ABBREVIATIONS

ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
AFG	ABOVE FINISHED GRADE
AT/FP	ANTITERRORISM / FORCE PROTECTION
BDCT	BUILDING DESIGN AND CONSTRUCTION TEAM
BFG	BELOW FINISHED GRADE
C	CONDUIT
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CKT	CIRCUIT
CMU	CONCRETE MASONRY UNIT
CO	CONDUIT ONLY
DC	DIRECT CURRENT
E	EAST
EC	ELECTRICAL CONTRACTOR
EOR	ENGINEER OF RECORD
EQ	EQUAL
EV	ELECTRIC VEHICLE
EVCS	ELECTRIC VEHICLE CHARGING SYSTEM
FO	FIBER OPTIC
G	GROUND CONDUCTOR
GC	GENERAL CONTRACTOR
GEC	GROUNDING ELECTROD CONDUCTOR
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KO	KNOCK OUT
N	NORTH
NEC	NATIONAL ELECTRIC CODE (NFPA 70)
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OAE	OR APPROVED EQUAL
OH	OVERHEAD
PNL	PANEL
PV	PHOTOVOLTAIC
RMC	RIGID METAL CONDUIT
S	SOUTH
SIM	SIMILAR
SS	STAINLESS STEEL
SYM	SYMMETRICAL
TYP	TYPICAL
UDS	UTILITY DISTRIBUTION SYSTEM
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UNSW	UNSWITCHED
UON	UNLESS OTHERWISE NOTED
V	VOLT
W	WALL MOUNTED
W	WATTS
W	WEST
WP	WEATHERPROOF
WR	WEATHER RESISTANT

