

COUNTY OF SANTA CRUZ
PLANNING DEPARTMENT
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060
(831) 454-2580

NOTICE OF PENDING ACTION

The Planning Department has received the following application. The identified planner may be contacted for specific information on this application.

APPLICATON NUMBER: 181256

APN: 102-061-09

Proposal to construct an array of photovoltaic plate collectors and associated utility trench to serve the adjacent visitor-serving facility. Requires a Level 4 Discretionary Permit.

Property located at the end of Chaminade Lane (1 CHAMINADE LN) approximately 1,000 feet north of the intersection with Paul Sweet Road.

OWNER: LHO Santa Cruz Hotel One

APPLICANT: Jono Stevens

SUPERVISORIAL DISTRICT: 1

PLANNER: Jerry Busch, (831) 454-3234

EMAIL: Jerry.Busch@santacruzcounty.us

Public comments must be received by 5:00 p.m. October 2, 2018.

A decision will be made on or shortly after October 9, 2018.

Appeals of the decision will be accepted until 5:00 p.m. two weeks after the decision date.

Information regarding the appeal process, including required fees, may be obtained by phoning (831) 454-2130.

For more information, call the project planner identified above.

PHOTOVOLTAIC SYSTEM - CHAMINADE RESORT

1 CHAMINADE LANE, SANTA CRUZ, CA 95065

APN #: 102-061-09, 102-061-12

Vicinity Map:



Contact Info:

OWNER:
LHO SANTA CRUZ ONE LESSEE, INC.
7550 WISCONSIN AVE 10TH FL
BETHESDA, MD 20814

GENERAL CONTRACTOR:
NUANCE ENERGY GROUP, INC.
8 CROW CANYON CT, SUITE 200
SAN RAMON, CA 94583

ELECTRICAL ENGINEER:
NATRON RESOURCES
1480 MORAGA ROAD, SUITE C #228
MORAGA, CA 94556

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- CODE REFERENCES:**
1. 2016 CALIFORNIA ELECTRICAL CODE (CEC).
 2. 2016 CALIFORNIA FIRE CODE (CFC).
 3. 2016 CALIFORNIA BUILDING CODE (CBC).
 4. 2016 CALIFORNIA GREEN BUILDING CODE (GBC).

System Specifications:

| | |
|-----------------------------------|-------------------------------------|
| PANEL MODEL | SERAPHIM ENERGY GROUP SEG-6MA-360WW |
| NUMBER OF PANELS | 1,068 |
| SYSTEM POWER, KWSTC | 384.5 |
| SYSTEM POWER, KWAC | 330 |
| ARRAY SQUARE FOOTAGE | 45,165 |
| ARRAY WEIGHT (LBS) | 107,781 |
| CONSTRUCTION TYPE | COMMERCIAL |
| ASHRAE STATION | SALINAS MUNICIPAL AP |
| ASHRAE 2% HIGH DESIGN TEMP. DB | 25 |
| ASHRAE MIN MEAN EXTREME ANNUAL DB | -1 |



SCOPE OF WORK:

ALL ELECTRICITY GENERATED IS FOR CONSUMPTION ON SITE.

SYSTEM ELECTRICAL CONNECTION TO MAIN ELECTRICAL SERVICE IS AT 480Y/277V SWITCHGEAR.

PERMIT SHALL INCLUDE LABOR OF INSTALLING PANELS, RUNNING OF ELECTRICAL CONDUITS, INSTALLATION OF NEW ELECTRICAL EQUIPMENT AND ELECTRICAL CONNECTION TO EXISTING BUILDING SERVICE.

