

**Before the Housing and Community Development Chief of Planning  
in and for the County of Monterey, State of California**

In the matter of the application of:

**PEBBLE BEACH COMPANY (PLN240062)**

**RESOLUTION NO. 24-046**

Resolution by the Monterey County HCD Chief of Planning:

- 1) Finding that the project qualifies for a Class 3 Categorical Exemption pursuant to CEQA Guidelines section 15303, and no exceptions apply pursuant to Section 15300.2; and
- 2) Approving a Coastal Administrative Permit and Design Approval to allow construction of ten solar canopies totaling 44,964 square feet and the removal of 21 parking lot light poles and security cameras.

[PLN240062 Pebble Beach Company, 2701 Congress Road, Pebble Beach, Del Monte Forest Land Use Plan (APN: 007-101-044-000)]

**The PEBBLE BEACH COMPANY application (PLN240062) came on for an administrative decision hearing before the County of Monterey HCD Chief of Planning on December 4, 2024. Having considered all the written and documentary evidence, the administrative record, the staff report, oral testimony, and other evidence presented, including the conditions of approval and project plans, the County of Monterey HCD Chief of Planning finds and decides as follows:**

**FINDINGS**

1. **FINDING:** **CONSISTENCY** – The Project, as conditioned, is consistent with the applicable plans and policies which designate this area as appropriate for development.  
**EVIDENCE:**
  - a) During the course of review of this application, the project has been reviewed for consistency with the text, policies, and regulations in:
    - the 1982 Monterey County General Plan;
    - Del Monte Forest Land Use Plan (DMF LUP);
    - Del Monte Forest Coastal Implementation Plan (CIP; Part 5)
    - County of Monterey Zoning Ordinance (Title 20).No conflicts were found to exist. No communications were received during the course of review of the project indicating any inconsistencies with the text, policies, and regulations in these documents.
  - b) The proposed project involves the construction of 10 solar canopies over an existing parking lot near The Inn at Spanish Bay. This parking lot is owned and operated by the Pebble Beach Company and is generally used by employees and the guests of Pebble Beach visiting The Inn at Spanish Bay. The canopies will total 44,960 square feet or 1545 panels (888.4 kilo watts). Installation of the solar canopies would require removal of the parking lot's 21 light poles and security cameras, and nearby non-native trees. Replacement down-lit lighting would be

incorporated into the solar canopies. All generated energy will be consumed on-site; no battery storage is necessary.

- c) Allowed Use. The property is located at 2701 Congress Road, Pebble Beach, within the Del Monte Forest Land Use Plan (APN: 007-101-044-000). The parcel is dual-zoned Open Space Recreation with a Design Control overlay (“OR-D(CZ)”), and Visitor Serving Commercial with a Design Control Overlay “VSC-D(CZ)”. The existing parking lot area is zoned VSC-D(CZ), while the adjacent forested areas along Congress Road and 17 Mile Drive are zoned OR-D(CZ). All proposed development will be within the VSC zoning district which allows for construction of accessory structures to any principally allowed use, provided there is no intensification of the permitted use. The parking lot and the solar canopies will serve as accessory to Spanish Bay Inn, the principal use. Therefore, the project is an allowed land use for this site.
- d) Lot Legality. The subject parcel (3.5 acres, APN:007-101-044-000) is illustrated in its current configuration as “Lot 1” on a Parcel Map recorded in December 2016 (Volume 23, Cities and Towns, Page 59). Therefore, the County recognizes the subject parcels as legal lots of record.
- e) Design/Neighborhood/Community Character and Visual Resources. Pursuant to Title 20 Chapter 20.44, the project site and surrounding area are designated as being within a Design Control District or “D” overlay, which provides regulations of the location, size, configuration, materials, and color of structures to assure protection of the public viewshed and the neighborhood character. DMF LUP Figure 3 “Visual Resources” identifies the various areas in the Del Monte Forest that are considered visually sensitive. The subject parking lot is in an area designated as being partially visible from 17-Mile drive and Vista Points, near Spanish Bay. As designed, the proposed solar canopies will consist of stainless-steel framing and black and gray solar panels. The solar canopies will be sited behind mature Monterey Pines that line the intersection of Congress Road and 17 Mile Drive. Along 17 Mile Drive, the proposed development will be visible for a limited timeframe while traveling past the entrance to the parking lot. Past this entrance, the mature trees fronting 17 Mile Drive will screen the entirety of the development. The proposed development will not block visual access of the shoreline. Consistent with DMF LUP Policies 52 and 84, the proposed solar canopies will be sited over 100 feet from the centerline of 17 Mile Drive. Additionally, the surrounding trees will heavily screen the proposed development when traveling along Congress Road, except when passing the parking lot’s entrance along this road. Installation of the solar canopies will not be visually obtrusive as they in keeping with the parking lot’s existing minimal intensity and will not change its character. The proposed development is not visible from Highway 68 or any other nearby scenic corridor, vista point, or public access area. The existing lighting poles are being removed as part of the project, and replaced after construction of the solar canopies. Replacement lighting will be installed underneath the solar panels, and aimed downwards. Condition 4 has been added to the project’s conditions of approval to ensure that the replacement lighting will be consistent with the County’s

exterior lighting guidelines. Therefore, as designed and sited, the project assures protection of the public viewshed, is consistent with neighborhood character, assures visual integrity, and complies with the applicable visual resource policies of the DMF LUP.

- f) Development Standards. The proposed project is within the Visitor Serving Commercial zoning district and is subject to development standards established in Title 20 section 20.22.070.A. For main and accessory structures, the required minimum setbacks are established through the approval of a General Development Plan. The General Development Plan adopted for the Inn at Spanish Bay (PLN100138), which covers the subject property, establishes setbacks in section 4.10 (*Setbacks*). Per this GDP, the structural setbacks for the Inn at Spanish Bay (includes but is not limited to the 269-room hotel, restaurant, office space, retail space, golf course, and pro shop, and related parking and circulation improvement) shall be consistent with Del Monte Forest Coastal Implementation Plan section 20.147.095 (*Pebble Beach Company Concept Plan*). Per DMF CIP section 20.147.095.C.2, the setbacks and buffers for Pebble Beach Concept Plan Area B (parking lot and preservation areas) are shown on DMF LUP Figure 9a. Though specific setback distances are not delineated on Figure 9a, the illustrated “Parking” area is surrounded by open space buffers to the north, south, and west, which serve as functional setbacks from 17-Mile Drive and Congress Road). To the east, a larger Monterey Pine preservation area is illustrated on Figure 9a. The proposed solar canopies will be sited entirely within the area identified on Figure 9a as “Parking”. Therefore, the proposed development complies with the adjacent open space buffers/setbacks and is sited within the contemplated parking improvement area of the Pebble Beach Concept Plan (Area B). As delineated on the attached project plans, the solar canopies are below the 35 maximum height limit, with a proposed height of 18 feet 9 inches. Title 20 section 20.22.070.b. states that the maximum allowable building site coverage in the Visitor Serving Commercial zoning is 50 percent, excluding parking and landscaping. As proposed, the solar canopies total 44,964 square feet which is below the maximum allowable building site coverage. Therefore, the proposed project complies with applicable site development standards.
- g) Cultural Resources. The project site is in an area identified in County records as having a high archaeological sensitivity and being within 750 feet of known archaeological resources. The subject parcel is developed with an existing parking lot. A Phase 1 archaeological report (LIB240255) was prepared for the project. According to the report, there is no evidence that any resources are present on the parcel or within 750 feet of known archaeological resources and that no potentially significant cultural materials are located in the project area. The closest resource was identified over 1,100 feet away. There is no evidence that any cultural resources would be disturbed and the potential for inadvertent impacts on cultural resources is limited, which will be controlled by the application of the County’s standard project condition (Condition No. 3) requiring the contractor to stop work if previously unidentified resources are discovered during construction.

- h) Forest Resources. The forested areas surrounding the parking lot (shown on DMF LUP Figure 9a) are protected by an Open Space Conservation Easement, dedicated to the Del Monte Forest Foundation (DMF CIP section 20.147.095.E). The proposed project involves the removal of non-native ornamental trees and shrubs within the existing parking lot boundaries. These trees are not located within the adjacent easement areas and do not require the granting of a Coastal Development Permit. No impacts to the nearby Monterey Pine Forest will occur with implementation of the project.
- i) The project planner conducted a site inspection on August 26, 2024 to verify that the project on the subject parcel conforms to the plans listed above.
- j) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning found in Project File PLN240062.

**2. FINDING: SITE SUITABILITY** – The site is physically suitable for the proposed development and/or use.

- EVIDENCE:**
- a) The project has been reviewed for site suitability by the following departments and agencies: HCD-Planning, HCD-Engineering Services, HCD-Environmental Services, Environmental Health Bureau, and Pebble Beach Community Services District. County staff reviewed the application materials and plans to verify that the project on the subject site conforms to the applicable plans and regulations, and there has been no indication from these departments/agencies that the site is not suitable for the proposed development. Conditions recommended have been incorporated.
  - b) Staff identified potential impacts on cultural resources and geotechnical hazards. The following reports have been prepared:
    - “Phase 1 Cultural Resource Inventory” (County of Monterey Library No. LIB240255) prepared by Reilly Murphy with Albion Environmental, San Luis Obispo, CA, August 1, 2024.
    - “Geotechnical Investigation Report for the Development at the Parking Lot located at Intersection of 17 Mile Drive and Congress Road Pebble Beach, California 93953 APN#007101044000” (County of Monterey Library No. LIB240256) prepared by Achievement Engineering Corp, San Jose, CA, October 27, 2023.
 County staff independently reviewed these reports and concurs with their conclusions. There are no physical or environmental constraints that would indicate that the site is not suitable for the use. All development shall be in accordance with these reports.
  - c) Staff conducted a site inspection on August 26, 2024 to verify that the site is suitable for this use.
  - d) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning found in Project File PLN240062.

**3. FINDING: HEALTH AND SAFETY** – The establishment, maintenance, or operation of the project applied for will not under the circumstances of this particular case be detrimental to the health, safety, peace, morals,



comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

- EVIDENCE:**
- a) The project was reviewed by HCD-Planning, HCD-Engineering Services, HCD-Environmental Services, Environmental Health Bureau, and Pebble Beach Community Services District. The respective agencies have recommended conditions, where appropriate, to ensure that the project will not have an adverse effect on the health, safety, and welfare of persons either residing or working in the neighborhood.
  - b) The subject parcel is served by the Pebble Beach Community Services District for both sewage disposal and potable water services, however, the project does not involve water or sewer connections as it is for solar canopies in an existing parking lot.
  - c) Staff conducted a site inspection on August 26, 2024 to verify that the site is suitable for this use.
  - d) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning found in Project File PLN240062.

4. **FINDING:** **NO VIOLATIONS** – The subject property is in compliance with all rules and regulations pertaining to zoning uses, subdivision, and any other applicable provisions of the County’s zoning ordinance. No violations exist on the property.

- EVIDENCE:**
- a) Staff reviewed County of Monterey HCD-Planning and HCD-Building Services records and is not aware of any violations existing on subject property.
  - b) Staff conducted a site inspection on August 26, 2024 and researched County records to assess if any violation exists on the subject property.
  - c) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning found in Project File PLN240062.

5. **FINDING:** **CEQA (Exempt)** – The project is categorically exempt from environmental review and no unusual circumstances were identified to exist for the proposed project.

- EVIDENCE:**
- a) California Environmental Quality Act (CEQA) Guidelines section 15303 categorically exempts new construction of accessory structures, such as carports, garages, and porches.
  - b) The project involves the construction of solar canopies, which will provide renewable energy for the parking lot’s replacement lighting and security cameras. The existing use or intensity of the parking lot will not change. As a structure accessory to the parking lot, the project qualifies for the Class 3 exemption.
  - c) None of the exceptions under CEQA Guidelines Section 15300.2 apply to this project. The project does not involve a designated historical resource, a hazardous waste site, unusual circumstances that would result in a significant effect, or development that would result in a cumulative significant impact. The parking lot is surrounded by mature Monterey Pines, and the proposed solar canopies will be visible only as

you pass the entrance into the parking lot from either 17-Mile Drive or Congress Road. Installation of the solar canopies will not result in significant adverse visual impacts. There is no substantial evidence that would support a fair argument that the project has a reasonable possibility of having a significant effect on the environment or that it would result in a cumulative significant impact.

- d) No adverse environmental effects were identified during staff review of the development application during a site visit on August 26, 2024.
- e) See supporting Finding Nos. 1 and 2. The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning found in Project File PLN240062.

6. **FINDING:** **PUBLIC ACCESS** – The project is in conformance with the public access and recreation policies of the Coastal Act (specifically Chapter 3 of the Coastal Act of 1976, commencing with Section 30200 of the Public Resources Code) and applicable Local Coastal Program, and does not interfere with any form of historic public use or trust rights.
- EVIDENCE:**
- a) No public access is required as part of the project as no substantial adverse impact on access, either individually or cumulatively, as described in Section 20.147.130 of the Del Monte Forest Coastal Implementation Plan can be demonstrated.
  - b) No evidence or documentation has been submitted or found showing the existence of historic public use or trust rights over this property.
  - c) The subject property is described in an area where the Local Coastal Program may require visual or physical public access (Figure 3, Visual Resources, and Figure 8, Major Public Access and Recreational Facilities, in the Del Monte Forest Land Use Plan). The Del Monte Forest LUP requires that visual and physical public access to and along the shoreline and the enjoyment of public recreational values throughout the Del Monte Forest shall be maximized. As described in Finding No. 1, Evidence “e”, the proposed development will not block shoreline views or significantly alter public views from 17 Mile Drive. Though public access roads and trails exist nearby, neither pass through the subject property. Further, the project will not conflict with existing public access roads or nearby trails as it does not involve any expansion outside of the existing footprint of the parking lot and it better meets the intent of the State’s renewable energy initiatives.
  - d) The application, project plans, and related support materials submitted by the project applicant to County of Monterey HCD-Planning found in Project File PLN240062.
7. **FINDING:** **APPEALABILITY** – The decision on this project may be appealed to the Board of Supervisors and California Coastal Commission.
- EVIDENCE:**
- a) Board of Supervisors. Pursuant to Title 20 section 20.86.030, an appeal may be made to the Board of Supervisors by any public agency or person aggrieved by a decision of an Appropriate Authority other than the Board of Supervisors.
  - b) California Coastal Commission. Pursuant to Title 20 section 20.86.080.A, the project is subject to appeal by/to the California Coastal

Commission because the site is between the sea and the first public road.

### **DECISION**

**NOW, THEREFORE**, based on the above findings and evidence, the HCD Chief of Planning does hereby:

1. Find that the project qualifies for a Class 3 Categorical Exemption pursuant to CEQA Guidelines section 15303, and no exceptions apply pursuant to Section 15300.2; and
2. Approve a Coastal Administrative Permit and Design Approval to allow construction of ten solar canopies totaling 44,964 square feet and the removal of 21 parking lot light poles and security cameras.

All of which are in general conformance with the attached sketch and subject to the attached conditions, all being attached hereto and incorporated herein by reference.

**PASSED AND ADOPTED** this 4th day of December, 2024.

DocuSigned by:  
*Melanie Beretti*  
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Melanie Beretti, AICP  
HCD, Chief of Planning

COPY OF THIS DECISION MAILED TO APPLICANT ON **DECEMBER 4, 2024**.

THIS APPLICATION IS APPEALABLE TO THE BOARD OF SUPERVISORS. IF ANYONE WISHES TO APPEAL THIS DECISION, AN APPEAL FORM MUST BE COMPLETED AND SUBMITTED TO THE CLERK TO THE BOARD ALONG WITH THE APPROPRIATE FILING FEE ON OR BEFORE **DECEMBER 16, 2024**.

THIS PROJECT IS LOCATED IN THE COASTAL ZONE AND IS APPEALABLE TO THE COASTAL COMMISSION. UPON RECEIPT OF NOTIFICATION OF THE FINAL LOCAL ACTION NOTICE (FLAN) STATING THE DECISION BY THE FINAL DECISION MAKING BODY, THE COMMISSION ESTABLISHES A 10 WORKING DAY APPEAL PERIOD. AN APPEAL FORM MUST BE FILED WITH THE COASTAL COMMISSION. FOR FURTHER INFORMATION, CONTACT THE COASTAL COMMISSION AT (831) 427-4863 OR AT 725 FRONT STREET, SUITE 300, SANTA CRUZ, CA.

This decision, if this is the final administrative decision, is subject to judicial review pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6. Any Petition for Writ of Mandate must be filed with the Court no later than the 90th day following the date on which this decision becomes final.

## NOTES

1. You will need a building permit and must comply with the Monterey County Building Ordinance in every respect.

Additionally, the Zoning Ordinance provides that no building permit shall be issued, nor any use conducted, otherwise than in accordance with the conditions and terms of the permit granted or until ten days after the mailing of notice of the granting of the permit by the appropriate authority, or after granting of the permit by the Board of Supervisors in the event of appeal.

Do not start any construction or occupy any building until you have obtained the necessary permits and use clearances from Monterey County HCD-Planning and HCD-Building Services Department office in Salinas.

2. This permit expires 3 years after the above date of granting thereof unless construction or use is started within this period.

Form Rev. 1-27-2021

# County of Monterey HCD Planning

## Conditions of Approval/Implementation Plan/Mitigation Monitoring and Reporting Plan

PLN240062

### 1. PD001 - SPECIFIC USES ONLY

**Responsible Department:** Planning

**Condition/Mitigation Monitoring Measure:** This Coastal Administrative Permit and Design Approval (PLN240062) allows for construction of ten solar canopies totaling 44,964 square feet and removal of 21 parking lot light poles and security cameras. The property is located at 2701 Congress Road (Assessor's Parcel Number 007-101-044-000) Del Monte Forest Land Use Plan. This permit was approved in accordance with County ordinances and land use regulations subject to the terms and conditions described in the project file. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of HCD - Planning. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. To the extent that the County has delegated any condition compliance or mitigation monitoring to the Monterey County Water Resources Agency, the Water Resources Agency shall provide all information requested by the County and the County shall bear ultimate responsibility to ensure that conditions and mitigation measures are properly fulfilled. (HCD - Planning)

**Compliance or Monitoring Action to be Performed:** The Owner/Applicant shall adhere to conditions and uses specified in the permit on an ongoing basis unless otherwise stated.

### 2. PD002 - NOTICE PERMIT APPROVAL

**Responsible Department:** Planning

**Condition/Mitigation Monitoring Measure:** The applicant shall record a Permit Approval Notice. This notice shall state:  
"A Coastal Administrative Permit and Design Approval (Resolution Number 24-046) was approved by the Chief of Planning for Assessor's Parcel Number 007-101-044-000 on December 4, 2024. The permit was granted subject to 5 conditions of approval which run with the land. A copy of the permit is on file with Monterey County HCD - Planning."

Proof of recordation of this notice shall be furnished to the Director of HCD - Planning prior to issuance of grading and building permits, Certificates of Compliance, or commencement of use, whichever occurs first and as applicable. (HCD - Planning)

**Compliance or Monitoring Action to be Performed:** Prior to the issuance of grading and building permits, certificates of compliance, or commencement of use, whichever occurs first and as applicable, the Owner/Applicant shall provide proof of recordation of this notice to the HCD - Planning.

### 3. PD003(A) - CULTURAL RESOURCES NEGATIVE ARCHAEOLOGICAL REPORT

**Responsible Department:** Planning

**Condition/Mitigation Monitoring Measure:** If, during the course of construction, cultural, archaeological, historical or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. Monterey County HCD - Planning and a qualified archaeologist (i.e., an archaeologist registered with the Register of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for recovery.  
(HCD - Planning)

**Compliance or Monitoring Action to be Performed:** The Owner/Applicant shall adhere to this condition on an on-going basis.

Prior to the issuance of grading or building permits and/or prior to the recordation of the final/parcel map, whichever occurs first, the Owner/Applicant shall include requirements of this condition as a note on all grading and building plans. The note shall state "Stop work within 50 meters (165 feet) of uncovered resource and contact Monterey County HCD - Planning and a qualified archaeologist immediately if cultural, archaeological, historical or paleontological resources are uncovered."

When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.

### 4. PD014(A) - LIGHTING - EXTERIOR LIGHTING PLAN

**Responsible Department:** Planning

**Condition/Mitigation Monitoring Measure:** All exterior lighting shall be unobtrusive, down-lit, harmonious with the local area, and constructed or located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting source shall be shielded and recessed into the fixture. The applicant shall submit three (3) copies of an exterior lighting plan which shall indicate the location, type, and wattage of all light fixtures and include catalog sheets for each fixture. The lighting shall comply with the requirements of the California Energy Code set forth in California Code of Regulations Title 24 Part 6. The exterior lighting plan shall be subject to approval by the Director of HCD - Planning, prior to the issuance of building permits.  
(HCD - Planning)

**Compliance or Monitoring Action to be Performed:** Prior to the issuance of building permits, the Owner/Applicant shall submit three copies of the lighting plans to HCD - Planning for review and approval. Approved lighting plans shall be incorporated into final building plans.

Prior to final/occupancy, the Owner/Applicant/Contractor shall submit written and photographic evidence demonstrating that the lighting has been installed according to the approved plan.

On an on-going basis, the Owner/Applicant shall ensure that the lighting is installed and maintained in accordance with the approved plan.

## 5. PD011 - TREE AND ROOT PROTECTION

**Responsible Department:** Planning

**Condition/Mitigation Monitoring Measure:** Trees which are located close to construction site(s) shall be protected from inadvertent damage from construction equipment by fencing off the canopy driplines and/or critical root zones (whichever is greater) with protective materials, wrapping trunks with protective materials, avoiding fill of any type against the base of the trunks and avoiding an increase in soil depth at the feeding zone or drip-line of the retained trees. Said protection, approved by certified arborist, shall be demonstrated prior to issuance of building permits subject to the approval of HCD - Director of Planning. If there is any potential for damage, all work must stop in the area and a report, with mitigation measures, shall be submitted by certified arborist. Should any additional trees not included in this permit be harmed, during grading or construction activities, in such a way where removal is required, the owner/applicant shall obtain required permits. (HCD - Planning)

**Compliance or Monitoring Action to be Performed:** Prior to issuance of grading and/or building permits, the Owner/Applicant shall submit evidence of tree protection to HCD - Planning for review and approval.

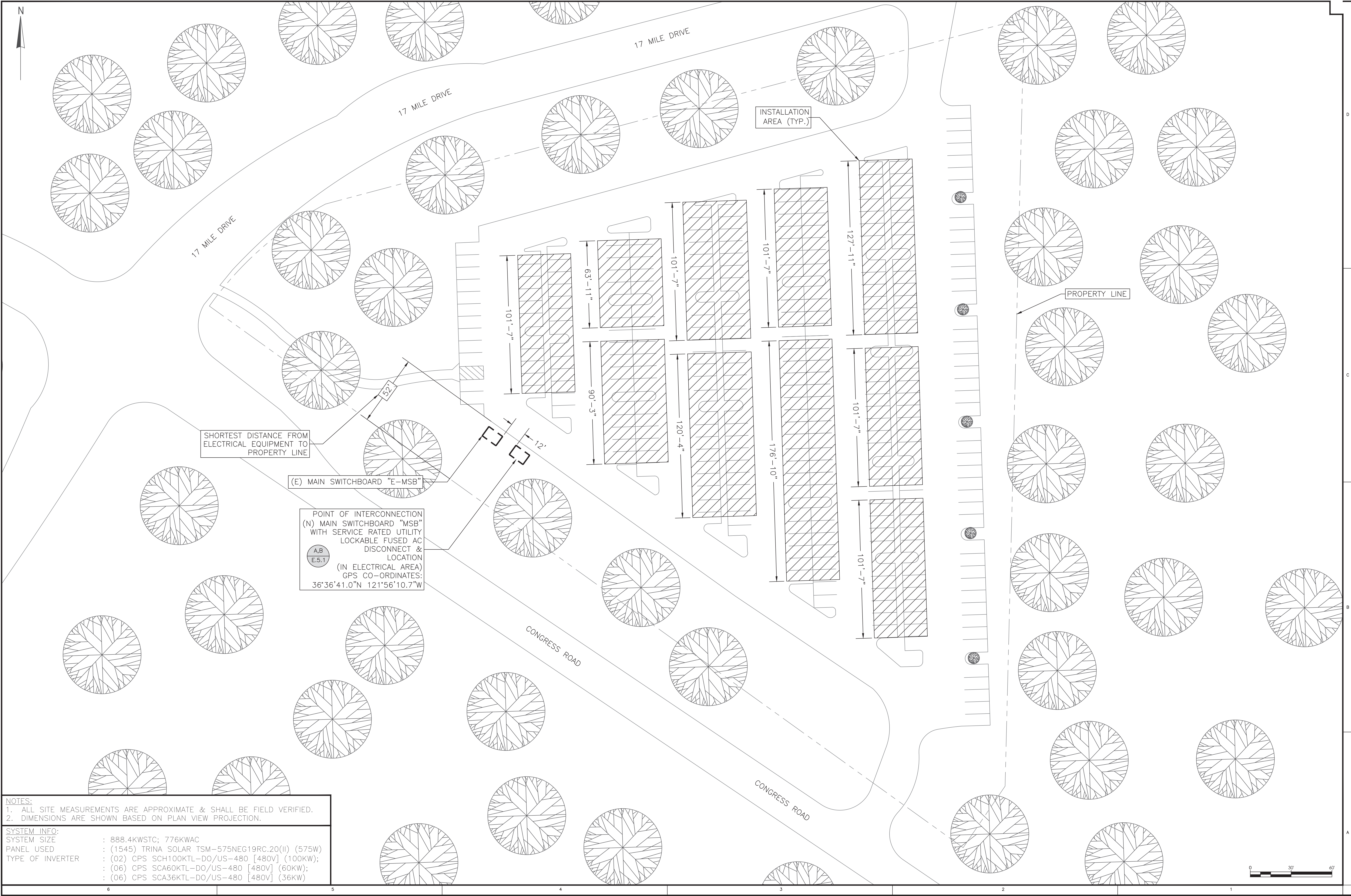
During construction, the Owner/Applicant/Arborist shall submit on-going evidence that tree protection measures are in place through out grading and construction phases. If damage is possible, submit an interim report prepared by a certified arborist.

Prior to final inspection, the Owner/Applicant shall submit photos of the trees on the property to HCD-Planning after construction to document that tree protection has been successful or if follow-up remediation or additional permits are required.









PROJECT TITLE:  
PEBBLE BEACH- STAFF PARKING LOT  
2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000

ENGINEER'S STAMP  
  
Gregory H. Aslett

SOLAR TECHNOLOGIES  
CLEAN ENERGY SOLUTIONS  
23 LAS COLINAS LN, SUITE 106  
SAN JOSE, CA 95119  
JOB NUMBER: 11960

REVISIONS	
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	FOR SUBMITTAL

PAPER SIZE: ARCH D

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CHECKED BY: VJ

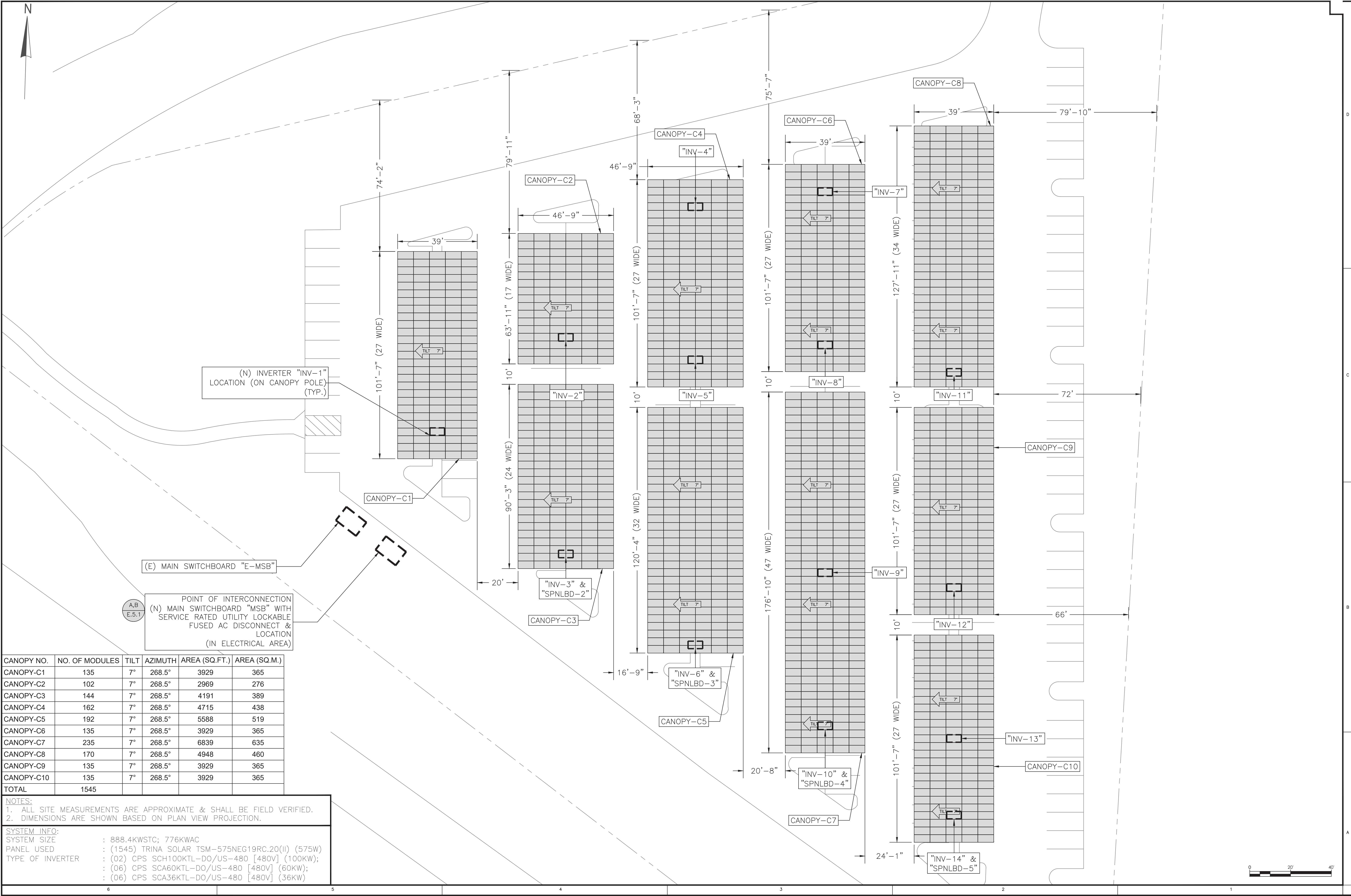
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SITE PLAN

SHEET #:  
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PROJECT TITLE:  
PEBBLE BEACH-STAFF PARKING LOT  
2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000

