



# NOTTINGHAM SOLAR DEVELOPMENT PROJECT

PROPOSED SUBSTATION

PREPARED FOR:

# BQ ENERGY DEVELOPMENT LLC.

400 MARKET STREET INDUSTRIAL PARK, SUITE 32 WAPPINGERS FALLS, NY 12590

PREPARED BY:



C&A #: 5204.24

DATE: JULY 19, 2021

ISSUED FOR OHIO POWER SITING BOARD REVIEW

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DEVELOPER: BQ ENERGY DEVELOPMENT, LLC SURVEYOR: HULL INC. DESIGNER: CRAWFORD & ASSOCIATES ENGINEERING, P.C. PERMIT ENGINEER: WSP INTERCONNECTION DESIGN: JEM ENGINEERING SITE OWNER: CONSOL ENERGY POWER BUYER: UTILITY: PJM INTERCONNECTION

PROJECT OWNER:

### PROCEDURAL NOTES:

- PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL NOTIFY ENGINEER OF RECORDS OF ANY DISCREPANCIES NOTED TO EXISTING CONDITIONS, STRUCTURE, ELECTRICAL RUNS (SPECIFY EXISTING ITEMS), ETC. AMONG SITE CONDITIONS, MANUFACTURER RECOMMENDATIONS OR CODES, REGULATIONS OR RULES OF JURISDICTIONS HAVING AUTHORITY.
- 2. ALL DIMENSIONS OF EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO COMMENCING WORK.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING OF EQUIPMENT DURING
- 4. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS, OSHA REQUIREMENTS AND SAFETY MEASURES ON SITE. THE ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY AND NO DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS OR FOR POSSIBLE EXISTING
- 5. CONTRACTOR SHALL PAY FOR AND SECURE ALL PERMITS AND UNDERWRITERS CERTIFICATES.
- 6. ALL METERS, INSTRUMENTS, CABLE CONNECTION EQUIPMENT AND APPARATUS NECESSARY FOR PERFORMING ALL TESTS SHALL BE FURNISHED BY THE CONTRACTOR.
- 7. CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO MAKING THE CHANGES. APPROVED CHANGES SHALL REQUIRE A DRAWING REVISION TO MAINTAIN CONTROL OVER THE ENGINEER APPROVED DESIGN. DEVIATION FROM THESE PLANS PRIOR TO ENGINEERING APPROVAL PLACES ALL LIABILITY ON THE CONTRACTOR.
- 8. PRIOR TO FINAL REQUEST FOR PAYMENT, CONTRACTOR SHALL PROVIDE THE SERVICES OF A THIRD PARTY ELECTRICAL INSPECTOR TO OBTAIN A CERTIFICATE OF INSPECTION. THE INSPECTION SHALL INCLUDE VERIFICATION THAT THE SYSTEM MEETS ALL REQUIREMENTS SET FORTH BY THE PUBLIC SERVICE COMMISSION AND THE AUTHORITY HAVING JURISDICTION.
- 9. ALL EXCAVATORS OR CONTRACTORS ARE RESPONSIBLE FOR CONTACTING DIG SAFE OHIO PRIOR TO OPENING ANY CONSTRUCTION RELATED TRENCHES ON SITE.

- 1. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL EQUIPMENT AND FOLLOWING ALL MANUFACTURER'S OR ENGINEER'S DIRECTIONS AND INSTRUCTIONS SHOWN HERE.
- 2. THIS SOLAR PHOTOVOLTAIC SYSTEM IS TO BE INSTALLED FOLLOWING THE CONVENTIONS OF THE NATIONAL ELECTRIC CODE (NEC). ALL REFERENCES TO THE NEC IN THE CONTRACT DRAWINGS REFER TO THE 2017 NEC. ANY LOCAL CODES WHICH MAY SUPERCEDE THE NEC SHALL GOVERN.
- 3. THE ELECTRICAL CONTRACTOR IS ADVISED THAT ALL DRAWINGS & COMPONENT MANUALS, ESPECIALLY THE INVERTER MANUALS, ARE TO BE READ AND UNDERSTOOD PRIOR TO INSTALLATION OR ENERGIZING OF ANY EQUIPMENT. THE CONTRACTOR IS ALSO ADVISED TO HAVE ALL COMPONENT SWITCHES IN THE OFF (OPEN) POSITION AND FUSES BE REMOVED PRIOR TO INSTALLATION OF FUSE-BEARING COMPONENTS.
- 4. DRAWINGS ARE DIAGRAMMATIC AND DO NOT REFLECT EXACT OR ENTIRE ROUTE. FOR BEST INSTALLATION, CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, DISTANCES AND OBSTRUCTIONS.
- 5. IT IS INTENDED THAT ALL ITEMS OF WORK AND SYSTEMS BE FURNISHED AND INSTALLED COMPLETE IN ALL DETAIL AND READY FOR OPERATION OR SERVICE. APPARATUS REQUIRED SHALL BE FURNISHED AND INSTALLED ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE DRAWINGS.
- 6. INSTALLATION CREW IS TO HAVE A MINIMUM OF ONE JOURNEYMAN LEVEL ELECTRICIAN OR ONE NABCEP CERTIFICATION ON SITE AT ALL TIMES WHEN ELECTRICAL WORK IS BEING PERFORMED.
- 7. FOR SAFETY IT IS RECOMMENDED THE INSTALLATION CREW ALWAYS HAVE A MINIMUM OF TWO PEOPLE WORKING TOGETHER.
- 8. ALL COMPONENTS TO BE INSTALLED WITH THIS SYSTEM ARE TO BE LISTED BY A THIRD PARTY TESTING AGENCY (UL, ETI., ETC.). EQUIPMENT SHALL BE NEMA 3R OUTDOOR RATED OR BETTER UNLESS
- 9. THE CONTRACTOR IS RESPONSIBLE FOR SELECTING AND PURCHASING EQUIPMENT THAT WILL LAST THE LIFETIME OF THE PV SYSTEM. ALL ENCLOSURES, CONDUITS, STRAPS, PAINTED METAL SURFACES, CONCRETE, GROUNDING EQUIPMENT, AND OTHER PRODUCTS SHALL BE SELECTED TO LAST THE LIFETIME OF THE PV MODULES. THE ENGINEER SPECIFIES THE MINIMUM REQUIRED EQUIPMENT AND SPECIFICATIONS TO ACCOMPLISH THE PROJECT AND THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THESE SPECIFICATIONS ARE MET OR EXCEEDED WITH GOOD QUALITY EQUIPMENT, WORKMANSHIP AND SKILL.
- 10. DC VOLTAGE FROM THE ARRAY IS ALWAYS PRESENT AT THE DC DISCONNECT ENCLOSURE AND THE DC TERMINALS OF THE INVERTER DURING DAYLIGHT HOURS. ALL PERSONS WORKING ON OR INVOLVED WITH THIS PHOTOVOLTAIC SYSTEM MUST BE WARNED THAT SOLAR MODULES ARE ENERGIZED WHEN EXPOSED TO DAYLIGHT. THE LINE AND LOAD TERMINALS ON THE DC DISCONNECTS MAY BE ENERGIZED IN THE OPEN POSITION AND THE SWITCH IS TO BE LABELED TO COMPLY WITH ARTICLE 690.17 OF THE NEC REFLECTING THIS.