GENERAL NOTES

1. ALL ELECTRICAL WORK MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE, THE ENERGY CONSERVATION CODE, THE NATIONAL FIRE CODES, THE AMERICANS WITH DISABILITIES ACT, AND THE FLORIDA BUILDING CODES.
2. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL, EQUIPMENT, LABOR, AND SERVICES TO CONSTRUCT AND INSTALL COMPLETE AND OPERATIONAL ELECTRICAL SYSTEMS AS SHOWN ON THE CONTRACT DRAWINGS.
3. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE EXISTING CONDITIONS AND REQUIREMENTS. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS BY ACTUAL OBSERVATION AT THE SITE AND SHALL BE RESPONSIBLE FOR ALL WORK FITTING TOGETHER IN A SATISFACTORY AND WORKMAN LIKE MANNER.
4. CONTRACTOR MUST THOROUGHLY REVIEW THE PROJECT TO ENSURE THAT ALL WORK MUST MEET OR EXCEED THE ABOVE REQUIREMENTS. ANY ALLEGED DISCREPANCIES MUST BE BROUGHT TO THE ENGINEER'S ATTENTION.
5. CONTRACTOR IS DIRECTED TO OBTAIN COPIES OF ALL RELATED PLANS, SHOP DRAWINGS, AND ADDENDA TO COORDINATE THE RELATED WORK AND SCHEDULING.
6. CONTRACTOR SHALL OBTAIN ALL PERMITS, LICENSES, INSPECTIONS, AND TEST REQUIRED. UPON COMPLETION OF THE WORK, OBTAIN AND SUBMIT CERTIFICATES OF INSPECTION AND APPROVAL TO THE OWNER. THE CONTRACTOR IS TO PAY FOR ALL FEES AND EXPENSES FOR PERMITS, LICENSES, TESTS, AND INSPECTIONS.
7. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW, UL LISTED, AND MEET ALL INDUSTRY STANDARDS. FIRE ALARM SYSTEM COMPONENTS SHALL BE FM LISTED. ALL EQUIPMENT OF THE SAME SYSTEM SHALL BE OF THE SAME MANUFACTURER.
8. CONTRACTOR SHALL FURNISH AND INSTALL ELECTRICAL MATERIALS THAT ARE FREE FROM DEFECTS AND MANUFACTURED WITHIN THE PERIOD OF ONE YEAR FROM THE DATE OF PROJECT START.
9. ALL CONDUCTORS SHALL BE NEW AND HAVE SIZE, GRADE OF INSULATION, VOLTAGE RATING, AND MANUFACTURERS NAME ON THE INSULATION AT 12" INTERVALS AND SHALL BE DELIVERED IN COMPLETE COILS OR REELS WITH IDENTIFYING SIZE. ALL CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS ARE NOT ACCEPTABLE.
10. FEEDER CONDUCTORS SHALL BE TYPE THWN, UON. BRANCH CIRCUIT WIRING SHALL BE TYPE THWN, MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG. CONDUCTORS SHALL BE INSTALLED IN CONDUIT.
11. MINIMUM SIZE CONDUIT SHALL BE 3/4". ALL EXTERIOR ABOVE GROUND CONDUITS SHALL BE GALVANIZED RMC TO 10'. EXTERIOR UNDERGROUND CONDUITS SHALL BE PVC.
12. ALL CONDUIT RUNS MUST BE CONCEALED, UON.
13. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS. CAST ALLOY WITH THREADED HUBS IN WET, DAMP, OR SURFACE MOUNTED LOCATIONS. SPECIAL ENCLOSURES FOR CLASSIFIED AREAS.
14. ALL SPECIAL PURPOSE RECEPTACLE OUTLETS MUST BE FURNISHED AND INSTALLED TO MATCH EQUIPMENT TO BE SUPPLIED.
15. ALL CONDUITS MUST INCLUDE A SEPARATE GREEN EQUIPMENT GROUNDING CONDUCTOR.
16. ANY EXISTING UTILITIES LOCATED IN THE AREA OF CONSTRUCTION THAT REQUIRE RELOCATION OR TIE-IN MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE. PROVIDE 72 HOUR ADVANCE NOTICE.
17. ALL DISCONNECT SWITCHES SHALL BE HP RATED, HEAVY DUTY, QUICK MAKE AND BREAK. FUSED DISCONNECTS MUST HAVE LITTLEFUSE TIME DELAY, CLASS RK5, AND INDICATE CLASS RK5.
18. ELECTRICAL CONTRACT DRAWINGS ARE SCHEMATIC AND DIAGRAMMATIC ONLY, CONTRACTOR SHALL REFER TO FIELD CONDITIONS OR ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND/OR DIMENSIONS PRIOR TO INSTALLATION OF ALL ELECTRICAL ITEMS. ALL QUESTIONABLE LOCATIONS MUST BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
19. ALL EMPTY CONDUITS MUST CONTAIN JET LINE #232 POLYOLEFIN 200 LB. TEST PULL STRING.
20. ALL WORK SHOWN ON THE ELECTRICAL PLANS MUST BE PERFORMED BY THE CONTRACTOR, UON.
21. EXTERIOR BURIED CONDUIT RUNS MUST BE MINIMUM 24" BELOW FINISHED GRADE. FURNISH AND INSTALL CAUTION TAPE 12" BELOW GRADE. FURNISH AND INSTALL (1) SPARE WITH EACH UNDERGROUND RUN.
22. RACEWAYS INSTALLED IN OUTDOOR LOCATIONS MUST BE HOT DIPPED GALVINIZED, AT MINIMUM, FOR CORROSION RESISTANCE. FOR HIGHLY CORROSIVE ENVIRONMENTS, SUCH AS COASTAL AREAS, ALUMINUM, STAINLESS STEEL, OR PVC COATED RACEWAYS SHALL BE FURNISHED AND INSTALLED.
23. POWER CHANGE EXPENSES RESULTING FROM EQUIPMENT SUBSTITUTIONS THAT DIFFER FROM ITEMS CALLED FOR IN DRAWINGS OR SPECIFICATIONS SHALL BE BORNE BY THE CONTRACTOR OR THEIR SUBCONTRACTOR. THESE MUST INCLUDE CHANGES IN VOLTAGE OR FULL LOAD AMPS RESULTING IN LARGER FEEDERS AND OR CIRCUIT BREAKERS.
24. WATERPROOF RECEPTACLE COVER MUST BE WP EXTRA DUTY WHILE IN-USE TYPE.
25. BEFORE INITIATING ANY UNDERGROUND WORK, CONTRACTOR MUST LOCATE ALL UTILITIES.
26. FURNISH AND INSTALL ALL FEEDERS AND BRANCH CIRCUIT WIRING COMPLETE WITH LUGS, CONNECTORS, SPLICE BOXES, AND MAKE ALL CONNECTIONS AS REQUIRED.
27. CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE WITH ENGINEER OF RECORD AND LOCAL ELECTRIC UTILITY. SERVICE ENTRANCE INSTALLATION SHALL COMPLY WITH ALL LOCAL UTILITY REQUIREMENTS. CONTRACTOR SHALL COORDINATE DELIVERY OF SERVICE TRANSFORMER, METER ENCLOSURE, AND CT CABINET WITH LOCAL ELECTRIC UTILTITY.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF DAMAGES TO OTHER TRADES OR PREMISES DONE BY THEIR TRADESMEN.
29. CONTRACTOR SHALL RECEIVE, HANDLE, AND MOVE ALL ELECTRICAL MATERIALS AND EQUIPMENT TO REQUIRED LOCATIONS. CONTRACTOR SHALL PROTECT MATERIALS AND EQUIPMENT AGAINST THEFT AND DAMAGE. CONTRACTOR SHALL PROTECT ALL ELECTRICAL WORK UNTIL IT HAS BEEN TESTED AND ACCEPTED.
30. CONTRACTOR SHALL KEEP PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH. AT COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL RUBBISH FROM THE SITE AND LEAVE THE ELECTRICAL SYSTEMS CLEAN AND READY FOR USE. EQUIPMENT, LUMINAIRES, MATERIALS AND ACCESSORIES SHALL BE THOROUGHLY CLEANED OF CEMENT, PLASTER, PAINT, AND OTHER MATERIALS.
31. CONDUITS SHALL BE SECURED TO ALL BOXES AND CABINETS WITH BONDED LOCK NUTS, SO THAT THE ENTIRE SYSTEM IS CONTINUOUSLY AND COMPLETELY GROUNDED.
32. ALL SWITCHGEAR, MOTOR CONTROL CENTER, AND PANELBOARD BUSSING SHALL BE COPPER, ALUMINUM IS NOT ACCEPTABLE.
33. TWO AND THREE POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP, TIE HANDLES OR TANDEMS ARE UNACCEPTABLE. ALL CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE.
34. CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE A COMPLETE RECORD SET OF CONSTRUCTION "RECORD DRAWING" PRINTS WHICH SHALL BE CORRECTED DAILY, AND SHALL SHOW EVERY CHANGE FROM THE ORIGINAL CONTRACT DRAWINGS, INCLUDING ADDENDA AND CHANGE ORDERS IN ACCORDANCE WITH GENERAL REQUIREMENTS AND SPECIAL CONDITIONS. THIS SET OF PRINTS SHALL BE KEPT ON THE JOB SITE, AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTORS TO MAKE CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE.
35. CONTRACTOR SHALL BE RESPONSIBILE FOR ANY CUTTING OF CONSTRUCTION MATERIALS WHICH IS REQUIRED FOR THE INSTALLATION OF DIVISION 26 WORK. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AND THE OWNER BEFORE ANY CUTTING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PATCHING, PAINTING, AND FINISH WORK.
36. ALL UNDERGROUND CONDUITS SHALL BE SLOPED TO DRAIN TO JUNCTION BOXES OR MANHOLES. IF THIS CANNOT BE ACCOMPLISHED, THEY SHALL BE FURNISHED AND INSTALLED WITH DRAINAGE TEES AT THE LOW POINTS OF THE CONDUIT RUNS.
37. CABLES AND CONDUCTORS IN ALL JUNCTION BOXES, MANHOLES, AND ALL EQUIPMENT ENCLOSURES SHALL BE FURNISHED AND INSTALLED WITH INDIVIDUAL NONFERROUS METAL OR NYLON IDENTIFICATION TAGS.
38. ALL CONDUCTORS SHALL BE COLOR CODED AS REQUIRED BY PROJECT SPECIFICATIONS. CERTIFIED CONDUCTOR TEST REPORTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

