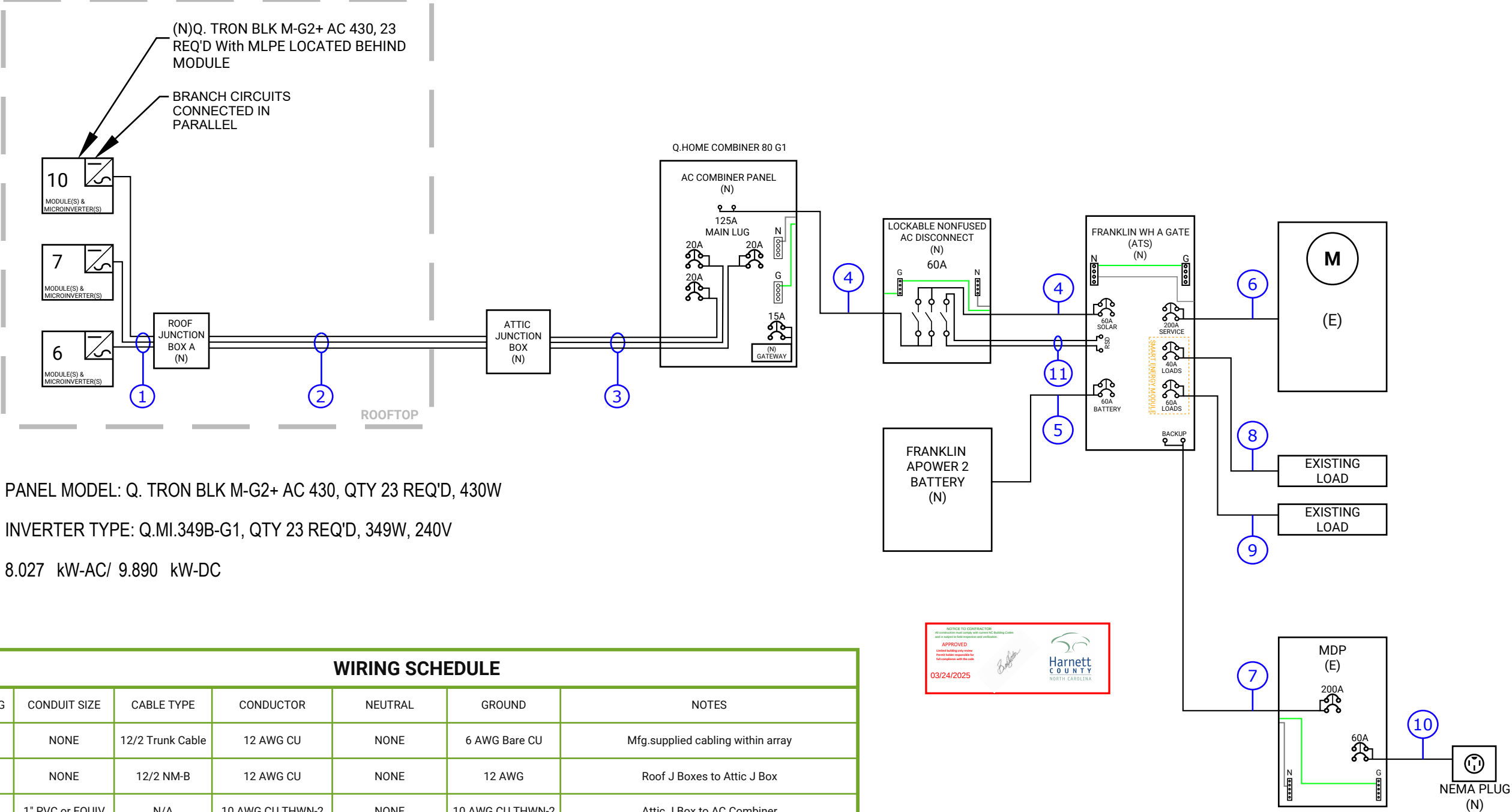




PANEL MODEL: Q. TRON BLK M-G2+ AC 430, QTY 23 REQ'D, 430W

INVERTER TYPE: Q.MI.349B-G1, QTY 23 REQ'D, 349W, 240V

8.027 kW-AC/ 9.890 kW-DC

WIRING SCHEDULE

TAG	CONDUIT SIZE	CABLE TYPE	CONDUCTOR	NEUTRAL	GROUND	NOTES
1	NONE	12/2 Trunk Cable	12 AWG CU	NONE	6 AWG Bare CU	Mfg.supplied cabling within array
2	NONE	12/2 NM-B	12 AWG CU	NONE	12 AWG	Roof J Boxes to Attic J Box
3	1" PVC or EQUIV	N/A	10 AWG CU THWN-2	NONE	10 AWG CU THWN-2	Attic J Box to AC Combiner
4	1" PVC or EQUIV	N/A	6 AWG CU THWN-2	6 AWG CU THWN-2	10 AWG CU THWN-2	AC Combiner to Disconnect; Disconnect to ATS
5	1" PVC or EQUIV	N/A	6 AWG CU THWN-2	6 AWG CU THWN-2	10 AWG CU THWN-2	ATS to Battery
6	2" PVC or LFNC	N/A	4/0 AWG AL THWN-2	4/0 AWG AL THWN-2	NEUTRAL BOND	Meter to ATS
7	2" PVC or LFNC	N/A	4/0 AWG AL THWN-2	4/0 AWG AL THWN-2	6 AWG CU THWN-2	ATS to BUP
8	2" PVC or LFNC	N/A	8 AWG CU THWN-2	8 AWG CU THWN-2	10 AWG CU THWN-2	ATS to Existing Load
9	3/4" PVC or EQUIV	N/A	6 AWG CU THWN-2	6 AWG CU THWN-2	10 AWG CU THWN-2	ATS to Existing Load
10	3/4" PVC or EQUIV	N/A	6 AWG CU THWN-2	6 AWG CU THWN-2	10 AWG CU THWN-2	MDP to NEMA Plug (Car Charger)
11	3/4" PVC or EQUIV	18/2 CL3R	18 AWG CU	NONE	10 AWG CU THWN-2	Low Voltage Rapid Shutdown Circ. to Disconnect



Min/Max Voltage (V):	Vmp/Voc (V):	Tk Vmp/Tk Voc (%/°C):
30.61	33.2	-0.30
41.85	38.7	-0.24

Inverter ouput

1.45

Circuit Sizes	Amperages
10	18.125
7	12.6875
6	10.875

Total Amperage

41.68

(INVERTER OUTPUT) X (1.25) = BRANCH CIRCUIT AMPERAGE

PV LEAD	ELECTRICIAN

SITE FLOOD PLANE:
ZONE X BFE: N/A

LEGEND	
(N)	NEW
(E)	EXISTING
(O)	NEW BY OTHERS
—	NEUTRAL
—	GROUND

CAPE FEAR
SOLAR SYSTEMS

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



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

9.89 kW DC PV SYSTEM
WISDOM SOLAR PROJECT
115 Mary Robertson St, Dunn, NC 28334
LINE DIAGRAM

REVISION LIST

#	REV. DATE	DESC.

DATE:	March 18, 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)

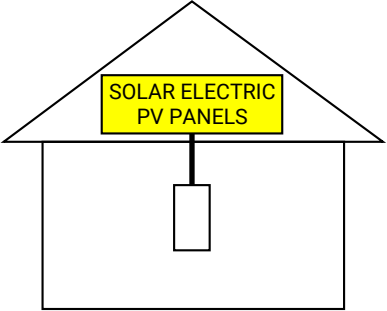
SERVICE DISCONNECT

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.



IFC 605.11.3(1) & NEC 690.12(D)

CAUTION

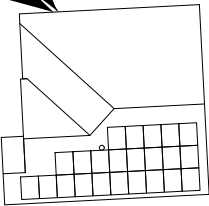
POWER TO THIS BUILDING IS SUPPLIED FROM THE FOLLOWING
SOURCES WITH DISCONNECTS LOCATED AS SHOWN:

SERVICE DISCONNECT
(EXTERIOR)

PV SYSTEM DISCONNECT
(EXTERIOR)

ESS DISCONNECT
(EXTERIOR)

METER (EXTERIOR)



NET METER w/ BATTERY

**WARNING**

THREE POWER SOURCES

SOURCES: UTILITY GRID, BATTERY AND
PV SOLAR ELECTRIC SYSTEM

NEC 705.30(C) and NEC 690.59
ENERGY STORAGE SYSTEMS

BATTERY
DISCONNECT

NEC 706.7(E)(2)

CAPE FEAR
SOLAR SYSTEMS

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



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

9.89 kW DC PV SYSTEM
WISDOM SOLAR PROJECT
115 Mary Robertson St, Dunn, NC 28334

STICKERS

REVISION LIST 		
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E-02