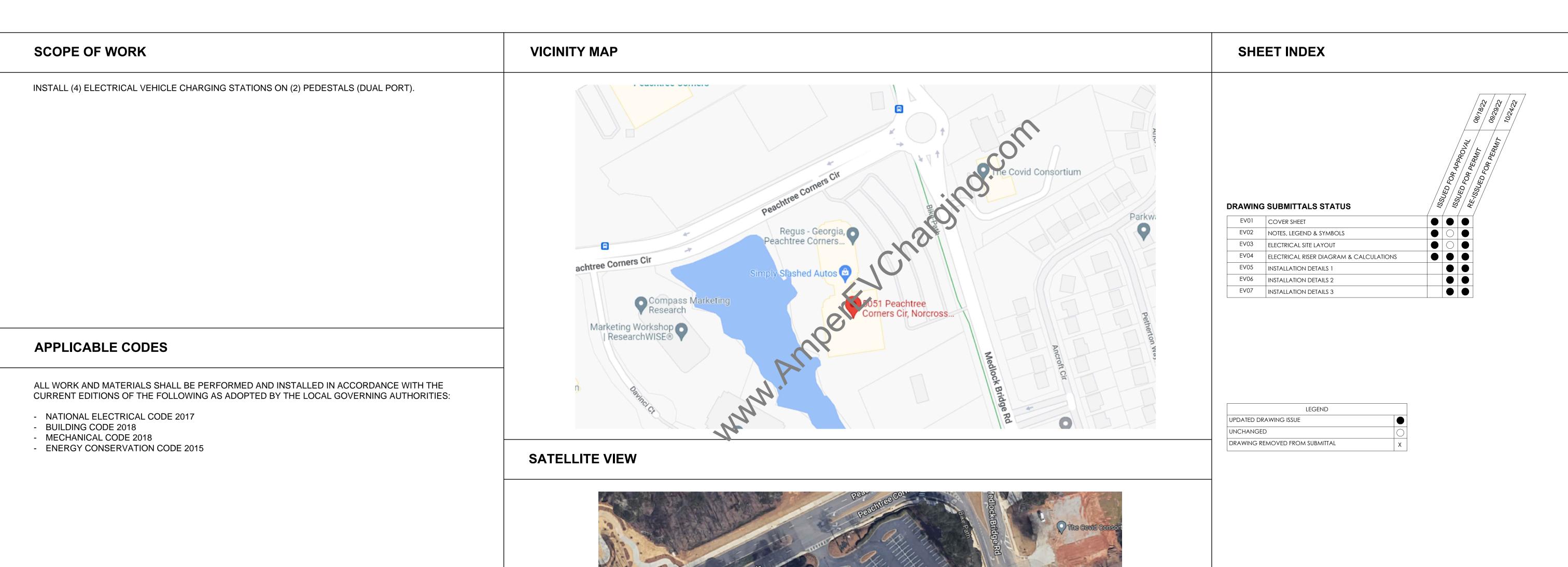
PEACHTREE CORNERS EV CHARGING STATION INSTALLATION

5051 PEACHTREE CORNERS CIRCLE, PEACHTREE CORNERS, GA 30092



UNDERGROUND UTILITIES



CALL AT LEAST TWO WORKING
DAYS BEFORE YOU DIG

EXISTING UNDERGROUND FACILITIES ARE SHOWN ON THESE PLANS FROM RECORD INFORMATION AND ARE INFORMATION ONLY. OTHER UNDERGROUND FACILITIES NOT SHOWN ON THE PLANS MAY EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY A ONE-CALL SERVICE CENTER, TOLL FREE AT 811, NO LESS TWO DAYS PRIOR TO ANY EXCAVATION.





THE ENGINEER OF RECORD SHALL NOT HAVE CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE INFORMATION IN THIS DRAWING IS PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED

THIS DESIGN IS NOT TO BE USED FOR CONSTRUCTION UNLESS P.E. STAMPED, SIGNED, DATED AND ONE OF THE REVISION STATES "ISSUED FOR CONSTRUCTION", "IFC" OR "IFC UPDATED".

2 10/24/2022 RE-ISSUED FOR PERMIT
1 09/29/2022 ISSUED FOR PERMIT
0 08/18/2022 ISSUED FOR APPROVAL

CLIENT: ELECTRIFY

REV. DATE

EVSE

EVCS

PROJECT:
PEACH CORNERS

INSTALLATION

ADDRESS:
5051 PEACHTREE
CORNERS CIRCLE,
PEACHTREE CORNERS,

AMPER PROJECT NUMBER:

GA 30092

SHEET SIZE: DRAWN BY:

24X36 IB

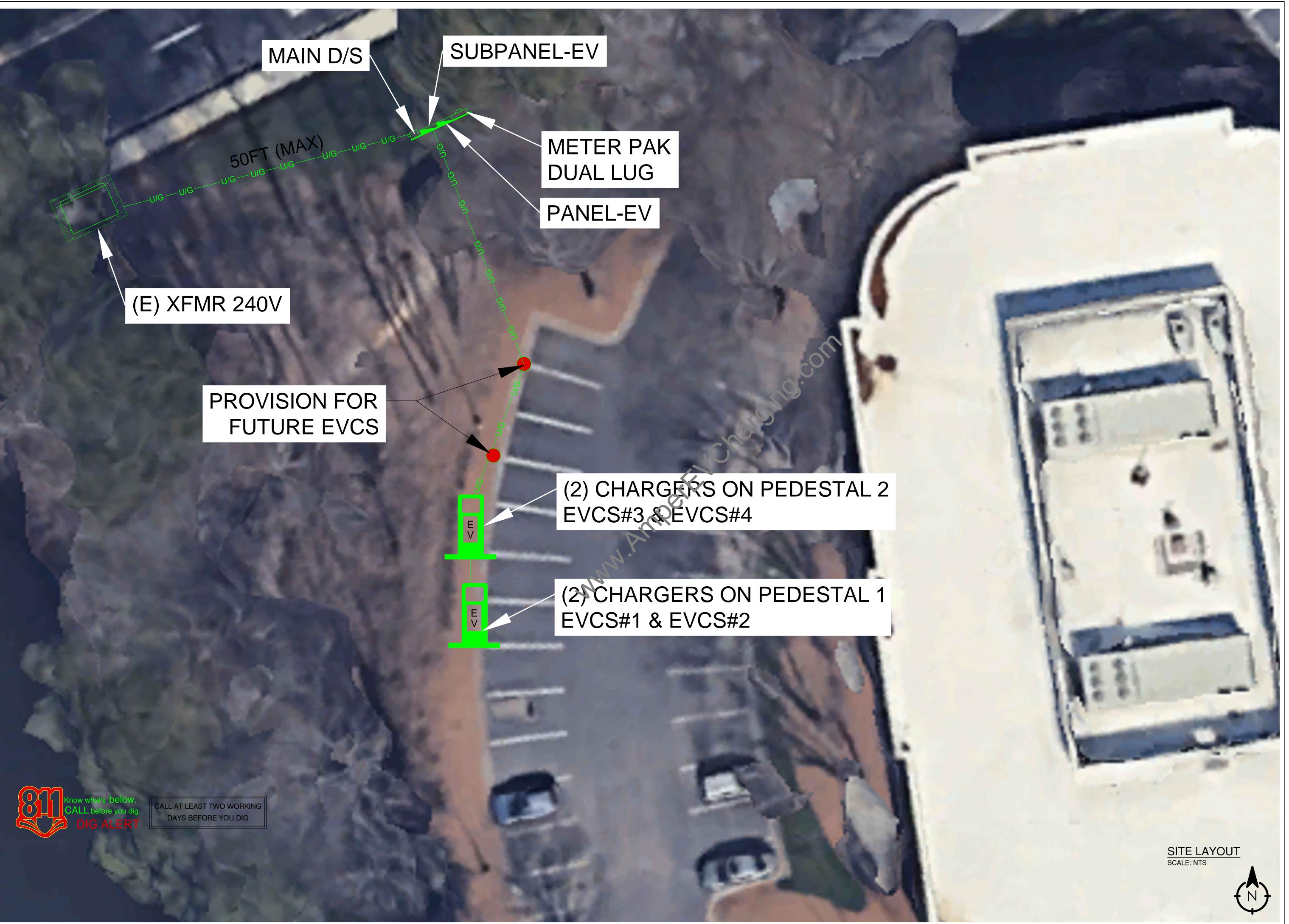
DESIGNED BY: CHECKED BY:

AC DEE

SHEET TITLE:
COVER SHEET

SHEET NO:

EV01



DURAK EVRIM ERCAN P.E. ENGINEERING | CONSULTING | ESTIMATING 、201-920-2899 ☑info@AmperEngineering.com



2 10/24/2022 RE-ISSUED FOR PERMIT 09/29/2022 ISSUED FOR PERMIT

0 08/18/2022 ISSUED FOR APPROVAL

ELECTRIFY EVSE

PEACH CORNERS **EVCS**

INSTALLATION

ADDRESS: 5051 PEACHTREE CORNERS CIRCLE, PEACHTREE CORNERS, GA 30092

AMPER PROJECT NUMBER:

1544	
SHEET SIZE:	DRAWN BY:
24X36	IB
DESIGNED BY:	CHECKED BY:
\ AC	DEE

SHEET TITLE:
SITE LAYOUT

SHEET NO:

									PANE	EL-EV												
		VOLTAGE: 1 PHASE, 3										BU	TION: PA S (A): N (A): 2	ARKING LOT								
No.	WIRE SIZE	CIRCUIT DESCRIPTION	CONT RCPT	LOAD MTR	<u> </u>	CH MISC		AKER POLE	A	PHASE B	BREA POLE	AKER TRIP	MISC		LOAD (A/C		RCPT	CONT	CIRCUIT DESCRIPTION	WIRE SIZE	No.	
1	#6 AWG	EVCS#1	3.84				40	2	7.68		2	40						3.84	EVCS#2	#6 AWG	2	
3	Χ	X	3.84				Х	Х		7.68	Х	Χ						3.84	X	Х	4	
5		FUTURE LOAD (EVCS#5)	3.84				40	2	7.68		2	40						3.84	FUTURE LOAD (EVCS#6)		6	
7		X	3.84				X	Х		7.68	Х	Χ						3.84	X		8	
9		SPACE							0.00										SPACE	+	10	
11		SPACE								0.00									SPACE		12	
13		SPACE							0.00										SPACE		14	
15		SPACE								0.00									SPACE		16	
		v13 - 08/02/2022	CONT RCPT		T T		то	TAL	15.36 15.36 0.00 0.00 0.00 0.00 30.72 CONNECTED KVA 30.72													
		DEMAND LOAD PHASE-A (KVA)			0.00 0.0			.20	PANEL NOTES													
		DEMAND LOAD PHASE-B (KVA)						.20	CONTINUOUS LOAD: 125% LOAD 1) IF PANEL EXISTING AND ACTUAL CONNECTED KVA ARE NOT KNOWN, ASSUMPTIONS ARE MAI								MADE AS:					
		TOTAL DEMAND LOAD (KVA)					+	.40	RECEPTACLES: 100% 1ST 10KW+50% REMAINING						1A) FOR CONTINUOUS LOADS CONNECTED LOAD ASSUMED TO BE 80% OF THE OCPD RATING.							
LARGEST DEMAND LOAD OF ANY PHASE (KVA)								.20	MOTORS: 12	25% LARGEST	MTR+100	% REMA	AINING	1B) FO NON-CONTINUOUS LOADS CONNECTED LOAD ASSUMED TO BE 100% OF THE OCPD RATING.								
		LARG	EST DEMAND	LOAD (OF ANY PHA	SE (AMP)) 10	60	A/C OR HEAT: 100% LOAD					2) DESIGN IS BASED ON NEC TABLE 310.15(B)(16) COPPER THHN CONDUCTORS. EXISTING CONDUCTORS AND							AND	
		TO	TAL DEMAND L	OAD O	F ALL PHAS	ES (KVA)) 38	.40	KITCHEN: 65% LOAD					WIRING MAY NEED TO BE INSPECTED AND VERIFIED BY ELECTRICAL CONTRACTOR.								
		TO	TAL DEMAND L	OAD O	F ALL PHAS	ES (AMP)) 10	60	MISC: 100% LOAD 3)EVCS ARE CONSIDERED CONTINOUS LOADS AND ACTUAL NAME PLATE VALUES ARE USED.													
		MINIMUM	FEEDER AMP	ACITY	SELECTIO	N (AMP)) 10	60														

					_				_	SUBPA	NEL-E	/		_									
		VOLTAGE: 1 PHASE, 3																BU	ATION: IS (A): IN (A):				
No.	WIRE	CIRCUIT DESCRIPTION			LOAD	<u>, , , </u>			AKER		PHASE		AKER			LOAD (<u> </u>			CIRCUIT DESCRIPTION	VIRE	No.	
-	SIZE			RCPT	MTR	A/C	KITCH MISC		POLE	A	В	+	†	MISC	KITCH	A/C	MTR	RCPT	CONT	S	SIZE		
1	#6 AWG	EVCS#3	3.84					40	2	7.68		2	40						3.84	EVCS#4 #6	5 AWG		
3	X	X	3.84					Χ	X		7.68	X	X						3.84	X	X	_4	
5		FUTURE LOAD (EVCS#7)	3.84					40	2	7.68		2	40						3.84	FUTURE LOAD (EVCS#8)		6	
7		X	3.84					Χ	X		7.68	X	X						3.84	X		8	
9		SPACE								0.00										SPACE		10	
11		SPACE					0.00									SPACE		12					
13		SPACE								0.00										SPACE		14	
15		SPACE									0.00									SPACE		16	
17		SPACE								0.00										SPACE		18	
19		SPACE									0.00									SPACE		20	
21		SPACE								0.00										SPACE		22	
23		SPACE									0.00									SPACE		24	
		4.2	LOADS W/ NEC 220 DEMAND FACTORS (KVA)			TO 1	TAL	15.36	15.36	0.00	0.00	0.00	0.00	0.00	30.72	CONNECTED KVA 30.72							
						<u> </u>	KITCH MISC							DANIEL MOTEO									
DEMAND LOAD PHASE-A (KVA) 19.20 0.00 0.00 0.00 0.00 0.00							.20	CONTINUOUS	PANEL NOTES									—					
DEMAND LOAD PHASE-B (KVA) 19.20 0.00 0.00 0.00 0.00 0.00							.20	CONTINUOUS LOAD: 125% LOAD 1) IF PANEL EXISTING AND ACTUAL CONNECTED KVA ARE NOT KNOWN, ASSUMPTION RECEPTACLES: 100% 1ST 10KW+50% REMAINING 1A) FOR CONTINUOUS LOADS CONNECTED LOAD ASSUMED TO BE 80% OF THE OCPD							•	AS:							
TOTAL DEMAND LOAD (KVA) 38.40 0.00 0.00 0.00 0.00 0.00						38.																	
LARGEST DEMAND LOAD OF ANY PHASE (KVA)						19.		MOTORS: 125% LARGEST MTR+100% REMAINING 1B) FO NON-CONTINUOUS LOADS CONNECTED LOAD ASSUMED TO BE 100% OF THE OCPD RATING.									_						
LARGEST DEMAND LOAD OF ANY PHASE (AMP) TOTAL DEMAND LOAD OF ALL PHASES (KVA)							16		A/C OR HEAT: 100% LOAD 2) DESIGN IS BASED ON NEC TABLE 310.15(B)(16) COPPER THHN CONDUCTORS. EXISTING CO									CTORS AND	ر				
								38.		KITCHEN: 65% LOAD WIRING MAY NEED TO BE INSPECTED AND VERIFIED BY ELECTRICAL CONTRACTOR.													
	TOTAL DEMAND LOAD OF ALL PHASES (AMP)							16	50	MISC: 100% LOAD 3)EVCS ARE							3)EVCS ARE CONSIDERED CONTINOUS LOADS AND ACTUAL NAME PLATE VALUES ARE USED.						

