

**CITY OF SUN VALLEY  
PLANNING AND ZONING COMMISSION  
AGENDA REPORT**

**From:** Abby Rivin, CFM, Associate Planner  
**Meeting Date:** 23 June 2016

**DESIGN REVIEW (DR 2016-30)**

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**APPLICANT:** Jolyon H. Sawrey for Maud Alison Long Trust

**LOCATION:** 700 Fairway Rd, Lot 20 Upper Fairway Subdivision No. 2

**ZONING DISTRICT:** Single-Family Residential (RS-1) Zoning District

**REQUEST:** Approve the installation of 32 new solar panels and the relocation of 3 existing thermal panels to a detached, single-family dwelling.

**ANALYSIS:** The applicant submitted an application for design review approval for the installation of 32 photovoltaic panels (5.05 kW PV, 315W array) and the relocation of 3 existing thermal panels to a new location. The solar panels will be installed on the existing single-family residence as well as the new addition, which was approved by the Planning & Zoning Commission on February 11th, 2016 and issued a building permit on March 31st, 2016.

The 32 photovoltaic, solar panels will be installed in two different locations (2 rows of 8 in each location) on the southeast section of the roof. The solar thermal panel will be installed on the west section of the roof. The subject home lies adjacent to single-family residences in all directions as well as a section of OR-1 zoned parcel to the east. While the structure is surrounded by single-family homes, the site is sufficiently screened by mature, existing vegetation. The applicant conducted a view assessment (see Sheet B of the design review submittal) and concluded that the only potential view impact is when driving south on Fairway Road. However, this view is solely peripheral to the primary view corridor. The Community Development Department received no comment from any of the adjacent neighbors regarding this proposal.

The subject home is a nonconforming structure as the existing building footprint exceeds the maximum allowable, as calculated per City Code Section 9-2A-3I, by 121 sq ft. While the home is a nonconforming structure, the project design does not intensify the existing nonconformity as the solar panel installation does not add new footprint. The project drawings stamped received by the City of Sun Valley on May 13, 2016 detail all proposed alterations to the existing structure.

Applications for design review are subject to standards in SVMC § 9-3A-3. Many of the standards are not applicable as the solar panel installation solely upgrades an existing structure without adding building footprint or modifying the site layout or access.

*A. Design and Siting:*

1. *The design of proposed improvements is appropriate and compatible to the lot and the surrounding neighborhood. Attention has been given to the location and design of streets, view corridors, privacy of adjacent properties, outdoor spaces, shadows, solar access, view access, lighting, vehicular access, building massing, privacy of other noise generating equipment, openings and doors as these elements impact adjacent properties. **The proposed solar panels are sited on the roof to minimize visual impact from adjacent residences as well as Fairway Road. The panel installations do not extend higher than the existing structure's height. The quantity and siting of the proposed panels are similar to the quantity and siting of other solar panels in the vicinity.***

2. *The location and design of the proposed improvements has given consideration to special sites of historical, natural, ecological, architectural, archaeological, and scenic value or significance, including, but not limited to, those identified in the city's comprehensive plan. The essential character of special sites should be preserved and protected with any proposed site or structure improvements. **Not applicable.***

3. *The siting of the proposed improvements complies with the adopted uniform fire code and any other applicable regulations regarding emergency vehicle access and circulation as set forth in title 7 of this code. **Vehicle access and circulation will not be altered with this project.***

4. *The proposed improvements are sited to meet the ingress, egress, and driveway standards and requirements set forth in title 7 of this code, and the siting standard in subsection A1 of this section. **No changes are proposed to ingress, egress, or the driveway.***

5. *The proposed improvements are sited to take into consideration and to mitigate natural hazards such as floodplains and avalanches as set forth in this chapter. Mitigation measures shall not adversely impact other properties. **Not applicable.***

6. *The siting of the proposed improvements minimizes interference with natural drainage patterns and is designed to minimize adverse impact on other properties. All drainage shall comply with the standards set forth in title 7 of this code; be contained on site, or be connected to drainage easements or rights of way. No drainage shall be diverted off site onto private property. **The gutter and downspout will remain unchanged.***

7. *The site design provides for adequate space or means to maintain snow storage. Snow storage areas are in accordance with the requirements set forth in article G of this chapter. **No applicable.***

8. *Appropriate address numbers and monuments are shown in accordance with the requirements as set forth in article G of this chapter. **Not applicable.***