ENGINEER'S STAMP

23 LAS COLINAS LN., SUITE 106  
SAN JOSE, CA 95119  
JOB NUMBER: 11960

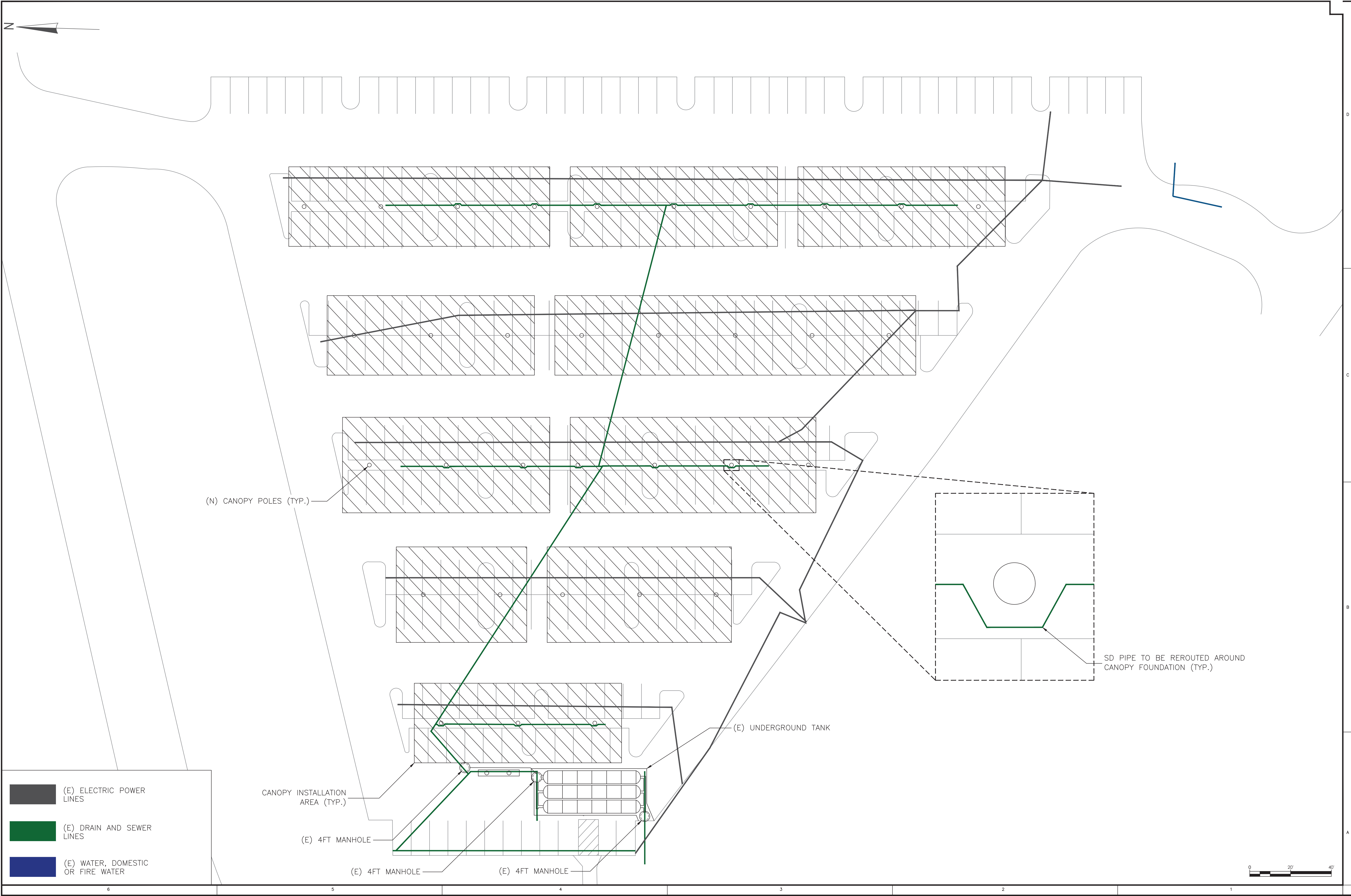
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ARRAY PLAN

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(E) ELECTRIC POWER LINES

(E) DRAIN AND SEWER LINES

(E) WATER, DOMESTIC OR FIRE WATER

PROJECT TITLE:

PEBBLE BEACH- STAFF PARKING LOT

2701 CONGRESS RD.,  
MONTEREY, CA 93940

APN: 007101044000

ENGINEER'S STAMP

REGISTERED PROFESSIONAL ENGINEER

STATE OF CALIFORNIA

DATE: 04/20/2023

EXPIRATION: 04/20/2026

LIC. NO. 19429

SEAL: 04/20/2023

SOLAR TECHNOLOGIES

CLEAN ENERGY SOLUTIONS

23 LAS COLINAS LN., SUITE 106  
SAN JOSE, CA 95119

JOB NUMBER: 11960

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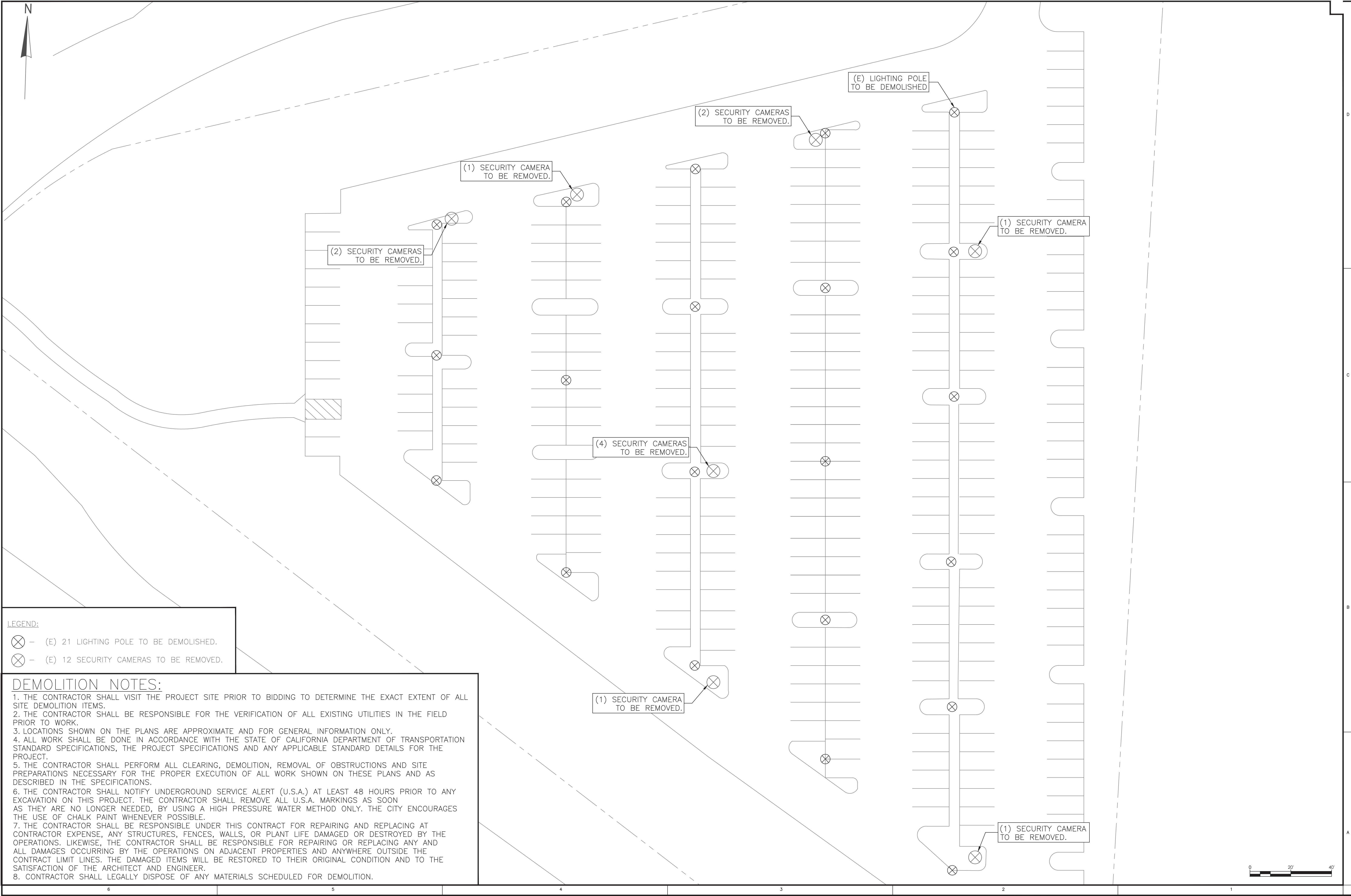
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UNDERGROUND LOCATE PLAN

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PROJECT TITLE:  
**PEBBLE BEACH- STAFF PARKING LOT**  
2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000

ENGINEER'S STAMP

**SOLAR TECHNOLOGIES**  
CLEAN ENERGY SOLUTIONS  
23 LAS COLINAS LN., SUITE 106  
SAN JOSE, CA 95119  
JOB NUMBER: 11960

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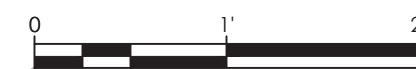
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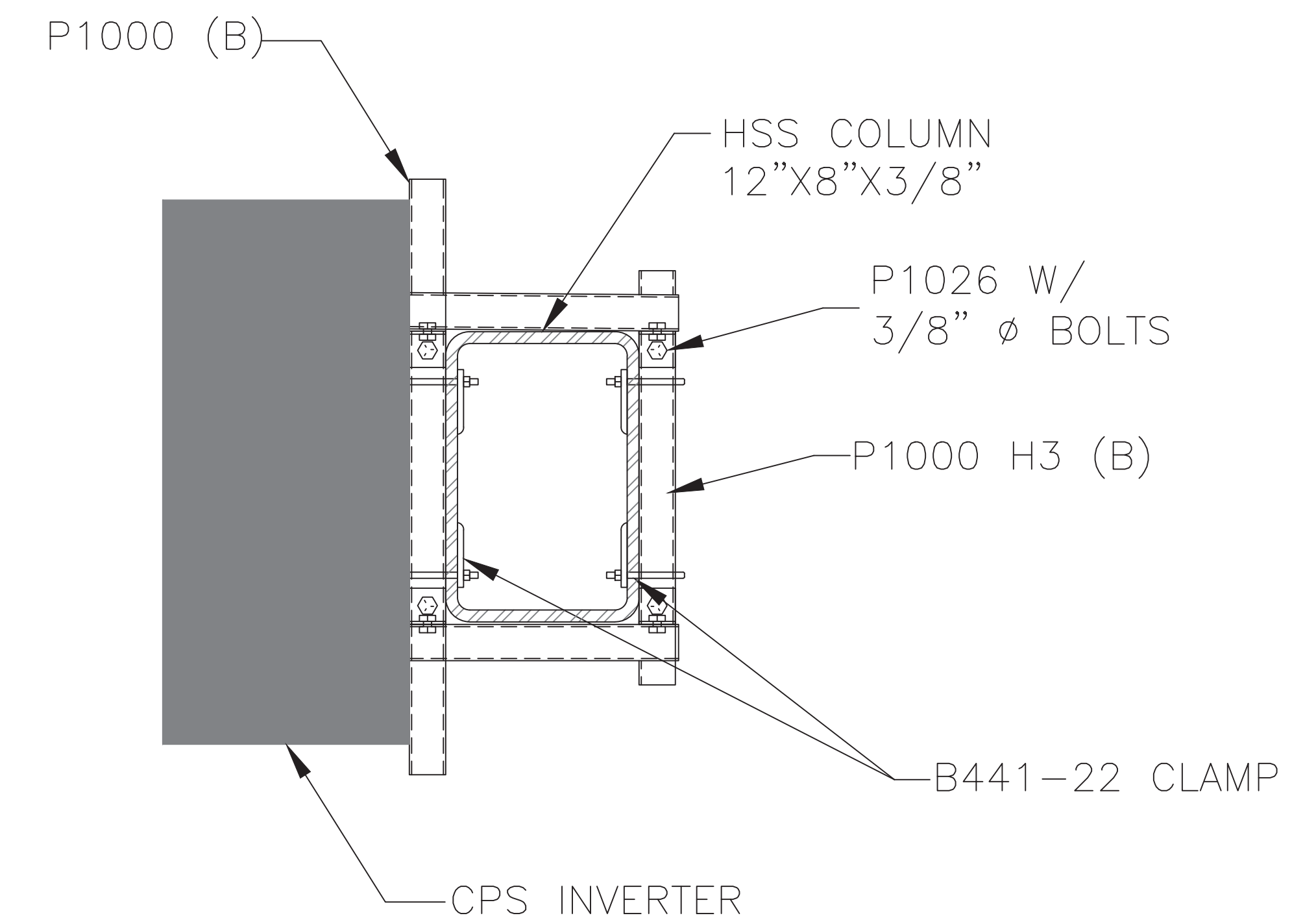
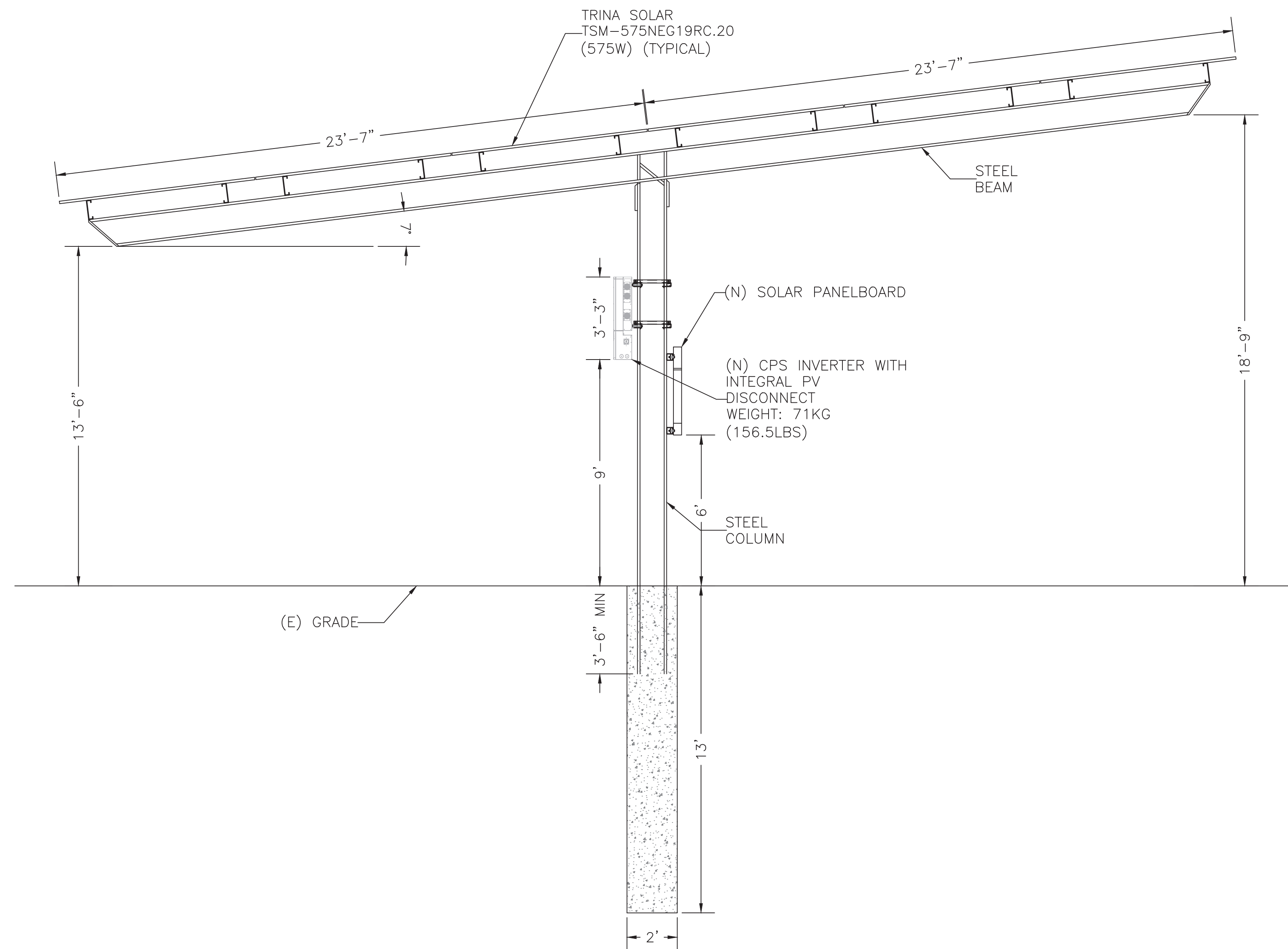
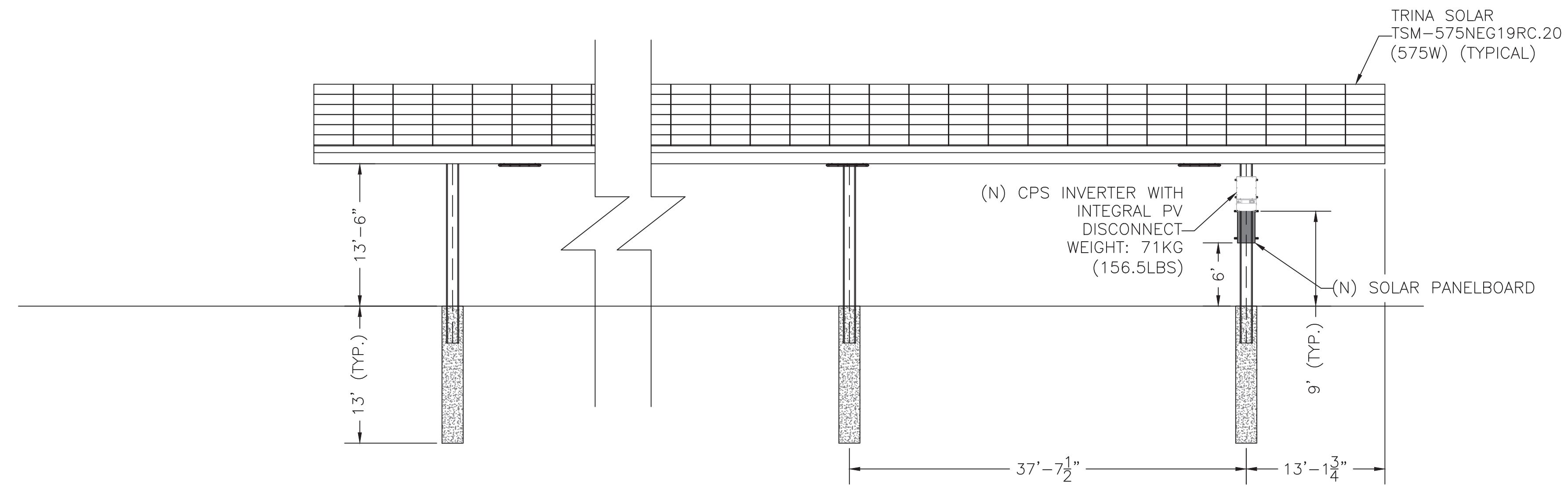
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C PLAN VIEW OF INVERTER RACK  
SCALE: NTS

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PROJECT TITLE:

2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000

ENGINEER'S STAMP



SAN JOSE, CA 95119

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JOB NUMBER: 11960

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JOB NUMBER-11960

#	DATE	ISSUE
A	27-DEC-23	FOR SUBMITTAL

PREPARED BY:	ARCH D
DRAWN BY:	HK, A
CHECKED BY:	V
APPROVED BY:	JHA

SCALE:  
VARIES

SHEET TITLE:

6-HIGH  
CANOPY  
ELEVATIONS

SHEET #:  
A.3.2



GENERAL ELECTRICAL NOTES FOR PHOTOVOLTAIC SYSTEM

THIS PHOTOVOLTAIC INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND LOCAL ELECTRICAL CODES CURRENTLY BEING ENFORCED BY THE AUTHORITY HAVING JURISDICTION (AHJ), PARTICULARLY ARTICLE 690, SOLAR PHOTOVOLTAIC (DC) SYSTEMS.

1. SOLAR CONTRACTOR

- 1.1. THE SOLAR PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.  
1.2. PV MODULE MUST BE UL1703 CERTIFIED.  
1.3. INVERTERS, MOTOR GENERATORS, PV MODULES, PV PANELS, AC MODULES, DC COMBINERS, DC-TO-DC CONVERTERS, AND CHARGE CONTROLLERS INTENDED FOR USE IN PV SYSTEMS SHALL BE LISTED OR FIELD LABELED FOR THE PV APPLICATION. (CEC 690.4 (B))  
1.4. CONDUIT AND WIRE SPECIFICATIONS ARE BASED ON MINIMUM CODE REQUIREMENTS AND ARE NOT MEANT TO LIMIT UP-SIZING AS REQUIRED BY FIELD CONDITIONS.  
1.5. MAX DC VOLTAGE IS CALCULATED USING MANUFACTURER PROVIDED TEMP COEFFICIENT FOR VOC, UNLESS NOT AVAILABLE.  
1.6. ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH LOCAL BUILDING CODE.  
1.7. CONDUIT POINT OF PENETRATION FROM EXTERIOR TO INTERIOR TO BE INSTALLED AND SEALED WITH A SUITABLE SEALING COMPOUND.

2. EQUIPMENT LOCATIONS

- 2.1. CONDUCTORS INSTALLED IN DIRECT SUNLIGHT MUST BE RATED FOR EXPECTED OPERATING TEMPERATURE AS SPECIFIED BY CEC 690.31 (A) AND CEC 310.15 (B)(2).  
2.2. ADDITIONAL AC DISCONNECTS SHALL BE PROVIDED WHERE THE INVERTER IS NOT ADJACENT TO THE UTILITY AC DISCONNECT, OR NOT WITHIN SIGHT OF THE UTILITY AC DISCONNECT.  
2.3. ALL INSTALLED EQUIPMENT SHALL BE ACCESSIBLE TO QUALIFIED PERSONNEL ACCORDING TO NEC APPLICABLE CODES.  
2.4. PROPER ACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT SHALL BE PROVIDED AS PER SECTION NEC NEC 110.26, NEC 110.31 AND NEC110.34.  
2.5. ALL COMPONENTS SHALL BE LISTED FOR THEIR PURPOSE AND SHALL BE RATED FOR OUTDOOR USAGE WHERE REQUIRED.

3. DC SYSTEM VOLTAGE PER 690.7

- 3.1. PV SYSTEM DC CIRCUITS ON OR IN ONE- AND TWO-FAMILY DWELLINGS SHALL BE PERMITTED TO HAVE A MAXIMUM VOLTAGE OF 600 VOLTS OR LESS.  
3.2. PV SYSTEM DC CIRCUITS ON OR IN OTHER TYPES OF BUILDINGS SHALL BE PERMITTED TO HAVE A MAXIMUM VOLTAGE OF 1000 VOLTS OR LESS.  
3.3. WHERE NOT LOCATED ON OR IN BUILDINGS, MAXIMUM VOLTAGE OF 1500 VOLTS IS PERMITTED.

4. WIRING METHODS

- 4.1. NONMETALLIC-SHEATHED CABLE SHALL BE SECURED BY STAPLES, CABLE TIES, STRAPS, HANGERS OR SIMILAR FITTINGS AT INTERVALS THAT DO NOT EXCEED 4.5 FEET. (NEC 334.30)  
4.2. CABLES SHALL BE SECURED WITHIN 12 INCHES OF EVERY CABLE ENTRY INTO ENCLOSURES SUCH AS OUTLET BOXES, JUNCTION BOXES, CABINETS, OR FITTINGS. (NEC 334.30)  
4.3. EXPOSED SINGLE CONDUCTORS, WHERE SUBJECT TO PHYSICAL DAMAGE, MUST BE PROTECTED. (NEC 300.4 & NEC 690.31(A))  
4.4. CONDUCTORS INSTALLED NEAR MODULES SHALL BE RATED FOR 90°C. (NEC 310.15(A))  
4.5. PV CIRCUIT AND PREMISES WIRING SHALL BE SEPARATED.  
4.6. PV SYSTEM CONDUCTORS SHALL BE SEPARATED, IDENTIFIED AND GROUPED PER NEC 690.31(B).  
4.7. DC CONDUCTORS INSIDE A BUILDING SHALL BE IN A METAL RACEWAY OR MC METAL-CLAD CABLE THAT COMPLIES WITH 250.118(10), OR METAL ENCLOSURES. (NEC 690.31(D))  
4.8. WHERE RACEWAYS OR CABLES ARE EXPOSED TO DIRECT SUNLIGHT ON OR ABOVE ROOFTOPS, RACEWAYS OR CABLES SHALL BE AT MINIMUM HEIGHT OF 7/8 IN. (NEC 310.15(B)(2))  
4.9. ALL CONDUIT SIZES AND TYPES, SHALL BE LISTED FOR ITS PURPOSE AND APPROVED FOR THE SITE APPLICATIONS.  
4.10. RIGID CONDUIT (AND/OR NIPPLES) MUST HAVE A PULL BUSHING TO PROTECT WIRES.  
4.11. FOR DC SINGLE-CONDUCTOR CABLE TYPE USE-2 AND SINGLE CONDUCTOR CABLE LISTED AND IDENTIFIED AS PHOTOVOLTAIC (PV) WIRE SHALL BE PERMITTED IN EXPOSED OUTDOOR LOCATIONS IN PV SOURCE CIRCUITS WITHIN THE PV ARRAY. PV WIRE SHALL BE INSTALLED IN ACCORDANCE WITH NEC 338.10(B)(4)(b) AND NEC 334.30. (NEC 690.31(C)(1))  
4.12. USE-2 IS NOT INDOOR RATED PER NEC 338.12(B)(1).  
4.13. ALL CONDUCTORS ARE SIZED PER NEC 690.8 AND OCPDs ARE SIZED PER NEC 690.9.  
4.14. PV SYSTEM DC CIRCUIT AND INVERTER OUTPUT CONDUCTORS AND EQUIPMENT SHALL BE PROTECTED AGAINST OVERCURRENT. EXCEPT WHEN THE SHORT-CIRCUIT CURRENTS FROM ALL SOURCES DO NOT EXCEED THE AMPACITY OF THE CONDUCTORS AND THE MAXIMUM OCPD SIZE RATING SPECIFIED FOR THE PV MODULE OR DC-TO-DC CONVERTER. (NEC 690.9(A))  
4.15. FOR UNDERGROUND CONDUCTOR INSTALLATIONS, THE BURIAL DEPTH SHALL BE SELECTED PER NEC TABLE 300.5. WARNING TAPE SHALL BE PLACED ABOVE UNDERGROUND CONDUIT AND CONDUCTORS IN TRENCH.  
4.16. UNGROUNDED PV SYSTEM SHOULD NOT HAVE WHITE OR GRAY COLORED DC PV CONDUCTORS. ONLY SOLIDLY GROUNDED PV SYSTEM CIRCUIT CONDUCTORS, IN ACCORDANCE WITH 690.41(A)(5), SHALL BE MARKED IN ACCORDANCE WITH NEC 200.6 & NEC 690.31(B)(1).  
4.17. ALUMINUM AND COPPER-CLAD ALUMINUM CONDUCTORS SHOULD NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE OR EARTH. (NEC 250.120(B))  
4.18. TOP CONDUIT ENTRY FOR OUTDOOR ENCLOSURES MUST BE AVOIDED. IF NECESSARY, CONNECTION ABOVE LIVE PARTS MUST BE MADE WATERTIGHT AND BE LISTED FOR THE PURPOSE.

5. BONDING AND GROUNDING

- 5.1. SYSTEMS WITH A GROUND-FAULT PROTECTIVE DEVICE IN ACCORDANCE WITH NEC 690.41(B) SHALL HAVE ANY CURRENT-CARRYING CONDUCTOR-TO-GROUND CONNECTION MADE BY THE GROUND-FAULT PROTECTIVE DEVICE. FOR SOLIDLY GROUNDED PV SYSTEMS, THE DC CIRCUIT GROUNDING CONNECTION SHALL BE MADE AT ANY SINGLE POINT ON THE PV OUTPUT CIRCUIT. (NEC 690.42)  
5.2. RACKING SYSTEMS SHALL BE LISTED FOR THE PURPOSE. BONDING AND GROUNDING MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, THAT ARE LISTED AND APPROVED, USING THE SUPPLIED HARDWARE OR LISTED EQUIPMENT SPECIFIED IN THE INSTRUCTIONS AND IDENTIFIED FOR THE ENVIRONMENT. (NEC 690.43 & NEC 110.3(B))  
5.3. EQUIPMENT GROUNDING CONDUCTORS FOR PV SOURCE CIRCUITS SHALL BE SIZED ACCORDING TO TABLE 250.122 AND SHALL NOT BE SMALLER THAN #14 AWG WHEN NOT EXPOSED TO PHYSICAL DAMAGE. IF EXPOSED TO PHYSICAL DAMAGE THEN EGC SHALL NOT BE SMALLER THAN #6 AWG. (NEC 690.45 & NEC 250.120(C))  
5.4. AC AND DC GROUNDING ELECTRODE CONDUCTORS SHALL BE PROPERLY CONNECTED AS REQUIRED BY CODE. SEPARATE ELECTRODES, IF USED, SHALL BE BONDED TOGETHER. (NEC 690.47, NEC 250.50 & NEC 250.58)  
5.5. A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC 690.47, NEC 250.52 AND NEC 250.166 SHALL BE PROVIDED.  
5.6. PROPERLY SIZED EQUIPMENT GROUNDING CONDUCTOR SHALL BE ROUTED WITH THE CIRCUIT CONDUCTORS. (NEC 690.45, NEC 250.134(2) & NEC 300.3(B))  
5.7. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE PROTECTED FROM PHYSICAL DAMAGE BETWEEN THE GROUNDING ELECTRODE AND THE PANEL (OR INVERTER) IF SMALLER THAN #6 AWG COPPER WIRE PER NEC 250.64(B).  
5.8. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS PER NEC 250.64(C).  
5.9. BONDING FITTINGS SHALL BE USED ON CONCENTRIC/ECCENTRIC KNOCKOUTS WITH METAL CONDUITS FOR CIRCUITS OVER 250 VOLTS. (NEC 250.97) (SEE ALSO EXCEPTIONS 1 THROUGH 4)  
5.10. BONDING FITTINGS SHALL BE USED FOR FERROUS METAL CONDUITS ENCLOSING GROUNDING ELECTRODE CONDUCTORS. (NEC 250.64(E))  
5.11. ENCLOSURES SHALL BE PROPERLY PREPARED WITH REMOVAL OF PAINT/FINISH AS APPROPRIATE WHEN GROUNDING EQUIPMENT WITH TERMINATION GROUNDING LUGS.  
5.12. GROUNDING SYSTEM COMPONENTS SHALL BE LISTED FOR THE PURPOSE, AND GROUNDING DEVICES EXPOSED TO THE ELEMENTS SHALL BE RATED FOR DIRECT BURIAL.  
5.13. ALL CONDUIT BETWEEN THE UTILITY AC DISCONNECT AND THE POINT OF CONNECTION SHALL HAVE GROUNDED BUSHINGS AT BOTH ENDS.  
5.14. EXPOSED NON-CURRENT CARRYING METAL PARTS OF MODULE FRAMES, EQUIPMENTS, AND CONDUCTOR ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH 250.134 OR 250.136(A) REGARDLESS OF VOLTAGE. (NEC 690.43)  
5.15. MODULES SHALL BE LISTED FOR THE PURPOSE. BONDING AND GROUNDING MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, USING THE SUPPLIED HARDWARE OR LISTED EQUIPMENT SPECIFIED IN THE INSTRUCTIONS AND IDENTIFIED FOR THE ENVIRONMENT. (NEC 690.43 & 110.3(B))  
5.16. THE GROUNDING CONNECTION TO A MODULE SHALL BE ARRANGED SUCH THAT THE REMOVAL OF A MODULE DOES NOT INTERRUPT A GROUNDED CONDUCTOR TO ANOTHER MODULE.

6. OVERCURRENT PROTECTION

- 6.1. OVERCURRENT PROTECTION DEVICES (OCPD) IN THE DC CIRCUITS SHALL BE LISTED FOR DC OPERATION. (NEC 110.3(A), (B) & 690.9(C))  
6.2. UNGROUNDED PV SYSTEM REQUIRES OCPD ON ONLY ONE POLARITY. OCPD TO BE USED ON EITHER POSITIVE TERMINALS OR NEGATIVE TERMINALS PER NEC 690.9(C).  
6.3. WHEN INSTALLING A NEW BREAKER AND MATCH EXISTING PANEL CIRCUIT BREAKER, MAKE, MODEL, STYLE AND AIC RATING.