SHEET LIST

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JULIAN L WILBURN
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PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Julian L. Wilburn on 05/25/2023.
Julian L. Wilburn, State of Florida, Professional Engineer, License No. 66541.
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LAKE CITY
BUICK GMC

EV Charging
508 East Duval Street
Lake City, FL 32055

ID	DATE	DESCRIPTION
A	05-23-2023	PI

ISSUE

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DRAWN BY:	RLB
DESIGNED BY:	JLW
PROJECT NUMBER:	06.0019.01-2023
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SHEET TITLE

ABBREVIATIONS AND LEGEND

ES001

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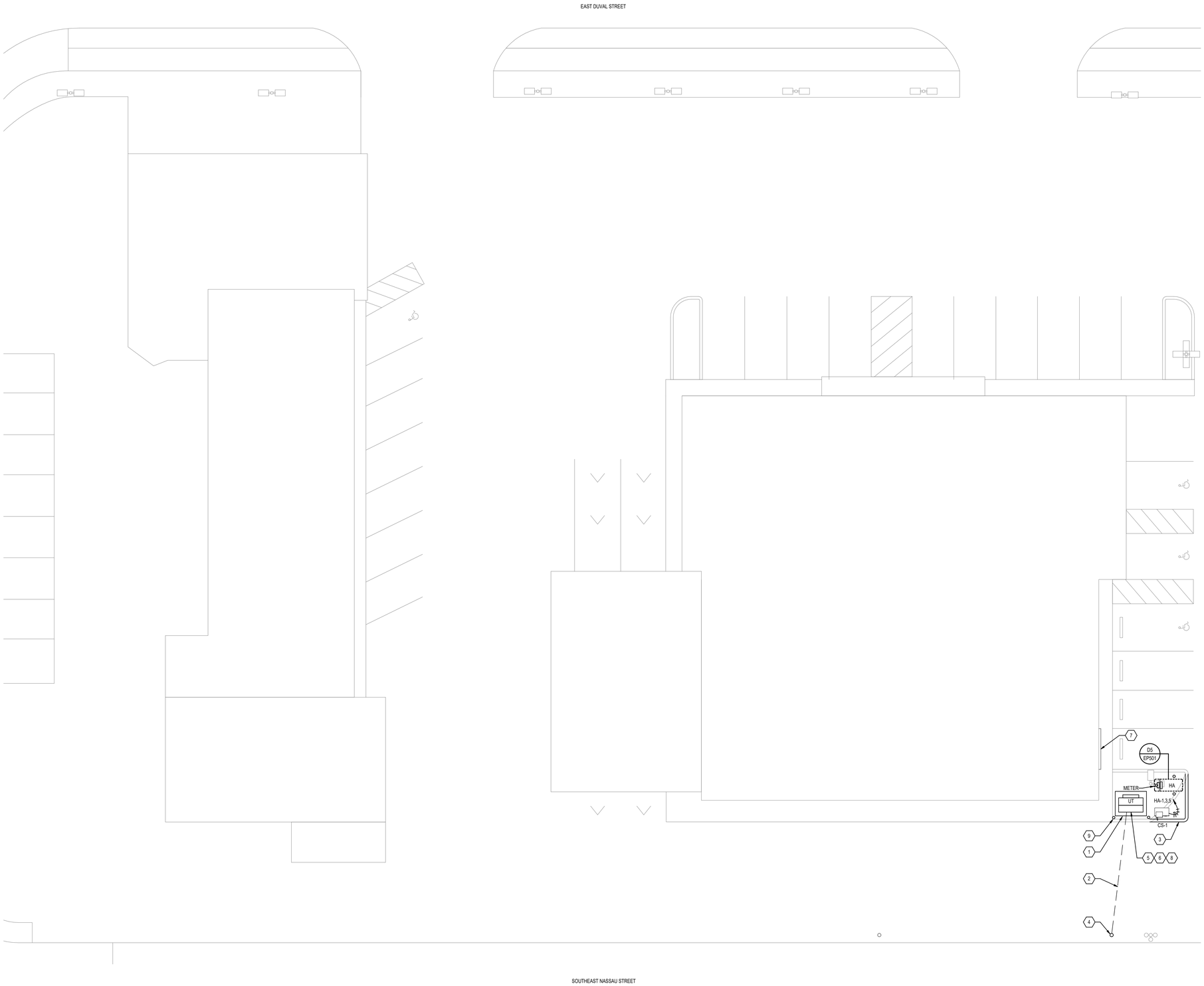

