

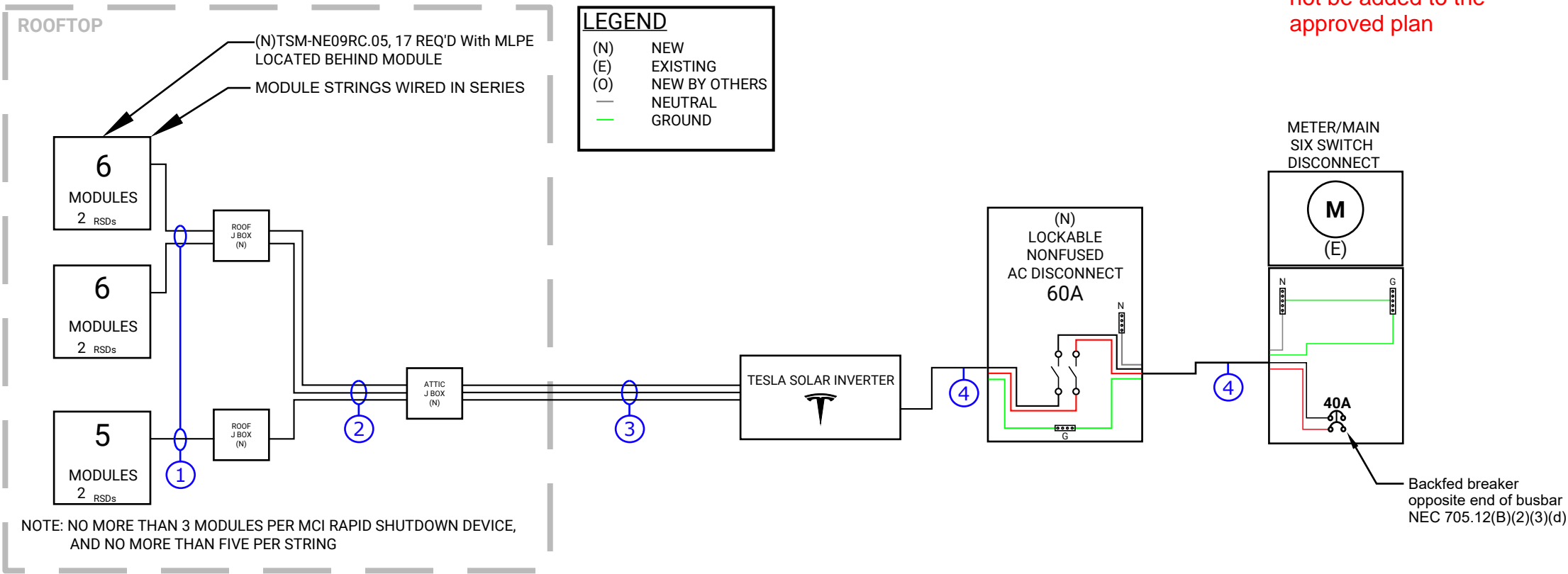
PANEL MODEL: TSM-NE09RC.05, QTY 17 REQ'D, 420W

INVERTER TYPE: 1538000-xx-y, QTY 1 REQ'D, 7600W, 240V

7.600 kW-AC/ 7.140 kW-DC



Additional info provided is a locked file, and could not be added to the approved plan



WIRING SCHEDULE					
TAG	CONDUIT SIZE	CONDUCTOR	NEUTRAL	GROUND	NOTES
1	NONE	10 AWG PV Wire	NONE	6 AWG Bare CU	(Mfg.supplied cabling within array)
2	NONE	10/2 MC	NONE	10 AWG	J Box to Attic J Box
3	3/4" EMT or EQUIV	10 AWG CU THWN-2	NONE	10 AWG CU THWN-2	Attic J box to Inverter
4	1" PVC or EQUIV	8 AWG CU THWN-2	8 AWG CU THWN-2	10 AWG CU THWN-2	Inverter to Disconnect to MDP

Min/Max Voltage (V):	Vmp/Voc (V):	Tk Vmp/Tk Voc (%/°C):
38.79	42.8	-0.36
55.74	50.9	-0.28

MPPT Voltage Range	DC Voltage range	MPPT Min/Max	Absolute Min/Max
60	60	2	2
480	550	8	9

PV LEAD	ELECTRICIAN

SITE FLOOD PLANE: ZONE X BFE: N/A
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CAPE FEAR  
SOLAR SYSTEMS

910 S. 2nd St.  
Wilmington, NC 28401  
910-409-5533



GC LIC. NO. : 65677  
ELEC. LIC. NO. : U-33321

7.14 kW DC PV SYSTEM  
FORNAH SOLAR PROJECT  
183 Tun Tavern Dr, Cameron, NC 28326  
LINE DIAGRAM

REVISION LIST		
#	REV. DATE	DESC.
DATE:		February 27, 2025
DRAWN BY:		JPN

Sheet No.

E-01

GENERAL ELECTRICAL NOTES

- 1. Equipment shall be new unless otherwise noted.
- 2. Equipment shall be listed unless otherwise noted.
- 3. Equipment shall be installed providing adequate working space in compliance with NEC.
- 4. Copper conductors shall be used and shall have insulation rating 600v, 90°C unless otherwise noted.
- 5. Conductors shall be sized in accordance with the NEC and ampacity shall be derated for temperature increase, conduit fill & voltage drop.
- 6. All conductors shall be installed in approved conduits. Conduits shall be adequately supported in accordance with the NEC.
- 7. AC Disconnect is optional, however it may be required by the utility.
- 8. Exposed non-current carrying metal parts shall be grounded in accordance with the NEC.
- 9. All work shall comply with the NEC and all applicable local electrical code requirements.
- 10. Contractor will provide labeling in accordance with the NEC, Article 110, 225, 690, and 705.

PV SYSTEM DISCONNECT/ COMBINER BOX  
BREAKER PANELS

WARNING

TURN OFF PHOTOVOLTAIC  
AC DISCONNECT PRIOR TO  
WORKING INSIDE PANEL

PHOTOVOLTAIC SYSTEM  
AC DISCONNECT

OPERATING VOLTAGE  VOLTS  
OPERATING CURRENT  AMPS

RAPID SHUTDOWN  
PV ARRAY

NEC 110.27(C) & OSHA 1910.145(f)(7)

SERVICE DISCONNECT

MAIN PHOTOVOLTAIC SYSTEM  
DISCONNECT

NEC 690.13(B)

SOLAR PV SYSTEM EQUIPPED  
WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN  
SWITCH TO THE  
"OFF" POSITION TO SHUT  
DOWN PV SYSTEM AND  
REDUCE SHOCK HAZARD IN  
THE ARRAY.

SOLAR ELECTRIC  
PV PANELS

IFC 605.11.3(1) & NEC 690.12(D)

NET METER

WARNING

DUAL POWER SUPPLY

SOURCES: UTILITY GRID AND  
PV SOLAR ELECTRIC SYSTEM

NEC 705.30(C) and NEC 690.59

EMT/CONDUIT RACEWAYS

NEC 690.31(D)(2)

PHOTOVOLTAIC POWER SOURCE

CAUTION

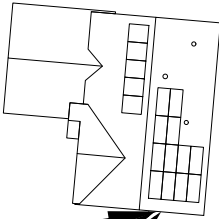
POWER TO THIS BUILDING IS SUPPLIED FROM THE FOLLOWING  
SOURCES WITH DISCONNECTS LOCATED AS SHOWN:

SERVICE DISCONNECT  
(EXTERIOR)

PV SYSTEM DISCONNECT  
(EXTERIOR)

ESS DISCONNECT  
(EXTERIOR)

METER (EXTERIOR)



CAPE FEAR  
SOLAR SYSTEMS

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7.14 kW DC PV SYSTEM  
FORNAH SOLAR PROJECT  
183 Tun Tavern Dr, Cameron, NC 28326

STICKERS

REVISION LIST

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E-02