

D4679-E-957

CODE REQUIRED SIGNAGE

AFFIX THIS WARNING EVERY 10 FEET TO ALL EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES, ALL DC COMBINERS AND JUNCTION BOXES

AFFIX THIS WARNING TO ALL DISCONNECT SWITCHES & INVERTERS

PHOTOVOLTAIC SYSTEM WARNING
ELECTRIC SHOCK HAZARD
 DO NOT TOUCH TERMINALS
 TERMINALS ON BOTH THE LINE
 AND LOAD SIDES MAY BE
 ENERGIZED IN THE OPEN POSITION

AFFIX THIS LABEL TO DC DISCONNECT SWITCH "CBX-A"

ARRAY A COMBINER
 10 STRINGS OF 14 SOLAR MODULES
 OUTPUT RATINGS
 536 Vmax, 370 Vdc RATED
 130 Isc, 80 Imp

AFFIX THIS LABEL TO DC DISCONNECT SWITCH "CBX-1B"

ARRAY B1 COMBINER
 7 STRINGS OF 14 SOLAR MODULES
 OUTPUT RATINGS
 536 Vmax, 370 Vdc RATED
 91 Isc, 56 Imp

AFFIX THIS LABEL TO DC DISCONNECT SWITCH "CBX-2B"

ARRAY B2 COMBINER
 16 STRINGS OF 14 SOLAR MODULES
 OUTPUT RATINGS
 536 Vmax, 370 Vdc RATED
 208 Isc, 127 Imp

AFFIX THIS LABEL TO DC DISCONNECT SWITCH "CBX-C"

ARRAY C COMBINER
 10 STRINGS OF 14 SOLAR MODULES
 OUTPUT RATINGS
 536 Vmax, 370 Vdc RATED
 130 Isc, 80 Imp

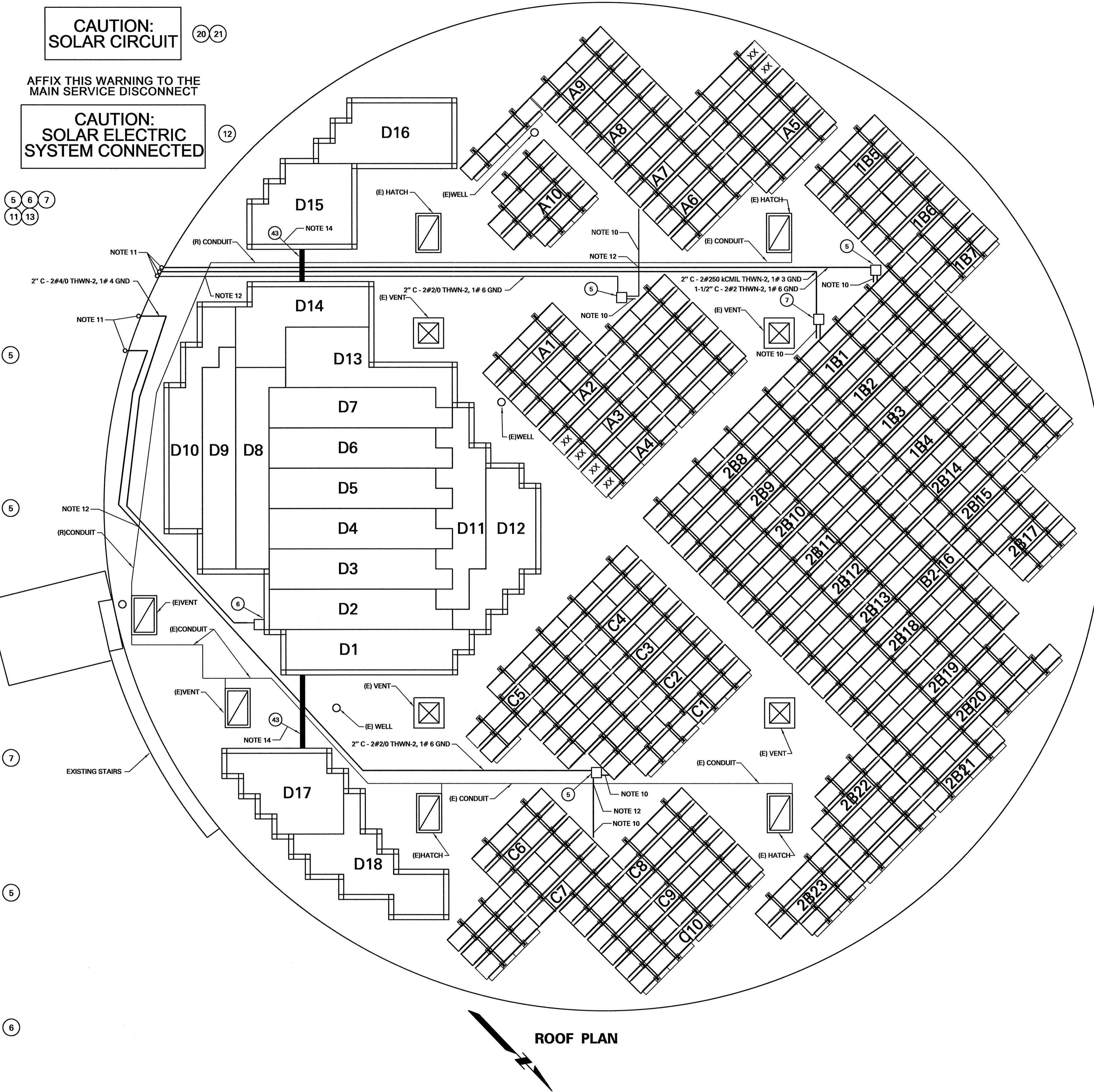
AFFIX THIS LABEL TO DC DISCONNECT SWITCH "CBX-D"

ARRAY D COMBINER
 18 STRINGS OF 21 SOLAR MODULES
 OUTPUT RATINGS
 589 Vmax, 397 Vdc RATED
 214 Isc, 124 Imp

CAUTION: SOLAR CIRCUIT

AFFIX THIS WARNING TO THE MAIN SERVICE DISCONNECT

CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED



ROOF PLAN

QTY.	PART NO.	PARTS LIST DESCRIPTION
608	1	SOLAR MODULE, SUNTECH MODEL # STP210-18/Ub-1
378	2	SOLAR MODULE, ASTROPOWER MODEL # AP-130
1	3	DISTRIBUTION BOARD WITH UGFS, 600A, 120/208V-3Ø-4W
1	4	TRANSFORMER, DRY-TYPE, 225KVA 208V TO 480V
3	5	DC COMBINER BOX, SOLARBOS, CS160-10-15-N4, NEMA 4 (15A FUSES)
1	6	DC COMBINER BOX, SOLARBOS, CS245-16-15-N4, NEMA 4 (15A FUSES)
1	7	DC COMBINER BOX, SOLARBOS, CS245-16-15-N4, NEMA 4 (15A FUSES)
1	8	DC COMBINER BOX, SOLARBOS, AC-03-400, NEMA 3 (200A, 100A, 125A FUSES)
1	9	INVERTER, SATCON POWERGATE PLUS 30KW, NEMA 3R
1	10	INVERTER, SATCON POWERGATE PLUS 50KW, NEMA 3R
1	11	INVERTER, SATCON POWERGATE PLUS 100KW, NEMA 3R
1	12	SWITCH, SAFETY, 3P, 600V, UTILITY DISCONNECT 300A FUSED, NEMA 3
AS REQD	13	CABLE, CU, #10 USE-2
AS REQD	14	CABLE, CU, 600V, #1, THWN-2
AS REQD	15	CABLE, CU, 600V, #4/0, THWN-2
AS REQD	16	CABLE, CU, 600V, #250kCMIL, THWN-2
AS REQD	17	CABLE, CU, 600V, #350kCMIL, THWN-2
AS REQD	18	CABLE, CU, 600V, #500kCMIL, THWN-2
AS REQD	19	CABLE, CU, 600V, #4, THWN-2
AS REQD	20	CONDUIT, STL, EMT, GALV, 1-1/2"
AS REQD	21	CONDUIT, STL, EMT, GALV, 2"
AS REQD	22	CONDUIT, STL, EMT, GALV, 3"
AS REQD	23	CONDUIT, PVC, SCH. 40, 3"
AS REQD	24	CONDUIT, PVC, SCH. 40, 2"
AS REQD	25	CABLE, GROUNDING, CU, #10
AS REQD	26	CABLE, GROUNDING, CU, #8
AS REQD	27	CABLE, GROUNDING, CU, #4
AS REQD	28	CABLE, GROUNDING, CU, #6
AS REQD	29	CABLE, GROUNDING, CU, #3/0, BARE
AS REQD	30	CABLE, GROUNDING, CU, #6
2	31	ROD, GROUNDING, CU, 3/4" DIAMETER, 10 FOOT
AS REQD	32	CABLE, GROUNDING, CU, #2 BARE
AS REQD	33	CABLE, CU, 600V, #1/0, THWN-2
AS REQD	34	SUPPORT, ROOFTOP, CONDUIT/COMBINER BOX, DURA-BLOK, COPPER B-LINE
AS REQD	35	EXOTHERMIC WELDING
5	36	GROUND SPOOL, CU
AS REQD	37	CABLE, CU, 600V, #2/0, THWN-2
AS REQD	38	CABLE, CU, 600V, #2, THWN-2
AS REQD	39	CONDUIT, STL, EMT, GALV, 2-1/2"
AS REQD	40	CABLE, CU, 600V, #300kCMIL, THWN-2
7	43	CABLE PROTECTOR, HEAVE DUTY, LOW PROFILE (3'-0" LENGTH EACH)

NOTES

- SOLAR ARRAY ELEVATION : 44 FEET UNLESS NOTED
- OPERATING TEMPERATURE RANGE OF SYSTEM: 50°F TO 113°F
- ALL TERMINATIONS RATED @75°C
- NO JUNCTION, PULL OR OUTLET BOXES ARE BEHIND ANY MODULE.
- REFER TO WIRING DIAGRAMS: CBX-A: D4679-E-953, CBX-B: D4679-E-954, CBX-C: D4679-E-955, CBX-D: D4679-E-956
- PROVIDE A 4'-0" MINIMUM TO EDGES AROUND ROOFTOP.
- COMBINER BOX SHALL BE MOUNTED ON ROOFTOP SUPPORTS.
- PROVIDE ROOFTOP SUPPORTS FOR CONDUITS PENETRATING THE HORIZONTALLY PLACED COMBINER BOX. PLACE SUPPORTS WITHIN 1'-6" OF COMBINER BOX.
- PROVIDE ROOFTOP SUPPORT FOR CONDUITS. PLACE A MINIMUM OF 5'-0" APART.
- ROUTE STRINGS FROM SOLAR ARRAY THROUGH ROOFTOP CONDUIT TO COMBINER BOX. REFER TO D4679-E-951 FOR CONDUIT SIZE AND LENGTH.
- SURFACE ROUTE CONDUITS DOWN WATER TANK WALL. PROVIDE UNISTRUT FOR CONDUIT SUPPORT AND CONNECTIONS AS REQUIRED. UNISTRUT SHALL BE WELDED ONTO WALL. THERE SHALL BE NO WALL PENETRATION. SEE PARTIAL PLAN ON SHEET D4679-E-961 FOR FURTHER INFORMATION.
- PROVIDE ROOFTOP SUPPORT FOR NEW CONDUITS TO CROSSOVER EXISTING CONDUIT HEIGHT OF 3-1/2 INCHES.
- DC STRINGS TO COMBINER BOXES SHALL BE ROUTED UNDERNEATH SOLAR PANELS. DC STRINGS SHALL NOT BE IN CONDUIT UNLESS OTHERWISE NOTED. SEE NOTE 10.
- PROVIDE CABLE PROTECTOR FOR ROUTE OF DC STRINGS TO COMBINER BOX. CABLE PROTECTOR SHALL BE CONTINUOUS UNDERNEATH THE EXISTING/ NEWCONDUITS WHERE IT INTERCEPTS.

ABBREVIATIONS

- C: CONDUIT
- (E): EXISTING
- J-BOX: JUNCTION BOX
- GND: GROUND
- (R): RELOCATED
- UGPS: UNDERGROUND PULL-SECTION
- XX: SOLAR PANEL NOT INSTALLED

	REVISIONS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NUMBER</th> <th>DATE</th> <th>INITIALS</th> <th>LOC.</th> <th>DESCRIPTION</th> <th>APP'D</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NUMBER	DATE	INITIALS	LOC.	DESCRIPTION	APP'D																			REFERENCES <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>FILE NAME</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	FILE NAME	DATE					SCALE 3/32"=1'-0" DATE 8/11	APPROVED <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"> D. NOVOA AS TO DESIGN 8/11 </td> <td style="width: 50%; text-align: center;"> E. LOPEZ AS TO OPERATION 8/11 </td> </tr> </table>	 D. NOVOA AS TO DESIGN 8/11	 E. LOPEZ AS TO OPERATION 8/11	DATE 9-1-11	ROOF WATER TANK POWER PLAN 180KW PHOTOVOLTAIC SOLAR SUSANA WATER TANK FACILITY DEPARTMENT OF WATER AND POWER CITY OF LOS ANGELES	ROOF WATER TANK 20051 SESNON BLVD. DRAWING NUMBER D 4679-E-957
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