

PENNSYLVANIA CONVENTION CENTER STREET LEVEL PARKING AREA EV CHARGING STATIONS

GENERAL NOTES:

- WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS WHICH INCLUDE THE OWNER/CONTRACT AGREEMENT, GENERAL AND SUPPLEMENTARY CONDITIONS, THE SPECIFICATIONS, THE DRAWINGS, AND ALL ADDENDA AND BULLETINS ISSUED BY THE OWNER OR ENGINEER.
- WORK SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL CONSTRUCTION, SAFETY, ACCESSIBILITY, AND SANITARY LAWS, CODES, STATUTES AND ORDINANCES. ALL DISCREPANCIES, VARIATIONS, OR OMISSIONS IN THE CONTRACT DOCUMENTS SHALL BE REPORTED PROMPTLY TO THE OWNER AND ENGINEER.
- THE CONTRACTOR SHALL COORDINATE, FILE, OBTAIN AND PAY FEES FOR BUILDING DEPARTMENT AND OTHER AGENCY APPROVALS, PERMITS AND INSPECTIONS. COPIES OF TRANSACTIONS ARE TO BE FORWARDED TO OWNER PRIOR TO COMMENCING WORK. CONTRACTOR SHALL POST ALL APPLICABLE BUILDING PERMITS IN A VISIBLE LOCATION READY FOR INSPECTION BY THE PROPER AUTHORITIES HAVING JURISDICTION.
- THE CONSTRUCTION AREAS SHALL REMAIN SECURE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, DIMENSIONS AND DETAILS PRIOR TO CONSTRUCTION. THE ENGINEER AND OWNER SHALL BE NOTIFIED OF ALL DISCREPANCIES OR OMISSIONS WHICH WOULD INTERFERE WITH THE SATISFACTORY COMPLETION OF THE WORK, PRIOR TO THE START OF ALL WORK.
- DRAWINGS ARE NOT TO BE SCALED. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY. THE WORK INDICATED ON THE DRAWINGS SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPLIANCES AND LABOR NECESSARY TO COMPLETE THE WORK. VERIFY ALL EQUIPMENT LOCATIONS WITH THE OWNER.
- INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFIED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- CONFIRM THE ORDERING AND DELIVERY DATES OF LONG LEAD ITEMS WITH THE OWNER TO INSURE AGAINST DELAYS IN PROJECT COMPLETION.
- THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, FOR THE COORDINATION OF WORK AND FOR THE WORK PERFORMED BY ITS SUBCONTRACTORS.
- PROTECT BUILDING PREMISES AND OCCUPANTS ON PROJECT SITE FROM DAMAGE WITH TEMPORARY PROTECTING COVERS AND BARRIERS, DUST PROOFING, AND SHORING, OR AS REQUIRED. REPAIR ANY DAMAGE IN SHORING AS REQUIRED. REPAIR ANY DAMAGE IN KIND AT NO ADDITIONAL COST TO THE PARTY AFFECTED.
- THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT AND AS-INSTALLED DRAWINGS TO THE OWNER AT THE COMPLETION OF THE WORK. THIS CAN BE RED LINED VERSIONS OF THE CONTRACT DRAWINGS OR NEW DRAWINGS IN A FORM ACCEPTABLE TO THE OWNER.
- ALL WORK PERFORMED AND MATERIALS SHALL BE NEW AND MEET THE HIGHEST TRADE STANDARDS. AS A MINIMUM STANDARD, CONFORM WITH ALL SPECIFICATIONS AND APPLICABLE CODES, REGULATIONS AND ORDINANCES HAVING JURISDICTION.
- DIMENSIONS ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE.
- WORK UNDER THIS CONTRACT INCLUDES GENERAL, AND ELECTRICAL CONSTRUCTION, RIGGING, AND TRANSPORTATION REQUIRED TO PERFORM THE WORK.
- THE WORD "INSTALL" OR "PROVIDE" MEANS FURNISH AND INSTALL NEW EQUIPMENT. EQUIPMENT THAT SHALL BE PROVIDED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
- ALL WORK SHALL BE PERFORMED WHILE THE BUILDING IS OCCUPIED. EXTREME CARE AND ALL NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO MAINTAIN THE CLEANLINESS OF THE WORK AREA AND TO PREVENT DAMAGE TO NEW EQUIPMENT AND MATERIAL THAT WILL BE REUSED OR WILL REMAIN.
- THE CONTRACTOR SHALL ALLOW FOR WORK BEING PERFORMED BY OTHER CONTRACTORS AND SHALL COORDINATE WITH THE OWNER SO THAT NO WORK IS DELAYED.
- THE CONTRACTOR SHALL PROVIDE ALL REQUIRED ILLUMINATED BARRICADES, WARNING DEVICES, AND SAFETY EQUIPMENT OR DEVICES REQUIRED TO MAINTAIN A SAFE WORK ENVIRONMENT.
- PROVIDE ADHESIVE LABELS, OR PLASTIC NAMEPLATES, AS NOTED ON THE DRAWINGS. ON ALL NEW AND EXISTING EQUIPMENT AFFECTED BY THE WORK ON THIS PROJECT, ADHESIVE LABELS AND NAMEPLATES SHALL PROVIDE THE INFORMATION SHOWN ON THE DRAWINGS AND WHEN APPLICABLE, THE CIRCUIT NUMBER AND THE PANELBOARD WHICH FEEDS THE EQUIPMENT.
- CONTRACTOR SHALL FIRE STOP ALL PENETRATIONS THROUGH RATED CONSTRUCTION USING U.L. LISTED THROUGH PENETRATION FIRE STOPS, "3M" OR APPROVED EQUAL.
- MAINTAIN PERMANENT OR TEMPORARY EMERGENCY LIGHTING AND EXIT SIGNS IN OPERATION THROUGHOUT CONSTRUCTION.
- CONTRACTOR SHALL USE ULTRASONIC EQUIPMENT OR OTHER APPROVED METHOD TO ENSURE NO OBSTACLES ARE BELOW GRADE OR IN FLOORS PRIOR TO DRILLING OR CUTTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS INVOLVED WITH HITTING AN OBSTACLE DURING DIGGING AND CUTTING.

- ALL NEW FEEDERS SHALL BE MEGGER TESTED. THE RESULTS OF THE TEST SHALL BE PROVIDED TO THE ENGINEER AND THE OWNER.
- AS DIRECTED BY THE OWNER, THE CONTRACTOR SHALL PROVIDE A JOB SITE CONSTRUCTION OFFICE TRAILER, EQUIPMENT TRAILER AND PORT-A-POTTY FOR USE OF ITS PERSONNEL AND TO SECURE ITS MATERIAL AND EQUIPMENT PRIOR TO INSTALLATION. THE OWNER WILL PROVIDE A LOCATION WHERE THE CONTRACTOR CAN CONNECT TO A 120 VOLT ELECTRICAL CIRCUIT FOR THE EQUIPMENT TRAILER.
- ALL SHUTDOWNS MUST BE PLANNED WELL IN ADVANCE AND COORDINATED WITH THE OWNER. CONTRACTOR MUST PROVIDE A LIST OF ALL REQUIRED SHUTDOWNS WITH THEIR BID PACKAGE, INDICATING APPROXIMATE DATE OF SHUTDOWNS AND DURATION.
- CONDUIT LAYOUTS ARE DIAGRAMMATIC. EXACT LOCATIONS, ROUTING, AND MOUNTING HEIGHTS FOR CONDUIT INSTALLATION SHALL BE COORDINATED IN THE FIELD BY THE CONTRACTOR AND ARE SUBJECT TO APPROVAL BY THE OWNER.

REMOVALS NOTES:

- REMOVALS WORK SHOWN OR DESCRIBED ON THE DRAWINGS IS DESCRIPTIVE OF THE WORK TO BE PERFORMED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONSULT WITH THE OWNER FOR ADDITIONAL WORK WHICH MAY BE REQUIRED.
- THE CONTRACTOR SHALL DISCONNECT, REMOVE AND WHERE REQUIRED, RELOCATE AND REINSTALL ANY EXISTING EQUIPMENT WHICH INTERFERE WITH THE INSTALLATION OF NEW WORK. COORDINATE ALL SUCH REMOVALS AND RELOCATIONS WITH THE OWNER.
- UNLESS NOTED OTHERWISE, EQUIPMENT AND MATERIALS TO BE REMOVED AND NOT REINSTALLED SHALL BECOME THE PROPERTY OF THE CONTRACTOR, WHO SHALL REMOVE IT FROM THE SITE AND DISPOSE OF SAME IN A PROPER AND LEGAL MANNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL SYSTEMS AND EQUIPMENT REQUIRING RELOCATION TO FULL OPERATING CONDITION, TO THE COMPLETE SATISFACTION OF THE OWNER.
- INSTALLATION OF RELOCATED EQUIPMENT AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA/ANSI 70), STATE AND LOCAL CODES, AND ALL APPLICABLE OWNER REQUIREMENTS.
- EXCEPT AS NOTED, EXISTING WIRE, CABLES, CABLE TRAYS, AND CONDUITS TO BE REMOVED SHALL NOT BE REUSED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF EXISTING AND NEW STRUCTURES AS REQUIRED FOR REMOVALS AND RELOCATIONS, AND FOR INSTALLATION OF NEW WORK.
- ALL OPENINGS IN EXISTING CONSTRUCTION CREATED BY THE REMOVAL OF EXISTING EQUIPMENT AND CONDUITS SHALL BE SEALED USING MATERIALS APPROVED BY THE OWNER.
- PRIOR TO STARTING WORK, THE CONTRACTOR SHALL VERIFY THAT WIRING AND CONDUITS SCHEDULED FOR REMOVAL SERVE ONLY EQUIPMENT SCHEDULED FOR REMOVAL.

