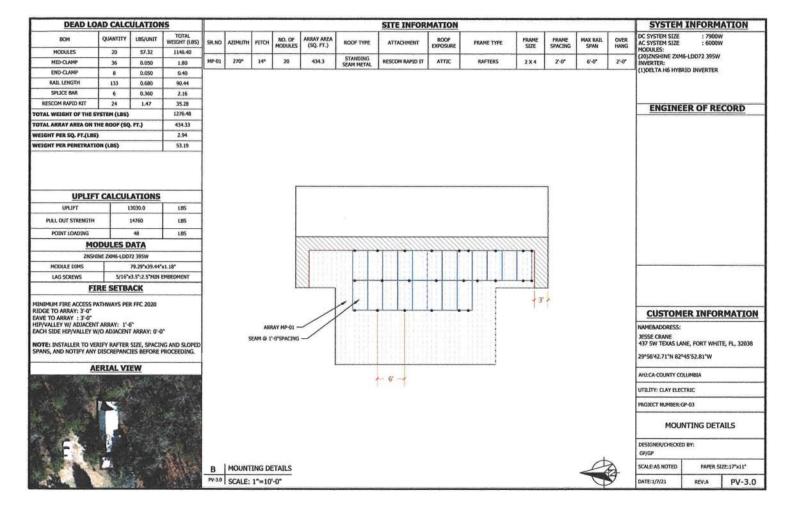
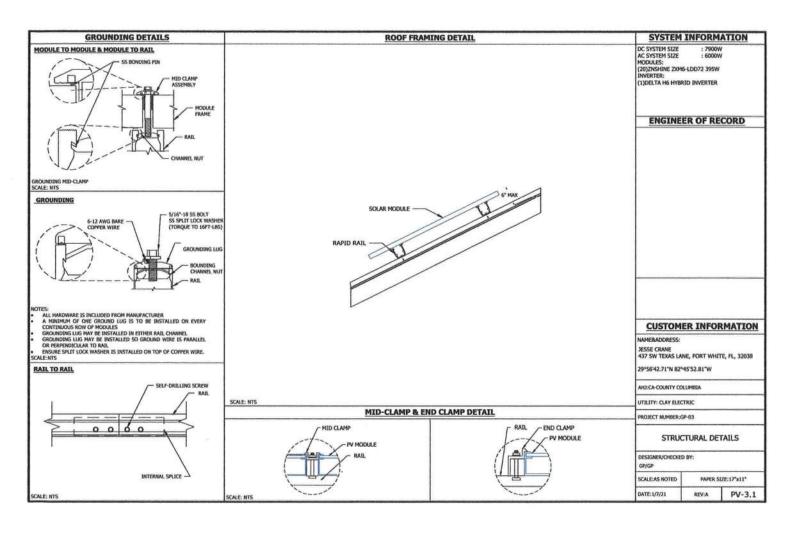
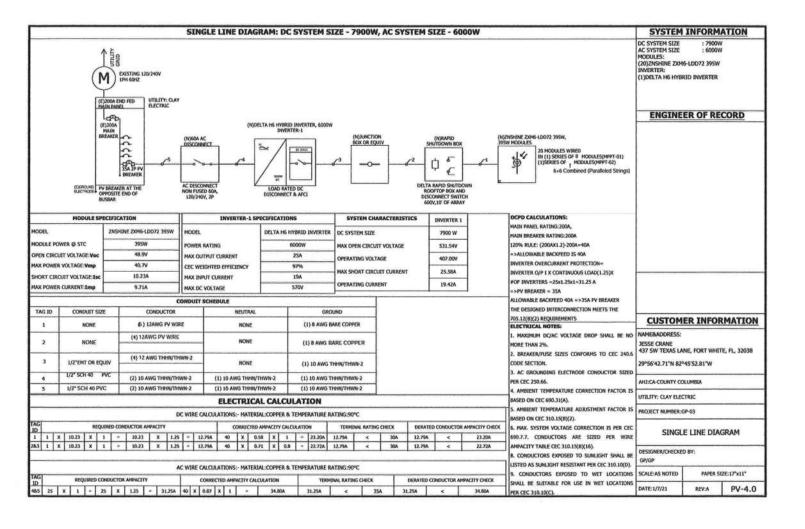


GENERAL NOTES DC SYSTEM SIZE AC SYSTEM SIZE MODULES: **GENERAL NOTES** INTERCONNECTION NOTES: MODULES ARE LISTED UNDER UL 1703 AND CONFORM TO THE STANDARDS. LOAD-SIDE INTERCONNECTION SHALL BE IN ACCORDANCE WITH [NEC 690.64(B)] THE SUM OF THE UTILITY OCPD AND INVERTER CONTINUOUS INPUT MAY NOT EXCEED 120% OF BUSBAR MODULES ARE LISTED UNDER UL 1793 AND CONFORM TO THE STRANDARDS. INVERTIESA RELISTED UNDER UL 1791 AND CONFORM TO THE STANDARDS. DRAWINGS ARE DIAGRAMMATIC, INDICATING GENERAL ARRANGEMENT OF THE PY SYSTEM AND THE ACTUAL. SITE CONDITION HIGHT VARY. WORKING CLEARANCES AROUND THE NEW PY ELECTRICAL EQUIPMENT WILL BE MAINTAINED IN ACCORDANCE WITH NC 110.26(A(X)). ALL GROUND WIRING CONNECTED TO THE MAIN SERVICE GROUNDING IN MAIN SERVICE PANELY SERVICE FOUNDMENT. (20)2NSHINE 2XM6-LDD72 395W THE SUM OF THE UTILITY OCPO AND INVERTER CONTINUOUS INFUT MAY NOT EXCEED 120% OF BUSSAR RATING, INC TOS. 1,2(0)2(3)31. WHEN SUM OF THE PV SOURCES EQUALS > 1,00% OF BUSSAR RATING, IV DEDICATED BACKFEED REAKERS MUST BE LOCATED OPPOSTE END OF THE BUS FROM THE UTILITY SOURCE COPP (INC TOS. 12(D)(2)(3)). AT MULTIPLE PV OUTFUT COMBINER PANEL, TOTAL RATING OF ALL OWER CURRENT DEVICES SHALL NOT EXCEED AMPACTLY OF BUSSAR. HOWEVER, THE COMBINED OVER CURRENT DEVICE MAY BE EXCLUDED ACCORDING TO NEC 70S. 12(D)(2)(3)(C). FEEDER TAP INTER CONNECTION (LOAD SIDE) ACCORDING TO NEC 70S. 12(D)(2)(1)SUPPLY SIDE TAP INTERCONNECTION ACCORDING TO NEC 70S. 12(A) WITH SERVICE ENTRANCE CONDUCTORS IN ACCORDANCE WITH NEC 2042 BACK FEEDING BEBEASER FOR UTILITY-INTERACTIVE INVERTER OUTFUT IS EXEMPT FROM ADDITIONAL FASTERING (NEC 70S. 12(D)(S)). (1)DELTA H6 HYBRID INVERTER 28. 29. EQUIPMENT. ALL CONDUCTORS SHALL BE 600Y, 75°C STANDARD COPPER UNLESS OTHERWISE NOTED. WHEN REQUIRED, A LADDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REQUIATIONS. ENGINEER OF RECORD THE SYSTEM WILL NOT BE INTERCONNECTED BY THE CONTRACTOR UNTIL APPROVAL FROM THE LOCAL THE STREM YILL WILL DE BITISOCHICAL TO BE UNITABLE OF THE COUNT OF THE COURT OF THE GROUNDING NOTES: 31. GROUNDING SYSTEM COMPONENTS SHALL BE LISTED FOR THEIR PURPOSE, AND GROUNDING DEVISES EXPOSED TO THE LEMENTS SHALL BE RATED FOR SUCH USE. 3. PV EQUIPMENT SHALL BE GROUNDED ACCORDING TO NOE GROAS AND MINIMUM NEC 250.122. 33. METAL PARTS OF MODILLE FRAMES, MODULE BACKING, AND ENCLOSURES CONSIDERED GROUNDED IN ACCORD WITH 250.134 AND 250.135(A). 43. EQUIPMENT GROUNDING COMDUCTORS SHALL BE SIZED ACCORDING TO NEC 690.45 AND MICRO INVERTER MANIFACTURES INSTITUTED USING WEER GROUNDING CLIPS AS SHOWN IN HANDFACTURES DOCUMENTATION AND APPROVED BY THE 4NJ. IF WEERS ARE NOT USED, MODULE GROWNDING LUGS MUST BE INSTILLED AT THE SPECIFIED GROUNDING UNG MAD FRET THE MANIFACTURERS' INSTITUTED. TREES, WIRES OR SIGNS. PV ARRAY COMBINER/JUNCTION BOX PROVIDES TRANSITION FROM ARRAY WIRING TO CONDUIT WIRING 11. ALL EQUIPMENT SHALL MEET MINIMUM SETBACKS AS REQUIRED BY NEC 110.26(A)(1). 12. WIRING SYSTEMS INSTALLED IN DIRECT SURLIGHT MUST BE RATED FOR EXPECTED OPERATING TEMPERATURE AS SPECIFIED BY NEC 690.31(A),(C) AND NEC TABLES 310.15(8)(2)(A) AND 310.15(8)(3)(C). 13. JUNCTION AND PULL BOXES PERMITTED INSTALLED LINDER RY MODULES ACCORDING TO NEC 690.3M. REQUIREMENTS. THE GROUNDING CONNECTION TO A MODULE SHALL BE ARRANGED SUCH THAT THE REMOVAL OF A MODULE DOES NOT INTERRUPT A GROUNDING CONDUCTOR TO ANOTHER MODULE. GROUNDING AND BONDING CONDUCTORS, IF INSULATED, SHALL BE COLORED GREEN OR MARKED GREEN IF #4 AWG OR LARCER [NEC 250.119] THE GROUNDING ELECTRODE SYSTEM COMPLIES WITH NEC 860-47 AWD NEC 250.50 THROUGH 250.106. IF EXISTING SYSTEM IS INACCESSIBLE, OR INADEQUATE, A GROUNDING ELECTRODE SYSTEM PROVIDED ACCORDING TO DEC 250,NEC 860-47 AWD AWG. GROUND-FAULT DETECTION SHALL COMPLY WITH NEC 690.5 IN GENERAL AND NEC 690.5(A)(1) ADDITIONAL AC DISCONNECT(S) SHALL BE PROVIDED WHERE THE INVERTER IS NOT WITHIN SIGHT OF THE REQUIREMENTS AC SERVICING DISCONNECT. ALL EQUIPMENT SHALL BE INSTALLED ACCESSIBLE TO QUALIFIED PERSONNEL ACCORDING TO NEC 15. 37. APPLICABLE CODES. 16. ALL COMPONENTS ARE LISTED FOR THEIR PURPOSE AND RATED FOR OUTDOOR USAGE WHEN APPROPRIATE 17. RACKING SYSTEM & PV ARRAY WILL BE INSTALLED ACCORDING TO CODE-COMPLIANT INSTALLATION MANUAL TOP CLAMPS REQUIRE A DESIGNATED SPACE BETWEEN MODULES, AND RAILS MUST ALSO EXTEND A MINIMUM DISTANCE BEYOND EITHER EDGE OF THE ARRAY/SUBARRAY, ACCORDING TO RAIL MANUFACTURERS INSTRUCTIONS. 39. SPECIFICALLY. DISCONRECTION AND OVER-CURRENT PROTECTION NOTES: DISCONRECTION SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING PREMICIZED ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER MANUFACTURERS INSTRUCTIONS. JUNCTION BOX WILL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. IF ROOF-PENETRATING TYPE, IT SHALL BE FLASHED A SEALED PER LOCAL REQUIREMENTS. ROOFIDP PENETRATIONS FOR PV RACEWAY WILL BE COMPLETED AND SEALED WITH APPROVED CHEMICAL. **CUSTOMER INFORMATION** DISCONNECTS TO BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A DISCORRECTS TO BE ACCESSIBLE TO QUILDIFED OTILITY PERSONNEL, BE LOCKAREE, AND SE A VISIBLE GREAK SWITCH RAPID SHUTDOWN OF ENERGIZED CONDUCTORS BEYOND 10 FT OF PV ARRAY OR 5 FT INSIDE A BUILDING WITHIN 10 SECONDS, CONTROLLED CONDUCTORS 530V AND 5240VA [NEC 690.12]. LOCATION OF LABEL ACCORDING TO AHL. ALL OCPD RATINGS AND TYPES SPECIFIED ACCORDING TO NEC 690.8,690.9 AND 240. MICRO INVERTER BRANCHES CONNECTED TO A SINCLE BREAKER OR GROUPED FUSES IN ACCORDANCE WITH NEC 110.3(8).2.6.7 IF REQUIRED BY AHJ, SYSTEM WILL INCLUDE ARC-FAULT CIRCUIT PROTECTION ACCORDING TO NEC 690.11 AND UL16998. SEALANT PER CODE BY A LICENSED CONTRACTOR. ALL PY RELATED ROOF ATTACHMENTS TO BE SPACED NO GREATER THAN THE SPAN DISTANCE SPECIFIED BY THE PACKING PANUFACTURES. WHEN POSSIBLE, ALL PY RELATED RACKING ATTACHMENTS WILL BE STAGGERED AMONGST THE ROOF FRAHING MEMBERS. NAME&ADDRESS JESSE CRANE 437 SW TEXAS LANE, FORT WHITE, FL, 32038 21. 29°56'42.71"N 82°45'52.81"W WIRING & CONDUIT NOTES: 22. ALL CONDUIT AND WIRE WILL BE LISTED AND APPROVED FOR THEIR PURPOSE. CONDUIT AND WIRE SPECIFICATIONS ARE BASED ON HIMIMUN CODE REQUIREMENTS AND ARE NOT MEANT TO LIMIT UP-SIZING. 23. CONDUCTORS SIZED ACCORDING TO REC 609.6, NEC 690.7. 24. DC WIRING LIMITED TO MODULE POOTPRINT. MICRO INVERTER WIRING SYSTEMS SHALL BE LOCATED AND SECURED LINIDER THE ARRAY WITH SUITABLE WIRING CLIPS. 25. AC CONDUCTORS COLORED ON HARRED AS FOLLOWS: PHASE A OR LL-BLACK PHASE B OR L2-RED, OR OTHER CONVENTION IF THREE PHASE C OR L3-BLUE, YELLOW, ORANGE**, OR OTHER CONVENTION INCURRAL WHITE OR GREY IN 4-WIRE DELTA CONNECTED SYSTEMS THE PHASE WITH HIGHER VOLTAGE TO BE MARKED GRANGE [NEC 110.15]. AH):CA-COUNTY COLUMBIA UTILITY: CLAY ELECTRIC PROJECT NUMBER:GP-03 GENERAL NOTES DESIGNER/CHECKED BY: GP/GP SCALE:AS NOTED DATE:1/7/21 PV-2.0 REV:A