7. ELECTRICAL CONNECTIONS

- 7.1. CRIMP TERMINALS SHALL BE LISTED AND INSTALLED USING A LISTED TOOL SPECIFIED FOR USE IN CRIMPING THOSE SPECIFIC CRIMPS. (NEC 110.3(B) & 110.14)  
7.2. PRESSURE TERMINALS SHALL BE LISTED FOR THE ENVIRONMENT AND TIGHTENED TO MANUFACTURER RECOMMENDED TORQUE SPECIFICATIONS. (NEC 110.11, 110.3(B) & 110.14)  
7.3. CONNECTORS MUST BE LISTED FOR THE VOLTAGE OF THE SYSTEM AND HAVE APPROPRIATE TEMPERATURE AND AMPACITY. (NEC 110.3(B) & 110.14)  
7.4. POWER DISTRIBUTION BLOCKS SHALL BE LISTED. (NEC 690.4(B) & NEC 314.28(E))  
7.5. TERMINALS CONTAINING MORE THAN ONE CONDUCTOR SHALL BE LISTED FOR MULTIPLE CONDUCTORS. (NEC 110.14(A) & 110.3(B))  
7.6. CONNECTORS AND TERMINALS USED OTHER THAN CLASS B AND C STRANDED CONDUCTORS (FINE STRANDED CONDUCTORS) SHALL BE LISTED AND IDENTIFIED FOR USE WITH SPECIFIC CONDUCTOR CLASS OR CLASSES. (NEC 110.14(A) & 110.3(B))  
7.7. CONNECTORS THAT ARE READILY ACCESSIBLE AND OPERATING AT OVER 30 VOLTS REQUIRE A TOOL FOR OPENING. (NEC 690.33(C))

8. INVERTERS

- 8.1. INVERTERS SHALL BE LISTED TO UL 1741. (NEC 690.4(B)) NOTE: GRID-TIED SYSTEM INVERTERS NEED TO BE IDENTIFIED FOR USE IN INTERACTIVE POWER SYSTEMS.  
8.2. PHOTOVOLTAIC INVERTERS SHALL BE EQUIPPED WITH DC GROUND FAULT PROTECTION AND ARC FAULT CIRCUIT PROTECTION TO REDUCE FIRE HAZARDS. (NEC 690.41, NEC 690.11)  
8.3. GRID INTERACTIVE INVERTERS SHALL BE EQUIPPED WITH ANTI-ISLANDING CIRCUITRY.(NEC 705.40)

9. SIGNS AND LABELS

- 9.1. ALL INTERIOR AND EXTERIOR DC CONDUIT, ENCLOSURES, RACEWAYS, CABLE ASSEMBLIES, JUNCTION BOXES, COMBINER BOXES AND DISCONNECTS SHALL BE MARKED ACCORDING TO NEC 690.31(G)(3), & 690.53.  
9.2. THE MARKINGS ON THE CONDUITS, RACEWAYS AND CABLE ASSEMBLIES SHALL BE AT EVERY 10 FEET, WITHIN ONE FOOT OF ALL TURNS OR BENDS AND WITHIN ONE FOOT ABOVE AND BELOW ALL PENETRATIONS OF ROOF/CEILING ASSEMBLIES, WALLS AND BARRIERS. (NEC 690.31(G)(4))  
9.3. THE MARKINGS SAY "WARNING: PHOTOVOLTAIC POWER SOURCE" AND HAVE 3/8-INCH (9.5 MM) MINIMUM-SIZED WHITE LETTERS ON A RED BACKGROUND. THE SIGNS SHALL BE MADE OF REFLECTIVE WEATHER RESISTANT MATERIAL. (NEC 690.31 (G)(3) & (NEC 690.31(G)(4))  
9.4. WHERE PV CIRCUITS ARE EMBEDDED IN BUILT-UP, LAMINATE OR MEMBRANE ROOFING MATERIALS IN ROOF AREAS NOT COVERED BY PV MODULES AND ASSOCIATED EQUIPMENT, THE LOCATION OF CIRCUITS SHALL BE CLEARLY MARKED. (NEC 690.31(G)(1))  
9.5. ALTERNATE POWER SOURCE PLACARD SHALL BE PLASTIC, ENGRAVED IN A CONTRASTING COLOR TO THE PLAQUE. THIS PLAQUE WILL BE ATTACHED USING AN APPROVED METHOD. IF EXPOSED TO SUNLIGHT, IT SHALL BE UV RESISTANT. ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS REQUIRED BY THE NEC.

10. DISCONNECT NOTES

- 10.1. AC DISCONNECT MUST BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH.  
10.2. DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHEN THE SWITCH IS OPENED THE CONDUCTORS REMAINING LIVE ARE CONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS).  
10.3. THE PV SYSTEM DISCONNECTING MEANS SHALL BE INSTALLED AT A READILY ACCESSIBLE LOCATION PER (NEC 690.13(A)).  
10.4. FOR DC SIDE OF UNGROUNDED PV SYSTEM, DISCONNECTING MEANS ARE REQUIRED ON BOTH LEGS OF PV CIRCUIT FOR UNGROUNDED SYSTEM PER NEC 690.15.  
10.5. DISCONNECTS USED IN DC CIRCUITS SHALL BE LISTED FOR DC OPERATION AND LOCATED AS ALLOWED BY THE AHJ. (NEC 110.3)

11. TERMINAL NOTES

- 11.1. ALL TERMINALS SHALL BE RATED FOR AT LEAST 75C.  
11.2. ALL TERMINALS SHALL BE DUAL RATED FOR USE WITH COPPER AND ALUMINUM.

12. MODULE CONNECTORS NOTES:

- 12.1. IDENTICAL CONNECTORS FROM THE SAME MANUFACTURER AND OF THE SAME TYPE MUST BE USED ON MODULE AND ON THE OTHER SIDE OF THE CONNECTION. CROSS-MATING ANY CONNECTOR MUST BE A UL APPROVED CONNECTION.

13. PROTECTION NOTES

- 13.1. GROUND FAULT PROTECTION IN ACCORDANCE WITH NEC 230.95 AND NEC 705.32  
13.2. ALL EQUIPMENT TO BE RATED FOR BACKFEEDING. CIRCUIT BREAKERS WHICH ARE CLEARLY MARKED "LINE" AND "LOAD" ARE NOT SUITABLE FOR BACKFEED.  
13.3. INSTALLER SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL BREAKERS ARE SUITABLE FOR BACKFEED AND THAT IF GFP IS PRESENT ON MAIN SERVICE DISCONNECT THAN ALL SOLAR FEEDERS, CONNECTED TO MAIN BUS, SHALL HAVE GFP PER NEC 215.10 & NEC 705.32 EXCEPTION.  
13.4. ARC-FAULT CIRCUIT PROTECTION:PHOTOVOLTAIC SYSTEMS OPERATING AT 80 VOLTS DC OR GREATER BETWEEN ANY TWO CONDUCTORS SHALL BE PROTECTED BY A LISTED PV ARC-FAULT CIRCUIT INTERRUPTER OR OTHER SYSTEM COMPONENTS LISTED TO PROVIDE EQUIVALENT PROTECTION. FOR PV SYSTEMS NOT INSTALLED ON OR IN BUILDINGS, PV OUTPUT CIRCUITS AND DC-TO-DC CONVERTER OUTPUT CIRCUITS THAT ARE DIRECT BURIED OR INSTALLED IN METALLIC RACEWAYS ARE PERMITTED WITHOUT ARC-FAULT CIRCUIT PROTECTION. (NEC 690.11)  
13.5. RAPID SHUTDOWN:PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION TO REDUCE SHOCK HAZARD FOR EMERGENCY RESPONDERS IN ACCORDANCE WITH 690.12(A) THROUGH (D).  
13.6. WHERE THE SOLAR SERVICE SWITCH OVERCURRENT PROTECTION IS LOCATED MORE THAN 10 FT FROM THE POINT OF UTILITY SERVICE CONNECTION, CABLE LIMITERS FOR EACH UNGROUNDED CONDUCTOR SHALL BE INSTALLED AT THE POINT OF SERVICE INTERCONNECTION.  
13.7. FOR ARC ENERGY REDUCTION FOR BREAKERS WITH TRIPS OF 1200A OR HIGHER, ONE OF THE METHODS MENTIONED IN NEC 240.87(B) SHALL BE USED.

14. DATA MONITORING NOTES

- 14.1. INVERTERS MAY HAVE DATA ACQUISITION SYSTEM BUILT INTO THEM OR IT CAN BE ADDED VIA OPTIONAL COMPONENTS. PLEASE CHECK WHILE ORDERING IF OPTIONAL DAS COMPONENTS NEEDS TO BE ORDERED SEPARATELY.

FIRE SAFETY REQUIREMENTS

IBC 1505.9 ROOFTOP MOUNTED PHOTOVOLTAIC PANEL SYSTEMS.

ROOFTOP RACK-MOUNTED PHOTOVOLTAIC PANEL SYSTEMS SHALL BE TESTED, LISTED AND IDENTIFIED WITH A FIRE CLASSIFICATION IN ACCORDANCE WITH UL 2703. LISTED SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THEIR LISTING. THE FIRE CLASSIFICATION SHALL COMPLY WITH TABLE 1505.1 BASED ON THE TYPE OF CONSTRUCTION OF THE BUILDING.

IFC 1205.2 ACCESS AND PATHWAYS.

ROOF ACCESS, PATHWAYS, AND SPACING REQUIREMENTS SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS IFC 1205.2.1 THROUGH IFC 1205.3.3. PATHWAYS SHALL BE OVER AREAS CAPABLE OF SUPPORTING FIRE FIGHTERS ACCESSING THE ROOF. PATHWAYS SHALL BE LOCATED IN AREAS WITH MINIMAL OBSTRUCTIONS, SUCH AS VENT PIPES, CONDUIT OR MECHANICAL EQUIPMENT.

IFC 1205.3 OTHER THAN GROUP R-3 BUILDINGS.

ACCESS TO SYSTEMS FOR BUILDINGS, OTHER THAN THOSE CONTAINING GROUP R-3 OCCUPANCIES, SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS IFC 1205.3.1 THROUGH IFC 1205.3.3.

IFC 1205.3.1 PERIMETER PATHWAYS.

THERE SHALL BE A MINIMUM 6-FOOT-WIDE (1829 MM) CLEAR PERIMETER AROUND THE EDGES OF THE ROOF.

EXCEPTION: WHERE EITHER AXIS OF THE BUILDING IS 250 FEET (76 200 MM) OR LESS, THE CLEAR PERIMETER AROUND THE EDGES OF THE ROOF SHALL BE PERMITTED TO BE REDUCED TO A MINIMUM WIDTH OF 4 FEET (1219 MM).

IFC 1205.3.2 INTERIOR PATHWAYS.

INTERIOR PATHWAYS SHALL BE PROVIDED BETWEEN ARRAY SECTIONS TO MEET THE FOLLOWING REQUIREMENTS:

1. PATHWAYS SHALL BE PROVIDED AT INTERVALS NOT GREATER THAN 150 FEET (45 720 MM) THROUGHOUT THE LENGTH AND WIDTH OF THE ROOF.  
2. A PATHWAY NOT LESS THAN 4 FEET (1219 MM) WIDE IN A STRAIGHT LINE TO ROOF STANDPIPES OR VENTILATION HATCHES.  
3. A PATHWAY NOT LESS THAN 4 FEET (1219 MM) WIDE AROUND ROOF ACCESS HATCHES, WITH NOT FEWER THAN ONE SUCH PATHWAY TO A PARAPET OR ROOF EDGE.

IFC 1205.3.3 SMOKE VENTILATION.

THE SOLAR INSTALLATION SHALL BE DESIGNED TO MEET THE FOLLOWING REQUIREMENTS:

1. WHERE NONGRAVITY-OPERATED SMOKE AND HEAT VENTS OCCUR, A PATHWAY NOT LESS THAN 4 FEET (1219 MM) WIDE SHALL BE PROVIDED BORDERING ALL SIDES.  
2. WHERE GRAVITY-OPERATED DROPOUT SMOKE AND HEAT VENTS OCCUR, A PATHWAY NOT LESS THAN 4 FEET (1219 MM) WIDE ON NOT FEWER THAN ONE SIDE.  
3. SMOKE VENTILATION OPTIONS BETWEEN ARRAY SECTIONS SHALL BE ONE OF THE FOLLOWING:  
3.1. A PATHWAY NOT LESS THAN 8 FEET (2438 MM) WIDE.  
3.2. WHERE GRAVITY-OPERATED DROPOUT SMOKE AND HEAT VENTS OCCUR, A PATHWAY NOT LESS THAN 4 FEET (1219 MM) WIDE ON NOT FEWER THAN ONE SIDE.  
3.3. A PATHWAY NOT LESS THAN 4 FEET (1219 MM) WIDE BORDERING 4-FOOT BY 8-FOOT (1219 MM BY 2438 MM) VENTING CUTOUTS EVERY 20 FEET (6096 MM) ON ALTERNATING SIDES OF THE PATHWAY.

IFC 1205.4 BUILDINGS WITH RAPID SHUTDOWN.

BUILDINGS WITH RAPID SHUTDOWN SOLAR PHOTOVOLTAIC SYSTEMS SHALL HAVE PERMANENT LABELS IN ACCORDANCE WITH SECTIONS IFC 1205.4.1 THROUGH IFC 1205.4.3.

PROVIDING FIREPROOFING OF INTERIOR PENETRATIONS TO MAINTAIN EXISTING FIRE RATING OF SPACES AND ROOMS.

705.12 POINT OF INTERCONNECTION  
(A) SUPPLY SIDE

AN ELECTRIC POWER PRODUCTION SOURCE SHALL BE PERMITTED TO BE CONNECTED TO THE SUPPLY SIDE OF THE SERVICE DISCONNECTING MEANS IF THE SUM OF THE RATINGS OF ALL OCPDS CONNECTED TO POWER PRODUCTION SOURCES DOES NOT EXCEED THE RATING OF THE SERVICE AS SERVICE CONDUCTORS ARE RATED FOR CERTAIN AMPACITY WHICH IS USUALLY SAME AS THE SERVICE RATING.

CAUTION:

1. CHECK THAT YOU HAVE SPACE BETWEEN MAIN BREAKER AND UTILITY METER TO MAKE LINE SIDE TAP.  
2. CABLE LIMITERS MAY BE REQUIRED PER NOTE 13.6 OF PROTECTION NOTES.

NOTE TO CONTRACTOR:  
CONTRACTOR HAS THE FULL RESPONSIBILITY TO CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ANY WORK STARTED BEFORE CONSULTATION AND ACCEPTANCE BY THE ENGINEER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBJECT TO CORRECTION BY THEM WITHOUT ADDITIONAL COMPENSATION.

STANDARD SYMBOL LEGEND

(N) NEW  
(E) EXISTING

PROJECT TITLE:

PEBBLE BEACH- STAFF PARKING LOT  
2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000

ENGINEER'S STAMP



REVISIONS		DATE	ISSUE
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A		27-DEC-23	FOR SUBMITTAL

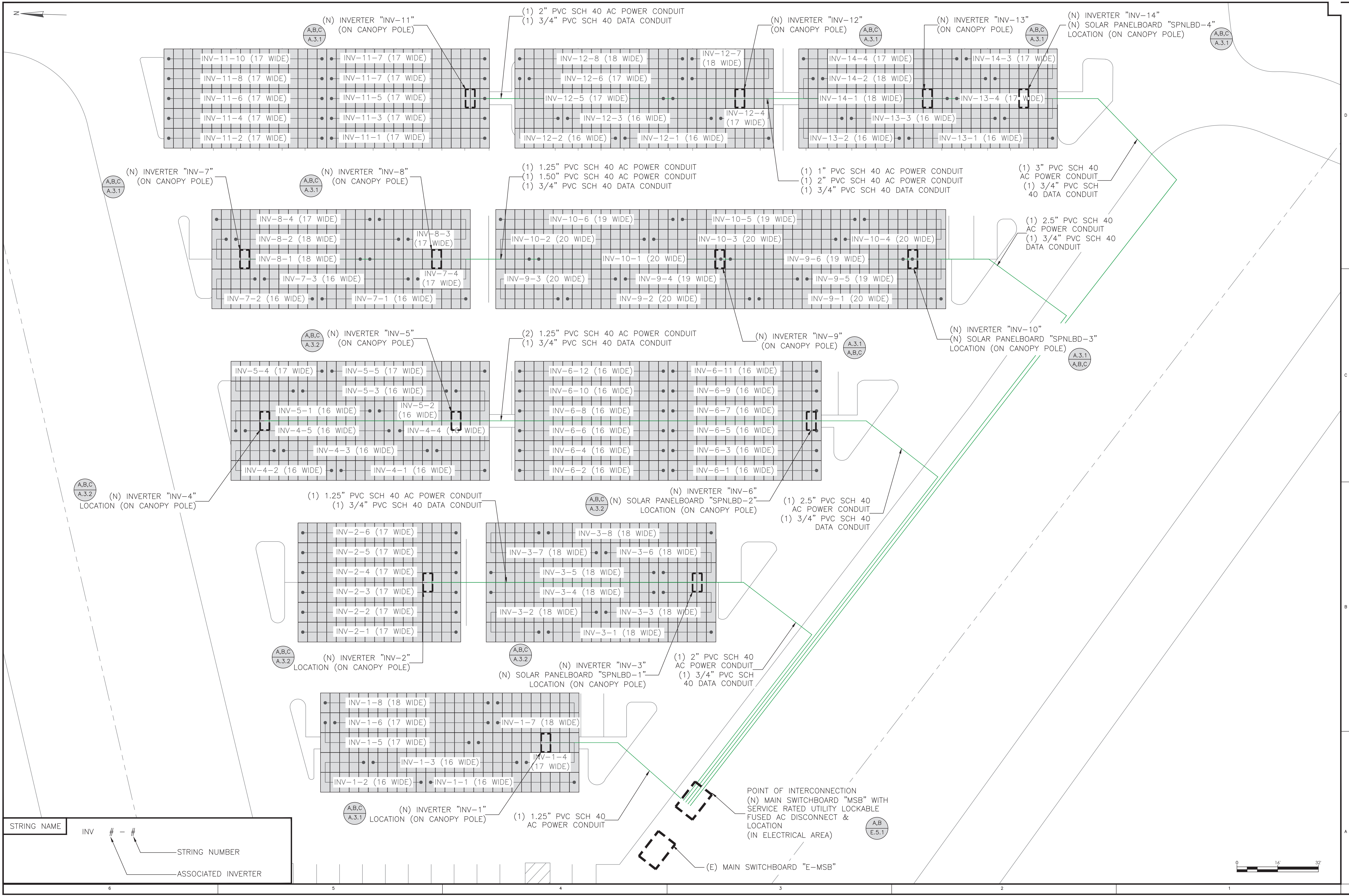
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DRAWN BY: HK, AJ  
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APPROVED BY: JHA

SCALE:  
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SHEET TITLE:  
ELECTRICAL  
NOTES

SHEET #:  
E.0.1





PROJECT TITLE:

PEBBLE BEACH- STAFF PARKING LOT

2701 CONGRESS RD.,  
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ENGINEER'S STAMP

REGISTERED PROFESSIONAL ENGINEER  
ELECTRICAL  
STATE OF CALIFORNIA  
LIC. NO. 19429  
EXPI. 06/30/2021  
J. H. A. J. H. A.

SOLAR TECHNOLOGIES  
CLEAN ENERGY SOLUTIONS

23 LAS COLINAS LN., SUITE 106  
SAN JOSE, CA 95119

JOB NUMBER: 11960

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PAPER SIZE: ARCH D

DRAWN BY: HK, AJ

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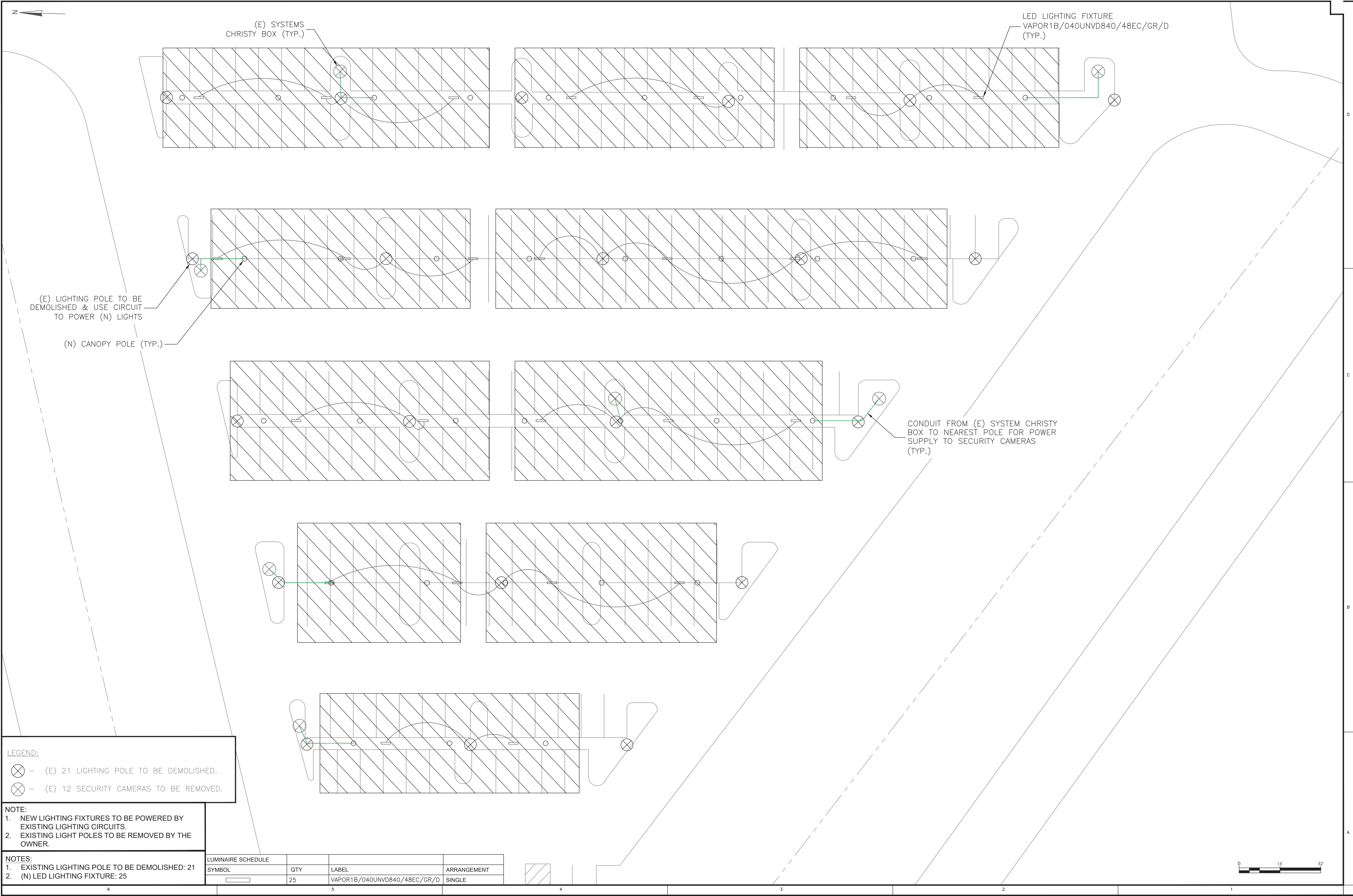
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ELECTRICAL  
SITE PLAN

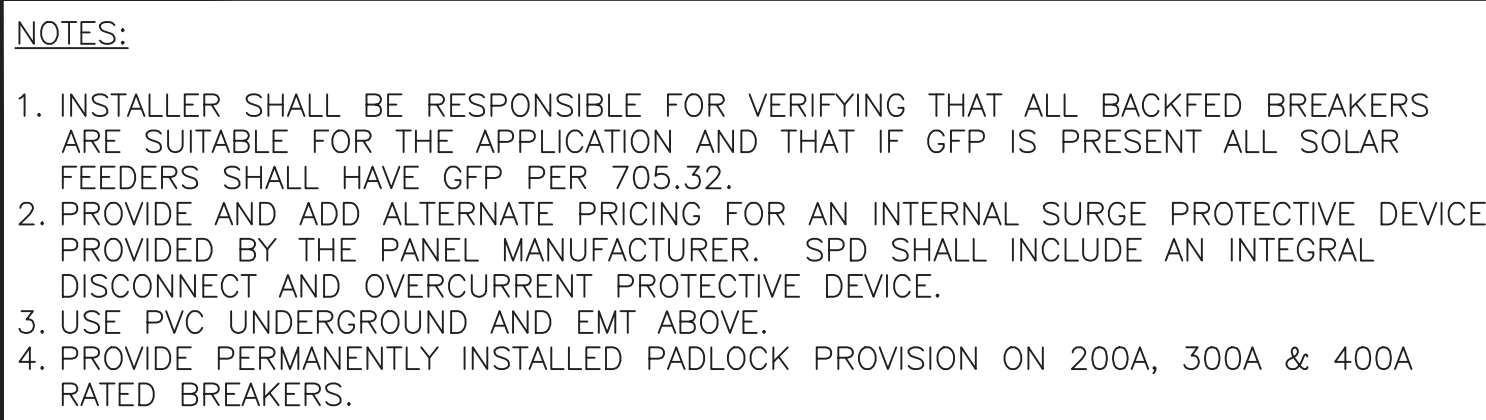
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PEBBLE BEACH- STAFF PARKING LOT  
2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000

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CHECKED BY:	VJ
APPROVED BY:	JHA

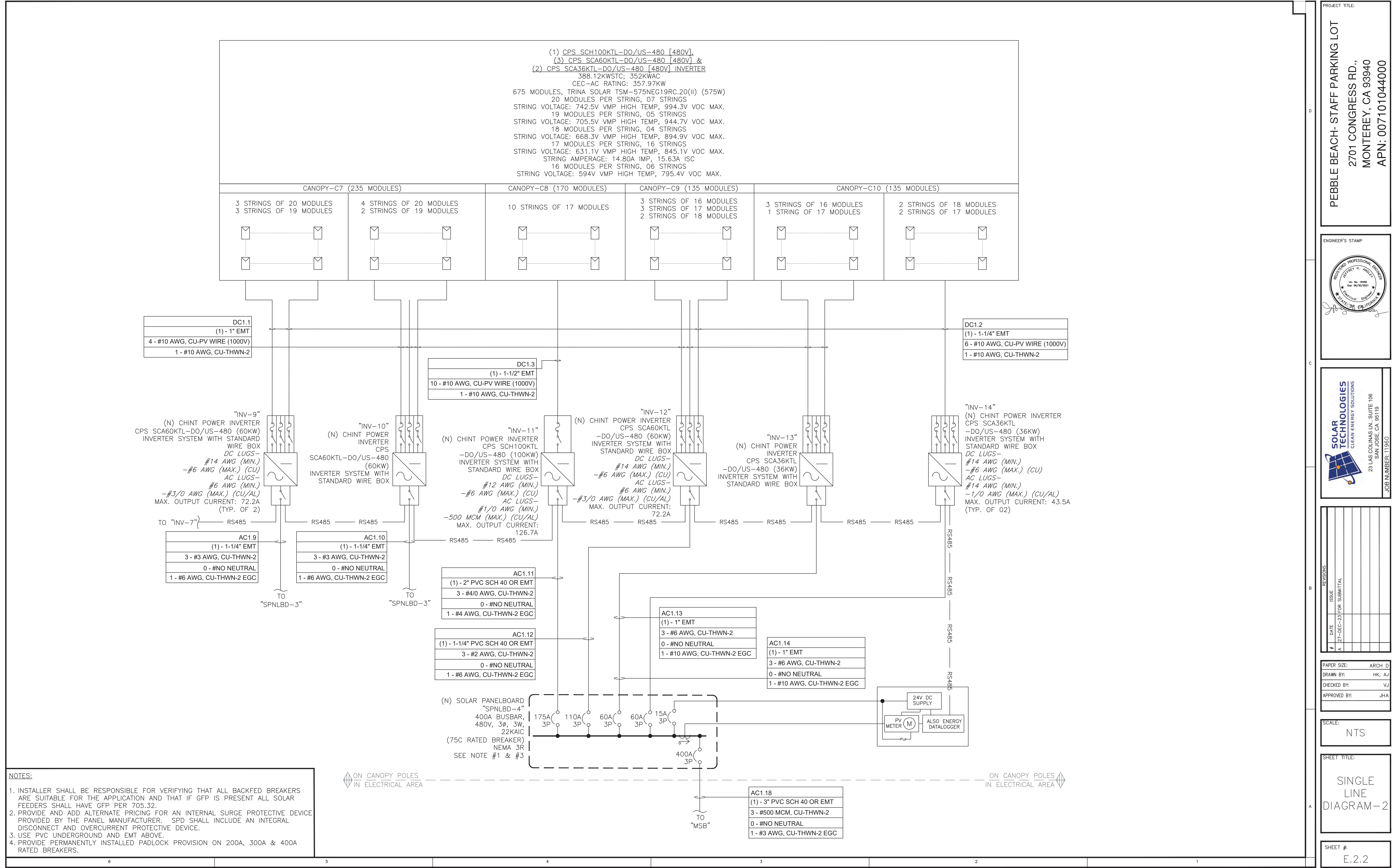
SCALE: NTS

SHEET TITLE:

SINGLE  
LINE  
DIAGRAM-1

SHEET #: E.2.1





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PEBBLE BEACH- STAFF PARKING LOT  
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SCALE:  
NTS

