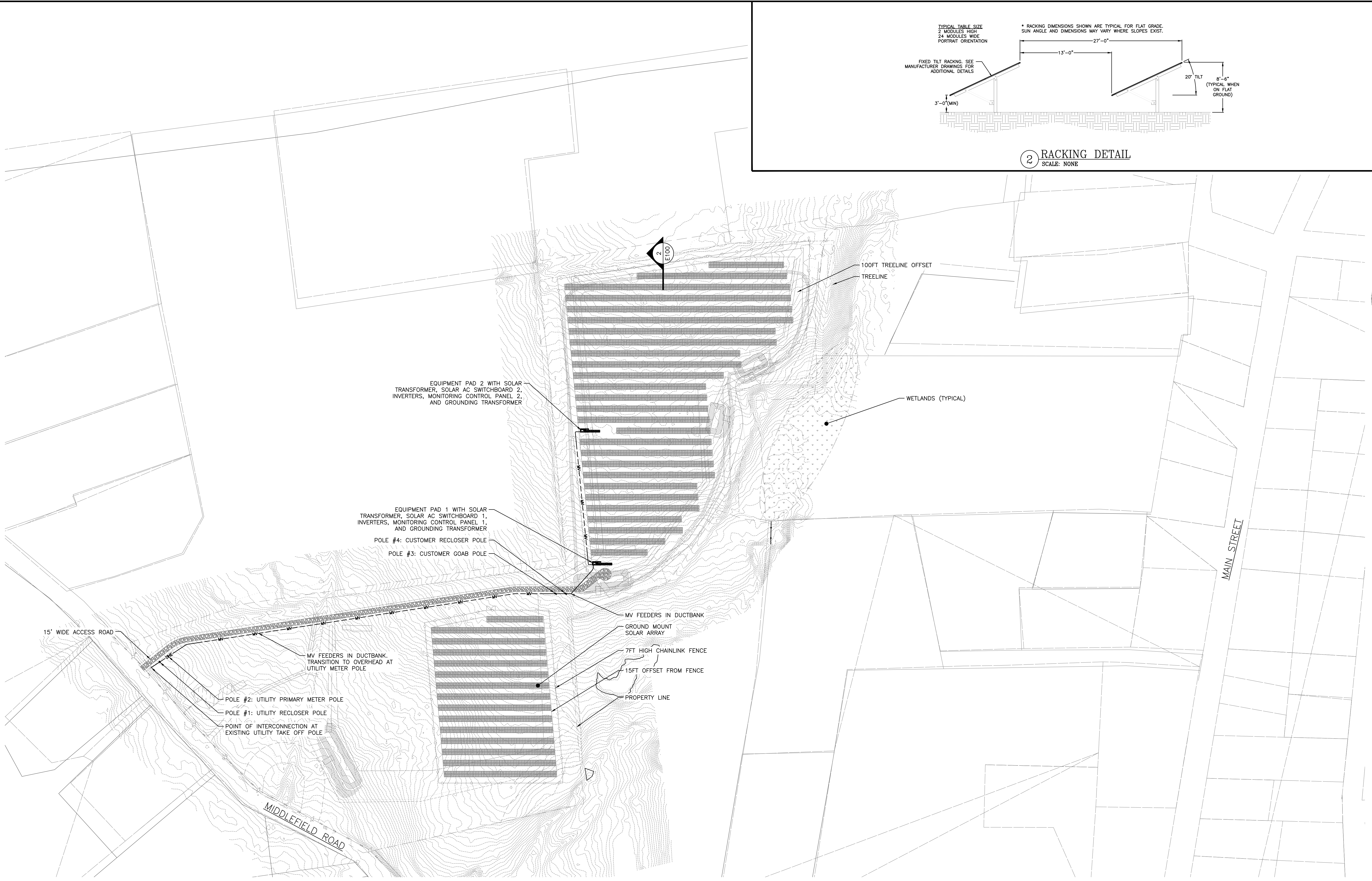
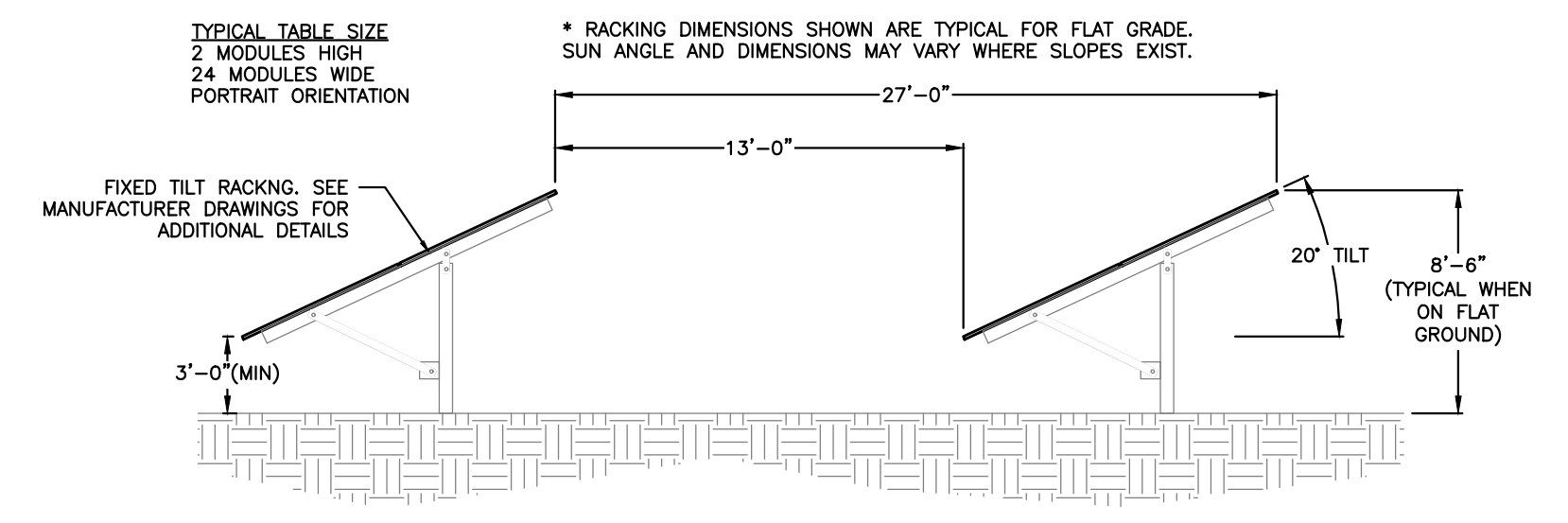


RULER IN INCHES: 0 1/2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

PLOT DATE: 4/19/2024 1:15 PM



1 OVERALL ELECTRICAL PLAN
SCALE: 1" = 100'

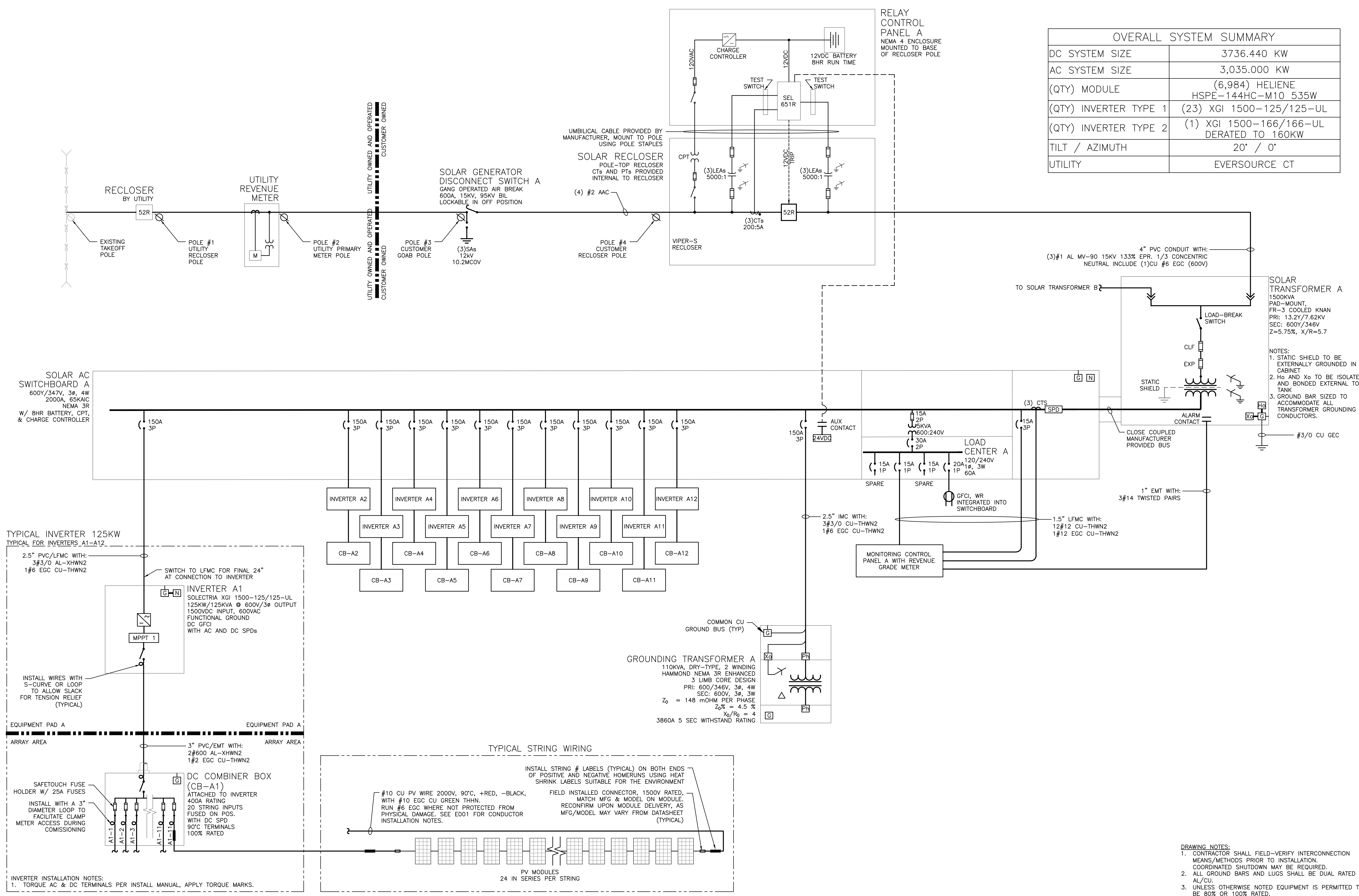


2 RACKING DETAIL
SCALE: NONE

<p>PURE POWER ENGINEERING 111 PUREPOWER.COM RICHARD A. WINS CT LICENSE NO. 0029262</p>	DATE	REVISION DESCRIPTION	PM	ENG	CHK		
	04/19/2024	IC DOCS - REV 2	SK	SF	RI		
	03/29/2024	IC DOCS - REV 1	SK	SF	RI		
	05/20/2023	INTERCONNECTION DOCUMENT	SK	SF	RI		
<p>GREENSKIES 127 WASHINGTON AVENUE NORTH HAVEN, CT 06473 WWW.GREENSKIES.COM</p>	DEVELOPER	PROJECT #	DC SYSTEM SIZE:	AC SYSTEM SIZE:	MODULE TYPE:	MODULE QUANTITY:	ORIENTATION:
Greenskies a Clean Focus company	06973	3736.440 kWDC	3035.000 kWAC	HSPE 144HC M10 535W	6984	20° TILT, 0° AZIMUTH	
<p>PROJECT SOLAR GROUND MOUNT SYSTEM AT DURHAM - MIDDLEFIELD ROAD NELSON AND DONNA PRUE, 141 MIDDLEFIELD ROAD, DURHAM CT 06422</p>	DRAWING TITLE	DRAWING #					
OVERALL ELECTRICAL PLAN	E100						

RULER IN INCHES: 0 1/2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

PLOT DATE: 4/19/2024 1:15 PM



OVERALL SYSTEM SUMMARY	
DC SYSTEM SIZE	3736.440 KW
AC SYSTEM SIZE	3,035.000 KW
(QTY) MODULE	(6,984) HELIENE HSPE-144HC-M10 535W
(QTY) INVERTER TYPE 1	(23) XGI 1500-125/125-UL
(QTY) INVERTER TYPE 2	(1) XGI 1500-166/166-UL DERATED TO 160KW
TILT / AZIMUTH	20° / 0°
UTILITY	EVERSOURCE CT

- DRAWING NOTES:**
- CONTRACTOR SHALL FIELD-VERIFY INTERCONNECTION MEANS/METHODS PRIOR TO INSTALLATION. COORDINATED SHUTDOWN MAY BE REQUIRED.
 - ALL GROUND BARS AND LUGS SHALL BE DUAL RATED AL/CU.
 - UNLESS OTHERWISE NOTED EQUIPMENT IS PERMITTED TO BE 80% OR 100% RATED.
 - PVC SCH80 REQUIRED WHERE PVC IS SPECIFIED. PVC SCH40 IS PERMITTED FOR UNDERGROUND STRAIGHT RUNS ONLY.

1 ONE LINE DIAGRAM
SCALE: NONE

PURE POWER
 111 WASHINGTON AVENUE
 NORTH HAVEN, CT 06473
 WWW.PUREPOWER.COM
 RICHARD A. WINIS
 05/20/2023 INTERCONNECTION DOCUMENT
 CT LICENSE NO. 0029262

GREENSKIES
 127 WASHINGTON AVENUE
 NORTH HAVEN, CT 06473
 WWW.GREENSKIES.COM
 DEVELOPER
 GREENSKIES
 a CleanFocus company
 PROJECT # 06973

SOLAR GROUND MOUNT SYSTEM AT
 DURHAM - MIDDLEFIELD ROAD
 NELSON AND DONNA PRUE,
 141 MIDDLEFIELD ROAD, DURHAM CT 06422

DC SYSTEM SIZE: 3736.440 KWDC
 AC SYSTEM SIZE: 3035.000 KWAC
 MODULE TYPE: HSPE 144HC M10 535W
 MODULE QUANTITY: 6984
 ORIENTATION: 20° TILT, 0° AZIMUTH

RULER IN INCHES: 0 1/2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
 PLOT DATE: 4/19/2024 1:15 PM

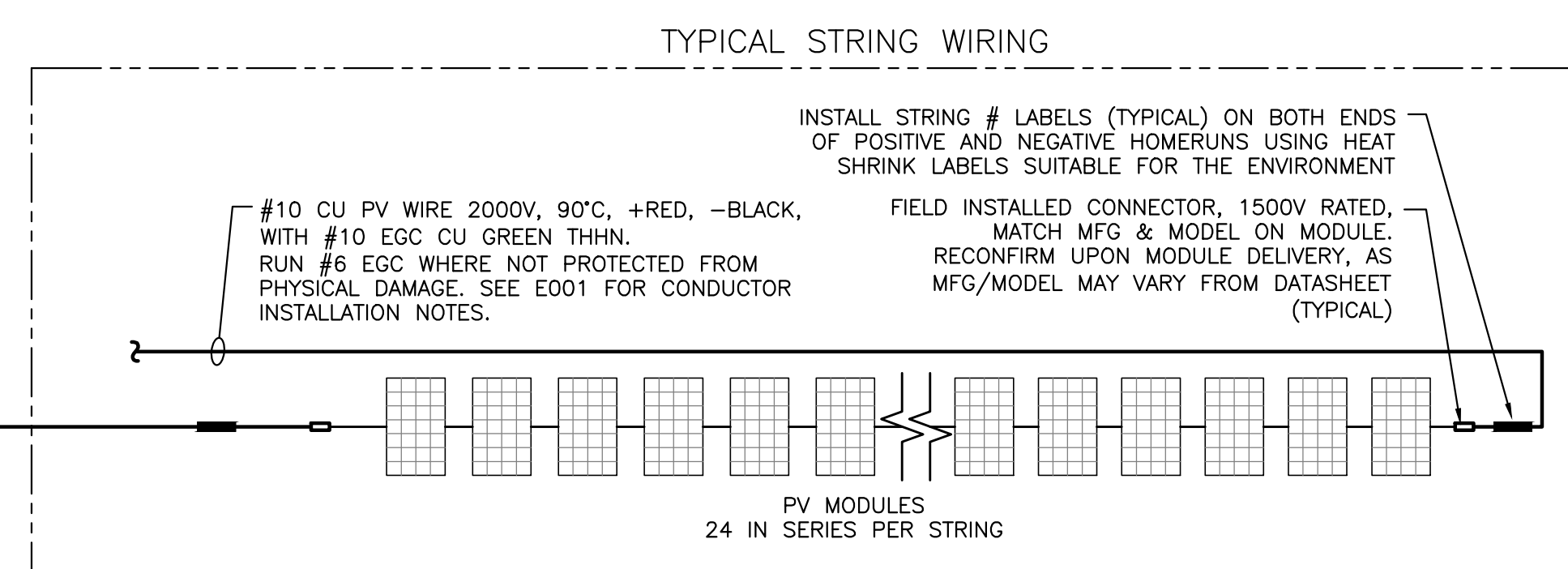
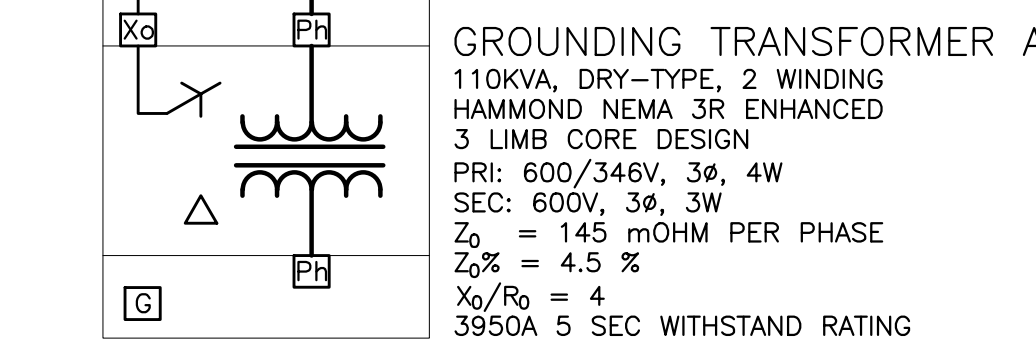
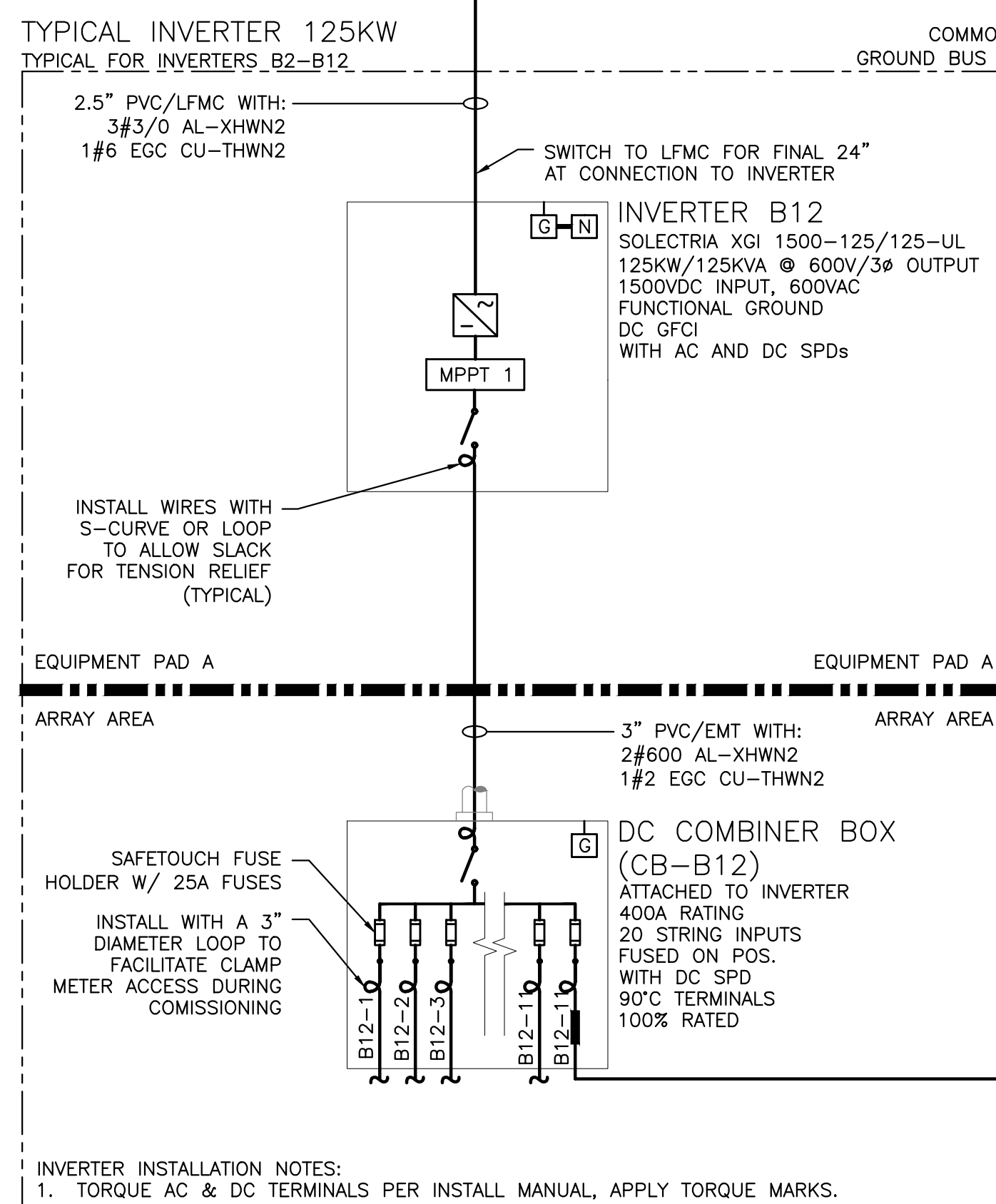
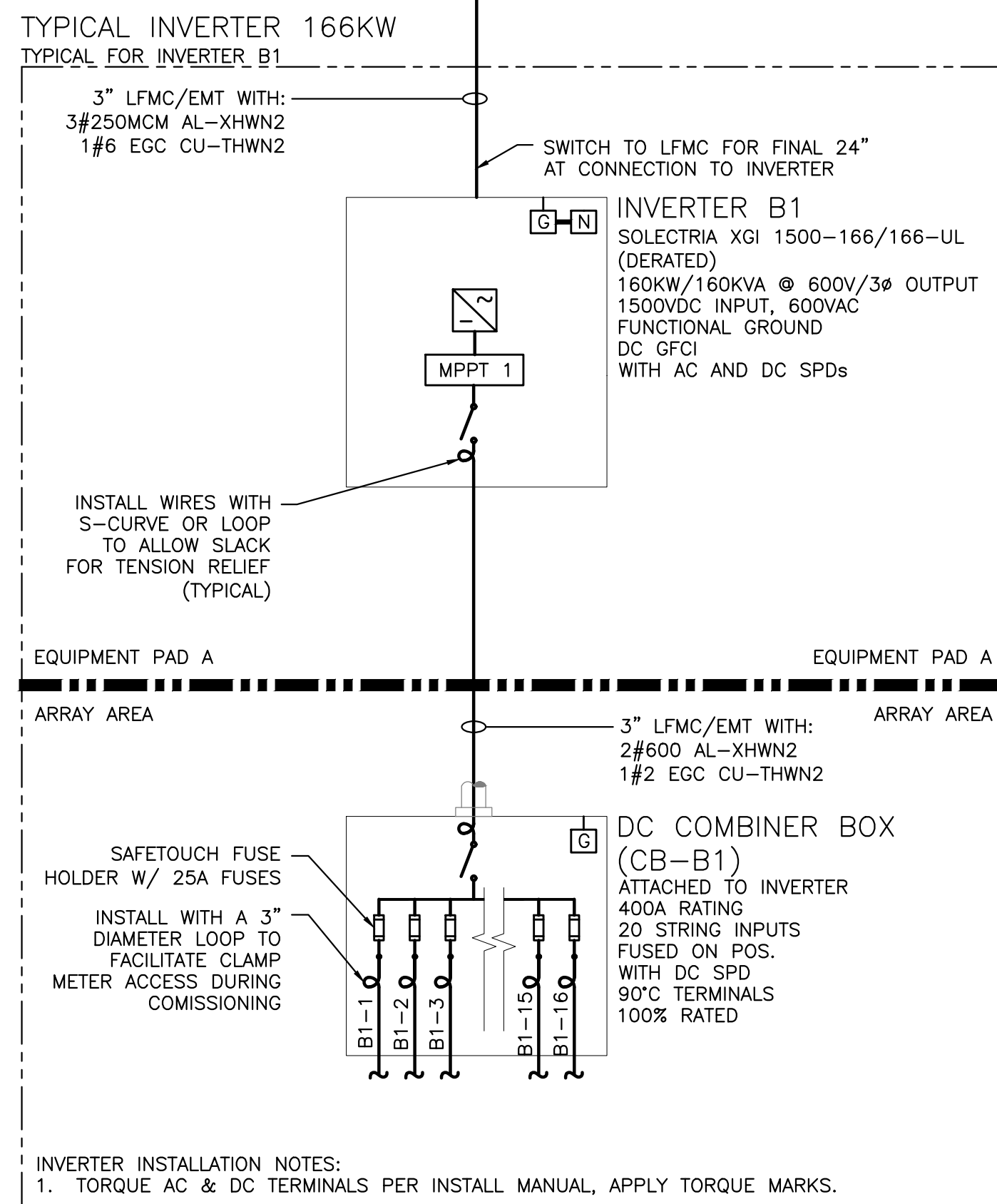
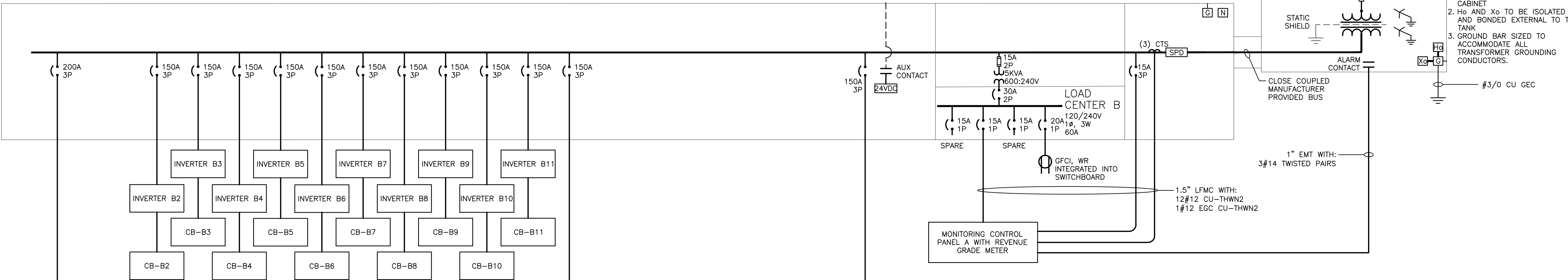
SEL 651R RELAY										
SETTINGS ARE PRELIMINARY PENDING UTILITY APPROVAL AND NOT INTENDED FOR CONSTRUCTION										
Solar System Base AC Size = 3035KVA			132.75A BASE PRIMARY USED FOR 50/51 ELEMENTS			*Total Clear Time = 3 Cycle Breaker Plus Delay (Time Dial or DEF Time)				
3.32A BASE SECONDARY 50/51P,G,N,Q						7621.02V BASE PRIMARY USED FOR 27/59 ELEMENTS				
P,G,N,Q CT RATIO FACTOR = 40						1.52V BASE SECONDARY USED FOR 27/59 ELEMENTS				
P CT = 200:5 180.5 C50 RF = 1 @ 30C						LEA RATIO FACTOR = 5000				
ANSI ELEMENT #	Unit	Pickup (Secondary)	Real (Primary)	Level	Def. Time Delay (s)	Time Dial	Total Clear Time (s)*	Total Clear Time (cyc)*	Curve	Description
27-1	L-N Volt	1.34	6706.50	0.88	1.95	-	2.00	120.00	-	Slow UV
27-2	L-N Volt	0.76	3810.51	0.50	1.05	-	1.10	66.00	-	Fast UV
59-1	L-N Volt	1.68	8383.13	1.10	1.95	-	2.00	120.00	-	Slow OV
59-2	L-N Volt	1.83	9145.23	1.20	0.11	-	0.16	9.60	-	Fast OV
79-UV	L-N Volt	1.45	7239.97	0.95	299.95	-	300.00	18000.00	-	Min Permissive Close Voltage
79-OV	L-N Volt	1.60	8002.07	1.05	299.95	-	300.00	18000.00	-	Max Permissive Close Voltage
59N	3VO L-N Volt	0.26	1295.57	0.17	1.95	-	2.00	120.00	-	Zero Sequence Overvolt
81U-1	Hz	58.50	58.50	0.98	299.95	-	300.00	18000.00	-	Slow UF
81U-2	Hz	56.50	56.50	0.94	0.11	-	0.16	9.60	-	Fast UF
81O-1	Hz	61.20	61.20	1.02	299.95	-	300.00	18000.00	-	Slow OF
81O-2	Hz	62.00	62.00	1.03	0.11	-	0.16	9.60	-	Fast OF
79-UF	Hz	59.50	59.50	0.99	299.95	-	300.00	18000.00	-	Min Permissive Close Frequency
79-OF	Hz	60.50	60.50	1.01	299.95	-	300.00	18000.00	-	Max Permissive Close Frequency
51P	A	4.15	165.93	1.25	-	2	3.9 @ 2X	234.02 @ 2X	U4	Time Phase OC
50P	A	39.82	1592.96	12.00	0.00	-	0.05	3.00	-	Instantaneous P OC
51G	A	0.66	26.55	0.20	-	2	3.9 @ 2X	234.02 @ 2X	U4	Timed Ground OC
50G	A	3.32	132.75	1.00	0.00	-	0.05	3.00	-	Instantaneous G OC
74	-	-	-	-	0.00	-	0.05	3.00	-	Relay Alarm

2 RELAY SETTINGS TABLE
SCALE: NONE

INVERTER UL1741-SA Compliant						
ANSI ELEMENT #	Pickup	Real	Level	Delay (sec)	Curve	Description
27	304.84	528V	88.0%	2.00	-	Slow UV
27	173.21	300V	50.0%	1.10	-	Fast UV
59	381.05	660V	110.0%	2.00	-	Slow OV
59	415.69	720V	120.0%	0.16	-	Fast OV
81U-1	56.50	56.5Hz	94.2%	0.16	-	Fast UF
81U-2	58.50	58.5Hz	97.5%	300.00	-	Slow UF
81O-1	62.00	62Hz	103.3%	0.16	-	Fast OF
81O-2	60.50	60.5Hz	100.8%	300.00	-	Slow OF
PF Set Point		1.00				Power Factor Control
Var Control		OFF				Reactive Power Control
Ramp Rate		10%/1 sec				dkw / dt
Freq Control		OFF				Speed Control

3 INVERTER SETTINGS TABLE
SCALE: NONE

SOLAR AC SWITCHBOARD B
600Y/347V, 3φ, 4W
2000A, 65KAIC
NEMA 3R
W/ 8HR BATTERY, OPT, & CHARGE CONTROLLER



- SHEET NOTES:
- CONTRACTOR SHALL FIELD-VERIFY INTERCONNECTION MEANS/METHODS PRIOR TO INSTALLATION. COORDINATED SHUTDOWN MAY BE REQUIRED.
 - ALL GROUND BARS AND LUGS SHALL BE DUAL RATED AL/CU.
 - UNLESS OTHERWISE NOTED EQUIPMENT IS PERMITTED TO BE 80% OR 100% RATED.
 - PVC SCH80 REQUIRED WHERE PVC IS SPECIFIED. PVC SCH40 IS PERMITTED FOR UNDERGROUND STRAIGHT RUNS ONLY.

1 ONE LINE DIAGRAM
SCALE: NONE

PROJECT: SOLAR GROUND MOUNT SYSTEM AT DURHAM - MIDDLEFIELD ROAD, DURHAM AND DONNA PRUE, NELSON AND DONNA PRUE, 141 MIDDLEFIELD ROAD, DURHAM, CT 06422
 DC SYSTEM SIZE: 3736.440 kWDC
 AC SYSTEM SIZE: 3035.000 kWAC
 MODULE TYPE: HSP6 144HC M10 535W
 MODULE QUANTITY: 6984
 ORIENTATION: 20° TILT, 0° AZIMUTH
 DATE: 04/19/2024
 IC DOCS - REV 2
 IC DOCS - REV 1
 INTERCONNECTION DOCUMENT
 PM ENG CHK
 SK SF RI
 SK SF RI
 SK SF RI
 SK SF RI
 DEVELOPER: Greenskies
 127 WASHINGTON AVENUE
 NORTH HAVEN, CT 06473
 WWW.GREENSKIES.COM
 WWW.PUREPOWER.COM
 RICHARD A. WINIS
 05/20/2023
 INTERCONNECTION DOCUMENT
 SK SF RI
 SK SF RI
 SK SF RI
 SK SF RI
 LICENSE NO. 0029262