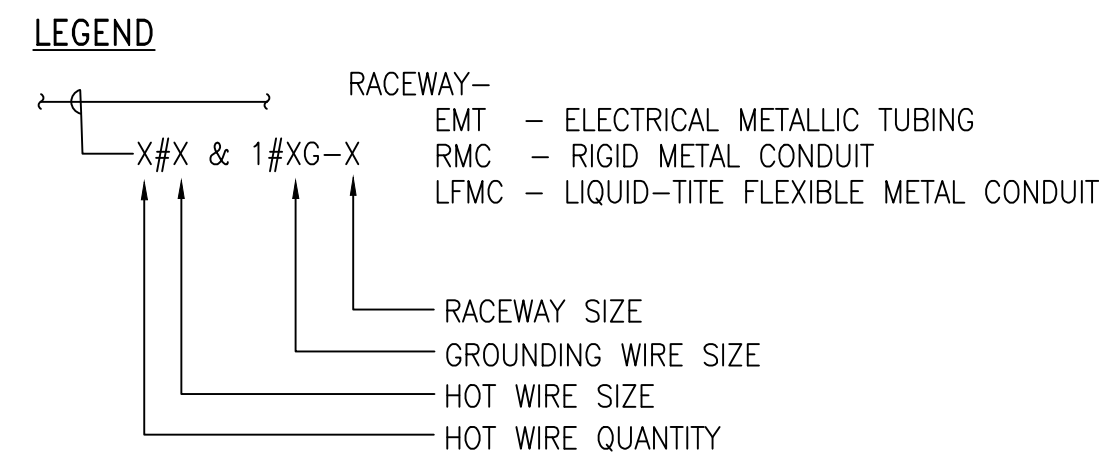
SCOPE OF WORK

- THE PENNSYLVANIA CONVENTION CENTERS (PACC) WILL PURCHASE FOUR (4) NEW SIEMENS VERSICHARGE GEN 3: LEVEL 2 CHARGERS WITH ONE (1) 95" PEDESTAL + CABLE RETRACTION SYSTEM FROM SIEMENS WITH STARTUP AND COMMISSIONING SERVICES. TWO (2) OF THE FOUR (4) EV CHARGERS WILL REPLACE EXISTING SIEMENS EV CHARGERS AND SHALL BE INSTALLED ON THE EXISTING 95" PEDESTAL + CABLE RETRACTION SYSTEM, AS DIRECTED BY SIEMENS. THE OTHER TWO (2) EV CHARGERS WILL BE INSTALLED ON THE NEW 95" PEDESTAL + CABLE RETRACTION SYSTEM, WHICH SHALL BE ANCHORED TO THE FLOOR AS DIRECTED BY SIEMENS AND BASED ON THE INSTALLATION MANUAL AND INSTRUCTIONS. THE EXACT LOCATION OF THE NEW 95" PEDESTAL + CABLE RETRACTION SYSTEM WILL BE SPECIFIED AND APPROVED BY THE PACC.
- DISCONNECT AND REMOVE TWO (2) EXISTING EV CHARGERS ON THE EXISTING 95" PEDESTAL + CABLE RETRACTION SYSTEM; REPLACE THEM WITH NEW EV CHARGERS THAT SHALL BE CONNECTED TO THE SAME BRANCH CIRCUIT CONDUCTORS WHICH FED THE REMOVED EV CHARGERS.
- CONSTRUCT A NEW TRANSFORMER HOUSEKEEPING PAD.
- FURNISH AND INSTALL A NEW 112.5 KVA, 3Ø, 480 VOLT TO 208/120 VOLT, K13 RATED, DRY TYPE, DOE 2016, 150° RISE, VENTILATED TRANSFORMER, SQUARE D CATALOG NUMBER EXN112T3HCUNLP OR EQUAL. THERE SHALL BE 6" BETWEEN THE WALL AND THE BACK OF THE TRANSFORMER.
- FURNISH AND INSTALL A NEW 480 VOLT, 200 AMP, 3Ø FEEDER FROM THE EXISTING SPARE 200 AMP CIRCUIT BREAKER IN SUBSTATION #2 TO THE NEW 112.5 KVA TRANSFORMER. THE FEEDER SHALL BE RUN ABOVE A SUSPENDED TILE CEILING OR EXPOSED, FOLLOWING THE ROUTE SHOWN ON THE DRAWING. THE SCOPE INCLUDES THE REMOVAL AND REPLACEMENT OF THE CEILING TILES.
- FURNISH AND INSTALL A NEW EYEBOLT, LIKE OTHER EXISTING EYEBOLTS, ON THE HOUSEKEEPING PAD BELOW THE 480 VOLT, 200 AMP, CIRCUIT BREAKER IN SUBSTATION THAT CAN BE USED FOR LOCKOUT-TAGOUT.
- FURNISH AND INSTALL A NEW #1/0 GROUNDING ELECTRODE WIRE, RACEWAY AND TERMINATION LUGS FROM THE 112.5 KVA TRANSFORMER'S SECONDARY TERMINAL PAD TO A NEW GROUND LUG, REFER TO THE SPECIFICATIONS ON THIS DRAWING, TO BOND THE TRANSFORMER'S NEUTRAL TO EFFECTIVELY GROUNDING BUILDING STEEL.

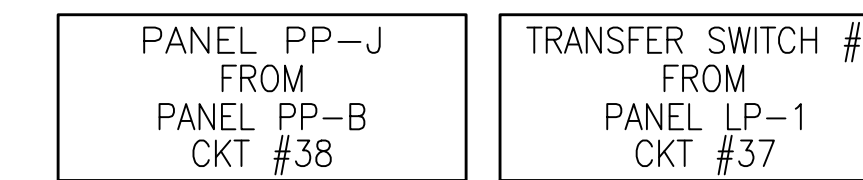
ELECTRICAL SPECIFICATIONS:

- A MATERIAL AND EQUIPMENT SUPPLIED BY THE CONTRACTOR SHALL BE NEW UL LISTED AND INSTALLED IN ACCORDANCE WITH THE UL LISTING, THE APPLICABLE BUILDING AND FIRE CODES AND THE MANUFACTURE'S REQUIREMENTS AND TO OWNER'S SATISFACTION.
- THE CONTRACTOR SHALL PROVIDE MANUFACTURERS' CUT SHEETS FOR ALL MATERIAL IT IS PROVIDING FOR REVIEW AND APPROVAL BY OWNER'S PRIOR TO PURCHASING MATERIAL AND EQUIPMENT. ONLY MATERIAL APPROVED BY PACC SHALL BE INSTALLED ON THIS PROJECT.
- RACEWAY SHALL BE UL FJM-X-STEEL ELECTRICAL METAL TUBING (EMT-S) WITH COMPRESSION FITTINGS EXCEPT IN THE PARKING GARAGE WHERE RACEWAY SHALL BE UL DUYX-GALVANIZED STEEL ELECTRICAL RIGID METAL CONDUIT (ERMC-S-G) AND FOR CONNECTIONS TO THE EV STATIONS WHERE RACEWAY SHALL BE UL DXHR-STEEL LIQUID-TIGHT FLEXIBLE METAL CONDUIT (LFMC-S).
- GROUNDING ELECTRODE CONDUCTOR CONNECTOR SHALL BE UL LISTED, COPPER, BURNDY MODEL GBL30 OR EQUAL WITH LUG SUITABLE FOR A #4/0 BARE COPPER WIRE.
- POWER WIRE SHALL BE THE GAUGES SHOWN ON THE DRAWING OR AS REQUIRED BY THE NEC, WHICHEVER IS LARGER, STRANDED COPPER NEC TYPE THHN/THWN AND SHALL BE INSTALLED WITHOUT SPLICES UNLESS NOTED OTHERWISE. WIRES SHALL BE THE COLORS SHOWN ON THE TABLE ON THIS DRAWING OR SHALL BE LABELED WITH THE COLORS SHOWN ON THE TABLE ON THIS DRAWING FOR SIZES WHERE COLOR WIRE IS NOT READILY AVAILABLE.
- POWER WIRE TERMINATION LUGS SHALL BE HIGH COPPER ALLOY, MECHANICAL TYPE AND SUITABLE FOR THE INSTALLATION.
- JUNCTION AND PULL BOXES SHALL BE GALVANIZED STEEL, UL LISTED OR LABELED WITH GALVANIZED STEEL COVER PLATES AND SHALL BE GROUNDED IN ACCORDANCE WITH THE NEC. PROVIDE GROUNDING WIRE AND HIGH COPPER ALLOY GROUNDING LUGS AND HARDWARE.

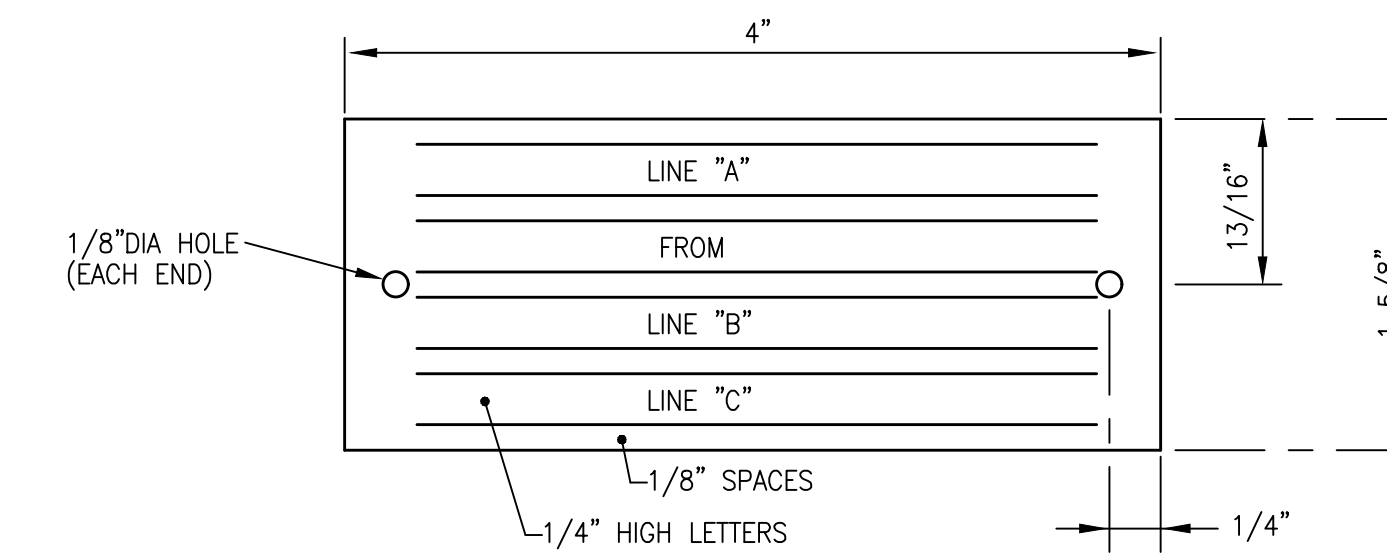
FEEDER COLOR TABLE		
PHASE/VOLTAGE	208/120 VOLTS	480/277 VOLTS
PHASE A	BLACK	BROWN
PHASE B	RED	ORANGE
PHASE C	BLUE	YELLOW