SHEET TITLE:  
SINGLE  
LINE  
DIAGRAM-2

SHEET #:  
E.2.2





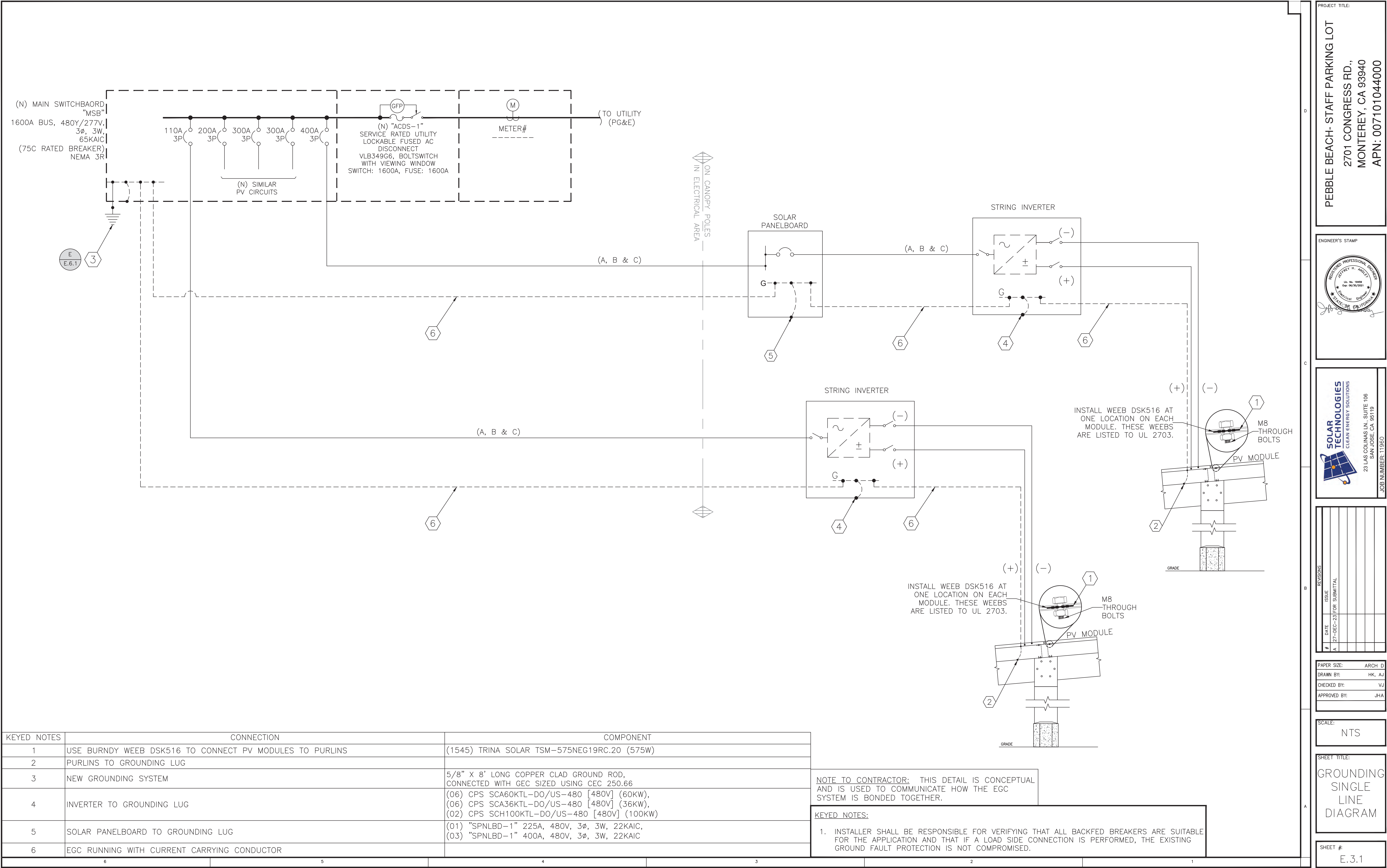




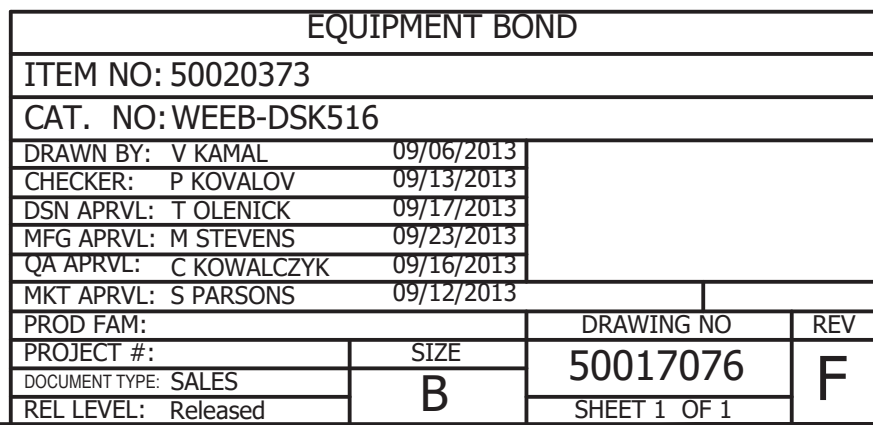
TABLE B1: DC OUTPUT CIRCUIT CONDUCTOR AND CONDUIT IDENTIFICATION																													
INITIAL CONDUCTOR LOCATION	FINAL CONDUCTOR LOCATION	# STRINGS IN COMBINER BOX IN PARALLEL	RACEWAY NAME	CIRCUIT ID	RACEWAY SIZE OR DIRECT BURIAL	# OF PARALLEL CIRCUITS	# OF CONDUCTORS IN RACEWAY OR BURIAL BUNDLE	% OF MAX CONDUIT FILL	310.15(B)(1) Temp Correction Factor	310.15(C)(1) Fill Adjustment Factor	690.8 (A)(1)(a) and (B)(1) Adjustment Factors	IsC	DESIGN LINE CURRENT	TERMINAL TEMP LIMIT	TEMP LIMIT AMPACITY 30C AMB	OCPD	MINIMUM CORRECTED AMPACITY	CONDUCTOR CORRECTED AMPACITY	ONE WAY LENGTH (FT)	VOLTAGE DROP %	CURRENT CARRYING CONDUCTOR TYPE AND SIZE (AWG)	EQUIPMENT GROUNDING CONDUCTOR SIZE (AWG)	NOTES - FREE AIR WHERE PV WIRE IS PROTECTED FROM PHYSICAL DAMAGE.						
ST-X	INV-X	1	DC1.1	DC1.1-1	1" EMT	1	5	68%	1.04	0.80	1.56	16	24	Cu-90C	40	25	20	33	210	1.30%	2 - #10 AWG, CU-PV WIRE (1000V)	1 - #10 AWG, CU-THWN-2							
ST-X	INV-X	1		DC1.1-2								16	24		40	25	20	33		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1	DC1.2	DC1.2-1	1-1/4" EMT	1	7	57%	1.04	0.80	1.56	16	24	Cu-90C	40	25	20	33	210	1.30%	2 - #10 AWG, CU-PV WIRE (1000V)	1 - #10 AWG, CU-THWN-2							
ST-X	INV-X	1		DC1.2-2								16	24		40	25	20	33		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1	DC1.3	DC1.2-3	1-1/2" EMT	1	11	68%	1.04	0.50	1.56	16	24	Cu-90C	40	25	20	33	210	1.30%	2 - #10 AWG, CU-PV WIRE (1000V)	1 - #10 AWG, CU-THWN-2							
ST-X	INV-X	1		DC1.3-1								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1		DC1.3-2								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1		DC1.3-3								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1	DC1.4	DC1.3-4	1-1/2" EMT	1	13	81%	1.04	0.50	1.56	16	24	Cu-90C	40	25	20	21	210	1.30%	2 - #10 AWG, CU-PV WIRE (1000V)	1 - #10 AWG, CU-THWN-2							
ST-X	INV-X	1		DC1.3-5								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1		DC1.4-1								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1		DC1.4-2								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1	DC1.4	DC1.4-3	1-1/2" EMT	1	13	81%	1.04	0.50	1.56	16	24	Cu-90C	40	25	20	21	210	1.30%	2 - #10 AWG, CU-PV WIRE (1000V)	1 - #10 AWG, CU-THWN-2							
ST-X	INV-X	1		DC1.4-4								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1		DC1.4-5								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
ST-X	INV-X	1		DC1.4-6								16	24		40	25	20	21		1.30%	2 - #10 AWG, CU-PV WIRE (1000V)								
TABLE C1: AC OUTPUT CIRCUIT CONDUCTOR AND CONDUIT IDENTIFICATION																													
INITIAL CONDUCTOR LOCATION	FINAL CONDUCTOR LOCATION	RACEWAY NAME	CIRCUIT ID	RACEWAY SIZE OR DIRECT BURIAL	# OF PARALLEL CIRCUITS	# OF CONDUCTORS IN RACEWAY OR BURIAL BUNDLE	% OF MAX CONDUIT FILL	310.15(B)(1) Temp Correction Factor	310.15(C)(1) Fill Adjustment Factor	690.8 (A)(1)(e) Adjustment Factor	OPERATING LINE CURRENT	DESIGN LINE CURRENT	TERMINAL TEMP LIMIT	TEMP LIMIT AMPACITY 30C AMB	OCPD	MINIMUM CORRECTED AMPACITY	CONDUCTOR CORRECTED AMPACITY	ONE WAY LENGTH (FT)	VOLTAGE DROP %	CURRENT CARRYING CONDUCTOR TYPE AND SIZE	NEUTRAL WIRE TYPE AND SIZE	GROUNDING CONDUCTOR SIZE (AWG)	NOTES						
INV-1	MSB	AC1.1	AC1.1-1	1-1/4" PVC SCH 40	1	4	59%	1.04	1.00	1.25	72	90	Cu-75C	100	110	90	120	100	0.64%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-2	SPNLBD-1	AC1.2	AC1.2-1	1-1/4" PVC SCH 40	1	4	59%	1.04	1.00	1.25	72	90	Cu-75C	100	110	90	120	100	0.64%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-3	SPNLBD-1	AC1.3	AC1.3-1	1-1/4" EMT	1	4	57%	1.04	1.00	1.25	72	90	Cu-75C	100	110	90	120	10	0.06%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-4	SPNLBD-2	AC1.4	AC1.4-1	1-1/4" PVC SCH 40	1	4	59%	1.04	1.00	1.25	44	54	Cu-75C	100	60	54	120	240	0.92%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-5	SPNLBD-2	AC1.5	AC1.5-1	1-1/4" PVC SCH 40	1	4	59%	1.04	1.00	1.25	44	54	Cu-75C	100	60	54	120	170	0.65%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-6	SPNLBD-2	AC1.6	AC1.6-1	2" EMT	1	4	53%	1.04	1.00	1.25	127	158	Cu-75C	175	175	158	203	10	0.04%	3 - #2/0 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-7	SPNLBD-3	AC1.7	AC1.7-1	1-1/2" PVC SCH 40	1	4	69%	1.04	1.00	1.25	44	54	Cu-75C	130	60	54	151	320	0.77%	3 - #1 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #4 AWG, CU-THWN-2	EGC						
INV-8	SPNLBD-3	AC1.8	AC1.8-1	1-1/4" PVC SCH 40	1	4	59%	1.04	1.00	1.25	44	54	Cu-75C	100	60	54	120	230	0.88%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-9	SPNLBD-3	AC1.9	AC1.9-1	1-1/4" EMT	1	4	57%	1.04	1.00	1.25	72	90	Cu-75C	100	110	90	120	100	0.64%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-10	SPNLBD-3	AC1.10	AC1.10-1	1-1/4" EMT	1	4	57%	1.04	1.00	1.25	72	90	Cu-75C	100	110	90	120	10	0.06%	3 - #3 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-11	SPNLBD-4	AC1.11	AC1.11-1	2" PVC SCH 40	1	4	80%	1.04	1.00	1.25	127	158	Cu-75C	230	175	158	270	280	0.78%	3 - #4/0 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #4 AWG, CU-THWN-2	EGC						
INV-12	SPNLBD-4	AC1.12	AC1.12-1	1-1/4" PVC SCH 40	1	4	68%	1.04	1.00	1.25	72	90	Cu-75C	115	110	90	135	160	0.81%	3 - #2 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
INV-13	SPNLBD-4	AC1.13	AC1.13-1	1" EMT	1	4	50%	1.04	1.00	1.25	44	54	Cu-75C	65	60	54	78	60	0.46%	3 - #6 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #10 AWG, CU-THWN-2	EGC						
INV-14	SPNLBD-4	AC1.14	AC1.14-1	1" EMT	1	4	50%	1.04	1.00	1.25	44	54	Cu-75C	65	60	54	78	10	0.08%	3 - #6 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #10 AWG, CU-THWN-2	EGC						
SPNLBD-1	MSB	AC1.15	AC1.15-1	2" PVC SCH 40	1	4	65%	1.04	1.00	1.25	144	181	Cu-75C	200	200	181	234	170	0.68%	3 - #3/0 AWG, CU-THWN-2	0 - #NO NEUTRAL	1 - #6 AWG, CU-THWN-2	EGC						
SPNLBD-2	MSB	AC1.16	AC1.16-1	2-1/2" PVC SCH 40	1	4	78%	1.04	1.00	1.25	214	267	Cu-75C	285	300	267	333	270	0.89%	3 - #300 MCM, CU-THWN-2	0 - #NO NEUTRAL	1 - #4 AWG, CU-THWN-2	EGC						
SPNLBD-3	MSB	AC1.17	AC1.17-1	2-1/2" PVC SCH 40	1	4	88%	1.04	1.00	1.25	231	289	Cu-75C	310	300	289	364	360	1.10%	3 - #350 MCM, CU-THWN-2	0 - #NO NEUTRAL	1 - #4 AWG, CU-THWN-2	EGC						
SPNLBD-4	MSB	AC1.18	AC1.18-1	3" PVC SCH 40	1	4	76%	1.04	1.00	1.25	286	357	Cu-75C	380	400	357	447	440	1.17%	3 - #500 MCM, CU-THWN-2	0 - #NO NEUTRAL	1 - #3 AWG, CU-THWN-2	EGC						
STRING VOC CALCULATION - Vertex N TSM-575NEG19RC.20																													
PANEL VOC, 25C		46.9				PANEL VOC, 25C		46.9				PANEL VOC, 25C		46.9				PANEL VOC, 25C		46.9				PANEL VOC, 25C		46.9			
NUMBER IN SERIES		16				NUMBER IN SERIES		17				NUMBER IN SERIES		19				NUMBER IN SERIES		20				NUMBER IN SERIES		20			
STRING VOC STC		750.4				STRING VOC STC		797.3				STRING VOC STC		891.1				STRING VOC STC		938				STRING VOC STC		938			
DESIGN LOW, (ASHRAE) C		1				DESIGN LOW, (ASHRAE) C		1				DESIGN LOW, (ASHRAE) C		1				DESIGN LOW, (ASHRAE) C		1				DESIGN LOW, (ASHRAE) C		1			
TEMP COEFFICIENT, %/C		-0.24%				TEMP COEFFICIENT, %/C		-0.24%				TEMP COEFFICIENT, %/C		-0.24%				TEMP COEFFICIENT, %/C		-0.24%				TEMP COEFFICIENT, %/C		-0.24%			
PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW						PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW						PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW						PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW						PANEL VOC * NUMBER IN SERIES * (1 - (25 - DESIGN LOW TEMP)* VOC TEMP COEFFICIENT) = MAX VOC AT DESIGN LOW					
(46.9 * 16 * (1-(25-1)* (-0.0024 )) = 795.42						(46.9 * 17 * (1-(25-1)* (-0.0024 )) = 845.14						(46.9 * 18 * (1-(25-1)* (-0.0024 )) = 894.85						(46.9 * 19 * (1-(25-1)* (-0.0024 )) = 944.57						(46.9 * 20 * (1-(25-1)* (-0.0024 )) = 994.28					
AC CONDUITS ( For 3-Phase system)																													
CONDUIT NAME		1.732*ONE WAY LENGTH*RESISTANCE PER 1000FT*PHASE CURRENT/1000 FT/OPERATING VOLTAGE/# WIRES PER PHASE)= VOLTAGE DROP IN CONDUIT				DESIGN LINE CURRENT		MINIMUM CORRECTED AMPACITY		CONDUIT FILL				CONDUCTOR CORRECTED AMPACITY															
AC1.1		(1.732*100 * 0.245 * 72 / 1000FT / 480 / 1)=0.64%				(72.2 * 1.25) = 90.25		(72.2 * 1.25) = 90.25		100*(TOTAL CONDUCTOR AREA)/((CONDUIT AREA)*(PERCENT ALLOWED FILL))= PERCENT MAXIMUM FILL				CONDUCTOR AMPACITY AT 30C * CONDUCTOR PER PHASE * TEMP. CORRECTION FACTOR * FILL ADJUSTMENT FACTOR = CONDUCTOR CORRECTED AMPACITY															
										100 * 0.34 / (1.45 * 0.4) = 59%				(115*1*1.04*1) = 119.6															
WIRING METHOD INVERTER WIRING (AC1.1)																													
OUTPUT OF CPS SCA60KTL-DO/US-480 [480V] INVERTER																													
125% X 72.2A (INVERTER OUTPUT CURRENT FROM SPEC SHEET) = 1.25 X 72.2A = 90.25A (CONTINUOUS CURRENT) 125% X 72.2A = 1.25 X 72.2A = 90.25A ≤ 110A (OVERCURRENT DEVICE)																													
AMBIENT SITE TEMPERATURE = 22°C																													
CONDUCTORS ON THE ROOF THAT ARE INSTALLED IN RACEWAYS EXPOSED TO DIRECT SUNLIGHT ARE DERATED IN ACCORDANCE WITH CEC 310.15(B)(3)(c) AND TABLE 310.15(B)(3)(c) BASED ON THE HEIGHT OF THE CONDUIT ABOVE THE ROOF (N/A) DESIGN CONDUIT TEMPERATURE = 30°C																													
ADJUSTMENT FACTOR FOR CONDUIT FILL (CEC TABLE 310.15(C)(1)) = 1.0																													
AMBIENT TEMPERATURE CORRECTION FACTOR BASED ON 30° (310.15(C)(3)(1)) = 21°C-25°C @ 90°C TEMPERATURE RATING OF CONDUCTOR IS 1 WITH 110A MINIMUM BREAKER, SELECT #3 AWG, CU-THWN-2 (90°C COLUMN)																													
FROM TABLE 310.16, AMPACITY OF CONDUCTOR AT 90° IS 120A x 1 TEMP. DERATE FACTOR = 120A																													
THIS IS GREATER THAN CONTINUOUS CURRENT OF 90.25A – OK CAN BE PROTECTED BY A 110A BREAKER – OK																													

PROJECT TITLE:	
PEBBLE BEACH- STAFF PARKING LOT	
2701 CONGRESS RD., MONTEREY, CA 93940	
APN: 007101044000	
ENGINEER'S STAMP	
SOLAR TECHNOLOGIES CLEAN ENERGY SOLUTIONS	
23 LAS COLINAS LN., SUITE 106 SAN JOSE, CA 95119	
JOB NUMBER: 11960	
REVISIONS	
DATE	
ISSUE	
DRAWN BY: HK, AJ	
CHECKED BY: VJ	
APPROVED BY: JHA	
SCALE:	
NTS	
SHEET TITLE:	
WIRING SCHEDULE & AMPACITY CALCULATIONS	
SHEET #:	
E.4.1	







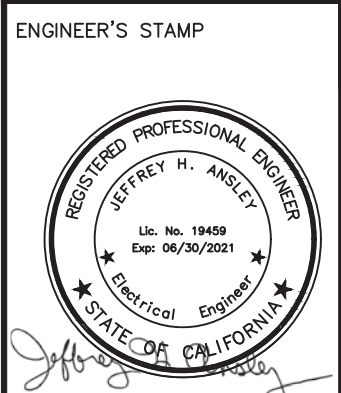


HORIZONTAL BORING NOTES:

1. SLURRY BACKFILL ALL THE BORE PITS AND POTHoles UNDER PAVEMENT AND SIDEWALKS.
2. CONDUIT SHALL BE HDPE.
3. A SINGLE BORE CASING SHALL NOT HAVE MORE THAN 2 POWER CONDUITS.



2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000



REVISIONS		
#	DATE	ISSUE
A	27-DEC-23	FOR SUBMITTAL

PAPER SIZE:	ARCH D
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DRAWN BY: HK, AJ

CHECKED BY: VJ

APPROVED BY: JHA

SCALE:

NTS

SHEET TITLE:

## ELECTRICAL DETAILS

SHEET #:

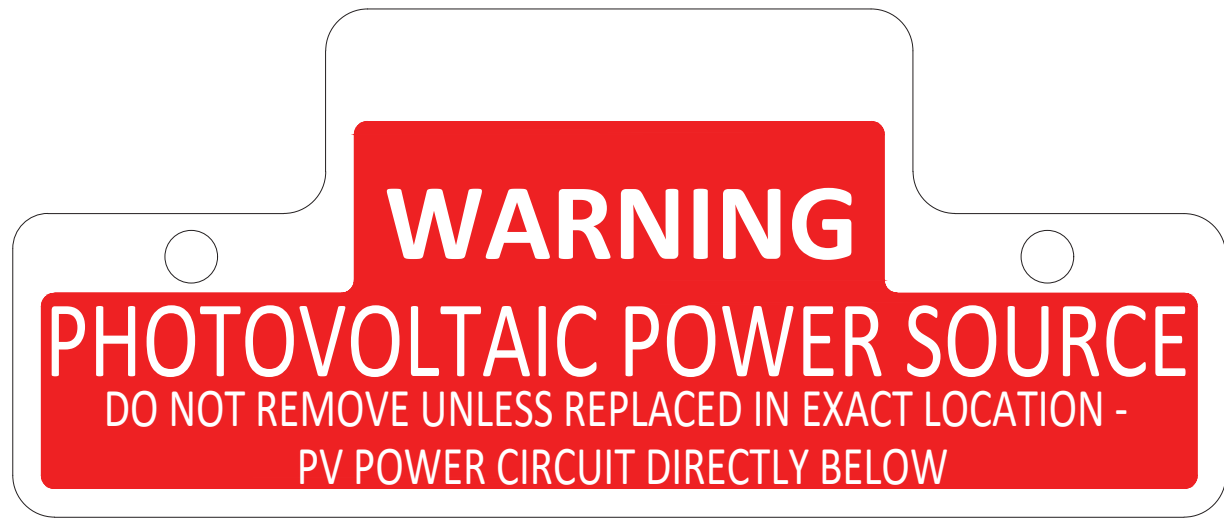
F.6.1



1 EMT / CONDUIT RACEWAYS, JUNCTION BOXES  
\*(REFLECTIVE MATERIAL REQUIRED)

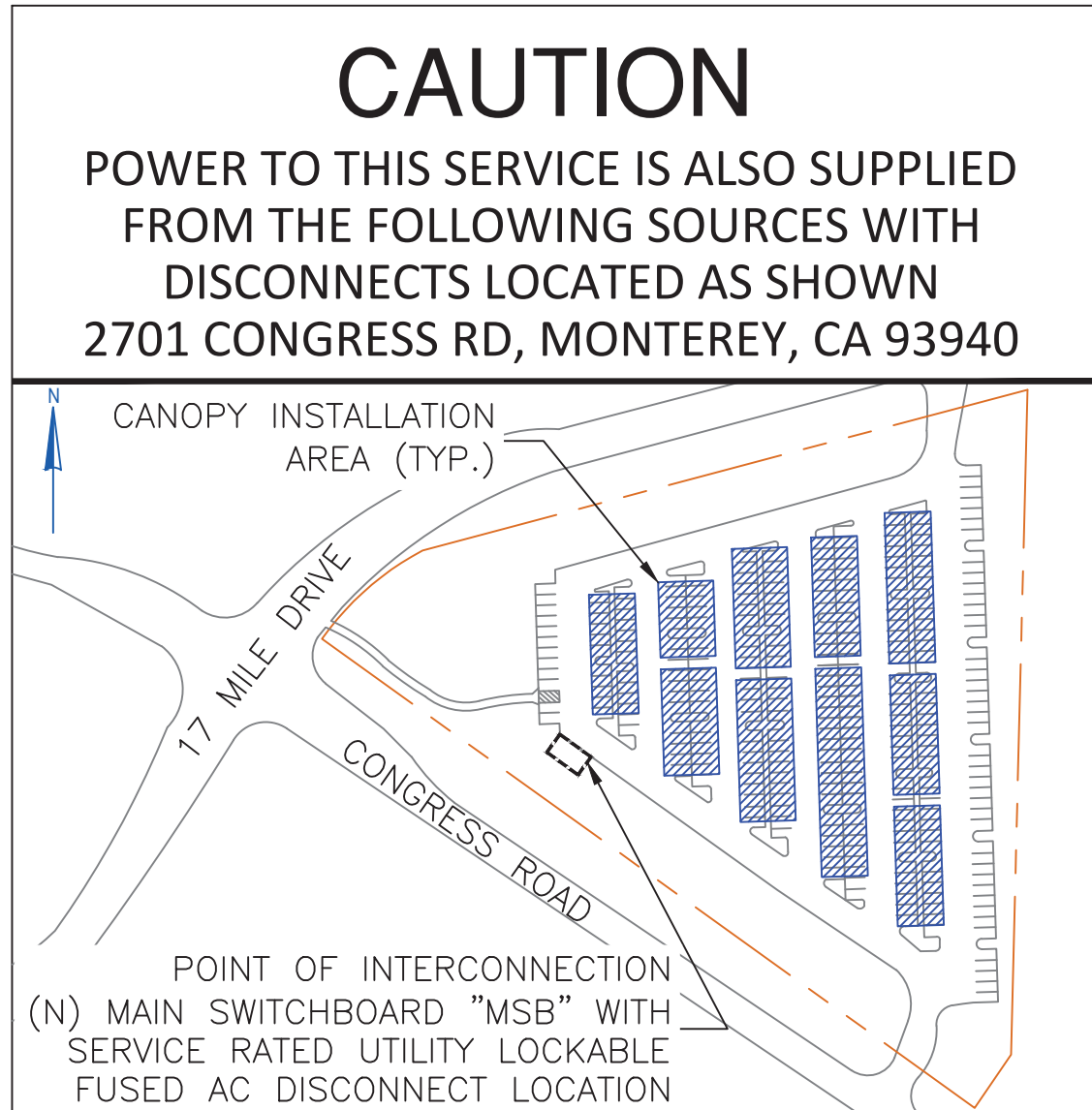
WARNING: PHOTOVOLTAIC  
POWER SOURCE

PER NEC 690.31(G)(3) & (4)



PER NEC 690.31(G)(1) - WHERE CIRCUITS ARE EMBEDDED IN BUILT-UP, LAMINATE, OR MEMBRANE ROOFING MATERIALS IN ROOF AREAS NOT COVERED BY PV MODULES AND ASSOCIATED EQUIPMENT.

2 BUILDING / STRUCTURE

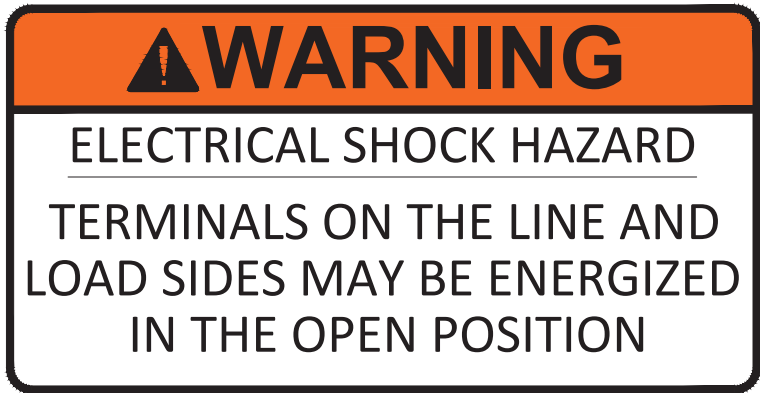


PER NEC 690.56(B) & 705.10

3 PHOTOVOLTAIC SYSTEM AC DISCONNECT

MAIN PHOTOVOLTAIC  
SYSTEM AC DISCONNECT

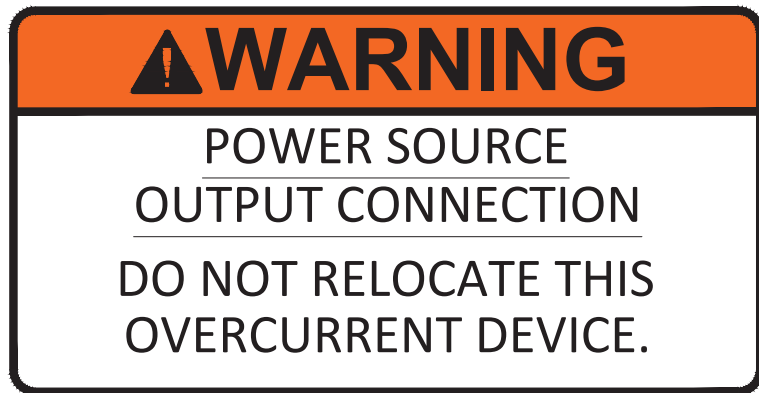
PER NEC 690.13(B)



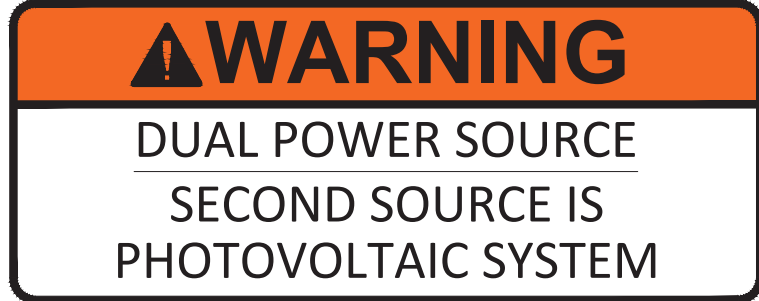
PER NEC 690.13(B)

PHOTOVOLTAIC AC DISCONNECT  
RATED AC OUTPUT CURRENT: 948A  
NOMINAL OPERATING AC VOLTAGE: 480V

PER NEC 690.54



PER NEC 705.12(B)(2)(3)(b)



PER NEC 705.12(B)(3)

RAPID SHUTDOWN SWITCH  
FOR SOLAR PV SYSTEM

PER NEC 690.56(C)(3)

4 SOLAR PANELBOARD/SWITCHBOARD



PER CEC 705.12(B)(2)(3)(c)

DEDICATED PHOTOVOLTAIC SYSTEM  
COMBINER PANEL NO LOAD SHALL BE  
ADDED TO THIS PANEL

PER CEC 705.12(B)(2)(3)(c)

5 MAIN SERVICE DISCONNECT



PER NEC ARTICLE 110.16(A) AND NFPA 70E ARTICLE 130.5(C)(1),(2),(3)

LABELING REQUIREMENTS FOR ARTICLE 110.16, 690 & 705.12

NEC 110.21 B) Field-Applied Hazard Markings.

Where caution, warning, or danger signs or labels are required by this Code, the labels shall meet the following requirements:

- The marking shall warn of the hazards using effective words, colors, symbols, or any combination thereof.  
Informational Note: ANSI Z535.4-2011, Product Safety Signs and Labels, provides guidelines for suitable font sizes, words, colors, symbols, and location requirements for labels.
- The label shall be permanently affixed to the equipment or wiring method and shall not be handwritten.  
Exception to (2): Portions of labels or markings that are variable, or that could be subject to changes, shall be permitted to be handwritten and shall be legible.
- The label shall be of sufficient durability to withstand the environment involved.  
Informational Note: ANSI Z535.4-2011, Product Safety Signs and Labels, provides guidelines for the design and durability of safety signs and labels for application to electrical equipment.

NEC 110.16 Arc Flash:

(A) General -

Electrical equipment, such as switchboards, switchgear, panelboards, industrial control panels, meter socket enclosures, and motor control centers, that is in other than dwelling units, and is likely to require examination, adjustment, servicing, or maintenance while energized, shall be field or factory marked to warn qualified persons of potential electric arc flash hazards. The marking shall meet the requirements in 110.21(B) and shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment.

(B) Service Equipment

In other than dwelling units, in addition to the requirements in (A), a permanent label shall be field or factory applied to service equipment rated 1200 amps or more. The label shall meet the requirements of 110.21(B) and contain the following information.

- Nominal system voltage
- Available fault current at the service overcurrent protective devices.
- The clearing time of service overcurrent protective devices based on the available fault current at the service equipment.
- The date the label was applied.

Exception: Service equipment labeling shall not be required if an arc flash label is applied in accordance with acceptable industry practice.

NEC 690.13(B)

Each PV system disconnecting means shall plainly indicate whether in the open (off) or closed (on) position and be permanently marked "PV SYSTEM DISCONNECT" or equivalent. Additional markings shall be permitted based upon the specific system configuration. For PV system disconnecting means where the line and load terminals may be energized in the open position, the device shall be marked with the following words or equivalent.

NEC 690.31(G)(1)

Where circuits are embedded in build up, laminate or membrane roofing materials not covered by PV modules and associated equipment, the location of the circuits shall be clearly marked.

NEC 690.31(G)(3) & (4)

PV dc system circuit labels shall appear on every section of the wiring system that is separated by enclosures, walls, partitions, ceilings, or floors. Spacing between labels or markings, or between a label and a marking, shall not be more than 3 m (10 ft). Labels required in this section shall be suitable for the environment where they are installed.

NEC 690.53

A permanent label for the dc PV power source indicating items (1) through (3) shall be provided by the installer at dc PV system disconnecting means and at each dc equipment disconnecting means required by 690.15. Where a disconnecting means has more than one dc PV power source, the values in 690.53 (1) through (3) shall be specified for each source.

NEC 690.54

All interactive system(s) points of interconnection with other sources shall be marked as an accessible location at the disconnecting means as a power source and with the rated ac output current and the nominal operating ac voltage.

NEC 690.56(B)

Plaques or directories shall be installed in accordance with 705.10.

NEC 690.56(C)(1)(a)

For PV systems that shut down the array and conductors leaving the array shall be labeled accordingly.

NEC 690.56(C)(3)

A rapid shutdown switch shall have a label located on or no more than 1 meter (3 ft) from the switch that includes the following wording.

NEC 705.10

A permanent plaque or directory, denoting the location of all electric power source disconnecting means on or in the premises, shall be installed at each service equipment location and at the location(s) of the system disconnect(s) for all electric power production sources capable of being interconnected. Also see 690.4(d) One sign required for each PV system.

NEC 705.12(B)(2)(3)(b)

Where two sources, one a primary power source and the other another power source, are located at opposite ends of a busbar that contains loads, the sum of 125 percent of the power source(s) output circuit current and the rating of the overcurrent device protecting the busbar shall not exceed

120 percent of the ampacity of the busbar. A permanent warning label shall be applied to the distribution equipment adjacent to the back-fed breaker from the power source that displays the following or equivalent wording.

NEC 705.12(B)(2)(3)(c)

The sum of the ampere ratings of all overcurrent devices on panelboards, both load and supply devices, excluding the rating of the overcurrent device protecting the busbar, shall not exceed the ampacity of the busbar. The rating of the overcurrent device protecting the busbar shall not exceed the rating of the busbar. Permanent warning labels shall be applied to distribution equipment displaying the following or equivalent wording.

NEC 705.12(B)(3)

Equipment containing overcurrent devices in circuits supplying power to a busbar or conductor supplied from multiple sources shall be marked to indicate the presence of all sources. Circuits if backfed shall be suitable for such operations.

SIGNAGE NOTES:

- SIGNAGE SHALL BE WEATHER RESISTANT. UL 969 SHALL BE USED AS A STANDARD FOR WEATHER RATING.
- ALL SIGNAGE SHALL HAVE ALL CAPITAL LETTERS WITH MINIMUM 3/8" LETTER HEIGHT FOR HEADERS & 1/4" FOR REST OF THE TEXT. TEXT WITH RED BACKGROUND TO BE OF 3/8" HEIGHT
- DO NOT USE SCREWS FOR SIGNAGE ATTACHMENT, USE ONLY PERMANENT ADHESIVE.

