

PV Down (Combiner to Inverter) Wire Sizing

8.86 Total Combiner Load
2.22 (+25% NEC 690.8(a)(1))
2.77 (+25% NEC 690.8(b)(1))
13.84 A Min for sizing

Wire Derating

0.76 Temp correction 150 to 158 dec F
0.8 Multiple wires in conduit

Wires	Derate
04-06	0.80
07-09	0.70
10-20	0.50
21-30	0.45
31-40	0.40
41-	0.35

30 Wire Ampacity THWN-2 Tbl 310.16

#12	30A
#10	40A
#8	55A
#6	75A
#4	95A
#3	110A
#2	130A

Ampacity check
18.24 #WireAmp*MuPl*Temp
13.84 Min Requirement

AC Wire Sizing

32 Inverter rating
0.00 (+25% NEC 690.8(a)(1))
8.00 (+25% NEC 690.8(b)(1))
40.00 A Min for sizing

Wire Derating

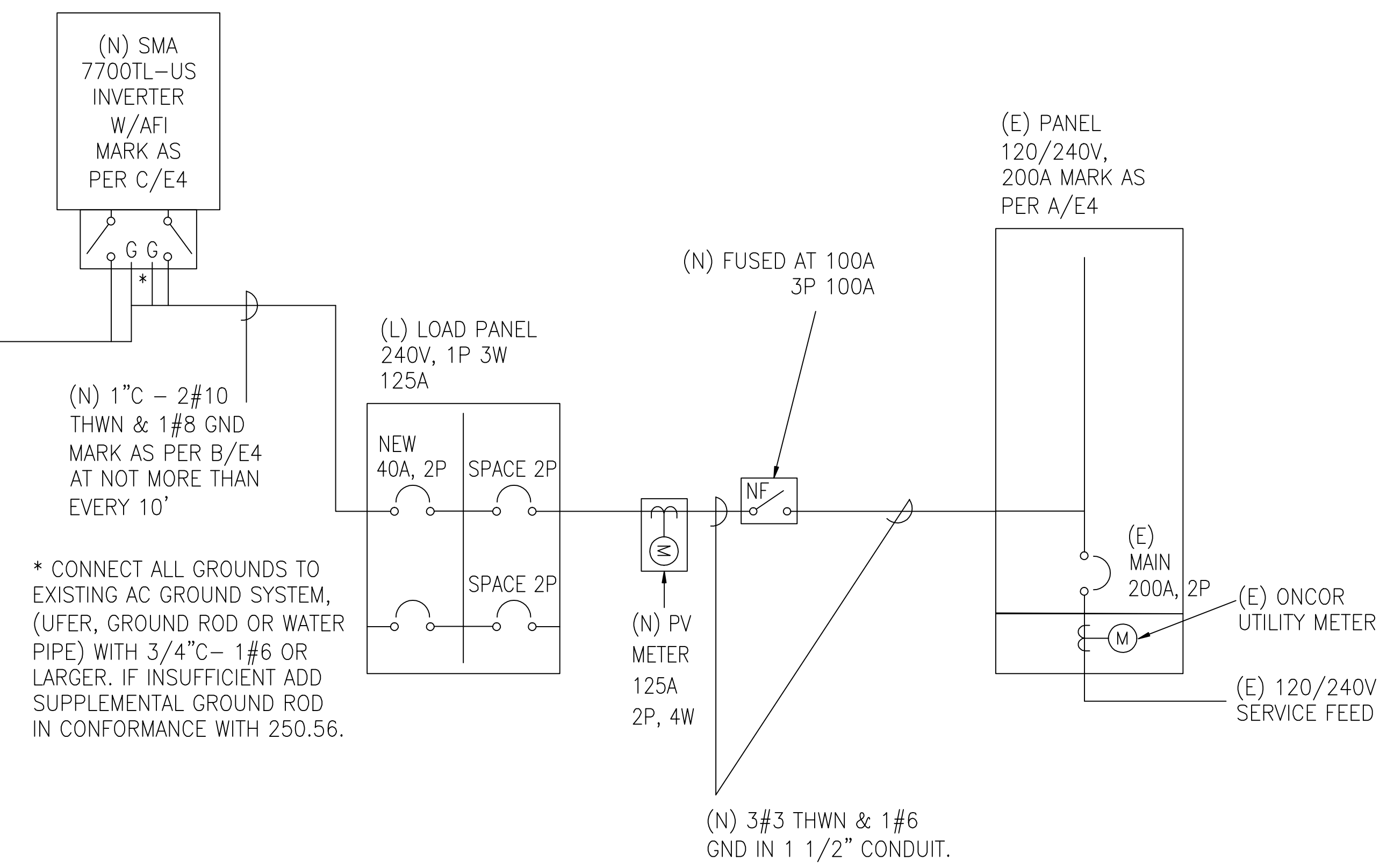
0.8 Multiple wires in conduit

Wires	Derate
04-06	0.80
07-09	0.70
10-20	0.50
21-30	0.45
31-40	0.40
41-	0.35

55 Wire Ampacity THWN-2 Tbl 310.16

#12	30A
#10	40A
#8	55A
#6	75A
#4	95A
#3	110A
#2	130A

Ampacity check
44 #WireAmp*MuPl*Temp
40.00 Min Requirement



SINGLE LINE DIAGRAM
NO SCALE

DFSIGNFR:

PHOTOVOLTAIC INSTALLATION
Residence

REVISIONS

NO.	REVISIONS	DATE
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-

SHEET INFO

JOB NO.	15-0005
SCALE	AS SHOWN
DATE	03/25/2015
DRAWN BY	LC/LC
CHK'D BY	LC
SHEET NUMBER	E2