



Staff Report

PLANNING DIVISION
COMMUNITY & ECONOMIC DEVELOPMENT

To: Salt Lake City Historic Landmark Commission
From: Amy Thompson, Principal Planner
amy.thompson@slcgov.com
Date: October 6, 2016
Re: **PLNHLC2016-00632** – Solar Panels 317 North C Street

MINOR ALTERATIONS

PROPERTY ADDRESS: 317 North C Street
PARCEL ID: 09-31-401-009
HISTORIC DISTRICT: Avenues Local Historic District
ZONING DISTRICT: SR-1A (Special Development Pattern Residential)
MASTER PLAN: Low Density

REQUEST: Kyle Oram of Auric Solar, the contractor representing the owner of the property, is requesting Minor Alterations approval from the City to locate solar panels on the front plane of a single-family residence located in the Avenues Historic District. This type of project must be reviewed as Minor Alteration by the Historic Landmark Commission.

RECOMMENDATION: As outlined in the analysis and findings in this staff report, Planning Staff recommends the Historic Landmark Commission approve the location of the solar panels as proposed.

MOTION (consistent with Staff Recommendation):

Based on the analysis and findings listed in this staff report, testimony and the proposal presented, I move that the Commission approve the request for a minor alteration for the installation of a small solar energy collection system as proposed on the roof of the front gable and visible from the public right-of-way for the residence at 317 N C Street. Specifically, the Commission finds that the proposed project complies with the standards of review.

ATTACHMENTS:

- A. [Vicinity Map](#)
- B. [Historic District Map](#)
- C. [Site Plans and Property Photos](#)
- D. [Analysis of Standards](#)
- E. [Applicable Design Guidelines](#)
- F. [Public Process and Comments](#)
- G. [Motions](#)

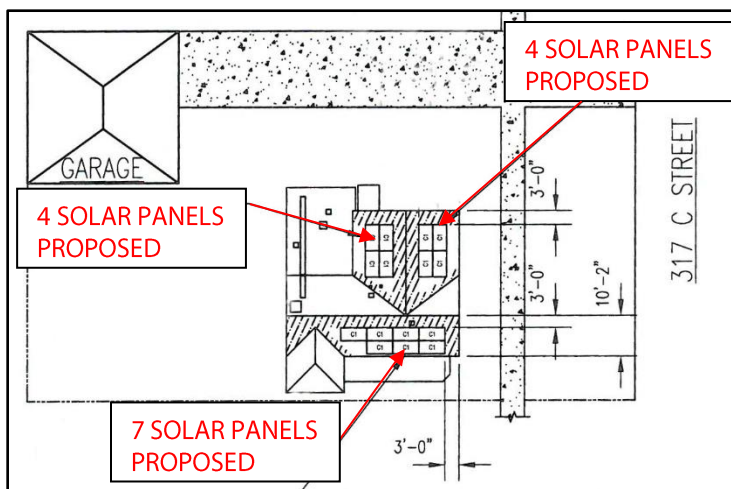
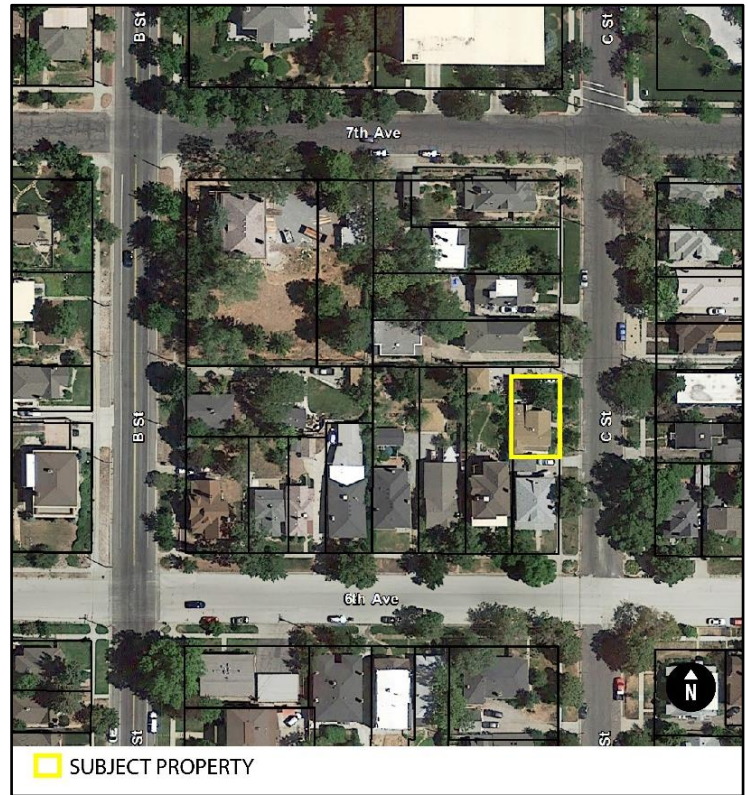
BACKGROUND AND PROJECT DESCRIPTION:

The subject parcel is a single family home located at approximately 317 North C Street and is considered a contributing historic property in the Avenues Historic District. In the most recent reconnaissance level survey, the house is classified as a Victorian Eclectic that was built in 1898.

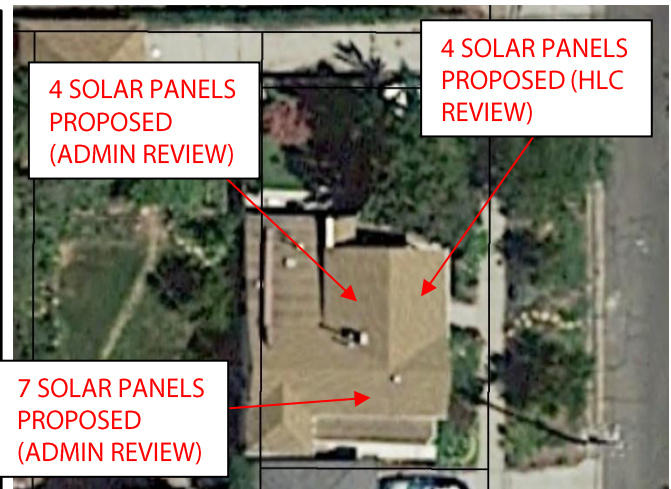
The request is to install a solar energy collection system on the roof of the structure that contains a total of 15 solar panels. Section 21A.40.190.B identifies priority locations where small energy collection systems can be located that may be reviewed administratively. 11 of the 15 solar panels may be reviewed administratively: Seven solar panels are proposed on the south roof plane of the structure, and four are proposed on a gable that faces west toward the rear yard.

There is a gable at the front of the house and the request is to locate 4 of the solar panels on the front plane of this gable, visible from the public right of way (see plans below). In accordance with section 21A.40.190.B, these four solar panels must be reviewed by the Historic Landmark Commission.

To comply with fire code, the solar panels are located 3 feet from the roof ridge and sides of the roof. The panels are approximately 5.4 feet long by 3.2 feet wide. Each panel has an area of approximately 17¼ square feet. The panels will project above the roof approximately 3 inches with the mounting bracket. The panels will be black in color and the color of the roofing material is gray. The total area of all 15 solar panels is approximately 264 square feet.