- 11. ALL PORTIONS OF THIS SOLAR ELECTRIC SYSTEM SHALL BE CLEARLY MARKED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
- 12. THE ELECTRICAL CONTRACTOR SHALL PERFORM INITIAL HARDWARE CHECKS AND PV/WIRING CONDUCTIVITY CHECKS PRIOR TO TERMINATING ANY WIRES. ALL AC AND DC WIRE RUNS SHALL BE INSULATION RESISTANCE TESTED.
- 13. INSULATION RESISTANCE TESTING: TEST ALL CONDUCTORS AT 1,000 V TO 5 MEGAOHMS BETWEEN THE CONDUCTOR UNDER TEST AND GROUND WIRE. CONDUCT TEST AFTER WIRE PULLED THROUGH THE CONDUIT BUT BEFORE TERMINATING TO THE MODULES, OR INVERTER.
- 14. DO NOT TEST THE SOLAR MODULES, AS THIS WILL LIKELY DAMAGE THEIR INTERNAL DIODES. IS INTENDED FOR ALL CONDUCTORS INSTALLED BY THE ELECTRICAL CONTRACTOR.
- 15. ALL JUNCTION BOXES AND OTHER LOCATIONS WHERE MODULE WIRING CONNECTIONS ARE MADE SHALL BE ACCESSIBLE. CLEARANCES AND ACCESSIBILITY AROUND ELECTRICAL EQUIPMENT SHALL CONFORM TO ALL APPLICABLE CODES.
- 16. FOR PROPER MAINTENANCE AND ISOLATION OF INVERTERS, REFER TO ISOLATION PROCEDURE IN INVERTER OPERATIONS MANUAL. CONTRACTOR PERFORMING THE MAINTENANCE IS RESPONSIBLE TO FOLLOW ALL LOCKOUT/TAGOUT PROCEDURES.
- 17. THE GROUNDING OF THE PHOTOVOLTAIC SYSTEM SHALL COMPLY WITH ARTICLES 250 AND 690 OF THE NEC. IF THE REQUIREMENTS DESCRIBED IN THIS DRAWING ARE CLOSELY FOLLOWED. THE GROUNDING REQUIREMENT WILL BE MET. ANY CHANGES WILL NEED TO BE REVIEWED AND DEEMED ACCEPTABLE BY THE ENGINEER, MANUFACTURER AND LISTING AGENCY FOR PRODUCT SAFETY.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR MOUNTING ALL EQUIPMENT PER THE ENGINEER REPORT OR MANUFACTURER'S SPECIFICATIONS. IF SPECIFICATIONS ARE NOT APPARENT, THE CONTRACTOR SHALL USE DILIGENT EFFORTS TO MOUNT EQUIPMENT SUCH THAT IT WILL BE CLEAN, LEVEL, AND SOLID IN ORDER TO LAST THE LIFETIME OF THE SOLAR ELECTRICAL SYSTEM.
- 19. ANY METAL SHAVING RESULTING FROM SITE WORK SHALL BE CLEANED FROM ENCLOSURES, ROOF SURFACE, GROUND SURFACE, AND ANY ADDITIONAL AREA WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGE
- 20. THE ELECTRICAL CONTRACTOR SHALL CONSIDER THE WEATHERING OF EQUIPMENT OVER TIME AND ELIMINATE THE POSSIBILITY OF DEGRADATION OF EQUIPMENT DUE TO WATER ENTRY AND UV EXPOSURE. AS A RESULT, WE REQUIRE THE USE OF UNISTRUT OR SIMILAR MOUNTING SYSTEMS TO MOUNT ENCLOSURES, PULL BOXES, LOAD CENTERS, FUSE BOXES, OR OTHER EQUIPMENT TO PREVENT WATER BUILD-UP.

- 21. METHOD(S) FOR REMOVING AND PREVENTING THE BUILD-UP OF WATER OR MOISTURE SHALL BE PROVIDED IN ENCLOSURES WHERE CONDENSATION OR WATER BUILD-UP MAY OCCUR. MODIFICATION OF COMPONENTS AND ENCLOSURES SHALL COMPLY WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL NOT VOID NEMA RATING AS SPECIFIED PER PLAN. CARE SHOULD BE TAKEN TO PREVENT PEST INTRUSION INTO ENCLOSURES WITH THE CHOSEN METHOD(S).
- 22. INSTALLER AND OWNER/OPERATOR SHALL SUPPLY ALL SITE AND EQUIPMENT LABELS AS REQUIRED BY NFPA 70E, OSHA, AND ANY OTHER CODES/AUTHORITIES NOT SPECIFIED IN THIS PLAN SET.
- 23. CONTRACTOR SHALL UPDATE "AS BUILT" DRAWING AND SHOW ALL CHANGES FROM ORIGINAL DESIGN
- 24. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL TEMPORARY CONSTRUCTION MATERIALS AT THE COMPLETION OF THE CONSTRUCTION PROJECT.
- 25. CONTRACTOR TO COORDINATE WITH OTHER TRADES FOR EXACT EQUIPMENT PLACEMENT AND REQUIREMENTS. 26. IN EVERY PULL BOX, TERMINAL BOX, AND AT ALL PLACES WHERE WIRES MAY NOT BE READILY
- IDENTIFIED BY NAMEPLATE MARKINGS ON THE EQUIPMENT TO WHICH THEY CONNECT, IDENTIFY EACH CIRCUIT WITH A PLASTIC LABEL OR TAG FOR NUMBER POLARITY OR PHASE. 27. THE LAYOUT OF CONDUIT SHOWN IN THESE PLANS IS INDICATIVE ONLY. CONTRACTOR SHALL ROUTE
- AND LOCATE THE CONDUITS TO SUIT SITE CONDITIONS BUT SHALL NOT EXCEED MAXIMUM CONDUCTOR LENGTHS IDENTIFIED ON THE WIRE SCHEDULE. CONTRACTOR SHALL COORDINATE ALL CHANGES IN WIRING AND CONDUIT WITH THE ENGINEER. 28. WHERE WIRE AND CABLE ROUTING IS NOT SHOWN AND DESTINATION ONLY IS INDICATED, OR MAXIMUM
- LENGTHS REQUIRED. A SKETCH OF THE PROPOSED INSTALLATION SHALL BE SUPPLIED TO THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
- 29. BENDS SHALL NOT DAMAGE THE RACEWAY OR SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER OF RACEWAYS (NO KINKS).