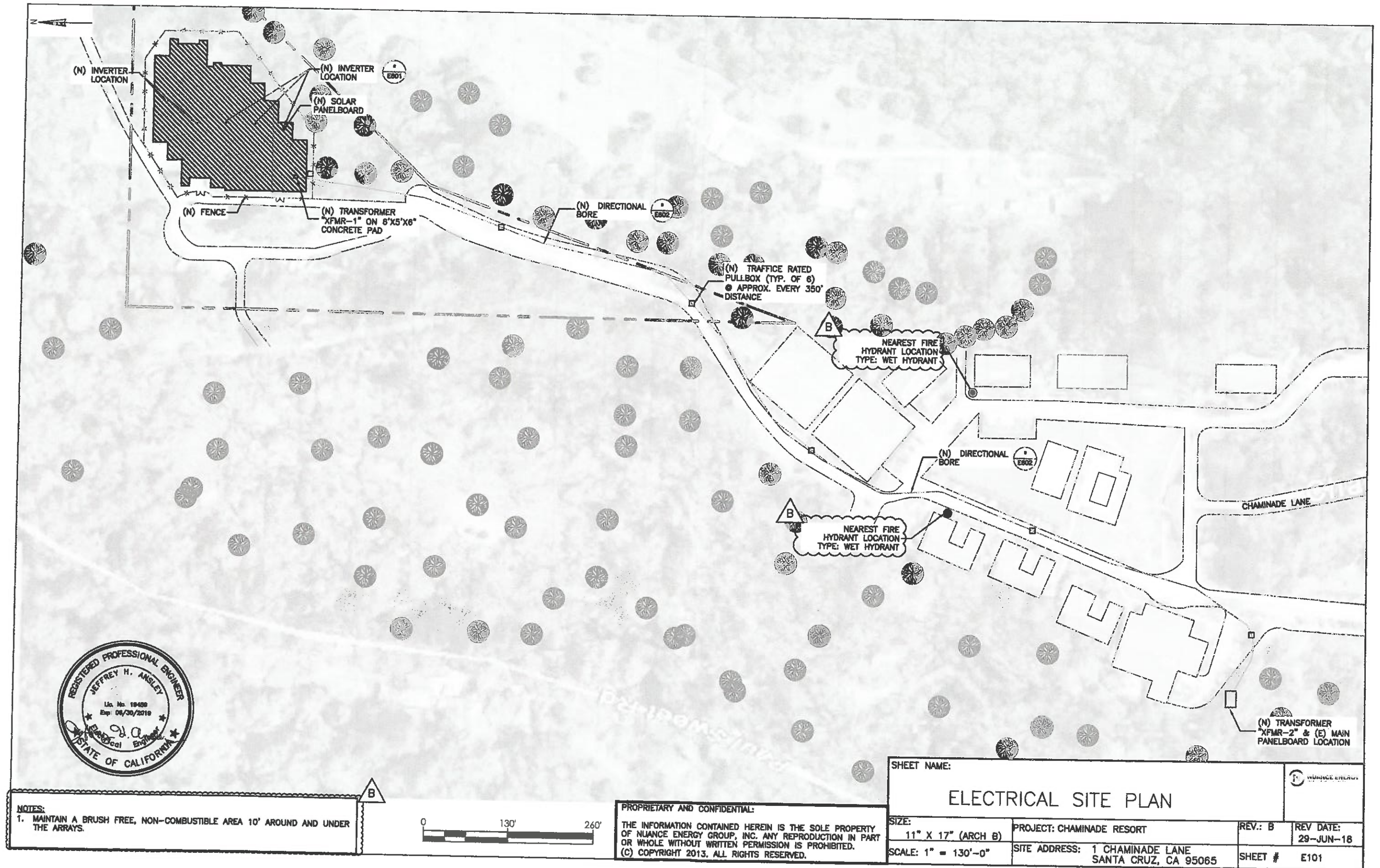
NO BATTERIES REQUIRED AS PART OF THIS PROJECT SCOPE.

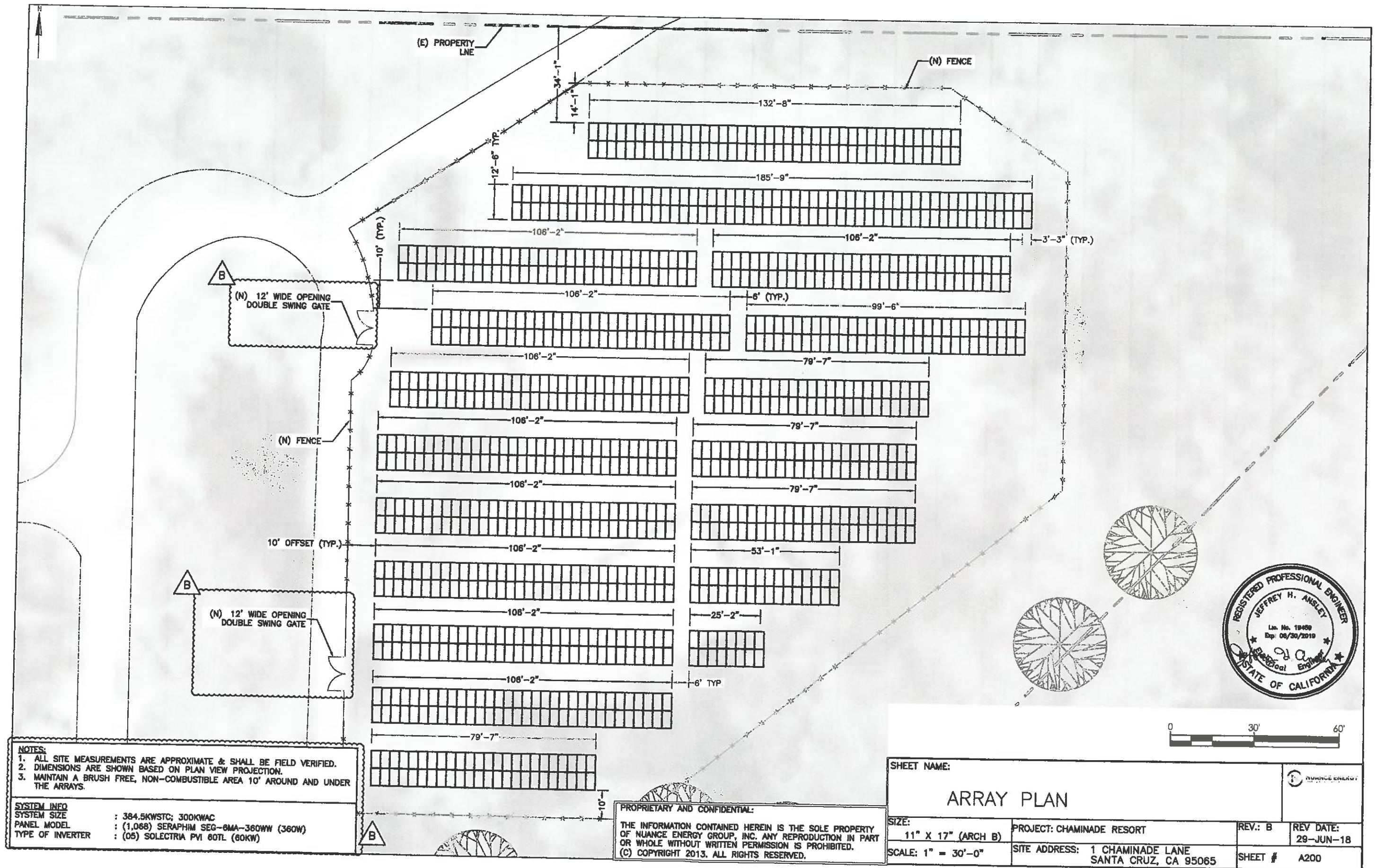
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| | | | |
|-------------|--------------------|--|------------------------|
| SHEET NAME: | | TITLE PAGE | |
| SIZE: | 11" X 17" (ARCH B) | PROJECT: CHAMINADE RESORT | REV.: B |
| SCALE: NTS | | SITE ADDRESS: 1 CHAMINADE LANE SANTA CRUZ, CA 95065 | REV DATE: 29-JUN-18 |
| | | SHEET # | 001 |





NOTES:
1. ALL SITE MEASUREMENTS ARE APPROXIMATE & SHALL BE FIELD VERIFIED.
2. DIMENSIONS ARE SHOWN BASED ON PLAN VIEW PROJECTION.
3. MAINTAIN A BRUSH FREE, NON-COMBUSTIBLE AREA 10' AROUND AND UNDER THE ARRAYS.

SYSTEM INFO
SYSTEM SIZE : 384.5KWSTC; 300KWAC
PANEL MODEL : (1,068) SERAPHIM SEG-8MA-360WW (360W)
TYPE OF INVERTER : (05) SOLECTRIA PVI 60TL (60KW)

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| | | | |
|----------------------------------|--|---------|------------------------|
| SHEET NAME: ARRAY PLAN | | | |
| SIZE: 11" X 17" (ARCH B) | PROJECT: CHAMINADE RESORT | REV.: B | REV DATE: 29-JUN-18 |
| SCALE: 1" = 30'-0" | SITE ADDRESS: 1 CHAMINADE LANE SANTA CRUZ, CA 95065 | SHEET # | A200 |



CORNER, END,
OR PULL POST

PV MODULE
2 HIGH PORTRAIT

ROW SPACING 10' (TYP.)

7'-6"
FENCE HEIGHT 6'

BRACE RAIL

LINE POST

TIE WIRES

TRUSS ROD

CHAIN-LINK

TENSION
WIRE

OSPREY POWER PLATFORM
PORTRAIT 2X8 STRUT

POSTS TO BE
EQUALLY SPACED

POSTS TO BE
EQUALLY SPACED

A FENCE ELEVATION
SCALE: 1" = 3'-0"

FENCE POST

12' OPENING WIDTH

TO SUIT FENCE HEIGHT

BRACING

GATE MESH

A GATE ELEVATION
SCALE: 1" = 2'-0"

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SHEET NAME:

FENCE DETAILS

SIZE:

11" X 17" (ARCH B)

SCALE: VARIES

PROJECT: CHAMINADE RESORT

SITE ADDRESS: 1 CHAMINADE LANE
SANTA CRUZ, CA 95065

REV.: B

REV DATE:
29-JUN-18

SHEET # E603

1 AC DISCONNECT WARNING
PLACE ON MAIN AC DISCONNECT

**PHOTOVOLTAIC
AC DISCONNECT**

PER IFC 605.11.1, IFC 605.11.1.4, NEC 690.15,
NEC 690.14(C)(2) & NEC 690.13(B)

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

PER NEC 690.17(E)

PHOTOVOLTAIC AC DISCONNECT
MAXIMUM AC OPERATING CURRENT: 397A
NOMINAL OPERATING AC VOLTAGE: 480V

PER NEC 690.13(B)

2 INSTALLATIONS: EMT / CONDUIT RACEWAYS
*(REFLECTIVE MATERIAL REQUIRED)

**WARNING: PHOTOVOLTAIC
POWER SOURCE**

PER NEC 690.31 & NEC 690.4(F)
* 3/8" TALL LETTERS ON REFLECTIVE MATERIAL. PLACE ON CONDUIT ON EVERY 10 FEET

3 SOLAR LOAD CENTER
PLACE ON INVERTER BREAKER PANEL

⚠ WARNING
INVERTER OUTPUT CONNECTION. DO NOT
RELOCATE THIS OVERCURRENT DEVICE.

PER NEC 705.12(D)(2)(C)

4 OTHER
PLACE NEAR GFI RESET

⚠ WARNING
ELECTRICAL SHOCK HAZARD
IF A GROUND FAULT IS INDICATED
NORMALLY GROUNDED CONDUCTORS
MAY BE UNGROUNDED AND ENERGIZED

PER NEC 690.5(C)

PLACE NEXT TO INVERTER INTERCONNECTION,
BREAKER, LOAD CENTER & SERVICE PANEL

PV SOLAR BREAKER
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

5 SERVICE PANEL
PLACE ON SERVICE PANEL

⚠ WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID AND
PHOTOVOLTAIC SYSTEM

PER NEC 705.12(D) & NEC 690.64

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

PER NEC 690.17(E)

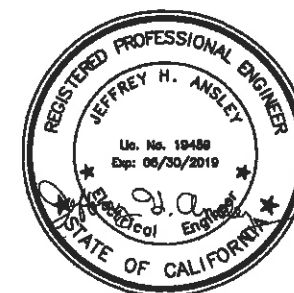
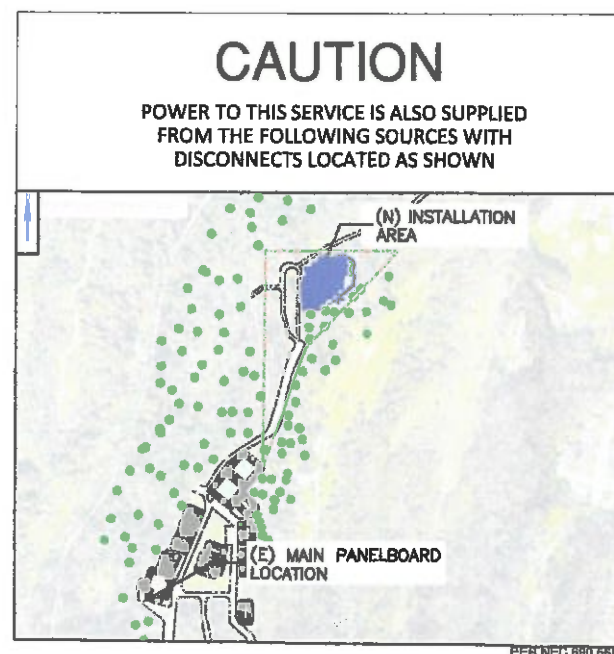
**CAUTION: SOLAR ELECTRIC
SYSTEM CONNECTED**

PER NEC 690.15 & NEC 690.13(B)

**THIS ELECTRIC SYSTEM IS
ALSO SERVED BY A
PHOTOVOLTAIC SYSTEM**

GENERAL NOTES FOR LABELS AND MARKINGS:

1. Labels and markings shall be applied to the appropriate components in accordance with the NEC.
2. Solar modules are supplied from the manufacturer with markings pre-applied to meet the requirements of the NEC.
3. The inverter is supplied from the manufacturer with the appropriate labels and markings to meet the requirements of NEC.
4. All other warning and caution labels, unless otherwise specified, must meet the requirements of ANSI Z535.4 2011 per Article 110.21(B) in the NEC 2014. The ANSI standard requires that Danger, Warning, and Caution signs used the standard header colors, header text, and safety alert symbol on each label. The ANSI standard requires a heading that is at least 50% taller than the body. While not required in the NEC 2014, the message text should be at least .12" tall. If we compare this to Occupational Safety and Health Administration (OSHA) 1910.145 and the American National Standard Institute (ANSI) Z535, it is specified that signs must be visible at a safe viewing distance from the hazard. They also recommend the use of safety alert symbols, where applicable.



| | | | |
|-------------|--------------------|------------------|--|
| SHEET NAME: | | LABELS & MARKING | |
| SIZE: | 11" X 17" (ARCH B) | PROJECT: | CHAMINADE RESORT |
| SCALE: | NTS | SITE ADDRESS: | 1 CHAMINADE LANE SANTA CRUZ, CA 95065 |
| REV.: | B | REV DATE: | 29-JUN-18 |
| | | SHEET # | E700 |

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SEG-6MA SERIES 6 INCH 72 CELLS



SEG-6MA SERIES 6 INCH 72 CELLS

340,355,360w



MANAGEMENT SYSTEM

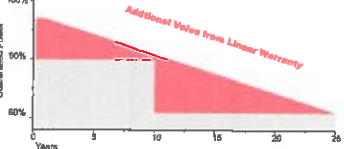
ISO 9001: Quality management system
ISO 14001: Standard for environmental management system
OHSAS 18001: International standard for occupational health and safety assessment system

PRODUCT CERTIFICATES

UL 1703 Fire Rating Type 1



WARRANTY



10 YEARS Guarantee on product material and workmanship
25 YEARS linear power output warranty

KEY FEATURES

25 years Linear Performance Warranty
10 Years product warranty
25 Years linear performance warranty

1500V System voltage up to 1500V
Saving BoS costs

Advanced Outstanding power output capability at low irradiance

5,400Pa Certified Durability
5400 Pa snow load
2400 Pa wind load

PID Anti-PID
Anti-PID Cell
Anti-PID encapsulation technology

Photon TOP Top rank in Photon yield measurement

Electrical Characteristics(STC)

| Model Type | SEG-6MA340W | SEG-6MA355W | SEG-6MA360W |
|--|---------------|-------------|-------------|
| Maximum Power at STC (P_m) (W) | 340 | 355 | 360 |
| Maximum Power Voltage (V_m) (V) | 58.3 | 59.3 | 59.7 |
| Maximum Power Current (I_m) (A) | 5.88 | 5.94 | 5.97 |
| Open Circuit Voltage (V_{oc}) (V) | 46.1 | 47.0 | 47.4 |
| Short Circuit Current (I_{sc}) (A) | 9.50 | 9.54 | 9.57 |
| Module Efficiency STC- η_m (%) | 17.05 | 17.80 | 18.05 |
| Operating Temperature | -40~+85 °C | | |
| Maximum System Voltage (V) | 1500 Vdc (UL) | | |
| Maximum Series Fuse Rating (A) | 20 | | |
| Power Tolerance | 0 ~ +4.99W | | |

Mechanical Data

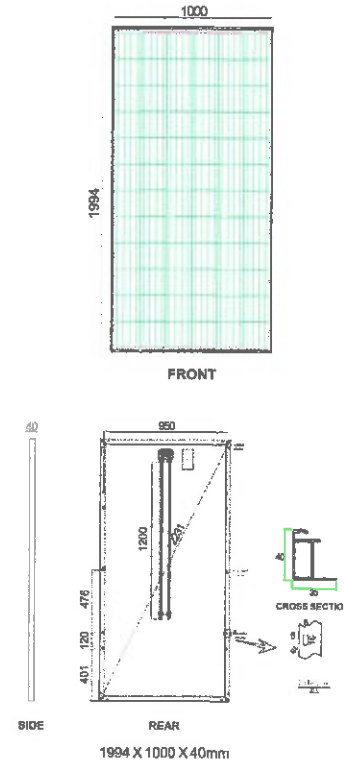
| | |
|-----------------------------|---|
| Module Dimensions | 1994 x 1000x 40 mm |
| Weight | 22kg |
| Cell Type | Mono crystalline 156.75 x 156.75 mm (72pcs) |
| Front Glass | 3.2 mm tempered glass |
| Frame | Anodized aluminium |
| Connectors | IP68, 3 diodes |
| Max. Dimensions | (+/-)220mm, (-)1200mm, 12AWG |
| Backsheet | MC4 Compatible |
| Module Fire Performance | Type1 |
| Shock Resistance | 20g(1sec) |
| Resistance to Salt Crystals | 25 |
| Module Ingress Protection | IP67 |