Roof diagram submitted by applicant

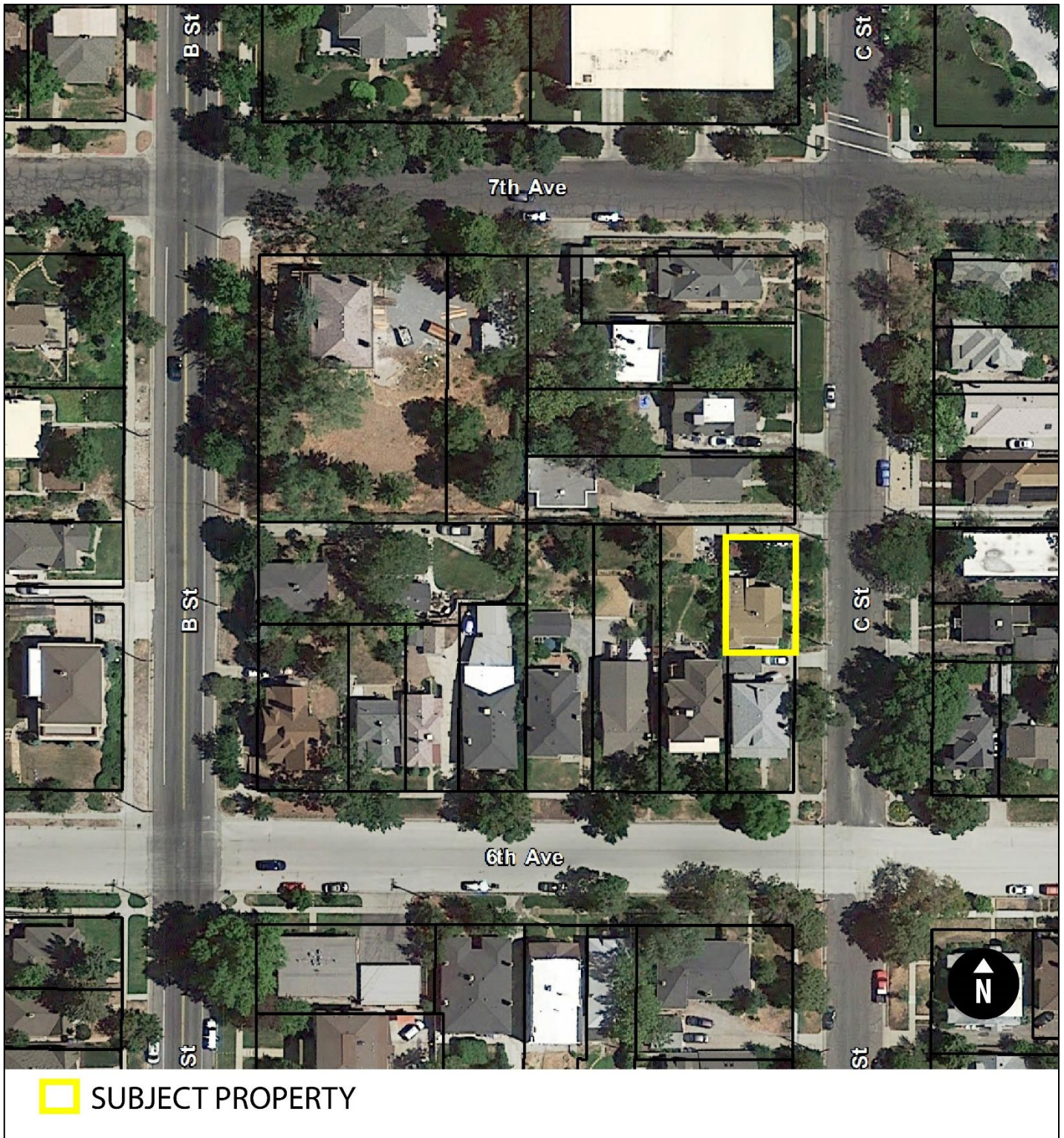


2016 aerial of roof-Google Earth

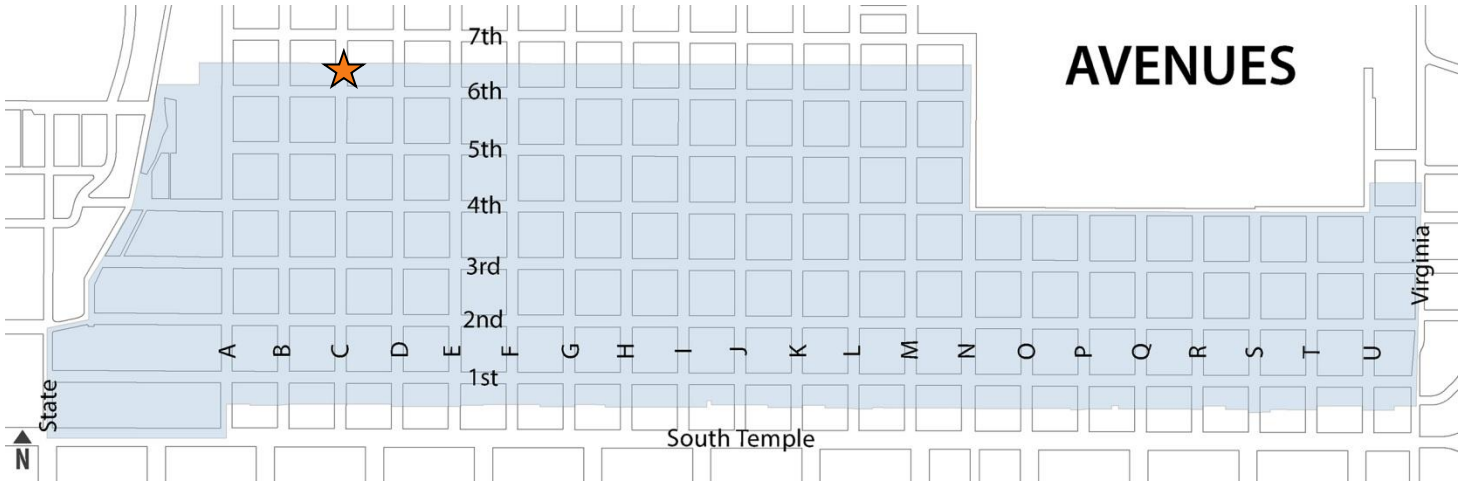
The location of the proposed solar panels was chosen to maximize east/west sun exposure for the small solar energy collection system. Staff discussed moving the location of the four solar panels to the rear of the residence so they would not be as readily visible from the street, but the applicant stated that this was the most effective area for the small solar energy collection system because the roof is flat toward the rear of the house and does not meet structural safety requirements to accommodate any solar panels. The purpose of the solar panels is to offset as much as the homeowners consumption as possible to reduce bills. The applicant has indicated that if the 15 solar panels are installed as proposed, they will offset 94% of the property's power consumption.



ATTACHMENT A: VICINITY MAP



ATTACHMENT B: HISTORIC DISTRICT MAP



★ *Approximate project location*

ATTACHMENT C: SITE PLANS AND PROPERTY PHOTOS



JOHNSON RESIDENCE PHOTOVOLTAIC ARRAY

4.275 KW, 15 @ 285W SUNIVA/ENPHASE

CUSTOMER

NANCY JOHNSON
317 C STREET
SALT LAKE CITY, UT 84103

CONTRACTOR

AURIC SOLAR
2310 SOUTH 1300 WEST
WEST VALLEY, UT 84119
801-878-3363
auricoperations@gmail.com



JOHNSON RESIDENCE	
317 C STREET, SALT LAKE CITY, UT 84103	
TITLE PAGE	
DATE	08/02/2016
JOB #	160470
REV	001
DSGN	KG

Proprietary Design of AURIC SOLAR. Any Unauthorized use or replication of any or all of the design will be subject to prosecution.

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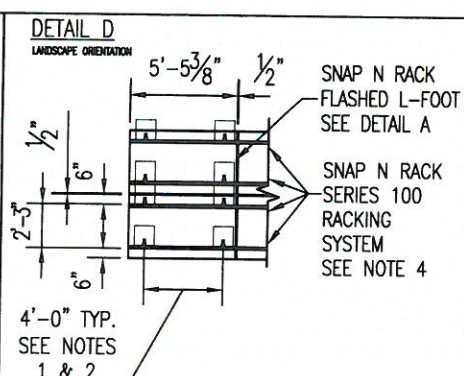
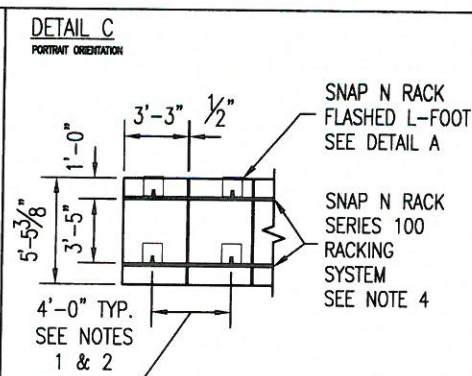
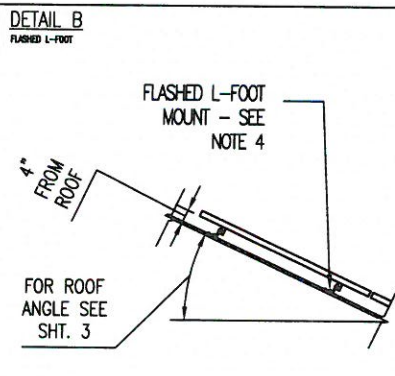
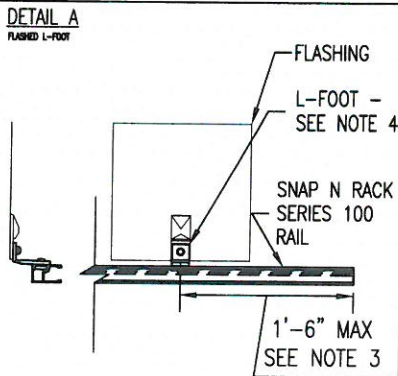
SHEET #	SHEET TITLE #
1	TITLE PAGE
2	INDEX, LEGEND - MECHANICAL DETAILS & NOTES
3	ROOF DIAGRAM
4	ELECTRICAL INTEGRATION
5	SINGLE LINE INTERCONNECTION DIAGRAM & LABELING
6-11	SNAP N RACK SERIES 100 RACKING CUT SHEET
12	SNAP N RACK UL LISTED HARDWARE
13-15	ENPHASE TECHNICAL BRIEF, ARRAY GROUNDING
16	COMBINER/ENCLOSURE CUT SHEET
17-19	ENPHASE MICROINVERTER & CABLING CUT SHEET
20-21	SUNIVA SOLAR PANEL CUT SHEET
22	CONTRACTOR'S LICENSE

NOTES:

1. ATTACHMENT FEET WILL BE FIELD ADJUSTED TO ACCOMMODATE TRUSS POSITIONS.
2. 5 FT MAXIMUM SPACING BETWEEN ATTACHMENT POINTS.
3. RAIL END OVERHANG LIMITED TO LESS THAN 33% OF MAXIMUM SPAN (18 IN MAXIMUM).
4. SEE ATTACHED SHEETS FOR SNAP N RACK SERIES 100 WITH FLASHED L-FOOT MOUNT DETAILS.
5. PV MODULES MUST NOT BE INSTALLED OVER OR BLOCK ANY ATTIC VENTS, PLUMBING VENTS, FURNACE OR WATER VENTS, ETC.
6. ARRAY WIRE MANAGEMENT SHALL BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE AND HELD OFF THE ROOF SURFACE.
7. EGC'S SHALL BE RUN WITH ASSOCIATED CIRCUIT CONDUCTORS IN ACCORDANCE WITH NEC 690.43(F)
8. VERIFY PROPER GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC 250.50.
9. RAIL MIDCLAMPS CAN ONLY BE POSITIONED $\pm 3"$ OF MOUNTING HOLE. MODULES IN LANDSCAPE ARE ONLY ALLOWED MIDCLAMPS FROM 5" TO 9" FROM SHORT END OF MODULE.

LEGEND

	— TRANSFORMER		— UTILITY METER
	— CIRCUIT BREAKER		— PRODUCTION METER
	— UTILITY DISCONNECT		— GROUND SYMBOL
	— FIRE ACCESS		



JOHNSON RESIDENCE

317 C STREET, SALT LAKE CITY, UT 84103

INDEX, LEGEND - MECHANICAL DETAILS & NOTES

Proprietary Design of AURICO SOLAR. Any Unauthorized use or replication of any or all of the design will be subject to prosecution.

DATE 08/02/2016

JOB # 160470

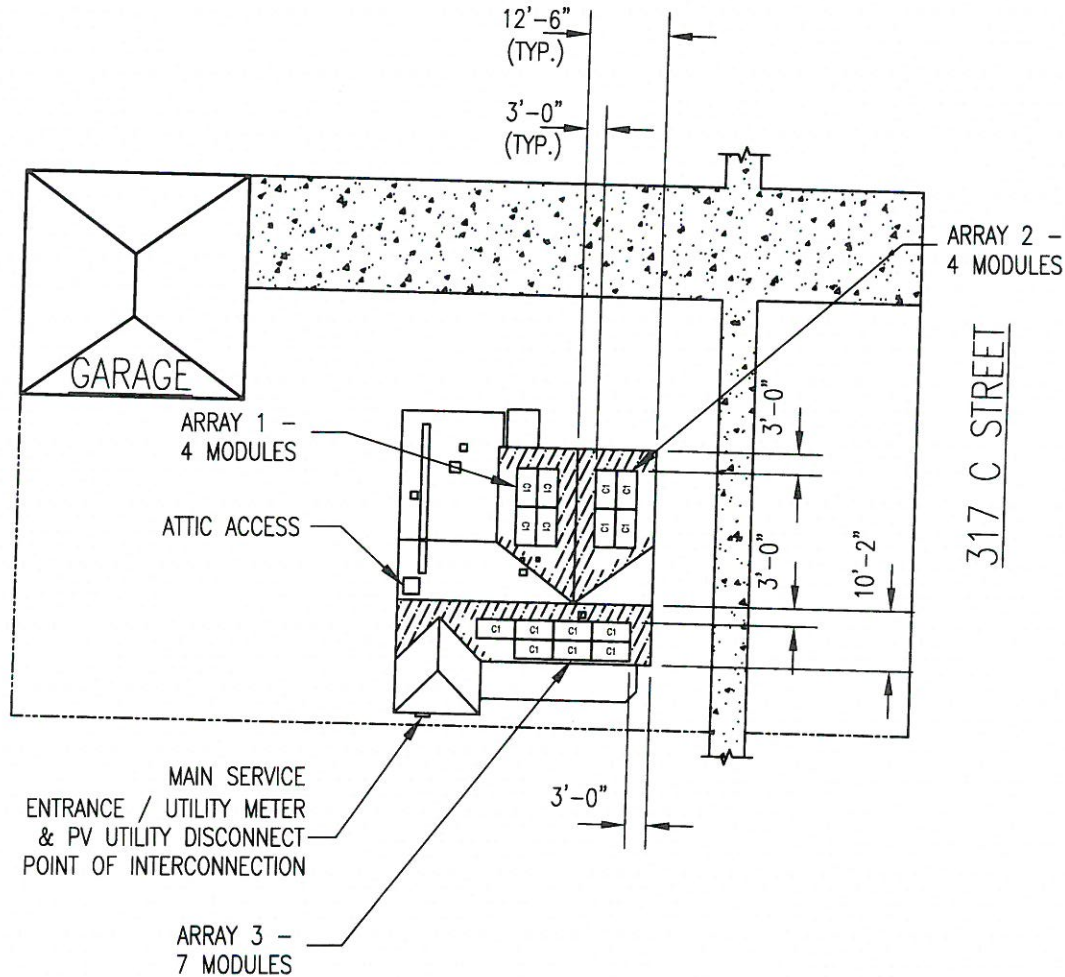
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DSGN KG

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NOTES:

1. FIELD ADJUST ARRAYS ON SLOPE FOR BEST PLACEMENT.
2. ALLOW 3' FROM RIDGE AND SIDES AS PER FIRE CODE.



27' & 34'
ASPHALT SHINGLE ROOF

SUNIVA PANELS
15 @ 285 W = 4.275 KW
SEE ATTACHED SHEET FOR DETAILS

JOHNSON RESIDENCE

317 C STREET, SALT LAKE CITY, UT 84103

ROOF DIAGRAM

DATE 08/02/2016

JOB # 160470

REV 001

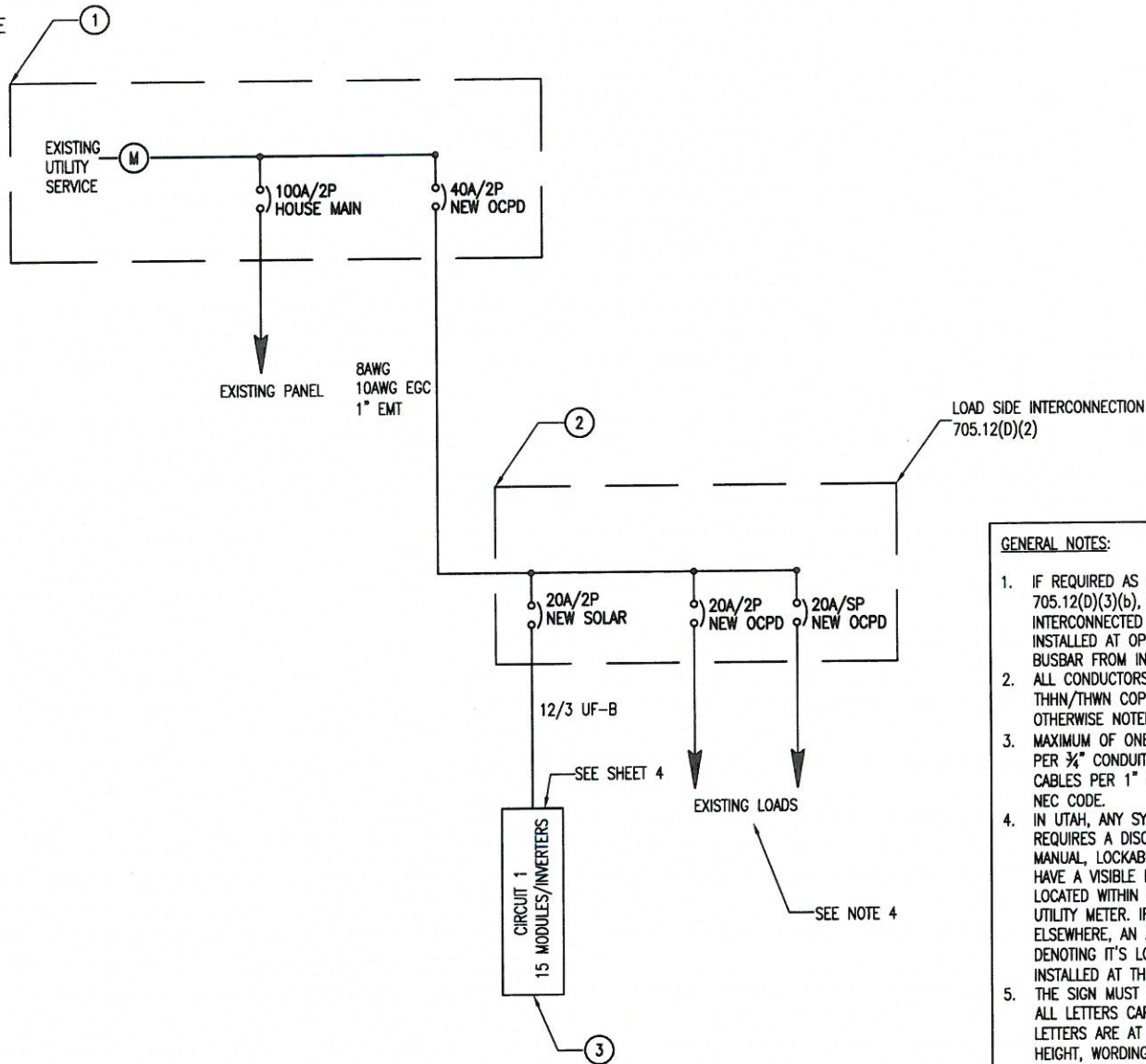
DSGN KG

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Proprietary Design of AURIC SOLAR. Any Unauthorized use or replication of any or all of the design will be subject to prosecution.

NOTES:

1. 125A RATED METER MAIN, EATON TYPE BR. (EXISTING)
2. 125A RATED OUTDOOR LOAD CENTER, SIEMENS. (NEW)
3. SUNIVA 285W MODULES, ENPHASE M250 IG MICRO-INVERTERS, ENPHASE ENGAGE CABLE.
4. RELOCATE EXISTING CIRCUITS FROM METER MAIN TO NEW SUB PANEL.



LABELING:

TO BE INSTALLED AT THE UTILITY / METER (SEE GENERAL NOTE 5)

PARALLEL ON-SITE SOLAR GENERATION

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TO BE INSTALLED ON PV DISCONNECT

MANUAL DISCONNECT FOR PARALLEL GENERATION 15 A @ 240 VAC

TO BE INSTALLED NEXT TO BACK FEED BREAKERS FOR LOAD SIDE INTERCONNECTIONS

-WARNING- INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVER-CURRENT DEVICE

GENERAL NOTES:

1. IF REQUIRED AS PER NEC 705.12(D)(3)(b), LOAD SIDE INTERCONNECTED BREAKERS TO BE INSTALLED AT OPPOSITE END OF BUSBAR FROM INPUT FEEDER.
2. ALL CONDUCTORS SHALL BE THHN/THWN COPPER UNLESS OTHERWISE NOTED.
3. MAXIMUM OF ONE 1 1/2 UF-B CABLE PER 3/4" CONDUIT AND TWO 1 1/2 UF-B CABLES PER 1" CONDUIT, AS PER THE NEC CODE.
4. IN UTAH, ANY SYSTEM OVER 10KW DC REQUIRES A DISCONNECT THAT IS MANUAL, LOCKABLE, LOAD BREAK, HAVE A VISIBLE BREAK, AND BE LOCATED WITHIN 10 FEET OF THE UTILITY METER. IF LOCATED ELSEWHERE, AN APPROVED DIRECTORY DENOTING IT'S LOCATION MUST BE INSTALLED AT THE UTILITY METER.
5. THE SIGN MUST BE REFLECTIVE, WITH ALL LETTERS CAPITALIZED, AND LETTERS ARE AT LEAST 3/8" IN HEIGHT, WORDING MUST ALSO BE WHITE ON A RED BACKGROUND.



JOHNSON RESIDENCE

317 C STREET, SALT LAKE CITY, UT 84103

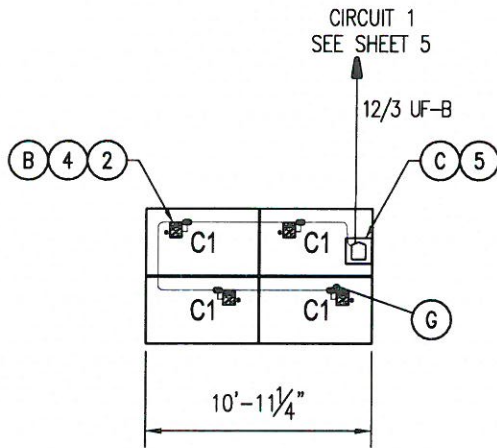
SINGLE LINE INTERCONNECTION DIAGRAM & LABELING

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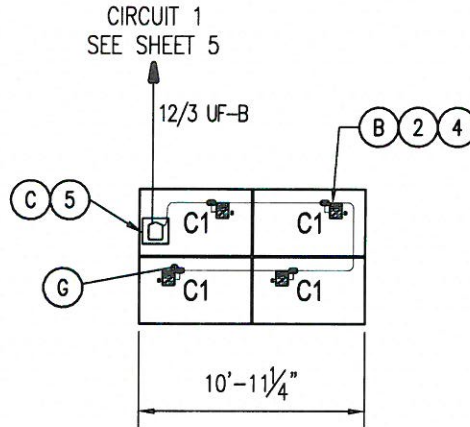
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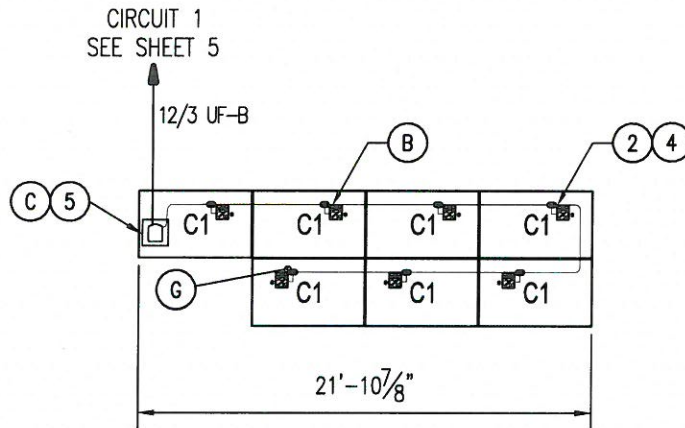
ARRAY 1-4 MODULES
(LANDSCAPE ORIENTATION)



ARRAY 2-4 MODULES
(LANDSCAPE ORIENTATION)



ARRAY 3-7 MODULES
(LANDSCAPE ORIENTATION)



BILL OF MATERIALS

ITEM	QTY	DESCRIPTION
A	15	SUNVA 285 MODULES
B	15	ENPHASE IG M250 MICROINVERTERS
C	3	SOLADECK
D	54	FLASHED 1/2" FOOT
E	15	CABLE CONNECTOR (LANDSCAPE CABLE)
F	0	SEALING CAP (CABLE CONNECTOR)
G	3	BRANCH TERMINATIONS



JOHNSON RESIDENCE
317 C STREET, SALT LAKE CITY, UT 84103
ELECTRICAL INTEGRATION

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NOTES:

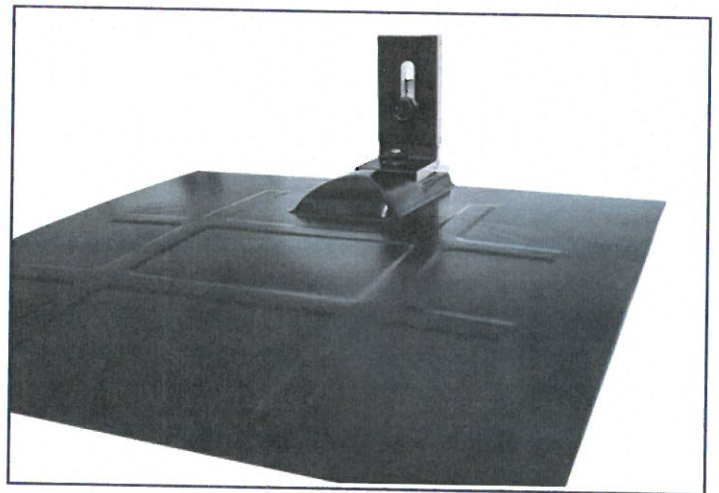
1. MODULES ARE BONDED TO RAILS USING SNAP N RACK BONDING MID CLAMPS. SEE CUT SHEETS FOR DETAILS.
2. RAILS ARE BONDED TO THE EGC SYSTEM THROUGH THE ENPHASE ENGAGE CABLE SYSTEM. THE ENPHASE ENGAGE CABLING SYSTEM IS LISTED FOR THIS USE. SEE CUT SHEETS FOR PRODUCT SPECIFICATIONS.
3. ENPHASE MICRO-INVERTERS ARE EQUIPPED WITH INTEGRATED GROUNDS AND ARE GROUNDED THROUGH THE ENGAGE CABLE. SEE CUT SHEETS FOR PRODUCT SPECIFICATIONS.
4. SEE CUT SHEETS FOR ENPHASE INVERTER CABLING ACCESSORIES SPECIFICATIONS AND DETAILS.
5. SEE CUT SHEETS FOR COMBINER/ENCLOSURE SPECIFICATIONS.

DATE	08/02/2016
JOB #	160470
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Series 100 Flashed L Foot Kit

SnapNrack Series 100 Flashed L Foot Kit is an innovative solution to provide a long lasting, watertight seal over the life of the system. The Flashed L Foot provides a fully flashed roof fastener for attachment to composition roof with no required cutting of shingles. The L Foot is engineered for maximum adjustability for a clean, level installation.

- Slotted attachment provides 1" vertical adjustability for array leveling
- 1" spacers available for increased elevation adjustability
- Offered in silver or black anodized aluminum. Both are available with black galvanized steel or aluminum flashing.
- No cutting of shingles



242-92051

Features Include



Snap in
Hardware



Single Tool
Installation



Easy
Leveling



No Cutting
or Drilling



Preassembled
hardware



Integrated bonding



UL 2703 Certified

Series 100 Residential Roof Mount System

The SnapNrack Series 100 Roof Mount System is engineered to optimize material use, labor resources and aesthetic appeal. This innovative system simplifies the process of installing solar modules, shortens installation times, and lowers installation costs; maximizing productivity and profits.

The Series 100 Roof Mount System boasts unique, pre-assembled, stainless steel “Snap-In” hardware and watertight flash attachments. This system is installed with a single tool. No cutting or drilling means less rail waste. It is fully integrated with built-in wire management, solutions for all roof types, one-size-fits-all features, and can withstand extreme environmental conditions. Series 100 is listed to UL Standard 2703 for Grounding/Bonding, Fire Classification and Mechanical Loading. UL 2703 Certification and Compliance ensures that SnapNrack installers can continue to provide the best in class installations in quality, safety and efficiency.

- Appealing design with built-in aesthetics
- No grounding lugs required for modules
- All bonding hardware is fully integrated
- Rail splices bond rails together, no rail jumpers required
- No drilling of rail or reaching for other tools required
- Class A Fire Rating for Type 1 and 2 modules



System Features Include



Snap in Hardware



Single Tool Installation



Easy Leveling



No Cutting or Drilling



Integrated Wire Management



Preassembled hardware

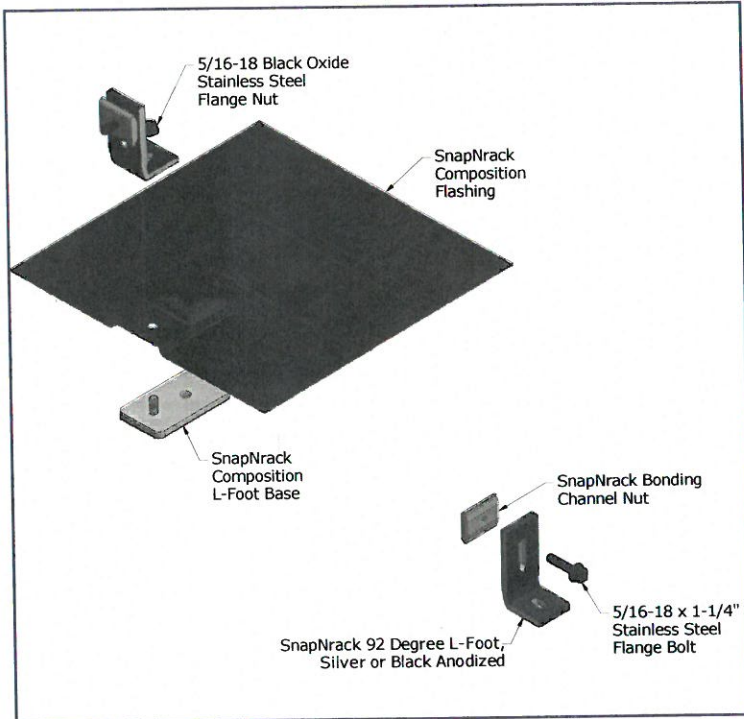


Integrated bonding

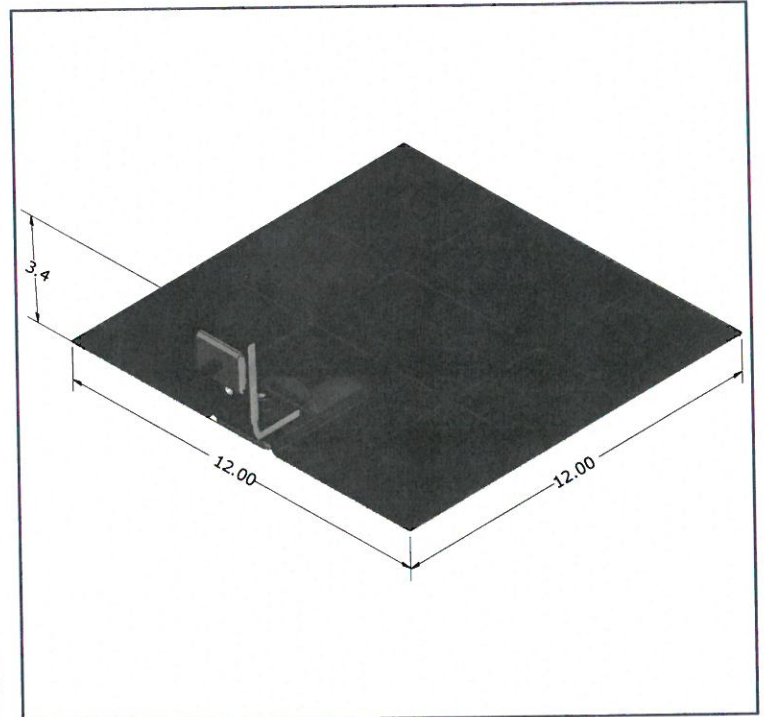


UL 2703 Certified

Flashed L Foot Kit Assembly



Flashed L Foot Kit Dimensions



FLASHED L FOOT KIT TECHNICAL DATA

Materials

- 6000 Series aluminum L foot & base
- Stainless steel hardware
- Galvanized steel or aluminum flashing w/ black all weather coating

Material Finish

Silver or black anodization

Design Uplift Load

340 lb

Torque Specification

- Flange nut: 10-16 ft-lbs
- Rail attachment: silver hardware 10-16 ft-lbs, black hardware 8-10 ft-lbs

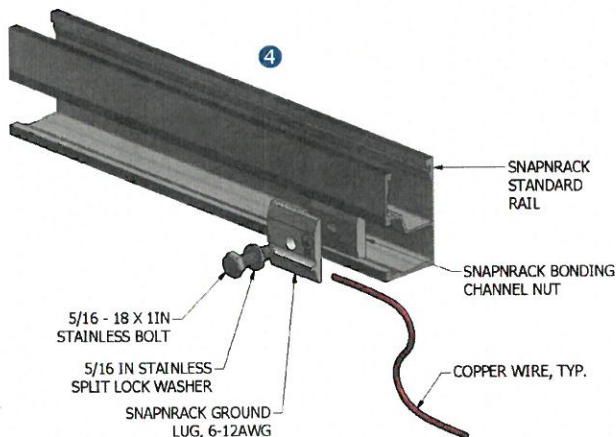
System Ground Methods Include:

- 1 SnapNrack Mid Clamp
- 2 SnapNrack Universal End Clamp
- 3 SnapNrack X Clamp
- 4 SnapNrack Bonding Lug
- 5 IlSCO Bonding Lug

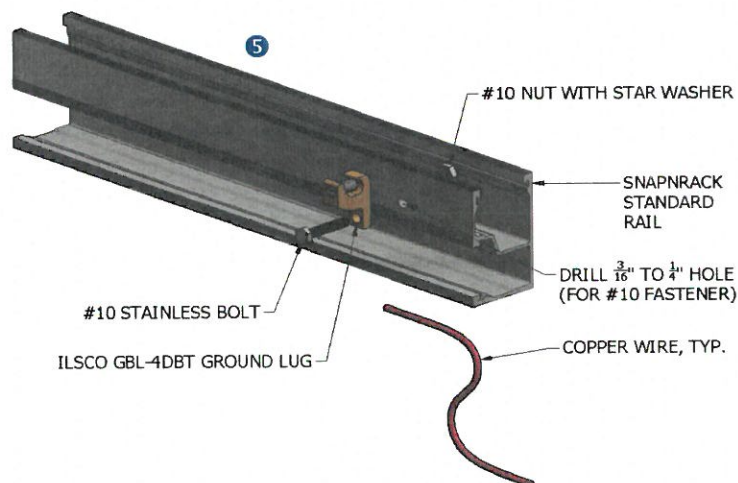
All SnapNrack Module Clamps contain a SnapNrack Bonding Channel Nut in assembly to properly ground the system (except Universal End Clamps).

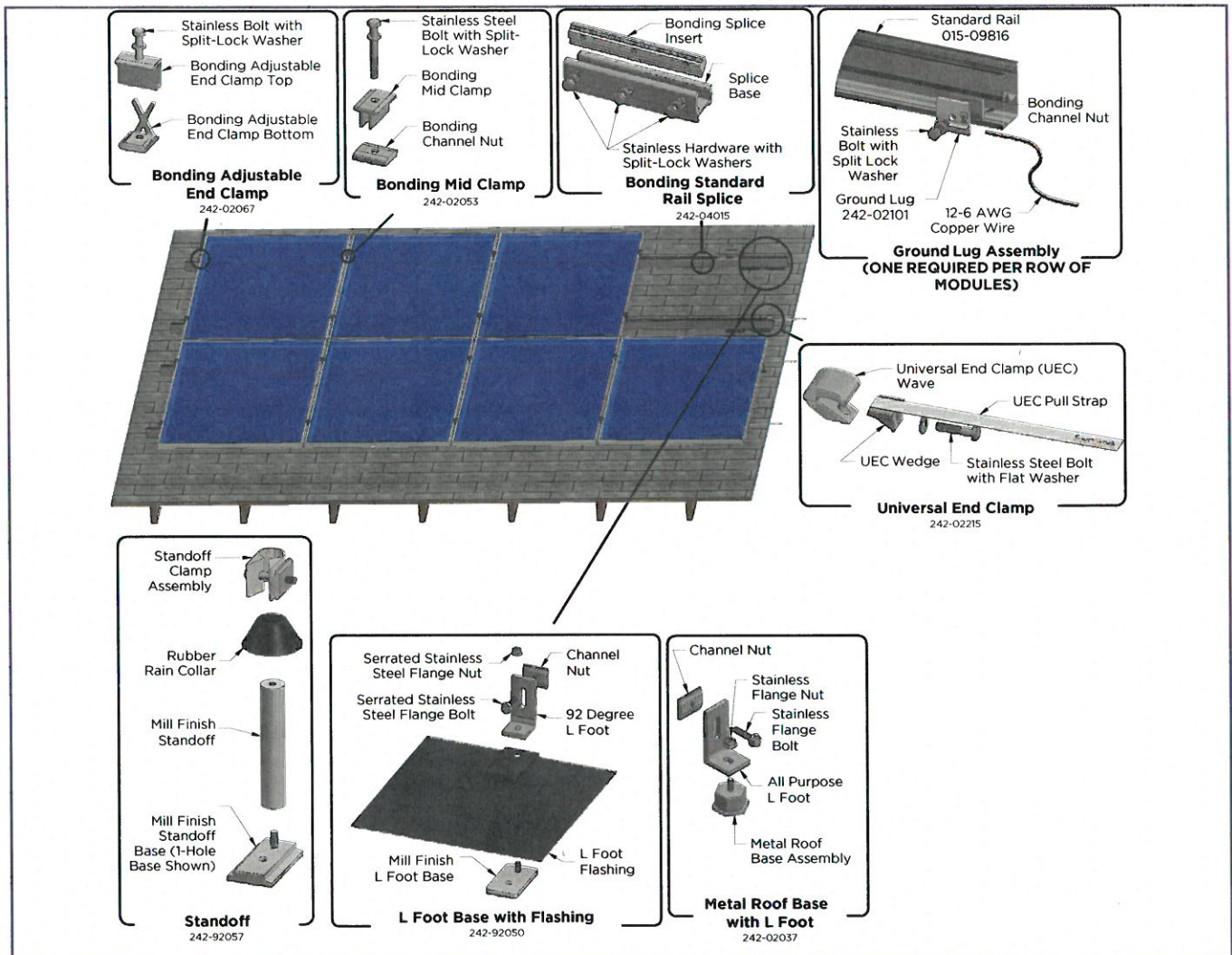


SnapNrack Bonding Lug Assembly



IlSCO Bonding Lug Assembly





SERIES 100 TECHNICAL DATA

Materials

- 6000 Series aluminum
- Stainless steel
- Galvanized steel and aluminum flashing
- Silver and black anodized aluminum
- Mill finish on select products
- Silver or black coated hardware

Material Finish

Note: Appearance of mill finish products may vary and change over time.

Wind Loads

110 - 190 mph (ASCE 7-10)

Snow Loads

0 - 120 psf

Array Pitch

0 - 60 degrees

SUNIVA OPTIMUS® SERIES MONOCRYSTALLINE SOLAR MODULES

OPT SERIES: OPT 60 CELL MODULES (BLACK FRAME)

ENGINEERING EXCELLENCE

- Built exclusively with **Suniva's premium ARTisun Select cells**, providing one of the highest power outputs per square meter at an affordable price
- **The leading US-born, US-operated crystalline silicon cell and module manufacturer**, spun out of Georgia Tech's University Center of Excellence in Photovoltaics; one of only two such research centers in the U.S.
- Suniva's state-of-the-art manufacturing and module lab facilities feature the most advanced equipment and technology

QUALITY & RELIABILITY

- Suniva Optimus modules are manufactured and warranted to our specifications assuring consistent high performance and high quality.
- Rigorous in-house quality management tests beyond standard UL and IEC standards
- Performance longevity with advanced polymer backsheet
- UL1703 listed Type 2 PV module
- Passed the most stringent salt spray tests based on IEC 61701
- Passed enhanced stress tests¹ based on IEC 61215 conducted at Fraunhofer ISE²
- PAN files are independently validated

MANUFACTURED IN
Georgia & Michigan

Optimus® modules are known for their superior quality and long-term reliability. These high-powered modules consist of Suniva's premium ARTisun® Select cell technology and are designed and manufactured in the U.S.A. and North America using our pioneering ion implantation technology. Suniva's high power-density Optimus modules provide excellent performance and value.

FEATURES

- ☀ Utilizes our premier American-made cell technology, ARTisun Select®
- ☀ Superior performance and reliability; enhanced stress tests conducted at Fraunhofer ISE
- ☀ Module families ranging from 275-290W
- ☀ Marine grade aluminum frame with hard anodization or powder coating
- ☀ Certified PID-free by PV Evolution Labs (PVEL)
- ☀ Made in North America
- ☀ Qualifies for Ex-Im Financing
- ☀ 1000V UL
- ☀ 25 year linear power warranty; 10 year product warranty



CERTIFICATIONS



www.suniva.com

OPTIMUS SERIES: OPT 60 CELL MODULES

ELECTRICAL DATA (NOMINAL)

The rated power may only vary by +/- 2.5Wp and all other electrical parameters by +/- 5%

Model Number	OPT275-60-4-1B0	OPT280-60-4-1B0	OPT285-60-4-1B0	OPT290-60-4-1B0
Power Classification (Pmax)	275 W	280 W	285 W	290 W
Module Efficiency (%)	16.73%	17.04%	17.34%	17.65%
Voltage at Max. Power Point (Vmp)	31.5 V	32.1 V	32.6 V	32.7 V
Current at Max. Power Point (Imp)	8.74 A	8.72 A	8.74 A	8.86 A
Open Circuit Voltage (Voc)	38.6 V	39.2 V	39.8 V	40.0 V
Short Circuit Current (Isc)	9.28 A	9.47 A	9.49 A	9.63 A

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m² with AM 1.5 spectra at 25°C.

CHARACTERISTIC DATA

Type of Solar Cell	High-efficiency ARTisun Select cells, 3 and 5 busbar options available
Frame	Anodized or powder coated aluminum alloy
Glass	Tempered (low-iron), anti-reflective coating
Junction Box	NEMA IP67 rated; 3 internal bypass diodes
Cable & Connectors	12 AWG (4 mm ²) PV Wire cable with multiple connector options available; cable length approx. 1000 mm

MECHANICALS

Cells / Module	60 (6 x 10)
Module Dimensions	1660 x 990 mm (65.35 x 38.98 in.)
Module Thickness (Depth)	35 mm (1.37 in.)
Approximate Weight	17.9 +/- 0.25 kg. (39.5 +/- 0.5 lb.)

TEMPERATURE COEFFICIENTS

Voltage	β , Voc (%/°C)	-0.335
Current	α , Isc (%/°C)	+0.047
Power	γ , Pmax (%/°C)	-0.42
NOCT Avg	(+/- 2 °C)	46.0

LIMITS

Max. System Voltage	1000 VDC for IEC, 1000 VDC for UL
Max Series Fuse Rating	15 Amps
Operating Module Temperature	-40°C to +85°C (-40°F to +185°F)
Storm Resistance/Static Load	Tested to IEC 61215 for loads of 5400 Pa (113 psf); hail and wind resistant

Suniva® reserves the right to change the data at any time. View manual at suniva.com.

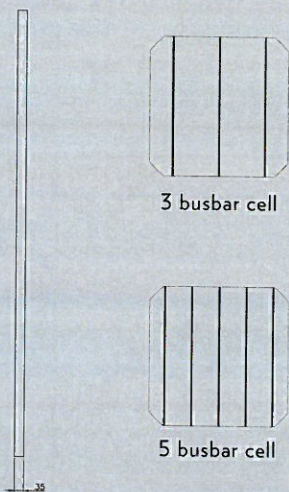
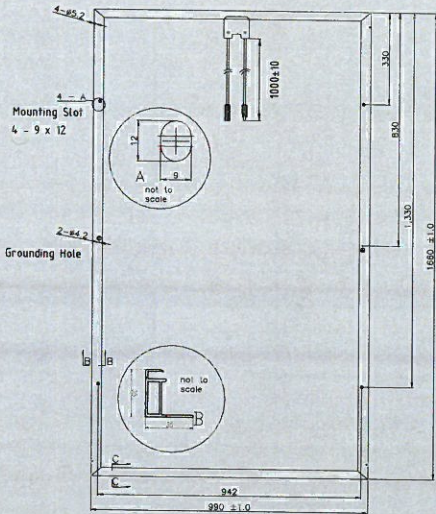
¹UV 90 kWh, TC 400, DH 2000. ²Tests were conducted on module type OPT 60 silver frame.

Please read installation manual before installing or working with module.

Product	Modules per pallet	Pallets per 53' truck	Total modules
OPT - 60 cell (silver and black)	25	36	900

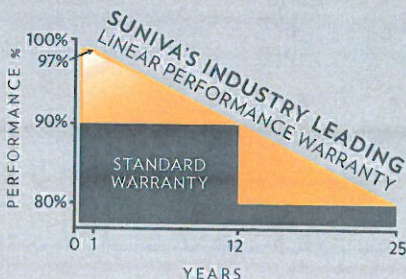
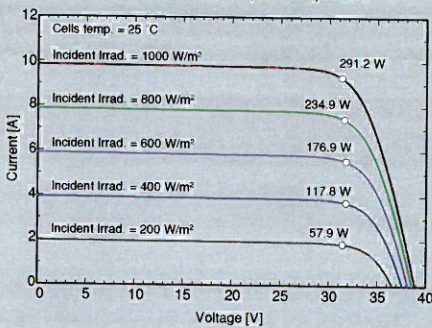
HEADQUARTERS
5765 Peachtree Industrial Blvd.,
Norcross, Georgia 30092 USA
Tel: +1 404 477 2700

www.suniva.com



PV module: Suniva, OPT290-60-4-100

Current-Voltage (IV) as a Function of Isolation (W/m²) and Temperature



PLEASE RECYCLE
FEBRUARY 2, 2016 (REV. 2) [SAMD_0061]

ATTACHMENT D: ZONING ORDINANCE STANDARDS

21A.40.190 Small Solar Energy Collection Systems

- A. Standards: All small solar energy collection systems shall comply with the following requirements except as provided in section 21A.40.190.B relating to small solar energy collection systems in the historic preservation overlay districts. Per section 21A.34.020 of this title the historic landmark commission or staff have authority to modify the setbacks, location and height to ensure compliance with the overlay district regulations. Excluding subsection B of this section, if there is any conflict between the provisions of this subsection and any other requirements of the zoning, site development, and subdivision ordinances, the zoning administrator shall determine which requirements apply to the project in order to achieve the highest level of neighborhood compatibility.

Standard	Finding	Rationale
<p>Standard 1: Setbacks, Location and Height:</p> <ul style="list-style-type: none"> a. A freestanding small solar energy collection system shall be located a minimum of six feet (6') from all property lines and other structures, except the structure on which it is mounted. b. A small solar energy collection system may be located on a principal or accessory structure, including legal principal or accessory structures located less than the required minimum setback for the zoning districts. c. A small solar energy collection system shall not exceed by more than three feet (3') the maximum building height (based on the type of building - principal or accessory - the system is located on) permitted in the zoning district in which it is located or shall not extend more than twelve feet (12') above the roofline of the structure upon which it is mounted, whichever is less. d. A development proposed to have a small solar energy collection system located on the roof or attached to a structure, or an application to establish a system on an existing structure, shall provide a structural certification as part of the building permit application. 	<p>Complies</p>	<ul style="list-style-type: none"> a. The proposed small solar energy collection system is proposed to be located on the roof of the existing residence. The location of the system will not overhang the roof and will not encroach into any front, side or rear lot area. As long as the system is mounted on the main structure, it is allowed to be less than six feet from the property if it is determined by the Historic Landmark Commission to meet all other standards of the ordinance. b. The proposed small solar energy collection is located on the primary structure. The subject property does not have an accessory structures located on it where the small solar energy collection system could be located. c. The proposed small solar energy collection system is proposed to be mounted as flush with the roof as possible, parallel to the roof plane, below the ridge of the roofline. The solar panels themselves will project approximately four inches above the roof, but not above the roof ridge. In addition, the existing one-story residence is well below the maximum height of 23 feet for the zoning district. d. If the solar panels are approved, the applicant will need to submit all necessary documentation for the installation and structural details for the proposed small solar energy collection system when a building permit is applied for.
<p>Standard 2: Coverage: A small solar energy collection system mounted to the roof of a building shall not exceed ninety percent (90%) of the total roof area of the building upon which it is installed. A system constructed as a separate accessory structure on the ground shall count toward the total building and yard coverage limits for the lot on which it is located.</p>	<p>Complies</p>	<p>The proposed small solar energy collection system is proposed to be mounted on the main residence and not on an accessory building. The proposed size of the small solar energy collection system is approximately 264 square feet. The total area of the roof it will be placed is approximately 1645 square feet. This means that the proposed small solar energy collection system will only be about 16% of the roof area.</p>

<p>Standard 3: Code Compliance: Small solar energy collection systems shall comply with all applicable building and electrical codes contained in the international building code adopted by Salt Lake City.</p>	<p>Complies</p>	<p>Should the proposed small solar energy collection system be approved, it will need to comply with all applicable codes adopted by Salt Lake City. This standard will need to be met should the proposal be approved and a building permit is applied for.</p>
<p>Standard 4: Solar Easements: A property owner who has installed or intends to install a small solar energy collection system shall be responsible for negotiating with other property owners in the vicinity for any desired solar easement to protect solar access for the system and shall record the easement with the Salt Lake County recorder.</p>	<p>Complies</p>	<p>The applicant will be responsible for negotiating with other property owners for any desired solar easements. This standard is not applicable to the approval of this project.</p>
<p>Standard 5: Off Street Parking and Loading Requirements: Small solar energy collection systems shall not remove or encroach upon required parking or loading areas for other uses on the site or access to such parking or loading areas.</p>	<p>Complies</p>	<p>The proposed small solar energy collection system is located on the main residence and is not located upon any required parking area.</p>

21A.40.190 Small Solar Energy Collection Systems

B. Small Solar Energy Collection Systems and Historic Preservation Overlay Districts or Landmark Sites

Regulation	Finding	Rationale
<p>3. Small Solar Energy Collection System Location Priorities: In approving appropriate locations and manner of installation, consideration shall include the following locations in the priority order they are set forth below. The method of installation approved shall be the least visible from a public right of way, not including alleys, and most compatible with the character defining features of the historic building, structure, or site. Systems proposed for locations in subsections B3a through B3e of this section, may be reviewed administratively as set forth in subsection 21A.34.020F1, "Administrative Decision", of this title. Systems proposed for locations in subsection B3f of this section, shall be reviewed by the historic landmark commission in accordance with the procedures set forth in subsection 21A.34.020F2, "Historic Landmark Commission", of this title.</p> <ol style="list-style-type: none"> a. Rear yard in a location not readily visible from a public right of way. b. On accessory buildings or structures in a location not readily visible from a public right of way. c. In a side yard in a location not readily visible from a public right of way. d. On the principal building in a location not readily visible from a public right of way. e. On the principal building in a location that may be visible from a public right of way, but not on the structure's front facade. f. On the front facade of the principal building in a location most compatible with the character defining features of the structure. 	<p>Complies</p>	<ol style="list-style-type: none"> a. The rear yard is not an option for installation as the yard area would not be large enough to place the system and also conform to all setbacks and distance requirements. In addition, vegetation that is present in the rear yard could prevent adequate exposure for the proposed solar panels. b. There is no accessory building on this lot so the solar panels cannot be mounted on an accessory structure. An accessory structure mounting is not an option. c. The existing residence has a narrow side yard setback on the south of the property that would not accommodate the small solar energy collection system. The side yard on the north of the parcel is visible from the public way. d. Based on the shape and size of the roof, there is no other location where the panels could be located to meet the sun exposure requirements and not be visible from the public right-of-way. The only portion of the roof that faces north is on the backside of the residence and that location is not suitable for solar panels. There would be minimal solar exposure for the system. e. There are a total of 15 solar panels proposed. 7 on the south side of the roof, 4 on the west side, and 4 on the east (adjacent to C Street). There is not adequate roof space on west and south sides of the property to accommodate more solar panels than what is already proposed for those areas. <p>Finding: This application cannot be administratively approved as the preferred location priorities are not suitable based on the orientation, size and site features of this property as described above. This request shall be reviewed by the Historic Landmark Commission.</p> <ol style="list-style-type: none"> f. The location of the proposed small solar collection system on the front gable roof is the most compatible location with the character defining features of the building. The front gable of the residence gives it a distinct character and is a prominent feature of the property. While the proposed small solar collection system is proposed to be located on this gable, which does directly face the street, it will not be detrimental to the residence or its features. The proposed small solar collections system will be located as flush to the roof as possible and it not a feature that will permanently alter the historic structure. The proposed small solar collection system could easily be removed in the future with little to no damage to the historic structure.

HISTORIC PRESERVATION STANDARDS

H Historic Preservation Overlay District – Standards for Certificate of Appropriateness for Altering of a Landmark Site or Contributing Structure (21A.34.020.G)

In considering an application for a Certificate of Appropriateness for alteration of a landmark site or contributing structure, the Historic Landmark Commission shall find that the project substantially complies with all of the general standards that pertain to the application and that the decision is in the best interest of the City.

Standard	Finding	Rationale
Standard 1: A property shall be used for its historic purpose or be used for a purpose that requires minimal change to the defining characteristics of the building and its site and environment;	Complies	The building was constructed in 1894 as a single family home. No change of use is proposed and very little, if any, impact will be made to the characteristics of the property. In the event the proposed small solar collection system damages the roof, it would most likely only damage the roofing material which is not original.
Standard 2: The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided;	Complies	No historic materials or features are proposed to be altered as part of this request. The proposed small solar collection system will be mounted on the roof and can easily be removed in the future with little to no impact on the structural integrity of the property. They will be placed parallel to the roof or approximately 3 inches off the roof surface. They are designed to be as flush with the roof as possible. Even though all the panels will be visible from the street on front gable as well as the south side of the structure, the options for where to place the panels are limited as previously discussed in order to efficiently produce energy.
Standard 3: All sites, structure and objects shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create a false sense of history or architecture are not allowed.	Complies	The small solar energy collection system is a utility feature and is not being installed in a manner to create a false sense of history or architecture. This standard is met.
Standard 4: Alterations or additions that have acquired historic significance in their own right shall be retained and preserved.	Complies	No significant historic features will be lost. The proposal complies with this standard.
Standard 5: Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.	Complies	No significant historic features will be lost as the proposed small solar collection system will be located on the roof and will have very little impact to the roof or the character of the property. The property and the structure will continue to remain a historic property that can have the solar panels removed with little to no impact to the structure. The proposed small solar collection system will be flush mounted to the roof and will be required to be structurally safe per the building code requirements. This standard is met.

<p>Standard 6: Deteriorated architectural features shall be repaired rather than replaced wherever feasible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, texture and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other structures or objects.</p>	<p>Not Applicable</p>	<p>The subject proposal does not include repair or replacement of deteriorated architectural features. This standard does not relate to the proposal.</p>
<p>Standard 7: Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.</p>	<p>Not applicable</p>	<p>The proposed work does not include any treatments of historic materials. This standard is not applicable to the request.</p>
<p>Standard 8: Contemporary designs for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant cultural, historical, architectural or archaeological material, and such design is compatible with the size, scale, color, material and character of the property, neighborhood or environment.</p>	<p>Complies</p>	<p>Although a minor feature will be added to the roof of the single family structure, the roof form itself will not be modified or altered. The proposed small solar energy collection system is designed to be flush mounted to have the least amount of visual and structural impact. In addition, the color of the roof is gray and the panels of the proposed small solar collection system are black. It is entirely possible that the panels will be more visible due to the existing roof color and the color of the panels. However, solar panels typically are a dark color and being that this is the best location for the system based on maximum sun exposure, the proposal is as compatible as it can be. This standard is met.</p>
<p>Standard 9: Additions or alterations to structures and objects shall be done in such a manner that if such additions or alteration were to be removed in the future, the essential form and integrity of the structure would be unimpaired. The new work shall be differentiate from the old and shall be compatible in massing, size, scale and architectural features to protect the historic integrity of the property and its environment.</p>	<p>Complies</p>	<p>The proposed small solar energy collection system can be easily removed without impairing any form and integrity of the structure other than minimal damage to the asphalt shingle roof. This standard is met.</p>
<p>Standard 10: Certain building materials are prohibited including the following: vinyl, asbestos, or aluminum cladding when applied directly to an original or historic material.</p>	<p>Not applicable</p>	<p>Small solar energy collection systems are considered an accessory to the building and no original material will be affected.</p>
<p>Standard 11: Any new sign and any change in the appearance of any existing sign located on a landmark site or within the H historic preservation overlay district, which is visible from any public way or open space shall be consistent with the historic character of the landmark site or H historic preservation overlay district and shall comply with the standards outlined in part IV, Chapter 21A.46 of this title.</p>	<p>Not applicable</p>	<p>No signs are proposed. This standard is not applicable.</p>

ATTACHMENT E: APPLICABLE DESIGN GUIDELINES

The following are applicable historic design guidelines related to this request. On the left are the applicable design guidelines and on the right, a list of the corresponding Zoning Ordinance standards for which the design guidelines are applicable. The following applicable design guidelines can be found in *Design Guidelines for Commercial Properties and Districts in Salt Lake City*.

Applicable Design Guidelines	Corresponding Standards for a Certificate of Appropriateness
<p>Design Objective 7.6- The visual impact of skylights and other rooftop devices should be minimized.</p> <ul style="list-style-type: none">• Skylights or solar panels should be installed to reflect the plane of the historic roof.• They should be lower than the ridgeline, when possible.• Flat skylights and solar panels that are parallel with the roof plane may be appropriate on the rear and sides of the roof.• Avoid locating a skylight or solar panel on a front roof plane wherever possible.	Standards 2, 5, 8 and 9

ATTACHMENT F: PUBLIC PROCESS AND COMMENTS

Public Notice, Meetings and Comments

The following is a list of public meetings that have been held, and other public input opportunities, related to the proposed project.

Notice of the public hearing for the proposal include:

- Notice mailed on September 23, 2016
- Agenda posted on the Planning Division and Utah Public Meeting Notice websites on September 23, 2016

Staff has not received any public comment related to this project. Any comments received after the publication of this staff report will be forwarded to the Historic Landmark Commission.

ATTACHMENT G: MOTIONS

Consistent with Staff Recommendation:

Based on the analysis and findings listed in this staff report, testimony and the proposal presented, I move that the Commission approve the request for a minor alteration for the installation of a small solar energy collection system as proposed on the roof of the front gable and visible from the public right-of-way for the residence at 317 N C Street. Specifically, the Commission finds that the proposed project complies with the standards of review.

Not Consistent with Staff Recommendation:

Based on the information, testimony and the proposal presented, I move that the Commission deny the request for a minor alteration for the installation of a small solar energy collection system as proposed on the roof of the front gable and visible from the public right-of-way for the residence at 317 N C Street. Specifically, the Commission finds that the proposed project does not comply with the standards of review. (Commissioner then states findings based on Standards **1, 2, 3, 4, 5, 8** and **9** to support the motion):

- 1. A property shall be used for its historic purpose or be used for a purpose that requires minimal change to the defining characteristics of the building and its site and environment;**
- 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided;**
- 3. All sites, structures and objects shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create a false sense of history or architecture are not allowed;**
- 4. Alterations or additions that have acquired historic significance in their own right shall be retained and preserved;**
- 5. Distinctive features, finishes and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved;**
6. Deteriorated architectural features shall be repaired rather than replaced wherever feasible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, texture and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other structures or objects;
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible;
- 8. Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant cultural, historical, architectural or archaeological material, and such design is compatible with the size, scale, color, material and character of the property, neighborhood or environment;**
- 9. Additions or alterations to structures and objects shall be done in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the structure would be unimpaired. The new work shall be differentiated from the old and shall be compatible in massing, size, scale and architectural features to protect the historic integrity of the property and its environment;**
10. Certain building materials are prohibited including the following:
 - a. Aluminum, asbestos, or vinyl cladding when applied directly to an original or historic material.
11. Any new sign and any change in the appearance of any existing sign located on a landmark site or within the H historic preservation overlay district, which is visible from any public way or open space shall be consistent with the historic character of the landmark site or H historic preservation overlay district and shall comply with the standards outlined in chapter 21A.46 of this title.