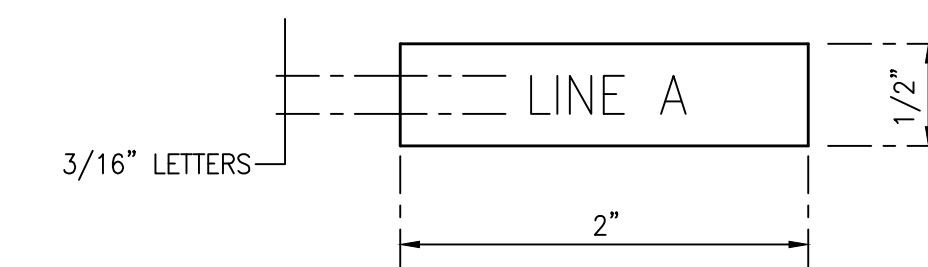
DRAWING LIST			
DRAWING NUMBER	DESCRIPTION	DATE	REV.
E-1	GENERAL PROJECT INFORMATION AND DRAWING LIST	7/30/24	0
E-2	ELECTRICAL EXISTING PLAN AND DETAILS	7/30/24	0
E-3	ELECTRICAL INSTALLATION PLAN AND DETAILS	7/30/24	0



SAMPLE NAMEPLATES



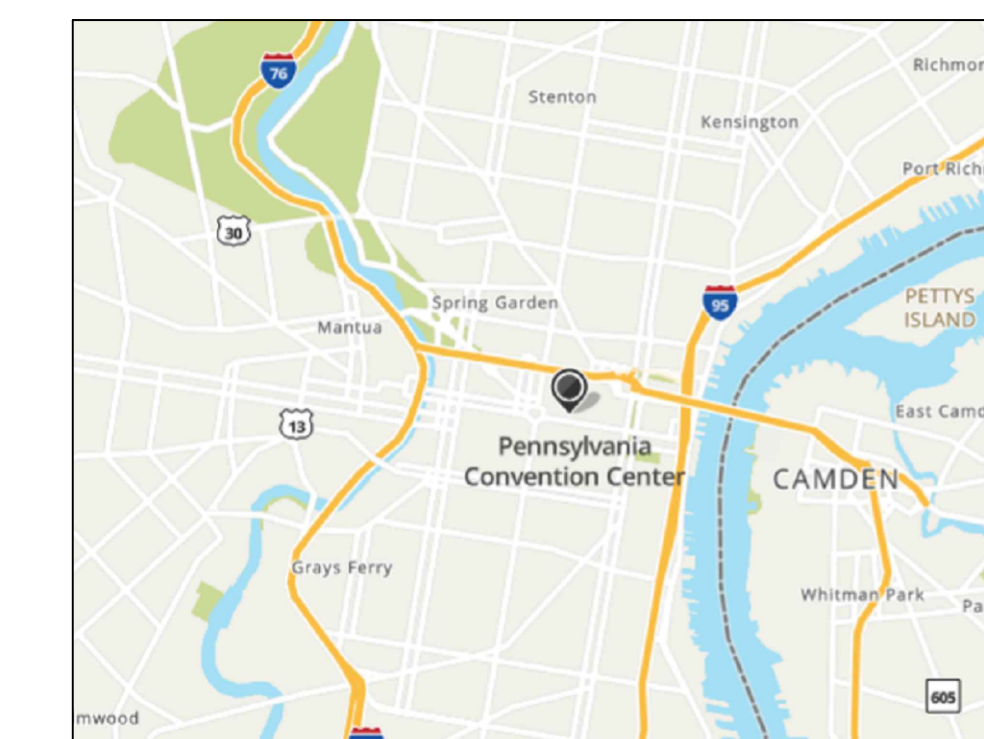
- NAMEPLATES SHALL BE 4" x 1 5/8" x 1/16" THICK TWO PLY "GRAVOPLY", BACKGROUND AND LETTER COLORS AS INDICATED IN NOTE 4 OF DETAIL 2/E6.
- LETTERS SHALL BE ENGRAVED BLOCK TYPE 1/4" HIGH, MAXIMUM 21 TO A LINE.
- NAMEPLATES SHALL BE ATTACHED TO EQUIPMENT WITH POP RIVETS.
- LETTERING SHALL BE AS FOLLOWS:
LINE "A" - EQUIPMENT IDENTIFICATION (PANEL NUMBER, FAN OR PUMP NUMBER, ETC).
LINE "B" - POWER SOURCE (PANEL NUMBER, BUS DUCT LOCATION, ETC).
LINE "C" - ADDITIONAL INFORMATION (XFMR SIZE, CIRCUIT NUMBER, ETC).



- NAMEPLATES SHALL BE 2" x 1/2" x 1/16" THICK TWO PLY "GRAVOPLY", BACKGROUND COLOR AND LETTER COLOR AS INDICATED IN NOTE 4.
- LETTERS SHALL BE ENGRAVED BLOCK TYPE 3/16" HIGH, MAXIMUM 20 TO A LINE.
- NAMEPLATES SHALL BE ATTACHED TO SWITCH OR RECEPTACLE PLATE WITH DOUBLE STICK TAPE.
- NAMEPLATE AND LETTER COLORS SHALL BE AS FOLLOWS:
NORMAL POWER - WHITE BACKGROUND WITH BLACK LETTERS
STANDBY POWER - YELLOW BACKGROUND WITH BLACK LETTERS
UPS POWER - ORANGE BACKGROUND WITH WHITE LETTERS

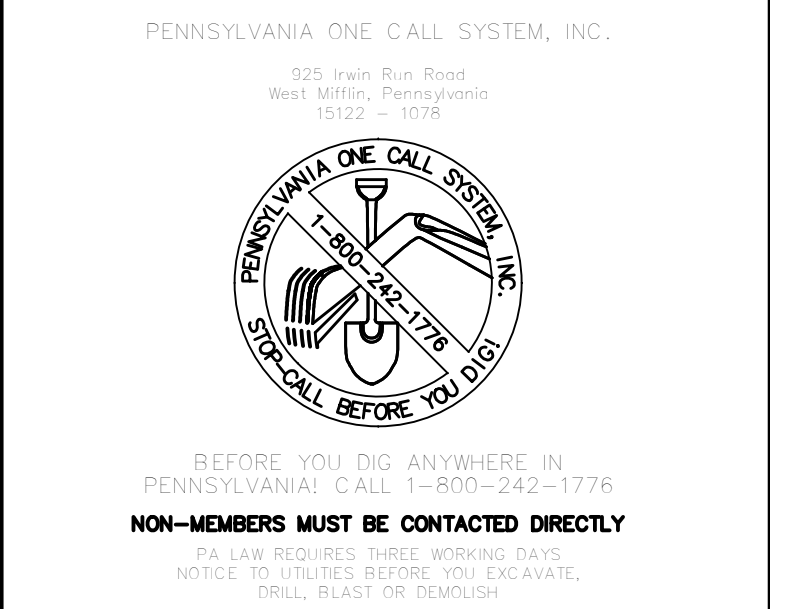
1 NAMEPLATES FOR ELECTRICAL EQUIPMENT SCALE: NONE

- FURNISH AND INSTALL THE NEW 400 AMP, 208/120 VOLT, 3Ø, 4 W PANELBOARD PP1-EV1 AS SHOWN AND SPECIFIED ON THE DRAWING. PANELBOARD SHALL BE A GE RELIAGEAR UNLESS AN EQUAL IS APPROVED BY THE PACC.
- FURNISH AND INSTALL A NEW 400 AMP, 208/120 VOLT, 3Ø TRANSFORMER SECONDARY FEEDER FROM THE NEW 112.5 KVA TRANSFORMER TO THE MAIN CIRCUIT BREAKER IN THE NEW PANELBOARD PP1-EV1. PROVIDE A NEW NAMEPLATE AND A TYPE-WRITTEN CIRCUIT DIRECTORY CARD.
- DISCONNECT AND REMOVE TWO (2) 60 AMP, 208 VOLT, 1Ø BRANCH CIRCUITS ORIGINATING IN PANELBOARD PP1-CC. PROVIDE NEW RACEWAY AND MODIFY THE TWO (2) 60 AMP, 208 VOLT, 1Ø BRANCH CIRCUITS, CONNECTING THEM TO THE DESIGNATED CIRCUIT BREAKERS IN THE NEW PANELBOARD PP1-EV1. PROVIDE NEW NAMEPLATES ON THE EXISTING LOCAL MOLDED CASE CIRCUIT BREAKER AND THE NEW EV CHARGING STATION, REMOVING OR COVERING OVER EXISTING CIRCUIT DESIGNATIONS.
- REMOVE THE TWO (2) 60 AMP, 240 VOLT, 1Ø CIRCUIT BREAKERS IN PANELBOARD PA1-CC. FURNISH AND INSTALL NEW FILLER PLATES TO COVER OPENINGS IN THE CIRCUIT BREAKER COVER PLATE WITHIN PANELBOARD PP1-CC. FURNISH AND INSTALL A NEW TYPE-WRITTEN CIRCUIT DIRECTORY CARD IN PANELBOARD PP1-CC THAT CLEARLY IDENTIFIES THE LOADS FOR ACTIVE CIRCUIT BREAKERS AND NOTES THE SPARE CIRCUIT BREAKERS AS "SPARE". AS NEEDED, PERFORM SURVEYS AND TEST CIRCUITS TO IDENTIFY THE ACTIVE LOADS.
- FURNISH AND INSTALL A NEW 60 AMP, 208 VOLT, 1Ø BRANCH CIRCUIT FROM PANELBOARD PP1-EV1 TO EACH OF THE NEW EV CHARGERS INCLUDING NEW 60 AMP, 240 VOLT, 2 POLE MOLDED CASE CIRCUIT BREAKERS LIKE THE ONES THAT ARE INSTALLED FOR THE EXISTING EV STATIONS, WHICH INCLUDE A SQUARE D CATALOG NUMBER QO2100BNRD ENCLOSURE AND A 60 AMP, 240 VOLT, 2 POLE, 10K AIC MOLDED CASE CIRCUIT BREAKER. PROVIDE NEW NAMEPLATES ON THE NEW LOCAL MOLDED CASE CIRCUIT BREAKER AND THE NEW EV CHARGING STATION. FURNISH AND INSTALL A NEW TYPE-WRITTEN CIRCUIT DIRECTORY CARD IN PANELBOARD PP1-EV1.



