

## CONTRACTOR

PHONE:

LIC. No.:

UNAUTHORIZED USE OF THIS
DRAWING SET WITHOUT WRITTEN
PERMISSION FROM CONTRACTOR IS IN
VIOLATION OF U.S. COPYRIGHT LAWS
AND WILL BE SUBJECT TO CIVIL
DAMAGES AND PROSECLITIONS



# **ENGINEER OF RECORD**

NAME:

LIC. No.:

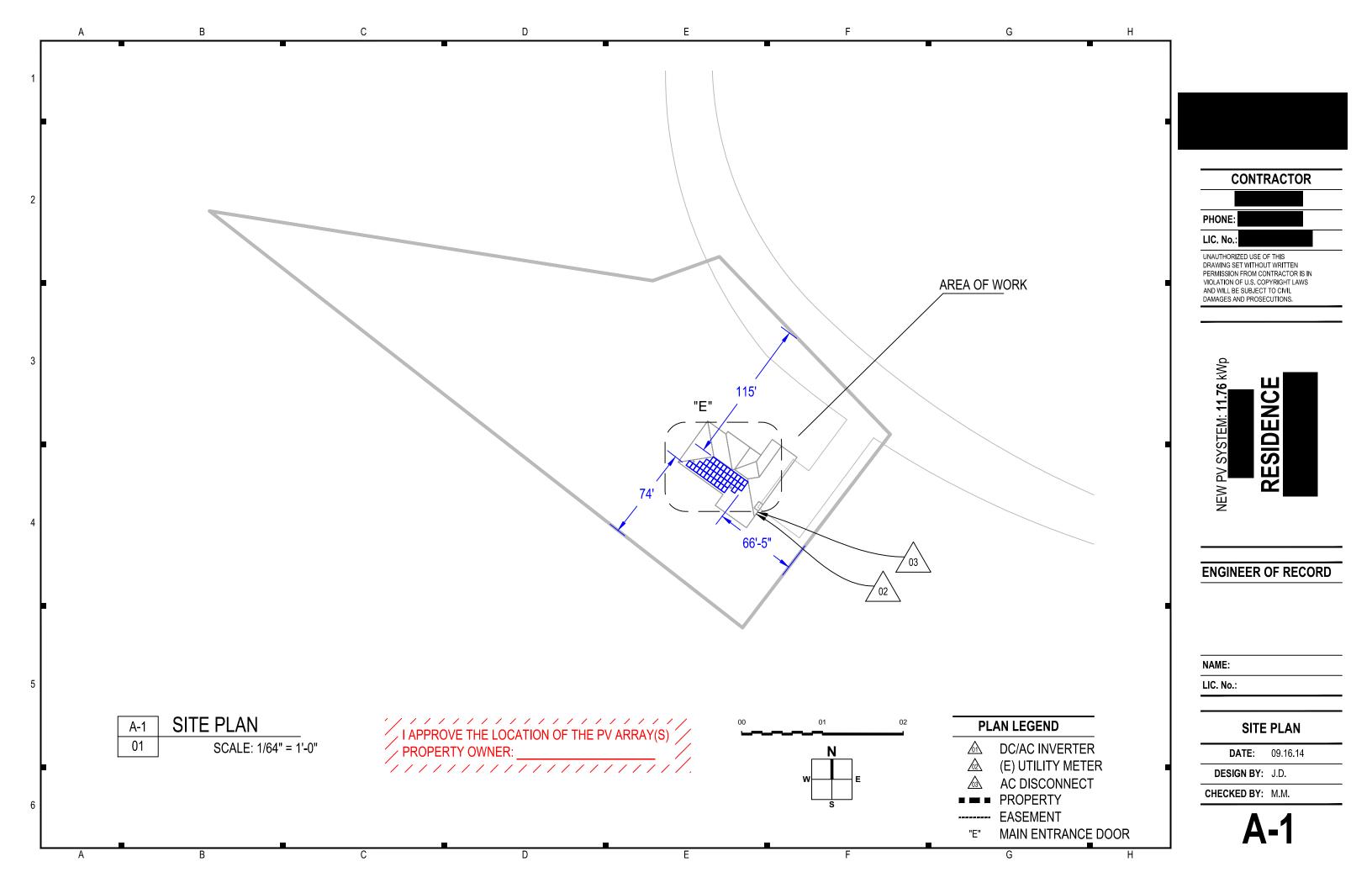
### SITE PLAN

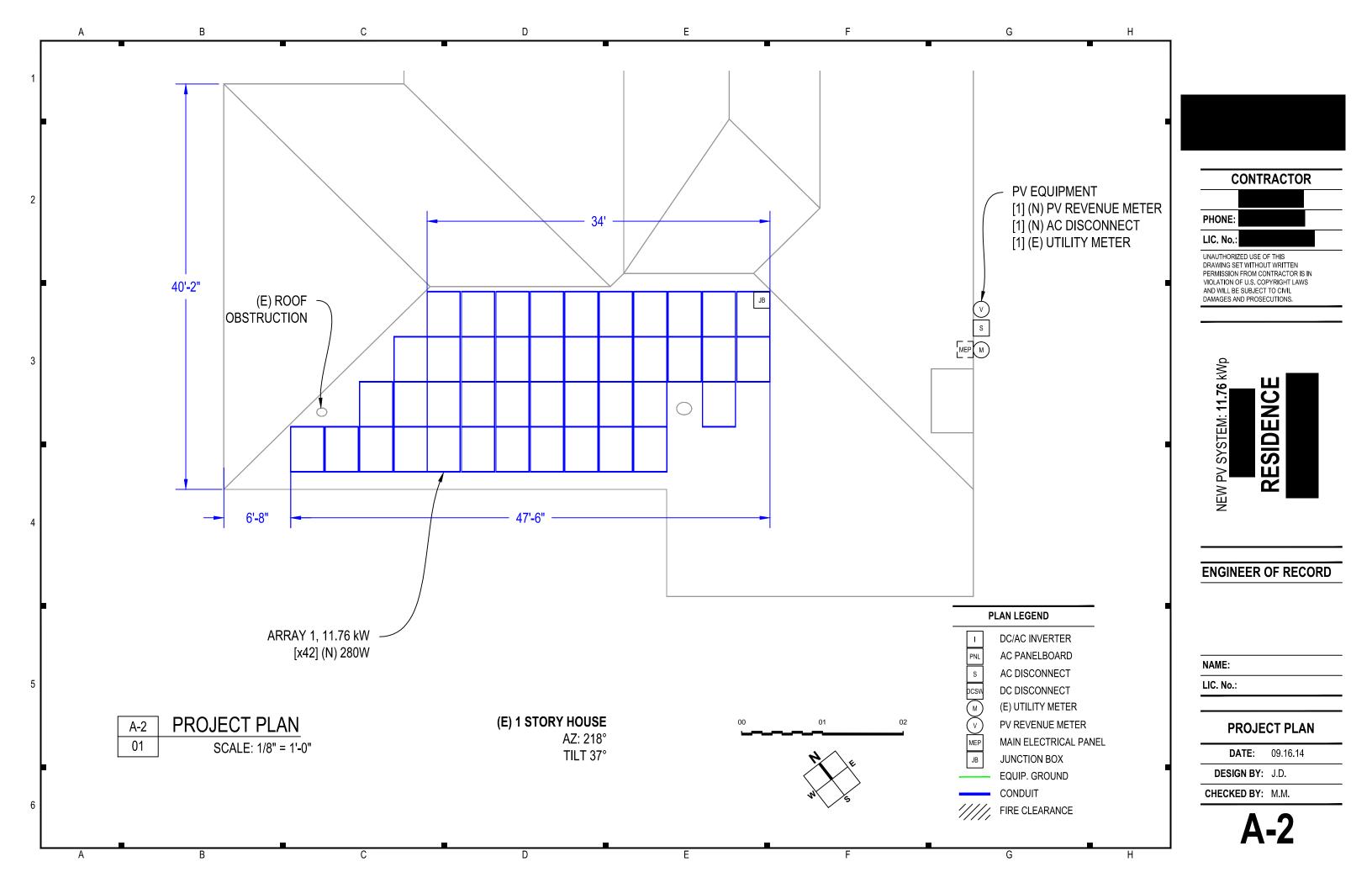
**DATE**: 09.16.14

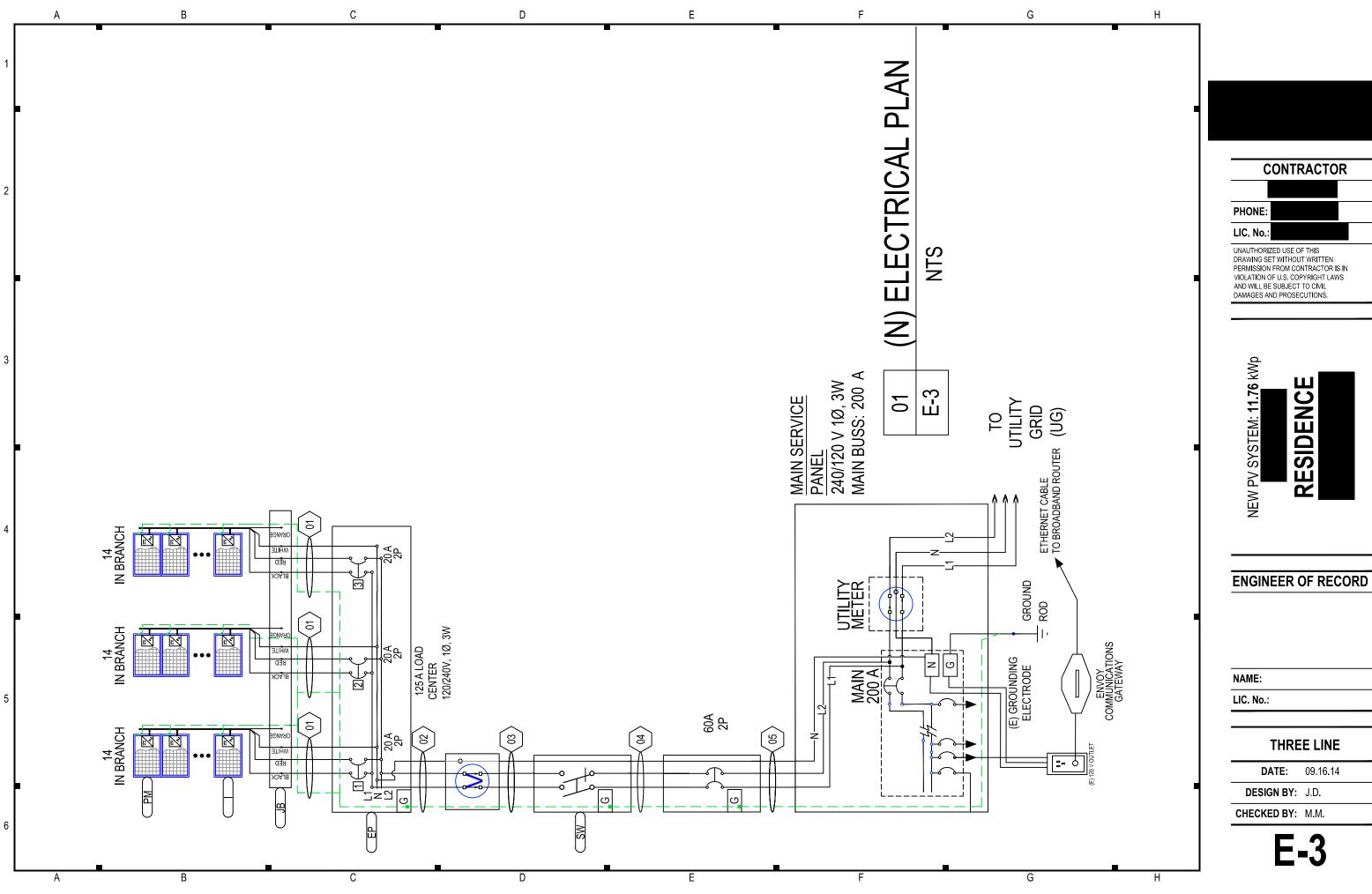
DESIGN BY: J.D.

CHECKED BY: M.M.

CV







CONTRACTOR

RESIDENCE

A B C D E F G H

# **BILL OF MATERIALS**

CATEGORY	MAKE	MODEL NUMBER	REF	QTY	UNIT	QTY/UNIT	DESCRIPTION
MODULE	LG	LG280N1C-G3	PM1-42	42	PIECES	1	LG LG280N1C-G3 280W, 60 CELLS, MONOCRYSTALLINE SILICON
INVERTER	ENPHASE	M250-60-2LL-S22	11-42	42	PIECES	1	ENPHASE M250-60-2LL-S22 240W MICROINVERTER
DISCONNECT	SQUARE D	DU222RB	SW1	1	PIECE	1	SQUARE D DU222RB DISCONNECT SWITCH, 2-POLE, 60A, 240VAC
MISC ELECTRICAL EQUIPMENT		GEN-AC-PANEL	EP1-2	2	PIECES	1	AC SUBPANEL
MISC ELECTRICAL EQUIPMENT		GEN-CABLE-CLIP	HDWR7-216	210	PIECES	1	GENERIC CABLE CLIP
MISC ELECTRICAL EQUIPMENT		GEN-METER-80A	M1	1	PIECE	1	ELECTRICAL METER, OWNER APPROVED
WIRING	ENPHASE	ET10-240-40	EN1-3	3	PIECES	1	ENPHASE ENGAGE (TM) TRUNK CABLE FOR PORTRAIT LAYOUT
WIRING	ENPHASE	ET-TERM-10	EN4	10	BUNDLES	1	ENPHASE ENGAGE (TM) BRANCH TERMINATOR
WIRING	ENPHASE	ET-SEAL-10	EN5	10	BUNDLES	1	ENPHASE ENGAGE (TM) WATERTIGHT SEALING CAP
WIRING		GEN-6AWG-BARE-CU	HDWR1	296	FEET	1	6 AWG BARE, COPPER (MODULE/RACKING EGC)
WIRING		GEN-10-AWG-THWN-2-CU-RD	WR1	180	FEET	1	10 AWG THWN-2, COPPER, RED (LINE 2)
WIRING		GEN-10-AWG-THWN-2-CU-BLK	WR1	180	FEET	1	10 AWG THWN-2, COPPER, BLACK (LINE 1)
WIRING		GEN-10-AWG-THWN-2-CU-WH	WR1	180	FEET	1	10 AWG THWN-2, COPPER, WHITE (NEUTRAL)
WIRING		GEN-10-AWG-THWN-2-CU-GR	WR1-2	200	FEET	1	10 AWG THWN-2, COPPER, GREEN (GROUND)
WIRING	,	GEN-6-AWG-THWN-2-CU-BLK	WR2-4	60	FEET	1	6 AWG THWN-2, COPPER, BLACK (LINE 1)
WIRING	,	GEN-8-AWG-THWN-2-CU-WH	WR2-4	60	FEET	1	8 AWG THWN-2, COPPER, WHITE (NEUTRAL)
WIRING		GEN-6-AWG-THWN-2-CU-RD	WR2-4	60	FEET	1	6 AWG THWN-2, COPPER, RED (LINE 2)
WIRING		GEN-8-AWG-THWN-2-CU-GR	WR3-4	30	FEET	1	8 AWG THWN-2, COPPER, GREEN (GROUND)
WIREWAY	ENPHASE	ET-SPLK-05	EN6	5	BUNDLES	1	ENPHASE ENGAGE (TM) ENGAGE COUPLER
WIREWAY		GEN-JBOX	JB1	1	PIECE	1	JUNCTION BOX
WIREWAY		GEN-EMT-1DIA	WW1	90	FEET	1	EMT CONDUIT, 1 DIA.
WIREWAY		GEN-EMT-0_75DIA	WW2-4	60	FEET	1	EMT CONDUIT, 0.75 DIA.
OCPD		GEN-CB-20A-250VAC	CB1-3	3	PIECES	1	CIRCUIT BREAKER, 20A, 250VAC
OCPD		GEN-CB-60A-250VAC	CB4	1	PIECE	1	CIRCUIT BREAKER, 60A, 250VAC

# **NEC ELECTRICAL CALCULATIONS FOR CONDUCTORS**

ID	TYP	DESCRIPTION	CONDUCTOR	CONDUIT	NO. CNDRS. IN CNDT.	FILL %	RATED AMPS	OCPD	EGC	TEMP. CORR. FACTOR	FILL ADJ. FACTOR	CONT. CURRENT	MAX. CURRENT	BASE AMPACITY	COU AMPACITY
1	3	AC BRANCH OUTPUT: JUNCTION BOX TO AC COMBINER PANEL	10 AWG THWN-2, COPPER	1" DIA. EMT	9	29.3%	14.0A	20A X 1	10 AWG THWN-2, COPPER	0.58 (68°C)	0.7	14A	17.5A	40A	16.24A
2	1	COMBINED OUTPUT OF INVERTERS: AC COMBINER PANEL TO PRODUCTION METER	6 AWG THWN-2, COPPER	0.75" DIA. EMT	3	29.8%	42.0A	60A X 1	10 AWG THWN-2, COPPER	0.82 (50°C)	1.0	42A	52.5A	75A	61.5A
3	1	PRODUCTION METER OUTPUT: PRODUCTION METER TO UTILITY DISCONNECT	6 AWG THWN-2, COPPER	0.75" DIA. EMT	3	32.8%	42.0A	60A X 1	8 AWG THWN-2, COPPER	0.82 (50°C)	1.0	42A	52.5A	75A	61.5A
4	1	AC DISCONNECT OUTPUT: AC DISCONNECT TO UTILITY DISCONNECT PANEL	6 AWG THWN-2, COPPER	0.75" DIA. EMT	3	32.8%	42.0A	60A X 1	8 AWG THWN-2, COPPER	0.82 (50°C)	1.0	42A	52.5A	75A	61.5A
5	1	BREAKER BOX OUTPUT (UTILITY DISCONNECT): UTILITY DISCONNECT PANEL TO POINT OF CONNECTION	6 AWG THWN-2, COPPER	0.75" DIA. EMT	3	32.8%	42.0A	60A X 1	8 AWG THWN-2, COPPER	0.82 (50°C)	1.0	42A	52.5A	75A	61.5A

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NAME:

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## THREE LINE

**DATE**: 09.16.14

DESIGN BY: J.D.

CHECKED BY: M.M.

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