

CITY OF SARATOGA, CALIFORNIA

ADDENDUM NO. 1

FOR

CORPORATION YARD BUILDING SOLAR PROJECT

Attached is Addendum No. 1 which consists of:

- This cover sheet.
- Addendum No. 1.

Each bidder must acknowledge receipt of this Addendum by checking the appropriate space and signing the Bid Proposal (page 15 of the Construction Agreement).

October 18, 2011

ADDENDUM No. 1

CITY OF SARATOGA

CORPORATION YARD BUILDING SOLAR PROJECT

Addendum was distributed at mandatory site meeting at 2:00 pm, October 18, 2011 at 19700 Allendale Avenue, Saratoga, CA 95070.

Response to Bidder's Questions received before noon, October 18, 2011:

Question No. 1: The "Notice to Proceed" requires further definition. When does this notice happen? If it is when the contract is signed, then there is only 30 days to design, permit, procure, install and commission the system; yet elsewhere May 31, 2012 is shown as the completion date. Please resolve.

Answer: The date specified in the Notice to Proceed will be discussed with the Contractor at the pre-construction conference. Contractor is encouraged to start working on the shop drawings, permits, submittals prior to issuance of Notice to Proceed. Project is to be completed within 30 calendar days specified in the Notice to Proceed. May 31, 2012 is the Contract expiration date. If the project is completed sooner, the contract terminates sooner.

Question No. 2: Transfer switch: what is the intent of the city? Are you trying to connect the solar to a different meter with a manual transfer switch?

Answer: The transfer switch is part of the existing building wiring for the Corp Yard building and is connected to the existing service panel in the meter closet. That existing service panel will be disconnected from the Corp Yard building, its main breaker reduced to 100 A. and connected to the Community Center temporary building's feeder conductors. The Corp Yard will be fed from a 2P-100A breaker in the 3 phase panel. The line side of the Main breaker in the 3 phase panel will be tapped to conductors that are the line side of the PV disconnect switch. In effect, the Corp Yard building is only one of the loads fed by the 3 phase panel. Please refer to the attached Power Single Line drawing.

Question No. 3: CSI rebates. The CSI fund was exhausted a year ago. Filings are still accepted by PG&E but it simply puts you on a list for potential rebates if the program should be funded again.

Answer: The City will ask for a copy of the filed CSI rebate form and PG&E receipt of acknowledgement or a proof of filing. The City will not hold the Contractor's payment for this reason. Contract language will be adjusted accordingly.

Question No. 4: On page 17, there is the requirement that CSI payment is received prior to the last payment of the contract. Even if there were CSI rebate funding still available, this would be impossible. CSI funds are not released until a system has been completed and interconnected with PG&E.

Answer: The City will not hold the Contractor's payment for this reason. Contract language will be adjusted accordingly.

Question No. 5: Why is the south side of the building not available for solar panels?

Answer: The south side of the building is not owned by the City and cannot be used in this project.

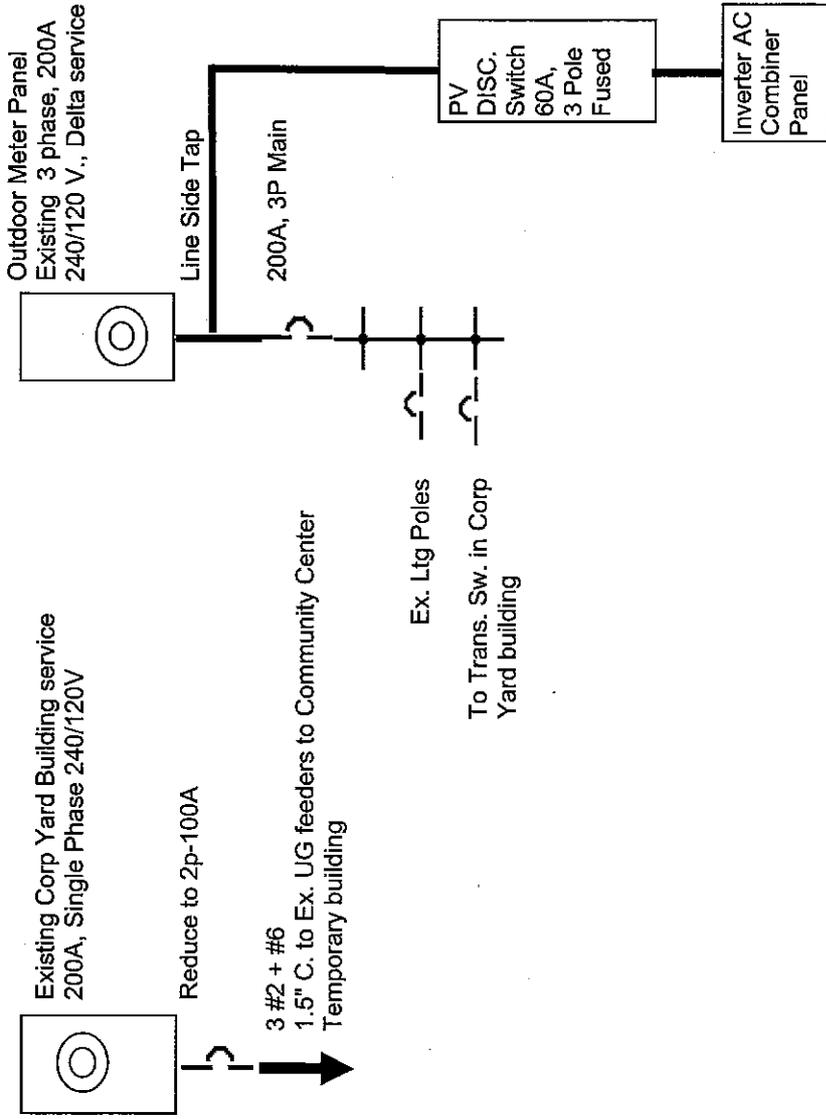
All the documents including this addendum are available for downloading from the City of Saratoga web site at <http://www.saratoga.ca.us/services/bidrequest.asp?bidID=79> ("What's New" – "Bids and RFPs")

Questions may be directed to Iveta Harvancik at (408)-868-1274 (fax and phone) or at iharvancik@saratoga.ca.us.

Attachments: Single line wiring diagram (3 pages)

CORPORATION YARD PROPOSED SINGLE LINE DIAGRAM FOR ADDITION OF A PV SYSTEM

M. Mora 10/17/11

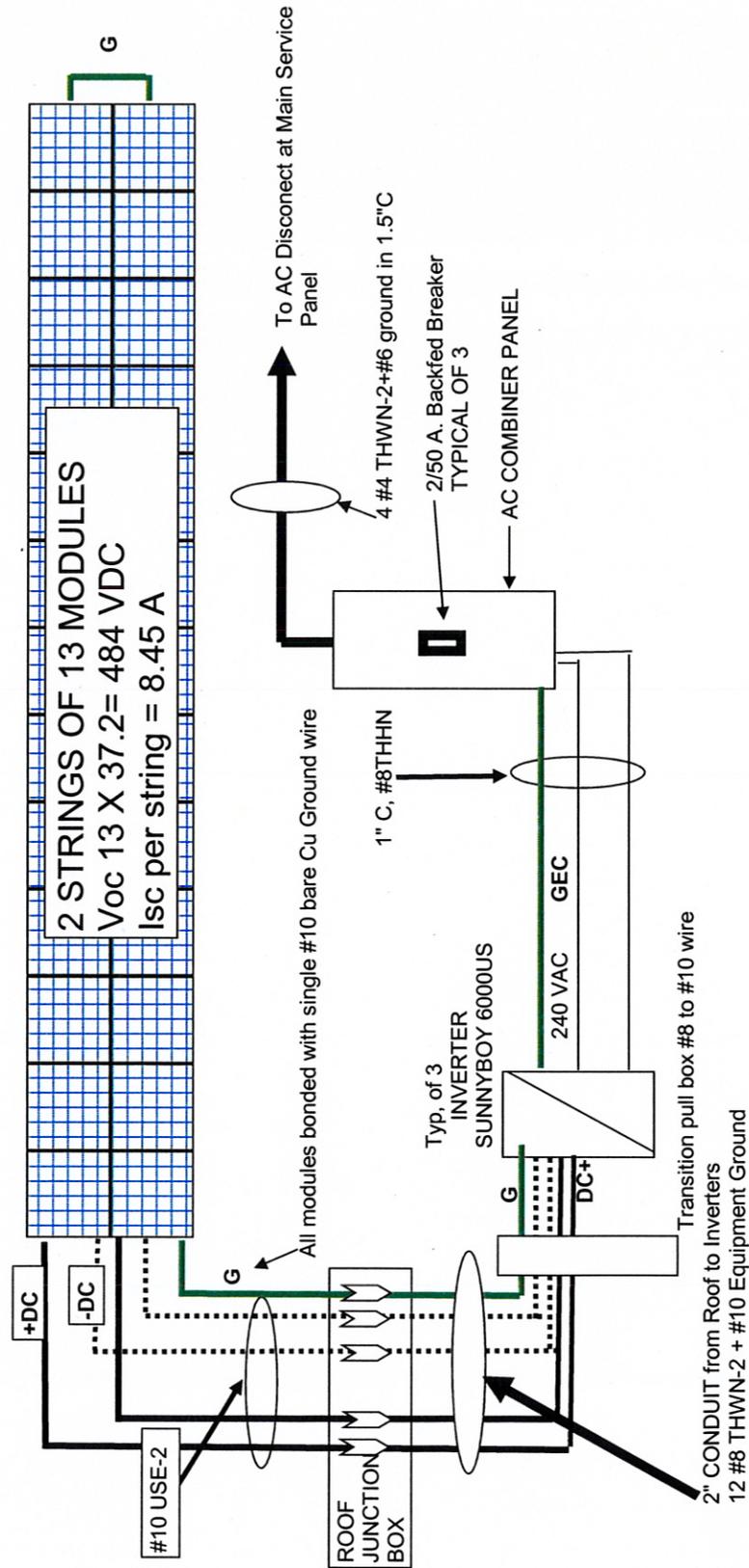


PHOTOVOLTAIC SYSTEM FOR City of SARATOGA CORPORATION YARD BLDG.

13 ea. Westinghouse WLW-235-1-DCO-0-BL modules per string. Sunnyboy 6000US Inverter

SINGLE LINE WIRING DIAGRAM. TYPICAL OF 3 INVERTERS & 2 STRINGS each

M. Mora 10/2/11



Module Data: Voc 37.2V Vmp 29.6V Isc 8.45 A Imp 8 A. Westinghouse WLW-235-1-DCCO-0-BL

String Data: Voc 484V Isc 8.45 A Imp 8 A

CONDUCTOR CALCULATIONS NEC 240.4 D and 310:

Intermodule wire: #10 USE-2 is rated 90 deg C. For ambient temperatures of 58-60 C, the correction factor is $.58 \times 40 = 23.2 \text{ A}$

Wire in roof Junction Box: Baseline temperature 122F. Conduit will be placed 13 to 90mm above roof. Per Table 310.15(B)(2)(c) add 22deg C. Derate factor for #10 THWN-2 = $.58 \times 40 = 23.2 \text{ A}$ which is greater than the string Isc = 8.45 Amps.

NEC 690.8 A,B calculation for source circuit & intermodule conductors: #10 USE-2

Maximum short circuit current Isc for each series string is 8.45 amps $\times 1.25$ continuous current = $10.56 \times 1.25 = 13.2$ amps. Each string will be protected by a 15A/600V fuse in the inverter

Derating for no. of Conductors in conduit and Ambient Temps: 12 ea. #8 THWN-2 + #10 ground in 2" EMT. Table 310.15(B)(2)(a): 10-20 conductors: $.5 \times 55 = 27.5 \text{ A}$ $\times .58 = 15.95 \text{ A}$, which is higher than the string Isc of 13.2 A.

Inverter maximum AC output rating is 25 amps $\times 1.25 = 31.25$ amps. Wire from inverter to a 2 pole 40 A breaker in the AC COMBINER panel is #8 THHN rated 40 amps at 60C.

AC COMBINER OUTPUT FEEDERS: #4 THWN-2. Voltage Drop is negligible for run length of 80 ft.

Main Service Panel: Line Side tap in gutter.

ROOF LOADING: 2.7 lbs/SF

Module Dimensions 39.3 x 65"

MARKINGS per NEC 690.53 at PV disconnecting means on Inverter:

Maximum rated power-point current 16.9 amps DC

Maximum rated power-point voltage 385 volts DC

Maximum system voltage 484 volts DC

Short circuit current 16.9 amps DC

Additional CEC Required Labeling per Bldg Insp. Requirements list