Warranties

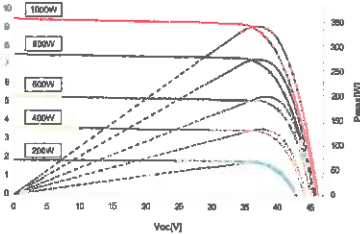
| | |
|-------------|---|
| Product | 10 years |
| Performance | 10 years performance warranty(>90%) 25 years linear power warranty(>90%) |

Temperature Characteristics

| | |
|-------------------------------------|------------|
| Temperature Coefficient of P_m | -0.44 %/°C |
| Temperature Coefficient of V_m | -0.31 %/°C |
| Temperature Coefficient of I_{sc} | +0.04 %/°C |
| NOCT (Standard Test Condition) | 46±2 °C |



I-V Curve

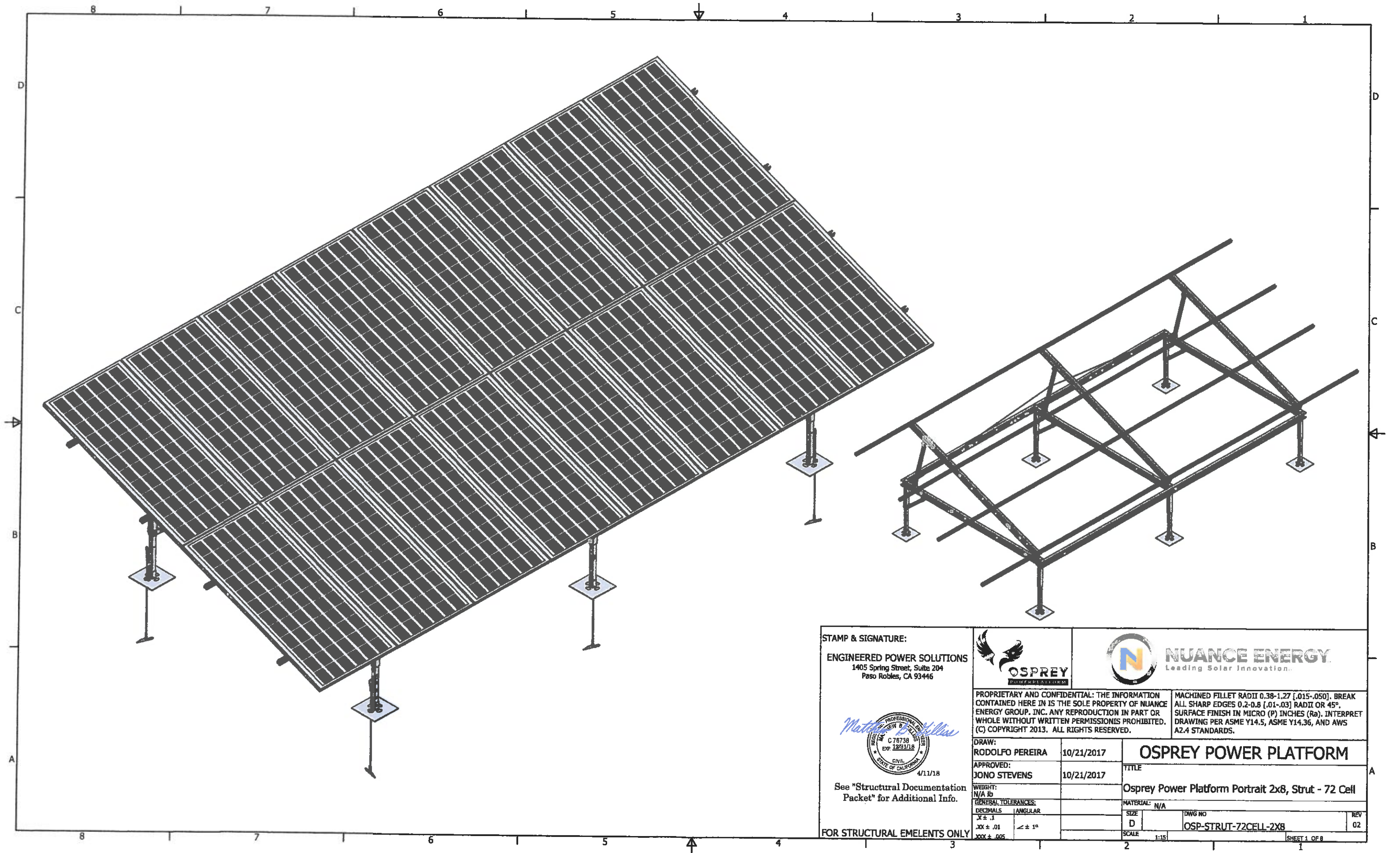


SERAPHIM ENERGY GROUP, INC.