	CON	NDUIT FILL CA	_CULATOR Select wire type THHN								
Wire Size	Enter number of conductors for each size	Total Area sq-inch	Conduit Trade Size	Trough and Conduit ID Sizes	Total area in square inches	20% Fill of trough 40% Fill of Conduit	Current total Area sq. inches	Current fill percent			
18			TROUGH	4.000	16.000	3.200	0.2239	1.40%			
16				6.000	36.000	7.200	0.2239	0.62%			
14		0.0000		8.000	64.000	12.800	0.2239	0.35%			
12		0.0000	PVC	Select ty	oe of conduit						
10	1	0.0211	0.50	000.562	0.248	0.099	0.2239				
8		0.0000	0.75	000.722	0.409	0.164	0.2239				
6	4	0.2028	1	000.936	0.688	0.275	0.2239	32.54%			
4		0.0000	1.25	001.255	1.237	0.495	0.2239	18.10%			
3		0.0000	1.50	001.476	1.711	0.684	0.2239	13.09%			
2		0.0000	2	001.913	2.874	1.150	0.2239	7.79%			
1		0.0000	3	002.864	6.442	2.577	0.2239	3.48%			
1/0		0.0000	3.5	003.326	8.688	3.475	0.2239	2.58%			
2/0		0.0000	4.0	003.786	11.258	4.503	0.2239	1.99%			
3/O		0.0000									
4/0		0.0000		NOTE:							
250		0.0000		1) All dimens	ions are from ma	nufacturers	specifications	S .			
300		0.0000		2) Dimension	s are based on 2	2017 NEC.					
350		0.0000		3) ID area ba	ased on NEC 201	7 Table 4 C	hapter 9.				

ELECTRICAL RISER DIAGRAM

MINIMUM FEEDER AMPACITY SELECTION (AMP) 160

KEY NOTES:

- 1 ALL ELECTRICAL WORK AND RELATED ACTIVITIES PERFORMED ON-SITE SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (NEC) STANDARDS BEING ENFORCED BY ALL APPLICABLE JURISDICTIONAL REQUIREMENTS AT THE TIME OF CONSTRUCTION.
- UTILITY EQUIPMENT INSTALLATIONS AND PREP WORK SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY ENGINEER AT TIME OF PRECONSTRUCTION MEETING TO ENSURE ACCURACY OF INSTALLATIONS.
- 3 CONDUIT PATHS ARE REPRESENTATIVE ONLY. EXACT CONDUIT PLACEMENT TO BE DETERMINED ON SITE BASED ON FIELD CONDITIONS.
- 4 A NATIONALLY RECOGNIZED TESTING LABORATORY SHALL LIST ALL EQUIPMENT IN COMPLIANCE WITH NEC ARTICLE 110.3
- 5 ALL EXTERIOR EQUIPMENT SHALL BE RAIN TIGHT AND APPROVED FOR USE IN WET CONDITIONS.
- 6 ALL CONDUCTORS TO BE THHN COPPER
- 7 ALL CONDUCTORS AND CABLES SHALL BE PROVIDED WITH STRAIN RELIEF UPON ENTRY INTO ENCLOSURES
- 8 EACH UNGROUNDED CONDUCTOR SHALL BE IDENTIFIED BY PHASE AND SYSTEM PER NEC 210.5
- 9 ALL METALLIC COMPONENTS SHALL BE GROUNDED VIA ELECTRIC GROUNDING CONDUCTORS.
- (10) ALL UNDERGROUND CONDUIT TO BE UL RATED, MINIMUM 24" DEEP.
- WIRING FOR ELECTRICAL VEHICLE CHARGING STATIONS TO BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND SPECIFICATIONS.
- CONTRACTOR TO ENSURE THAT ALL FEEDERS, CONDUITS, CONDUCTORS, OCPD, TRANSFORMERS, ELECTRICAL PANELS AND OTHER ELECTRICAL EQUIPMENT IS SIZED TO COMPLY WITH CURRENT NEC AND LOCAL AHJ CODES.
- CONTRACTOR IS RESPONSIBLE TO VERIFY DESIGN, ENGINEERING ASSUMPTIONS AND EXISTING FIELD CONDITIONS. REPORT ANY INSUFFICIENCIES TO ENGINEER OF RECORD PRIOR TO ANY WORK BEING PERFORMED.
- ELECTRICAL PANEL PROVIDING POWER TO EVCS MUST BE IN COMPLIANCE WITH NEC 625.43, READILY ACCESSIBLE LOCATION. THE DISCONNECTING MEANS SHALL BE LOCKABLE OPEN IN ACCORDANCE WITH 110.25.
- (15) GROUNDING INSTALLATION AS PER NEC ART. 250.
- PANEL-EV KAIC RATING:
 XFMR-EV 30KVA, IF XFMR-EV %Z>0.83 THEN 10KAIC. IF XFMR-EV<0.83 THEN 22KAIC.
 XFMR-EV 45KVA, IF XFMR-EV %Z>1.3 THEN 10KAIC. IF XFMR-EV<1.3 THEN 22KAIC.
 XFMR-EV 75KVA, IF XFMR-EV %Z>2 THEN 10KAIC. IF XFMR-EV<2 THEN 22KAIC.
 XFMR-EV 112.5KVA, IF XFMR-EV %Z>3.13 THEN 10KAIC. IF XFMR-EV<3.13 THEN 22KAIC.
 XFMR-EV 150KVA, IF XFMR-EV %Z>4.17 THEN 10KAIC. IF XFMR-EV<4.17 THEN 22KAIC.
- THE CONTRACTOR TO VERIFY THE KAIC RATING OF THE PANEL-EV PRIOR INSTALLING TO THE SITE. COORDIANTE WITH THE UTILITY.

PROFESSIONAL ENGINEERING:

DURAK EVRIM ERCAN P.E.

ENGINEERING | CONSULTING | ESTIMATING

201-920-2899 ☑info@AmperEngineering.com

SEAL & SIGNATURE:



CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE INFORMATION IN THIS DRAWING IS PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE

THE ENGINEER OF RECORD SHALL NOT HAVE

ENGINEER OF RECORD.

THIS DESIGN IS NOT TO BE USED FOR CONSTRUCTION UNLESS P.E. STAMPED, SIGNED, DATED AND ONE OF THE REVISION STATES "ISSUED FOR CONSTRUCTION", "IFC" OR "HECHIPATED"

OR '	'IFC UPDATE	ED".
2	10/24/2022	RE-ISSUED FOR PERMIT
1	09/29/2022	ISSUED FOR PERMIT

ELECTRIFY

REV. DATE

EVSE

0 08/18/2022 ISSUED FOR APPROVAL

DESCRIPTION

PEACH CORNERS
EVCS
INSTALLATION

ADDRESS:
5051 PEACHTREE
CORNERS CIRCLE,
PEACHTREE CORNERS,
GA 30092

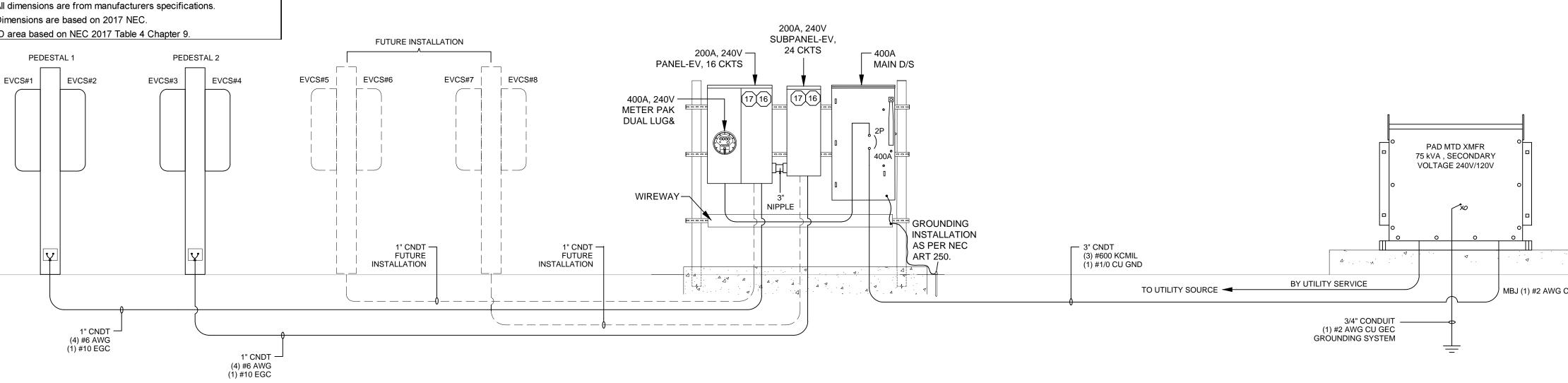
AMPER PROJECT NUMBER:

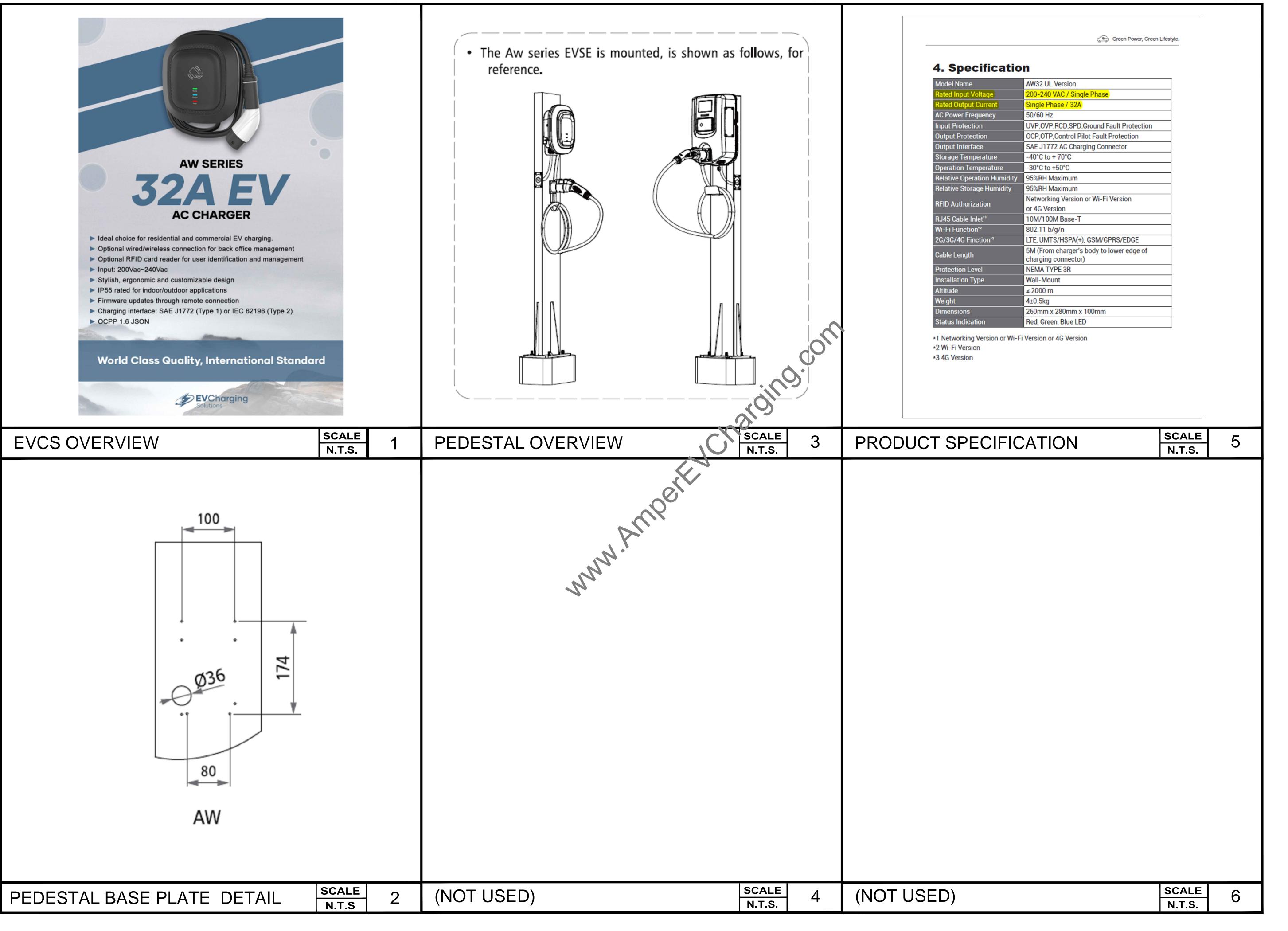
1		
	SHEET SIZE:	DRAWN BY:
	24X36	IB
	DESIGNED BY:	CHECKED BY:
	AC	DEE

SHEET TITLE:
ELECTRICAL RISER
DIAGRAM & CALCULATIONS

SHEET NO:

EV04





PROFESSIONAL ENGINEERING:

DURAK EVRIM ERCAN P.E

ENGINEERING | CONSULTING | ESTIMATING

201-920-2899 info@AmperEngineering.com

SEAL & SIGNATURE:



CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFET PRECAUTIONS AND PROGRAMS IN CONNECTIO WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE INFORMATION IN THIS DRAWING IS PROPRIETARY. ANY REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PROHIBITE!

THE ENGINEER OF RECORD SHALL NOT HAVE

ENGINEER OF RECORD.

THIS DESIGN IS NOT TO BE USED FOR CONSTRUCTION UNLESS P.E. STAMPED, SIGNED, DATED AND ONE OF THE REVISION STATES "ISSUED FOR CONSTRUCTION", "IFC" OR "IFC UPDATED".

2 10/24/2022 RE-ISSUED FOR PERMIT
1 09/29/2022 ISSUED FOR PERMIT

0 08/18/2022 ISSUED FOR APPROVAL

DESCRIPTION

CLIENT:

ELECTRIFY

REV. DATE

EVSE

PROJECT:
PEACH CORNERS
EVCS

INSTALLATION

ADDRESS:
5051 PEACHTREE
CORNERS CIRCLE,
PEACHTREE CORNERS,
GA 30092

AMPER PROJECT NUMBER:

SHEET SIZE: DRAWN BY:

24X36 IB

DESIGNED BY: CHECKED BY:

AC DEE

SHEET TITLE: INSTALLATION DETAILS 3

SHEET NO: