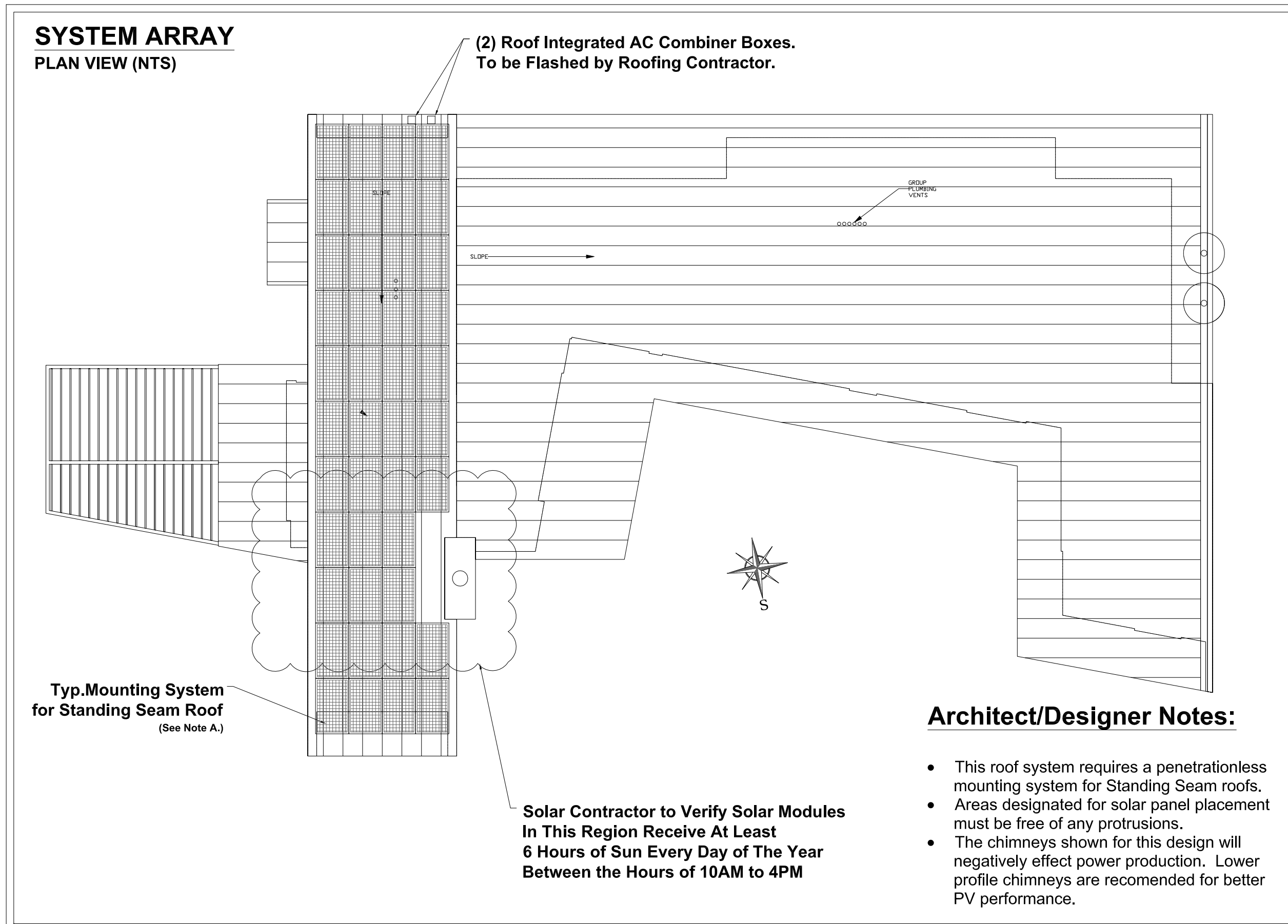




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Contractor Notes:

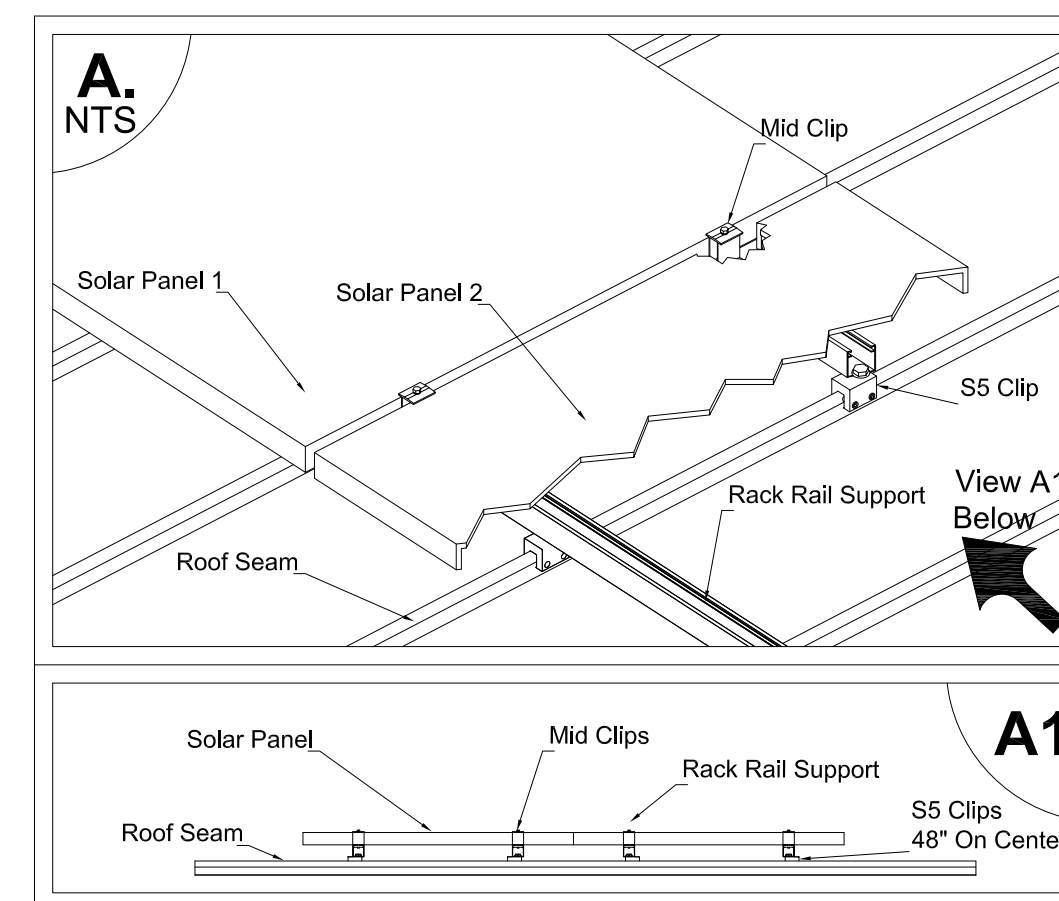
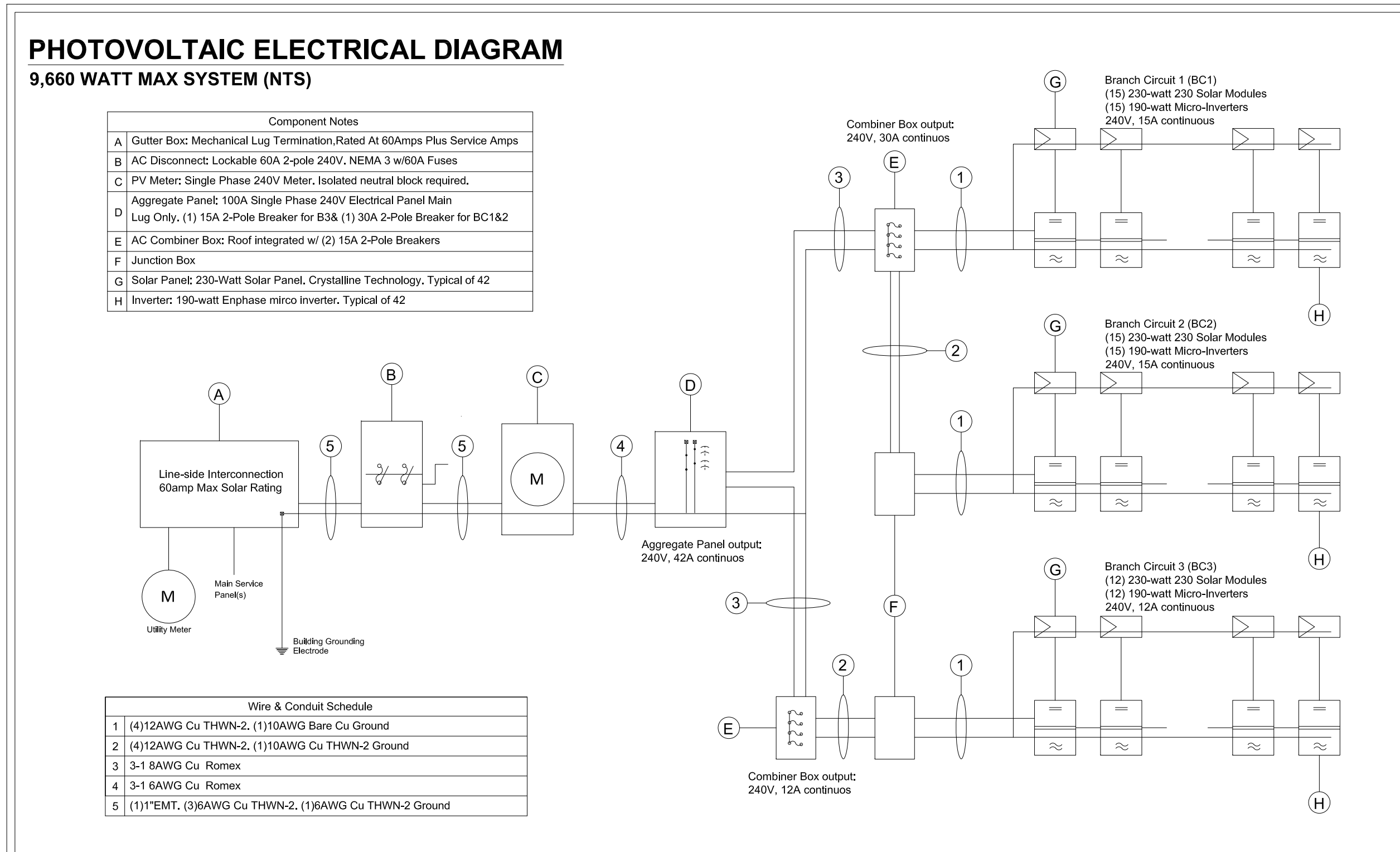
- Contractor shall install the solar photovoltaic (PV) system according to the 2008 National Electric Codes and proper local jurisdiction.
- Contractor shall verify roof load capacity with the project engineer.
- Contractor shall install roof mounts at the appropriate spacing to accommodate maximum wind loads.
- Any roof penetrations shall be weatherproofed an appropriately flashed according to all other roof penetrations standards designated in plans.
- Integrated roof junction box shall be flashed according to architect specifications.
- Contractor shall allow a practical amount of slack on PV conductors to avoid any strain.
- Contractor shall fasten PV conductors to prevent direct contact with the roof.
- PV array junction box(es) shall have a minimum of UL 50 and NEMA 3 rated enclosure.
- Combined conduit run shall not exceed 360" unless pull boxes are installed
- For the array circuit wiring: Lowest expected ambient temperature shall be verified for the installation site and shall not exceed 600V DC in a series string
- Electrical Metallic Tubing (EMT) should be used for DC conductors
- Threaded nipple with fiber bushings shall be installed joining the junction box to the attic space.
- PV modules must be certified to UL 1703 by a nationally recognized Testing Laboratory.
- Inverters must be certified to UL 1741 standard by a nationally recognized Testing Laboratory.
- The PV Meter shall be a revenue grade meter and be certified to meet or exceed the standards of ANSI C12.1-2008, or be provided by local Utility Company.
- The racking system and associated hardware shall be specifically designed for PV systems, including rust and corrosion-resistant hardware/components and appropriately engineered to withstand anticipated structural and wind loading conditions.
- Grounding components for the racking system, solar panels and other electrical components shall be UL-listed and rated for their respective function. (Tin plated copper lay-in lug shall be used on a solar panel to facilitate proper grounding in the event of a ground fault).

Solar Design By

CIRCULAR ENERGY
 designs@circularenergy.com
 512.215.4414

Project Notes - Rebate Information

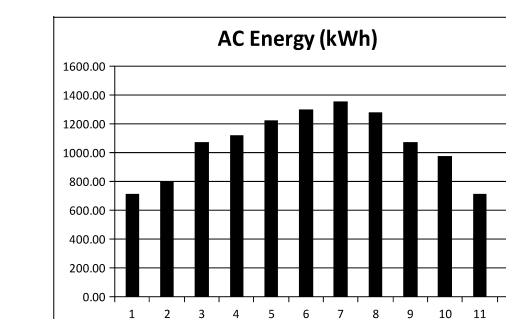
- This project meets the historical and current qualifications for Austin Energy's (AE) residential rebate program. Currently, AE is offering a \$2.50 per watt per household per year rebate with a \$15,000 yearly cap and a \$50,000 lifetime cap.
- To apply for the rebate, Contractor or Client Representative should contact an AE-approved Solar PV Vendor and ask this vendor to begin the Solar Rebate Application Process.
- An Austin Energy representative will review the application to ensure requirements are met (see here: <http://www.austinenrgy.com/Energy%20Efficiency/Programs/Rebates/Solar%20Rebates/solarRebateProcedures.pdf>) and to ensure that rebate funds are still available.
- If requirements are met and funds are available, AE will issue a Letter of Intent (LOI) to Vendor and Contractor/Client Representative. Funds against this LOI will then be reserved for 180 days. Extensions may be made in writing prior to expiration of Project LOI.
- After Solar PV project has been completed and passed Final Inspection, AE will release rebate funds directly to Client or Vendor.



ARRAY OUTPUT

Results			
Month	Solar Radiation (kWh/m ² /day)	AC Energy (kWh)	Energy Value (\$)
1	3.26	712	106.80
2	4.08	796	119.40
3	4.97	1073	160.95
4	5.49	1117	167.55
5	5.93	1223	183.45
6	6.60	1295	194.25
7	6.78	1354	203.10
8	6.34	1273	190.95
9	5.35	1068	160.20
10	4.69	971	145.65
11	3.52	715	107.25
12	2.91	625	93.75
Year	5.00	12223	1833.45

Station Identification	
City:	Austin
State:	Texas
Latitude:	30.30° N
Longitude:	97.70° W
Elevation:	189 m
PV System Specifications	
DC Rating:	9.7 kW
DC to AC Derate Factor:	0.770
AC Rating:	7.4 kW
Array Type:	Fixed Tilt
Array Tilt:	3.8°
Array Azimuth:	170.0°
Energy Specifications	
Cost of Electricity:	15.0 ¢/kWh



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24-NOVEMBER-2010
CONSTRUCTION SET

MEP4
MEP
SOLAR PANEL
LAYOUT