PLAN NORTH

A1 SITE PLAN

SCALE: 1" = 10'-0"

0 5' 10' 20'

SHEET KEYNOTES

1. SEE FPL ELECTRIC SERVICE STANDARDS FOR TRANSFORMER PAD, BOLLARDS, CONDUIT, AND METER REQUIREMENTS.
2. PROPOSED DIRECTIONAL BORE LOCATION.
3. EXTEND AND COORDINATE ISLAND DIMENSIONS WITH THE OWNER, CIVIL ENGINEER, AND EQUIPMENT REQUIREMENTS PRIOR TO CONSTRUCTION.
4. PROPOSED FPL PRIMARY SERVICE POINT OF CONNECTION.
5. TRANSFORMER DOORS MUST BE CLEAR TO OPEN THE FULL 180 DEGREES, AS PER FPL REQUIREMENTS.
6. VERIFY MINIMUM TRANSFORMER DISTANCE FROM THE BUILDING WITH PROPERTY INSURANCE PROVIDER PRIOR TO TRANSFORMER INSTALLATION.
7. EXISTING ROLL-UP DOOR. TRANSFORMER SHALL BE A MINIMUM OF 5' FROM OPENING.
8. THE MINIMUM TRANSFORMER WORKING CLEARANCE ON THE DOOR SIDE OF THE TRANSFORMER IS 8 FEET, AS PER FPL REQUIREMENTS.
9. FURNISH AND INSTALL BOLLARD, TYPICAL.

MILLER

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PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Julian L. Wilburn on 05/25/2023.
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LAKE CITY BUICK GMC

EV Charging
508 East Duval Street
Lake City, FL 32055

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A	05-23-2023	PI

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SITE PLAN

ES101

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ABBREVIATIONS

AC	AIR COMPRESSOR
AC	ABOVE COUNTER
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLED CONDENSER UNIT
ACT	ACOUSTIC CEILING TILE
ACU	AIR CONDITIONING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
AF	AMP FUSE
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AIR	AMPERE INTERUPTING RATING
AP	ACCESS PANEL
APU	AUXILIARY POWER UNIT
ATS	AUTOMATIC TRANSFER SWITCH
BAS	BUILDING AUTOMATION SYSTEM
BDCT	BUILDING DESIGN AND CONSTRUCTION TEAM
BJ	BONDING JUMPER
BTS	BEAM TRANSPORT SYSTEM
C	CONDUIT
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CH	CHILLER
CKT	CIRCUIT
CMU	CONCRETE MASONRY UNIT
CO	CONDUIT ONLY
CRU	COMPUTER ROOM UNIT
CT	CURRENT TRANSFORMER
CU	CONDENSING UNIT
DAS	DISTRIBUTED ANTENNA SYSTEM
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DCU	DUCTLESS SPLIT AIR CONDITIONING OUTDOOR UNIT
DDC	DIRECT DIGITAL CONTROL PANEL
DTCO	DOUBLE THROW CENTER OFF
E	EAST
EBJ	EQUIPMENT BONDING JUMPER
EC	ELECTRICAL CONTRACTOR
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EOR	ENGINEER OF RECORD
EPO	EMERGENCY POWER OFF
EQ	EQUAL
ERU	ENERGY RECOVERY UNIT
ESS	ENERGY SELECTION SYSTEM
ETSP	ELECTRONIC TRAP SEAL PRIMER
EUH	ELECTRIC UNIT HEATER
EV	ELECTRIC VEHICLE
EVCS	ELECTRIC VEHICLE CHARGING SYSTEM
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
F/P	FAX / PRINTER
FCU	FAN COIL UNIT
FLA	FULL LOAD AMPS
FPB	FAN POWERED TERMINAL BOX
FPU	FAN POWERED TERMINAL UNIT
FSPC	FLUSH / FAUCET SENSOR POWER CONVERTER
FTU	FAN POWERED VAV TERMINAL UNIT
G	GROUND CONDUCTOR
GB	GROUND BUS
GC	GENERAL CONTRACTOR
GC	GROUNDED CONDUCTOR
GDF	GAS DUCT FURNACE
GEC	GROUNDING ELECTROD CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
GFP	GROUND POWER UNIT
GPU	GROUND FAULT PROTECTION
GUH	GAS UNIT HEATER
GWH	GAS WATER HEATER
HP	HORSEPOWER
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KO	KNOCK OUT
KVA	KILOVALT AMP
KW	KILOWATTS
LSI	LONG TIME, SHORT TIME, INSTANTANEOUS
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND-FAULT
MBJ	MAIN BONDING JUMPER
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
MTS	MANUAL TRANSFER SWITCH
N	NORTH
N	NEUTRAL CONDUCTOR
NB	NEUTRAL BUS
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE (NFPA 70)
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OAE	OR APPROVED EQUAL
OAHU	OUTSIDE AIR HANDLING UNIT
OH	OVERHEAD
PA	PUBLIC ADDRESS
PNL	PANEL
POE	POWER OVER ETHERNET
PT	POTENTIAL TRANSFORMER

