

EL DORADO COUNTY BUILDING DEPARTMENT
PERMIT REPRINT

APN #: 082-082-07-1 PERMIT #: 141366 - 1

PERMIT TYPE: ELECTRICAL-NEW-SINGLE FAMILY (RESIDENTIAL)

SPECIFIC USE	TYPE	AREA	COST	VALUE
SOLAR				18,000

PLANS

TOTAL: \$ 18,000

LEGAL DESCRIPTION: L 379

ZONING : R1
WATER SOURCE : EL DORADO IRRIG
NUMBER OF UNITS: 0

HEATING TYPE : GAS
SEWER SERVICE : PUBLIC
NUMBER OF BEDROOMS: 0

DATE ISSUED: 08/09/2002
DATE REACTIVATED:

DATE EXPIRES: 08/08/2004
DATE RENEWED:
DATE FINALED:

JOB ADDRESS: 3591 FAIRWAY DR

DIRECTIONS: MAP PAGE 29 C5; CAMERON PARK DRIVE TO EL DORADO ROYAL D
DRIVE, LEFT TO FAIRWAY, RIGHT TO SITE ON RIGHT

APPLICANT : BYRD RONALD
3113 ALHAMBRA DRIVE
CAMERON PARK, CA 95682

(530) 676-7225

OWNER : GRAHAM, GEORGE
3591 FAIRWAY DR
CAMERON PARK, CA 95682

(000) 000-0000

ARCHITECT :

REG. # :

ENGINEER :

REG. # :

CONTRACTOR: BYRD RONALD

LICENSE: 749205

TOTAL (2)

PI

Sunline 40 solar electric array mounted on second story roof. Mounting system consist of a 'Tile Trak', direct mount heavy duty aluminum mounting channel fasten to existing rafter with 5/16"x3" Stainless steel lag bolt, 125 MPH wind rated. Array consist of 40 Astro Power AP-100 PV modules. Additional dead load = 2.8 lbs. per sq. ft. total additional wleight = 1120 lbs.

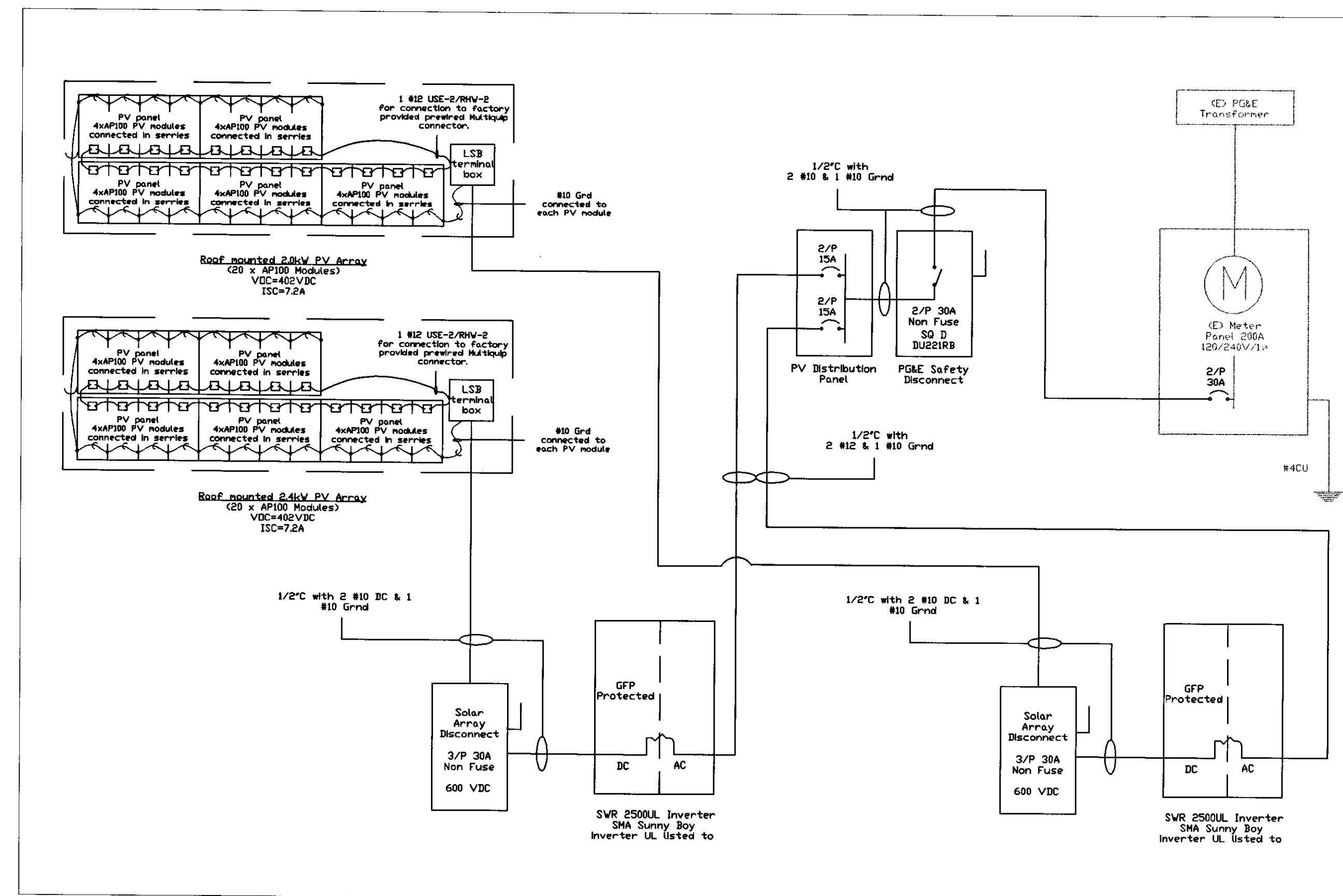
Existing roof system is comp singles laid over 1/2" plywood, fasten to 2x6 rafters 24" ONC. Maximum rafter span = 12'

Inverters and saftey disconnect switches located on extirior wall next to existing 200A service panel.

(E) PG&E Power Pole

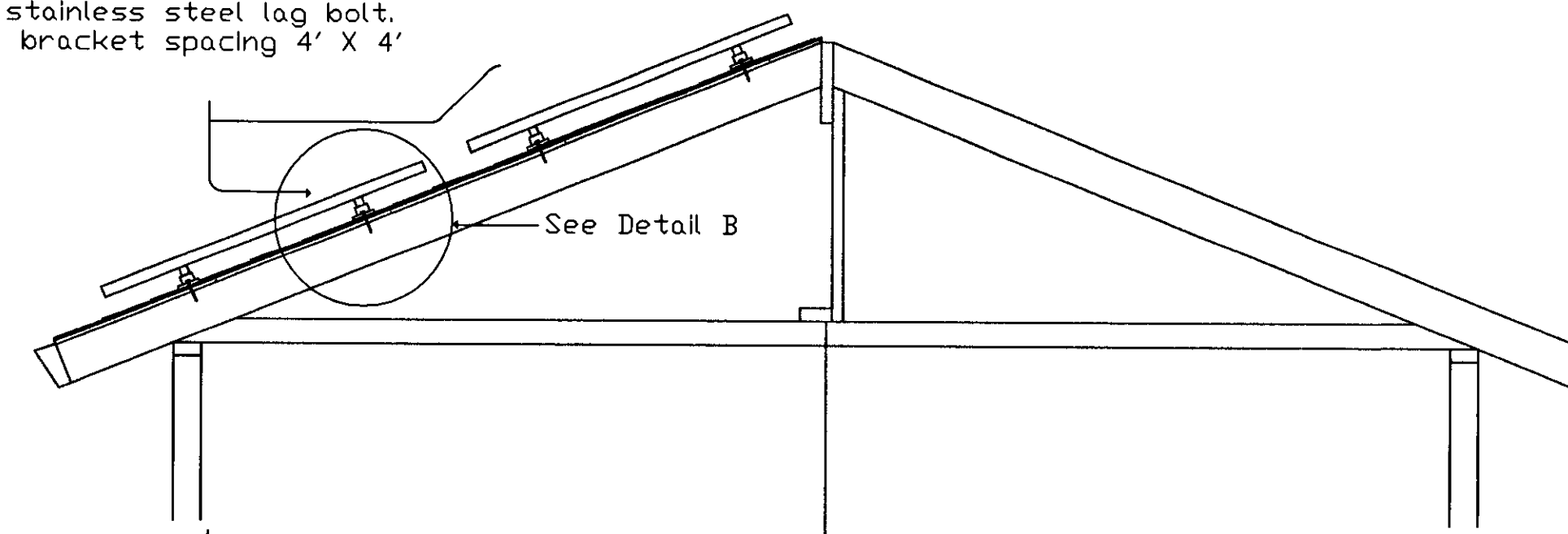
Fairway Dr.

Site Plan 1"=40'



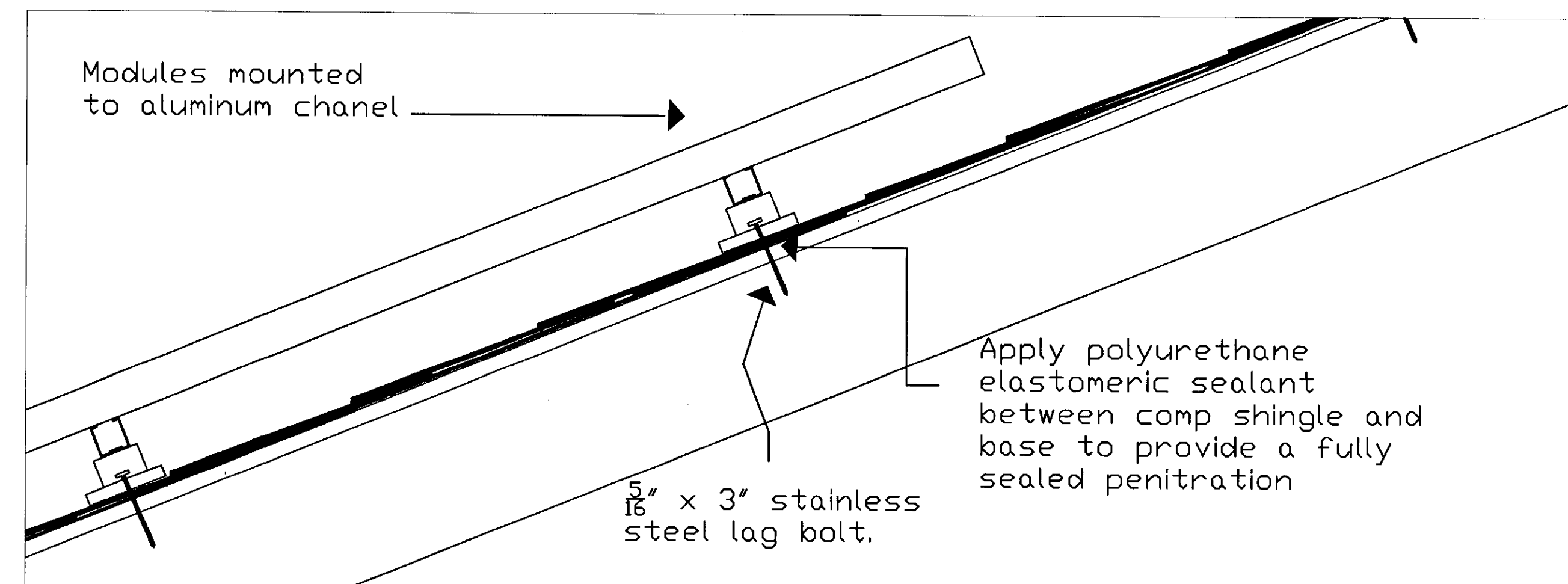
One Line Diagram

'Tile Trak' (Typical) aluminum bracket attached to existing 2"x6" (24" ONC) roof truss with 5/16"x 3" stainless steel lag bolt. Maximum bracket spacing 4' X 4'



Mounting Detail A 1/16" = 1'

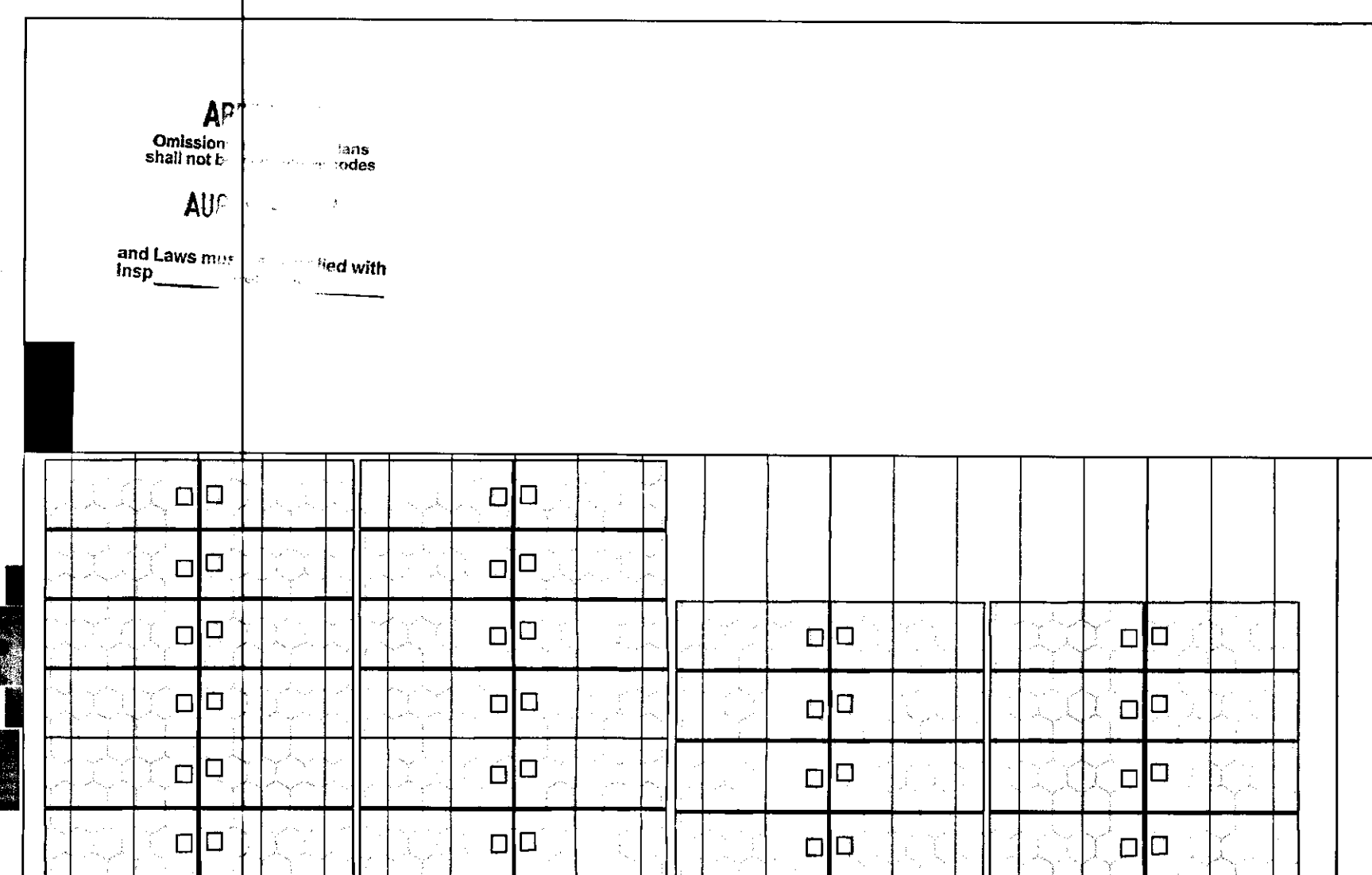
Modules mounted to aluminum channel



Mounting Detail B NTS

APPROVAL SUBJECT TO FIELD INSPECTION FOR COMPLIANCE WITH APPLICABLE CODES AND MANUFACTURER SPECIFICATIONS

PG&E Meter
SMA inverter



APPROVED
Omissions & Errors on Plans shall not be valid and all codes shall be complied with
AUG 09 2002
and Laws must be complied with Insp. Permit #

Roof Mounted PV Modules

1998 CALIFORNIA CODES
EFFECTIVE JULY 1, 1999

Equipment Plan 1/8" = 1'

General Notes

1. All electrical devices indicated on these plans are new unless otherwise note.
2. All electrical worked performed on this project shall be in accordance with, contract documents, manufactures recommendations, sheet specifications and drawings. Installation to comply with section 690 of the National Electrical Code.
3. All conductors shall be copper unless otherwise note.
4. Electrical contractor shall coordinate and verify all power requirements for new equipment.

PLAN NOTES:

The UL listed SMA 2500U inverter incorporates an isolated ground fault protection device that provides equivalent system protection. System grounding is not required for this installation, per NEC 690-41.

AP-100 PV modules have a 15 Amp over current rating and the system design incorporates a single PV source circuit, maximum PV output circuit = 11.2 Amps (PV module Isc 7.2 Amps x 1.56). Possible backfeed from the A/C system has been considered in the system design. Source circuit over current protection for the power modules is not required per NEC 690-9.

The PV module interconnect conductor is a factory supplied UL listed assembly that incorporates a dual rated type USE-2 or RHW-2 cable and a multi contact connector as permitted in NEC 690-31b, 690-33. The cable is rated for 600V, and operates at a maximum temperetore of 63C. The temperature derating factor for RHW-2 is .58. The required ampacity for this cable is 19.31 Amps (11.2A Isc / .58). RHW-2 12 AWG has a rated ampacity of 30A/90C and 25A/75C. This cable is correctly specified for this application.

No.	Revision/Issue	Date

Firm Name and Address
Byrd Electric
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Cameron Park, CA 95682
Ph. 530-676-7225
Fax 530-676-5674
Cal License # 749295

Project Name and Address
Solar Electric System
George Graham
3591 Fairway Dr.
Cameron Park, CA 95682

Project SL-40	Sheet E
Date 07/21/02	
Scale As Shown	