HISTORIC AND DESIGN REVIEW COMMISSION

July 20, 2016 Agenda Item No: 25

HDRC CASE NO: 2016-257

ADDRESS: 114 E HUISACHE AVE

LEGAL DESCRIPTION: NCB 1703 BLK 8 LOT E, 41.5 FT OF 4

ZONING: R4 H CITY COUNCIL DIST.:

DISTRICT: Monte Vista Historic District

APPLICANT: David Libby **OWNER:** David Libby

TYPE OF WORK: Solar panel installation

REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to:

- 1. Locate fourteen (14) panels on the west facing roof slope, visible from the public right of way on E Huisache.
- 2. Locate thirteen (13) panels on the east facing roof slope, visible from the public right of way on E Huisache.
- 3. Locate three (3) panels on the south facing roof slope, not visible from the public right of way on E Huisache.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 3, Guidelines for Additions

C. SOLAR COLLECTORS

- i. Location—Locate solar collectors on side or rear roof pitch of the primary historic structure to the maximum extent feasible to minimize visibility from the public right-of-way while maximizing solar access. Alternatively, locate solar collectors on a garage or outbuilding or consider a ground-mount system where solar access to the primary structure is limited.
- ii. Mounting (sloped roof surfaces)—Mount solar collectors flush with the surface of a sloped roof. Select collectors that are similar in color to the roof surface to reduce visibility.
- iii. Mounting (flat roof surfaces)—Mount solar collectors flush with the surface of a flat roof to the maximum extent feasible. Where solar access limitations preclude a flush mount, locate panels towards the rear of the roof where visibility from the public right-of-way will be minimized.

FINDINGS:

- a. The applicant has proposed to mount a solar panel system at 114 E Huisache in the Monte Vista Historic District. The applicant has proposed to mount the panels of the west, east and south facing roof slopes.
- b. According to the Guidelines for Additions 6.C.i, solar collectors should be located on the side or rear roof pitch of the primary historic structure to the maximum extent feasible to minimize visibility from the public right of way while maximizing solar access. Additionally, solar collectors may be located on garages or other accessory structures where access to the primary structure is limited. The applicant has proposed to locate fourteen (14) panels on the west facing roof slope and thirteen (13) panels on the east facing roof slope. Both locations are visible from the public right of way and are not consistent with the Guidelines.
- c. On the rear roof of the primary historic structure, the applicant has proposed to mount three (3) solar panels, not visible from the public right of way. This location is appropriate and consistent with the Guidelines.

RECOMMENDATION:

Staff does not recommend approval of items #1 and #2 based on finding b.

Staff recommends approval of item #3 based on finding c. Staff recommends the applicant study mounting solar panels on the roof of the accessory structure and the roof of the rear addition, both of which will not be visible from the public right of way on E Huisache.

CASE MANAGER:

Edward Hall





Flex Viewer

Powered by ArcGIS Server

Printed:Jun 17, 2016

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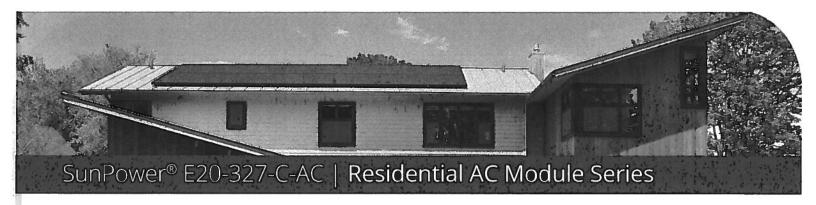
SITE VERIFIED - PV SYSTEM LAYOUT



OWNER INFORMATION	SYSTEM INFORMATION	
David Libby	SYSTEM SIZE (KW-DC)	9.81
114 East Huisache Ave, San Antonio, TX 78212	MODULE MODEL NO.	SPR-E20-327-C-AC
(210) 573-7974	QTY OF MODULES	30
CONTRACTOR INFORMATION	INVERTER MODEL NO.	NA
FREEDOM SOLAR LLC, TECL# 28621	QTY OF INVERTERS	NA
4111 TODD LN, STE 100	AZIMUTH	270 90 180
AUSTIN, TX 78744	TILT	18



PV Installation Professional Josh Meade Cert #PV-041115-010201



Design-Driven Advantages

- #1 module aesthetics and efficiency¹
- · Unmatched module reliability2
- · No electrolytic capacitors
- · 25-year Combined Power and Product Warranty

Maximize Value for Roof

- · Size system for roof, not for string inverter
- · Optimize performance of each module

Expand Deployment Options

- · Complex roofs and partial shading
- · Srnall systems
- System expandability

Simplify & Speed Installation

- · Factory-integrated microinverter
- · Robust, double-locking AC connectors
- · Design flexibility offsite and onsite
- No DC string sizing process
- · Fewer installation steps than competing systems
- · Intuitive commissioning

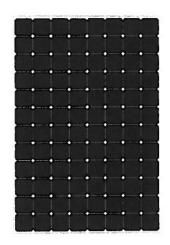
Component of Complete System

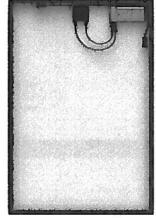
- Built for use with SunPower® InvisiMount™ and SunPower Monitoring System
- · Superior system reliability and aesthetics



¹Highest of over 3,200 silicon solar panels, Photon Module Survey, Feb. 2014

²#1 rank in "PV Module Durability Initiative Public Report," Fraunhofer CSE, Feb 2013. Five out of the top eight largest manufacturers were tested. Campeau. Z et al. "SunPower Module Degradation Rafe," SunPower white paper, Feb 3013. See www.sunpower.com/facts for details.



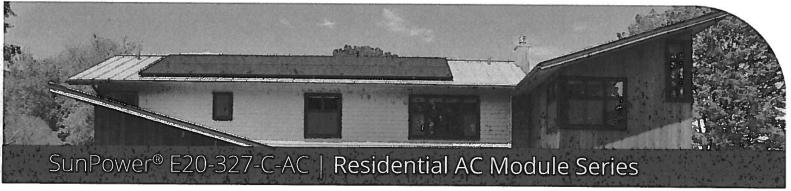




Optimize System and Installation Efficiency

SunPower* AC Modules, which include a factory-integrated SunPower rnicroinverter, provide a revolutionary combination of high efficiency, high reliability, and module-level DC-to-AC power conversion. Designed specifically for use with SunPower InvisiMount™ and SunPower Monitoring System, SunPower AC Modules enable rapid installation, best-in-class system aesthetics, and intuitive visibility into system performance. All this comes with the best Combined Power and Product Warranty.





Model. E20-327-C-AC

Measured at Standard Test Conductors (STC) or Nominal Power ³		327 W
	Pnom	327 VV
Power Tolerance	Ptol	+5/-0%
Avg. Power Efficiency ⁴	η	20.4%
remperature Coefficient (Power)	Р	-0,38 % / °C
Shade Tolerance	Three bypass Integrated pa	nel-level maximum

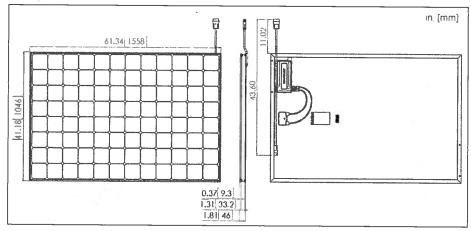
AC Electrical D	Data
Output @ 240 V (min./nom./max)	211/240/264 V
Output @ 208 V (min./nom./max.)	183/208/229 V
Operating Frequency (min./nom./max.)	59.3/60.0/60.5 Hz
Output Power Factor (min.)	0.99
AC Max. Continuous Output Current @ 240 V	1.33 A
AC Max. Continuous Output Current @ 208 V	1.54 A
AC Max. Continuous Output Power	320 W
DC/AC CEC Conversion Efficiency	96.0%
Max. Units Per Branch Circuit @ 240 V	12 (single phase)
Max. Units Per Branch Circuit @ 208 V	10 (two pole)

Mechanical Data		
Solar Cells	96 Monocrystalline Maxeon® Gen III	
Front Glass	High-transmission tempered glass with anti-reflective (AR) coating	
Environmental Rating	Outdoor Rated	
Frame	Class 1 black anodized (highest AAMA rating)	
Weight	45.5 lbs (20.6 kg)	
Max. Recommended Module Spacing	1.3 in. (33 mm)	

8,1	Tested Operating Conditions
Operating Temp.	-40° F to +185° F (-40° C to +85° C)
Max. Ambient Temp.	133° F (56° C)
Max. Load	Wind: 3000 Pa (62.6 psf, 305.6 kg/m²) front & back Snow: 6000 Pa (125.3 psf, 611.7 kg/m²) front
Impact Resistance	1 inch (25 mm) diameter hail at 52 mph (23 m/s)

	Warranties and Certifications
Warranties	· 25-year limited power warranty
	· 25-year limited product warranty
	• UL 1741, including compliance with applicable requirements of IEEE 1547 and IEEE 1547.1
Certifications	Alternating Current (AC) Module designation enables installation in accordance with NEC 690 6
	• Type 2 Fire Rated

Dimensions



*Standard Test Conditions (1000 W/m² Irradiance, AM 1 5, 25, C) NREL calibration standard: SOMS current: LACCS F1 and voltage

4Based on average of measured power values during production.

See www.sunpower.com/facts for more reference information. For more details, see extended datasheet www.sunpower.com/datasheets. Read safety and installation instructions before using this product