ABBREVIATIONS

PV	PHOTOVOLTAIC
RAF	RETURN AIR FAN
RECEPT	RECEPTACLE
REF	REFRIGERATOR
RMC	RIGID METAL CONDUIT
RTU	ROOF TOP UNIT
S	SOUTH
SBJ	SYSTEM BONDING JUMPER
SD	SUB-DISTRIBUTION CABINET
SE	SERVICE ENTRANCE
SEGB	SERVICE ENTRANCE GROUND BAR
SF	SUPPLY FAN
SHWP	SECONDARY HOT WATER PUMP
SIM	SIMILAR
SPD	SURGE PROTECTIVE DEVICE
SS	STAINLESS STEEL
SSBJ	SUPPLY SIDE BONDING JUMPER
STR	STARTER
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
TE	THERMAL ELEMENT
TEFC	TOTALLY ENCLOSED FAN COOLED
TR	TAMPER RESISTANT
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UDS	UTILITY DISTRIBUTION SYSTEM
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
UT	UTILITY TRANSFORMER
UTR	UP THROUGH ROOF
V	VOLT
VAV	VARIABLE AIR VOLUME (UNIT)
VFD	VARIABLE FREQUENCY DRIVE
VT	VOLTAGE TRANSFORMER
W	WALL MOUNTED
W	WATTS
W	WEST
WP	WEATHERPROOF
WR	WEATHER RESISTANT
Z	IMPEDANCE