CONDUCTOR LENGTHS WILL BE EXCEEDED. CONTRACTOR SHALL DETERMINE EXACT ROUTING AND

- 30. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH THE REQUIREMENTS IN NEC
- 31. INSTALL ALL WIRING MATERIALS IN A NEAT WORKMANLIKE MANNER. USE GOOD TRADE PRACTICES AS REQUIRED BY CHAPTER 3 OF THE NEC.
- 32. INSTALL CONDUIT TO MAINTAIN PROPER CLEARANCES AND IN A NEAT INCONSPICUOUS MANNER. PROVIDE BOXES, FITTINGS, AND BENDS FOR CHANGES IN DIRECTION. FASTEN CONDUIT SECURELY IN
- 33. ALL CONDUIT SHALL BE INDEPENDENTLY SUPPORTED FROM BUILDING STRUCTURES. CONDUIT SHALL NOT BE SUPPORTED FROM VENTILATION DUCTS, MECHANICAL PIPING, SUSPENDED CEILING GRIDS, OR THEIR HANGERS.
- 34. ALL EXTERIOR CONDUIT AND EQUIPMENT FITTINGS MUST BE WATERTIGHT.
- 35. PROVIDE PULL, JUNCTION, OR SECTIONALIZING WHERE REQUIRED TO FACILITATE THE INSTALLATION OF WIRING IN ADDITION TO THOSE SHOWN ON THE DRAWINGS. BENDS IN CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS
- WHEN FIELD CUTTING IS REQUIRED, THE CONDUIT SHALL BE CUT SQUARE AND DEBURRED.
- 37. CONDUIT SIZES NOT SPECIFIED SHOULD CONFORM TO NEC SPECIFICATIONS TO INCLUDE FILL FACTOR AND DERATING FOR NUMBER OF CONDUCTORS WITH A MINIMUM CONDUIT SIZE BEING 3/4"
- 38. THE MINIMUM ALLOWABLE WIRE SIZE FOR POWER CONDUCTORS IS #12 AWG. DATA AND COMMUNICATION WIRING MAY BE A SMALLER GAUGE, AND SHALL BE SIZED FOR THE APPLICATION.
- 39. SAFETY REGULATIONS (LOCKOUT TAGOUT, ETC..) IS THE FULL RESPONSIBILITY OF THE CONTRACTOR DURING CONSTRUCTION.
- 40. THE WIRING SIZE IS BASED ON THE ESTIMATED CONDUIT ROUTING AS SHOWN IN THIS DRAWING PACKAGE. SHOULD THE CONDUIT'S LENGTH INCREASE DUE TO RELOCATION OF SOURCE AND/OR ROUTING, THE CONDUITS AND THE CONDUCTORS MAY NEED TO BE RESIZED. PLEASE CONTACT THE ENGINEER PRIOR TO MAKING ANY FIELD CHANGES.
- 41. ALL UL LISTED WIRE CONNECTIONS MUST BE TORQUED PER EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THEN MARKED TO INDICATE IF TAMPERED.
- 42. IF NOT DESIGNATED BY A SCHEDULE WITHIN THIS DESIGN, ALL CONDUIT SHALL BE GALVANIZED EMT OR RMC METAL CONDUIT.
- 43. RMC, IMC, OR EMT CONDUIT RUNS, WHERE SUBJECT TO THERMAL EXPANSION AND CONTRACTION, MUST INCORPORATE UL LISTED EXPANSION JOINTS OR LIQUIDTIGHT FLEX METAL CONDUIT TO ALLOW FOR THE MOVEMENT. DO NOT USE RIGID METAL EXPANSION JOINTS FOR EMT.
- 44. ALL WIRE MUST HAVE ADEQUATE STRAIN RELIEF. THERE MUST BE ADEQUATE WIRE SLACK TO ALLOW FOR THERMAL EXPANSION AND CONTRACTION OF CONDUIT RUNS WITHOUT STRAINING ANY CONDUCTOR OR CONNECTION.
- 45. WHERE PORTIONS OF A RACEWAY ARE SUBJECT TO DIFFERENT TEMPERATURES WHERE PASSING FROM INTERIOR TO THE EXTERIOR OF A BUILDING, THE RACEWAY SHALL BE FILLED WITH AN APPROVED MATERIAL TO PREVENT THE CIRCULATION OF WARM AIR TO A COLDER SECTION OF THE RACEWAY.
- 46. IF NOT DESIGNATED BY A SCHEDULE WITHIN THIS DESIGN, ALL WIRING SHALL BE RATED FOR ITS APPLICATION. WIRE IN CONDUIT SHALL BE THWN-2 AND 90 DEGREE CELSIUS RATED. DIRECT BURIED OR EXPOSED CONDUCTORS SHALL BE RATED FOR THAT ENVIRONMENT.
- 29. THE ELECTRICAL CONTRACTOR IS REQUIRED TO USE PERMANENTLY COLOR CODED INSULATION PER THE COLOR WIRE INSULATION COLOR CODE TABLE SHOWN ON THE DETAILS SHEET. PHASE TAPING BLACK CONDUCTORS DOES NOT MEET THIS REQUIREMENT. THE CONTRACTOR ACCEPTS ALL RISK AND LIABILITY IF THESE INSTRUCTIONS ARE NOT FOLLOWED.
- 30. STRING HOME RUNS AND EXTENSIONS SHALL USE CONNECTORS THAT ARE UL LISTED WEATHERPROOF, UV RESISTANT, FINGERSAFE PLUG-IN CONNECTORS. CONNECTORS SHALL BE OF LATCHING OR LOCKING TYPE. CONNECTORS READILY ACCESSIBLE AND OPERATING AT OVER 30V SHALL REQUIRE TOOL TO OPEN AND SHALL BE MARKED: "DO NOT DISCONNECT UNDER LOAD" OR "NOT FOR CURRENT INTERRUPTING" IN ACCORDANCE WITH NEC 690.33. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS AND PROPERLY SECURED BEFORE WIRE IS PULLED.
- 31. ALL UNDERGROUND CABLE SHALL BE MAPPED AND IDENTIFIED ALONG THEIR ENTIRE RUN WITH MYLAR HAZARD TAPE AS SHOWN.
- 32. ELECTRICAL CONDUIT SIZES MAY BE ADJUSTED BY CONTRACTOR AS LONG AS THEY MEET NEC CONDUIT FILL REQUIREMENTS.

33. DC WIRING AND COMMUNICATIONS CAN AND SHOULD USE WIREWAYS ON RACKING WHENEVER

- 34. WHERE CONDUIT DOES NOT TERMINATE AT A BOX, CONTRACTOR SHALL PROVIDE BELL ENDS AND
- SEAL WITH EXPANDING FOAM RATED FOR USE WITH WIRING. 35. ALL AGGREGATION PANEL MAIN AND INTERTIE CIRCUIT BREAKERS OR FUSES SHALL BE RATED FOR BIDIRECTIONAL CURRENT. DO NOT USE BREAKERS WITH LINE AND LOAD SIDE INDICATED.
- MODULE INSTALLATION NOTES:

 REFER TO THE MODULE MANUAL FOR MORE DETAILS ON RIGGING, UNPACKING, HANDLING, PLANNING, AND INSTALLATION.

- 2. THE MODULES MAY BE SHIPPED WITH SEVERAL MODULES PER BOX. TAKE CARE WHEN OPENING THE BOX TO ENSURE THAT ALL MODULES ARE SECURELY HANDLED.
- NEVER LEAVE A MODULE UNSUPPORTED OR UNSECURED. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL HANDLING ON THE JOB SITE.

### SOLAR ARRAY COMMISSIONING:

- 1. THE ELECTRICAL CONTRACTOR IS NOT TO START OR COMMISSION THE PV OR INVERTER SYSTEM AT ANY TIME, UNLESS NOTIFIED OTHERWISE IN WRITING. THIS WILL BE DONE BY OTHERS.
- 2. BEFORE CLOSING DISCONNECTS OR ATTEMPTING TO ENERGIZE THE INVERTERS, THE FOLLOWING COMMISSIONING PROCEDURE SHALL BE COMPLETED:
- CHECK THE OPEN CIRCUIT VOLTAGE (VOC) AND POLARITY (+/-) OF EACH SOURCE CIRCUIT. RECORD THE VALUES ON THE COMMISSIONING RECORD DOCUMENTS PROVIDED.
- 2.2. CHECK THE SHORT CIRCUIT CURRENT (ISC) FOR EACH SOURCE CIRCUIT. RECORD THE VALUES ON COMMISSIONING RECORD DOCUMENTS.
- 2.3. CHECK THAT ALL FUSES, DISCONNECTS AND OTHER BALANCE OF SYSTEM COMPONENTS ARE RATED FOR 1500VDC AND THE APPROPRIATE CURRENT CAPACITY.
- COMPLETE A VISUAL INSPECTION OF ALL THE MODULES TO CHECK FOR BROKEN GLASS, FRAYED

# WIRES, EXPOSED CONDUCTORS AND ANY OTHER PROBLEMS THAT MAY CAUSE A FAULT.

INSIDE THE INVERTER CABINET.

- 1. THE ELECTRICAL CONTRACTOR IS <u>NOT</u> TO START OR COMMISSION THE PV OR INVERTER SYSTEM AT ANY TIME, UNLESS NOTIFIED OTHERWISE IN WRITING. THIS WILL BE DONE BY OTHERS.
- 2. BEFORE TURNING THE INVERTER ON, OR CLOSING ANY OF THE INVERTER DISCONNECTS, THE FOLLOWING COMMISSIONING PROCEDURE SHALL BE COMPLETED:
- 2.1. CHECK THAT THE INVERTER IS PROPERLY GROUNDED, AS DESCRIBED BY THE MANUFACTURER AND THESE INSTRUCTIONS.
- CHECK THE INVERTER DC INPUT VOLTAGE (VOC) FROM THE SOLAR ARRAY FOR PROPER POLARITY
- 2.3. CHECK DC INPUT VOLTAGE (VOC) IS WITHIN THE PROPER RANGE IN THE INVERTER CABINET AS
- DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
- CHECK AC INPUT VOLTAGE IS IN THE PROPER PHASE SEQUENCE (CLOCKWISE) IF APPLICABLE. 2.5. CHECK THAT THE AC GRID VOLTAGE AT THE INVERTER AC TERMINALS IS WITHIN THE PROPER
- RANGE AS DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
- 2.6. FOLLOW START-UP SEQUENCE IN MANUFACTURER'S OPERATION AND MAINTENANCE MANUAL.

## O&M NOTES:

- 1. THE FACILITY SHALL BE OPERATED AND MAINTAINED IN ACCORDANCE WITH SOLAR INDUSTRY BEST PRACTICES. NFPA 70E. AND ALL APPLICABLE OSHA REQUIREMENTS.
- 2. THE FACILITY SHALL COMPLY WITH THE FOLLOWING FIRE MITIGATION PLAN PER NEC 691.10:
- MAINTAIN GRASS SO THAT IT IS TRIMMED BELOW THE LEADING EDGE OF THE PV MODULES AT ALL
- PERFORM INSPECTION OF THE PV ARRAY USING IR IMAGING, DURING COMMISSIONING AND ANNUALLY THEREAFTER TO IDENTIFY POTENTIAL ARC FAULTS VIA THERMAL MEANS, WITH PARTICULAR ATTENTION TO ALL MC4 CONNECTIONS BETWEEN PV MODULES.

REV. No. ZONE DATE BY **NOTTINGHAM SOLAR** 

**NOTES** 

IT IS A VIOLATION OF THE OHIO STATE EDUCATION LAW FOR ANY PERSON

TO ALTER THESE PLANS, SPECIFICATIONS OR REPORTS IN ANY WAY, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

ATHENS TOWNSHIP

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HARRISON COUNTY, OH

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AND NOTES.dwg 07/19/2021 DESIGNED BY: JSC DRAWNG: C&A JOB# CHECKED BY: JSC 5204.24 T-0.1AS SHOWN APPROVED BY:









