

# SUNPOWER

1515 HARBOR VIEW SOUTH  
RICHMOND, CA 94804 USA  
(510) 540-0550

## SUPPLEMENTARY INSTALLATION

ENGINEER'S STAMP

OASIS 2.0 TRACKER ASSEMBLY DETAILS  
SHEET 1

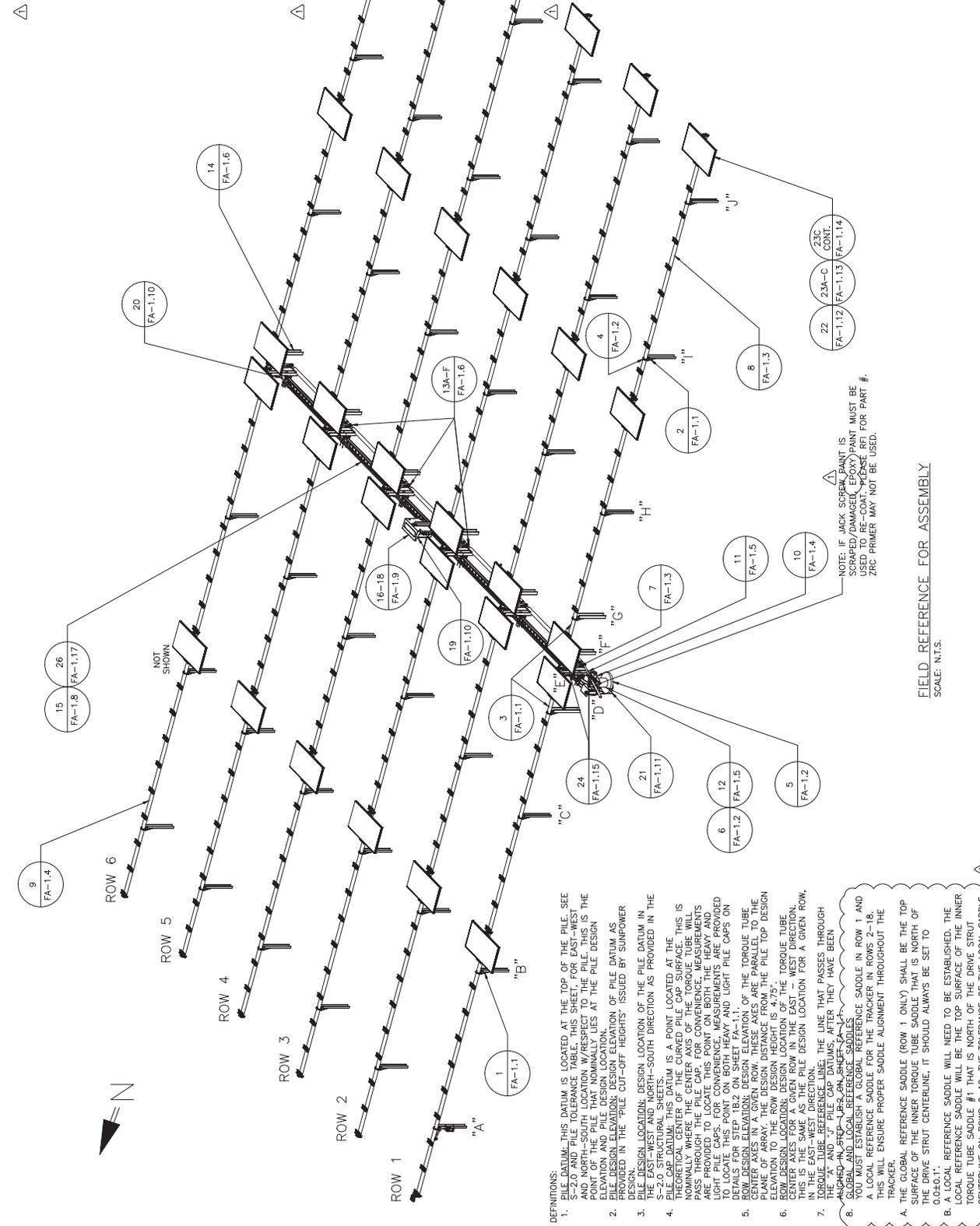
REV	DATE	DESCRIPTION
01	08-07-12	SPRINT DESIGN REVIEW
02	09-14-12	ISSUE FOR BIDS
03	11-14-12	ISSUE FOR BID - ADDENDUM
04	2-21-13	ISSUE FOR CONSTRUCTION
05	03-26-13	REVIEW POST FIRST-BUILD MEETINGS

OPPORTUNITY	003739
PROJECT	11104
DATE DRAWN	
DRAWN BY	
CHECKED BY	
SCALE	AS SHOWN

FA-1.0  
SHEET

- STEP 1) INSTALL PILE CAPS AND TIGHTEN
- STEP 2) INSTALL LOWER BEARING
- STEP 3) PLACE INNER TORQUE TUBES
- STEP 4) INSTALL UPPER BEARING ASSEMBLY
- STEP 5) CUT DRIVE PILE
- STEP 6) PLACE DRIVE PIER WELDMENT
- STEP 7) INSTALL TORQUE ARM
- STEP 8) INSTALL OUTER TORQUE TUBES
- STEP 9) BUILD REMAINING ROWS
- STEP 10) INSTALL DRIVE MOTOR & CONTROLLER
- STEP 11) LINK & ALIGN DRIVE UNIT TO ROW 1/LINK-JACKSCREW DRIVE STRUT & FIRST DRIVE STRUT
- STEP 12) ALIGN TORQUE TUBE SADDLES & WELD DRIVE PILE
- STEP 13) ALIGN & LINK TORQUE ARMS & DRIVE STRUTS
- STEP 14) INSTALL AXIAL THRUST RETAINERS
- STEP 15) INSTALL CABLE TRAY
- STEP 16) NOT USED
- STEP 17) MOUNT COMBINER BOX
- STEP 18) GROUND COMBINER BOX & PILE-WIRE JACKSCREW
- STEP 19) NOT USED
- STEP 20) MOUNT TRANSITION HOSE & GROUNDING BRAD
- STEP 21) INSTALL SPLIT CONDUIT TRANSITION
- STEP 22) INSTALL PV MODULES
- STEP 23) WIRE PV
- STEP 24) INSTALL INCLINOMETER & GPS
- STEP 25) INSTALL REFERENCE CELL

NOTES:  
 A. CLEAN AREA AND APPLY TWO COATS ZRC COLD GALVANIZING TO ALL WELD ZONES AND DRILLED HOLES TO A MINIMUM 3.0 MIL (76um) THICKNESS.  
 B. BEFORE ANY PV CAN BE INSTALLED ONTO  
 A TRACKER BLOCK BE INSTALLED.  
 -DRIVE UNIT ASSEMBLY COMPLETED.  
 -TRACKER BLOCK DRIVE STRUTS LINKED AND ATTACHED TO JACKSCREW.



FIELD REFERENCE FOR ASSEMBLY  
SCALE: N.T.S.

NOTE: IF JACK SCREW POINT IS SCRAPED/DAMAGED, POINT MUST BE USED TO RE-COAT. PLEASE REF FOR PART #. ZRC PRIMER MAY NOT BE USED.

- DEFINITIONS:
- PILE DATUM: THIS DATUM IS LOCATED AT THE TOP OF THE PILE. SEE S-2.0 AND PILE TOLERANCE TABLE. THIS SHEET, FOR EAST-WEST AND NORTH-SOUTH LOCATION W/RESPECT TO THE PILE. THIS IS THE PILE CENTERLINE. THIS DATUM IS LOCATED AT THE PILE DESIGN ELEVATION AND PILE DESIGN LOCATION.
  - PILE DESIGN ELEVATION: DESIGN ELEVATION OF PILE DATUM AS PROVIDED IN THE "PILE CUT-OFF HEIGHTS" ISSUED BY SUNPOWER.
  - PILE DESIGN LOCATION: DESIGN LOCATION OF THE PILE DATUM IN THE EAST-WEST AND NORTH-SOUTH DIRECTION AS PROVIDED IN THE S-2.0 STRUCTURAL SHEETS.
  - PILE CENTERLINE: THIS DATUM IS A POINT LOCATED AT THE CENTER OF THE PILE. THE CENTERLINE OF THE TORQUE TUBE WILL NOMINALLY WHERE THE CENTER AXIS OF THE TORQUE TUBE WILL PASS THROUGH THE PILE CAP. FOR CONVENIENCE, MEASUREMENTS ARE PROVIDED TO LOCATE THIS POINT ON BOTH THE HEAVY AND LIGHT TORQUE TUBES. THIS POINT IS THE PILE DESIGN LOCATION FOR A GIVEN ROW. TO LOCATE THIS POINT ON BOTH HEAVY AND LIGHT PILE CAPS ON DETAILS FOR STEP 1B.2 ON SHEET FA-1.1.
  - ROW DESIGN ELEVATION: DESIGN ELEVATION OF THE TORQUE TUBE CENTERLINE. THIS DATUM IS THE PILE DESIGN LOCATION FROM THE PILE TOP DESIGN ELEVATION TO THE ROW DESIGN HEIGHT IS 4.75'.
  - ROW DESIGN LOCATION: DESIGN LOCATION OF THE TORQUE TUBE CENTERLINE. THIS IS THE SAME AS THE PILE DESIGN LOCATION FOR A GIVEN ROW. IN THE EAST-WEST DIRECTION.
  - TORQUE TUBE REFERENCE LINE: THE LINE THAT PASSES THROUGH THE CENTER AND TOP OF THE TORQUE TUBE AFTER THEY HAVE BEEN ALIGNED AND KEPT THE PILE SADDLES.
  - GLOBAL AND LOCAL REFERENCE SADDLES: YOU MUST ESTABLISH A GLOBAL REFERENCE SADDLE IN ROW 1 AND A LOCAL REFERENCE SADDLE FOR THE TRACKER IN ROWS 2-18. THIS WILL ENSURE PROPER SADDLE ALIGNMENT THROUGHOUT THE TRACKER.  
 A. GLOBAL REFERENCE SADDLE (ROW 1 ONLY) SHALL BE THE TOP SURFACE OF THE INNER TORQUE TUBE SADDLE THAT IS NORTH OF THE DRIVE STRUT CENTERLINE. IT SHOULD ALWAYS BE SET TO 0.040.1'.  
 B. A LOCAL REFERENCE SADDLE WILL NEED TO BE ESTABLISHED. THE INNER TORQUE TUBE SADDLE #1 THAT IS NORTH OF THE DRIVE STRUT CENTERLINE ON ROWS 2-18. THE TOLERANCE OF THE LOCAL SADDLE FROM THE GLOBAL REFERENCE SADDLE WILL BE 0.040.75'.

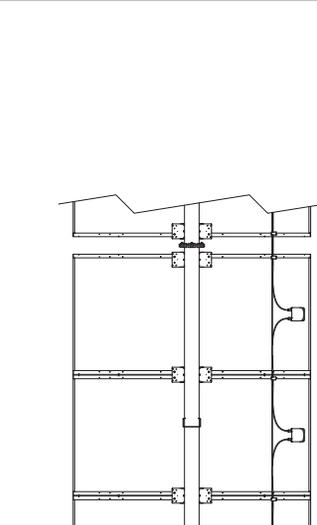
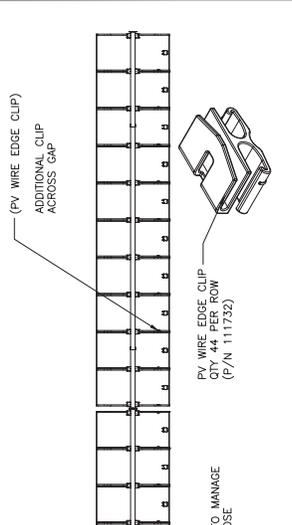
REV	DATE	DESCRIPTION
DB	08-07-12	SPWR DESIGN REVIEW
BA	09-14-12	ISSUE FOR BIDS
AB	11-14-12	RELEASED FOR BID - ADDENDUM
CA	2-21-13	ISSUE FOR CONSTRUCTION

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**FA-1.13**

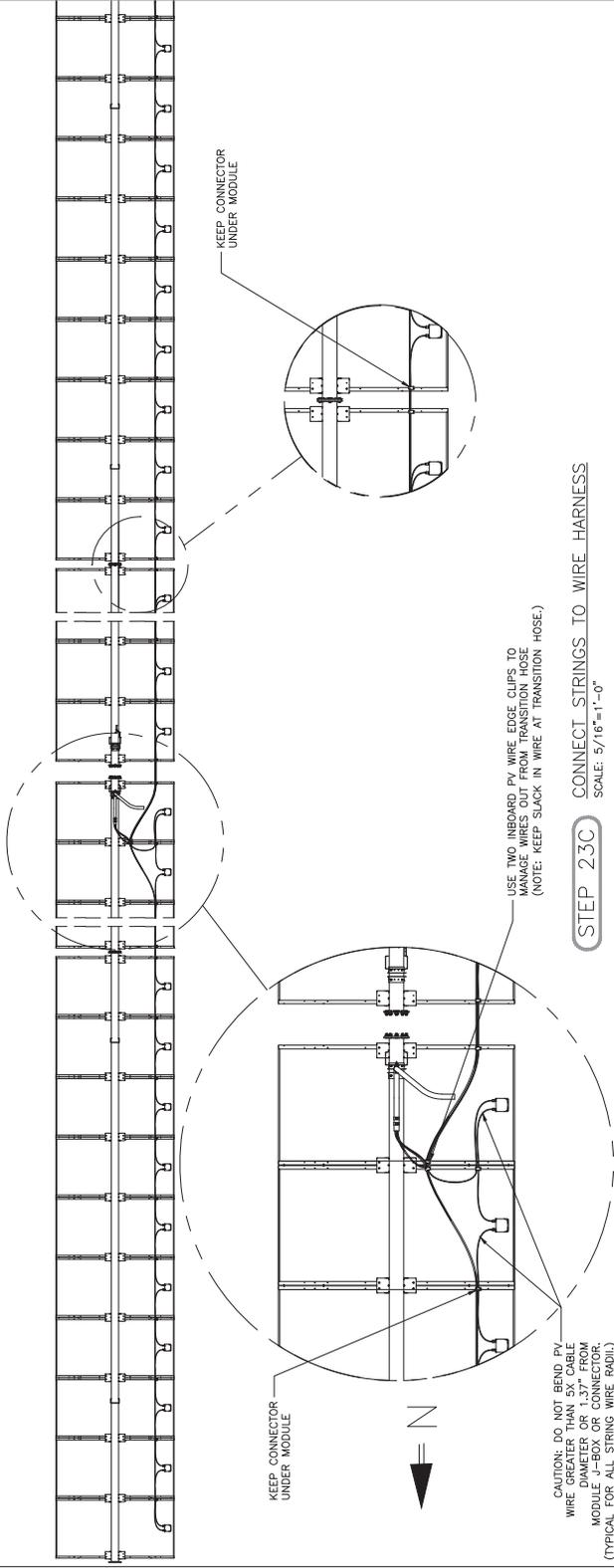
SPWR DWG NO: 003739-ASPT1-20030-DWG-FA113  
 003739-ASPT1-20030-IMP-FAC0270

- STEP 23 WIRE PV**
- INSTALL PV WIRE EDGE CLIPS IN EXISTING HOLES AT SPECIFIED LOCATIONS.
  - CONNECT PV MODULE PIGTAILS TO MAKE STRING.
    - CONNECT POSITIVE TO NEGATIVE PIGTAILS TO CREATE 10-MODULE TORQUE TUBE SEGMENT.
    - INSERT PIGTAIL WIRES INTO PV WIRE EDGE CLIP.
  - CONNECT STRINGS TO WIRE HARNESS.
    - UNCOIL WIRE HARNESS FROM TRANSITION HOSE TO BENEATH MODULES ON PIGTAILS ON WIRES TO LAYOUT FA-1.14.
    - ROUTE HARNESS OUT OF TRANSITION HOSE AS SHOWN.
    - INSERT WIRE HARNESS INTO PV WIRE EDGE CLIP.
    - BEFORE TERMINATING HOMERUN WIRES TO COMBINER BOX, VERIFY THAT COMBINER BOX HAS BEEN PROPERLY GROUNDED TO THE CABLE TRAY.
- NOTE: ENSURE CONNECTORS ARE ROUTED TO REMAIN BENEATH MODULE AND DO NOT LAND AT GAPS BETWEEN MODULES OR AT TORQUE ARM.  
 (CONTINUED ON SHEET FA-1.14)



**STEP 23A** INSTALL PV WIRE EDGE CLIPS  
 SCALE: 3/16"=1'-0"

**STEP 23B** CONNECT & ROUTE PIGTAILS  
 SCALE: 5/8"=1'-0"



**STEP 23C** CONNECT STRINGS TO WIRE HARNESS  
 SCALE: 5/16"=1'-0"

CAUTION: DO NOT BEND PV WIRE DIAMETER OR 1.37" FROM MODULE J-BOX OR CONNECTOR. (TYPICAL FOR ALL STRING WIRE RADIUS)

3/26/2013 3:04 PM