SYSTEM INFORMATION









ELECTRIC SHOCK HAZARD
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC
SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

DC DISCONNECT, INVERTER [PER CODE: NEC 690.35(F)] [To be used when inverter is

WARNING

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

DC VOLTAGE IS ALWAYS PRESENT WHEN SOLAR MODULES ARE EXPOSED TO SUNLIGHT

LABEL LOCATION
AC DISCONNECT, POINT OF INTERCONNECTION
[PER CODE: NEC 690.17(E)]

WARNING

DO NOT TOUCH TERMINALS TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION
AC DISCONNECT, POINT OF INTERCONNECTION
[PER CODE: NEC 690.17(E)]

LABEL LOCATION INVERTER, JUNCTION BOXES(ROOF),

PER CODE: NEC 690.13.G.3 & NEC 690.13.G.4)

LABEL LOCATION
CONDUIT, COMBINER BOX
[PER CODE: NEC690.31(G)(3)(4) & NEC 690.13(G)(4))

WARNING

LABEL LOCATION
POINT OF INTERCONNECTION
[PER CODE: NEC705.12(DX4)]

LABEL LOCATION
DC DISCONNECT SWITCH, INVERTER
REF. CODE: NEC 690.14(C)(2), NEC 690.53

WARNING PLACARDS

LABEL LOCATION
AC DISCONNECT, POINT OF INTERCONNECTION
[PER CODE: NEC 690.54]

WARNING

LABEL LOCATION
POINT OF INTERCONNECTION
(PER CODE: NEC 705.12(0)(7)
(statement 6 freed hand a state that the free first and the fir

CAUTION: SOLAR CIRCUIT

LABEL LOCATION

HARGINGS FLACED ON ALL INTERIOR AND EXTERIOR DC
CONCUTT, RACKIVANS, ENCLOGARES AND CARLE ASSEMBLES AT
LEAST EVERY 10 FT, AT TURNS AND ARCHE/RELOW
PERCENTATIONS AND ALL COMBINEA/JUNCTION BOXES.

(PER CODE: IFC60S.11.1.4)

SOLAR DISCONNECT

LABEL LOCATION
DISCONNECT, POINT OF INTERCONNECTION
[PER CODE: NEC690.13(8)]

LABEL LOCATION
WEATHER RESISTANT MATERIAL, DURABLE ADHESDIVE,
UL969 AS STANDARD TO WEATHER RATING (UL LISTING OF MARKINGS NOT REQUIRED), WIN \$" LETTER HEIGHT ARIAL OR SIMILAR FORT NON-BOLD, MACED WITHIN THE MAIN SERVICE DISCONNECT, PLACED WITHIN THE MAIN SERVICE DISCONNECT IS OPPRATED WITH THE SERVICE PANEL CLOSED. (WER CODE: NECESOL 15, 690. 13(8))

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

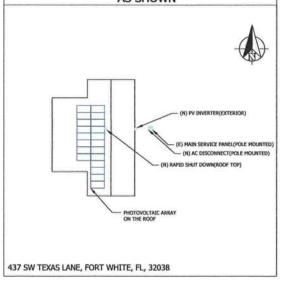
LARPL LOCATION
AC DISCONNECT, DC DISCONNECT, POINT OF INTERCONNECTION
[PER CODE: NEC690.56(C)]

LABEL LOCATION INVESTER POINT OF INTERCONNECTION [PER CODE: NEC 690.56(C)(3)] ALL PLACARDS SHALL BE OF WEATHER PROOF CONSTRUCTION, BACKGROUND ON ALL PLACARDS SHALL BE RED WITH WHITE LETTERING ILO.N. PHACARD SHALL BE MOUNTED DIRECTLY ON THE DUSTING UTILITY ELECTRICAL SERVICE FASTENERS APPROVED BY THE LOCAL JURISDICTION

NOTE:ALL SIGNAGE CANNOT BE HAND WRITTEN NEC 110.21

WARNING /!\

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN



SYSTEM INFORMATION

DC SYSTEM SIZE : 7900W
AC SYSTEM SIZE : 6000W
MODULES:
(20)ZNSHINE ZXM6-LDD72 395W
INVERTER:
(1)DELTA H6 HYBRID INVERTER

ENGINEER OF RECORD

CUSTOMER INFORMATION

NAME&ADDRESS

JESSE CRANE 437 SW TEXAS LANE, FORT WHITE, FL, 32038 29°56'42.71"N 82°45'52.81"W

AHT: CA-COUNTY COLUMBIA

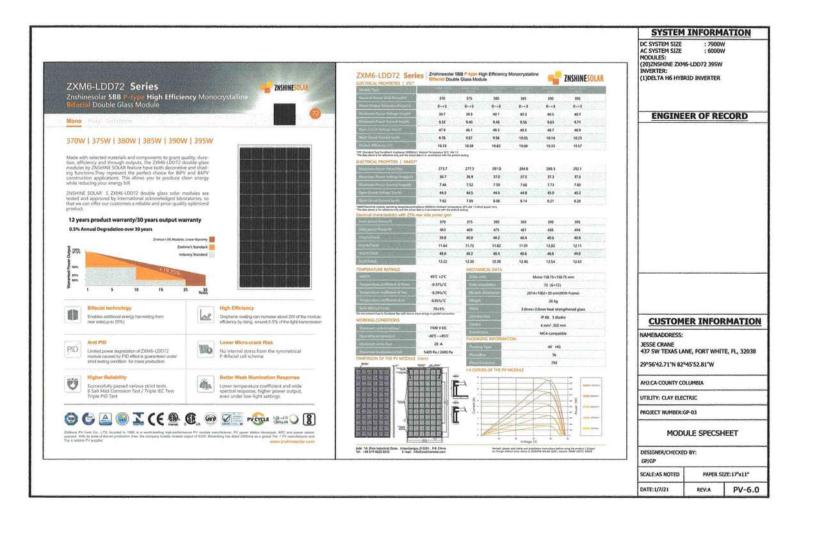
UTILITY: CLAY ELECTRIC

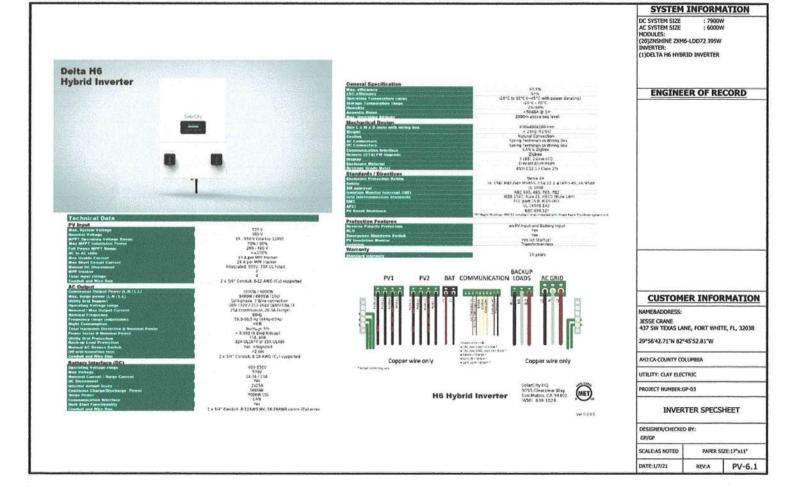
PROJECT NUMBER:GP-03

WARNING PLACARDS

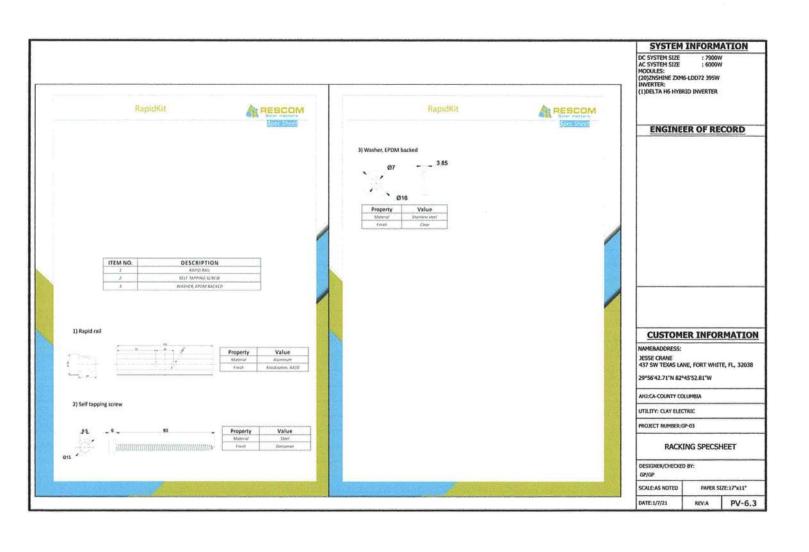
DESIGNER/CHECKED BY:

SCALE:AS NOTED PAPER SIZE:17"x11" PV-5.0









Engineering Certification Letter

December 15, 2020

Letter Type: Solar Panel Anchorage Certification

Subject: **Engineering Certification of Rescom Solar Attachment**

Site Address: State of Florida Recipient: Mr. Shane Ellis, CEO

Credence Energy

6322 NW 18th Drive, Suite 120

Gainesville, FL 32653



Dear Mr. Ellis.

Per your request, I have reviewed and evaluated anchorage connection detail for the above referenced solar attachment to existing roof framing, consisted of 2x DFL rafters spaced at 24" on-center. The evaluation has been performed with design parameters and assumptions shown below,

- Basic wind speed of 130 mph
- Wind Exposure Category C
- PV panels are located 40 ft max above ground level (i.e. z = 40 ft)
- PV panels are located in Zone 2e, 1 or 2r (per Figure 30.3-2D, ASCE 7)
- Angle of plane of roof from horizontal at 45° max
- Anchor (i.e. lag screw) spacing of 78" max
- Lag screw size of 5/16" in diameter with 2-1/2" penetration (excluding tip)

Based on the evaluation, it is the opinion of the self that Rescom Solar panel attachment product is capable of taking wind uplift induced by the solar PV panels with appropriate installation methods. In addition, it is determined that the existing roof joists are capable of handling additional loads induced by the solar PV panels. The evaluation is in conformance with the FBC 2020, 7th Edition, IBC 2020, ASCE 7-16 and info provided to self at the time.

In addition, the solar panels shall be mounted in accordance with the most recent "Rescom Solar Installation Manual". It is responsibility of the installing contractor to notify the engineer if the roof framing members look damaged or severely deflected.

This report has been prepared in accordance with current standards of practice of the structural engineering profession. No warrantee is either expressed or implied. Please contact us should you have any questions or comments. It has been our pleasure to be of service to you in this matter.

Sincerely,

Digitally signed by SEUNG KUN OH SEUNG DN: cn=SEUNG KUN OH, c=US,

email=slots@jsign@gmail.com

Date: 2020.12.15 18:46:26 -08'00'

SIGNED: 2020/12/15 EXPIRES: 2021/02/18

Seung Kun Oh, P.E., S.E.

Florida License No. 85140