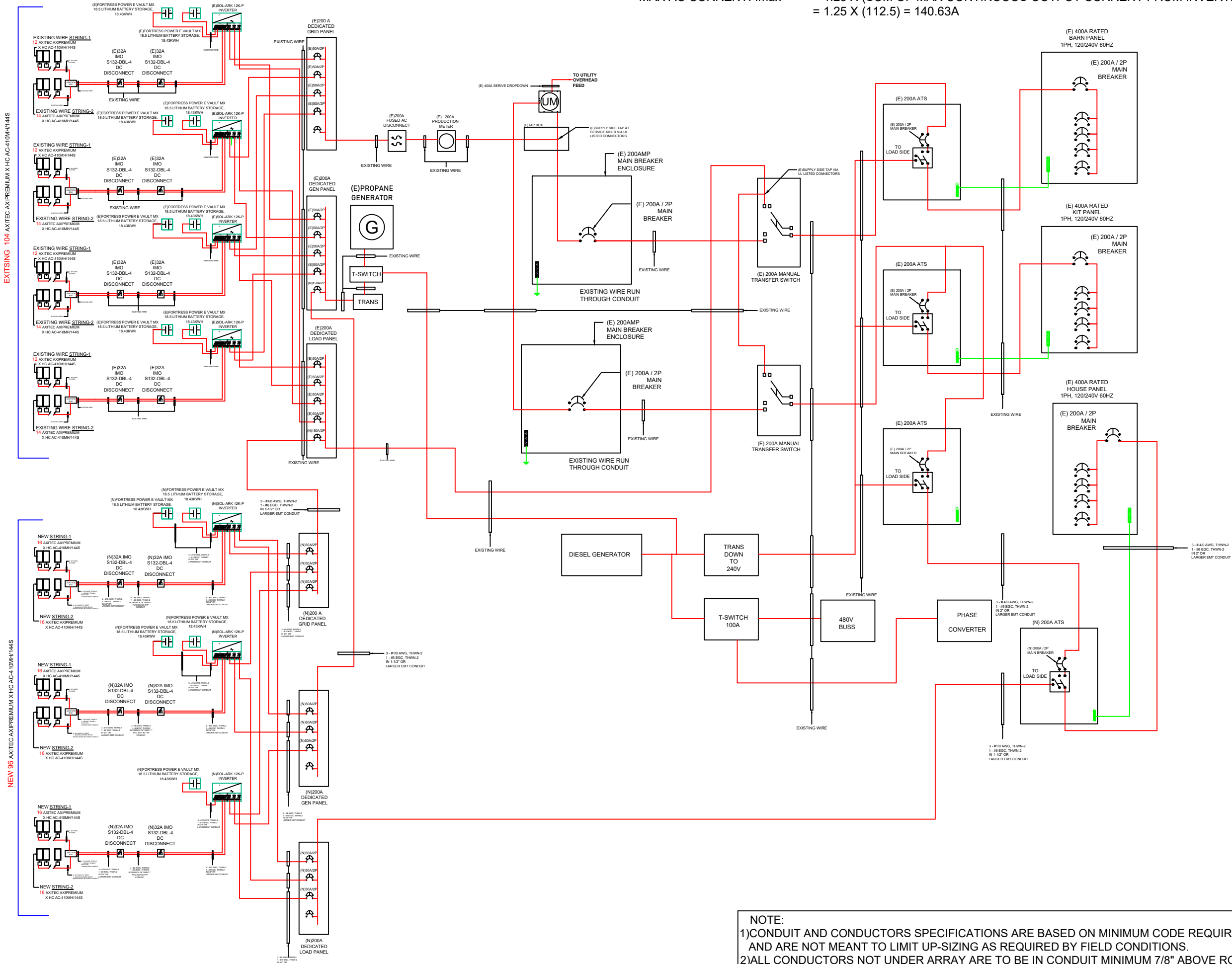


MAX DC CURRENT: I_{max} = 1.25 X (OPTIMIZER OUTPUT CURRENT) = 1.25 X 15 = 18.75A
MAX AC CURRENT: I_{max} = 1.25 X (SUM OF MAX CONTINUOUS OUTPUT CURRENT FROM INVERTERS) = 1.25 X (112.5) = 140.63A



NOTE:
1)CONDUIT AND CONDUCTORS SPECIFICATIONS ARE BASED ON MINIMUM CODE REQUIREMENTS AND ARE NOT MEANT TO LIMIT UP-SIZING AS REQUIRED BY FIELD CONDITIONS.
2)ALL CONDUCTORS NOT UNDER ARRAY ARE TO BE IN CONDUIT MINIMUM 7/8" ABOVE ROOF WITH PROPER JUNCTION BOX AT EACH END PER 690.31A

CONTRACTOR INFO

Solar Individual Permit Package

CUSTOMER NAME

39.360KW Grid Tied Photovoltaic System

4624 PARMAN RD,
STOCKBRIDGE, MI 49285

Rev	Description	Date
A	INITIAL DESIGN	3/14/2023

OPPORTUNITY	
PROJECT #	N/A
DATE DRAWN	3/14/2023
DRAWN BY	E.R
SHEET #	PV-6.0

TITLE

ELECTRICAL SLD

BACKFEED FUSE SIZING
MAX. CONTINUOUS OUTPUT 112.5A @ 240V
112.5 X 1.25 = 140.63AMPS 200A FUSES - OK

MODULE INFO	
MAKE/MODEL	AXITEC: AC-410MH/144S
VOC	48.91V
VMP	41.12V
ISC	10.79A
IMP	9.97A
STC RATING	410 W
PTC RATING	383.4 W

WIRE SCHEDULE														
RACEWAY #	EQUIPMENT				WIRE LOCATION	CONDUCTOR QTY.	AWG WIRE SIZE	STARTING ALLOWABLE AMPACITY 310.15(B)(16)	TEMPERATURE RATING (°C)	STARTING CURRENT APPLIED TO CONDUCTORS IN RACEWAY	TEMPERATURE CORRECTION FACTOR 310.15(B)(2)(a)	ADJUSTMENT FACTOR FOR MORE THAN 3 CONDUCTORS 310.15(B)(3)(a)	ADJUSTED CONDUCTOR AMPACITY	MAXIMUM CURRENT APPLIED TO CONDUCTORS IN RACEWAY
1	DC	MODULE	TO	OPTIMIZER	ROOF/FREE-AIR	2	10	40	90°	10.60	0.96	1	38.40	13.25
2	DC	OPTIMIZER	TO	JUNCTION BOX	ROOF/FREE-AIR	2	10	40	90°	15	0.96	1	38.40	18.75
2	DC	JUNCTION BOX	TO	DC DISCONNECT	ROOF/FREE-AIR	4	10	40	90°	15	0.96	0.8	30.72	18.75
2	DC	DC DISCONNECT	TO	DC DISCONNECT	TRENCHING	4	8	55	90°	15	0.96	0.8	42.24	18.75
3	DC	DC DISCONNECT	TO	INVERTER	EXTERIOR WALL	4	10	40	90°	15	0.96	0.8	30.72	18.75
4	AC	INVERTER	TO	LOAD PANEL	EXTERIOR WALL	3	8	50	75°	37.50	0.96	1	48.00	46.88
5	AC	LOAD PANEL	TO	(N)ATS	EXTERIOR WALL	3	1/0	150	75°	112.50	0.96	1	144.00	140.63
5	AC	(N)ATS	TO	HOUSE PANEL	EXTERIOR WALL	3	4/0	230	75°	160.00	0.96	1	220.80	200.00
5	AC	(N)ATS	TO	(E)ATS	EXTERIOR WALL	3	4/0	230	75°	160.00	0.96	1	220.80	200.00
5	AC	(N)PANEL	TO	(E)PANEL	EXTERIOR WALL	3	1/0	150	75°	112.50	0.96	1	144.00	140.63
4	AC	INVERTER	TO	BATTERY	EXTERIOR WALL	3	3/0	200	75°	150.00	0.96	1	192.00	187.50

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= 1.25 X (112.5) = 140.63A

NOTE:

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OPPORTUNITY	
PROJECT #	N/A
DATE DRAWN	3/14/2023
DRAWN BY	E.R
SHEET #	PV-7.0

ELECTRICAL TABLE