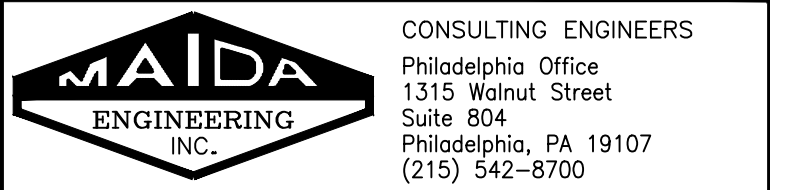
2 SITE LOCATION MAP SCALE: NONE

OWNER:	PENNSYLVANIA CONVENTION CENTER
ENGINEER:	Joseph F. Maida, P.E. 215-353-6110 Jmaida@maideng.com
SITE:	SEISMIC DESIGN CATEGORY IS "B"



PA ONE-CALL NUMBER (FOR DESIGN ONLY): XXXXXXXXXXXX
DPP PROJECT COORDINATOR: XXXXXXXXXXXX

SEAL:



PROJECT NO. E46012 DATE 7/30/24
PROJECT ENG. JFM
CHECKED

DPP PROJECT NUMBER: XX-XX-XXXX-XX

PROJECT TITLE: STREET LEVEL PARKING AREA EV CHARGING STATIONS

PHASE: XXXXX

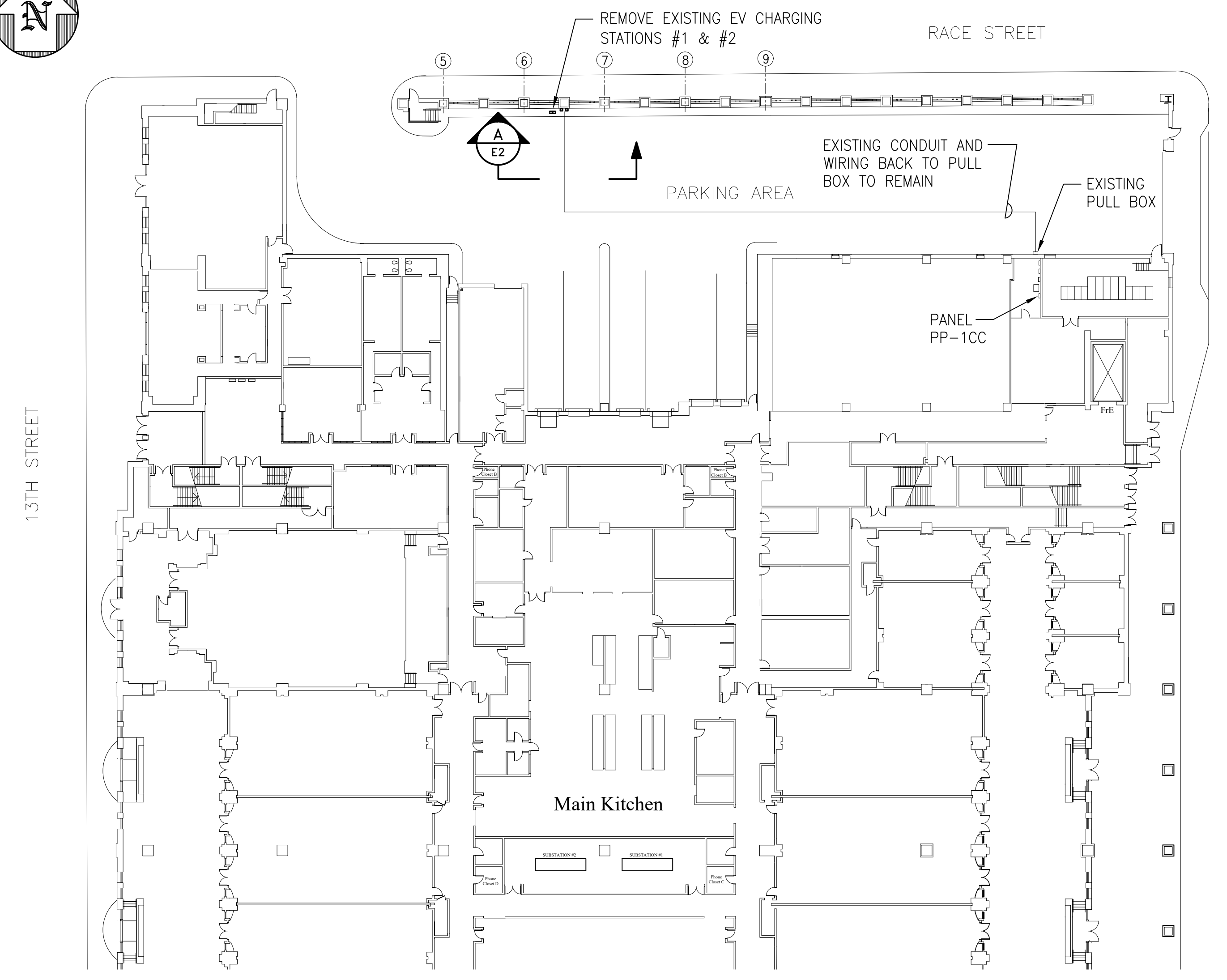
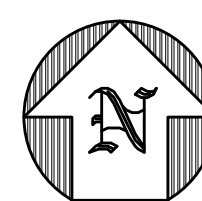
DRAWING TITLE: GENERAL PROJECT INFORMATION AND DRAWING LIST

PACC PROJECT NO.: XX-XX-XXXX-XX DRAWING NO.: XXXX-XXXX

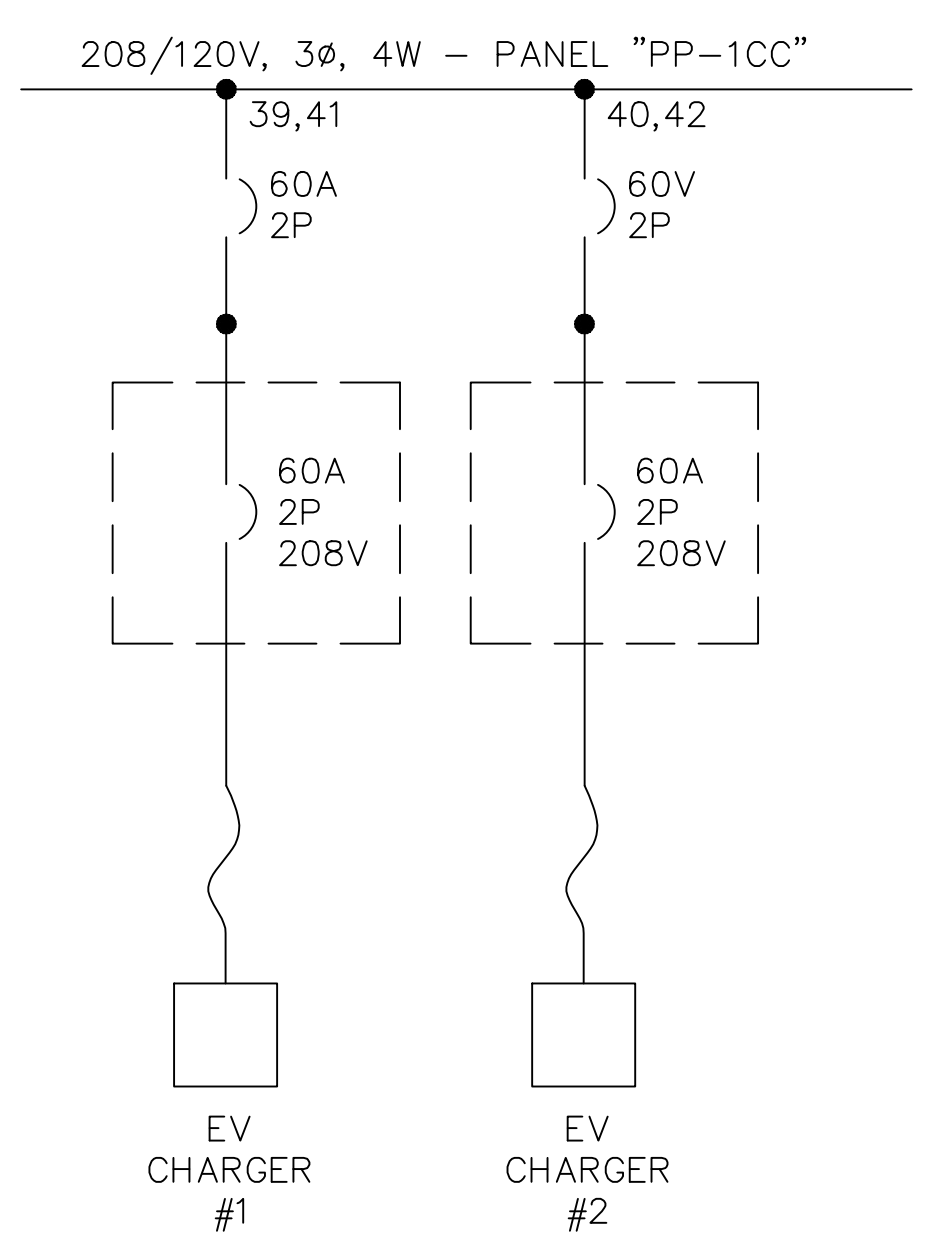
CONSULTANT PROJECT NO.: XXXX-XXXX
DATE: 08-12-2024
SCALE: NONE
DRAWN BY: LPI
CHECKED BY: JFM

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.

