## GENERAL NOTES

OWNER:
Dr. PRAHLAD PATEL, M.D.
20 ASHTON DRIVE
VOORHEES, NEW JERSEY 08043

APPLICANT:
INDIAN CULTURAL CENTER ASSOCIATION
c/o Dr. DHIRAJ K. PANDA M.D.
SOUTH CROSSINGS, 528 LIPPINCOTT DRIVE
MARLTON, NEW JERSEY 08053

1. NUMBER OF EXISTING LOTS = 1

2. TOTAL TRACT AREA = 28.257 ACRES.
TOTAL PROJECT AREA = 3.96+/- ACRES

3. THE SUBJECT PROPERTY IS BLOCK 35.30 LOT 18.04 AS FOUND ON THE EVESHAM TOWNSHIP TAX MAP.

4. THE OUTBOUND FOR LOT 18.04 SHOWN HEREON AS ON A PLAN ENTITLED "PATEL TRACT, FINAL PLAT," PREPARED BY EVERLAND, SHOURDS & ASSOCIATES, DATED 09/06/02 AND REVISED 01/24/07, AND FILED IN THE BURLINGTON COUNTY CLERKS OFFICE ON 05/02/07 AS MAP NO. 4441553.

5. TOPOGRAPHY SHOWN HEREON IS BASED ON BOUNDARY/ WETLANDS DELINEATION SURVEY BY LAND DEVELOPMENT CONSULTANTS, DATED 9/17/97 AND LAST REVISED 5/9/98.

6. FRESHWATER WETLANDS LIMIT LINE DELINEATED BY KENNETH C. CONROW AND VERIFIED BY N.J.D.E.P. LOI #0313-97-0008.1.

7. 100 YEAR FLOOD ZONES ON THE SITE, BASED ON THE FLOOD INSURANCE RATE MAP (FIRM) FORM EVESHAM TOWNSHIP COMMUNITY PANEL No. 340097-0004-C AND 340097-0005-C, EFFECTIVE DATE 03/02/95, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

8) CAPACITY OF THE PROPOSED BUILDING IS TO BE LIMITED TO THE MAXIMUM AS CAN BE ACCOMMODATED BY THE PARKING FACILITIES. THE MAXIMUM OCCUPANCY OF THE PROPOSED BUILDING IS 570 PEOPLE BASED UPON THE 192 SPACES PROVIDED.

9) UPON COMPLETION OF CONSTRUCTION THE APPLICANT SHALL SUBMIT A REQUEST TO ENFORCE PROVISIONS OF "TITLE 39" OF THE "NEW JERSEY REVISED STATUTES" AS REQUIRED PER SECTION 94-8 OF THE EVESHAM TOWNSHIP ORDINANCE.

10) VIDEO INSPECTION OF THE STORM DRAINAGE PIPING SYSTEM IS REQUIRED PRIOR TO THE PLACEMENT OF SURFACE COURSE PAVING.

11) THE LOFT AREA SHALL NOT BE USED CONCURRENTLY (EXCEPT FOR STORAGE) WITH ANY FIRST FLOOR ACTIVITIES.

12) A PERMIT IS REQUIRED TO IMPORT OR EXPORT SOIL. ANY SOIL IMPORTED TO THE SITE MUST BE TESTED FOR CONTAMINANTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANNING BOARD ENVIRONMENTAL CONSULTANT. (NOTE: FILL MATERIAL AVAILABLE FROM EXCAVATION FOR FOUNDATION/FOOTINGS IS NOT INCLUDED IN CALCULATION).
CUT = 859 CUBIC YARDS
FILL = 2,760 CUBIC YARDS

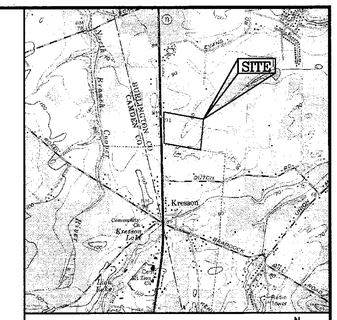
### ZONE DISTRICT
LD – LOW DENSITY

| | REQUIRED | PROPOSED |
|---|---|---|
| MIN. LOT SIZE | 3 ACRES | 19.44 ACRES |
| LOT FRONTAGE | N/A | N/A |
| LOT WIDTH | 300 FT | 448 +/- FT |
| SIDE YARD EACH | 75 FT | 284.8 FT |
| FRONT YARD | 100 FT | 455 FT |
| REAR YARD | 100 FT | 92 FT * |
| MAX. BLDG. COVER | 20% | 2.1% |
| GROSS FLOOR AREA | 20,577 S.F. | 2.51% |
| MAX. IMPERVIOUS | 50% | 11.9% |
| CLEARING LIMIT | 50% | 25.6% |
| BUILDING HEIGHT | 35 FT | <35 FT |
| PARKING | 190 SPACES | 192 SPACES |

* VARIANCE REQUESTED FOR REAR YARD OF 92-FEET WHERE 100-FEET IS REQUIRED. (3)

## LEGEND

| | | | |
|---|---|---|---|
| PROPOSED SPOT ELEVATIONS | 70.70 / 70.20 | GENERAL PERMIT # 11 WETLANDS DISTURBANCE AREA | EXISTING SANITARY SEWER |
| PROPOSED CONTOURS | 70 | LIMIT OF WETLANDS AS DELINEATED IN THE FIELD BY KENNETH C. CONROW by N.JDEP # 0313-97-0008.1 | EXISTING UTILITY POLE |
| PAVED ROAD EDGE | | GP TRANSITION AREA DISTURBANCE | EXISTING GAS VALVE |
| WOODS LINE | | GENERAL PERMIT # 10 B TRANSITION AREA | EXISTING INLET |
| BUILDING | | EXISTING INDEX CONTOUR | EXISTING SANITARY MANHOLE |
| TRANSITION AREA COMPENSATION | | EXISTING INTERMEDIATE CONTOUR | EXISTING FENCE |
| TRANSITION AREA REDUCTION | | EXISTING OVERHEAD WIRES | |
| GENERAL PERMIT # 10 B WETLAND DISTURBANCE AREA | | EXISTING GAS LINE | |
| | | EXISTING WATER LINE | |




U.S.G.S. QUAD MAP
SCALE: 1"=2000'

N
W E
S

SEE NOTE #4

FND. CM

PROPOSED CLEARING LIMIT

S05°28'03"W

PROPOSED WOODS LINE TO MEET EXISTING WOODS LINE

1003.57'

BLOCK 35.19
LOT 26

50.00' WETLANDS BUFFER

PROPOSED INFILTRATION BASIN #1

6BLF 18" RCP @ 0.27%

EXIST. HEADWALL # 14
TW=69.50
INV.=67.25

PROPOSED 20' WIDE DRAINAGE EASEMENT

S.G.P. #11 AREA 1
WETLAND DIST. = 1,009 S.F.
TRANSITION AREA DIST. = 1,009 S.F.

PROP. 2' WIDE CURB CUT

TRANSITION AREA REDUCTION AREA C = 823 S.F.

TRANSITION AREA REDUCTION AREA B = 888 S.F.

TRANSITION AREA REDUCTION AREA D = 866 S.F.

LOT 18.04
819,333 S.F.
18.81 AC.

1308.79'

FL

PROP. MOUNTABLE CURB

10' REAR YARD SETBACK

POST & RAIL FENCE (SEE DETAIL)

PROPOSED 6' WIDE SIDEWALK

2ND. FLOOR LOFT

PROPOSED CULTURAL CENTER
F.F. EL.=94.50
1ST FL.=17,577 S.F.
2ND FL. LOFT=3,000 S.F.
MAX. OCCUPANCY 570 PEOPLE

PROP. HANDICAP RAMP (SEE DETAIL)

PROP. 5BLF DEPRESSED CURB & SIDEWALK

PROP. DEPRESSED CURB

72 LF. DEPRESSED CURB

PROP. HANDICAP RAMP (SEE DETAIL)

PROPOSED 6' WIDE SIDEWALK

PROP. 9"R MOUNTABLE CURB

PROP. 3' WIDE CURB CUT

30" MULTI-TREE (TO REMAIN)

PROP. 12' x 18' TRASH ENCLOSURE (SEE DETAIL SHEET)

S.G.P. #11 AREA 2
WETLAND DIST. = 1,005 S.F.
TRANSITION AREA DIST. = 1,005 S.F.

EXIST. HEADWALL # 22
TW=69.50
INV.=67.40

284.65'

PROPOSED 20' WIDE DRAINAGE EASEMENT

6-6LF 18" RCP @ 0.50%

694.56'

1206.02'

RAIL FENCE (SEE DETAIL)

PROPOSED INFILTRATION BASIN

PV Solar System
Carport Canopies

CURB END TAPER

BEGIN CURB

PROP. COLLAPSIBLE BOLLARD (SEE DETAIL)

PROP. 14' WIDE EMERGENCY ACCESS LANE & PEDESTRIAN PATH

PROPOSED CLEARING LIMIT

18' WIDE PROP. DRIVE

PROP. RETAINING WALL

PROP. TIMBER GUIDE RAIL (SEE DETAIL)

EXIST. FARM ROAD

PROP. COLLAPSIBLE BOLLARD 15' O.C.

4" WHITE STRIPE

PROPOSED WOODS LINE TO MEET EXISTING WOODS LINE

PROP. GP10B WETLAND DISTURBANCE = 7,766 S.F.
TOTAL AREA DISTURBED = 8,672+1,692 = 10,564 S.F.

FOR INFORMATIONAL PURPOSES ONLY

PROPOSED CLEARING LIMIT

GRAPHIC SCALE

30 0 15 30 60 120

( IN FEET )
1 inch = 30 ft.

MATCHLINE

MATCHLINE (SEE BEGINNING OF PRIVATE DRIVE DETAIL)

ZB

4" DOUBLE YELLOW STRIPE

4" WHITE STRIPE

PROPOSED WOODS LINE

PROP. SIGN R2-1

PROP. FREE STANDING SIGN (SEE DEVELOPMENT SIGN ON DETAIL SHEET)

210.80'

PROP. COLLAPSIBLE BOLLARD 15' O.C.

PROP. 14' WIDE EMERGENCY ACCESS LANE & PEDESTRIAN PATH

18' WIDE PROP. DRIVE

PROP. COLLAPSIBLE BOLLARD (SEE DETAIL)

4" WHITE STRIPE

PROPOSED WOODS LINE TO MEET EXISTING WOODS LINE

148.26'

**BEGINNING OF PRIVATE DRIVE DETAIL**
SCALE 1"=30'

AUTHORIZATION OF FRESHWATER WETLANDS STATEWIDE GENERAL PERMITS #10B & 11 (&WQC) AND TRANSITION AREA AVERAGING PLAN PER N.J.D.E.P. APPROVAL #11 (0313-02-0001.1-FWW020003)

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 3 | 09/14/11 | ADDED PROPOSED STAIRS AT NORTHEST CORNER OF BUILDING. | JAM |
| 2 | 12/30/10 | REVISED PER ENVIRONMENTAL RESOLUTIONS INC. LETTER DATED 11/5/10 | SJS |
| 1 | 08/03/08 | REVISED PER CONDITION OF FINAL SITE PLAN APPROVAL, AND BACH ASSOC., ALAIMO ASSOC., O.R & A. & T & M ASSOC. REVIEW LETTERS DATED 1/9/08, 1/10/08, 1/11/08 & 1/16/08 | DTD |

*REVISIONS*

# THE PATEL TRACT

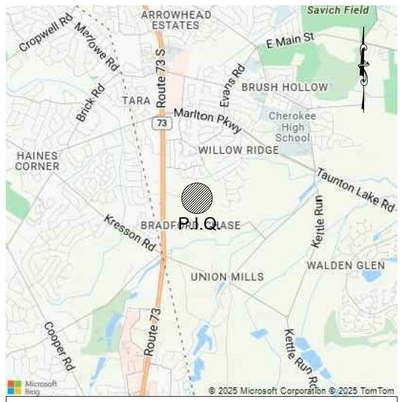
**INDIAN CULTURAL CENTER**
BLOCK 35.30, LOT 18.04
EVESHAM TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY


Taylor Wiseman & Taylor
ENGINEERS / SURVEYORS / SCIENTISTS
417 Stokes Road, Suite 200, Medford, NJ 08055
TELEPHONE: (609) 654-6000 FAX: (609) 654-6533
www.taylorwiseman.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28032900


| | |
|---|---|
| Designed By: | RRD |
| Drawn By: | LML |
| Checked By: | |
| Date: | 05/09/08 |
| Scale: | 1"=30' |
| CADD No.: | 04-FNL-PLN-ST |
| Project No. | S1553.0000.01 |
| Sheet No. | 04 |

Mark V. Shourds
MARK V. SHOURDS
New Jersey Professional Engineer Lic. No. 40264
DATE

Drawing Title:
FINAL SITE PLAN




LOCATION MAP:

N

117° MODULE ORIENTATION
5° TILT


0 100 200 400

GRAPHIC SCALE IN FEET
1" = 100'-0"

# INDIAN CULTURAL CENTER
# 163.56 - kW DC
# 117.30 - kW AC

## LOADS:

| | |
|---|---|
| GROUND SNOW | 32 PSF |
| WIND LOAD | 115 MPH |

## PROJECT DATA

| | |
|---|---|
| CODES | NEW JERSEY UCC BUILDING SUBCODE 2021 (IBC-2021)<br>NEC-2020 |
| SOLAR ARRAY: | |
| PANEL: | AXITEC AC-580TGB/144TS<br>282 MODULES<br>(142) SE S1201 OPTIMIZERS |
| RACKING: | CANOPY @ 5° TILT |
| INVERTER: | (2) SOLAR EDGE SE50K-US<br>(1) SOLAR EDGE SE17.3K-US |
| DC SYSTEM RATING: | 163,560 Watts D.C. - STC |
| AC SYSTEM RATING: | 117,300 Watts A.C. Rated |

COVER PAGE

ARC DESIGN
409 NORTH MAIN STREET
ELMER, NJ 08318
(856) 712-2166 FAX: (856) 358-1511

PROPOSED PHOTO-VOLTAIC ARRAY

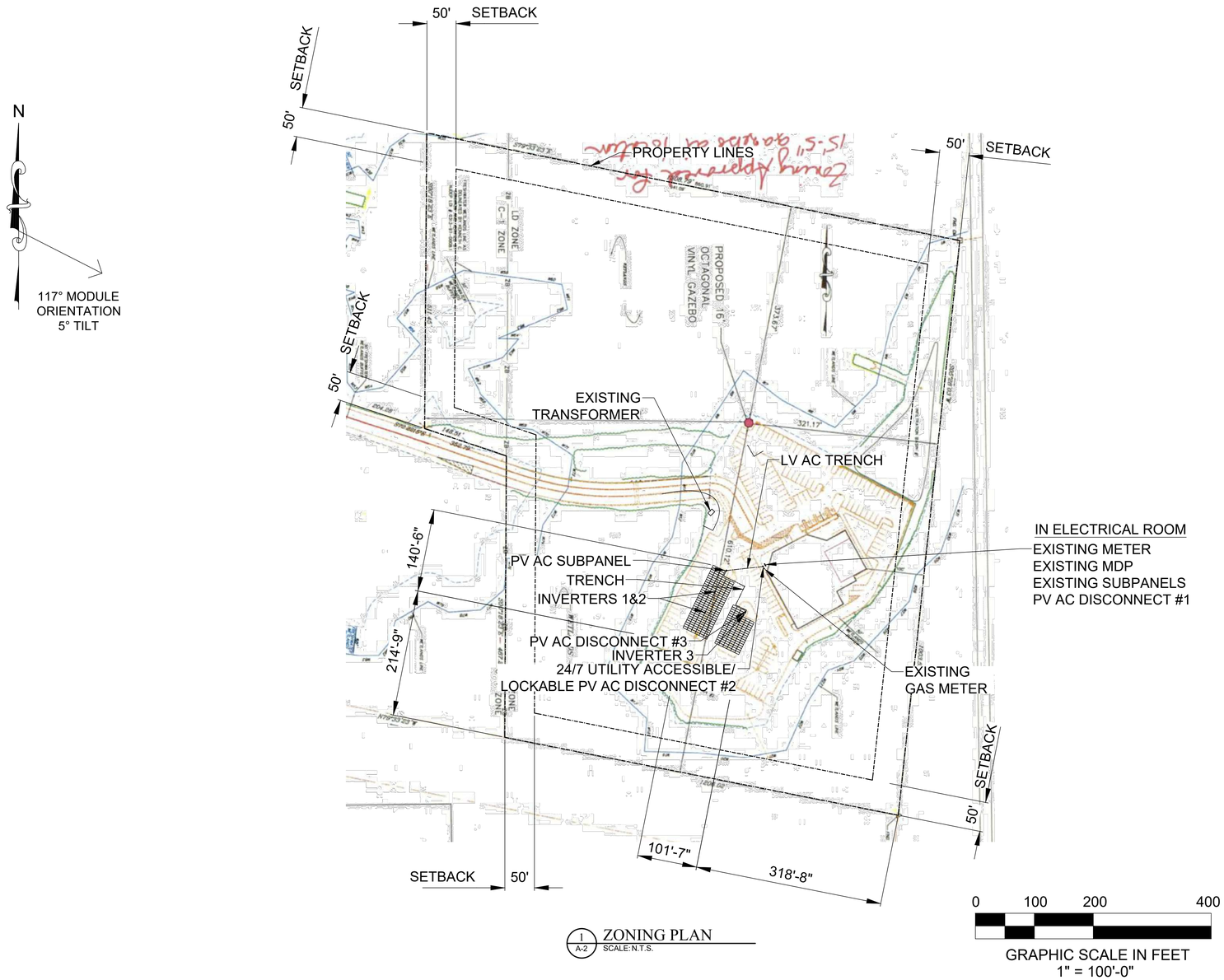
INDIAN CULTURAL CENTER
820 ROUTE 73 S
EVESHAM, NJ 08053

JAMES A. CLANCY
N.J. PROFESSIONAL ENGINEER
LICENSE #GE43998

| REVISIONS | |
|---|---|
| DATE | COMMENT |
| 07-31-25 | PER AHJ REVIEW |
| 08-06-25 | REVISE LAYOUT |
| | |
| | |
| | |
| | |

| | |
|---|---|
| JOB # | |
| DRWN | RCA |
| CHKD | JAC |
| SCALE | AS NOTED |
| DATE | 06-11-2025 |

A-1




1 A-2 ZONING PLAN
SCALE: N.T.S.

ZONING PLAN

ARC DESIGN
409 NORTH MAIN STREET
ELMER, NJ 08318
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INDIAN CULTURAL CENTER
820 ROUTE 73 S
EVESHAM, NJ 08053

JAMES A. CLANCY
N.J. PROFESSIONAL ENGINEER
LICENSE #33998

| REVISIONS | |
|---|---|
| DATE | COMMENT |
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| 08-06-25 | REVISE LAYOUT |
| | |
| | |
| | |

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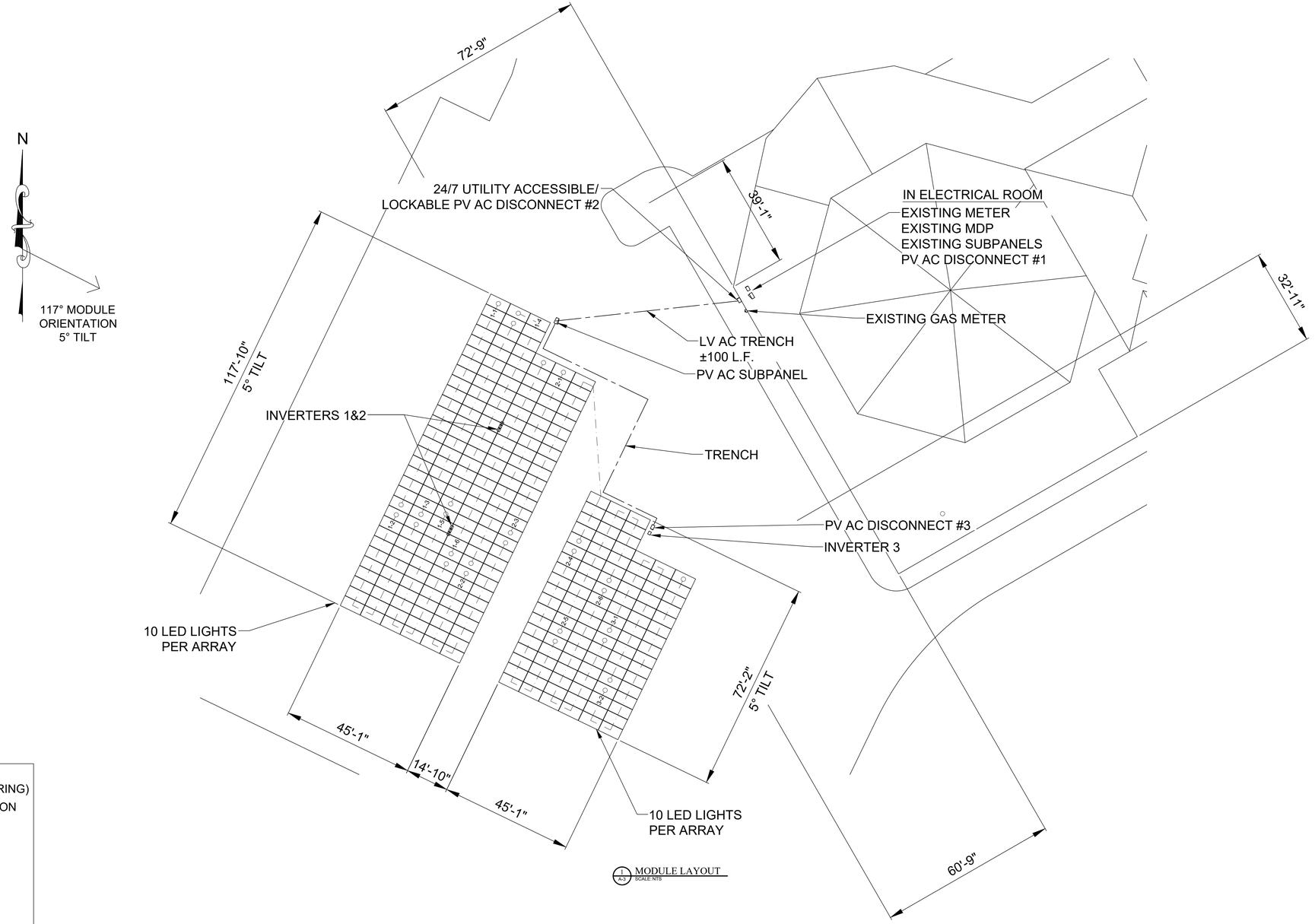
|---|---|
| JOB # | |
| DRWN | RCA |
| CHKD | JAC |
| SCALE | AS NOTED |
| DATE | 06-11-2025 |

A-2




MODULE LAYOUT
SCALE: NTS

| | |
|---|---|
| 2-1 | STRING LABEL (INVERTER-STRING) |
| G | RACKING GROUND CONNECTION |
| | INVERTER |
| | AC LOADCENTER |
| | AC DISCONNECT |
| | METER |
| 1 | ROOF NUMBER LABEL |
| | VENT PIPES |
| | VENTS |
| | ROOF DRAINS |
| | MECHANICAL EQUIPMENT |
| H | HATCH |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820 ROUTE 73 S
EVESHAM, NJ 08053

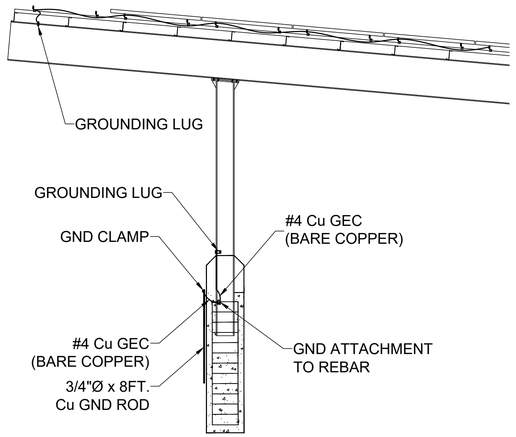

JAMES A. CLANCY
N.J. PROFESSIONAL ENGINEER
LICENSE No. 23998


| REVISIONS | |
|---|---|
| DATE | COMMENT |
| 07-31-25 | PER AHJ REVIEW |
| 08-06-25 | REVISE LAYOUT |
| | |
| | |
| | |

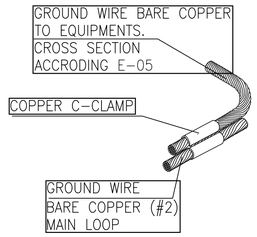
| | |
|---|---|
| JOB # | |
| DRWN | RCA |
| CHKD | JAC |
| SCALE | AS NOTED |
| DATE | 06-11-2025 |

