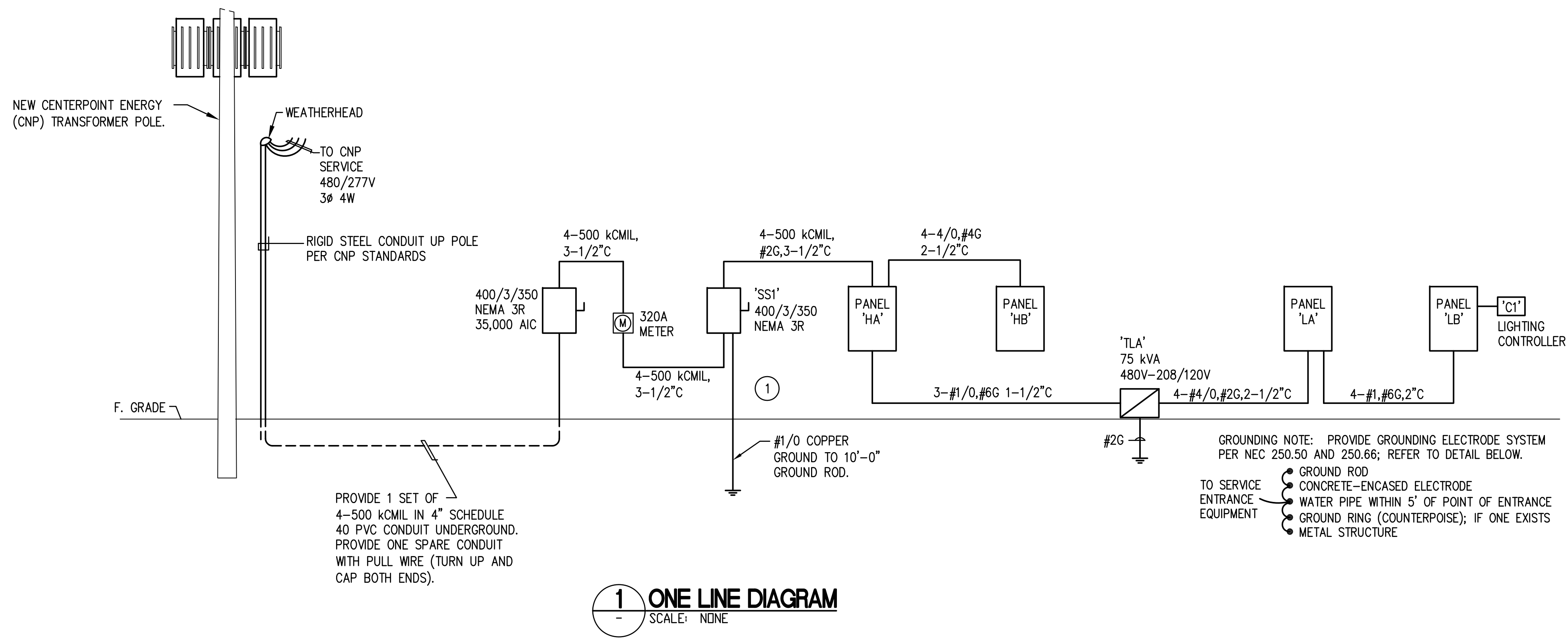
REVISIONS AND ISSUANCE		
NO.	DATE	DESCRIPTION
1	04/01/2019	ARC PHASE 1

IVY KIDS EARLY LEARNING CENTER
 LOT COM2I
 CROSS CREEK RANCH
 6407 CROSS CREEK BEND LANE
 FULSHEAR, TX 77441

MEP Consultants
 BLK Engineering & Consulting Co.
 3423 Spring Arbor Ln.
 Sugar Land, TX 77479
 (t) 832 563 3127
 TBPE Firm #12672



DRAWING TITLE	
ELECTRICAL ONE LINE	
DRAWN BY FK	CHECKED BY CK
DATE 04/17/2019	JOB NO. FULSHEAR
DRAWING NO. E-4.0	



GENERAL NOTES

- SHORT CIRCUIT CALCULATIONS USE THE POINT-TO-POINT METHOD. THE AVAILABLE SYMMETRICAL FAULT CURRENT IS CALCULATED BASED ON A 500 KVA TRANSFORMER BANK.

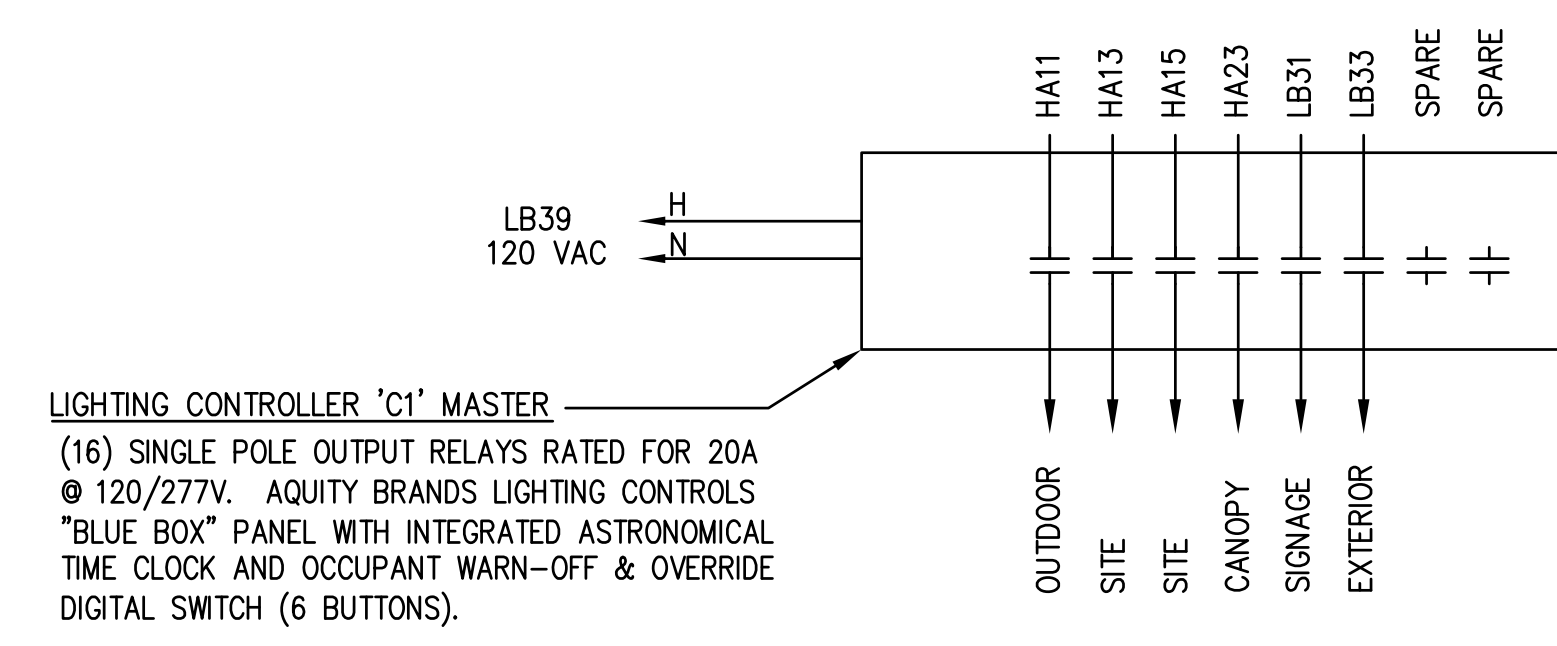
XX,XXX AIC	AVAILABLE SYMMETRICAL FAULT CURRENT
YY,YYY AIC	EQUIPMENT RATING
- PANELBOARDS MAY BE SERIES RATED IF LABELED PER THE NEC.
- PROVIDE FULL SIZE NEUTRALS FOR SERVICE ENTRANCE AND FEEDER CONDUCTORS.
- SERVICE VOLTAGE IS 480/277V 3Ø 4W.
- CONDUCTORS TO BE COPPER WITH 75 DEGREE C INSULATION (IE, THW, THWN OR THHW).
- CONDUITS TO BE PVC SCHEDULE 40 UNDERGROUND AND EMT ABOVE GRADE. SIZES AS SHOWN ON THE ONE LINE DIAGRAM AND PER THE NEC.
- PROVIDE 4" MINIMUM CLEARANCE TO THE RIGHT OF THE DISCONNECT TO ALLOW ADEQUATE CLEARANCE FOR LOCKING.
- PROVIDE ELECTRICAL SERVICE INCLUDING SAFETY SWITCHES AND METER.
- PROVIDE PANELBOARDS AND ASSOCIATED FEEDERS.

KEYED NOTES

- PROVIDE A PERMANENTLY AFFIXED LABEL ON 'SS1' THAT SHOWS THE CALCULATED AVAILABLE FAULT CURRENT OF 24,026 AMPS AND A DATE OF 03 JUNE 2019. THE LABEL SHALL BE 2"X3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND.

BUILDING LOAD ANALYSIS				04/17/19
PROJECT NAME:		IVY KIDS FULSHEAR, 6407 CROSS CREEK BEND LANE, FULSHEAR, TX 77441		
AREA (SQ. FEET)		14,200	SQ. FT.	
LOAD DESCRIPTION		CONNECTED LOAD (kVA)	DEMAND FACTOR	DEMAND LOAD (kVA)
LIGHTING (volts per sq. Ft.)	3.0 VA	42.6	1.25	53.3
SITE LIGHTING		2.0	1.25	2.5
GENERAL RECEPTACLES	117 @ 180 VA	21.1	NEC	15.5
HVAC		139.5	1.00	139.5
HEATING (LESS THAN CONCURRENT COOLING)		0.0	1.00	0.0
WATER HEATER (GAS)		0.0	1.00	0.0
UNIT HEATERS		23.0	1.00	23.0
EXHAUST FANS		1.8	1.00	1.8
LAUNDRY		7.3	1.00	7.3
REFRIGERATORS		4.2	1.00	4.2
FREEZERS		2.4	1.00	2.4
ELECTRIC RANGE		8.0	0.80	6.4
WATER FOUNTAIN		1.4	1.00	1.4
PROJECTOR		1.0	1.00	1.0
LARGEST MOTOR * 25%				1.5
TOTAL kVA				259.8
TOTAL AMPS @ 480V, 3P, 4W				313
SERVICE SIZE @ 480V, 3P, 4W (AMPS)				350
SPARE CAPACITY (AMPS)				37

NOTES:
 (1) DIVERSIFIED PER NEC ARTICLE 220-44
 (2) DIVERSIFIED PER NEC ARTICLE 220-55



(16) SINGLE POLE OUTPUT RELAYS RATED FOR 20A @ 120/277V. AQUITY BRANDS LIGHTING CONTROLS "BLUE BOX" PANEL WITH INTEGRATED ASTRONOMICAL TIME CLOCK AND OCCUPANT WARN-OFF & OVERRIDE DIGITAL SWITCH (6 BUTTONS).