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PREPARED FOR:

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CANDELA RENEWABLES  
 500 SANSOME STREET, STE 500  
 SAN FRANCISCO, CA 94111

**PRELIMINARY**  
 NOT FOR CONSTRUCTION

REV	DATE	ISSUE DESCRIPTION
1	03/16/2022	REISSUED FOR BID
0	01/29/2022	ISSUED FOR BID

APPROVED BY: BC  
 CHECKED BY: AM  
 DESIGNED BY: JC  
 DRAWN BY: JC

SCALE: N.T.S.

PROJECT NUMBER: 21-1008 GRIMES

DRAWING NAME:

**PRELIMINARY**  
**GRIMES SOLAR**  
**138/34.5 kV**  
**SUBSTATION**  
**SINGLE LINE DIAGRAM**

DRAWING No.	SHEET:	REVISION
E-408	1 of 1	1

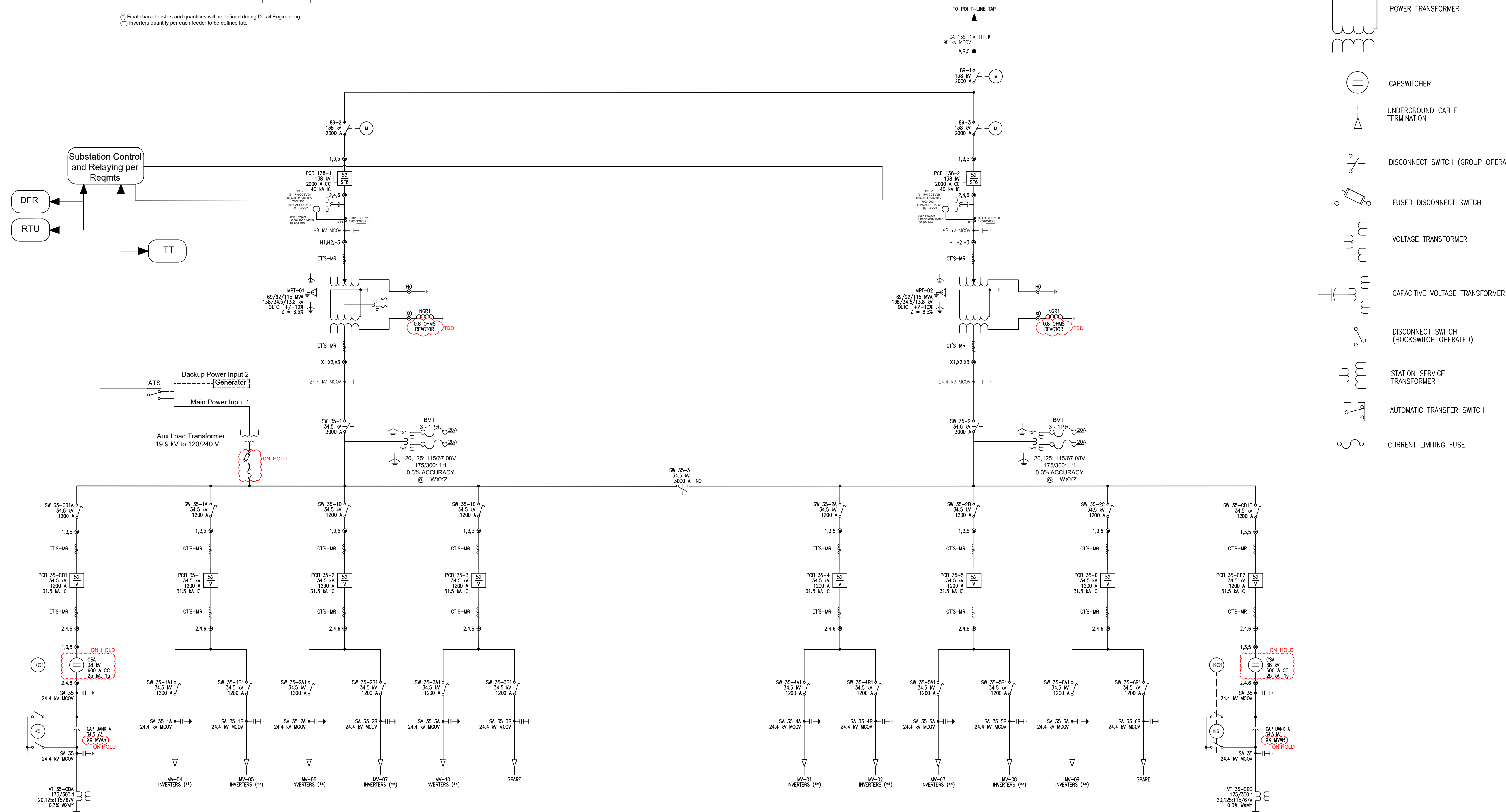
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### SYMBOL LEGEND

- BUS
- MCOV SURGE ARRESTER
- DISCONNECT SWITCH (MOTOR OPERATED)
- EQUIPMENT BUSHING
- SF6 POWER CIRCUIT BREAKER
- VACUUM POWER CIRCUIT BREAKER
- POWER TRANSFORMER
- CAPSWITCHER
- UNDERGROUND CABLE TERMINATION
- DISCONNECT SWITCH (GROUP OPERATED)
- FUSED DISCONNECT SWITCH
- VOLTAGE TRANSFORMER
- CAPACITIVE VOLTAGE TRANSFORMER
- DISCONNECT SWITCH (HOOKSWITCH OPERATED)
- STATION SERVICE TRANSFORMER
- AUTOMATIC TRANSFER SWITCH
- CURRENT LIMITING FUSE

EQUIPMENT DESCRIPTION (*)	QUANTITY	VOLTAGE
HV SURGE ARRESTER (SA)	3	98 kV MCOV
HV DISCONNECT SWITCH, MOTOR OPERATED (89)	3	138 kV
HV COUPLING CAPACITOR VOLTAGE TRANSFORMER	6	138 kV
HV POWER CIRCUIT BREAKER (PCB-138)	2	138 kV
MAIN POWER TRANSFORMER (MPT)	2	138/34.5/13.8 kV
MV VOLTAGE TRANSFORMER (BVT)	6	34.5 kV
MV DISCONNECT SWITCH, GROUP OPERATED (SW)	3	34.5 kV
MV HOOKSTICK DISCONNECT SWITCH, SINGLE PHASE (SW)	60	34.5 kV
MV POWER CIRCUIT BREAKER (PCB)	8	34.5 kV
MV CIRCUIT SWITCHER (CSA)	2	38 kV
CAPACITOR BANK, WITH KIRK KEY INTERLOCKED GROUND SWITCH, WITH 29 kV MCOV SURGER ARRESTER AND NEUTRAL GROUNDED VOLTAGE TRANSFORMER (CAP BANK)	2	34.5 kV
MV SURGE ARRESTER (SA)	36	24.4 kV MCOV

(\*) Final characteristics and quantities will be defined during Detail Engineering  
 (\*\*) Inverters quantity per each feeder to be defined later.



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