MODULE LAYOUT

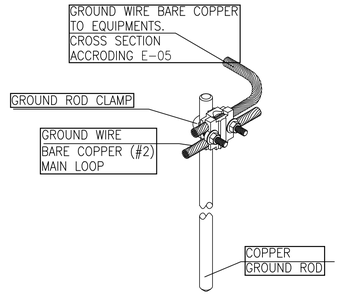
A-3



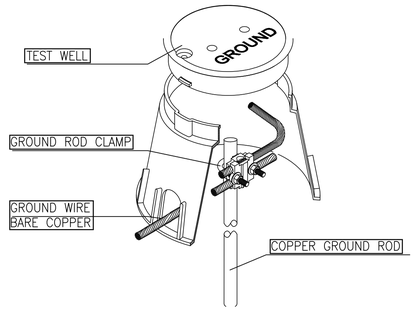

1 A-4 CARPORT GROUNDING
SCALE:NTS



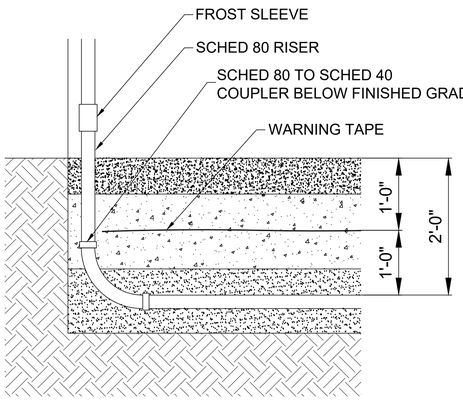

2 A-4 TYP. GROUND ROD
SCALE:NTS



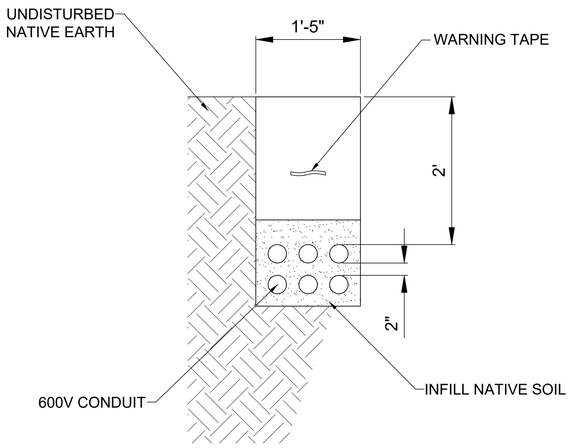

3 A-4 TYP. GROUND ROD
SCALE:NTS



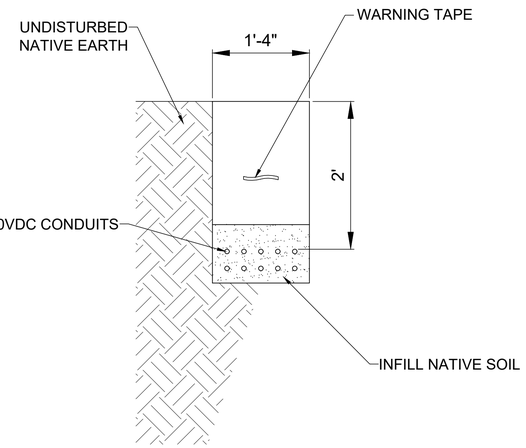

5 A-4 TYP. GROUND WELL
SCALE:NTS



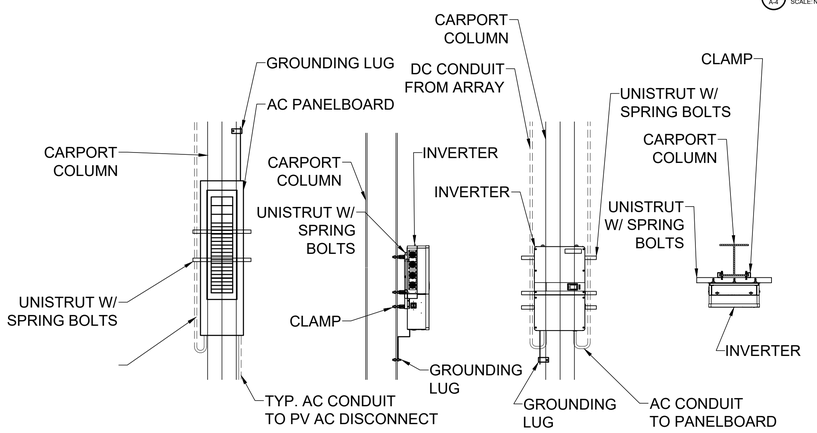

4 A-4 ABOVE TO BELOW GROUND TRANSITION DETAIL
SCALE:NTS



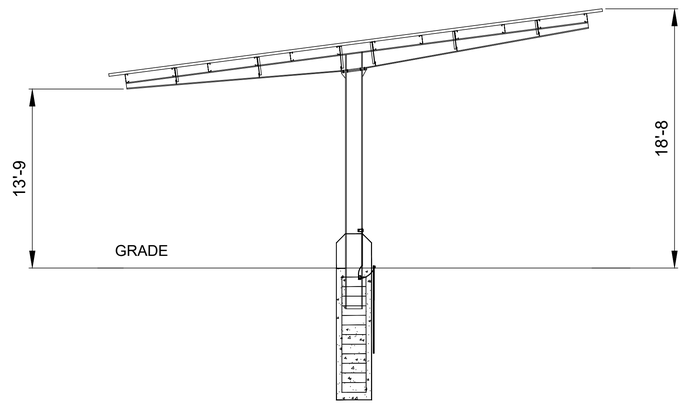

6 A-4 TYPICAL LV TRENCH DETAIL
SCALE:NTS




7 A-4 TYPICAL DC SOURCE TRENCH DETAIL
SCALE:NTS




8 A-4 TYP. EQUIPMENT MOUNTING
SCALE:NTS




9 A-4 CARPORT HEIGHTS
SCALE:NTS

ARC DESIGN
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PROPOSED PHOTO-VOLTAIC ARRAY

INDIAN CULTURAL CENTER

820 ROUTE 73 S
EVESHAM, NJ 08053

JAMES A. CLANCY
N.J. PROFESSIONAL ENGINEER
LICENSE NO. 33998

| REVISIONS | |
|---|---|
| DATE | COMMENT |
| 07-31-25 | PER AHJ REVIEW |
| 08-06-25 | REVISE LAYOUT |
| | |
| | |
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| | |

| | |
|---|---|
| JOB # | |
| DRWN | RCA |
| CHKD | JAC |
| SCALE | AS NOTED |
| DATE | 06-11-2025 |

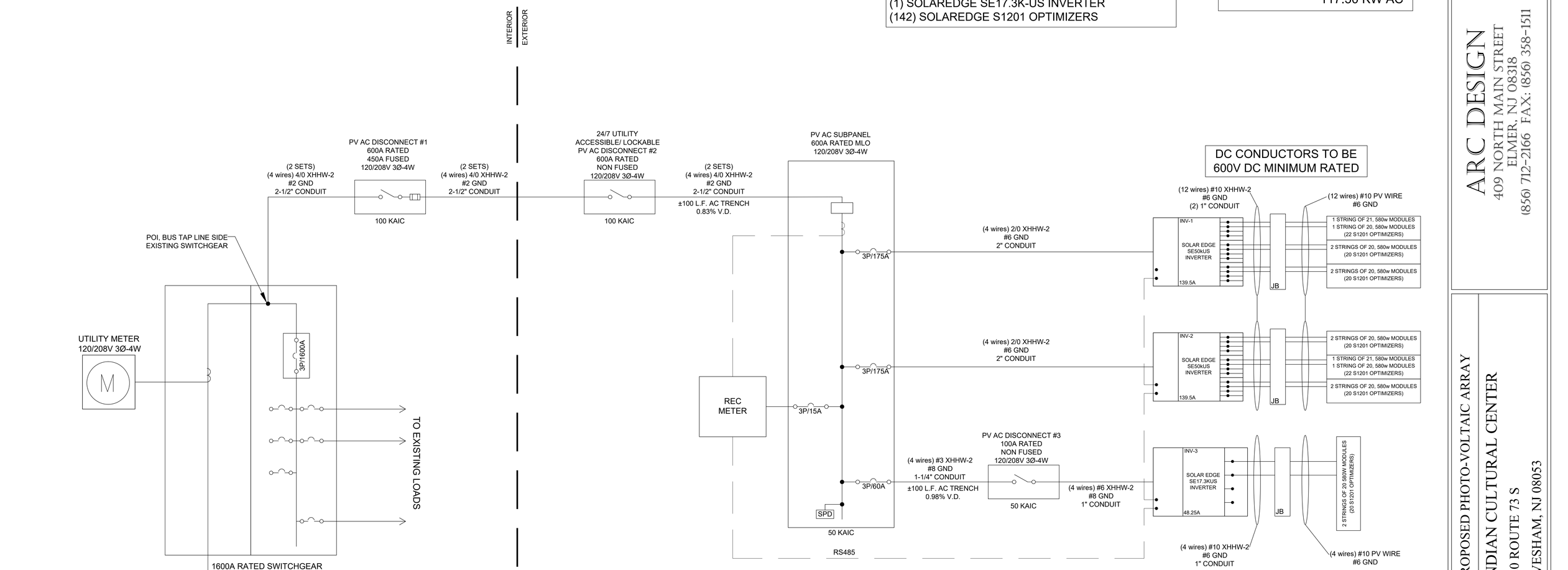
DETAILS

A-4

ALL CONDUCTORS SHALL BE COPPER
UNLESS NOTED OTHERWISE

(282) AXITEC AC-580TGB/144TS 580W MODULES
(2) SOLAREDGE SE50K-US INVERTERS
(1) SOLAREDGE SE17.3K-US INVERTER
(142) SOLAREDGE S1201 OPTIMIZERS