E1



1
E2 FIRST FLOOR EXISTING PARTIAL PLAN
SCALE: 1/32" = 1' - 0"



3
E2 EV CHARGING STATIONS SINGLE LINE DIAGRAM - EXISTING
SCALE: NONE

PANEL: PP-1CC (EXISTING)
208/120 VAC, 3 PHASE, 4 WIRE
400 AMPS MAIN COPPER BUS, 250 AMPS MAIN CIRCUIT BREAKER

FED FROM: PP-1DD VIA 45 KVA XFMR
MANUFACTURER: G.E.
CAT# AGF
SURFACE MOUNTING

LOAD KVA	LOAD DESCRIPTION	BREAKER DATA			CKT No.	CKT No.	BREAKER DATA			LOAD DESCRIPTION	LOAD KVA
		TRIP	POLES	TYPE			TRIP	POLES	TYPE		
	PANEL IN SHOPS	100A	3		1	2	1	20A			
					3	4	1	20A			
					5	6	1	20A	DED. REC. IN THIS ROOM		
	SPARE	20A	1		7	8	1	20A	MICROWAVE IN HGO OFFICE		
	SPARE	20A	1		9	10	1	20A	FRIG. IN HGO OFFICE		
	SPARE	20A	1		11	12	1	20A	REC. IN HGO OFFICE		
	SPARE	20A	1		13	14	1	20A	COPIER IN HGO OFFICE		
	SPARE	20A	1		15	16	1	20A	REC. IN HGO OFFICE		
	SPARE	20A	1		17	18	1	20A	REC. IN HGO OFFICE		
	SPARE	20A	1		19	20					
	SPARE	20A	1		21	22	2	30A	WASHING MACHINE		
	SPARE	20A	1		23	24	1	20A	SPARE		
	SPARE	20A	1		25	26	1	20A	SPARE		
	SPARE	20A	1		27	28	1	20A	SPARE		
	SPARE	20A	1		29	30	1	20A	SPARE		
	SPARE	20A	1		31	32	1	20A	SPARE		
					33	34					
					35	36	3	60A			
					37	38					
	CAR CHARGER	60A	2		39	40	2	60A	CAR CHARGER		
					41	42					

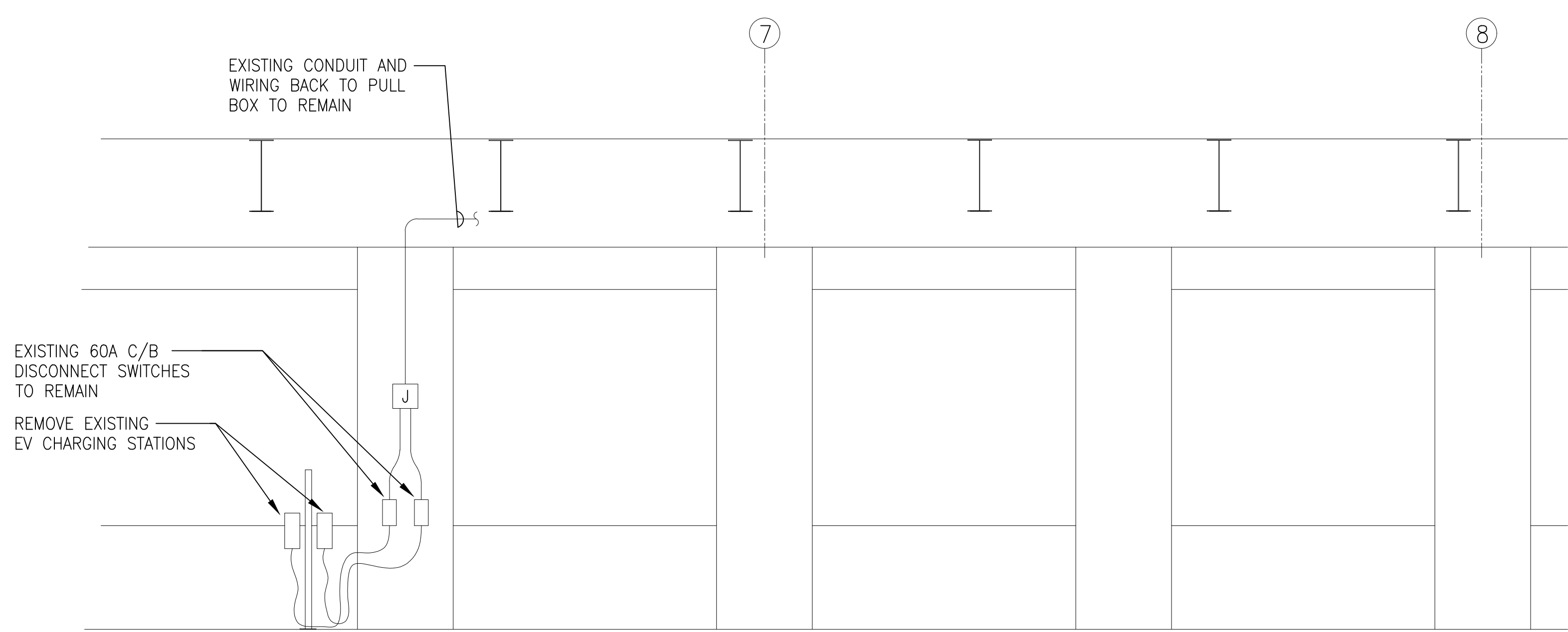
4
E2 PANEL PP-1CC - EXISTING
SCALE: NONE

PANEL: PP-1CC (NEW)
208/120 VAC, 3 PHASE, 4 WIRE
400 AMPS MAIN COPPER BUS, 250 AMPS MAIN CIRCUIT BREAKER

FED FROM: PP-1DD VIA 45 KVA XFMR
MANUFACTURER: G.E.
CAT# AGF
SURFACE MOUNTING

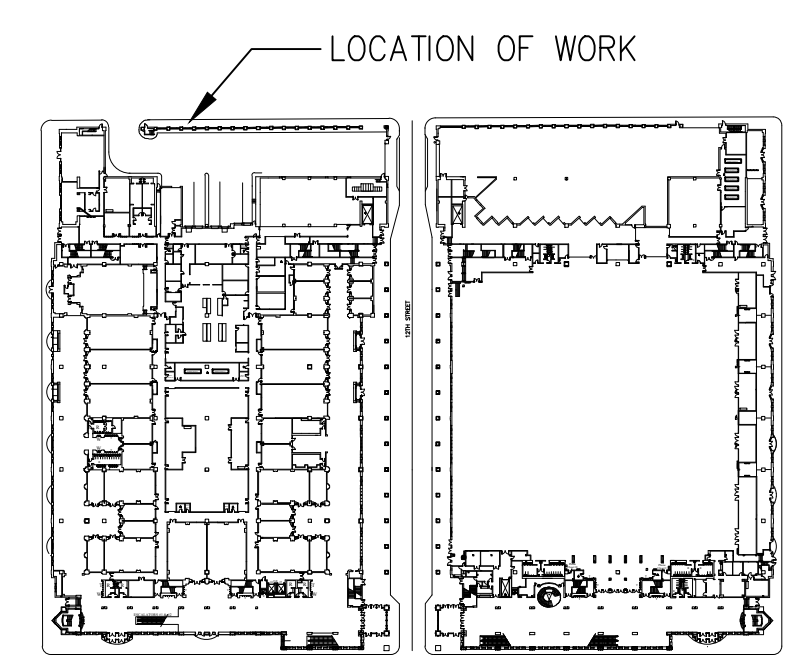
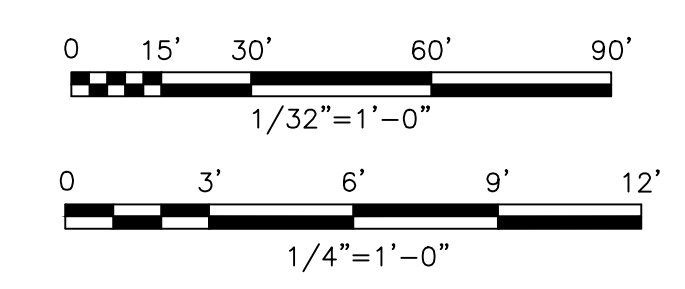
LOAD KVA	LOAD DESCRIPTION	BREAKER DATA			CKT No.	CKT No.	BREAKER DATA			LOAD DESCRIPTION	LOAD KVA
		TRIP	POLES	TYPE			TRIP	POLES	TYPE		
	PANEL IN SHOPS	100A	3		1	2	1	20A			
					3	4	1	20A			
					5	6	1	20A	DED. REC. IN THIS ROOM		
	SPARE	20A	1		7	8	1	20A	MICROWAVE IN HGO OFFICE		
	SPARE	20A	1		9	10	1	20A	FRIG. IN HGO OFFICE		
	SPARE	20A	1		11	12	1	20A	REC. IN HGO OFFICE		
	SPARE	20A	1		13	14	1	20A	COPIER IN HGO OFFICE		
	SPARE	20A	1		15	16	1	20A	REC. IN HGO OFFICE		
	SPARE	20A	1		17	18	1	20A	REC. IN HGO OFFICE		
	SPARE	20A	1		19	20					
	SPARE	20A	1		21	22	2	30A	WASHING MACHINE		
	SPARE	20A	1		23	24	1	20A	SPARE		
	SPARE	20A	1		25	26	1	20A	SPARE		
	SPARE	20A	1		27	28	1	20A	SPARE		
	SPARE	20A	1		29	30	1	20A	SPARE		
	SPARE	20A	1		31	32	1	20A	SPARE		
					33	34					
					35	36	3	60A			
					37	38					
	SPARE	60A	2		39	40	2	60A	SPARE		
					41	42					