PROJECT TITLE:

PEBBLE BEACH- STAFF PARKING LOT  
2701 CONGRESS RD.,  
MONTEREY, CA 93940  
APN: 007101044000

ENGINEER'S STAMP



23 LAS COLINAS LN, SUITE 106  
SAN JOSE CA 95119  
JOB NUMBER: 11900

REVISIONS		DATE	ISSUE
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PAPER SIZE:	ARCH D
DRAWN BY:	HK, AJ
CHECKED BY:	VJ
APPROVED BY:	JHA

SCALE:	NTS
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SHEET TITLE:  
LABELS &  
MARKINGS

SHEET #:  
E.7.1



Vertex N

BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE

PRODUCT: TSM-NEG19RC-20

PRODUCT RANGE: 570-590W

590W

MAXIMUM POWER OUTPUT

0~+5W

POSITIVE POWER TOLERANCE

21.8%

MAXIMUM EFFICIENCY

Increased Customer Value

- Lower LCOE, reduced BOS cost, faster ROI
- Lowest guaranteed first year and annual degradation
- Designed for compatibility with existing mainstream system components
- Higher return on investment

High Power up to 590W

- Up to 21.8% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection

Improved Reliability

- Minimalized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load

Better Energy Yield

- Excellent IAM and low irradiation performance, validated by 3rd party certifications
- The unique design provides optimized energy production under inter-row shading conditions
- Lower temperature coefficient (-0.30%) and operating temperature
- Up to 30% additional power gain from back side depending on albedo

Tina Solar's Vertex Bifacial Dual Glass Performance Warranty

100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

0%

0

5

10

15

20

25

30

Years

87.4%

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716/UL61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO 14064: Greenhouse Gases Emissions Verification

ISO 45001: Occupational Health and Safety Management System

Tinasolar

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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Version number: TSM\_NEG19RC-20\_NA\_EN\_2022\_A

www.tinasolar.com

CPS

50/60kW, 1000Vdc String Inverters for North America

Technical Data

Model Name

CPS SCA50KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power  
Max. AC apparent power  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Frequency-RideThru, Soft-Start, Volt-VAR, Frequency-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NEC 2017/2020 PVRSS certified for rapid shutdown
- 55 & 66kVA rating allows max rated active power @ ±0.91PF
- Selectable max AC apparent power of 50/55kVA and 60/66kVA
- NEC-compliant & UL listed Arc-Fault circuit protection
- 15-90° Mounting orientation for low profile roof installs
- Optional FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 3 MPPTs with 5 inputs each for maximum flexibility
- NEMA Type 4X outdoor rated enclosure
- UL 1741-SA certified to CA Rule 21, including SA8 - SA18
- UL 1741-SB and IEEE 1547-2018 certified
- Separable wire-box design for fast service
- Standard 10-year warranty with extensions up to 20 years

50/60KTL Standard Wire-box

50/60KTL Rapid Shutdown Wire-box

Tigo Enhanced

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The National Electrical Manufacturers Association

CHINT POWER SYSTEMS AMERICA 2022/8-MKT-NA

CHINT Power Systems America

1380 Presidential Drive, Suite 100, Richardson, TX 75081

Tel: 855-584-7168 Mail: AmericaSales@chintpower.com Web: www.chintpowerystems.com

CPS

36kW, 1000Vdc String Inverters for North America

Technical Data

Model Name

CPS SCA36KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power  
Max. AC apparent power  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Frequency-RideThru, Soft-Start, Volt-VAR, Frequency-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Efficiency Curve

99.00%

97.00%

95.00%

93.00%

91.00%

0

6000

12000

18000

24000

30000

36000

Output Power(W)

DC INPUT VOLTAGE

540V

520V

500V

Dimensions

23.6in

26.4in

9.1in

Broad Adaptability

- NEMA 4X (IP65) rated for outdoor applications
- Utility interactive controls: active power derating, reactive power control
- Separable wire-box design for fast service
- Integrated DC & AC disconnect switches
- Wide MPPT range for flexible string sizing
- 1000V max. DC input voltage for flexible configuration
- 15 - 90 degree from horizontal installation angle
- AC output terminal compatible with ALCU wire

High Efficiency

- Maximum efficiency of 98.5%, CEC efficiency of 98%
- Three-level technology and enhanced control mechanism to achieve high efficiency over a wide load range
- 2 MPPTs to achieve higher system efficiency
- Transformers design

High Reliability

- Standard warranty: 10 years, extension up to 20 years
- Advanced thermal design with variable speed fans
- Ground-fault detection and interruption circuit
- AFCI Integrated (per UL1699B)
- UL 1741-SA certified to CA Rule 21

CHINT POWER SYSTEMS AMERICA 2022/8-MKT-NA

CHINT Power Systems America

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CPS

100kW, 1500Vdc/480Vac String Inverters for North America

Technical Data

Model Name

CPS SCH100KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range @ PF>0.99<sup>1</sup>  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC fuse holders adds convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections

100KTL Standard Wire-box

100KTL Centralized Wire-box

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CPS

50/60kW, 1000Vdc String Inverters for North America

Technical Data

Model Name

CPS SCA50KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NEC 2017/2020 PVRSS certified for rapid shutdown
- 55 & 66kVA rating allows max rated active power @ ±0.91PF
- Selectable max AC apparent power of 50/55kVA and 60/66kVA
- NEC-compliant & UL listed Arc-Fault circuit protection
- 15-90° Mounting orientation for low profile roof installs
- Optional FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 3 MPPTs with 5 inputs each for maximum flexibility
- NEMA Type 4X outdoor rated enclosure
- UL 1741-SA certified to CA Rule 21, including SA8 - SA18
- UL 1741-SB and IEEE 1547-2018 certified
- Separable wire-box design for fast service
- Standard 10-year warranty with extensions up to 20 years

50/60KTL Standard Wire-box

50/60KTL Rapid Shutdown Wire-box

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CPS

100kW, 1500Vdc/480Vac String Inverters for North America

Technical Data

Model Name

CPS SCH100KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range @ PF>0.99<sup>1</sup>  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC fuse holders adds convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections

100KTL Standard Wire-box

100KTL Centralized Wire-box

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CPS

50/60kW, 1000Vdc String Inverters for North America

Technical Data

Model Name

CPS SCA50KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NEC 2017/2020 PVRSS certified for rapid shutdown
- 55 & 66kVA rating allows max rated active power @ ±0.91PF
- Selectable max AC apparent power of 50/55kVA and 60/66kVA
- NEC-compliant & UL listed Arc-Fault circuit protection
- 15-90° Mounting orientation for low profile roof installs
- Optional FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 3 MPPTs with 5 inputs each for maximum flexibility
- NEMA Type 4X outdoor rated enclosure
- UL 1741-SA certified to CA Rule 21, including SA8 - SA18
- UL 1741-SB and IEEE 1547-2018 certified
- Separable wire-box design for fast service
- Standard 10-year warranty with extensions up to 20 years

50/60KTL Standard Wire-box

50/60KTL Rapid Shutdown Wire-box

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CHINT Power Systems America

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CPS

100kW, 1500Vdc/480Vac String Inverters for North America

Technical Data

Model Name

CPS SCH100KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range @ PF>0.99<sup>1</sup>  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC fuse holders adds convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections

100KTL Standard Wire-box

100KTL Centralized Wire-box

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CPS

50/60kW, 1000Vdc String Inverters for North America

Technical Data

Model Name

CPS SCA50KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NEC 2017/2020 PVRSS certified for rapid shutdown
- 55 & 66kVA rating allows max rated active power @ ±0.91PF
- Selectable max AC apparent power of 50/55kVA and 60/66kVA
- NEC-compliant & UL listed Arc-Fault circuit protection
- 15-90° Mounting orientation for low profile roof installs
- Optional FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 3 MPPTs with 5 inputs each for maximum flexibility
- NEMA Type 4X outdoor rated enclosure
- UL 1741-SA certified to CA Rule 21, including SA8 - SA18
- UL 1741-SB and IEEE 1547-2018 certified
- Separable wire-box design for fast service
- Standard 10-year warranty with extensions up to 20 years

50/60KTL Standard Wire-box

50/60KTL Rapid Shutdown Wire-box

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CPS

100kW, 1500Vdc/480Vac String Inverters for North America

Technical Data

Model Name

CPS SCH100KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range @ PF>0.99<sup>1</sup>  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC fuse holders adds convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections

100KTL Standard Wire-box

100KTL Centralized Wire-box

CHINT POWER SYSTEMS AMERICA 2022/8-MKT-NA

CHINT Power Systems America

1380 Presidential Drive, Suite 100, Richardson, TX 75081

Tel: 855-584-7168 Mail: AmericaSales@chintpower.com Web: www.chintpowerystems.com

CPS

50/60kW, 1000Vdc String Inverters for North America

Technical Data

Model Name

CPS SCA50KTL-DO/US-480

DC Input

Max. PV power  
Max. DC input voltage  
Operating DC input voltage range  
Start-up DC input voltage / power  
Number of MPP trackers  
MPPT voltage range  
Max. PV short-circuit current (Isc x 1.25)  
Number of DC inputs  
DC disconnection type  
DC surge protection

AC Output

Rated AC output power @ PF>0.99  
Max. AC apparent power (selectable)  
Rated output voltage  
Output voltage range<sup>1</sup>  
Grid connection type  
Max. AC output current @ 480Vac  
Rated output frequency  
Output frequency range<sup>1</sup>  
Power factor  
Current THD @ rated load  
Max. fault current contribution (1 cycle RMS)  
Max. OCPD rating  
AC disconnection type  
AC surge protection

System and Performance

Topology  
Max. efficiency  
CEC efficiency  
Stand-by / night consumption

Environment

Enclosure protection degree  
Cooling method  
Operating temperature range  
Non-operating temperature range<sup>1</sup>  
Operating humidity  
Operating altitude  
Audible noise

Display and Communication

User interface and display  
Inverter monitoring  
Site-level monitoring  
Modbus data mapping  
Remote diagnostics / firmware upgrade functions

Mechanical

Dimensions (H x W x D)  
Weight  
Mounting / installation angle<sup>1</sup>  
AC termination  
DC termination  
Fused string inputs (5 per MPPT)<sup>4</sup>  
Safety

Certifications and standards

UL1741-SA/8B Ed. 3, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547-2018, FCC PART15  
IEE 1547-2003, CA Rule 21, ISO-NE  
Voltage-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt

Warranty

Standard  
Extended terms

Key Features

- NEC 2017/2020 PVRSS certified for rapid shutdown
- 55 & 66kVA rating allows max rated active power @ ±0.91PF
- Selectable max AC apparent power of 50/55kVA and 60/66kVA
- NEC-compliant & UL listed Arc-Fault circuit protection
- 15-90° Mounting orientation for low profile roof installs
- Optional FlexOM Gateway enables remote firmware upgrades
- Integrated AC & DC disconnect switches
- 3 MPPTs with 5 inputs each for maximum flexibility
- NEMA Type 4X outdoor rated enclosure
- UL 1741-SA certified to CA Rule 21, including SA8 - SA18
- UL 1741-SB and IEEE 1547-2018 certified
- Separable wire-box design for fast service
- Standard 10-year warranty with extensions up to 20 years

50/60KTL Standard



# SYLVANIA Luminaires

## Vapor Tight

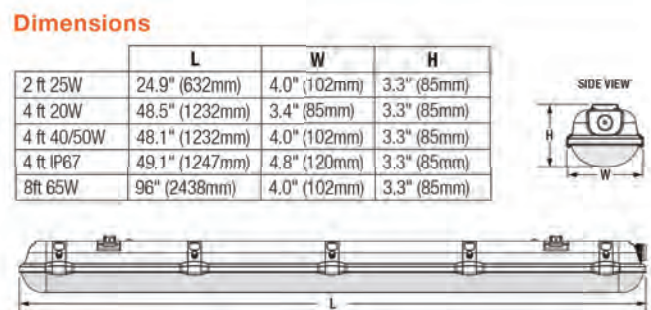


### Product Features

- Corrosion resistant housing with captive stainless steel mounting accessories and included waterproof compression fitting
- IP65 or IP67 rated, ETL sanitation listed for NSF splash zones, and a wide operating temperature of -40°C to 50°C
- Optional integrated microwave (daylight/motion) sensor for additional energy savings

### Wattage Comparison Chart

Vapor Tight	Traditional System	LED System	Energy Savings
Wattage	Wattage	Wattage	
2117 T8	33	20/25	39%/24%
1132 T8	27	20/25	26%/1%
35W HPS	45	20/25	56%/44%
50W HPS	62	20/25	68%/60%
70W HPS	92	25	73%
2128 T8	50	40/50	20%/0%
2132 T8	54	40/50	26%/7%
1198 T12	96	40/50	53%/42%
70 W HPS	91	40/50	56%/45%
4132 T8	108	65	39%
5198 T12	172	65	62%
150W HPS	170	65	61%
150W MH	168	65	60%
175W MH	210	65	69%
250W HPS	295	65	78%
250W MH	290	65	77%



### Specifications

**Weight:** 2 ft: 2.5 lbs (1.2 kg) 4 ft: 5.8 lbs (2.6 kg) 8 ft: 12.5 lbs (5.7 kg)

**Construction:** One-piece polycarbonate housing with one-piece polycarbonate lens and stainless steel clips. The standard color is gray.

**LED System:** LED system with a life rating of ≥84,000 hours (H0V) L<sub>70</sub> @25°C.

**Luminaire efficacy:** up to 140 LPW.

**Electrical:** Offered in 20, 25, 40, 50 and 65 Watts, the luminaire is designed to operate through the 120V-277Vac universal voltage and 347-480Vac high universal voltage range. The LED driver has a 5.5kV inrush surge suppression and is a constant current device, meeting UL1310 and UL48 Class 2 with built-in over temperature protection. The power factor is ≥90% and THD is ≤20%.

**Dimming:** The driver is 0-10V dimmable (down to 6%). Please reference the dimmer compatibility document (LEDLUM012).

**Color Characteristics:** CRI ≥80; CCT of 4000K or 5000K.

**Optics:** Type V distribution with a clear etched polycarbonate lens or optional diffuse lens (sold separately).

**Installation:** Luminaire mounts to recessed outlet box or can be surface or chain mounted (chain not included). Connector available for tandem wiring. External controls can be added through existing knockouts.

**Operating Temperature:** -40°F to +122°F (-40°C to +50°C); EM: +14°F to +122°F (-10°C to +50°C).

**Listings:** cUL listed to UL1598 standards for wet locations, IP65 or IP67 rated, and ETL Sanitation listed for NSF splash zones. IP67 units are NEMA 4X rated.

**Warranty:** Standard 5-year luminaire warranty (LEDLUM001).

**Note:** Specifications subject to change without notice. IES files available online.



### Ordering Guide

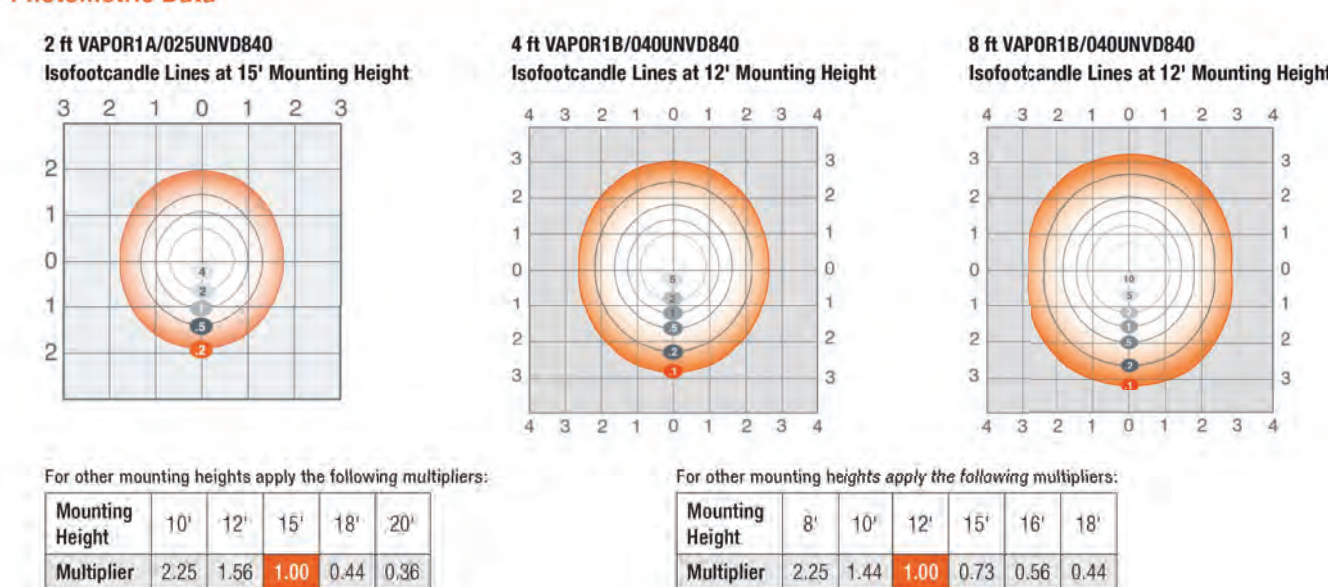
Item Number:	Product	Generation	Wattage	Voltage	Dimming	CRI	Color Temp. (CCT)	Size	Optics	Color/Finish	Options
	VAPOR	1A	20/25	120-277V	0-10V	84-90	40 = 4000K 50 = 5000K	24" = 24" long 48" = 48" long 96" = 96" long	65 = Etched Lens Type V Distribution Type V Distribution	GR = Gray	Blank = No Option D = Motion/Daylighting Sensor E = Emergency

\*HPS version available in 50 Watt 65 Watts only

LEDLUM008R14 8-19



### Photometric Data



For other mounting heights apply the following multipliers:

Mounting Height	10'	12'	15'	18'	20'
Multiplier	2.25	1.56	1.00	0.44	0.36

For other mounting heights apply the following multipliers:

Mounting Height	8'	10'	12'	15'	16'	18'
Multiplier	2.25	1.44	1.00	0.73	0.56	0.44

\*For 20W use 0.5 multiplier

### Fixture Spacing Chart

	VAPOR1A/025UNV0840/24ECGR				VAPOR1B/040UNV0840/48ECGR			
	On Center Fixture Spacing				On Center Fixture Spacing			
	8'x10'	10'x10'	10'x12'	10'x16'	8'x10'	10'x10'	10'x12'	10'x16'
8'	39	29	23.2	65.6	40	31.2	40.2	
10'	37.9	28.1	22.5	63.6	49.9	39.2		
12'	35.2	27.3	21.9	63.4	48.3	38.1		
14'	34.2	26.8	21.3	61.7	47.3	37.2		
16'	33.2	25.8	20.7	55.5	46.3	36.2		
18'	32.3	24.9	20.1	53.9	44.7	35.3		

Average Illuminance (fc) @ 15' Ht:  
80/150/200 reflectance

### Options Information

**Sensor:** Motion and Daylight sensors are both available.

**Motion Sensor (Default Setting):**

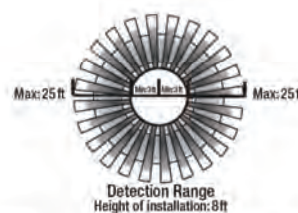
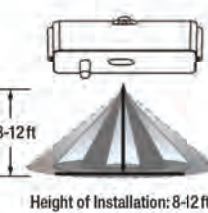
Motion	100% lumen output
±5min with no motion	30% lumen output
±60min with no motion	Off

**Daylight (Default Setting):** 5tc/24H

**For customized settings:** Purchase remote control separately and refer to the Vapor Tight Remote document LEDLUM015 for further instructions.

### Emergency Battery Backup:

Activates when normal power supply to the fixture fails, providing a minimum of 500 lumens for at least 90 minutes.



### Ordering Information

Item Number	Ordering Abbreviation	Ingress Protection	Power (W)	Input Voltage	Color Temp. (CCT)	Total Fixture Lumens	Diffuse Lens	LPW*	Diffuse Lens	DLC** Clear Lens	Diffuse Lens	Options
<b>2ft Vapor Tight</b>												
74530	VAPOR1A/025UNV0840/24ECGR	IP65	25	120-277	4000K	3100	2800	135	121	Pm	Std	—
74531	VAPOR1A/025UNV0840/24ECGR	IP65	25	120-277	5000K	3100	2800	137	123	Pm	Std	—
74532	VAPOR1B/040UNV0840/24ECGR	IP65	25	120-277	4000K	3100	2800	135	121	Pm	—	Sensor
74533	VAPOR1B/040UNV0840/24ECGR	IP65	25	120-277	5000K	3100	2800	137	123	Pm	—	Sensor
60074	VAPOR1B/040UNV0840/24ECGR	IP65	25	120-277	4000K	3100	2800	135	121	Pm	—	Emergency
60075	VAPOR1B/040UNV0840/24ECGR	IP65	25	120-277	5000K	3100	2800	137	123	Pm	—	Emergency
<b>4ft Vapor Tight</b>												
74534	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	4000K	2600	2300	127	114	Pm	—	—
74535	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	5000K	2600	2300	128	116	Pm	—	—
74536	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	4000K	2600	2300	127	114	Pm	—	Sensor
74537	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	5000K	2600	2300	128	116	Pm	—	Sensor
60043	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	4000K	2500	2300	130	116	Pm	—	Emergency
60044	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	5000K	2500	2300	130	115	Pm	—	Emergency
60045	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	4000K	2500	2300	130	114	Pm	—	Sensor, Emergency
60046	VAPOR1B/040UNV0840/48ECGR	IP65	20	120-277	5000K	2500	2300	130	115	Pm	—	Sensor, Emergency
74376	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	4000K	5300	4600	139	120	Pm	Std	—
74377	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	5000K	5300	4700	137	122	Pm	Std	—
74378	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	4000K	5300	4500	139	118	Pm	Std	Sensor
74379	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	5000K	5300	4600	137	119	Pm	Std	Sensor
74554	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	4000K	5300	4600	139	120	Pm	Std	Emergency
74555	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	5000K	5300	4700	137	122	Pm	Std	Emergency
74556	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	4000K	5400	4600	140	116	Pm	Std	Sensor, Emergency
74557	VAPOR1B/040UNV0840/48ECGR	IP65	40	120-277	5000K	5400	4600	137	119	Pm	Std	Sensor, Emergency
74558	VAPOR1A/050H/0840/48ECGR	IP65	50	347-480	4000K	5700	—	111	—	Std	—	—
74559	VAPOR1A/050H/0840/48ECGR	IP65	50	347-480	5000K	5700	—	111	—	Std	—	—
60376	VAPOR1B/050H/0840/48ECGR	IP65	50	347-480	4000K	5700	—	111	—	Std	—	—
60377	VAPOR1B/050H/0840/48ECGR	IP65	50	347-480	5000K	5700	—	111	—	Std	—	—
60047	VAPOR1B/040UNV0840/48ECGR	IP67	40	120-277	4000K	5300	4600	139	120	Pm	—	—
60048	VAPOR1B/040UNV0840/48ECGR	IP67	40	120-277	5000K	5300	4700	137	122	Pm	—	—
60049	VAPOR1B/040UNV0840/48ECGR	IP67	40	120-277	4000K	5300	4600	139	120	Pm	—	Sensor
60050	VAPOR1B/040UNV0840/48ECGR	IP67	40	120-277	5000K	5300	4700	137	122	Pm	—	Sensor
<b>8ft Vapor Tight</b>												
60355	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	4000K	8750	—	135	—	Pm	—	—
60356	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	5000K	8750	—	135	—	Pm	—	—
60357	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	4000K	8750	—	135	—	Pm	—	Sensor
60358	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	5000K	8750	—	135	—	Pm	—	Sensor
60359	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	4000K	8750	—	135	—	Pm	—	Emergency
60360	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	5000K	8750	—	135	—	Pm	—	Emergency
60361	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	4000K	8750	—	135	—	Pm	—	Sensor, Emergency
60362	VAPOR1B/065UNV0840/96ECGR	IP65	65	120-277	5000K	8750	—	135	—	Pm	—	Sensor, Emergency
60363	VAPOR1B/065UNV0840/96ECGR	IP65	65	347-480	4000K	8750	—	135	—	Pm	—	—
60364	VAPOR1B/065UNV0840/96ECGR	IP65	65	347-480	5000K	8750	—	135	—	Pm	—	—
60365	VAPOR1B/065UNV0840/96ECGR	IP65	65	347-480	4000K	8750	—	135	—	Pm	—	Sensor
60366	VAPOR1B/065UNV0840/96ECGR	IP65	65	347-480	5000K	8750	—	135	—	Pm	—	Sensor

\*LPW per LED luminaire

\*\*DLC per UL1598, Part 1, Table 1, Column 1

### Accessories and Replacement Parts

Item Number	Ordering Abbreviation	Item Description
74310	VAPOR1A/REMOTE	Vapor Tight Sensor Remote compatible with VAPOR1A
74341	VAPOR1B/REMOTE	Vapor Tight Sensor Remote compatible with VAPOR1B and VAPOR2B
74744	2ft Diffused Lens	2ft Diffused Lens
74558	VAPOR1A/LENZ4805	4ft Diffused Lens
74443	VAPOR1A/LENZ4805	4ft Replacement Lens
74820	VAPOR1A/CONNBL	Tandem Wiring Connector

### DLC Listing

Item	Ordering Abbreviation	Linear Ambient Diffuse Lens	Clear Lens	Stairwell/Passageway Clear Lens	Stairwell/Passageway Diffuse Lens	Low-Bay Diffuse Lens	Low-Bay Clear Lens	Outdoor Canopy Clear Lens	Outdoor Canopy Diffuse Lens
2ft Vapor Tight									
74530	VAPOR1A/025UNV0840/24ECGR	P08PTE8	PSN1P79						PL0505H45AMM
74531	VAPOR1A/025UNV0840/24ECGR	PL0505H45AMM	PL0505H45AMM						PL1404E230
74532	VAPOR1B/040UNV0840/24ECGR	PL1404E230	PL1404E230						PL1404E230
74533	VAPOR1B/040UNV0840/24ECGR	PL1404E230	PL1404E230						PL1404E230
60074	VAPOR1B/040UNV0840/24ECGR	PL1404E230	PL1404E230						PL1404E230
60075	VAPOR1B/040UNV0840/24ECGR	PL1404E230	PL1404E230						PL1404E230
4ft Vapor Tight									
74534	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
74535	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
74536	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
74537	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
60043	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
60044	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
60045	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
60046	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
60047	VAPOR1B/040UNV0840/48ECGR	PL1404E230	PL1404E230						PL1404E230
74376	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74377	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74378	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74379	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74380	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74381	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74382	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74383	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74384	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74385	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74386	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74387	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74388	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74389	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74390	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74391	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74392	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74393	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74394	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74395	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74396	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74397	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74398	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74399	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74400	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74401	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74402	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74403	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74404	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74405	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74406	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74407	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74408	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74409	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74410	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74411	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74412	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74413	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74414	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74415	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74416	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74417	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74418	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74419	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74420	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74421	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74422	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74423	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74424	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74425	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74426	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74427	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74428	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74429	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74430	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74431	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74432	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74433	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74434	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74435	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74436	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74437	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74438	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74439	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74440	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74441	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74442	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74443	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74444	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74445	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74446	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74447	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74448	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74449	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74450	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74451	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74452	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74453	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74454	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74455	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74456	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74457	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74458	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74459	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74460	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74461	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74462	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74463	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74464	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74465	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74466	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74467	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74468	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74469	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74470	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E230
74471	VAPOR1B/040UNV0840/48ECGR	P08PTE8	PVYCFR6	PL1404E230	PL1404E230				PL1404E



# GENERAL STRUCTURAL NOTES

## DESIGN CRITERIA

BUILDING CODE: 2022 CALIFORNIA BUILDING CODE, REFERRED TO AS "THE CODE"  
GOVERNING JURISDICTION: CITY OF PEBBLE BEACH, CA  
OCCUPANCY TYPE: S-2

ROOF LIVE LOADS:  
DISTRIBUTED = 12 PSF \*  
POINT LOAD = 300 LBS \*\*

\* NON-CONCURRENT W/ PV PANEL DEAD LOAD & WIND LOAD  
\*\* CONCURRENT W/ PV PANEL DEAD

SNOW LOADS:  
MAXIMUM GROUND SNOW LOAD = 0 PSF

WIND ANALYSIS: DIRECTIONAL PROCEDURE PER ASCE 7, CHAPTER 27  
BASIC WIND SPEED, V = 91 MPH  
WIND EXPOSURE = CATEGORY C  
RISK CATEGORY = II  
GUST EFFECT FACTOR, G = 0.85  
INTERNAL PRESSURE COEFFICIENT, GCpI = +0

SEISMIC CRITERIA:  
SITE CLASSIFICATION = D  
RISK CATEGORY = II  
SEISMIC DESIGN CATEGORY = D

SEISMIC CRITERIA:  
SEISMIC ANALYSIS: ASCE 7-16, CHAPTER 15  
SEISMIC FORCE-RESISTING SYSTEM = INVERTED PENDULUM  
RESPONSE MODIFICATION COEFFICIENT, R = 2.0  
SYSTEM OVERSTRENGTH FACTOR, Ωo = 2.0  
DEFLECTION AMPLIFICATION FACTOR, Cd = 2.0  
SEISMIC IMPORTANCE FACTOR, IE = 1.0  
REDUNDANCY FACTOR, ρ = 1.0 longitudinal (3+ COLUMN ARRAY)  
REDUNDANCY FACTOR, ρ = 1.3 longitudinal (2 COLUMN ARRAY)  
REDUNDANCY FACTOR, ρ = 1.3 transverse  
Ss = 1.310g, Sds = 1.056g  
S1 = 0.495g  
SEISMIC BASE SHEAR.....Cs = 0.528W

## GENERAL

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. DO NOT SCALE THE DRAWINGS. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES. SUBMIT CLARIFICATION REQUEST PRIOR TO PROCEEDING WITH WORK.
- ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY DEVIATION FROM THE APPROVED SET OF CONTRACT DOCUMENTS SHALL ONLY BE MADE AFTER WRITTEN APPROVAL BY THE ENGINEER OF RECORD. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
- THE STRUCTURES IN THESE CONTRACT DOCUMENTS ARE PROPRIETARY TO TEICHERT ENERGY & UTILITIES GROUP, INC. DBA TEICHERT SOLAR. THESE STRUCTURES MAY NOT GO OUT TO BID AND MUST BE BUILT BY TEICHERT SOLAR.
- NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK. UNLESS NOTED OTHERWISE, DETAILS IN STRUCTURAL DRAWINGS ARE TYPICAL AS INDICATED BY CUTS, REFERENCES OR TITLES.
- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODE, AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- ALL REFERENCED STANDARDS (i.e. ACI, AISC, ASTM, ETC.) SHOWN IN THESE DOCUMENTS SHALL BE PER THE LATEST ADOPTED EDITION AS LISTED IN CHAPTER 35 OF THE CODE.
- CONTRACTOR TO PROVIDE A LIST OF ALL PROPOSED SUBSTITUTIONS, WITH APPLICABLE MANUFACTURER'S ICC/IAPMO REPORTS, TO ARCHITECT, ENGINEER OF RECORD AND GOVERNING JURISDICTION FOR REVIEW AND APPROVAL BEFORE FABRICATION.

## POST-INSTALLED CONCRETE ANCHORS

- POST-INSTALLED ANCHORAGE SHALL BE AS DETAILED ON THE PLANS. SUBSTITUTION OF PRODUCTS SPECIFICALLY DETAILED IN THESE DRAWINGS SHALL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.
- SPECIAL INSPECTION IS REQUIRED FOR ALL POST-INSTALLED ANCHORS, U.N.O.
- WHERE ANCHOR TYPE IS NOT NOTED OR AN ALTERNATE BRAND IS PREFERRED, THE FOLLOWING PRODUCTS ARE ACCEPTABLE TO BE SUBMITTED FOR A SUBSTITUTION REQUEST:

### EXPANSION ANCHORS

- HILTI KWIK BOLT TZ (ICC ESR-1917)
  - SIMPSON STRONG-BOLT-2 (ICC ESR-3037)
  - POWERS POWER-STUD +SD2 (ICC ESR-2502)
  - ALTERNATE APPROVED BY THE SEOR
- ALL CONCRETE ANCHORS WHICH ARE EXPOSED TO THE WEATHER SHALL BE STAINLESS STEEL OR HOT DIP GALVANIZED.

## FOUNDATIONS

- FOUNDATION DESIGN BASED ON THE FOLLOWING GEOTECHNICAL REPORT: COMPANY: ACHIEVEMENT ENGINEERING CORP.  
DATE: OCTOBER 27, 2023  
REPORT NUMBER: 5640
- DRILLED PIERS ARE DESIGNED BASED ON THE FOLLOWING INFORMATION: ALLOWABLE SKIN FRICTION = 417 PSF (2 - 9 FEET BELOW GRADE)  
= 583 PSF (>9 FEET BELOW GRADE)  
ALLOWABLE LATERAL BEARING PRESSURE = 170 PCF\* (2 - 9 FEET BELOW GRADE)  
= 200 PCF\* (>9 FEET BELOW GRADE)  
  
\*½ INCREASE FOR TEMPORARY LOADS SUCH AS SEISMIC AND WIND FORCE.
- DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE WATER, GROUND WATER, OR SEEPAGE SHOULD BE PERFORMED, IF REQUIRED.
- FOUNDATIONS SHALL BE PLACED AND ESTIMATED ACCORDING TO DEPTHS SHOWN ON DRAWINGS. SHOULD SOIL ENCOUNTERED AT THESE DEPTHS NOT BE APPROVED BY THE INSPECTOR OR SOILS ENGINEER, FOUNDATION ELEVATIONS WILL BE ALTERED.
- FOOTING BACKFILL AND UTILITY TRENCH BACKFILL SHALL BE MECHANICALLY COMPACTED IN LAYERS IN ACCORDANCE WITH THE SOILS REPORT OR BACKFILLED WITH 2-SACK SAND CEMENT SLURRY AND APPROVED BY THE SPECIAL INSPECTOR. SOILS REPORT SHALL TAKE PRECEDENT WHEN RECOMMENDATION GIVEN.
- CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- SOIL REMOVAL AND RECOMPACTION SHALL BE PER THE SOILS REPORT AND APPROVED CONTRACT DOCUMENTS.
- THE DRILLED PIERS MUST BE INSPECTED BY THE SOILS ENGINEER PRIOR TO PLACING CONCRETE AND REINFORCING STEEL. ADJUST SHAFT LENGTHS UNDER DIRECTION OF THE SOILS ENGINEER AND THE OWNER'S REPRESENTATIVE BASED ON SOIL CONDITIONS AT TIME OF DRILLING.
- PRECAUTIONS SHOULD BE TAKEN DURING THE INSTALLATION OF PIERS TO MINIMIZE THE POSSIBILITY OF CAVING. PIERS SPACED CLOSER 3 PIER DIAMETERS SHOULD BE DRILLED AND FILLED ALTERNATELY, ALLOWING THE CONCRETE TO SET AT LEAST EIGHT HOURS BEFORE DRILLING AN ADJACENT HOLE. PIER EXCAVATIONS SHOULD BE FILLED WITH CONCRETE WITHIN 72 HOURS OR AS NOTED IN THE SOILS REPORT AFTER DRILLING AND INSPECTION, WHICHEVER IS SOONER.
- KEEP EXCAVATIONS FREE OF WATER BEFORE PLACING CONCRETE UNLESS OTHERWISE APPROVED BY THE SOILS ENGINEER. IF UNABLE TO SEAL OFF WATER FLOW, PER THE APPROVAL OF THE SOILS ENGINEER, ALLOW WATER LEVEL TO ATTAIN ITS NORMAL LEVEL AND PLACE CONCRETE BY THE TREMIE METHOD OR OTHER APPROVED METHOD.
- PLACE REINFORCING STEEL IN ONE CONTINUOUS UNIT AND ACCURATELY HOLD SECURELY IN FINAL POSITION USING CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.
- AN UNREINFORCED HEIGHT OF 18 INCHES AT THE BOTTOM OF THE SHAFT IS ACCEPTABLE.
- CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF ACI 336.3R, LATEST EDITION.

## CONCRETE

- ALL CONCRETE CONSTRUCTION SHALL CONFORM WITH THE CODE AND WITH THE PROVISIONS OF ACI 318 AND ACI 301.
- CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND APPROVED BY THE STRUCTURAL ENGINEER.
  - MIX DESIGN METHODS (TEST HISTORY OR TRIAL BATCH METHOD) PER THE CODE SHALL BE USED TO PROPORTION CONCRETE. SUBMIT MIX DESIGN METHOD DATA
  - MIX DESIGNS SHALL SATISFY EITHER THE SHRINKAGE CRITERIA OR THE W/C RATIO AND TOTAL WATER CRITERIA.
- SCHEDULE OF STRUCTURAL CONCRETE PERFORMANCE REQUIREMENTS:

MINIMUM CONCRETE PROPERTIES			
ELEMENT	fc @ 28 DAYS [PSI]	MAX W/C	MAX DENSITY [PCF]
PIER FOUNDATIONS	3,000	0.50	150
EQUIPMENT PADS & MISC.	3,000	0.50	150

- PORTLAND CEMENT SHALL CONFORM TO ASTM C-150 TYPE II
- AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C33 AND PROJECT SPECIFICATIONS. EXCEPTIONS MAY BE USED ONLY WITH PERMISSION OF THE STRUCTURAL ENGINEER.
- CONCRETE MIXING OPERATION, ETC. SHALL CONFORM TO ASTM C94.
- PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 301 AND PROJECT SPECIFICATIONS. CLEAN AND ROUGHEN TO MIN. ½" AMPLITUDE.
- CONCRETE SURFACES AGAINST WHICH NEW CONCRETE IS TO BE PLACED, ALL REINFORCING BARS, ANCHOR BOLTS, AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
- PIPES OR CONDUITS LARGER THAN 4" DIAMETER SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY PERMITTED OR APPROVED BY STRUCTURAL ENGINEER. PIPES OR CONDUITS SHALL NOT DISPLACE OR INTERRUPT REINFORCING BARS. SPACE THE PIPES OR CONDUITS SUCH THAT PROPER CONCRETE PLACEMENT AND CONSOLIDATION IS ACHIEVED.
- PROVIDE MIN. ½" CHAMFER ON ALL EXPOSED CORNERS.
- THE STEEL STRUCTURES MAY BE INSTALLED 48 HOURS AFTER THE FOUNDATIONS HAVE BEEN CAST OR AFTER CONCRETE REACHES A MINIMUM COMPRESSIVE STRENGTH OF 1,500-PSI, WHICHEVER COMES FIRST. BREAK TESTS NOT REQUIRED IF WAITING UNTIL 48 HOURS TO ERECT STEEL.

## REINFORCING STEEL

- REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19 OF THE CODE, ASTM A615 (A706 WHERE NOTED ON PLANS), GRADE 60 U.N.O.
- BARS SHALL BE CLEAN OF RUST, GREASE, OR OTHER MATERIALS LIKELY TO IMPAIR BOND. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- REINFORCING BAR SPLICES SHALL, IN CONCRETE, CONFORM TO THE PROVISIONS OF ACI 318. LAP ALL HORIZONTAL BARS AT CORNERS AND INTERSECTIONS.
- BARS IN SLABS SHALL BE SECURELY SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, PRIOR TO PLACING CONCRETE.
- REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI 315.
- COMPLETE AND DETAILED REINFORCING PLACEMENT DRAWINGS SHALL BE PREPARED AND SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION IN ACCORDANCE WITH SPECIFICATIONS AND APPLICABLE CODES. THE APPROVED DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO PLACING OF CONCRETE.
- REBAR SPACINGS GIVEN ARE MAXIMUM ON CENTER WHETHER STATED AS "O.C." OR NOT. UNLESS A SPECIFIED LENGTH IS GIVEN, ALL REBAR IS CONTINUOUS WHETHER STATED AS "CONT." OR NOT.
- MECHANICAL BAR SPLICES (COUPLERS) SHALL BE USED WHERE SPECIFIED ON PLANS. THEY MAY ALSO BE USED AT THE CONTRACTOR'S OPTION IN LIEU OF LAP SPLICES AND WHERE REINFORCING IS SHOWN CONTINUOUS THROUGH CONSTRUCTION JOINTS. UNLESS NOTED OTHERWISE, ALL MECHANICAL BAR SPLICES SHALL BE "TYPE 2" AS DEFINED BY ACI 318.
- COUPLERS SHALL BE AND BE LENTON A2 SERIES MECHANICAL SPLICES (IAPMO ER-0129), OR EQUIVALENT, AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- CONTINUOUS INSPECTION OF CONCRETE SHALL INCLUDE INSPECTION DURING INSTALLATION OF REINFORCING STEEL. INSPECTION SHALL BE SCHEDULED SO THAT PLACEMENT OF REINFORCING STEEL, CONDUIT, SLEEVES, AND EMBEDDED ITEMS, MAY BE CORRECTED PRIOR TO THE SCHEDULED POUR.
- CONCRETE PROTECTION FOR REINFORCEMENT:
  - CAST-IN-PLACE CONCRETE. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

MINIMUM CONCRETE COVER		
ELEMENT	COVER	TOLERANCE (+/-)
PERMANENTLY CAST AGAINST OR PERMANENTLY EXPOSED TO EARTH	3"	¾"
EXPOSED TO EARTH OR WEATHER		
a) #6 THROUGH #18 BAR	2"	¾"
b) #5 BAR OR SMALLER	1½"	¾"
NOT EXPOSED TO WEATHER OR CAST AGAINST GROUND	¾"	¼"

## SUBMITTALS

- THE STRUCTURAL SHOP DRAWING REVIEW IS INTENDED TO HELP THE ENGINEER VERIFY THE DESIGN CONCEPT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK THEIR OWN SHOP DRAWINGS.
- THE STRUCTURAL SHOP DRAWINGS WILL BE RETURNED FOR RESUBMITTAL IF A CURSORY REVIEW SHOWS MAJOR ERRORS WHICH SHOULD HAVE BEEN FOUND BY THE CONTRACTOR'S CHECKING.
- THE FOLLOWING SHOP DRAWINGS ARE NOT REQUIRED FOR SUBMITTAL FOR STRUCTURAL REVIEW:
  - SHORING AND BRACING.
  - UNSPICED REBAR AT SLAB-ON-GRADE AND SPREAD FOOTINGS.
  - FORMWORK.
  - STRUCTURAL STEEL MILL REPORTS.
- THE FOLLOWING SHOP DRAWINGS (AND CALCULATIONS WHEN APPLICABLE) ARE REQUIRED FOR SUBMITTAL FOR STRUCTURAL REVIEW:
  - CONCRETE MIX DESIGNS, INCLUDING STRENGTH TEST RESULTS
  - REINFORCING STEEL (EXCEPT WHERE NOTED BY NOTE 3 ABOVE)
  - STRUCTURAL STEEL
  - ANCHOR ROD CUT SHEET WITH DIAMETER, LENGTH, AND MATERIAL STRENGTH
  - WELDING PROCEDURE SPECIFICATIONS
- ANY SUBMITTAL OF A DETAIL SHEET WITH ADDED INFORMATION NOT SHOWN ON PLANS SHALL BE ACCOMPANIED BY LOCATION PLAN IDENTIFYING THE MEMBERS INVOLVED AND CLOUDING AROUND ADDED INFORMATION.
- THE SHOP DRAWINGS SHALL REFERENCE THE DATA OF THE DESIGN USED TO PRODUCE THE SUBMITTAL.
- CONTRACTOR/SUBCONTRACTOR TO PROVIDE DIGITAL SET OF SHOP DRAWINGS FOR REVIEW BY THE STRUCTURAL ENGINEER. DIGITAL SET WILL BE RETURNED TO THE CONTRACTOR FOR DISTRIBUTION.

## COLD FORMED STEEL

- ALL COLD-FORMED METAL FRAMING CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISI S100 "SPECIFICATIONS FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS"
- ALL COLD-FORMED STEEL SHALL CONFORM TO THE FOLLOWING (U.N.O.):

43 MIL / 18GA AND LIGHTER	ASTM A1003, GR 33 OR ASTM 653, GR 33
54 MIL / 16 GA AND HEAVIER	ASTM A1003, GR 55 OR ASTM 653, GR 55 MIN. Fy = 55 ksi, MIN. Fu = 70 ksi
- ALL COLD-FORMED STEEL SHALL HAVE A MINIMUM COATING PROTECTION G90.
- WELDING IS NOT PERMITTED UNLESS SPECIFICALLY APPROVED BY THE SEOR.
- ALL APPROVED WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED FOR ALL APPROPRIATE DIRECTIONS COMPLYING WITH AWS D1.3. WELDING RODS SHALL CONFORM TO THE FOLLOWING:

43 MIL / 18GA AND LIGHTER	E60XX
54 MIL / 16 GA AND HEVIER	E70XX OR E8013
COLD FORMED TO STRUCTURAL STEEL	E70XX LOW HYDROGEN
- WIRE TYING OF FRAMING COMPONENTS SHALL NOT BE PERMITTED.
- TEMPORARY BRACING REQUIREMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL SCREWS SHALL BE FULLY DRIVEN AND PROTRUDE THE LARGER OF 3 THREADS OR 1/4" THROUGH THE LAST MATERIAL JOINED. THERE SHALL BE NO SPACE BETWEEN JOINING MEMBERS AT THE SCREW LOCATION.
- ALL FIELD CUTTING OF MEMBERS SHALL BE BY SAWING OR SHEARING. TORCH OR PLASMA CUTTING OF MEMBERS SHALL NOT BE PERMITTED.
- ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS OR AS REQUIRED ON AN ANGULAR FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD POSITIVELY IN PLACE UNTIL PROPERLY FASTENED.
- SPLICING OF PURLINS OR OTHER LOAD CARRYING MEMBERS SHALL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD.
- WHEN CLIP ANGLES WITH SCREW CONNECTIONS ARE USED TO ATTACH A COMPONENT TO THE PRIMARY STRUCTURE, THE CLIP ANGLE SHALL BE FASTENED TO THE PRIMARY STRUCTURE FIRST; THEN THE COMPONENT SHALL BE BROUGHT TO BEAR ON THE STRUCTURE AND FASTENED TO THE CLIP ANGLE.
- MEMBERS SHALL BE IDENTIFIED PER SECTION 2202A.1 OF 2022 CBC PART 2, VOL. 2.
- ALL EXTERIOR SCREWS SHALL BE ELCO DRILL-FLEX (ICC ESR-3332) OR ITW BUILDTEX TEKS SELECT (ICC ESR-3223) UNLESS APPROVED BY THE SEOR.

## STRUCTURAL INSPECTION AND TESTING

THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL REQUIRE SPECIAL INSPECTION PER CHAPTER 17 OF THE CODE. U.N.O.

TESTING AND INSPECTION		
	INSPECTIONS	TESTING
STEEL CONSTRUCTION	1705A.2	1705A.13
CONCRETE CONSTRUCTION	1705A.3	1705A.3
SOILS	1705A.6	1705A.6
CAST-IN-PLACE DEEP FOUNDATIONS	1705A.8	1705A.8

- THE SPECIAL INSPECTIONS IDENTIFIED ON PLANS ARE, IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THOSE INSPECTIONS REQUIRED BY THE GOVERNING JURISDICTION. SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF AN INSPECTOR FROM THE GOVERNING JURISDICTION IS SUBJECT TO REMOVAL OR EXPOSURE.
- FOR CONTINUOUS INSPECTION, WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED IN ACCORDANCE WITH THE PROVISIONS OF THE CODE, IT IS THE AGENT'S RESPONSIBILITY TO EMPLOY A SUFFICIENT NUMBER OF INSPECTORS TO ASSURE THAT ALL WORK IS INSPECTED IN ACCORDANCE WITH THOSE PROVISIONS.
- THE SPECIAL INSPECTORS MUST BE CERTIFIED BY THE GOVERNING JURISDICTION IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION. EXCEPTIONS:
  - SOILS INSPECTIONS BY THE SOILS ENGINEER OF RECORD OR PROJECT INSPECTOR
  - WHEN WAIVED BY THE GOVERNING JURISDICTION
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST TWO WORKING DAYS PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
- PROVIDE SPECIAL INSPECTION FOR CONNECTIONS BOLTED WITH A325 AND A490 BOLTS. INSPECTIONS SHALL BE DONE PER APPROVED NATIONALLY RECOGNIZED STANDARDS AND THE REQUIREMENTS OF THE CODE AND THE GOVERNING JURISDICTION. WHILE THE WORK IS IN PROGRESS, THE SPECIAL INSPECTOR SHALL DETERMINE THE BOLTS, NUTS, WASHERS AND PAINT; BOLTED PARTS; AND INSTALLATION AND TIGHTENING MEET THE STANDARDS REQUIREMENTS.
- THE SPECIAL INSPECTOR FOR HIGH STRENGTH BOLTED CONNECTIONS SHALL:
  - OBSERVE THE CALIBRATION PROCEDURES WHEN SUCH PROCEDURES ARE REQUIRED BY THE PLANS OR SPECIFICATIONS.
  - MONITOR THE INSTALLATION OF BOLTS TO DETERMINE THAT ALL PLIES OF CONNECTED MATERIALS HAVE BEEN DRAWN TOGETHER.
  - MONITOR THAT THE SELECTED PROCEDURE IS PROPERLY USED TO TIGHTEN ALL BOLTS.
- IF DEEMED NECESSARY, THE SPECIAL INSPECTOR SHALL PROVIDE PROGRESS REPORTS AND A FINAL REPORT TO THE STRUCTURAL ENGINEER.
- THE SPECIAL INSPECTOR SHALL ENSURE THAT ALL DEFICIENCIES NOTED BY THE STRUCTURAL ENGINEER IN STRUCTURAL OBSERVATION REPORTS ARE CORRECTED. SUCH COMPLIANCE SHALL BE REFERENCED IN SPECIAL INSPECTOR REPORT.
- THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE GOVERNING JURISDICTION, FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND, EQUIPMENTS.
- PERIODIC INSPECTION SHALL OCCUR FREQUENTLY ENOUGH TO INSPECT ALL OF THE INSTALLED ITEMS AND TO PERIODICALLY WITNESS THE INSTALLATION OF THE ITEMS.

## STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH AISC 360 AND AISC 303.
- ALL STRUCTURAL STEEL SHALL CONFORM TO THE ASTM DESIGNATION AS INDICATED BELOW (U.N.O.):

MINIMUM MATERIAL PROPERTIES	
ELEMENT	ASTM
BASE PLATES & CAP PLATES	A572, GR 50
ALL OTHER PLATES	A36, GR 36 OR DUAL GRADE
WF MATERIAL	A992, GR 50
HSS MATERIAL	A500, GR C, 50 KSI
STRUCTURAL PIPES	A53, GR B
HIGH STRENGTH BOLTS	A325
MACHINE BOLTS	A307
ANCHOR BOLTS	F1554, GR 105
- THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STEEL FOR STRUCTURAL ENGINEER'S REVIEW BEFORE FABRICATION.
- HOLES IN STEEL SHALL BE 1/16" LARGER DIAMETER THAN NOMINAL SIZE OF BOLT USED, EXCEPT AS NOTED. COLUMN BASE PLATE HOLES MAY BE OVERSIZED PER AISC MANUAL OR AS NOTED.
- ALL STRUCTURAL STEEL SURFACES THAT ARE ENCASED IN CONCRETE, MASONRY, OR SPRAY ON FIREPROOFING, OR ARE ENCASED BY BUILDING FINISH, SHALL BE LEFT UNPAINTED.
- ALL STRUCTURAL STEEL AND MISCELLANEOUS METAL EXPOSED TO THE WEATHER SHALL BE HOT DIP GALVANIZED OR PAINTED AFTER FABRICATION, U.N.O.
- GALVANIZING AT FIELD WELDS AND DAMAGE SHALL BE REPAIRED WITH A GALVANIZING REPAIR PAINT ACCORDING TO ASTM A780.
- TIGHTEN HIGH STRENGTH BOLTS TO "SNUG-TIGHT" CONDITION PER AISC SPECIFICATION FOR STRUCTURAL JOINTS, U.N.O.
- PROVIDE BEVELED WASHERS PER ANSI B18.23.1 AS REQUIRED ON SLOPED SURFACES.
- GROUT OTHER SHALL BE NON-SHRINK, NON-METALLIC GROUT, MEETING ASTM C-1107, MIXED AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- TIGHTEN ANCHOR BOLTS TO "SNUG TIGHT" CONDITION PER AISC SPECIFICATIONS, U.N.O.
- WELDING:
  - ALL WELDS SHALL BE IN CONFORMITY WITH THE PROJECT SPECIFICATIONS AND AWS D1.1. SEE SPECIAL INSPECTION SECTION FOR WELDING INSPECTION REQUIREMENTS.
    - ALL WELDING IS TO BE DONE BY CERTIFIED WELDERS USING E70XX ELECTRODES (U.N.O.).
    - WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED, WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC 360.
    - WELDS TERMINATING AT ENDS OR SIDES, WHERE PRACTICAL, SHALL BE RETURNED CONTINUOUSLY AROUND CORNERS A DISTANCE 2 TIMES THE NOMINAL SIZE OF THE WELD PER AISC 360 SECTION J2.28, U.N.O.
    - ALL FULL-PENETRATION FIELD WELDS SHALL BE ULTRASONICALLY TESTED.
    - ALL TWO-SIDED FILLET WELDS SHOWN SHALL BE WELDED WITH THE SAME (GIVEN) WELD SIZE ON BOTH SIDES.
    - ALL UNSIZED GROOVE OR BUTT WELDS SHOWN SHALL BE COMPLETE PENETRATION.
    - ALL PROVISIONS OF AWS SHALL BE OBSERVED INCLUDING REQUIREMENTS FOR BACK-UP PLATES AND WELD TRANSITIONS WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN.
    - A WRITTEN WELDING PROCEDURE SPECIFICATION SHALL BE SUBMITTED TO THE TESTING LABORATORY. IT SHALL INCLUDE ALL WELDING PROCEDURES TO BE USED AS DESCRIBED IN AWS, CHAPTER 4.
    - WHERE FILLER WELDING IS INDICATED, THE FIELD DESIGNATION IS GIVEN AS A RECOMMENDATION ONLY.

SYSTEM HOST

SYSTEM DEVELOPER



23 LAS COLINAS LN.  
SAN JOSE, CA 95119

STRUCTURAL ENGINEERING AND STEEL CONSTRUCT



10620 Treena Street, Suite 140,  
San Diego, CA 92131

STRUCTURAL ENGINEERING AND STEEL CONSTRUCT

ELECTRICAL CONSTRUCTORS AND ENGINEERS

ARCHITECT OF RECORD

ARCHITECT / ENGINEER OF RECORD



PROJECT

## PEBBLE BEACH COMPANY - EMPLOYEE PARKING LOT

2700 17 MILE DR.  
PEBBLE BEACH, CA 93953

NO. REVISION DATE

DATE:

06.21.23

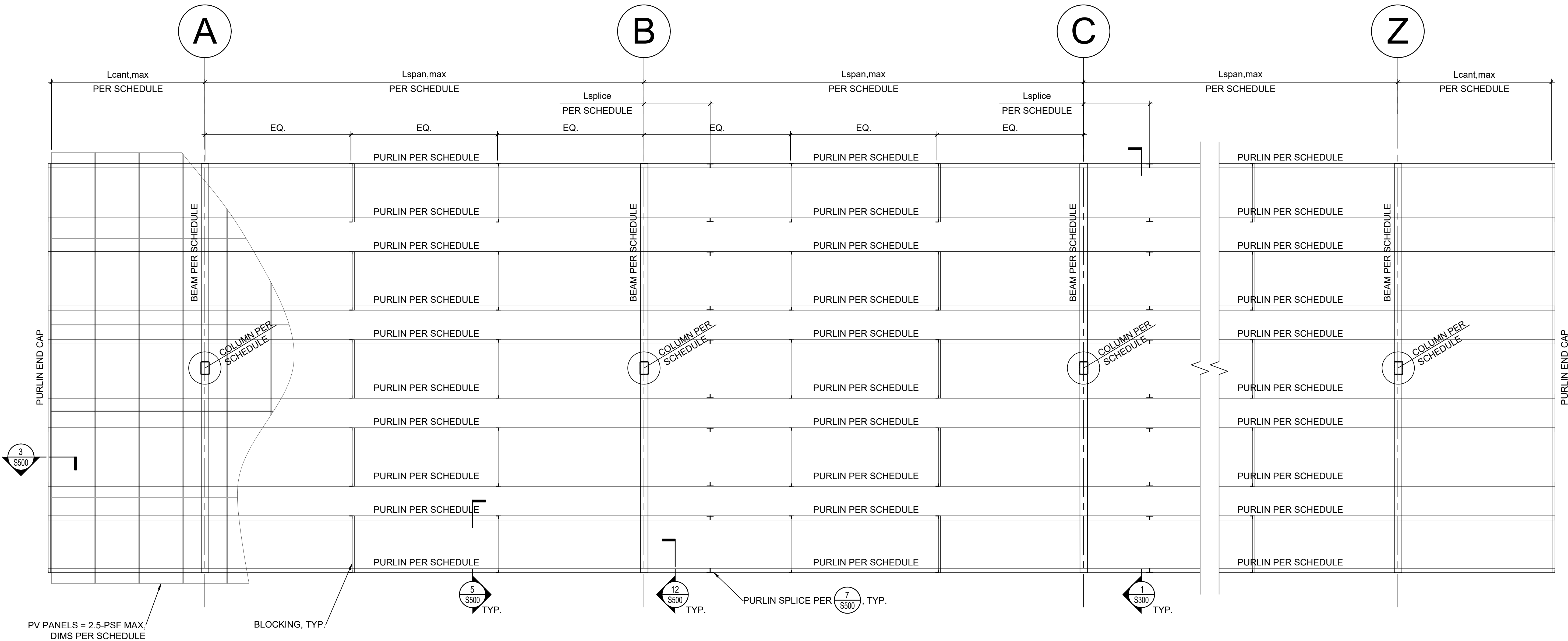
SHEET TITLE

## GENERAL STRUCTURAL NOTES

SHEET NO.:

S100





1 FRAMING PLAN  
SCALE: 1/4" = 1'-0"

MEMBER & DIMENSIONAL SCHEDULE													
ARRAY	ARRAY SIZE	# OF COLUMNS	COLUMN	BEAM	PURLIN	PANEL LENGTH	PANEL WIDTH	MAX SPAN LENGTH, Lspan	MAX CANT. LENGTH, Lcant	SPLICE LENGTH, Lsplice	MAX. COLUMN LENGTH	MIN. CLEARANCE	TILT
1, 6, 9, 10	5x27	3	HSS12x8x5/16	W14x30	10X4X14GA	93.9"	44.6"	37'-7 1/2"	13'-1 3/4"	5'-7 3/4"	17'-0"	13'-6"	7°
7	5x47	5	HSS12x8x5/16	W14x30	10X4X14GA	93.9"	44.6"	37'-7 1/2"	13'-1 3/4"	5'-7 3/4"	17'-0"	13'-6"	7°
8	5x34	4	HSS12x8x5/16	W14x30	10X4X14GA	93.9"	44.6"	37'-7 1/2"	9'-4 5/8"	5'-7 3/4"	17'-0"	13'-6"	7°

2 SCHEDULE  
NO SCALE

SYSTEM HOST

SYSTEM DEVELOPER



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PROJECT

PEBBLE BEACH  
COMPANY - EMPLOYEE  
PARKING LOT

2700 17 MILE DR.  
PEBBLE BEACH, CA 93953

NO. REVISION DATE

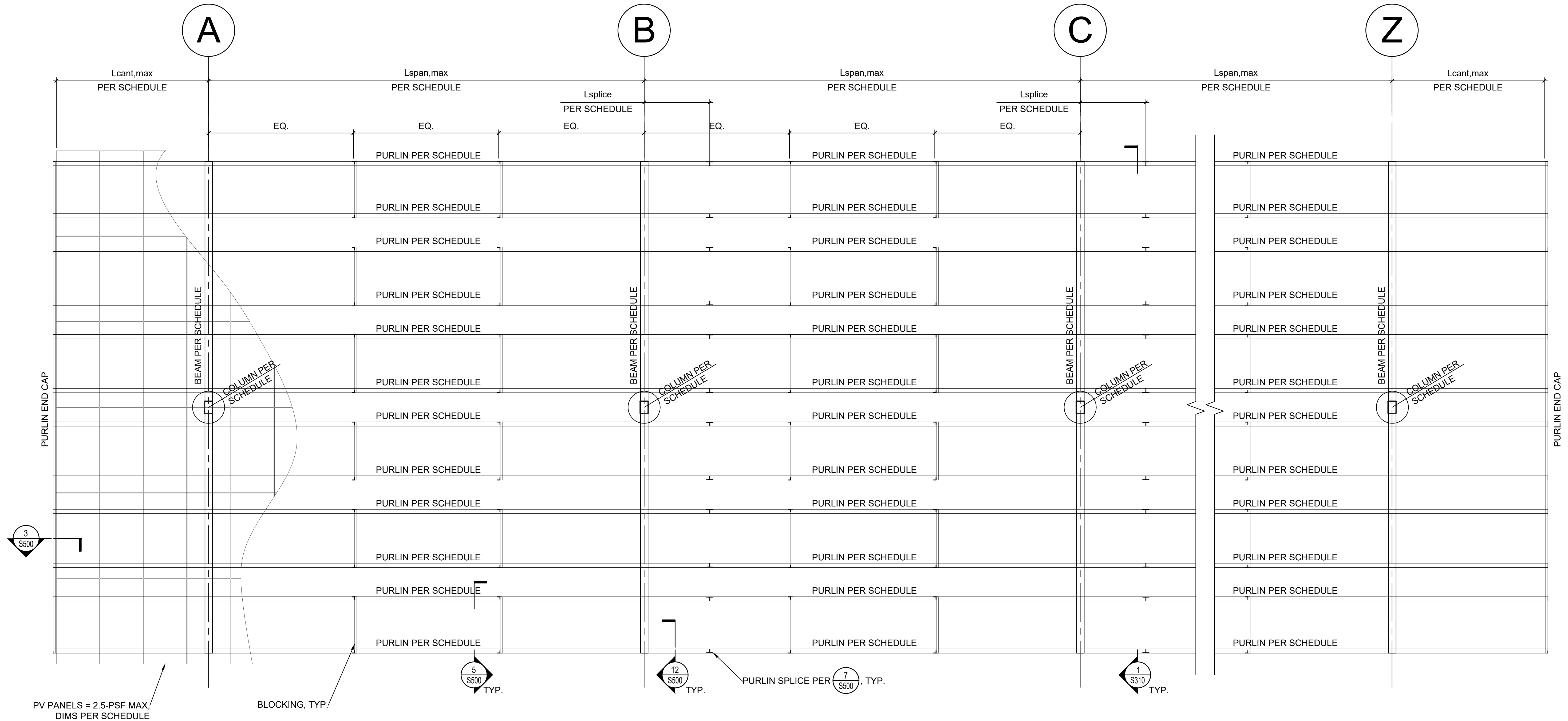
DATE:  
06.21.23

SHEET TITLE

FRAMING PLAN &  
SCHEDULE

SHEET NO.:

S200



1 FRAMING PLAN  
SCALE: 1/4" = 1'-0"

MEMBER & DIMENSIONAL SCHEDULE													
ARRAY	ARRAY SIZE	# OF COLUMNS	COLUMN	BEAM	PURLIN	PANEL LENGTH	PANEL WIDTH	MAX SPAN LENGTH, Lspan	MAX CANT. LENGTH, Lcant	SPLICE LENGTH, Lsplice	MAX. COLUMN LENGTH	MIN. CLEARANCE	TILT
2	6x17	2	HSS12x8x3/8	W14x38	10X4X14GA	93.9"	44.6"	37'-7 1/2"	13'-1 3/4"	-	17'-0"	13'-6"	7°
3	6x24	3	HSS12x8x3/8	W14x43	10X4X14GA	93.9"	44.6"	37'-7 1/2"	9'-4 5/8"	5'-7 3/4"	17'-0"	13'-6"	7°
4	6x27	3	HSS12x8x3/8	W14x43	10X4X14GA	93.9"	44.6"	37'-7 1/2"	13'-1 3/4"	5'-7 3/4"	17'-0"	13'-6"	7°
5	6x32	4	HSS12x8x3/8	W14x43	10X4X14GA	93.9"	44.6"	37'-7 1/2"	9'-4 5/8"	5'-7 3/4"	17'-0"	13'-6"	7°

2 SCHEDULE  
NO SCALE

SYSTEM HOST

SYSTEM DEVELOPER



STRUCTURAL ENGINEERING AND STEEL CONSTRUCT



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PROJECT

PEBBLE BEACH  
COMPANY - EMPLOYEE  
PARKING LOT

2700 17 MILE DR.  
PEBBLE BEACH, CA 93953

NO.	REVISION	DATE

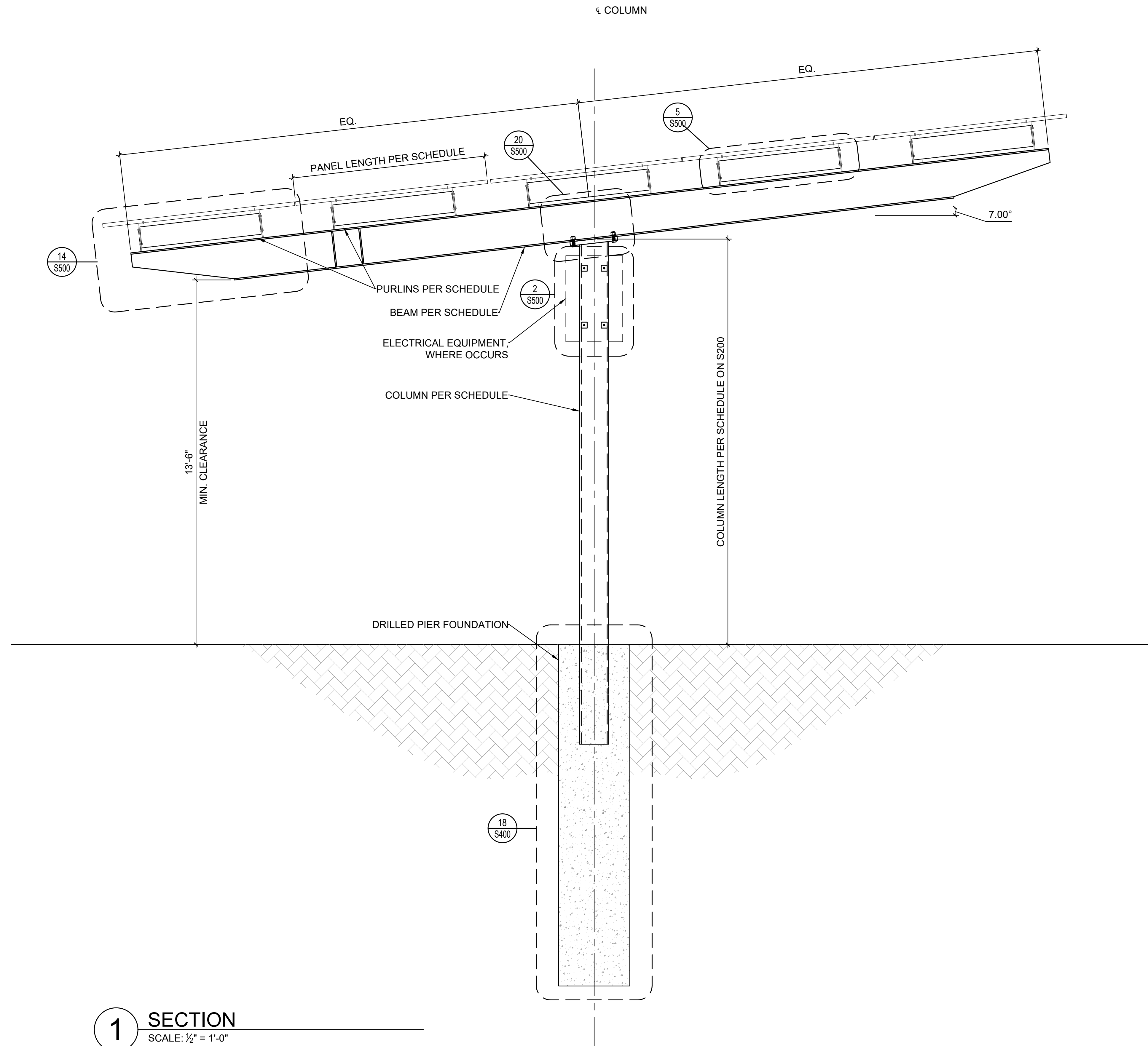
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SHEET TITLE

FRAMING PLAN &  
SCHEDULE

SHEET NO.:

S210



**1 SECTION**  
SCALE: 1/2" = 1'-0"

SYSTEM HOST

SYSTEM DEVELOPER

**SOLAR TECHNOLOGIES**  
CLEAN ENERGY SOLUTIONS  
23 LAS COLINAS LN.  
SAN JOSE, CA 95119

STRUCTURAL ENGINEERING AND STEEL CONSTRUCT

**TEICHERT**  
ENERGY & UTILITIES  
GROUP, INC.

10620 Treena Street, Suite 140,  
San Diego, CA 92131

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PROJECT

**PEBBLE BEACH  
COMPANY - EMPLOYEE  
PARKING LOT**

2700 17 MILE DR.  
PEBBLE BEACH, CA 93953

NO.	REVISION	DATE

DATE: 06.21.23

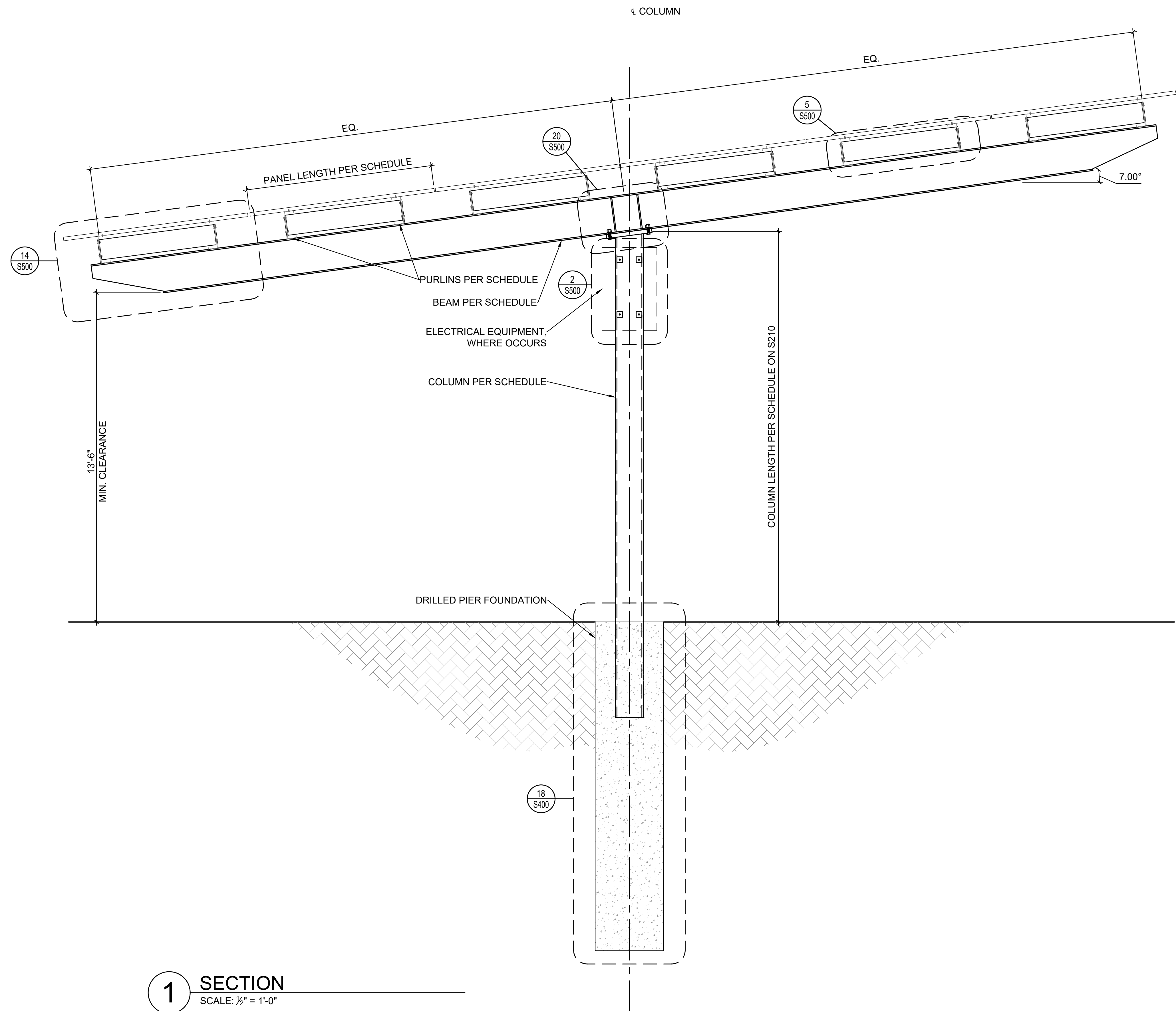
SHEET TITLE

SECTION

SHEET NO.:

**S300**





**1 SECTION**  
SCALE: 1/2" = 1'-0"

SYSTEM HOST

SYSTEM DEVELOPER



STRUCTURAL ENGINEERING AND STEEL CONSTRUCT



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PROJECT

**PEBBLE BEACH  
COMPANY - EMPLOYEE  
PARKING LOT**

2700 17 MILE DR.  
PEBBLE BEACH, CA 93953

NO.	REVISION	DATE

DATE: 06.21.23

SHEET TITLE

SECTION

SHEET NO.:

**S310**



SYSTEM HOST

SYSTEM DEVELOPER



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PROJECT

**PEBBLE BEACH  
COMPANY - EMPLOYEE  
PARKING LOT**

2700 17 MILE DR.  
PEBBLE BEACH, CA 93953

NO. REVISION DATE

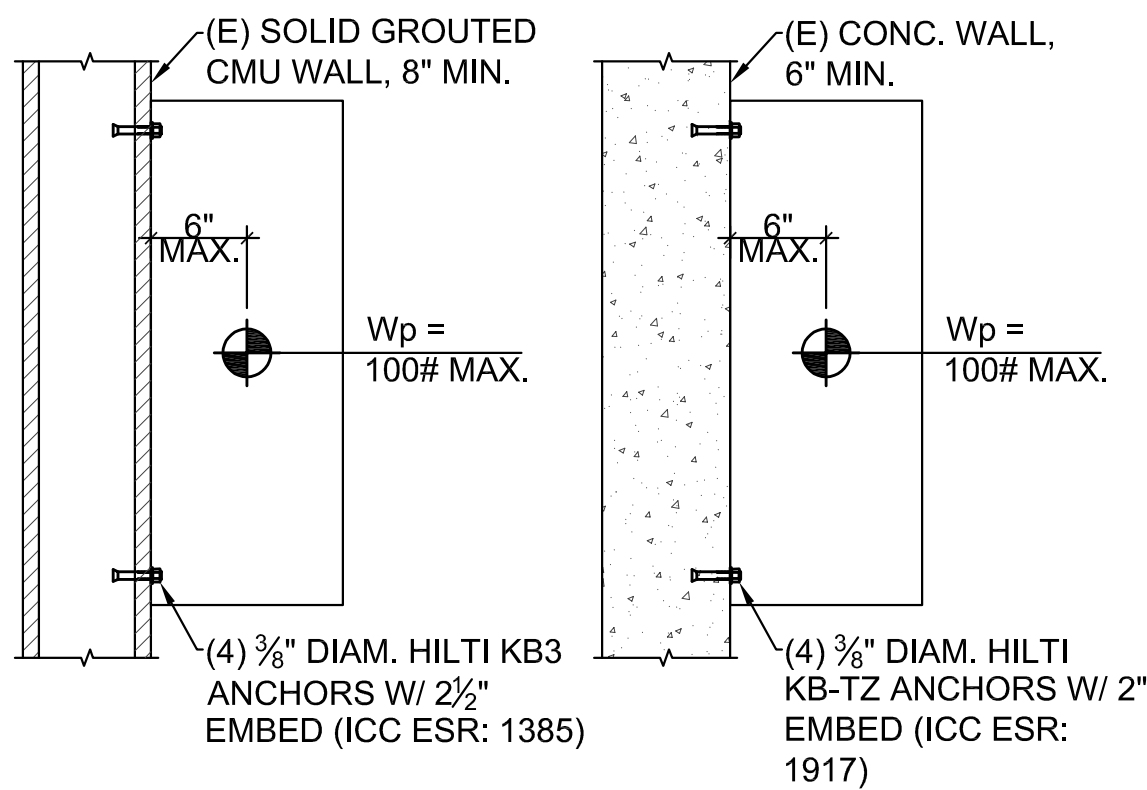
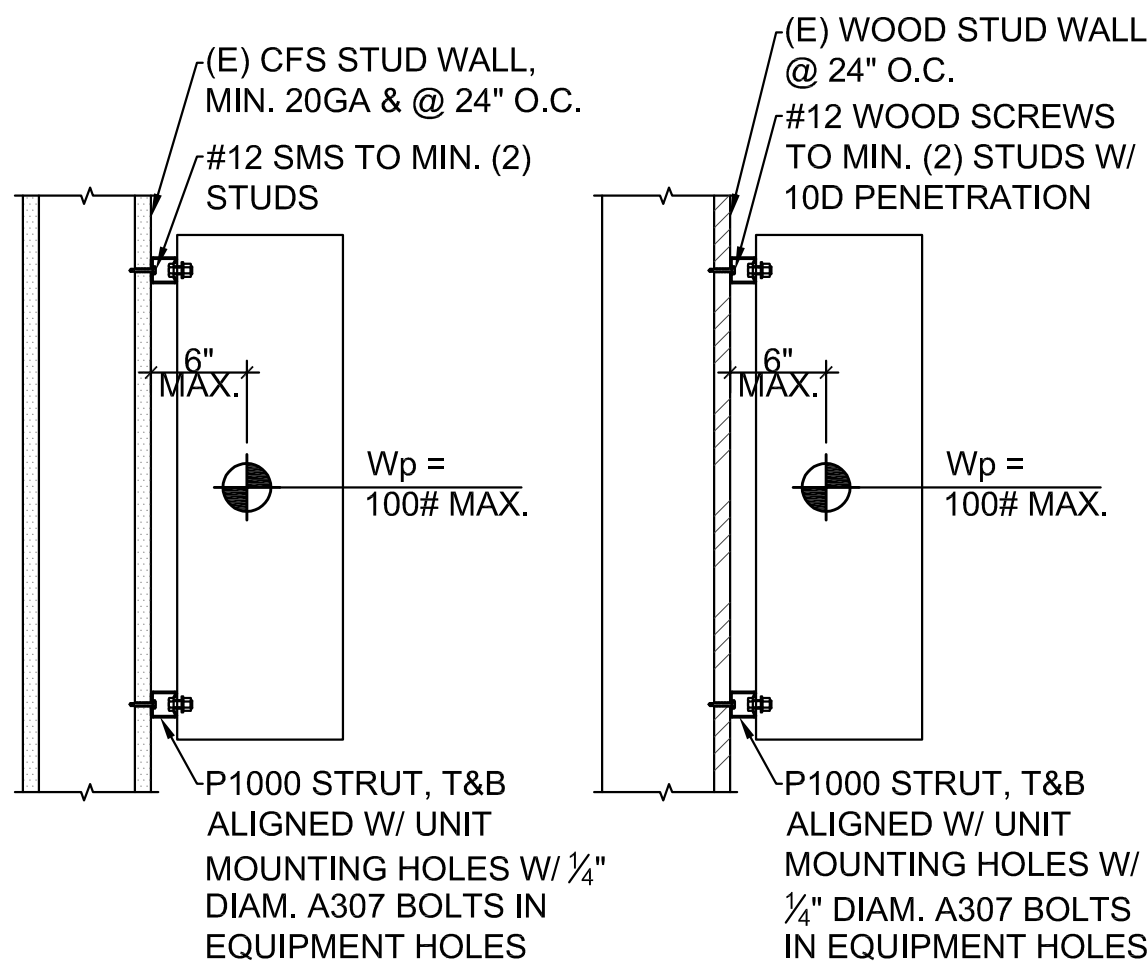
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06.21.23

SHEET TITLE

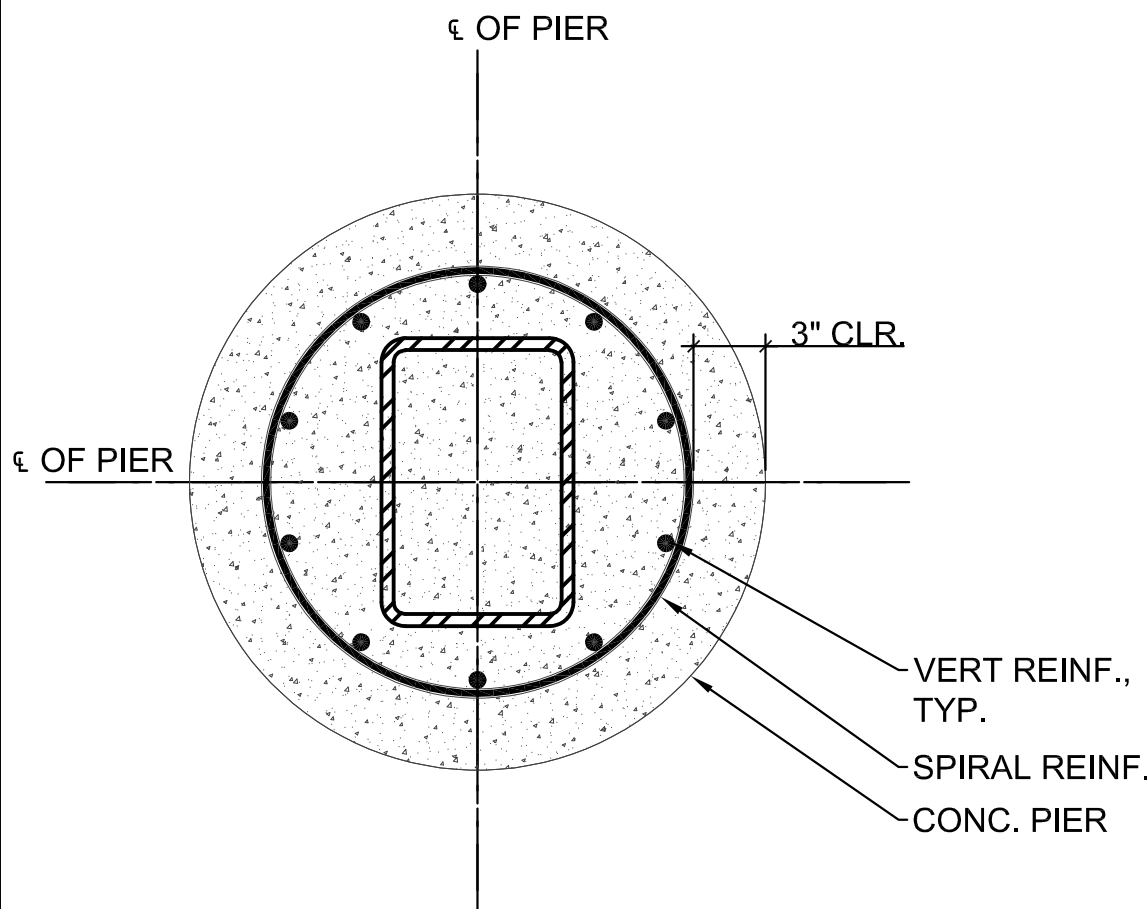
**FOUNDATION &  
ANCHORAGE  
DETAILS**

SHEET NO.:

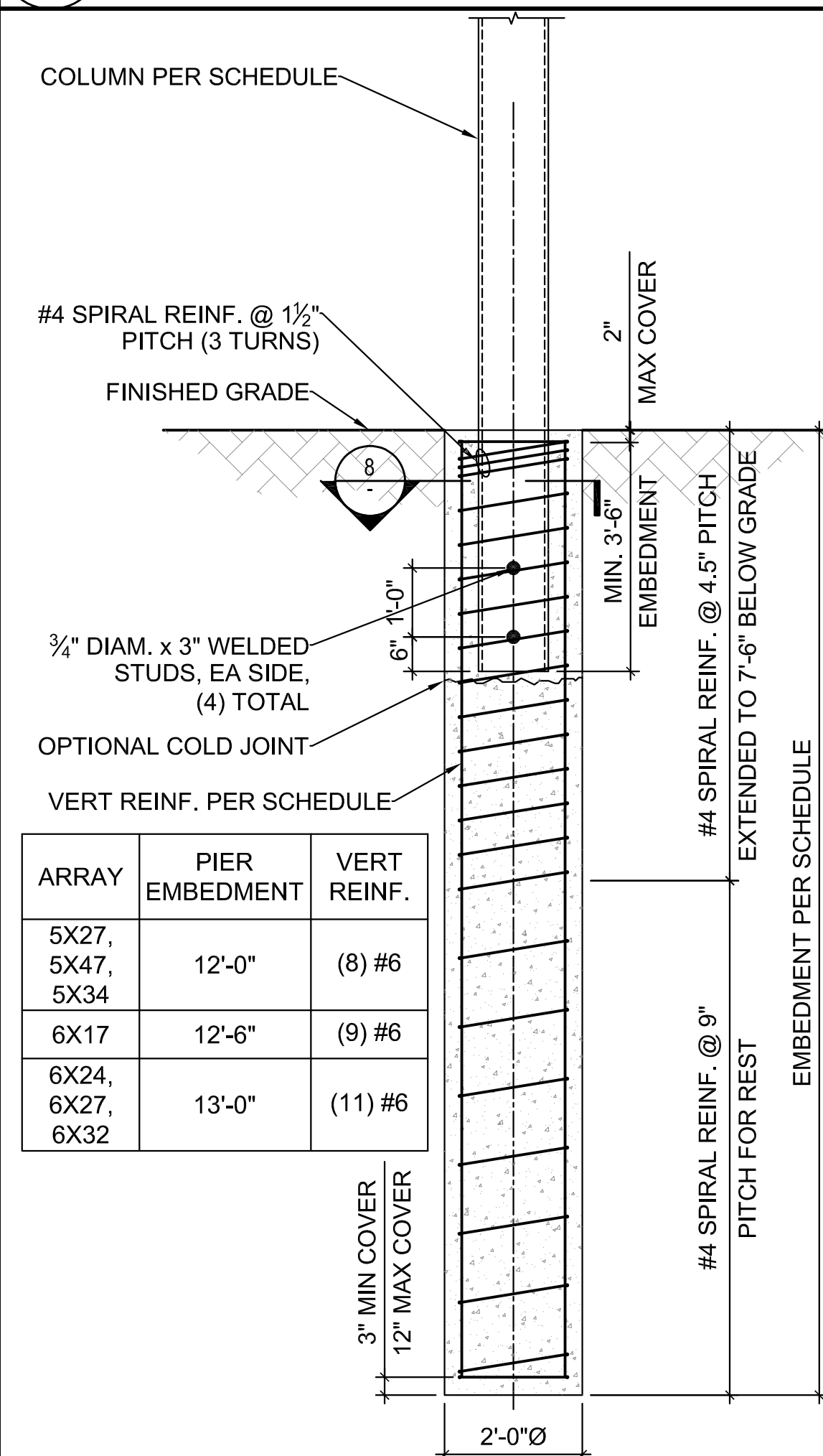
**S400**



**14 WALL MOUNTED EQUIPMENT**  
SCALE: 1/2" = 1'-0"

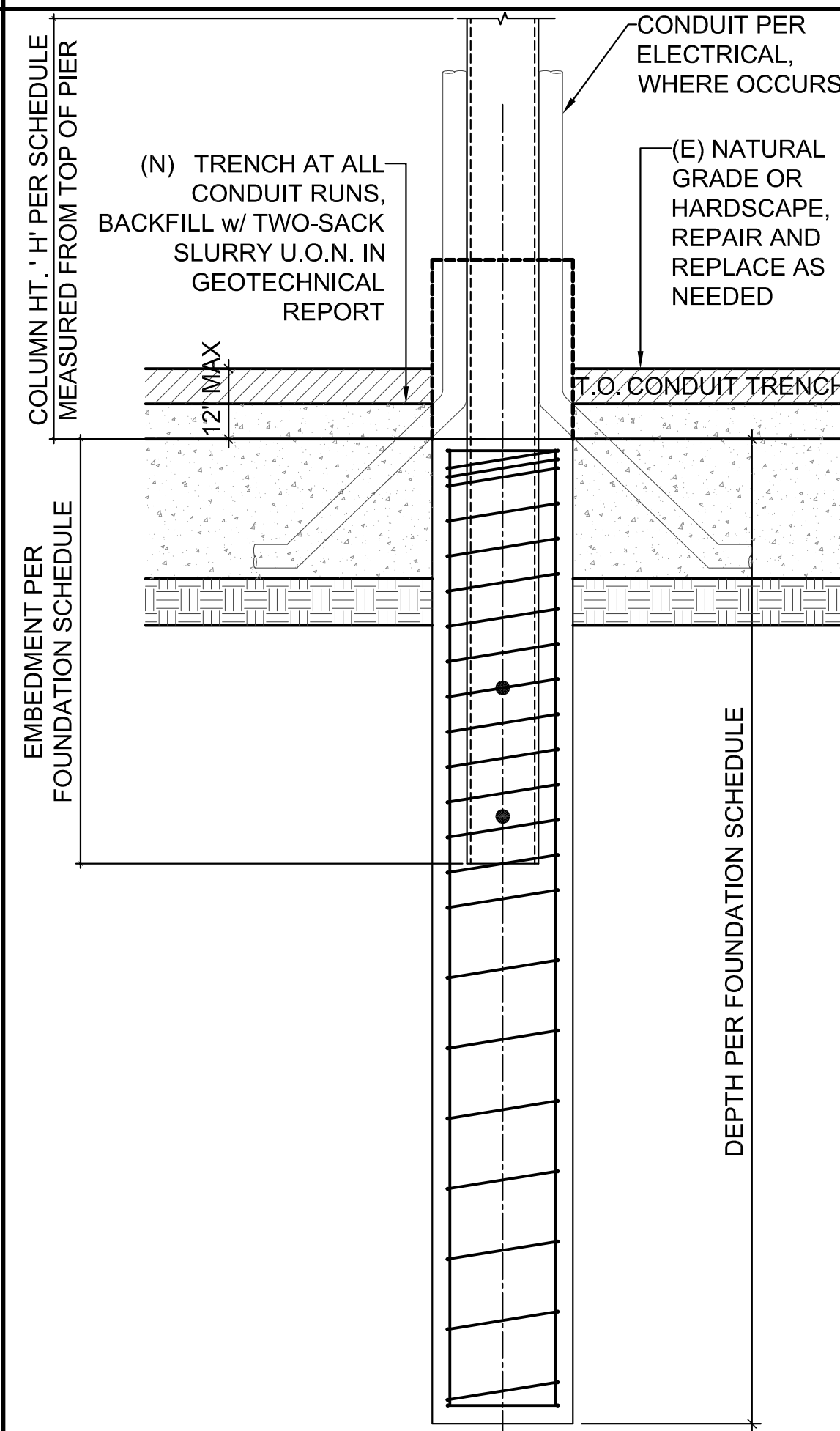


**8 REINF. PLACEMENT**  
SCALE: 3" = 1'-0"

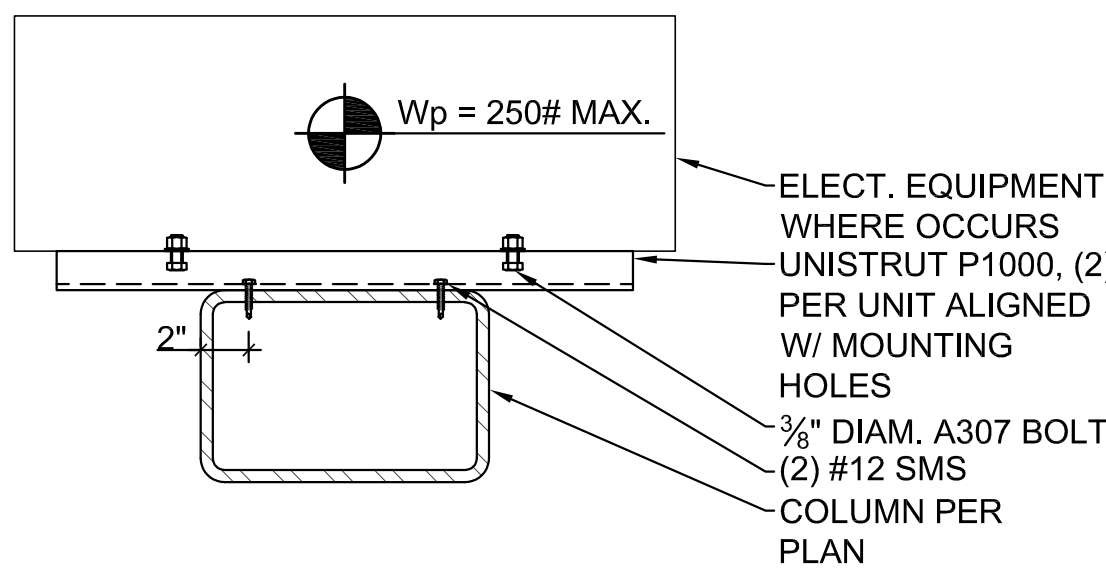


**18 PIER FOUNDATION**  
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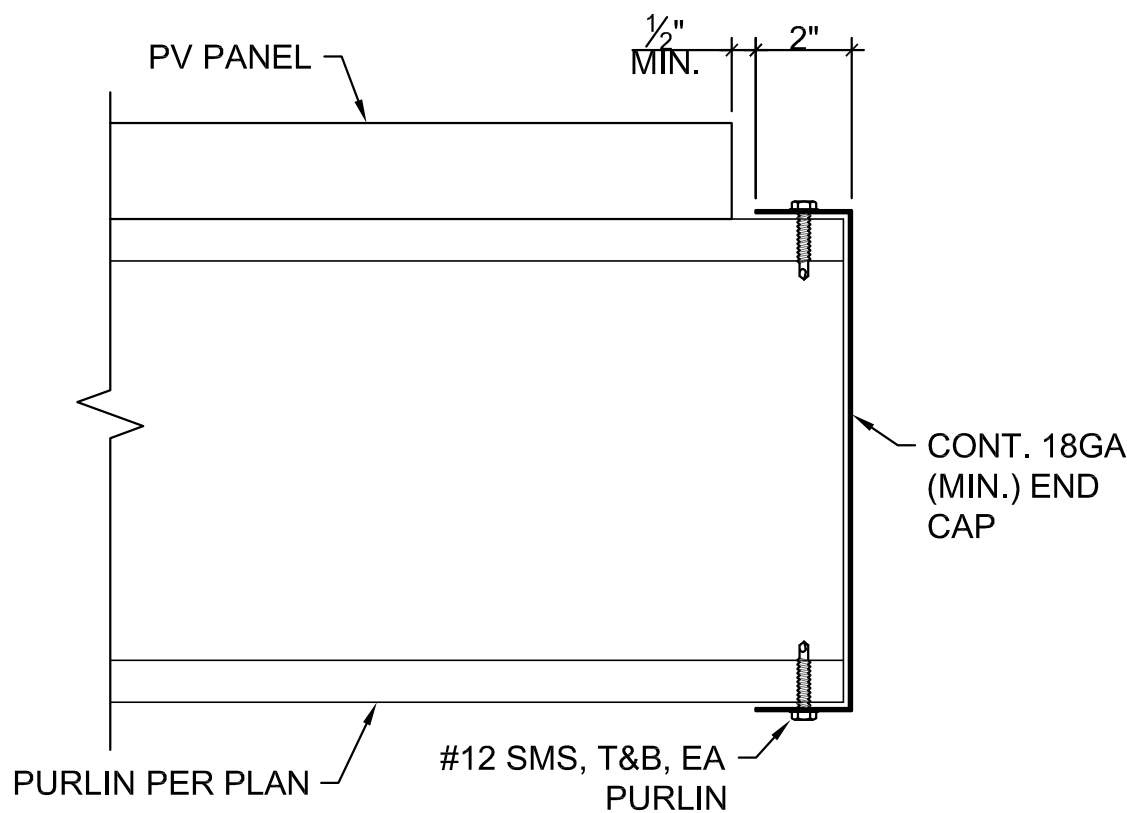
ARRAY	PIER EMBEDMENT	VERT REINF.
5X27, 5X47, 5X34	12'-0"	(8) #6
6X17	12'-6"	(9) #6
6X24, 6X27, 6X32	13'-0"	(11) #6



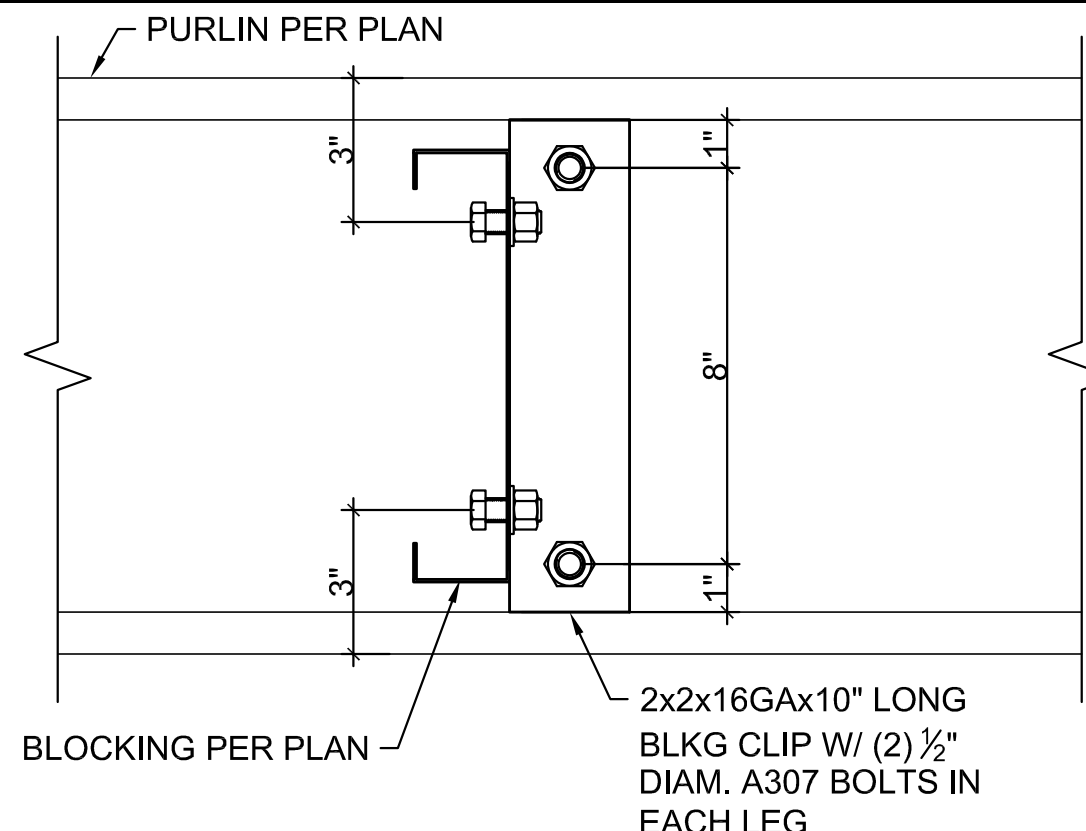
**19 CONDUIT ROUTING**  
SCALE: 1/2" = 1'-0"



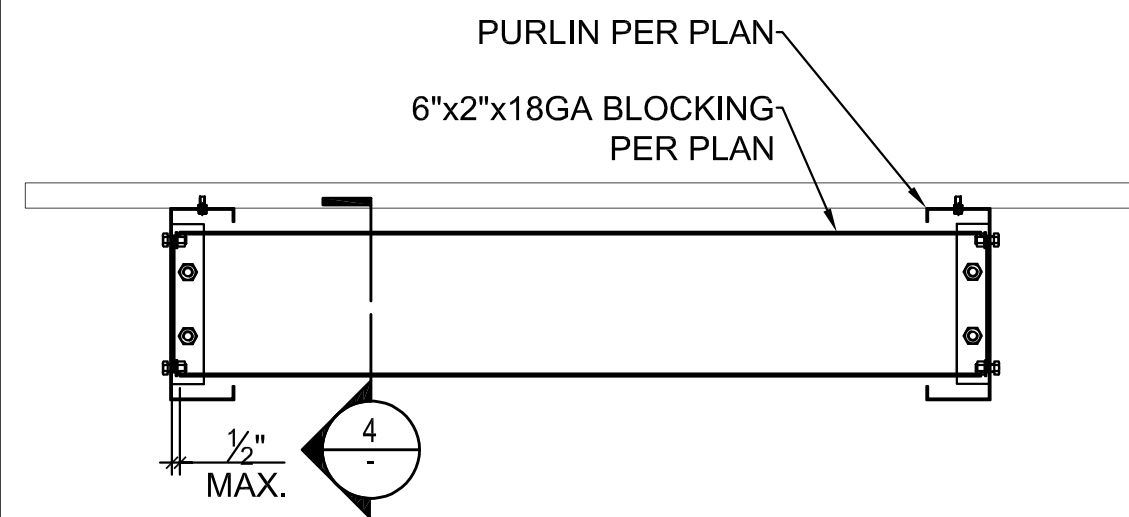
**2 EQUIPMENT MOUNTING**  
SCALE: 1½" = 1'-0"



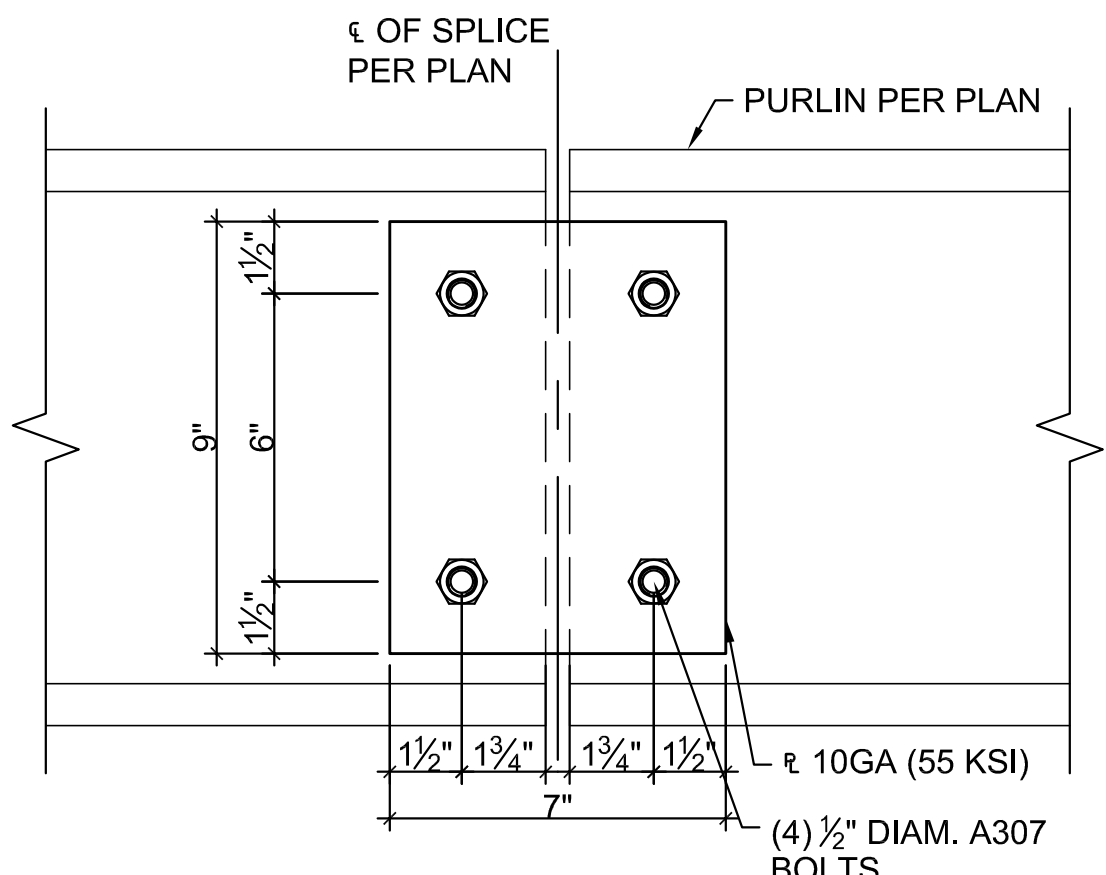
**3 END CAP CONN. DETAIL**  
SCALE: 3" = 1'-0"



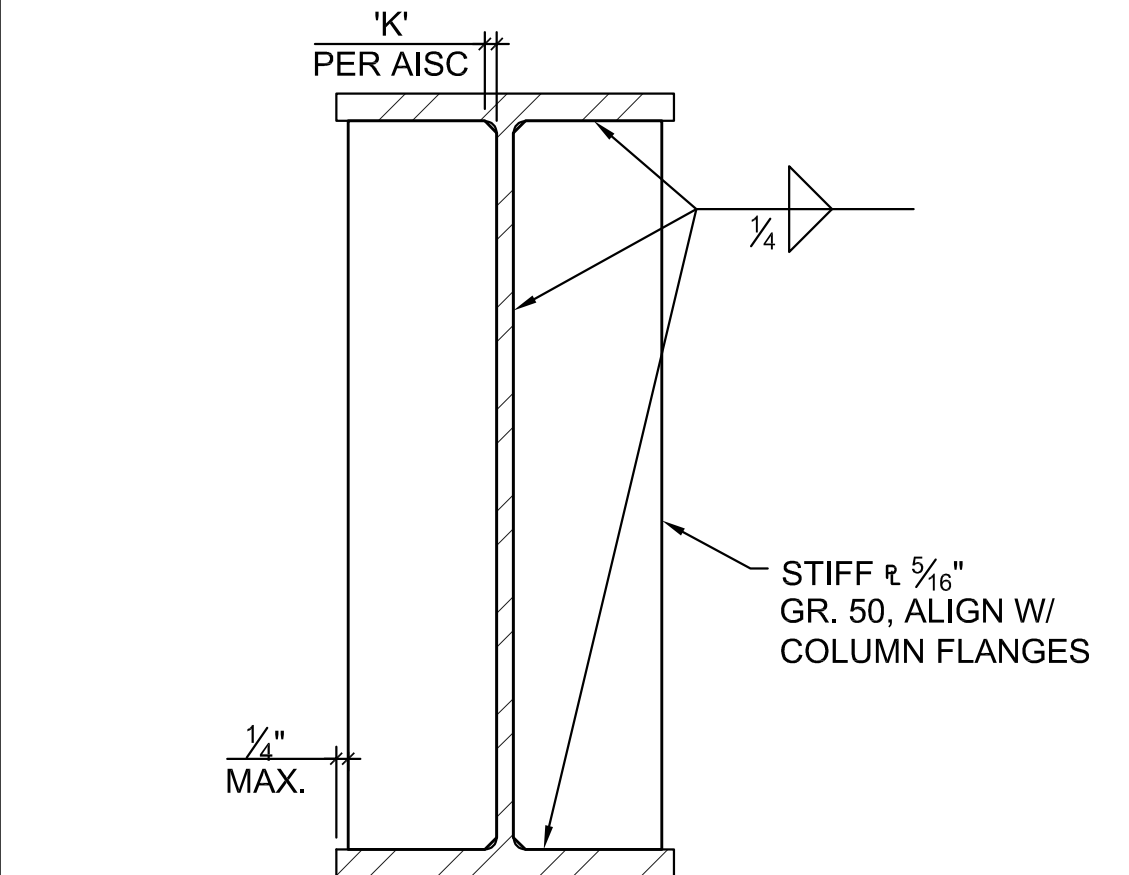
**4 BLOCKING TO PURLIN CONN.**  
SCALE: 3" = 1'-0"



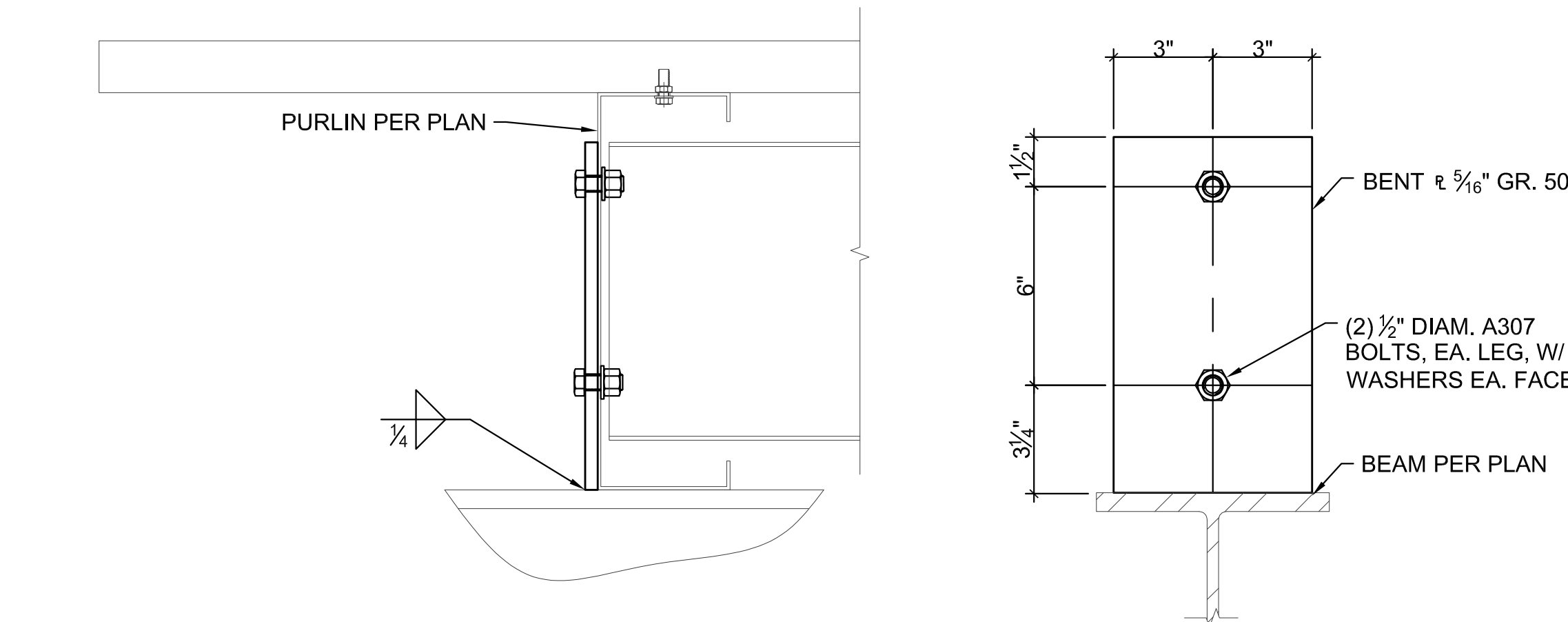
**5 PURLIN BLOCKING**  
SCALE: ½" = 1'-0"



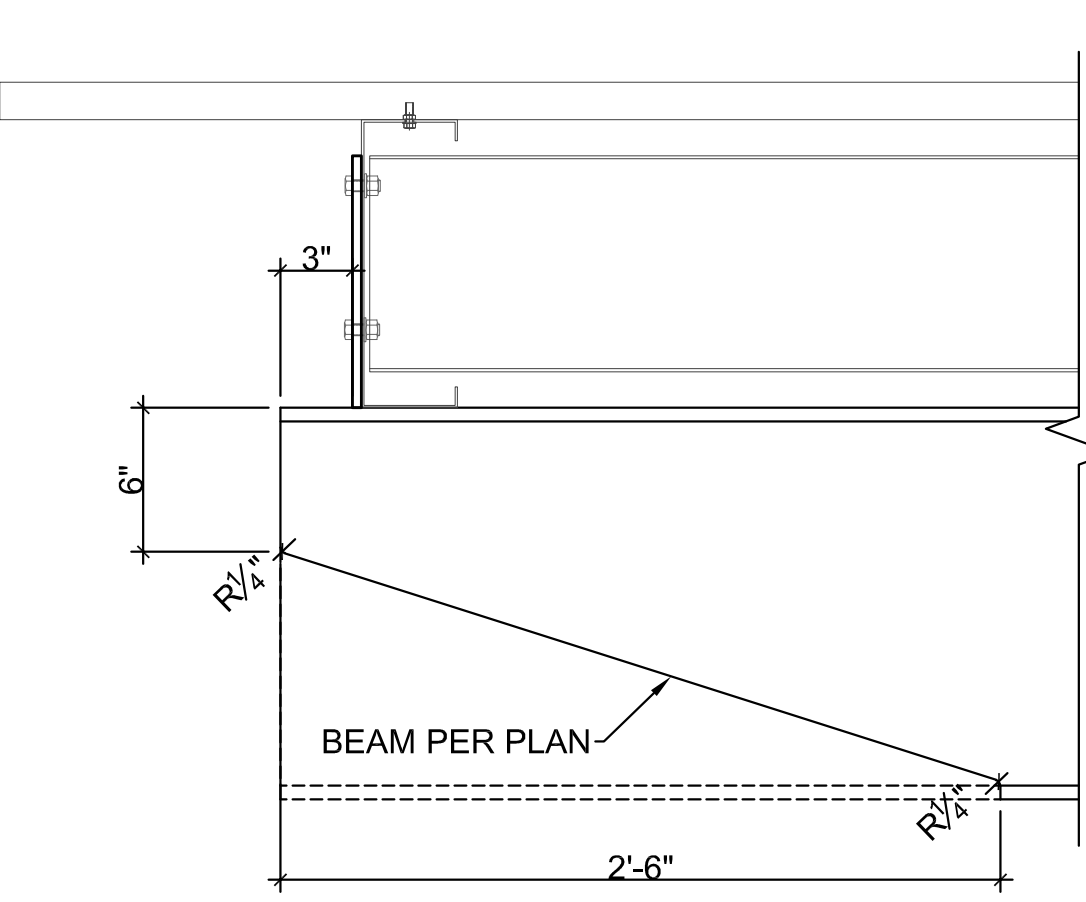
**7 PURLIN SPLICE**  
SCALE: 3" = 1'-0"



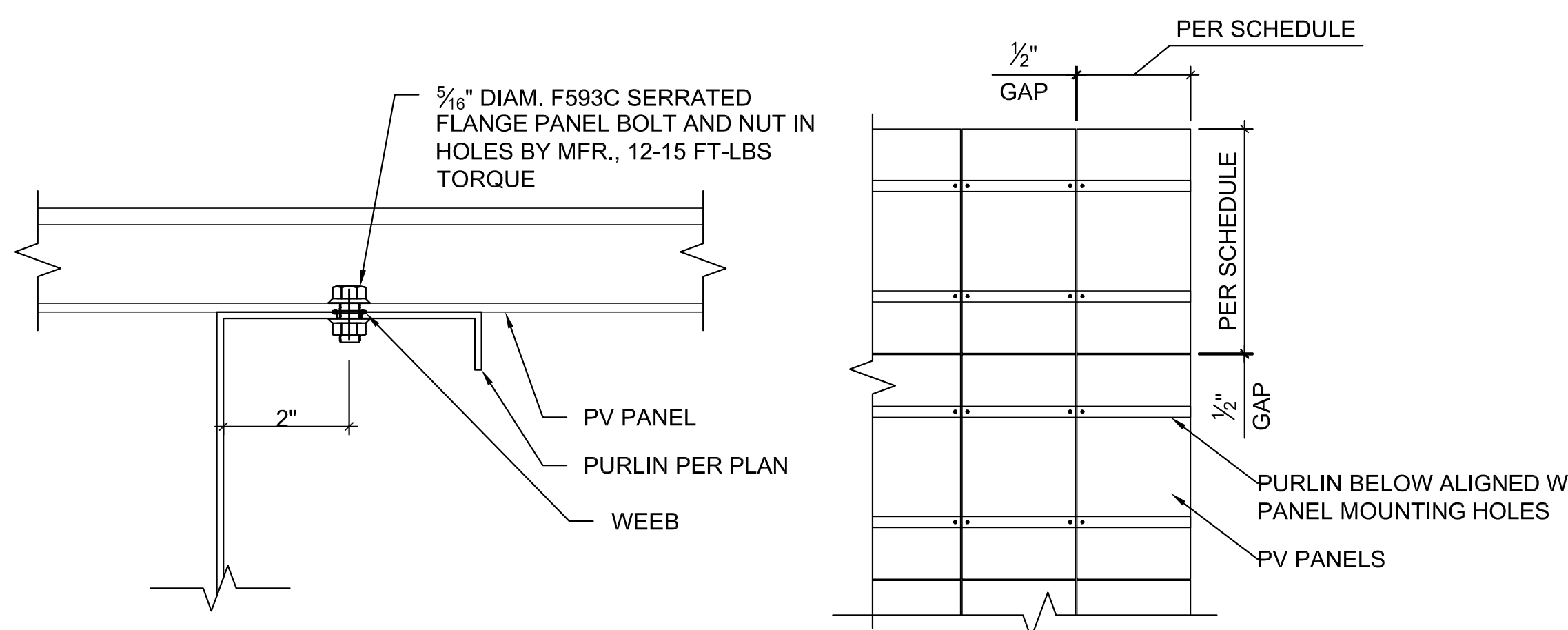
**10 STIFFENER PLATE**  
SCALE: 3" = 1'-0"



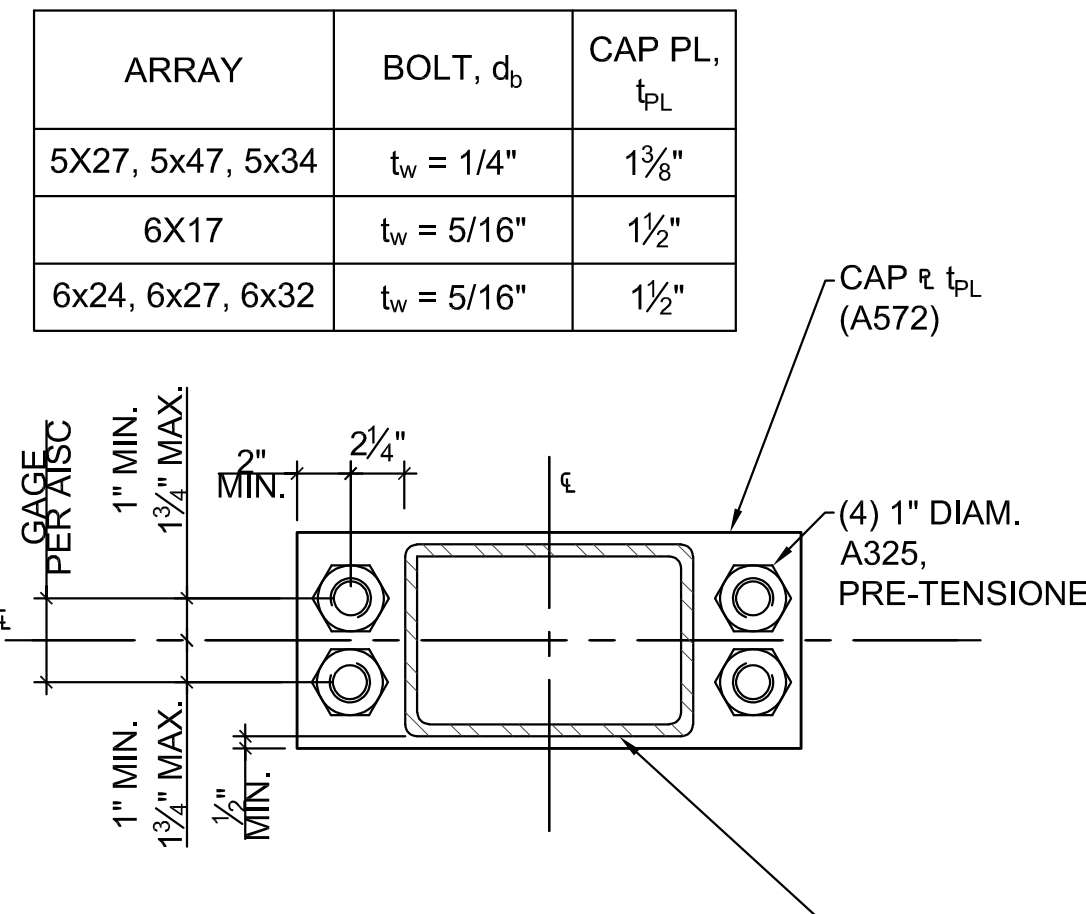
**12 BEAM TO PURLIN CONN.**  
SCALE: 3" = 1'-0"



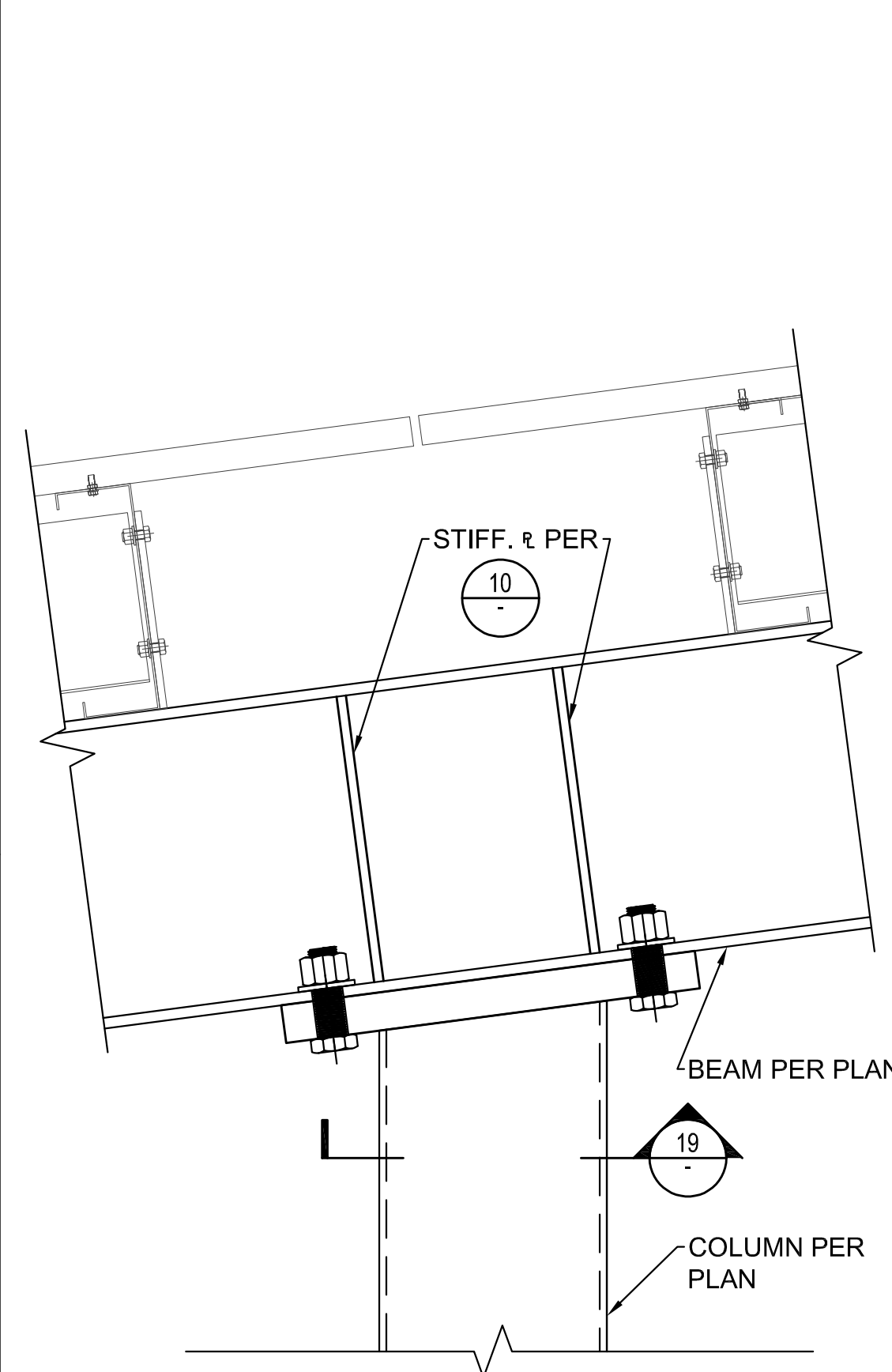
**14 BEAM END DETAIL**  
SCALE: 1½" = 1'-0"



**17 PV PANEL ATTACHMENT**  
SCALE: 6" = 1'-0"



**19 CAP PLATE**  
SCALE: 1½" = 1'-0"



**20 BEAM TO COLUMN CONN.**  
SCALE: 1½" = 1'-0"

SYSTEM HOST

SYSTEM DEVELOPER



23 LAS COLINAS LN.  
SAN JOSE, CA 95119

STRUCTURAL ENGINEERING AND STEEL CONSTRUCT



10620 Treena Street, Suite 140,  
San Diego, CA 92131

STRUCTURAL ENGINEERING AND STEEL CONSTRUCT

ELECTRICAL CONSTRUCTORS AND ENGINEERS

ARCHITECT OF RECORD

ARCHITECT / ENGINEER OF RECORD



PROJECT

**PEBBLE BEACH  
COMPANY - EMPLOYEE  
PARKING LOT**

2700 17 MILE DR.  
PEBBLE BEACH, CA 93953

NO. REVISION DATE

DATE:  
06.21.23

SHEET TITLE

**STEEL DETAILS**

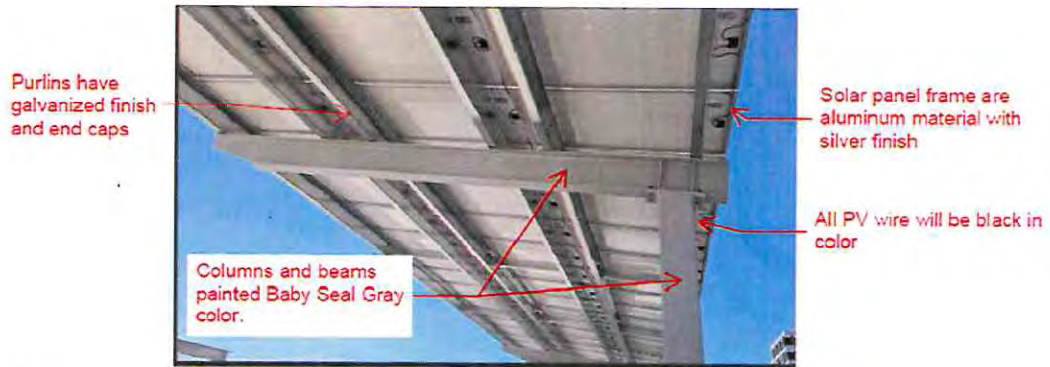
SHEET NO.:

**S500**



COLOR SAMPLES FOR PROJECT FILE NO.

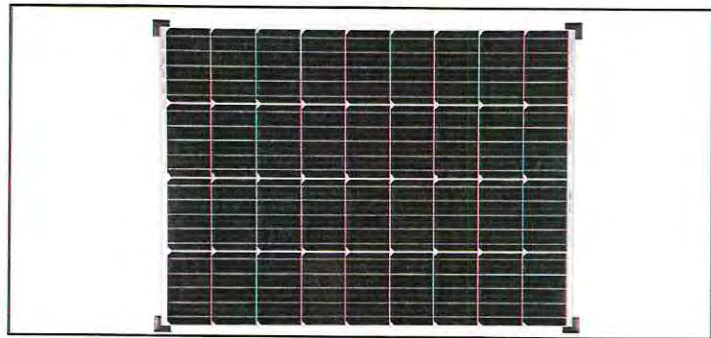
PLN240062



Materials: See above

Colors: See above

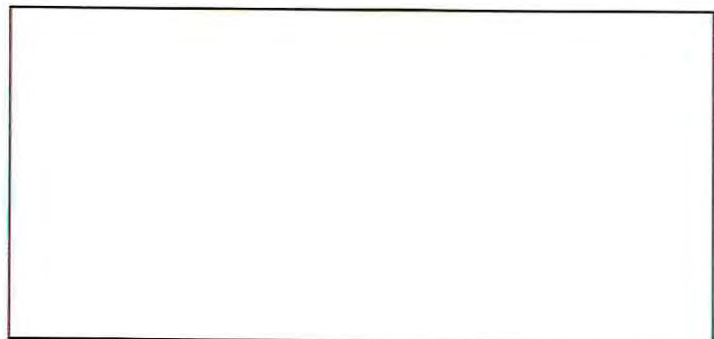
Description: Solar Canopy



Materials: Silicon solar cells, metal frame, and glass.

Colors: Black and Gray

Description: Solar Panels



Materials:

Colors:

Description: