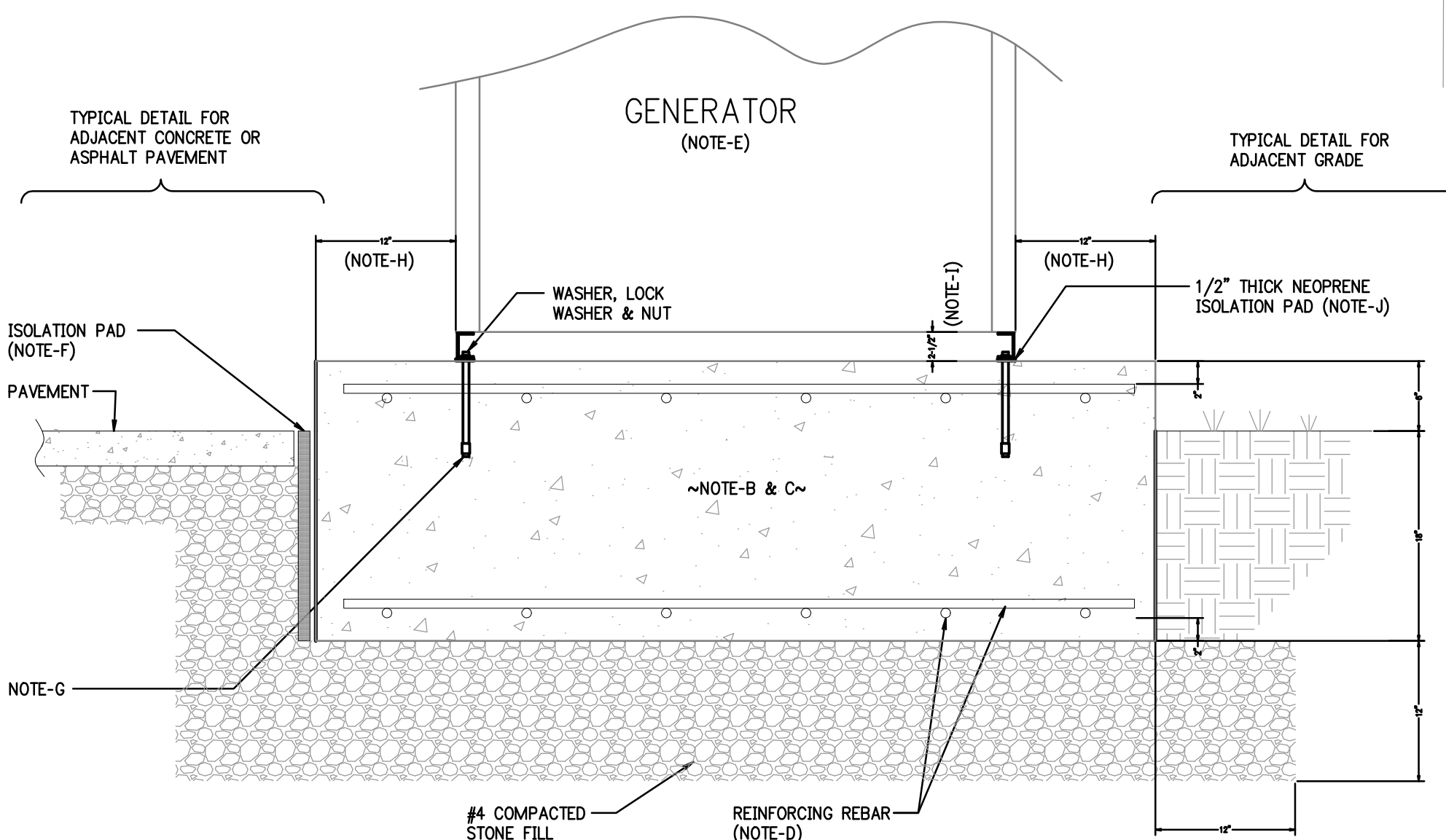


- NOTES:**
- A. GROUND AND NEUTRAL SHALL NOT BE BONDED.
 - B. REFER TO ONE LINE OR PANEL RISER FOR CONDUCTOR SIZES.

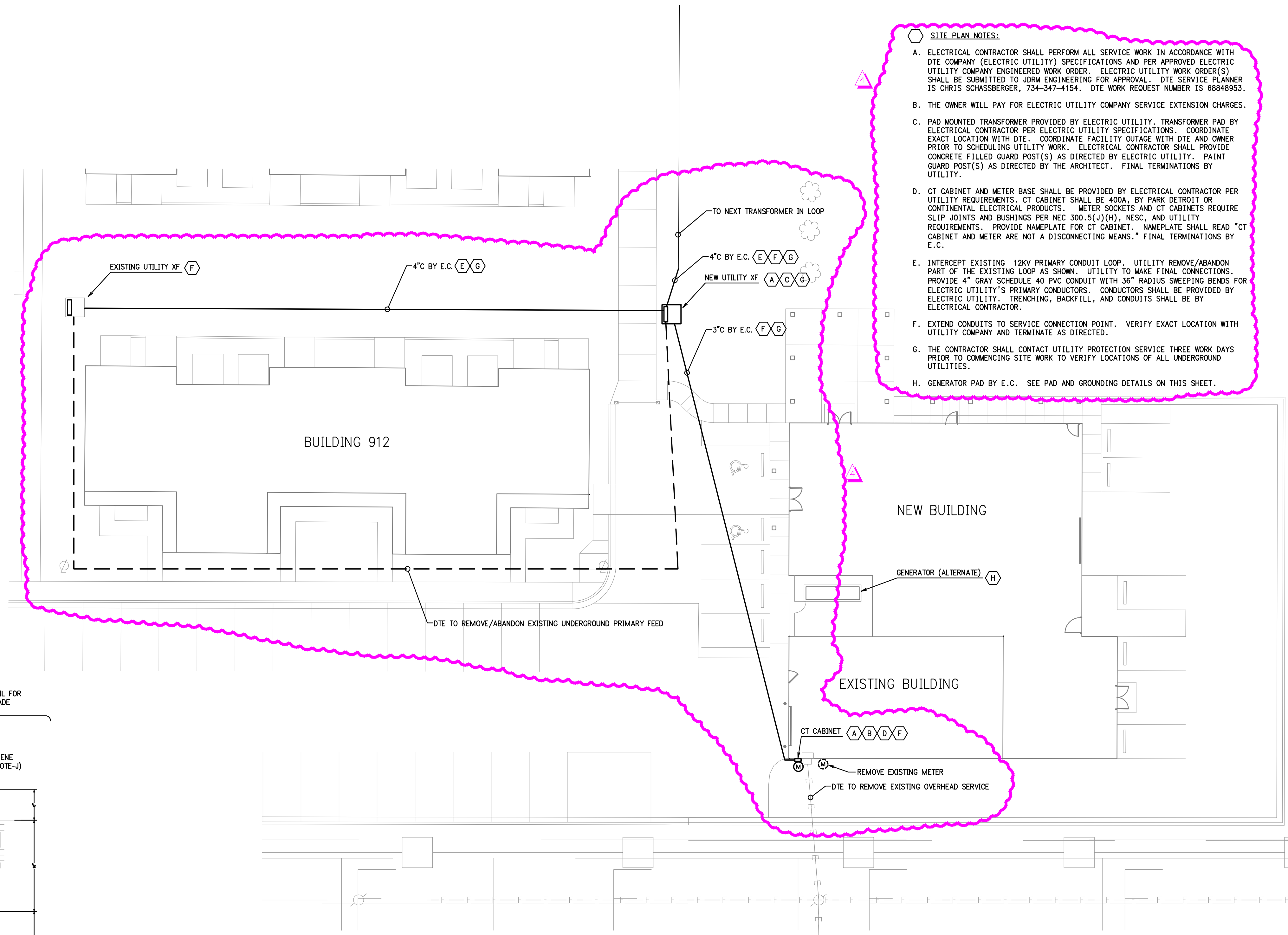
GENERATOR GROUNDING SCHEMATIC (ALTERNATE)
SCALE: NONE



GENERATOR PAD NOTES:

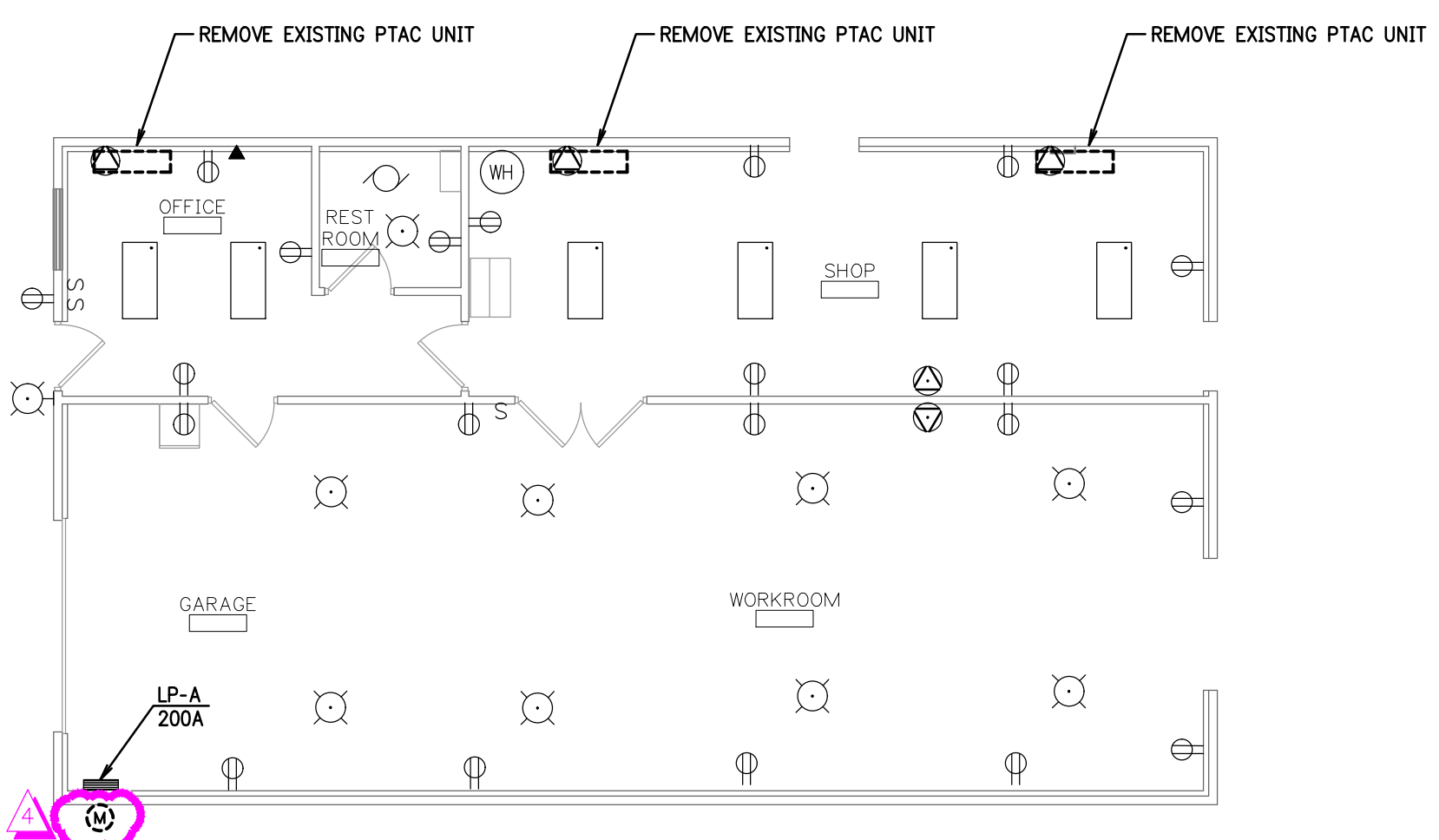
- A. PROVIDE OPENINGS FOR CONDUIT STUB-UPS. DO NOT POUR CONCRETE AROUND CONDUITS.
- B. CONCRETE TO BE 3000 PSI STRENGTH BY 7 DAYS. USE PORTLAND CEMENT TYPE 3 OR 3A.
- C. CONCRETE MUST BE POURED AT LEAST 10 DAYS BEFORE GENERATOR IS SET IN PLACE.
- D. REINFORCING RODS ARE TO BE #4 DEFORMED STEEL. INSTALL RODS AT 12" CENTERS IN EACH DIRECTION.
- E. VERIFY EXACT DIMENSIONS WITH EQUIPMENT SUPPLIER.
- F. WHERE PAD IS LOCATED IN CONCRETE FLOOR AREA IT SHALL BE KEPT ISOLATED FROM ADJACENT CONCRETE.
- G. PROVIDE TYPE STAINLESS STEEL HEAVY-DUTY INSPECTABLE WEDGE TYPE EXPANSION ANCHOR BOLTS (RED HEAD TRUBOLT). BOLTS SHALL BE EMBEDDED 6" (MIN.) IN PAD. VERIFY WITH MANUFACTURER EXACT ANCHOR BOLT REQUIREMENTS, 5/8" DIAMETER MINIMUM.
- H. CONCRETE PAD SHALL EXCEED GENERATOR BY 12" AROUND ALL SIDES.
- I. GENERATOR BOTTOM SHALL BE MAINTAINED AT A MINIMUM OF 2-1/2" ABOVE THE CONCRETE PAD.
- J. GENERATOR MOUNTING RAILS SHALL BE ISOLATED FROM THE CONCRETE PAD WITH 1/2" THICK NEOPRENE PADS. INSTALL PADS WITH 2" GAP ON 24" CENTER TO ALLOW DRAINAGE AND AIR FLOW.

GENERATOR CONCRETE PAD DETAIL (ALTERNATE)
SCALE: NONE



- SITE PLAN NOTES:**
- A. ELECTRICAL CONTRACTOR SHALL PERFORM ALL SERVICE WORK IN ACCORDANCE WITH DTE COMPANY (ELECTRIC UTILITY) SPECIFICATIONS AND PER APPROVED ELECTRIC UTILITY COMPANY ENGINEERED WORK ORDER. ELECTRIC UTILITY WORK ORDER(S) SHALL BE SUBMITTED TO JDRM ENGINEERING FOR APPROVAL. DTE SERVICE PLANNER IS CHRIS SCHASSBERGER, 734-347-4154. DTE WORK REQUEST NUMBER IS 88848953.
 - B. THE OWNER WILL PAY FOR ELECTRIC UTILITY COMPANY SERVICE EXTENSION CHARGES.
 - C. PAD MOUNTED TRANSFORMER PROVIDED BY ELECTRIC UTILITY. TRANSFORMER PAD BY ELECTRICAL CONTRACTOR PER ELECTRIC UTILITY SPECIFICATIONS. COORDINATE EXACT LOCATION WITH DTE. COORDINATE FACILITY OUTAGE WITH DTE AND OWNER PRIOR TO SCHEDULING UTILITY WORK. ELECTRICAL CONTRACTOR SHALL PROVIDE CONCRETE FILLED GUARD POST(S) AS DIRECTED BY ELECTRIC UTILITY. PAINT GUARD POST(S) AS DIRECTED BY THE ARCHITECT. FINAL TERMINATIONS BY UTILITY.
 - D. CT CABINET AND METER BASE SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR PER UTILITY REQUIREMENTS. CT CABINET SHALL BE 400A, BY PARK DETROIT OR CONTINENTAL ELECTRICAL PRODUCTS. METER SOCKETS AND CT CABINETS REQUIRE SLIP JOINTS AND BUSHINGS PER NEC 300.5(J)(H), NESC, AND UTILITY REQUIREMENTS. PROVIDE NAMEPLATE FOR CT CABINET. NAMEPLATE SHALL READ "CT CABINET AND METER ARE NOT A DISCONNECTING MEANS." FINAL TERMINATIONS BY E.C.
 - E. INTERCEPT EXISTING 12KV PRIMARY CONDUIT LOOP. UTILITY REMOVE/ABANDON PART OF THE EXISTING LOOP AS SHOWN. UTILITY TO MAKE FINAL CONNECTIONS. PROVIDE 4" GRAY SCHEDULE 40 PVC CONDUIT WITH 36" RADIUS SWEEPING BENDS FOR ELECTRIC UTILITY'S PRIMARY CONDUCTORS. CONDUCTORS SHALL BE PROVIDED BY ELECTRICAL UTILITY. TRENCHING, BACKFILL, AND CONDUITS SHALL BE BY ELECTRICAL CONTRACTOR.
 - F. EXTEND CONDUITS TO SERVICE CONNECTION POINT. VERIFY EXACT LOCATION WITH UTILITY COMPANY AND TERMINATE AS DIRECTED.
 - G. THE CONTRACTOR SHALL CONTACT UTILITY PROTECTION SERVICE THREE WORK DAYS PRIOR TO COMMENCING SITE WORK TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES.
 - H. GENERATOR PAD BY E.C. SEE PAD AND GROUNDING DETAILS ON THIS SHEET.

SITE PLAN - ELECTRICAL
SCALE: 1/16"=1'-0"



FLOOR PLAN - DEMOLITION
SCALE: 1/8"=1'-0"

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SITE PLAN ELECTRICAL

NOT FOR CONSTRUCTION

07-21-2023	ADDENDUM NO. 4
06-21-2023	BIDS
DATE:	ISSUED FOR:
DRAWN	RKB
REVIEW'D	DTK
20222	

E-2

Electrical Service Load Summary

Load Description	Connected Load	Demand Load
Lighting	5,880 VA	5,880 VA
Receptacle	15,720 VA	12,860 VA
Mechanical	6,784 VA	6,784 VA
Heat	4,500 VA	4,500 VA
Air Conditioning	33,120 VA	33,120 VA
Equipment	9,000 VA	9,000 VA
Kitchen Equipment	3,120 VA	3,120 VA
Grand Total	78,124 VA	75,264 VA

SERVICE VOLTAGE: 120/240V-1PH-3W
SERVICE AMPACITY: 400A
DEMAND AMPACITY AT SERVICE VOLTAGE: 314 A

2023-06-14

LP-A (EXIST.)

200A VOLTAGE: 120/240V-1PH-3W SURFACE

USE	LOAD	BKR No	BKR No	PH	BKR No	BKR No	LOAD	USE
GARAGE - LIGHTS	1,200	20	1	A	2	20	1,120	OFFICE & WORKROOM - LIGHTS
GARAGE - RECEPTS.	900	20	3	B	4	20	720	WORKROOM EAST - RECEPTS.
GARAGE - RECEPTS.	900	20	5	A	6	20	720	WORKROOM WEST & SOUTH - RECEPTS.
OFFICE & RESTROOM - RECEPTS.	1,080	20	7	B	8	20	360	GARAGE WEST - RECEPTS.
AIR COMPRESSOR	1,000	20	9	A	10	20		NORTH WORKROOM - HEATER & A/C
	1,000	2P	11	B	12	2P		(DEMO)
BATH - HEATER	1,500	20	13	A	14	20		OFFICE - HEATER & A/C
WORK ROOM - HEATER & A/C	1,500	20	15	B	16	2P		(DEMO)
SEWAGE PUMP	1,000	20	17	A	18	30	1,500	WATER HEATER
	1,000	20	19	B	20	2P	1,500	*
	1,500	30	21	A	22	30		HEATER AC
	1,500	2P	23	B	24	2P		(DEMO)
			25	A	26			
			27	B	28			
			29	A	30			

TOTAL CONNECTED LOAD: 20,500 W 85 AMPS

2023-06-14

LP-B

200A MLO VOLTAGE: 120/240V-1PH-3W SURFACE

USE	LOAD	BKR No	BKR No	PH	BKR No	BKR No	LOAD	USE
A/C-1 - COMMUNITY ROOM 101	1,320	30	1	A	2	20		SPARE
	1,320	2P	3	B	4	20		SPARE
A/C-2 - COMMUNITY ROOM 101	1,440	30	5	A	6	20	1,840	LIGHTS - COMMUNITY RM. & LIBRARY
	1,440	2P	7	B	8	20	1,120	LIGHTS - WARMING KIT, RSTRMS,BREAK RM
COMMUNITY 101 - RECEPTILES NE WALL	900	20	9	A	10	20	1,160	LIGHTS - MAINT. STORERMS & EXTERIOR
COMMUNITY 101 - RECEPTILES NW WALL	900	20	11	B	12	20		SPARE
COMMUNITY 101 - RECEPTILES SOUTH WALL	900	20	13	A	14	20	1,000	WARMING KITCHEN 104 - RECEPT. WEST
COMMUNITY RM. 101 - EMC	800	20	15	B	16	20	1,000	WARMING KITCHEN 104 - RECEPT. WEST
LIBRARY 103 - RECEPTILES WEST WALL	900	20	17	A	18	20	1,000	WARMING KITCHEN 104 - RECEPT. NORTH
LIBRARY 103 - RECEPTILES WEST WALL	900	20	19	B	20	20	1,000	WARMING KITCHEN 104 - RECEPT. NORTH
LIBRARY 103 - RECEPTILES EAST WALL	540	20	21	A	22	20	1,000	WARMING KITCHEN 104 - RECEPT. NORTH
SPARE		20	23	B	24	20	1,000	WARMING KITCHEN 104 - REFRIGERATOR
SPARE		20	25	A	26	20	460	JAN. CLOS. 105 - RECEPT. FAN, GWHR.
SPARE		20	27	B	28	20	520	RESTROOMS 106,108 - RECEPT. & FAN
SPARE		20	29	A	30	20		SPARE
SPARE		20	31	B	32	20		SPARE
SPARE		20	33	A	34	20		SPARE
SPARE		20	35	B	36	20		SPARE
SPARE		20	37	A	38	20		SPARE
SPARE		20	39	B	40	20		SPARE
SPARE		20	41	A	42	20		SPARE

TOTAL CONNECTED LOAD: 22,460 W 94 AMPS

2023-06-14

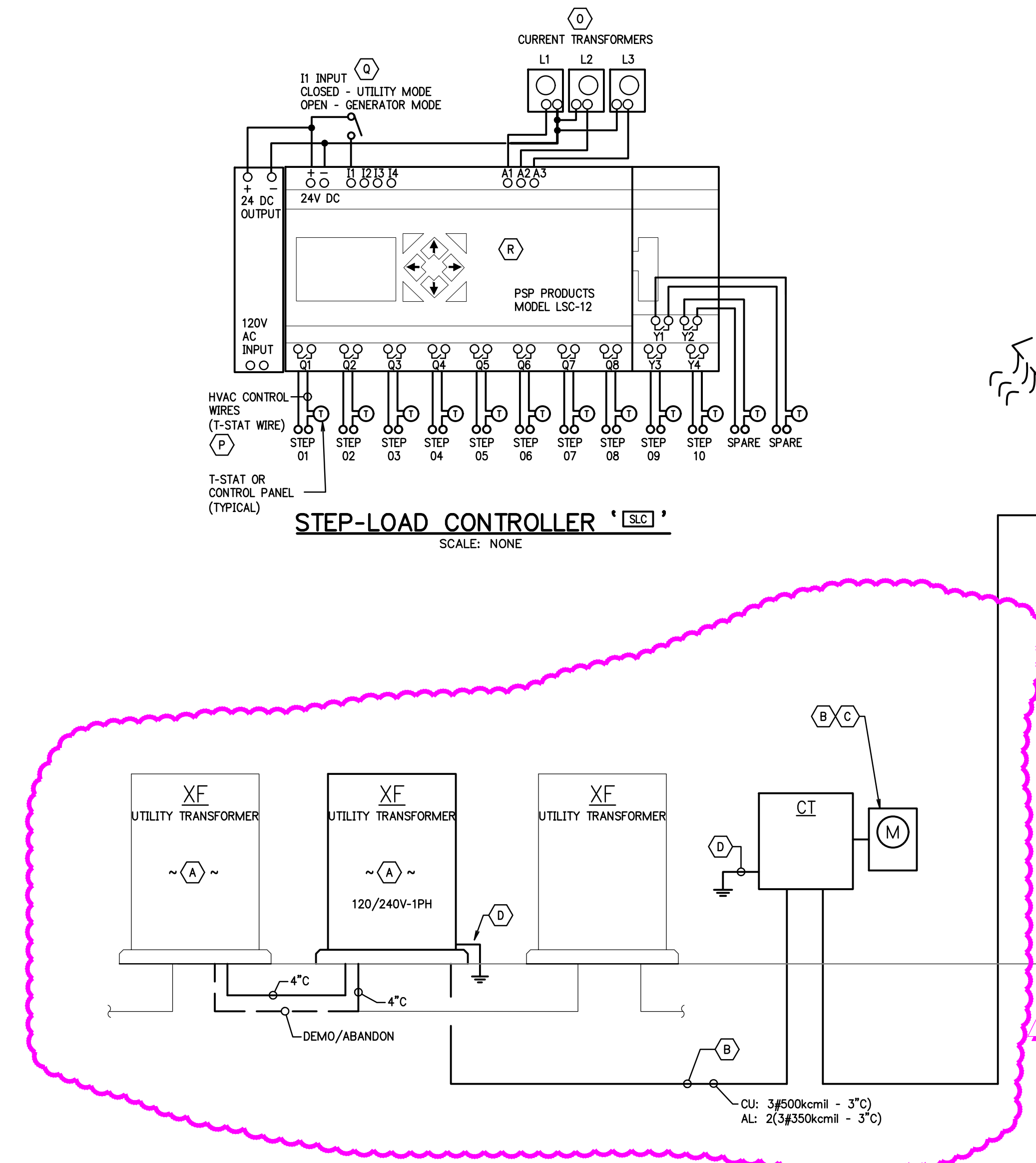
LP-C

200A MLO VOLTAGE: 120/240V-1PH-3W SURFACE

USE	LOAD	BKR No	BKR No	PH	BKR No	BKR No	LOAD	USE
SPARE		20	1	A	2	20		SPARE
SPARE		20	3	B	4	20		SPARE
PUBLIC SERV - LIGHTS	560	20	5	A	6	30	2,220	CU-1
OFFICE 118 - RECEPTILES	900	20	7	B	8	2P	2,220	
GARAGE 122 - RECEPTILES	720	20	9	A	10	30	2,220	CU-2
GARAGE 122 - DOOR OPERATOR	1,200	20	11	B	12	2P	2,220	
KITCHENETTE 119 - RECEPTILES	360	20	13	A	14	20	1,080	CU-3
KITCHENETTE 119 - REFRIGERATOR	1,200	20	15	B	16	2P	1,080	
RESTROOM 120 - RECEPT. & FAN	260	20	17	A	18	20	1,320	CU-4
SPARE		20	19	B	20	2P	1,320	
MAINTENANCE STOREROOM 2 - RECEPTS.	900	20	21	A	22	20	1,440	CU-5
MAINTENANCE STOREROOM 3 - RECEPTS.	900	20	23	B	24	2P	1,440	
MAINTENANCE STOREROOM 3 - RECEPTS.	720	20	25	A	26	30	1,272	FURN-1
SPARE		20	27	B	28	2P	1,272	FURN-2
SPARE		20	29	A	30	20	768	FURN-3
SPARE		20	31	B	32	20		SPARE
SPARE		20	33	A	34	20		SPARE
SPARE		20	35	B	36	20		SPARE
SPARE		20	37	A	38	20		SPARE
SPARE		20	39	B	40	20		SPARE
SPARE		20	41	A	42	20		SPARE

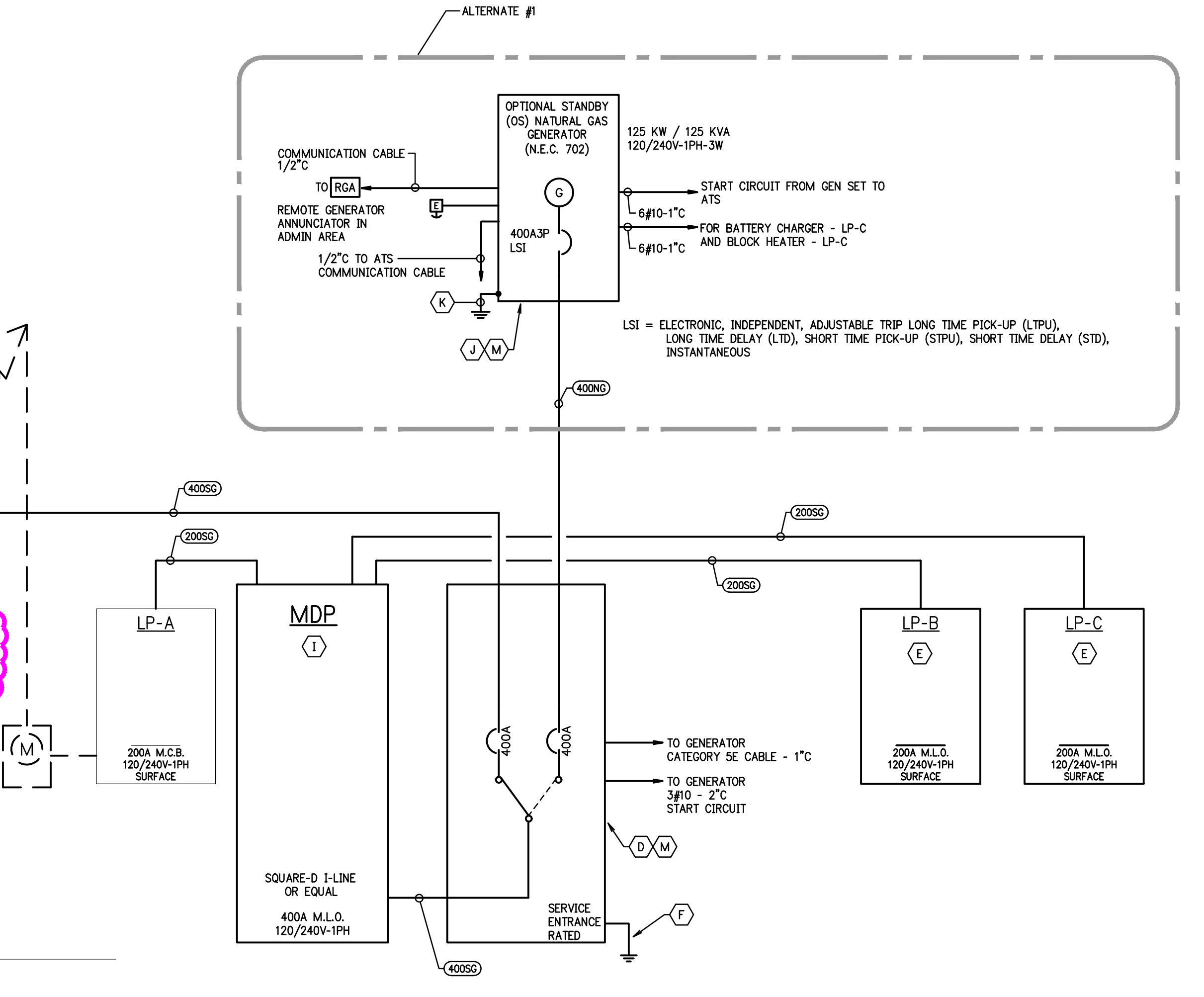
TOTAL CONNECTED LOAD: 27,592 W 115 AMPS

2023-06-14



FEEDER SCHEDULE

MARK	1 PHASE - 2 WIRE WITH GROUND		MARK	1 PHASE OR 3 PHASE - 3 WIRE WITH GROUND	
	COPPER	COMPACT ALUMINUM		COPPER	COMPACT ALUMINUM
(20SD)	2#12, 1#12G - 1/2" C		(20C)	3#12, 1#12G - 1/2" C	
(30SD)	2#10, 1#10G - 1/2" C		(30C)	3#10, 1#10G - 1/2" C	
(50SD)	2#8, 1#10G - 1" C		(50C)	3#8, 1#10G - 1" C	
(60SD)	2#6, 1#10G - 1" C		(60C)	3#6, 1#10G - 1" C	
(80SD)	2#4, 1#8G - 1" C		(80C)	3#4, 1#8G - 1" C	
(100SD)	2#2, 1#8G - 1-1/4" C		(100C)	3#2, 1#8G - 1-1/4" C	3#1, 1#6G - 1-1/4" C
			(125C)	3#1, 1#6G - 1-1/4" C	3#2/0, 1#4G - 1-1/2" C
			(150C)	3#1/0, 1#6G - 1-1/2" C	3#3/0, 1#4G - 2" C
			(175C)	3#2/0, 1#6G - 1-1/2" C	3#4/0, 1#4G - 2" C
			(200C)	3#3/0, 1#6G - 2" C	3#250kcmil, 1#4G - 2-1/2" C
			(225C)	3#4/0, 1#4G - 2" C	3#300kcmil, 1#2G - 2-1/2" C
			(250C)	3#250kcmil, 1#4G - 2-1/2" C	3#350kcmil, 1#2G - 2-1/2" C
			(300C)	3#350kcmil, 1#4G - 2-1/2" C	3#500kcmil, 1#2G - 3" C
			(400C)	3#500kcmil, 1#2G - 3" C	2(3#250kcmil, 1#1G - 2-1/2" C)
			(F400C)	3#600kcmil, 1#2G - 3-1/2" C	2(3#250kcmil, 1#1G - 2-1/2" C)
			(500C)	2(3#250kcmil, 1#2G - 2-1/2" C)	2(3#350kcmil, 1#1/0G - 2-1/2" C)
			(600C)	2(3#350kcmil, 1#1G - 2-1/2" C)	2(3#500kcmil, 1#2/0G - 3" C)
			(800C)	2(3#500kcmil, 1#1/0G - 3" C)	3(3#400kcmil, 1#3/0G - 3" C)
			(F800C)	2(3#600kcmil, 1#1/0G - 3-1/2" C)	3(3#400kcmil, 1#3/0G - 3" C)
			(1000C)	3(3#400kcmil, 1#2/0G - 3" C)	3(3#600kcmil, 1#4/0G - 3" C)
			(1200C)	4(3#350kcmil, 1#3/0G - 2-1/2" C)	4(3#500kcmil, 1#250kcmilG - 3" C)
			(1600C)	4(3#600kcmil, 1#4/0G - 3-1/2" C)	6(3#400kcmil, 1#350kcmilG - 3" C)
			(2000C)	5(3#600kcmil, 1#250kcmilG - 3-1/2" C)	6(3#600kcmil, 1#400kcmilG - 3-1/2" C)



- ONE LINE DIAGRAM NOTES:**
- COORDINATE ALL REQUIREMENTS WITH ELECTRIC UTILITY (D.T.E.) PRIOR TO INSTALLATION.
 - COORDINATE UTILITY SERVICE CONNECTION POINT WITH D.T.E. PRIOR TO ROUGH-IN/INSTALLATION.
 - COORDINATE METER BASE ARRANGEMENT WITH D.T.E. PRIOR TO ROUGH-IN/INSTALLATION.
 - GROUND PER D.T.E. GROUNDING REQUIREMENTS.
 - SEE PANEL SCHEDULES ON THIS SHEET.
 - SEE MAIN SERVICE GROUNDING DETAILS ON SHEET E-5.
 - RESERVED
 - RESERVED
 - RESERVED
 - PROVIDE LABEL TO PANEL INDICATING "MAXIMUM AVAILABLE FAULT CURRENT OF _____ CALCULATION PERFORMED ON 2-16-2023" PER NEC 2017 ARTICLE 110.24
 - SEE GENERATOR PAD DETAIL ON SHEET E-2.
 - SEE GENERATOR GROUNDING DETAIL ON SHEET E-2.
 - RESERVED
 - TRANSFER SWITCH U.L. WITHSTAND AND CLOSING RATING SERIES RATED WITH UPSTREAM CURRENT LIMITING FUSE PROTECTION ON NORMAL POWER FEED.
 - RESERVED
 - PROVIDE C.T.'s AND INSTALL IN THE MDP. INTEGRATE THE C.T.'s TO THE STEP-LOAD CONTROLLER.
 - PROVIDE CONTROL WIRING TO THE HVAC EQUIPMENT AS INDICATED BELOW. THIS EQUIPMENT WILL BE STEP-LOADED ONTO THE GENERATOR AFTER THE GENERATOR IS RUNNING. PROVIDE STEP-LOAD RELAYS AS REQUIRED TO INTERFACE THE EQUIPMENT:
 - STEP 01: SPARE
 - STEP 02: CU-1/FURN-1
 - STEP 03: CU-2/FURN-2
 - STEP 04: CU-3/FURN-3
 - STEP 05: CU-4/FURN-4
 - STEP 06: CU-5/FURN-5
 - STEP 07: AC-1
 - STEP 08: AC-2
 - STEP 09: SPARE
 - STEP 10: SPARE
 - STEP 11: SPARE
 - STEP 12: SPARE
 - INTEGRATE THE STEP LOAD CONTROLLER WITH THE TRANSFER SWITCH FOR INDICATION OF POWER FROM THE ALTERNATE SOURCE.
 - PROGRAM AND COMMISSION THE STEP LOAD CONTROLLER FOR FULL FUNCTION AND OPERATION.

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PANEL RISER & PANEL SCHEDULES

NOT FOR CONSTRUCTION

07-21-2023 ADDENDUM NO. 4
06-23-2023 ADDENDUM NO. 1
06-21-2023 BIDS

DATE: ISSUED FOR:
DRAWN: RKB
REVIEW'D: DTK
20222

E-4