9. *The siting of the proposed improvements, including streets and driveways, where applicable, minimizes hillside visibility and, where applicable, skylining by using a combination of stepped building forms, natural colors and materials, sloped roofs, and landscaping. **No ridges or prominent terrain features exist on or directly adjacent to the site.***

10. Every lot shall be designed to be connected to public water and sewer systems, unless the property is over five hundred feet (500') from a public system as measured from the closest property line and an alternative utility system is approved by the city engineer. **Not applicable.**

B. Grading: **Not applicable.**

C. Architectural Quality:

1. The proposed project maintains the quality of materials and design that is appropriate to the location, the lot and the neighborhood. **The new photovoltaic panels are REC Peak Energy 72 Series, 5.05 kW PV, 315W arrays. The photovoltaic and solar panels are similar to the panels installed on other residences throughout the City of Sun Valley.**

2. The proposed improvements conform to natural landscape features by minimizing the degree of cuts and fills. **The project does not alter the site's grade.**

3. The plan includes the location of all exterior lighting. All lighting shall be directed onto the subject lot and shall not be directed towards other properties. **No new exterior lighting fixtures are proposed.**

4. Building design includes weather protection that prevents water from dripping or snow from sliding onto pedestrian or vehicle areas or onto adjacent properties. **The roof includes a snow fence and gutters.**

5. Any exterior addition or alteration to an existing building is compatible with the design character of the original building. Any new detached structure is compatible with the design character of the existing buildings and/or structure(s). **Not applicable.**

6. All improvements are designed to minimize light and sound emanating to other properties as set forth in article B of this chapter. **The existing lighting conforms to the City's Exterior Lighting Regulations.**

7. Rooftop chimneys and utilities are enclosed and design is consistent with the primary structure. **All existing utilizes are enclosed. No new rooftop chimney or utilities will be installed.**

D. Pedestrian and Vehicle Circulation Design: **These standards are not applicable as the project does not propose any changes to the existing site.**

E. Landscaping Quality: **These standards are not applicable as the project does not propose any changes to the existing landscaping.**

F. Irrigation Limits: **Not applicable.**

G. Fences, Walls, Retaining Walls, Screens, and Dog Runs: **None proposed.**

H. Sign Design: **Not applicable.**

I. Exterior Lighting: **All existing lighting complies with the City's Exterior Lighting Regulations.**

**RECOMMENDATION:** Staff recommends approval of DR2016-30.

**RECOMMENDED MOTION:** "I move to approve DR2016-30 to allow for the installation of 32 photovoltaic panels and the relocation of 3 existing thermal panels, pursuant to the Findings of Fact."

**ALTERNATIVE ACTIONS:** Move denial of the application and draft findings supporting denial.

**ATTACHMENTS:**

1. Findings of Fact
2. Application Materials

**FINDINGS OF FACT AND CONCLUSIONS OF LAW  
CITY OF SUN VALLEY  
DESIGN REVIEW APPROVAL**

Project Name: **Design Review Application DR2016-30**

Applicant: **Jolyon H. Sawrey for Maud Alison Long Trust**

Legal Desc.: **Lot 20 Upper Fairway Subdivision No. 2**

Location: **700 Fairway Road**

Zoning District: **Single-Family Residential (RS-1)**

Request: Approve the installation of 32 new solar panels and the relocation of 3 existing thermal panels to a detached, single-family dwelling.

Required Findings: In order to approve a design review application, and based on the standards set forth in **Sun Valley Municipal Code, Title 9, Chapter 3, Article A (DESIGN REVIEW)**, the Planning and Zoning Commission shall make the following findings:

1. The proposed design is in conformance with the purpose of the zoning district and all dimensional regulations of that district. **The solar panel installation project is compliant with all zoning regulations regarding use and height, and the project is not increasing the footprint of the structure.**
2. The proposed design is in conformance with the standards for design review as set forth in chapter 3, article A of this title. **The solar panel installation and relocation project meets all of the applicable, enumerated standards in the RS-1 Zoning District. The proposed solar panels are sited on the roof to minimize visual impact from adjacent residences as well as Fairway Road.**
3. The proposed design does not significantly impact the natural, scenic character and aesthetic value of hillsides, ridges, ridgelines, ridge tops, knolls, saddles, and summits in the city. **No ridges or prominent terrain features exist on or directly adjacent to the site.**
4. The proposed design is in context and complementary to adjacent properties. **The new photovoltaic and existing solar panels are similar to the panels installed on other residences throughout the City of Sun Valley. The site is sufficiently screened by mature, existing vegetation.**
5. The proposed design is compatible with the community character and scale of the neighborhood. **The panel installations do not extend higher than the existing structure's maximum height. The quantity and siting of the proposed panels are similar to the quantity and siting of other solar panels in the vicinity.**
6. The proposed design adheres to standards for the protection of health, safety, and general welfare. **The**

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**existing snow fence will remain on the roof. The solar panel installation project does not alter access or pose additional need for services by fire, police, water, or other agencies.**

7. The proposed design is of quality architectural character and materials. **The new photovoltaic panels are REC Peak Energy 72 Series, 5.05 kW PV, 315W arrays. REC is the largest European brand of solar panels, with more than 15 million high-quality panels produced in 2014. The panels will be installed by Sagebrush Solar.**
8. The use is not in conflict with the comprehensive plan or other adopted plans, policies, or ordinances of the city. **The solar installation project is in compliance with Action Item 5.2.1 of the Comprehensive Plan encouraging solar installations.**

DRAFT

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**CONDITIONS OF APPROVAL**

1. Applicant and their representatives shall comply with all applicable City codes and ordinances, including those related to noise (Section 4-4D-2 and 3) and water pollution control (Section 4-4C-2).
2. Design Review approval is good for one year from the date of approval, unless extended pursuant to Sun Valley Municipal Code Section 9-5A-8.
3. Any requirements and/or approvals of private associations or other entities are the sole responsibility of the property owner.
4. Any permits issued during the 10-day appeal period provided for under section 9-5A-9 may be subject to a stop work order in the event of an appeal. Any work commenced during the appeal period shall be at the applicant's own risk.
5. Approval is specific to the project drawings plan dated received by the City of Sun Valley on May 13, 2016.
6. Fairway Road shall be kept free and clear for emergency vehicle access at all times. Any significant access issues shall be brought to the attention of the City and the project neighbors in advance.
7. No modifications to the approved plans shall be made without written permission of the Building Official and/or Fire Chief.

**CONCLUSIONS OF LAW**

Therefore, this project does meet the standards for approval under Title 9, Chapter 3A, City of Sun Valley Municipal Code provided the conditions of approval are met. Design Review approval shall expire 365 days from the date of approval, unless extended as per Municipal Code Section 9-5A-8.

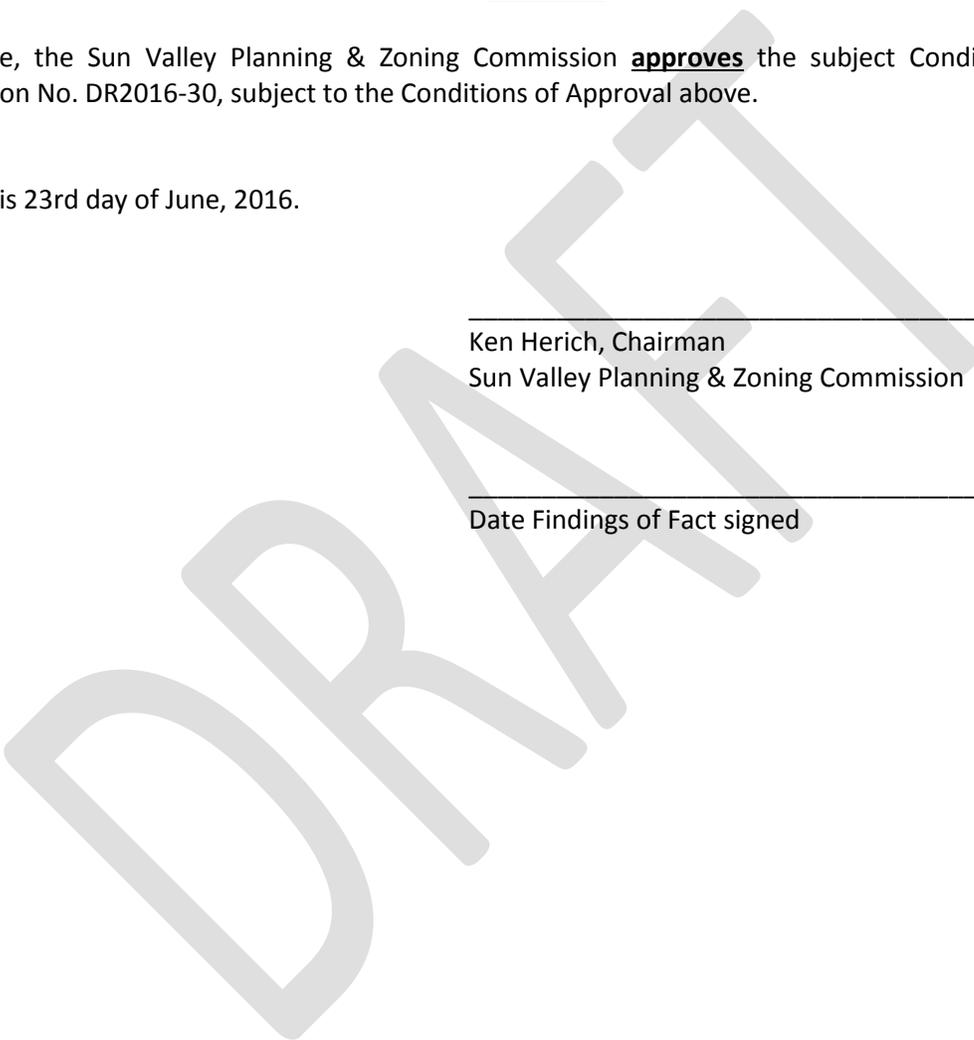
**DECISION**

Therefore, the Sun Valley Planning & Zoning Commission **approves** the subject Conditional Use Permit Application No. DR2016-30, subject to the Conditions of Approval above.

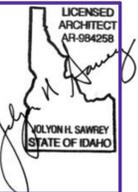
Dated this 23rd day of June, 2016.

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Ken Herich, Chairman  
Sun Valley Planning & Zoning Commission

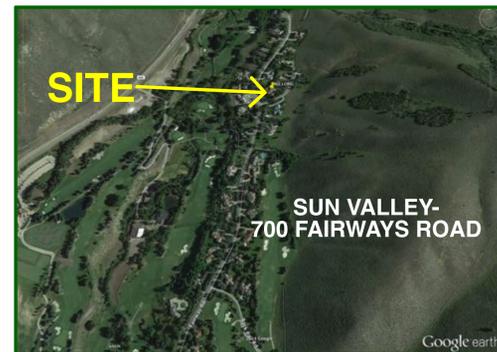
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Date Findings of Fact signed



# LONG RESIDENCE- SOLAR INSTALLATION



SOUTHEAST VIEW



VICINITY MAP



## PROJECT INFORMATION

LEGAL DESCRIPTION: UPPER FAIRWAY SUB 2, LOT 20  
SUN VALLEY, IDAHO

ZONE: RS-1

SETBACKS: FRONT: 106'-9 3/8" REAR: 15'-0"  
SIDE #1: 32'-0 3/4" SIDE #2: 27'-8 5/8"

BLDG. HEIGHT: 28'-5" SOLAR PANELS ARE NOT INCREASING BLDG. HEIGHT

APPLICABLE BUILDING CODES:  
2012 IRC, 2012 IMC, 2012 IPC, 2012 IFC, 2012 IECC AND 2012 NEC, AS AMENDED BY STATE OF IDAHO AND CITY OF SUN VALLEY ARE APPLICABLE TO THIS PROJECT

OCCUPANCY TYPE: RESIDENTIAL  
CONSTRUCTION TYPE: V-B

FLOOR AREAS: NEW UPPER ADDITION	654	SQ. FT.
REMODELED MAIN LEVEL	108	SQ. FT.
<b>TOTAL ADDITION AND REMODEL</b>	<b>762</b>	<b>SQ. FT.</b>
EXISTING MAIN LEVEL (CONDITIONED)	4,392	SQ. FT.
EXISTING GARAGE	558	SQ. FT.
<b>TOTAL TOTAL (E) HOME AND ADDITION</b>	<b>5,604</b>	<b>SQ. FT.</b>

## PROJECT TEAM

### CLIENT:

**ALI LONG**  
(415) 306-4551 PHONE  
700 FAIRWAYS ROAD  
SUN VALLEY, IDAHO 83353

### ARCHITECT:

**VITAL INK**  
**JOLYON H. SAWREY**  
30 WYATT DRIVE  
BELLEVUE, IDAHO 83313  
(208) 720-6315 PHONE

### CONTRACTOR:

**SAGE BRUSH SOLAR**  
**BILLY MANN**

P.O. BOX 2639  
KETCHUM, IDAHO 83340  
(208)-720-4624

## PROJECT NOTES

This project consist of the installation of (3) areas of solar panels on the roof of the existing home and new addition. Two locations of Photovoltaic (electric) panels totaling 32 Panels and the relocation of (3) solar thermal panels to a new location (New location is due to the new addition consturction project taking place at this residence.)

## SHEET INDEX

SHT	REV	DESCRIPTION
<b>ARCHITECTURAL</b>		
0.0		COVER, PROJECT TEAM, BLDG. INFO
A		SITE PLAN- SOLAR
B		SOLAR SITE PHOTOS- (E) COND'S
C		SOLAR SYSTEM SPECS
D		SOLAR ELEVATIONS& PERSPECTIVES

New Renewable Energy:  
**LONG SOLAR INSTALLATION**  
 SUN VALLEY, IDAHO  
 700 FAIRWAYS ROAD

(208) 720-6315 Ph  
**Vital ink** LLC  
 Environmental Architecture  
 & Consulting AIA  
 30 Wyatt Drive  
 Bellevue, Idaho 83313

REVISIONS

DATE  
13 MAY, 2016

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**SOLAR PANEL LOCATIONS**  
**A- PHOTOVOLTAIC**  
**B- PHOTOVOLTAIC**  
**C-SOLAR THERMAL(RELOCATE EXISTING)**



AREIAL PHOTO- EXISTING CONDITIONS

2

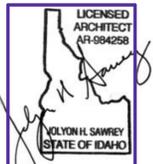
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SITEN PLAN - PROPOSED SOLAR PANEL LOCATIONS- A, B & C

1

1"= 16'-0"



New Renewable Energy:  
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 SUN VALLEY, IDAHO  
 700 FAIRWAYS ROAD

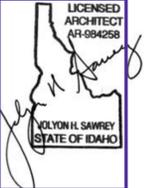
Vital ink  
 Environmental Architecture & Consulting  
 30 Wyatt Drive  
 Bellevue, Idaho 83813  
 (208) 720-8315 Ph

REVISIONS


DATE  
 13 MAY, 2016

**A**

**DESIGN REVIEW SET**



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 Bellevue, Idaho 83813

REVISIONS


DATE  
 13 MAY, 2016

**B**

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**SOLAR PANEL VIEW NARRATIVE:**  
 PHOTOS WERE TAKN FROM ADJACENT PARCELS TO THE SOUTH SIDE OF THE SUBJECT PROPERTY LOOKING IN A NORTHWARD FASHION. THE INTENT WAS TO SEE WAS IS VISIBLE OF THE (3) SOLAR PANEL LOCATIONS DURING THE SPING, SUMMER AND FALL MONTHS. THE IDEA IS TO PRESENT WHAT MIGHT BE VISIBLE DURING MONTHS THAT THE PROPOSED SOLAR PANELS WOULD NOT HAVE SNOW ON THEM. THE VIEW OF TEH PARCEL FORM TEH PUBLIC WAY IS WELL SCREENED WITH CONIFEROUS TREES. THE LARGER CONIFEROUS TREES ARE PROPOSED TO BE THINNED SO SCREENING WITH THESE TREES IS NOT RELIED ON. THE ADJACENT PARCEL WITH A HOME HAS A LOOP DRIVE WITH A LANDSCAPED ISLAND PROVIDING SCREENING. NO OTHER NEIGHBORS HAVE A VIEW OF THE PROPOSED PANEL LOCATIONS. THE ONLY VIEW POTENTIAL IS FROM THE SOUTH EAST CORNER UPON DRIVING SOUTHWARD. THIS OFFERS THAT THE PANELS ARE QUITE A WAYS REMOVED AND NOT IN A PRIMARY VIEW CORRIDOR, MORE OFF TO A PERIPHERAL SIDE VISION.

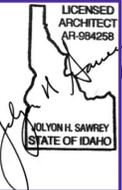
**PHOTOS OF SOLAR PANEL LOCATIONS**

# Total Solar PhotoVoltaic System 10.1 Kw (32) Panels

## 5.05 kW, (2) row of (8) 315W panels, On Existing Western Roof

## 5.05 kW, (2) row of (8) 315W panels, on the new Addition roof

DESIGN REVIEW SET



New Renewable Energy:  
**LONG SOLAR INSTALLATION**  
 SUN VALLEY, IDAHO  
 700 FAIRWAYS ROAD

(208) 720-6815 Ph

**Vital ink** LLC  
 Environmental Architecture  
 & Consulting ALA



30 Wyatt Drive  
 Bellevue, Idaho 83813

REVISIONS

DATE  
13 MAY, 2016

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May 4, 2016

### Long 10.1 kW PV System Proposal

Client Name: Ali Long  
Project Location: 700 Fairway Road, Sun Valley

Equipment Specifications	
PV Panels	(32) REC 315W – with 25 yr linear performance guarantee
Rack	Snap-N-Rack Flush Mount – with 20 yr manufacturer warranty
Inverter	(1) Fronius Primo 10kW – with 15 year manufacturer warranty
Monitoring	(1) Fronius Solar.web monitoring w/iPhone app
Workmanship	5 year Sagebrush Solar warranty

System Specifications	Solar Resource Data
DC System Size (kW)	10.1
Number Panels	32
Array Tilt (deg)	30
Array Orientation (deg)	180
Zip Code	83340
Latitude (deg N)	43.75
Longitude (deg W)	114.35
Elevation (ft)	5,660

System Production	Annual Demand
Annual Output (kWh)	16,084
30 yr. Output (kWh)	449,121
Annual Usage (kWh)	21,921
Annual Solar Offset	73%

ID Power Cost	Environmental Benefits
Current Rate (\$/kWh)	Annual CO2 Offset (lbs)
Annual Rate Increase	30 yr CO2 Offset (lbs)
Avoided 30 yr Cost	
	Annual CO2 Offset (lbs)
	30 yr CO2 Offset (lbs)

System Cost	System Returns
Initial Cost	First Year Savings
Current Solarize Rebate	First Year Return
Federal Tax Credit	Avg Annual Savings
ID State Deduction	Avg Annual Return
	30 yr Savings
	Payback (yrs)
<b>Net Investment</b>	<b>\$21,970</b>

Page | 1



### Proposed Array Location



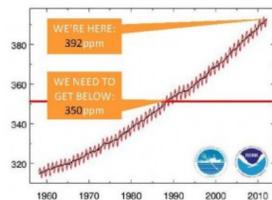
### Environmental Benefits

By installing the proposed solar system, your will derive clean, pure energy from the sun, you will not need to burn as much fossil fuel to generate your electricity, and you will stop increasing atmospheric levels of heat-trapping carbon dioxide (CO2) emissions that cause climate change.

Most scientist agree that 350 parts per million (ppm) is the safe upper limit for CO2 in our atmosphere.

Currently, we're above 400 ppm—and we're already beginning to see disastrous impacts on people and places all over the world. And, this number is rising by about 2 ppm every year!

According to the Environmental Protection Agency (EPA), solar offsets 1.22 lbs CO2 per kWh produced. See Annual and 30 yr CO2 Offsets (lbs) in Project Overview (previous page).



Page | 2



### PVWatts Production & Savings Estimate

NREL's PV Watts Calculator estimates system output and savings based on our historical solar radiation data, system specifications, and other information gathered from our site assessment.



Month	Solar Radiation (kWh / m <sup>2</sup> / day)	AC Energy (kWh)	Energy Value (\$)
January	1.88	521	52
February	3.14	789	79
March	4.51	1,222	122
April	5.71	1,472	147
May	6.79	1,776	178
June	7.03	1,743	174
July	7.59	1,878	188
August	7.38	1,857	186
September	6.50	1,606	161
October	5.52	1,471	147
November	4.20	1,104	110
December	2.31	645	64
<b>Annual</b>	<b>5.21</b>	<b>16,084</b>	<b>\$ 1,608</b>

### Location and Station Identification

Requested Location	83340
Weather Data Source	SolarAnywhere® from Clean Power (43.75, -114.35) 10 mi
Latitude	43.75° N
Longitude	114.35° W

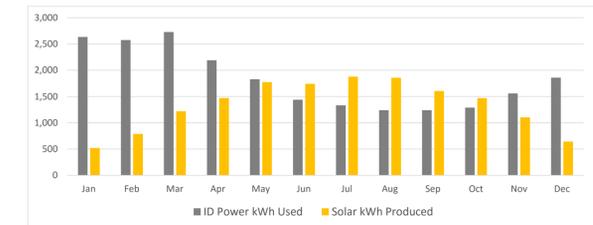
Page | 3



### Existing Electricity Demand & System Production

Based on the ID Power usage information you shared with us and our PVWatts system production estimate, we've calculated your current annual electricity demand and savings as follows.

Month	Days per Month	ID Power Usage History				PVWatts System Production		
		kWh per Day	kWh Used	Rate (\$/kWh)	Amount Billed	kWh Produced	Amount Saved	Solar Offset
January	31	85	2,635	\$0.10	\$264	521	\$52	20%
February	28	92	2,576	\$0.10	\$258	789	\$79	31%
March	31	88	2,728	\$0.10	\$273	1,222	\$122	45%
April	30	73	2,190	\$0.10	\$219	1,472	\$147	67%
May	31	59	1,829	\$0.10	\$183	1,776	\$178	97%
June	30	48	1,440	\$0.10	\$144	1,743	\$174	121%
July	31	43	1,333	\$0.10	\$133	1,878	\$188	141%
August	31	40	1,240	\$0.10	\$124	1,857	\$186	150%
September	30	43	1,290	\$0.10	\$129	1,606	\$161	129%
October	31	52	1,560	\$0.10	\$156	1,471	\$147	114%
November	30	52	1,560	\$0.10	\$156	1,104	\$110	71%
December	31	60	1,860	\$0.10	\$186	645	\$64	35%
<b>Annual</b>	<b>365</b>		<b>21,921</b>	<b>\$0.10</b>	<b>\$2,192</b>	<b>16,084</b>	<b>\$1,608</b>	<b>73%</b>



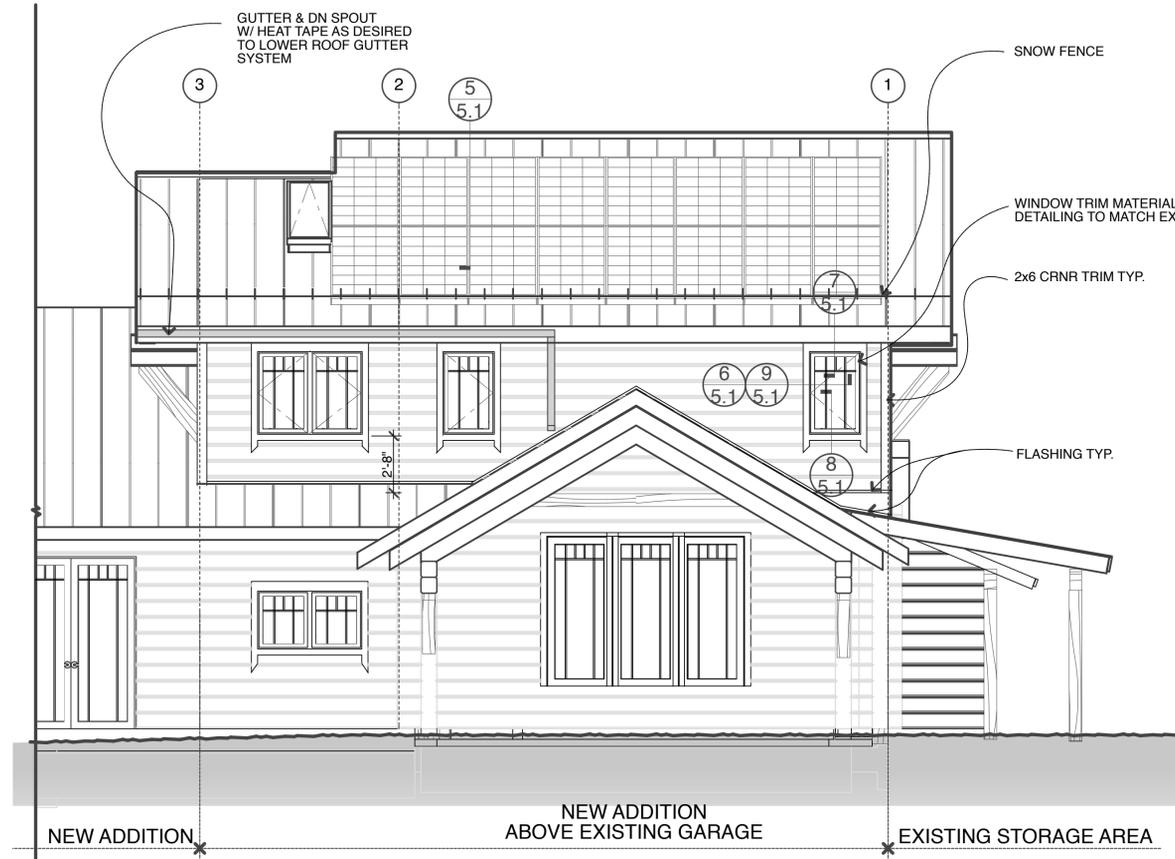
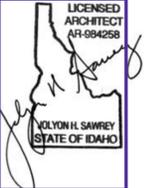
Page | 4

### REC PEAK ENERGY 72 SERIES

REC is the largest European brand of solar panels, with more than 15 million high-quality panels produced at the end of 2014. With integrated manufacturing from polycrystalline to wafers, cells, panels and turnkey solar solutions, REC strives to help meet the world's growing energy needs. Together with a sales channel of distributors, installers, and EPCs, REC panels are increasingly globally founded. In 1996, REC is a Bluestar Elexon company with headquarters in Norway and operational headquarters in Singapore. REC's 1800 employees worldwide generate revenues of USD 680 million in 2014.



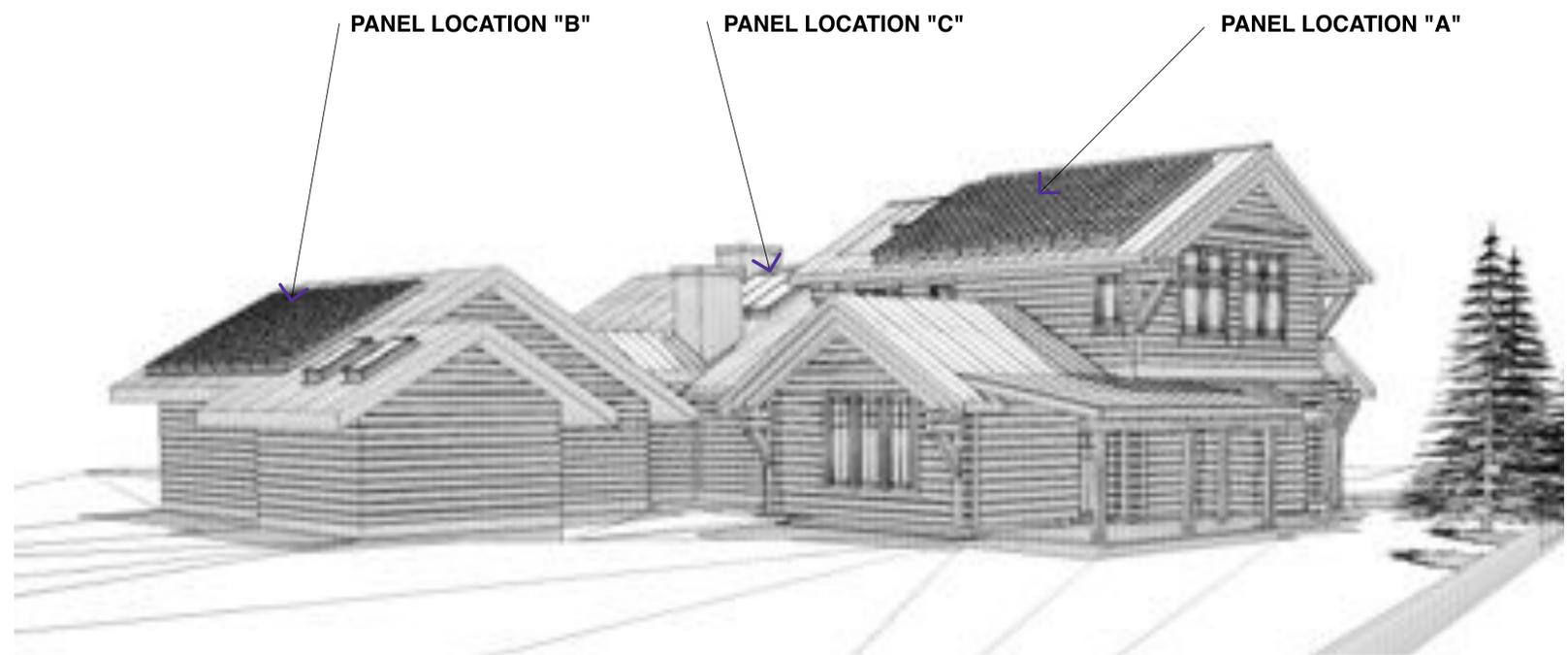
**DESIGN REVIEW SET**



**SOUTH ELEVATION**  
1/4" = 1'-0" 1



**SOUTH PERSPECTIVE**  
EXISTING HOME SHOWN FOR MASSING REFERENCE(WITHOUT DETAIL) 2



**SOUTHEAST PERSPECTIVE**  
EXISTING HOME SHOWN FOR MASSING REFERENCE(WITHOUT DETAIL) 4



**SOUTH PERSPECTIVE**  
EXISTING HOME SHOWN FOR MASSING REFERENCE(WITHOUT DETAIL) 3

New Renewable Energy:  
**LONG SOLAR INSTALLATION**  
SUN VALLEY, IDAHO  
700 FAIRWAYS ROAD

Vital ink  
Environmental Architecture  
& Consulting  
RLLC AIA

30 Wyatt Drive  
Bellevue, Idaho 83813  
(208) 720-8315 Ph

REVISIONS


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**D**