GENERAL NOTES

1. ALL ELECTRICAL WORK MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE, THE ENERGY CONSERVATION CODE, THE NATIONAL FIRE CODES, THE AMERICANS WITH DISABILITIES ACT, AND THE FLORIDA BUILDING CODES.
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4. CONTRACTOR MUST THOROUGHLY REVIEW THE PROJECT TO ENSURE THAT ALL WORK MUST MEET OR EXCEED THE ABOVE REQUIREMENTS. ANY ALLEGED DISCREPANCIES MUST BE BROUGHT TO THE ENGINEER'S ATTENTION.
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7. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW, UL LISTED, AND MEET ALL INDUSTRY STANDARDS. FIRE ALARM SYSTEM COMPONENTS SHALL BE FM LISTED. ALL EQUIPMENT OF THE SAME SYSTEM SHALL BE OF THE SAME MANUFACTURER.
8. CONTRACTOR SHALL FURNISH AND INSTALL ELECTRICAL MATERIALS THAT ARE FREE FROM DEFECTS AND MANUFACTURED WITHIN THE PERIOD OF ONE YEAR FROM THE DATE OF PROJECT START.
9. ALL PANELBOARDS MUST BE FURNISH AND INSTALLED WITH A TYPEWRITTEN SCHEDULE SHOWING CIRCUIT NUMBERS AND A COMPLETE DESCRIPTION OF EACH CIRCUIT, INCLUDING OFFICIAL ROOM NUMBER.
13. ALL CONDUIT RUNS MUST BE CONCEALED, UON.
15. ALL SPECIAL PURPOSE RECEPTACLE OUTLETS MUST BE FURNISHED AND INSTALLED TO MATCH EQUIPMENT TO BE SUPPLIED.
17. ALL DISCONNECT SWITCHES SHALL BE HP RATED, HEAVY DUTY, QUICK MAKE AND BREAK. FUSED DISCONNECTS MUST HAVE LITTLEFUSE TIME DELAY, CLASS RK5, AND INDICATE CLASS RK5.
18. ELECTRICAL CONTRACT DRAWINGS ARE SCHEMATIC AND DIAGRAMMATIC ONLY, CONTRACTOR SHALL REFER TO FIELD CONDITIONS OR ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND/OR DIMENSIONS PRIOR TO INSTALLATION OF ALL ELECTRICAL ITEMS. ALL QUESTIONABLE LOCATIONS MUST BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
19. ALL EMPTY CONDUITS MUST CONTAIN JET LINE #232 POLYOLEFIN 200 LB. TEST PULL STRING.
22. RACEWAYS INSTALLED IN OUTDOOR LOCATIONS MUST BE HOT DIPPED GALVINIZED, AT MINIMUM, FOR CORROSION RESISTANCE. FOR HIGHLY CORROSIVE ENVIRONMENTS, SUCH AS COASTAL AREAS, ALUMINUM, STAINLESS STEEL, OR PVC COATED RACEWAYS SHALL BE FURNISHED AND INSTALLED.
23. POWER CHANGE EXPENSES RESULTING FROM EQUIPMENT SUBSTITUTIONS THAT DIFFER FROM ITEMS CALLED FOR IN DRAWINGS OR SPECIFICATIONS SHALL BE BORNE BY THE CONTRACTOR OR THEIR SUBCONTRACTOR. THESE MUST INCLUDE CHANGES IN VOLTAGE OR FULL LOAD AMPS RESULTING IN LARGER FEEDERS AND OR CIRCUIT BREAKERS.
25. FURNISH AND INSTALL ALL FEEDERS AND BRANCH CIRCUIT WIRING COMPLETE WITH LUGS, CONNECTORS, SPLICE BOXES, AND MAKE ALL CONNECTIONS AS REQUIRED.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF DAMAGES TO OTHER TRADES OR PREMISES DONE BY THEIR TRADESMEN.
27. CONTRACTOR SHALL RECEIVE, HANDLE, AND MOVE ALL ELECTRICAL MATERIALS AND EQUIPMENT TO REQUIRED LOCATIONS. CONTRACTOR SHALL PROTECT MATERIALS AND EQUIPMENT AGAINST THEFT AND DAMAGE. CONTRACTOR SHALL PROTECT ALL ELECTRICAL WORK UNTIL IT HAS BEEN TESTED AND ACCEPTED.
28. CONTRACTOR SHALL KEEP PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH. AT COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL RUBBISH FROM THE SITE AND LEAVE THE ELECTRICAL SYSTEMS CLEAN AND READY FOR USE. EQUIPMENT, LUMINAIRES, MATERIALS AND ACCESSORIES SHALL BE THOROUGHLY CLEANED OF CEMENT, PLASTER, PAINT, AND OTHER MATERIALS.
34. CABLES AND CONDUCTORS IN ALL JUNCTION BOXES, MANHOLES, AND ALL EQUIPMENT ENCLOSURES SHALL BE FURNISHED AND INSTALLED WITH INDIVIDUAL NONFERROUS METAL OR NYLON IDENTIFICATION TAGS.
35. ALL CONDUCTORS SHALL BE COLOR CODED AS REQUIRED BY PROJECT SPECIFICATIONS. CERTIFIED CONDUCTOR TEST REPORTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
37. COORDINATE FINAL ELECTRICAL DEVICE AND LUMINAIRE LOCATIONS WITH FINAL SPRINKLER HEAD LOCATIONS TO COMPLY WITH NFPA REQUIREMENTS.
41. FURNISH AND INSTALL ALL FEEDERS AND BRANCH CIRCUIT WIRING COMPLETE WITH LUGS, CONNECTORS, SPLICE BOXES, AND MAKE ALL CONNECTIONS AS REQUIRED.
43. CONTRACTOR SHALL RECEIVE, HANDLE, AND MOVE ALL ELECTRICAL MATERIALS AND EQUIPMENT TO REQUIRED LOCATIONS. CONTRACTOR SHALL PROTECT MATERIALS AND EQUIPMENT AGAINST THEFT AND DAMAGE. CONTRACTOR SHALL PROTECT ALL ELECTRICAL WORK UNTIL IT HAS BEEN TESTED AND ACCEPTED.
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46. ALL SWITCHGEAR, MOTOR CONTROL CENTER, AND PANELBOARD BUSSING SHALL BE COPPER. ALUMINUM IS NOT ACCEPTABLE.
47. TWO AND THREE POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP, TIE HANDLES OR TANDEMS ARE UNACCEPTABLE. ALL CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE.
48. CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE A COMPLETE RECORD SET OF CONSTRUCTION "RECORD DRAWING" PRINTS WHICH SHALL BE CORRECTED DAILY, AND SHALL SHOW EVERY CHANGE FROM THE ORIGINAL CONTRACT DRAWINGS, INCLUDING ADDENDA AND CHANGE ORDERS IN ACCORDANCE WITH GENERAL REQUIREMENTS AND SPECIAL CONDITIONS. THIS SET OF PRINTS SHALL BE KEPT ON THE JOB SITE, AND SHALL BE USED ONLY AS A RECORD SET. THIS SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTORS TO MAKE CHANGES IN THE LAYOUT WITHOUT DEFINITE INSTRUCTION IN EACH CASE.
49. CONTRACTOR SHALL FURNISH AND INSTALL ADEQUATE PROTECTION WHEN WORK IS TO BE PERFORMED IN FINISHED OR OCCUPIED SPACES TO PREVENT DAMAGE TO ADJACENT AREAS, EQUIPMENT, OR FURNISHINGS; TO PREVENT ACCIDENTAL INJURY TO BUILDING OCCUPANTS AND THE PUBLIC; TO PREVENT THE SPREADING OF DUST, DIRT, DEBRIS, AND MOISTURE FROM THE AREA WHERE WORK IS BEING PERFORMED; AND TO PREVENT DUST, DIRT, DEBRIS, AND MOISTURE FROM GETTING ON OR IN THE BUILDING OCCUPANTS FURNISHINGS OR EQUIPMENT.
50. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CUTTING OF CONSTRUCTION MATERIALS WHICH IS REQUIRED FOR THE INSTALLATION OF DIVISION 26 WORK. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AND THE OWNER BEFORE ANY CUTTING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PATCHING, PAINTING, AND FINISH WORK.
51. THE CONTRACTOR SHALL FURNISH AND INSTALL EXPANSION COUPLINGS AT ALL EXPANSION JOINTS ON STRUCTURES OR AS DESIGNATED BY THE ENGINEER.
52. CABLES AND CONDUCTORS IN ALL JUNCTION BOXES, MANHOLES, AND ALL EQUIPMENT ENCLOSURES SHALL BE FURNISHED AND INSTALLED WITH INDIVIDUAL NONFERROUS METAL OR NYLON IDENTIFICATION TAGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
53. ALL CONDUCTORS SHALL BE COLOR CODED AS REQUIRED BY PROJECT SPECIFICATIONS. CERTIFIED CONDUCTOR TEST REPORTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
36. GROUND RODS SHALL NOT HAVE A RESISTANCE TO GROUND OF MORE THAN 25 OHMS IN ACCORDANCE WITH NEC REQUIREMENTS. CONTRACTOR SHALL PROVIDE ENGINEER OF RECORD WITH A REPORT OF ELECTRICAL RESISTANCE MEASURED BETWEEN THE GROUND ROD AND GROUND.
38. WATERPROOF RECEPTACLE COVER MUST BE WP EXTRA DUTY WHILE IN-USE TYPE.

SHEET LIST

NUMBER	TITLE
EP001	ABBREVIATIONS AND LEGEND
EP501	DETAILS
EP601	SCHEDULES & DIAGRAMS

MILLER

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JULIAN L WILBURN LICENSE No. 66541 STATE OF FLORIDA PROFESSIONAL ENGINEER

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LAKE CITY BUICK GMC

EV Charging
508 East Duval Street
Lake City, FL 32055

ID	DATE	DESCRIPTION
A	05-23-2023	PI

ISSUE

REVIEWED BY:	JLW
DRAWN BY:	RLB
DESIGNED BY:	JLW
PROJECT NUMBER:	06.0019.01-2023

SHEET TITLE

ABBREVIATIONS AND LEGEND

EP001

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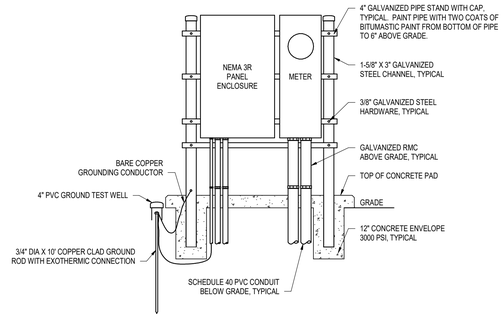
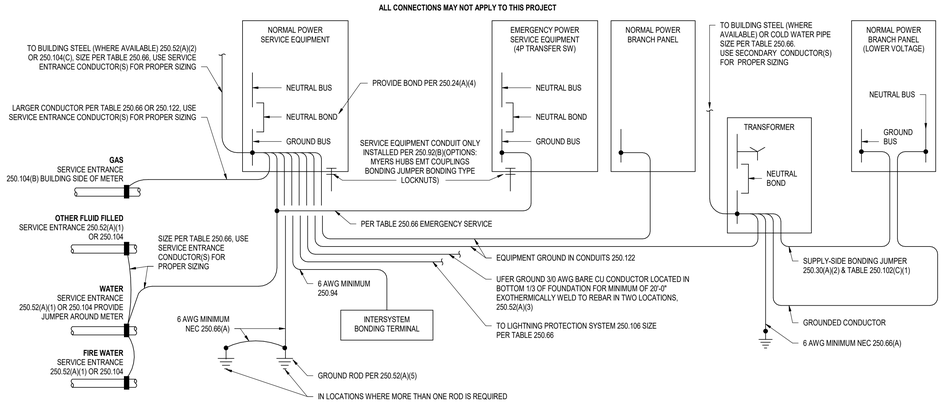


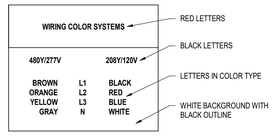
D5 ELECTRICAL POWER PANEL RACK

SCALE: NTS



C4 GROUNDING ONE-LINE DIAGRAM

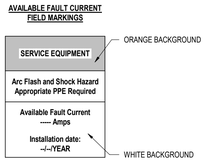
SCALE: NTS



PERMANENTLY POSTED IDENTIFICATION IS REQUIRED AT EACH PANELBOARD PER NEC.

B6 CONDUCTOR SYSTEM COLOR LABEL

SCALE: NTS

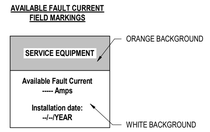


NOTE:

SERVICE EQUIPMENT IN OTHER THAN DWELLING UNITS MUST BE LEGIBLY MARKED IN THE FIELD WITH THE AVAILABLE FAULT CURRENT. THE FIELD MARKINGS MUST INCLUDE THE INSTALLATION DATE AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INSTALLED.

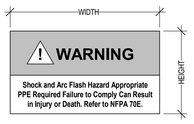
A4 SERVICE EQUIPMENT LABEL

SCALE: NTS



NOTE:

SERVICE EQUIPMENT IN OTHER THAN DWELLING UNITS MUST BE LEGIBLY MARKED IN THE FIELD WITH THE AVAILABLE FAULT CURRENT. THE FIELD MARKINGS MUST INCLUDE THE INSTALLATION DATE AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INSTALLED.



NOTES:

1. PROVIDE SELF-ADHESIVE VINYL LABEL TO AFFIX TO ELECTRICAL EQUIPMENT TO WARN OF ARC FLASH HAZARDS. REFER TO SPECIFICATIONS FOR APPLICABLE EQUIPMENT.
2. THE LABEL FORMAT AND BLACK TEXT SHALL BE IN ACCORDANCE WITH THE FIGURE OVER ORANGE BACKGROUND AT TOP AND WHITE BACKGROUND IN BOTTOM AREA.
3. THE LABEL SHALL BE LOCATED ON THE EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF EQUIPMENT.
4. THE MINIMUM SIZE OF THE LABEL SHALL BE:
   - 2" X 3" FOR INDOOR EQUIPMENT
   - 4" X 6" FOR OUTDOOR EQUIPMENT

A6 ARC FLASH WARNING LABEL

SCALE: NTS

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LAKE CITY BUICK GMC

EV Charging
508 East Duval Street
Lake City, FL 32055

ID	DATE	DESCRIPTION
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DETAILS

EP501

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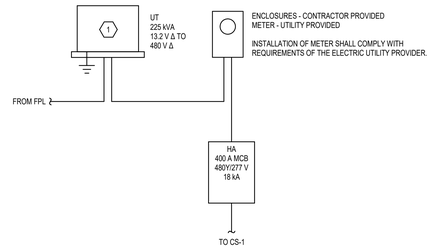

B4 ELECTRICAL POWER ONE-LINE DIAGRAM

SCALE: NTS

FEEDER SCHEDULE

BRAKER TRIP (AMPS)	TYPE	CONDUCTOR SETS	CONDUCTOR QUANTITY	CONDUCTOR GAUGE	MIN. GEC (SE) MIN. EGC (Δ/Y)	MINIMUM CONDUIT SIZE
400	SE	1	4	500 KCMIL	#10	3 1/2"
	Δ		3		#3	
	Y		4			
G	REFER TO "GROUNDING RISER DETAIL" FOR CONDUCTOR SIZE.					
T	REFER TO "TRANSFORMER SCHEDULE" FOR CONDUCTOR SIZE.					
U	REFER TO "ELECTRICAL UTILITY MATIX" FOR ADDITIONAL INFORMATION.					

GENERAL NOTES:

1. ALL FEEDER TYPES SCHEDULED MAY NOT APPLY TO THIS PROJECT.
2. MAXIMUM 2% VOLTAGE DROP FOR FEEDERS; 3% VOLTAGE DROP FOR BRANCH CIRCUITS.
3. ADJUST CONDUCTOR & GEC SIZE FOR LONG RUNS AND TEMPERATURE ABOVE DESIGN AMBIENT TEMPERATURE.
4. CONDUIT SIZING IS BASED ON CONDUCTORS WITH THHW INSULATION.

BRANCH CIRCUIT SCHEDULE

BREAKER TRIP (AMPS)	CONDUCTOR GUAGE (CU 75°C)	GROUND GUAGE (MIN. EGC)	MINIMUM CONDUIT SIZE 1Ø, 3W	MINIMUM CONDUIT SIZE 3Ø, 5W	MAXIMUM DISTANCE (FEET) 1Ø 120 V	1Ø 277 V	3Ø 208 V	3Ø 480 V
20	#12	#12	3/4"		56'	130'	114'	263'
	#10	#10	3/4"		94'	216'	181'	418'
30	#10	#10	3/4"		62'	144'	121'	279'
	#8	#8	3/4"	1"	96'	222'	192'	444'
100	#3	#8	1"	1 1/4"	92'	212'	184'	424'
	#2	#6	1 1/4"	1 1/2"	116'	267'	232'	534'

GENERAL NOTES:

1. SEE DRAWINGS FOR WIRE SIZING WHEN DISTANCE EXCEEDS VALUES SHOWN.
2. DISTANCE IS WIRE LENGTH TO FIRST OUTLET/DEVICE/EQUIPMENT FROM OVERCURRENT PROTECTION.
3. BASIS OF VOLTAGE DROP CALCULATIONS IS 3% DROP, 80% CIRCUIT LOAD, THHN/THWN INSULATION, 100% POWER FACTOR, BALANCED LOAD, NEGLIGIBLE REACTANCE, AND 6 OR LESS CURRENT-CARRYING CONDUCTORS IN RACEWAY.

480Y/277 VAC
3 PHASE 4 WIRE

PANELBOARD HA
LOCATION EV CHARGING ISLAND

400 A BUS W/ 400 A MCB
18 kA SCCR, BOTTOM FEED, SURFACE MOUNT

CKT NO	BREAKER TRIP / POLE		LOAD CLASS & LOCATION	ID	NOTES	L1	L2	L3	L1	L2	L3	NOTES	ID	LOAD CLASS & LOCATION	BREAKER TRIP / POLE		CKT NO
1						20785											2
3	100 A	3	CONT	CS-1	2		20785										4
5								20785									6
7																	8
9																	10
11																	12
13																	14
15																	16
17																	18
19																	20
21																	22
23																	24
25									0								26
27										0		1		SPD	3	30 A	28
29											0						30
						L1		L2		L3							
				CONNECTED LOAD:		20785 VA		20785 VA		20785 VA							

CODE LOAD TOTALS
NONCONTINUOUS: 0 VA
CONTINUOUS: 62354 VA
NONCONTINUOUS + 125% CONTINUOUS: 77942 VA
NONCONTINUOUS + 125% CONTINUOUS: 94 A

GENERAL NOTES:

NOTES:
1. FURNISH AND INSTALL TYPE 1/2 SPD.
2. FURNISH AND INSTALL LOCKABLE OPEN BREAKER DEVICE.

SHEET KEYNOTES

1 APPROVAL FROM FPL IS REQUIRED TO INSTALL CURRENT TRANSFORMERS IN THE SECONDARY COMPARTMENT OF THE UTILITY TRANSFORMER.

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SCHEDULES & DIAGRAMS

EP601

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