5
E2 PANEL PP-1CC - NEW
SCALE: NONE



2
E2 ELEVATION "A-A"
SCALE: 1/4" = 1' - 0"

GRAPHIC SCALES



FIRST FLOOR - KEY PLAN

REVISIONS

ISSUE	DATE	REVISIONS



PENNSYLVANIA ONE CALL SYSTEM, INC.
800 South 30th Street
West Chester, Pennsylvania
19380-1078

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA, CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY
IF YOU REQUIRE THESE SERVICES, PLEASE NOTE: TO REQUEST BEFORE YOU EXCAVATE, PLEASE CALL OR DEMONSTRATE

PA ONE-CALL NUMBER (FOR DESIGN ONLY): XXXXXXXXXXXX

DPP PROJECT COORDINATOR: XXXXXXXXXXXX

SEAL:



CONSULTING ENGINEERS
Philadelphia Office
1315 Walnut Street
Suite 804
Philadelphia, PA 19107
(215) 542-8700

PROJECT NO. E46012 DATE

PROJECT ENG. JFM 7/30/24

CHECKED

DPP PROJECT NUMBER: XX-XX-XXXX-XX

PROJECT TITLE: FIRST LEVEL PARKING AREA EV CHARGING STATIONS

PHASE: XXXXX

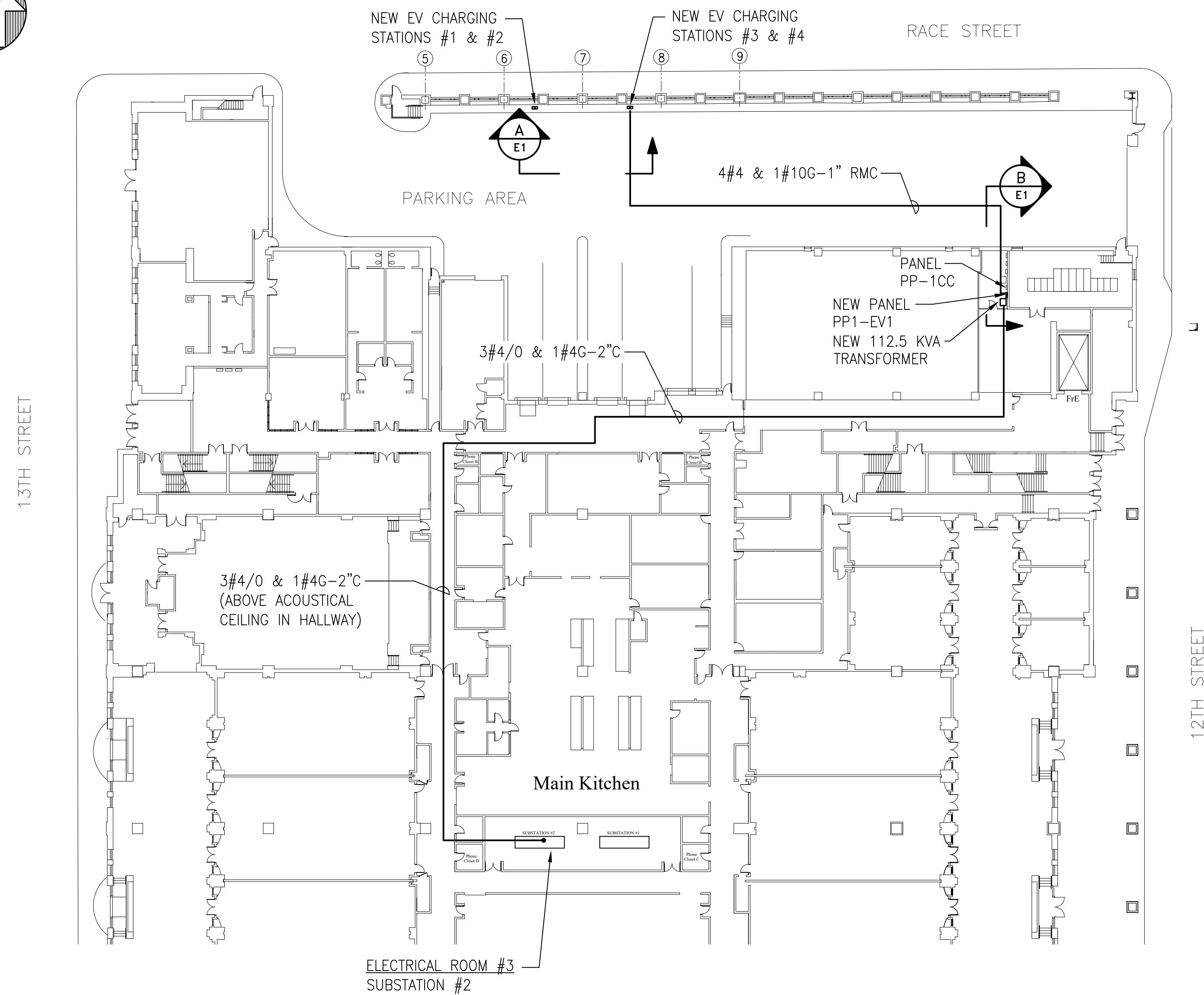
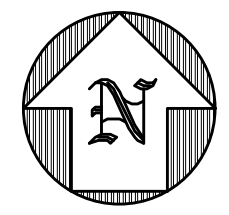
DRAWING TITLE: EV CHARGING STATIONS ELECTRICAL EXISTING PLAN AND DETAILS STREET LEVEL (LEVEL 37)

PA00 PROJECT NO.: XX-XX-XXXX-XX DRAWING NO.:
CONSULTANT PROJECT NO.: XXXX-XXXX
DATE: 08-12-2024
SCALE: AS NOTED

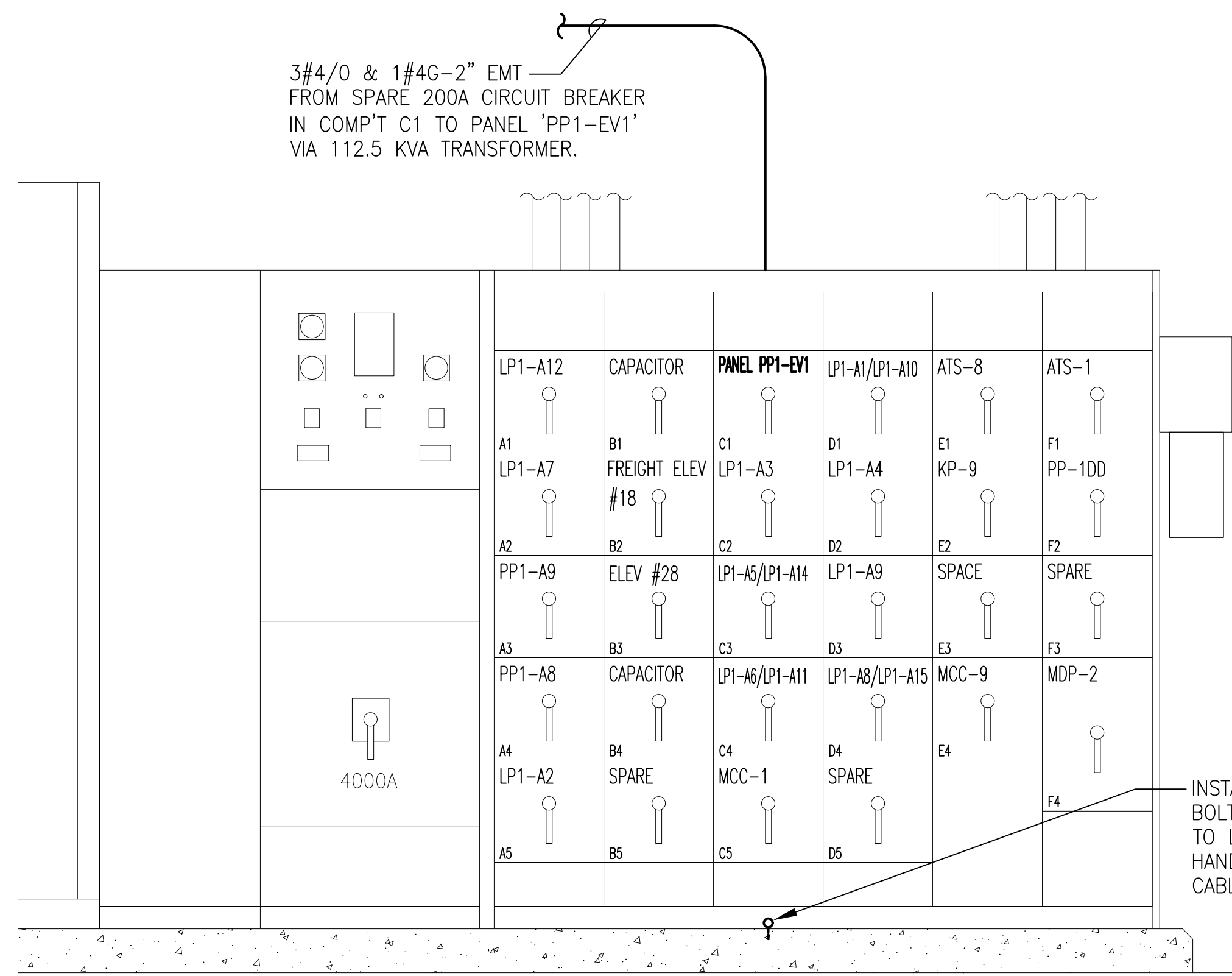
DRAWN BY: LPI
CHECKED BY: JFM

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.

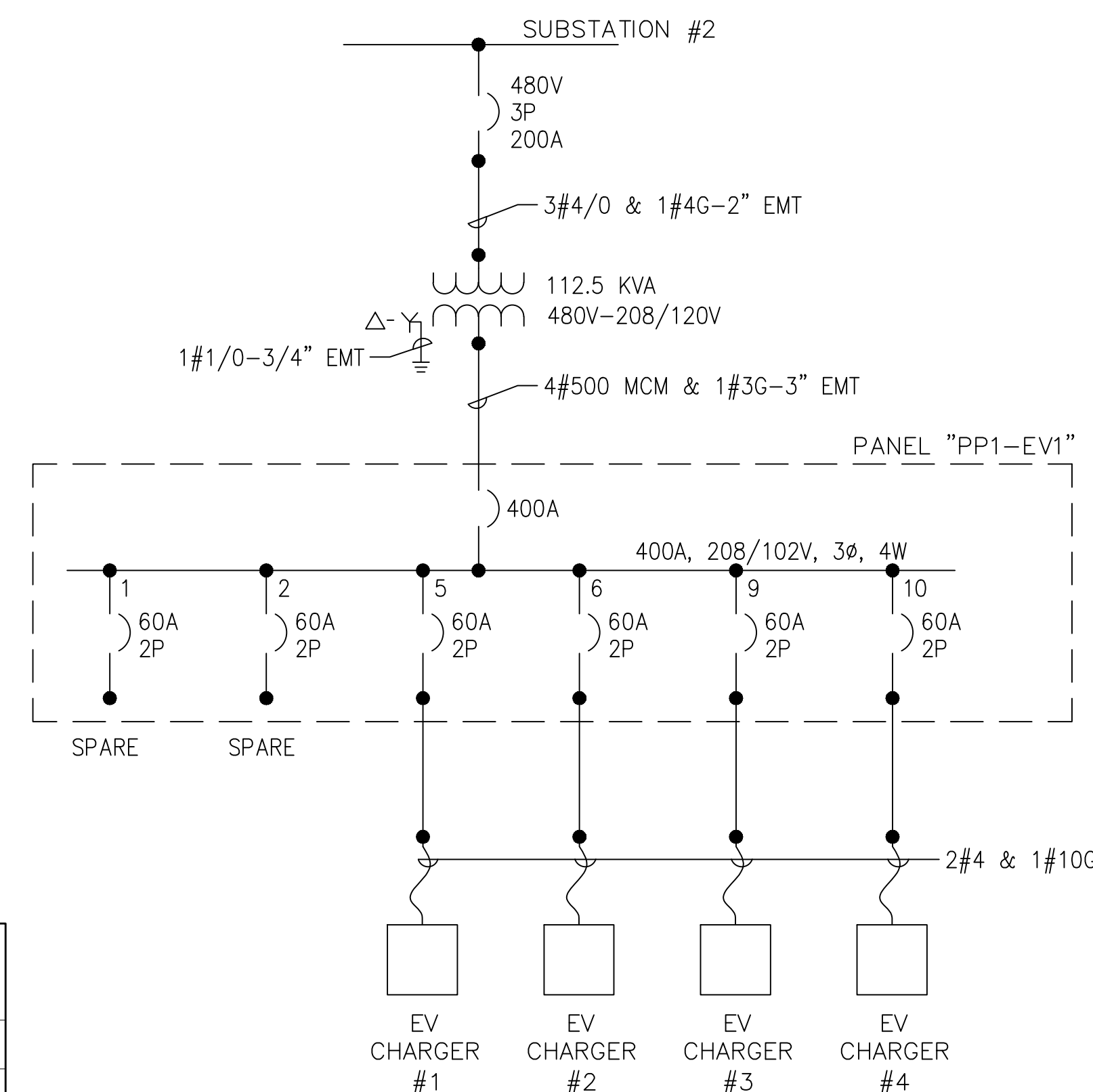
E2



1
E3
FIRST FLOOR INSTALLATION PARTIAL PLAN
SCALE: 1/32" = 1' - 0"



4
E3
SUBSTATION #2 ELEVATION
SCALE: 3/4" = 1' - 0"



5
E3
EV CHARGING STATIONS SINGLE LINE DIAGRAM - NEW
SCALE: NONE

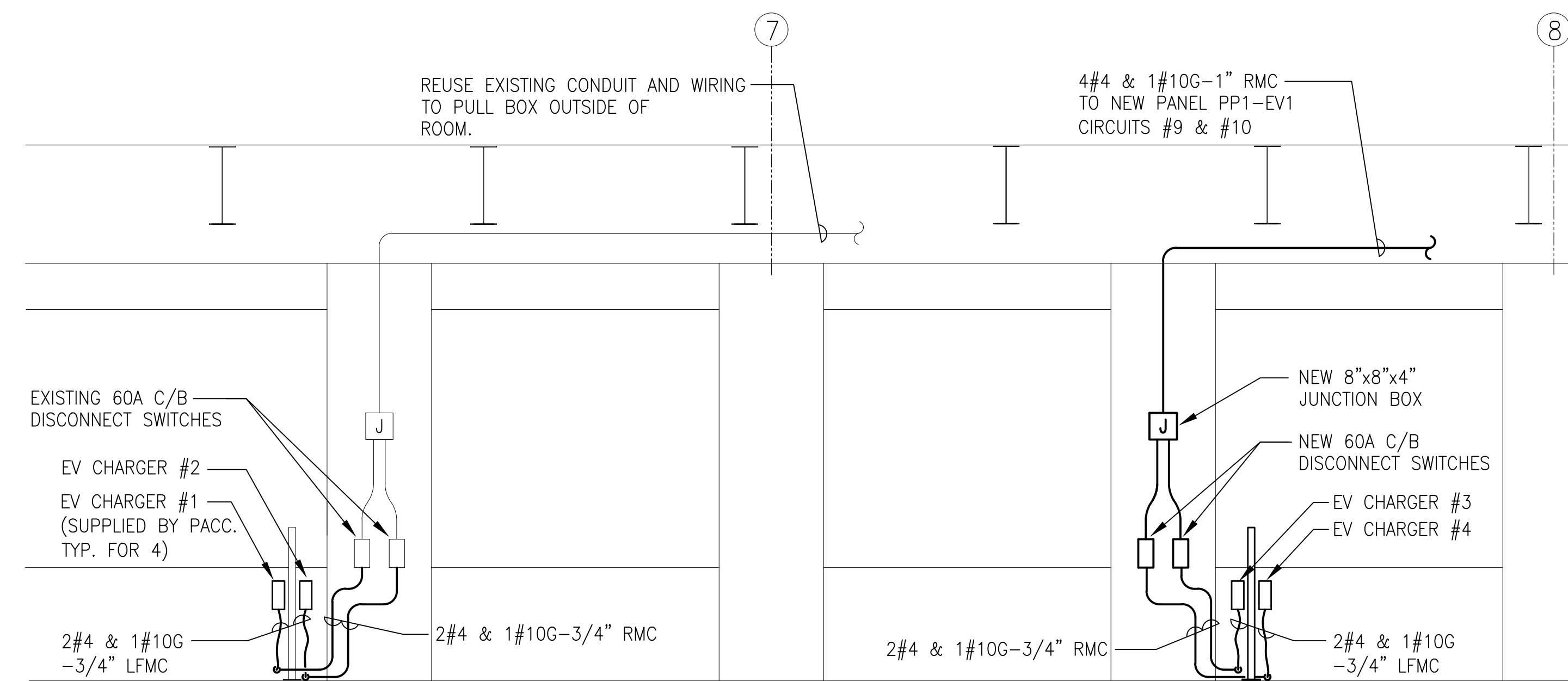
PANEL: PANEL "PP1-EV1"
208/120 VOLTS, 3 PHASE, 4 WIRE
400 AMPS MAIN COPPER BUS, 400A MAIN CIRCUIT BREAKER
AIC 22,000 AMPS

FED FROM: SUB #2, VIA 112.5 KVA XFMR
MANUFACTURER: G.E.
CAT# "AQU" SURFACE MOUNTING

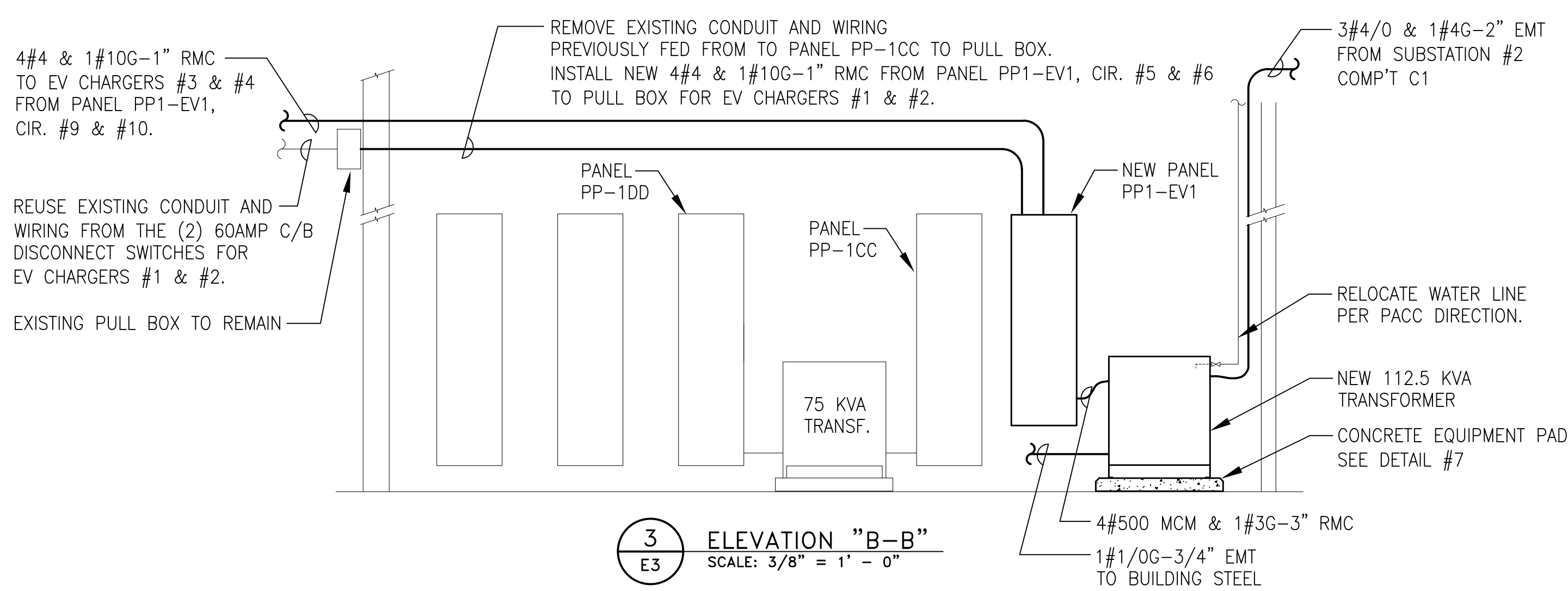
LOAD KVA	LOAD DESCRIPTION	BREAKER DATA			TRIP	LOAD DESCRIPTION	LOAD KVA
		TRIP	POLES	TYPE			
SPARE		60A	2	THQB	1	SPARE	
EV CHARGER #1		60A	2	THQB	5	EV CHARGER #2	
EV CHARGER #3		60A	2	THQB	9	EV CHARGER #4	
SPACE					11	SPACE	
SPACE					13	SPACE	
SPACE					15	SPACE	
SPACE					17	SPACE	
SPACE					19	SPACE	
SPACE					21	SPACE	
SPACE					23	SPACE	
SPACE					25	SPACE	
SPACE					27	SPACE	
SPACE					29	SPACE	
SPACE					31	SPACE	
SPACE					33	SPACE	
SPACE					35	SPACE	
SPACE					37	SPACE	
SPACE					39	SPACE	
SPACE					41	SPACE	

1. MAIN CIRCUIT BREAKER SHALL BE G.E. TYPE THQB
2. BRANCH CIRCUIT BREAKERS SHALL BE G.E. TYPE THQB GFCI
3. PROVIDE NEMA 1 DOOR IN DOOR PANEL COVER WITH LOCKS, WITH SEPARATE GROUND AND NEUTRAL BUSES

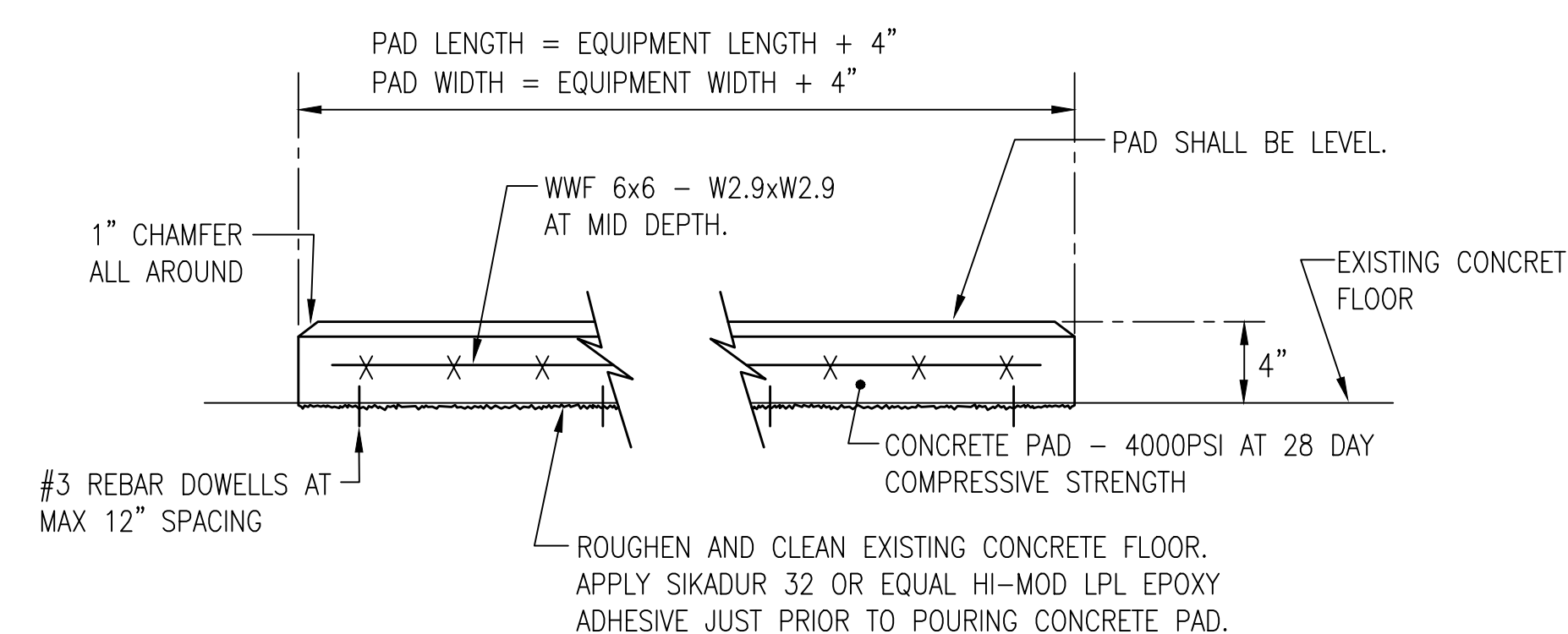
6
E3
PANEL PP1-EV1
SCALE: NONE



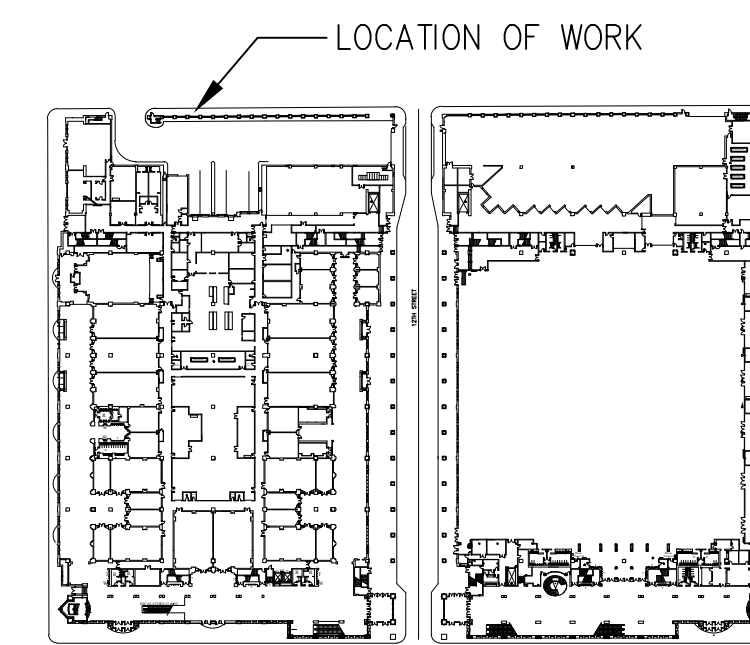
2
E3
ELEVATION "A-A"
SCALE: 1/4" = 1' - 0"



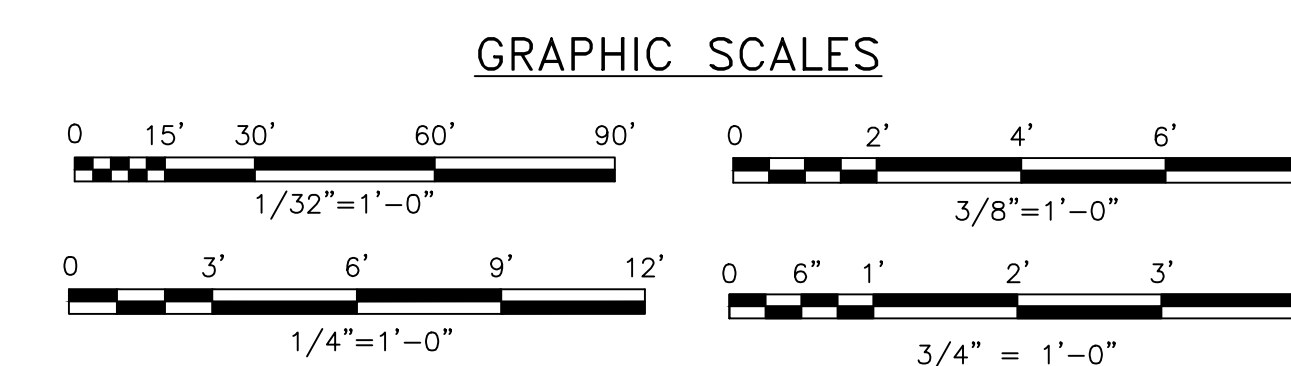
3
E3
ELEVATION "B-B"
SCALE: 3/8" = 1' - 0"



7
E3
DETAIL-CONCRETE EQUIPMENT PAD
SCALE: NONE



FIRST FLOOR - KEY PLAN



REVISIONS

ISSUE	DATE	REVISIONS



PENNSYLVANIA ONE CALL SYSTEM, INC.
800 South 4th Street
West Chester, Pennsylvania
19380-1078

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776
IF YOU REQUIRE THIS SERVICE IN A STATE NOT LISTED, PLEASE CONTACT US AT 1-800-242-1776.
NON-MEMBERS MUST BE CONTACTED DIRECTLY.

PA ONE-CALL NUMBER (FOR DESIGN ONLY): XXXXXXXXXXXX

DPP PROJECT COORDINATOR: XXXXXXXXXXXX

SEAL:



CONSULTING ENGINEERS
Philadelphia Office
1315 Walnut Street
Suite 804
Philadelphia, PA 19107
(215) 542-8700

PROJECT NO. E46012 DATE 7/30/24

PROJECT ENG. JFM

CHECKED:

DPP PROJECT NUMBER: XX-XX-XXXX-XX

PROJECT TITLE: FIRST LEVEL PARKING AREA EV CHARGING STATIONS

PHASE: XXXXX

DRAWING TITLE: EV CHARGING STATIONS ELECTRICAL INSTALLATION PLAN AND DETAILS STREET LEVEL (LEVEL 37)

PACC PROJECT NO.: XX-XX-XXXX-XX DRAWING NO.:

CONSULTANT PROJECT NO.: XXXX-XXXX

DATE: 08-12-2024

SCALE: AS NOTED

DRAWN BY: LPI
CHECKED BY: JFM

NOTE: ALL DIMENSIONS AND CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE BEFORE PROCEEDING WITH THE WORK.

E3