SYSTEM SIZE = 163.56 KW DC
117.30 KW AC




## Inverter UL-1741 SB Protective Settings

| INTERNAL PROTECTIVE FUNCTIONS | TRIP OUTPUT | VOLTAGE SETTING PU | SETTING | TOTAL CLEARING TIME (sec) |
|---|---|---|---|---|
| 27-1 - UNDERVOLTAGE | X | 0.50 | 104 V | 1.1 |
| 27-2 - UNDERVOLTAGE | X | 0.88 | 183.04 V | 3 |
| 59-1 - OVERVOLTAGE | X | 1.10 | 228.8 V | 2 |
| 59-2 - OVERVOLTAGE | X | 1.20 | 249.6 V | 0.16 |
| 81U-1 - UNDERFREQUENCY | X | | 56.5 Hz | 0.16 |
| 81U-2 - UNDERFREQUENCY | X | | 58.5 Hz | 300 |
| 81O-1 - OVERFREQUENCY | X | | 61.2 Hz | 300 |
| 81O-2 - OVERFREQUENCY | X | | 62 Hz | 0.16 |
| MIN RETURN TO SERVICE VOLTAGE | | 0.917 | 190.74 V | 300 |
| MAX RETURN TO SERVICE VOLTAGE | | 1.05 | 218.4 V | 300 |
| MIN RETURN TO SERVICE FREQUENCY | | | 59.5 Hz | 300 |
| MAX RETURN TO SERVICE FREQUENCY | | | 60.1 Hz | 300 |
| PRIMARY VOLTAGE (L-N) | 0.208 | kV | 208 | V |
| RETURN TO SERVICE NOTES | INVERTERS HAVE A 5 MINUTE ENTER SERVICE PERIOD. DURING INVERTER 5 MINUTE ENTER SERVICE PERIOD, THE MAXIMUM ACTIVE POWER INCREASE SHALL BE LIMITED TO 20% OF NAMEPLATE RATING PER MINUTE (0.33%/S LINEAR RAMP RATE). | | | |

ALL EXTERIOR MOUNTED COMBINERS, JUNCTION BOXES, TROUGHS, DISCONNECTS, ETC. SHALL BE MIN. NEMA 3R RATED.

AC & DC GROUNDING CONDUCTORS PER NEC ARTICLE 690.43 (A) thru (F) CONNECTED AS PER 690.45(A), 690.46, & SIZED PER 250.122

-Electrical contractor to verify interconnection requirements with Electrical Utility for connection location and standards.
-Electrical Contractor to provide expansion joints and anchoring of all conduit runs as per NEC requirements.
-Provide label/placard at existing utility connection with "WARNING - CUSTOMER OWNED ELECTRICAL GENERATION EQUIPMENT CONNECTED" with appropriate hazard and output ratings of PV System.

Confirm line side voltage at electric utility service entrance BEFORE connecting inverter and ensure proper operational range required by system inverter.

Interconnection to Utility and System Grounding per NEC-2020 Article 690

Provide signage as req'd by NEC-2020 Article 690.

ALL outdoor equipment shall be a minimum of NEMA-3R rated.

ALL DC CONNECTORS TO MODULES OR INVERTERS MUST BE OF MATCHING MANUFACTURER BRAND AND STYLE.

DO NOT USE 'COMPATIBLE' CONNECTORS WHICH HAVE NOT BEEN UL TESTED FOR COMPATIBILITY. PERFORMANCE AND FIRE DAMAGE MAY RESULT FROM MIS-MATCHED CONNECTOR USAGE.


ARC DESIGN
409 NORTH MAIN STREET
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PROPOSED PHOTO-VOLTAIC ARRAY
INDIAN CULTURAL CENTER
820 ROUTE 73 S
EVESHAM, NJ 08053


JAMES A. CLANCY
N.J. PROFESSIONAL ENGINEER
LICENSE #: 24GE03903900


| REVISIONS | |
|---|---|
| DATE | COMMENT |
| 07-31-25 | PER AHJ REVIEW |
| 08-06-25 | REVISE LAYOUT |
| | |
| | |
| | |

| | |
|---|---|
| JOB # | |
| DRWN | RCA |
| CHKD | JAC |
| SCALE | AS NOTED |
| DATE | 06-11-2025 |

ELECTRICAL DIAGRAM

E-1

AXITEC

# AXIbiperfect GXXL TS

## 570 - 590 Wp

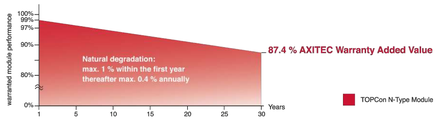
**High performance bifacial solar module**
**144 halfcell, glass/glass, N-Type TOPCon**


Fig. similar 1411208/R0/0027A

**The advantages:**

- 30 years Manufacturer's warranty and Performance guarantee
- Up to 30 % more power output by Bifacial-Technology
- More performance through innovative N-Type TOPCon-Technology
- PID reduced through glass/glass-Technology
- Increased safety through improved fire protection
- Positive power sorting from 0-5 Wp

**Exclusive linear AXITEC high performance guarantee!**




AXITEC Energy GmbH & Co. KG. Otto-Lilienthal-Str. 5. 71034 Böblingen. Germany. energy@axitecsolar.com. www.axitecsolar.com

AXITEC

# AXIbiperfect GXXL TS 570 - 590 Wp

**Electrical data**

at standard conditions (STC): irradiance 1000 W/m², spectrum AM 1.5 at a cell temperature of 25°C

| Type | AC-570TGB/144TS | AC-575TGB/144TS | AC-580TGB/144TS | AC-585TGB/144TS | AC-590TB/144TS |
|---|---|---|---|---|---|
| Nominal output | **570 Wp** | **575 Wp** | **580 Wp** | **585 Wp** | **590 Wp** |
| Nominal voltage Umpp | 43.52 V | 43.73 V | 43.94 V | 44.16 V | 44.37 V |
| Nominal current Impp | 13.10 A | 13.15 A | 13.20 A | 13.25 A | 13.30 A |
| Short circuit current Isc | 13.99 A | 14.05 A | 14.11 A | 14.17 A | 14.23 A |
| Open circuit voltag Uoc | 51.55 V | 51.80 V | 52.03 V | 52.26 V | 52.31 V |
| Module conversion efficiency | 22.07 % | 22.26 % | 22.45 % | 22.65 % | 22.84 % |

at BNPI test conditions: irradiance frontside 1000 W/m², backside 135 W/m², with spectrum AM 1.5 at a cell temperature of 25°C

| | | | | | |
|---|---|---|---|---|---|
| Nominal output Pmpp | 628 Wp | 634 Wp | 640 Wp | 645 Wp | 651 Wp |
| Short circuit current Isc | 15.43 A | 15.49 A | 15.56 A | 15.62 A | 15.69 A |
| Open circuit voltag Uoc | 51.55 V | 51.80 V | 52.03 V | 52.26 V | 52.31 V |

Bifacial coefficients: φUoc 0.98±5%; φIsc 0.80±10%; φPmpp 0.80±10%

**Design**

| | |
|---|---|
| Frontside | 2.0 mm low-reflection white glass |
| Backside | 2.0 mm glass, cell spaces transparent |
| Cells | 144 N-Type TOPCon bifacial high efficiency cells |
| Frame | 30 mm silver aluminium frame |

**Mechanical data**

| | |
|---|---|
| L x W x H | 2278 x 1134 x 30 mm |
| Weight | 31.2 kg with frame |

**Mechanical load**

Design load (pressure/suction) 3600 Pa / 1600 Pa *
Test load (pressure/suction) 5400 Pa / 2400 Pa *
* depending on the type of installation according to the installation instructions

**Power connection**

| | |
|---|---|
| Socket | Protection Class IP68, 3 bypass diodes |
| Wire | approx. 1.3 m, 4 mm² |
| Plug-in system | IP68, MC4-EVO 2, MC4-EVO 2A, JM608 |

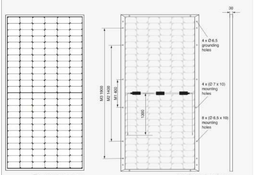



Fig. principle sketch All dimensions in mm

**Limit values**

| | |
|---|---|
| System voltage | 1500 VDC |
| NOCT (nominal operating cell temperature)* | 45°C +/-2K |
| Reverse current feed IR | 30.0 A |
| Permissible operating temp. | -40°C to 85°C / -40F to 185F |
| Fire class / Protection class | C (UL790) / II |
| Hail resistance | HW3 (Ø 30 mm, 23.6 m/s) |

(No external voltages greater than Uoc may be applied to the module)

* NOCT: irradiance 800 W/m², AM 1.5; wind speed 1 m/s; Temperature 20°C

**Temperature coefficients**

| | |
|---|---|
| Voltage Uoc | -0.26 %/K |
| Current Isc | 0.046 %/K |
| Output Pmpp | -0.31 %/K |

**Low-light performance** without Bifacial-effect
(Example for AC-590TGB/144TS)

| kU characteristic curve | Current Ipp | Voltage Upp |
|---|---|---|
| 200 W/m² | 2.72 A | 42.70 V |
| 400 W/m² | 5.48 A | 43.19 V |
| 600 W/m² | 8.19 A | 43.53 V |
| 800 W/m² | 10.83 A | 43.90 V |
| 1000 W/m² | 13.30 A | 44.37 V |

**Packaging**

| | |
|---|---|
| Module pieces per pallet | 36 |
| Module pieces per HC-container | 720 |



# Three Phase Inverters for the 120/208V Grid

## For North America

SE10KUS / SE17.3KUS


INVERTERS

**The best choice for SolarEdge enabled systems**

- Specifically designed to work with power optimizers
- Quick and easy inverter commissioning directly from a smartphone using SolarEdge SetApp
- Fixed voltage inverter for superior efficiency and longer strings
- Built-in type 2 DC and AC Surge Protection, to better withstand lightning events
- Small, lightest in its class, and easy to install outdoors or indoors on provided bracket
- Integrated arc fault protection and rapid shutdown for NEC 2014 – 2023, per article 690.11 and 690.12
- Built-in module-level monitoring with Ethernet, wireless or cellular communication for full system visibility
- Integrated Safety Switch
- UL 1741 SA and SB certified, for CPUC Rule 21 grid compliance

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# Three Phase Inverters for the 120/208V Grid(1)

## For North America

SE10KUS / SE17.3KUS

| Model Number / Applicable to inverters with part number | SE10KUS | SE17.3KUS | |
|---|---|---|---|
| | SEXXK-USX2IXXXX | | |
| **OUTPUT** | | | |
| Rated AC Power Output | 10000 | 17300 | W |
| Maximum Apparent AC Output Power | 10000 | 17300 | VA |
| AC Output Line Connections | 3W + PE, 4W + PE | | |
| AC Output Voltage Minimum-Nominal-Maximum(2) (L-N) | 105 – 120 – 132.5 | | Vac |
| AC Output Voltage Minimum-Nominal-Maximum(2) (L-L) | 183 – 208 – 229 | | Vac |
| AC Frequency Min-Nom-Max(3) | 59.3 – 60 – 60.5 | | Hz |
| Continuous Output Current (per Phase) | 27.8 | 48.25 | Aac |
| GFDI Threshold | 1 | | A |
| Utility Monitoring, Islanding Protection, Country Configurable Set Points | Yes | | |
| THD | < 3 | | % |
| Power Factor Range | +/- 0.85 to 1 | | |
| **INPUT** | | | |
| Maximum DC Power (Module STC) | 17500 | 30275 | W |
| Transformer-less, Ungrounded | Yes | | |
| Maximum Input Voltage DC+ to DC- | 600 | | Vdc |
| Operating Voltage Range | 370 – 600 | | Vdc |
| Maximum Input Current | 27.8 | 48.25 | Adc |
| Maximum Input Short Circuit Current | 55 | | Adc |
| Reverse-Polarity Protection | Yes | | |
| Ground-Fault Isolation Detection | 167kΩ Sensitivity(4) | | |
| CEC Weighted Efficiency | 97 | 97.5 | % |
| Night-time Power Consumption | < 4 | | W |
| **ADDITIONAL FEATURES** | | | |
| Supported Communication Interfaces | 2 x RS485, Ethernet, Cellular (optional) | | |
| Inverter Commissioning | With the SetApp mobile application using built-in Wi-Fi access point for local connection | | |
| Rapid Shutdown | NEC 2014 – 2023, built-in | | |
| RS485 Surge Protection Plug-in | Supplied with the inverter, built-in | | |
| AC, DC Surge Protection | Type II, field replaceable, built-in | | |
| DC Fuses (Single Pole) | 25A, built-in | | |
| Smart Energy Management | Export Limitation | | |
| VAR at Night | Yes(5) | | |
| **DC SAFETY SWITCH** | | | |
| DC Disconnect | Integrated | | |
| **STANDARD COMPLIANCE** | | | |
| Safety | UL 1741; UL 1741 SA; UL 1741 SB; UL 1699B; CSA C22.2; Canadian AFCI according to T.I.L. M-07 | | |
| Grid Connection Standards | IEEE 1547-2018, Rule 21, Rule 14 (HI) | | |
| Emissions | FCC part 15 Class A | | |
| **INSTALLATION SPECIFICATIONS** | | | |
| AC Output Conduit size /AWG range | ¾" or 1" / 6 - 10 AWG | | |
| DC Input Conduit size / AWG range | ¾" or 1" / 6 - 12 AWG | | |
| Number of DC inputs pairs | 4 | | |
| Dimensions with Safety Switch (H x W x D) | 31.8 x 12.5 x 11.8 / 808 x 317 x 300 | | in / mm |
| Weight with Safety Switch | 78.2 / 35.5 | | lb / kg |
| Cooling | Fans (user replaceable) | | |
| Noise | < 62 | | dBA |
| Operating Temperature Range | -40 to +140 / -40 to +60(7) | | °F / °C |
| Protection Rating | NEMA 3R | | |
| Mounting | Bracket provided | | |

(1) For 277/480V inverters refer to the Three Phase Inverters for the 277/480V Grid for North America datasheet.
(2) For other regional settings please contact SolarEdge support.
(3) Where permitted by local regulations.
(4) For information about enabling VAR at Night refer to the Set Volt-Ampere Reactive at Night application note.
(5) For power derating information refer to the Temperature Derating technical note for North America.



CE

# Three Phase Inverter with Synergy Technology

## For the 208V Grid for North America

SE50KUS

| MODEL NUMBER / APPLICABLE TO INVERTERS WITH PART NUMBER | SExxK-USx2Ixxxx SE50KUS | UNITS |
|---|---|---|
| **OUTPUT** | | |
| Rated AC Active Output Power | 50000 | W |
| Maximum AC Apparent Output Power | 50000 | VA |
| AC Output Line Connections | 3W + PE, 4W + PE | |
| Supported Grids | WYE: TN-C, TN-C-S, TT, IT, Delta: IT | |
| AC Output Voltage Minimum-Nominal-Maximum(2) (L-N) | 105 – 120 – 132.5 | Vac |
| AC Output Voltage Minimum-Nominal-Maximum(2) (L-L) | 183 – 208 – 229 | Vac |
| AC Frequency Min-Nom-Max(3) | 59.3 – 60 – 60.5 | Hz |
| Maximum Continuous Output Current (per Phase, PF=1) | 139.5 | Aac |
| GFDI Threshold | 1 | A |
| Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds | Yes | |
| Total Harmonic Distortion | < 3 | % |
| Power Factor Range | ±0.85 to 1 | |
| **INPUT** | | |
| Maximum DC Power (Module STC) / Synergy Unit | 87500 / 29165 | W |
| Transformer-less, Ungrounded | Yes | |
| Maximum Input Voltage DC+ to DC- | 600 | Vdc |
| Operating Voltage Range | 370 – 600 | Vdc |
| Maximum Input Current | 3 x 46.5 | Adc |
| Reverse-Polarity Protection | Yes | |
| Ground-Fault Isolation Detection | 167kΩ sensitivity per Synergy Unit(3) | |
| CEC Weighted Efficiency | 97 | % |
| Nighttime Power Consumption | < 12 | W |
| **ADDITIONAL FEATURES** | | |
| Supported Communication Interfaces(3) | 2 x RS485, Ethernet, Wi-Fi (optional), Cellular (optional) | |
| Smart Energy Management | Export Limitation | |
| Inverter Commissioning | With the SetApp mobile application using built-in Wi-Fi access point for local connection | |
| Arc Fault Protection | Built-in, User Configurable (According to UL1699B) | |
| Photovoltaic Rapid Shutdown System | NEC 2014 – 2023, built-in | |
| PID Rectifier | Nighttime, built-in | |
| RS485 Surge Protection (ports 1+2) | Type II, field replaceable, integrated | |
| AC, DC Surge Protection | Type II, field replaceable, integrated | |
| DC Fuses (Single Pole) | 25A, integrated | |
| Pre-Commissioning | Built-in(4) | |
| VAR at Night(5) | Yes | |
| **DC SAFETY SWITCH** | | |
| DC Disconnect | Built-in | |
| **STANDARD COMPLIANCE** | | |
| Safety | UL1699B, UL1741, UL1741 SA, UL1741 SB, UL1998, CSA C22.2#107.1, Canadian AFCI according to T.I.L. M-07 | |
| Grid Connection Standards | IEEE1547, IEEE1547.1 | |
| Emissions | FCC Part 15 Class B | |

(1) For other regional settings please contact SolarEdge support.
(2) Where permitted by local regulations.
(3) For specifications of the optional communication options, visit the Communication product page or the Knowledge Center to download the relevant product datasheet.
(4) Not available for P/Ns: SExxK-xxxxxBPxx.
(5) For details, see Set Volt Ampere Reactive at Night.

# Power Optimizer

## For North America

S1201

| Power Optimizer Model (Typical Module Compatibility) | S1201 (for up to 2 x high power or bifacial modules) | Units |
|---|---|---|
| **INPUT** | | |
| Rated Input DC Power(1) | 1300 | W |
| Absolute Maximum Input Voltage (Voc) | 125 | Vdc |
| MPPT Operating Range | 12.5 – 105 | Vdc |
| Maximum Short Circuit Current (Isc) of Connected PV Module | 15 | Adc |
| Maximum Adjusted Short Circuit Current (with Safety Factor)(2) | 18.75 | Adc |
| Maximum Efficiency | 99.5 | % |
| Weighted Efficiency | 98.8 | % |
| Overvoltage Category | II | |
| **OUTPUT DURING OPERATION** | | |
| Maximum Output Current | 18 | Adc |
| Maximum Output Voltage | 80 | Vdc |
| **OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)** | | |
| Safety Output Voltage per Power Optimizer | 1±0.1 | Vdc |
| **STANDARD COMPLIANCE** | | |
| Photovoltaic Rapid Shutdown System | NEC 2014 – 2023 | |
| EMC | FCC Part15, IEC 61000-6-2, and IEC 61000-6-3 | |
| Safety | IEC62109-1 (class II safety), UL1741, UL3741, CSA C22.2#107.1 | |
| Material | UL94 V-0, UV Resistant | |
| RoHS | Yes | |
| Fire Safety | VDE-AR-E 2100-712:2013-05 | |
| **INSTALLATION SPECIFICATIONS** | | |
| Compatible SolarEdge Inverters | All commercial three phase inverters | |
| Maximum Allowed System Voltage | 1000 | Vdc |
| Dimensions (W x L x H) | 129 x 155 x 59 / 5.08 x 6.10 x 2.32 | mm / in |
| Weight | 1106 / 2.4 | gr / lb |
| Input Connector | MC4(4) | |
| Input Wire Length | 1.6 / 5.25(4) | m / ft |
| Output Connector | MC4 | |
| Output Wire Length | (+) 5.3 (-) 0.10 / (+) 17.38, (-) 0.32 | m / ft |
| Operating Temperature Range(5) | -40 to +85 / -40 to +185 | °C / °F |
| Protection Rating | IP68 / NEMA6P | |
| Relative Humidity | 0 – 100 | % |

(1) The rated power of the module at STC will not exceed the power optimizer Rated Input DC Power. Modules with up to +3% power tolerance are allowed.
(2) Adjusted for ambient temperature, irradiance, bifacial gain, safety factor, and so on, in accordance with NEC and CSA.
(3) For other connector types please contact SolarEdge.
(4) The Same Connect feature is only enabled on the output cable connectors.
(5) For ambient temperatures above +65°C / +149°F, power derating is applied.

**S1201 Mechanical Drawing**




RoHS

# Power Optimizer

## For North America

S1201

| PV System Design Using a SolarEdge Inverter(6)(7)(8)(9) | | 208V Grid SE10K | 208V Grid SE17.3K* | 277/480V Grid SE20K, SE30K | 277/480V Grid SE40K* | |
|---|---|---|---|---|---|---|
| Compatible Power Optimizers | | S1201 | | | | |
| Minimum String Length | Power Optimizers | 8 | 10 | 15 | 15 | |
| | PV Modules | 15 | 19 | 29 | 29 | |
| Maximum String Length | Power Optimizers(8) | 30 | 30 | 30 | 30 | |
| | PV Modules | 60 | 60 | 60 | 60 | |
| Maximum Continuous Power per String | | 7200 | 8820 | 15,300 | 15,300 | W |
| Maximum Allowed Connected Power per String(8) | | 1 string – 8400<br>2 strings or more – 10,600 | 1 string – 10,020<br>2 strings or more – 13,000 | 1 string – 17,550<br>2 strings or more – 23,000 | 2 strings or less – 17,550<br>3 strings or more – 23,000 | W |
| Parallel Strings of Different Lengths or Orientations | | Yes | | | | |
| Maximum Difference in Number of Power Optimizers Allowed Between the Shortest and Longest String Connected to the Same Inverter Unit | | 5 Power Optimizers | | | | |

* The same rules apply for Synergy units of equivalent power ratings, that are part of the modular Synergy Technology inverter.
(6) S1201 cannot be mixed with any other Power Optimizers models in the same string.
(7) For each string, a Power Optimizer may be connected to a single PV module if:
 1) Each Power Optimizer is connected to a single PV module or
 2) It is the only Power Optimizer connected to a single PV module in the string.
(8) When connecting to inverters that support Rapid Shutdown, each string must contain fewer than 28 power optimizers to meet NEC Rapid Shutdown requirements.
(9) To connect more STC power per string, design your project using SolarEdge Designer.



RoHS

ARC DESIGN
409 NORTH MAIN STREET
ELMER, NJ 08318
(856) 712-2166 FAX: (856) 358-1511

PROPOSED PHOTO-VOLTAIC ARRAY

INDIAN CULTURAL CENTER
820 ROUTE 73 S
EVESHAM, NJ 08053

JAMES A. CLANCY
N.J. PROFESSIONAL ENGINEER
LICENSE No. 23803
07-31-25

REVISIONS

| DATE | COMMENT |
|---|---|
| 07-31-25 | PER AHJ REVIEW |
| 08-06-25 | REVISE LAYOUT |
| | |
| | |
| | |

| | |
|---|---|
| JOB # | |
| DRWN | RCA |
| CHKD | JAC |
| SCALE | AS NOTED |
| DATE | 06-11-2025 |

E-3

DATA SHEETS

Procedural Notes

1. Prior to commencement of any work, the contractor shall notify owner, owner's representative and Architect/Engineer of any discrepancies noted 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 installation.
4. Contractor shall be responsible for all safety precautions and measures on site. The Architect/Engineer has no overall supervisory authority and no direct responsibility for the specific working conditions.
5. Contractor initiated changes shall be submitted in writing to the Architect/Engineer for approval prior to making any changes. Approved changes shall require a drawing revision to maintain control over the Architect/Engineer approved design. Deviation from these plans prior to Architect/Engineer approval places the contractor at risk.

General Notes

1. The electrical contractor is responsible for installing all equipment and following all directions and instructions shown herein.
2. The electrical contractor is advised that all drawings, component manuals, especially the inverter manuals, are to be read and understood prior to installation. The contractor is also advised to have all component switches in the off position and fuses removed prior to installation of fuse-bearing components and lock-out all disconnects.
3. For safety it is recommended the installation crew always have a minimum of two people working together.
4. This solar photovoltaic system is to be installed following the conventions of the National Electric Code as accepted/amended by the local AHJ. Any local code which may supersede the NEC shall govern.
5. All electrical components to be installed with this system are to be "UL" listed or accepted equivalent. Equipment shall be NEMA 3R outdoor rated or better, unless located indoors.
6. The contractor is responsible for selecting and purchasing equipment that will last the lifetime of the PV system (20 years min.). All enclosures, conduit straps, painted metal surfaces, concrete, grounding equipment and other products shall be selected to last the lifetime of the PV system. The Architect/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.
7. 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 or involved with this photovoltaic system are warned that the solar modules are energized whenever they are exposed to daylight.
8. All portions of this solar electric system shall be clearly marked in accordance with the latest electrical code in effect for the project site.
9. For proper maintenance and isolation of inverters, refer to isolation procedure in inverter operation manual.
10. This photovoltaic system's utility interconnection point shall meet the specific requirements of Articles 690 and 705 of the National Electrical Code and the requirements of the local electrical utility of authority in this jurisdiction.
11. The grounding of the photovoltaic system shall comply with Article 690 of the National Electrical Code.
12. The electrical contractor is not to start or energize the PV or inverter system at any time until approved by the owner and governing electric utility.
13. The contractor is responsible for mounting all equipment per the 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 this solar electric system.
14. Any metal shavings resulting from site work shall be cleaned from enclosure interiors, top surfaces of enclosures. The ground surface and any additional areas where oxidized or conductive metal shavings may cause rust, electrical short circuits or other damage.
15. 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 rooftops and walls to prevent water build-up may occur. Weep holes shall be provided in enclosures where condensation or water build-up may occur. Sealing conduit with a fire retardant foam or caulk at enclosure entry points is recommended to minimize condensation and pests in enclosures.
16. The contractor will provide submittals (including drawings, catalog cuts, and manufacturer's data, etc.) for all equipment and materials. Submittals will be reviewed and returned. The contractor will be at risk for any work related to un-approved submittals.