SERAPHIM ENERGY GROUP, INC.

| | | | |
|---------------------------------|--|---------------|------------------------|
| SHEET NAME: SPEC SHEETS -- 1 | | NUANCE ENERGY | |
| SIZE: 11" X 17" (ARCH B) | PROJECT: CHAMINADE RESORT | REV.: B | REV DATE: 29-JUN-18 |
| SCALE: NTS | SITE ADDRESS: 1 CHAMINADE LANE SANTA CRUZ, CA 95065 | SHEET # | E801 |


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STAMP & SIGNATURE:


ENGINEERED POWER SOLUTIONS
1405 Spring Street, Suite 204
Paso Robles, CA 93446

Matthew D. Williams

 4/11/18


See "Structural Documentation Packet" for Additional Info.

FOR STRUCTURAL EMELENTS ONLY



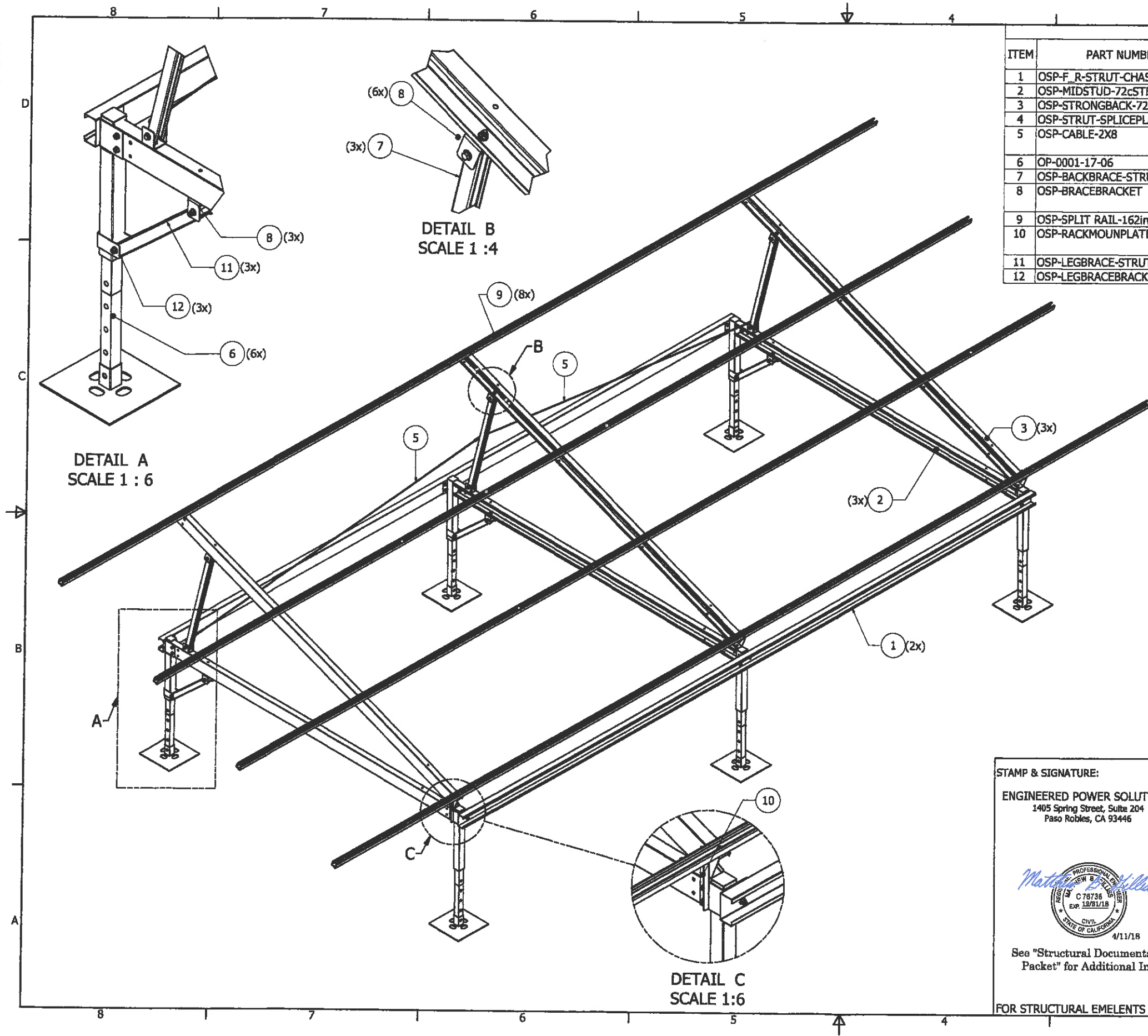
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| | | |
|---------------------|-----------------|------------|
| DRAW: | RODOLFO PEREIRA | 10/21/2017 |
| APPROVED: | JONO STEVENS | 10/21/2017 |
| WEIGHT: | N/A lb | |
| GENERAL TOLERANCES: | | |
| DECIMALS | ANGULAR | |
| .X ± .1 | ≤ ± 1° | |
| .XX ± .01 | | |
| .XXX ± .005 | | |

 **NUANCE ENERGY**
Leading Solar Innovation.

MACHINED FILLET RADII 0.38-1.27 [.015-.050]. BREAK ALL SHARP EDGES 0.2-0.8 [.01-.03] RADII OR 45°. SURFACE FINISH IN MICRO (P) INCHES (Ra). INTERPRET DRAWING PER ASME Y14.5, ASME Y14.36, AND AWS A2.4 STANDARDS.

| | | |
|---|----------------------|-----|
| TITLE | | |
| Osprey Power Platform Portrait 2x8, Strut - 72 Cell | | |
| MATERIAL: N/A | | |
| SIZE | DWG NO | REV |
| D | OSP-STRUT-72CELL-2X8 | 02 |
| SCALE | 1:15 | |
| SHEET 1 OF 8 | | |



| PARTS LIST | | | | |
|------------|--------------------------------|-------------------------------------|--|-----|
| ITEM | PART NUMBER | METRIC EQUIVALENT P/N | DESCRIPTION | QTY |
| 1 | OSP-F_R-STRUT-CHASSIS | FR CH 28 STD 6 | FRONT AND REAR CHASSIS STUD | 2 |
| 2 | OSP-MIDSTUD-72cSTD | STUD-72-STD | MID CHASSIS STUD | 3 |
| 3 | OSP-STRONGBACK-72cSTD | STRNGBK-72-STD | STRONG BACK | 3 |
| 4 | OSP-STRUT-SPLICEPLATE | STRT-SPL-PLT | SPLICE PLATE | 4 |
| 5 | OSP-CABLE-2X8 | NONE | CABLE 3/16"-7x19 SSAC, ASSEMBLY (2X8 UNITS) | 2 |
| 6 | OP-0001-17-06 | NONE | LEG SHOE | 6 |
| 7 | OSP-BACKBRACE-STRUT | BKBRC-STD | BACK BRACE | 3 |
| 8 | OSP-BRACEBRACKET | BK-BRC-BRKT | LEG BRACE BRACKET (CHASSIS STUD) + BACK STAY BRACKET | 9 |
| 9 | OSP-SPLIT RAIL-162in-1.625-STD | STRUT SPLIT RAIL-28-72_60-STD 1.625 | HALF RAIL | 8 |
| 10 | OSP-RACKMOUNPLATE | RCK-MNT-BRKT | MOUNTING L-PLATE (MID CHASSIS x STRONGBACK) | 3 |
| 11 | OSP-LEGBRACE-STRUT | LEGBRC-60SPR72-STD_HD_XHD | LEG BRACE | 3 |
| 12 | OSP-LEGBRACEBRACKET | LG-BRC-BRKT | LEG BRACE BRACKET | 3 |

STAMP & SIGNATURE:

ENGINEERED POWER SOLUTIONS
1405 Spring Street, Suite 204
Paso Robles, CA 93446

Matthew D. Williams

PROFESSIONAL ENGINEER
C 78738
EXP. 12/31/18
CIVIL
STATE OF CALIFORNIA
4/11/18

See "Structural Documentation Packet" for Additional Info.

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| | | |
|---------------------|-----------------|------------|
| DRAW: | RODOLFO PEREIRA | 10/21/2017 |
| APPROVED: | JONO STEVENS | 10/21/2017 |
| WEIGHT: | N/A lb | |
| GENERAL TOLERANCES: | | |
| DECIMALS | ANGULAR | |
| .X ± .1 | | |
| .XX ± .01 | ≤ ± 1° | |
| .XXX ± .005 | | |

| | |
|---|----------------------|
| OSPREY POWER PLATFORM | |
| TITLE | |
| Osprey Power Platform Portrait 2x8, Strut - 72 Cell | |
| MATERIAL: N/A | |
| SIZE | DWG NO |
| D | OSP-STRUT-72CELL-2X8 |
| SCALE 1/14 | REV 02 |

SHEET 2 OF 8