Electrical Notes

1. 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.
2. The layout of conduit shown in these plans is indicative only. Contractor shall route and locate the conduits to suit site conditions. Contractor will submit for approval all changes in wiring and conduit with the Architect/Engineer which exceeds noted length of run.
3. Where wire and cable routing is not shown, and destination only is indicated. Contractor shall determine exact routing and lengths required. A shop drawing of proposed installation shall be supplied to owner and owner's representative prior to installation and include proposed length of run.
4. Underground conduit shall be UV resistant outdoor rated PVC Schedule 40. Conduit types are only recommended on the electrical diagrams. It is the responsibility of the electrical contractor to conform to these requirements.
5. All metallic connectors and fittings shall be non-corroding, such as aluminum, stainless steel or galvanized.
6. Bends shall not damage the raceway or significantly change the internal diameter of raceways (no kinks).
7. Support conductors in vertical conduits in accordance with NEC requirements.
8. Install all wiring materials in a neat workmanlike manner. Use good trade practices as required by chapter 3 of the NEC.
9. Arrange conduit to maintain headroom and in a neat inconspicuous manner. Run parallel and at right angles to structural members. Provide boxes, fittings and bends for change in direction. Fasten conduit securely in place.
10. Support conduit using steel or malleable iron straps, lay-in adjustable hangers, clevis hangers and split-hangers. Hanger spacing shall be 10' maximum. Use approved beam clamps for connection to structural members.
11. Provide pull and junction boxes 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.
12. When field cutting is required, the conduit shall be cut square and deburred.
13. Conduit sizes not specified should conform to NEC specifications. Minimum conduit size 1" unless noted otherwise.
14. The wiring minimum size should be # 12 AWG. Conductor material shall be copper unless otherwise noted. Conductor type shall be solid for # 12 and stranded for # 10 and larger.
15. Safety regulations (lock out-tag out, etc.) must be observed by the contractor during construction.
16. 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 conduit and wire may need to be resized. Please contact the Architect/Engineer prior to making any field changes.
17. All copper wiring shall be XHHW or XHHW-2 for 90 C applications, DC Wire shall be 1000V rated PV wire for 1000V rated. All aluminum wiring shall be XHHW for 90 C applications and have compression lugs at terminations. Use bare copper for ground where applicable.
18. Inverter interconnection via a bus tap is only legal when an over current protection (fusible AC disconnect) is located within 10 feet of the tapped conductors. Per NEC Article 240, the conductors shall be crimped with a single hole crimp-on lug, manufactured by ILSCO or BURNDY. Lugs shall be constructed of pure copper and tin plated for high conductivity. The lugs must be rated for 600 Volt DC applications minimum. The crimp must be made with the manufacturer's approved device to achieve the proper crimp connection. Use stainless steel or other non-corrosive hardware with the fastener torque to manufacturer's recommendations on all three phases. This torque level is a requirement. Minimum bend radius shall be observed to maintain good conductor quality and wire management in the load center or transformer. If this bend radius is too constricting, use a 90 crimp offered by ISLCO or BURNDY. Ensure that acceptable clearances for safe continuous operation are allotted with bus tap.
19. Conductor and conduit sizing calculated on continuous duty and MAX 2% voltage drop where possible.
20. All conduits shall be free of any obstructions before wire is pulled.
21. Electrical contractor to provide signage as shown on these drawings and per NEC Article 690.
22. Unless otherwise indicated, ground all exposed noncurrent-carrying metallic parts of electrical equipment, raceway systems, equipment structures and the neutral of all wiring systems in accordance with the NEC, State, and other applicable laws and regulations.
23. Where ground rods are indicated or used, they shall be copper clad, not less than 3/4" in diameter, and 8 feet long and driven full length into the earth. Make ground connections by brazing, exothermic welding, or with approved pressure terminals or mechanical grounding devices, except inaccessible connections shall be made by exothermic welding. The point of contact of each exothermic weld shall be wire brushed or filed to a bare metal surface. Thermite welding cartridges and molds shall be used in accordance with the manufacturer's recommendations. After the welds have been made and cooled, slag shall be brushed from the welded area and the joint thoroughly cleaned.
24. Trenches shall not be left unattended unless the area is fenced or barricaded to restrict entry to the area. Call the underground service firm before trenching. Warning tape shall be laid in trenches at a depth of 12 inches below finished grade and at least 12 inches above installed conduit, it shall be laid on the compacted backfill for the full length of the trench. Do not stretch the tape; installation of warning tape under slabs is not required. Conduit trenches shall be free of rocks, debris, etc. The trench shall be inspected by owner/Engineer or representative thereof prior to conduit installation.
25. Mini power centers (when included) shall consist of a combination dry type transformer with primary breaker, a secondary breaker, and a panel board. Breakers shall be plug-on type. Transformer shall have 115 degree C rise insulation. The complete unit shall be UL labeled and be suitable for outdoor use. Provide Square D mini power-zone, Cutler-Hammer mini-power centers, or equal.
26. Receptacles shall be duplex and rated 20 Amps at 120 VAC, 2 Pole, 3 Wire, NEMA type 5-20R and specification grade. All receptacles shall be GFI and weatherproof type. Device cover plates shall be suitable for the environment in which they are installed and the type of service they are used for.
27. Heavy duty rated switches fused or non-fusible as indicated on the drawings, shall be provided as required. General duty switches will not be allowed. Switches shall have "quick-break" actuating mechanisms and shall be enclosed as required by the conditions of installation. The cover shall be interlocked with the switch such that the enclosure cannot be opened with the switch in the "on" position. The "on" and "off" positions shall be clearly marked by the manufacturer. The switch shall be capable of being locked in the open position. Provide enclosures suitable for the specific type of location in which they are installed. Provide visible blade switches were required by code or utility. Disconnect switches shall be manufactured by Cutler-Hammer, Square D or equal.
28. Provide detectable underground warning tape at all feeders on primary of GSU transformer.
29. E.C. to provide red-lined as-builts at the completion of the project. A red lined set shall be maintained and accessible on site throughout construction.
30. Contractor shall be required to review conduit and wiring routing to prevent moisture from entering combiner boxes. Provide submittals to owner and owner's representative for approval, of all wiring, combiner boxes, conduit and other major BOS components.
31. All exposed conduit shall be installed to accommodate expansion and contraction due to ambient temperature changes per NEC requirements.

Module Mount Racking

1. Racking will consist of the specified manufacture as noted in layout & details.
2. Provide tilt angle per the project drawings.
3. Provide rack manufacturer's ballast and anchorage calculations and shop drawings to Architect / Engineer for review and project confirmation prior to installation. (When applicable)
4. Verify rack mounting rail spacing with module manufacturer's support requirements. Report any discrepancy immediately to Architect / Engineer for clarification prior to installation of any PV modules.

Inverter Installation Notes

1. Inverters shall be installed and wired per the manufacturer's installation manual.
2. Verify inverter output voltage rating equals the utility line voltage at the point of connection.

Monitoring and Data Acquisition

1. Monitoring system shall include data logger, weather station, revenue meter and sensors as shown in these drawings.
2. Monitoring system components shall be installed per manufacturer's instructions.
3. Wiring from components to equipment and to control panels must be continuous with no splices.

Solar Array Commissioning

1. Before closing disconnects or attempting to energize the inverters, the following commissioning procedure shall be completed:

A. Contractor to follow system owner approved commissioning procedure per PV Technical Specification.

String Combiner Boxes

1. Box shall have individual fuses for each string.
2. Provide NEMA 3R enclosure. (Minimum)

Array Combiner Boxes (When required)

1. Provide multiple input combiner box with individual fuses per single line diagram.
2. Provide MIN. NEMA 3R enclosure.
3. Provide remote monitoring. (when specified)

GENERAL NOTES

ARC DESIGN
409 NORTH MAIN STREET
ELMER, NJ 08318
(856) 712-2166 FAX: (856) 358-1511

PROPOSED PHOTO-VOLTAIC ARRAY

INDIAN CULTURAL CENTER
820 ROUTE 73 S
EVESHAM, NJ 08053

JAMES A. CLANCY
N.J. PROFESSIONAL ENGINEER
LICENSE NO. 24GE03423900

REVISIONS

| DATE | COMMENT |
|---|---|
| 07-31-25 | PER AHJ REVIEW |
| 08-06-25 | REVISE LAYOUT |
| | |
| | |
| | |

| | |
|---|---|
| JOB # | |
| DRWN | RCA |
| CHKD | JAC |
| SCALE | AS NOTED |
| DATE | 06-11-2025 |

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