AGENDA

TOLLAND GREEN HISTORIC DISTRICT COMMISSION

Wednesday, November 17, 2021 at 7:00 p.m.

REMOTE MEETING

Public Hearing

- 1. Call to Order
- 2. Roll Call
- 3. 89 Tolland Green
 - 3.1 Consideration of Application for a COA for a fence made of wood lattice
 - 3.2 Neighbor comments, both for and against
 - 3.3 Close of Public Hearing
- 4. 30 Tolland Green
 - 4.1 Consideration of Application for a COA for window replacement.
 - 4.2 Neighbor comments, both for and against
 - 4.3 Close of Public Hearing
- 5. 63 Tolland Green
 - 5.1 Consideration of Application for COA for roof-mounted solar.
 - 5.2 Neighbor comments, both for and against
 - 5.3 Close of Public Hearing

Regular Meeting

- 1. Call to Order
- 2. New Business
 - 2.1 Determination of COA for 89 Tolland Green and vote thereon
 - 2.2 Determination of COA for 63 Tolland Green and vote thereon
 - 2.3 Determination of COA for 30 Tolland Green and vote thereon
- 3. Miscellaneous
- 4. Approval of Minutes from October 20, 2021 Regular Meeting
- 5. Adjournment

To View Meeting Materials:

See https://www.tolland.org/historic-district-commission/pages/remote-meeting-packets-audio-recordings

To Join Zoom Meeting:

If using a computer, tablet or smartphone, download Zoom app prior to the meeting. Go to: https://us06web.zoom.us/j/83064469485?pwd=SGsveEVhdFR3NIZtL0pBSllxa1Y5Zz09

Meeting ID: 830 6446 9485

Passcode: 11172021

Or call: 929-205-6099 and enter meeting ID 830 6446 9485

Meeting password is 11172021

If you receive an error message after entering the password:

Enter the password again.

If it does not work, click on the meeting link. If you still cannot get into the meeting, call in.

Public Hearing

Agenda Item 3

Legal Notice Tolland Green Historic District Commission

The Commission will hold a Public Hearing on October 20, 2021 at 7:00pm to consider an application for a Certificate of Appropriateness by Theodore Jick, for a fence in the backyard constructed of wood lattice at 89 Tolland Green. This application is on—line at https://www.tolland.org/historic-district-commission/pages/applications-pending Only remote participation will be allowed. Instructions to participate will be on the agenda, which will be posted by October 18, 2021 at www.tolland.org

To run twice in the Journal Inquirer on October 8 & 12, 2021.



TOLLAND GREEN HISTORIC DISTRICT COMMISSION Application for a Certification of Appropriateness



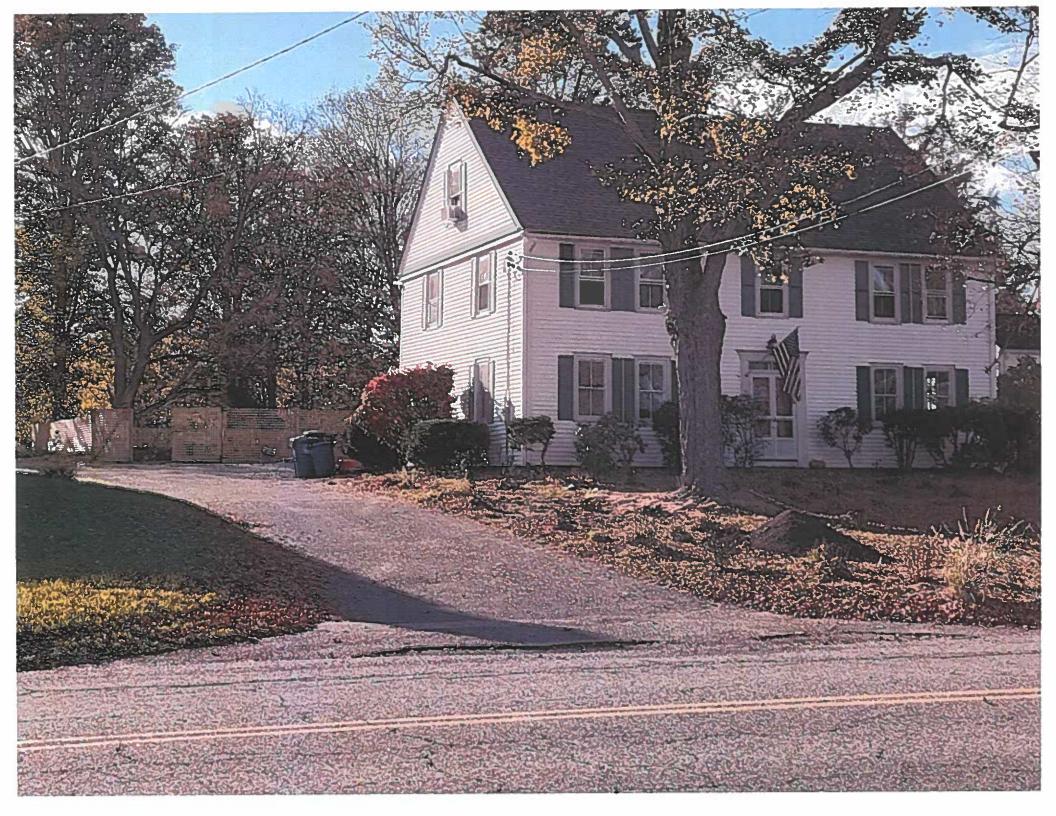
BY: \ **Property Information Property Address: Property Owner: Phone Number: Applicant Information** Theodor Tick **Applicant Name: Applicant Address: Phone Number: Email Address: Project Information** Colonia Type of Building: Nature and description of work to be done as it affects exterior appearance. Attach appropriate drawing or plans giving the position of the house or structure on the site, ground plan of house with proposed addition, and all pertinent elevations showing size and style of windows, dormers, doors, exterior wall finishes, roofing material, chimneys, vents and ornamentation. (If more space needed, attach sheet to application.) fence in backward **Estimated Start and Completion Dates:** 10,2021 Complete: 505 Start: 1. Attach a photograph of the existing structure or place to be changed as viewed from the street showing that portion of the structure to be altered, together with a drawing of the proposed alteration or change. 2. Application fee of \$75.00 must accompany application (make checks payable to Town of Tolland). 3. Application form, fee, plans, photograph and drawing must be submitted to Planning & Building Department. Public Hearings will be scheduled within not more than sixty-five days after the filing of an application. This application form and all accompanying plans and materials are accurate and complete: **Applicant Signature:** Date: **Property Owner Signature:** Date: OFFICE USE ONLY

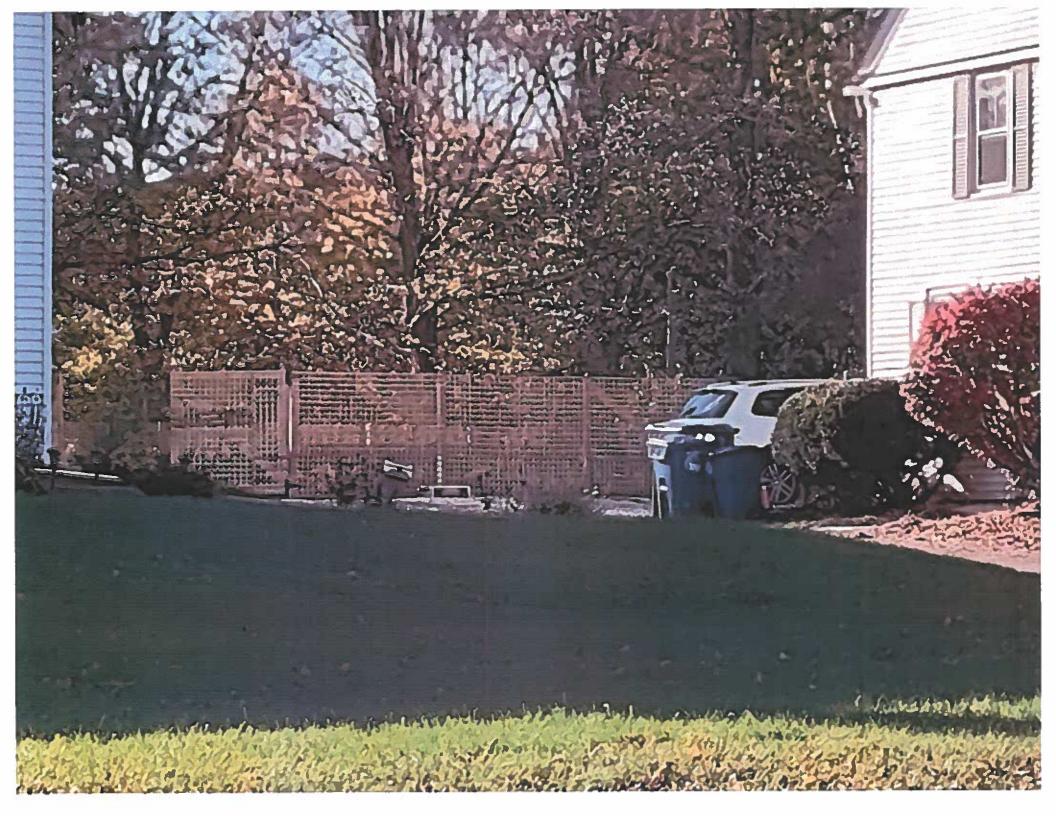
Received & Fee Paid: Hearing Scheduled: **Hearing Advertised:** Action: Notice of Action to Applicant:













Agenda Item 4

Legal Notice Tolland Green Historic District Commission

The Commission will hold three Public Hearings on November 17, 2021 at 7:00PM.

- 1. <u>30 Tolland Green:</u> to consider an application for a Certificate of Appropriateness by Brain and Tracy Hurlburt to replace a window.
- 2. <u>63 Tolland Green:</u> to consider an application for a Certificate of Appropriateness by Frederick and Lisa Day-Lewis to install roof-mounted solar panels.
- 3. **89 Tolland Green:** to consider an application for a Certificate of Appropriateness by Theodore Jick to install a lattice fence.

These applications are online at: https://www.tolland.org/historic-district-commission/pages/applications-pending Only remote participation will be allowed. Instructions to participate will be on the agenda, which will be posted by November 15, 2021 at www.tolland.org.

To run twice in the Journal Inquirer on November 8th and November 9th.



TOLLAND GREEN HISTORIC DISTRICT COMMISSION Application for a Certification of Appropriateness

Property Information	
Property Address: 30 TOLLAND	CRAEN
Property Address: 30 TOLLAND Property Owner: BRY AN & MAC	Y HURIBURT
Phone Number:	
Applicant Information	
Applicant Name: MIKK BOBKY	BOBEN BULLOURS
Applicant Address: 183 MATCAGE	one Tourno CT 06084
Phone Number:	Email Address:
Project Information	
Type of Building: PASI DRACE	
	ts exterior appearance. Attach appropriate drawing or plans
	ite, ground plan of house with proposed addition, and all
,	ws, dormers, doors, exterior wall finishes, roofing material,
chimneys, vents and ornamentation. (If more space	
	TOR OF HOUSE WITH WOOD WINDOW
OF SAME SILE DESIGN	NO CHAMBE MY HAMPER
Estimated Start and Completion Dates:	
1-10	2 NAUS
Start: ASPAP	Complete:
· · · · · · · · · · · · · · · · · · ·	place to be changed as viewed from the street showing that with a drawing of the proposed alteration or change.
 Application fee of \$75.00 must accompany application. 	
	wing must be submitted to <i>Planning & Building Department</i> .
	e than sixty-five days after the filing of an application.
	1
This application form and all accompanying plans and	d materials are accurate and complete:
Applicant Signature:	Date: 11/4/2/
Property Owner Signature:	Date: 1132021
Property Switch Signature.	Date. 1151000
OFFICE USE ONLY	
Received & Fee Paid:	Hearing Scheduled: 11 17 21
	Hearing Scheduled.
Hearing Advertised: 11 8 21 + 11 9 21	Action:



ONOTE DV. Andrew Deber

QUOTE BY: Andrew Bobey

LOCATION

SIZE INFO

SOLD TO: BOBEY, MICHAEL

PO#

Ship Via

LINE

: Ground

QUOTE#

: JW210601EP1 - Version 0

SHIP TO

PROJECT NAME: HURLBURT DH MULL UNIT

REFERENCE

SHGC Weighted Average: 0.18

U-Factor Weighted Average: 0.29

BOOK CODE NET UNIT QTY EXTENDED DESCRIPTION PRICE PRICE

Line 1

Rough Opening: 59 7/8 X 40 7/8

Viewed from Exterior. Scale: 1/2"=1'

Frame Size: 59 1/8 X 40 1/8

(Outside Casing Size: 61 3/4 X 42 5/16),

Siteline Wood Double Hung, Auralast Pine, 2 Wide

Primed Exterior, Primed Interior,

Brickmould, Standard Sill Nosing, DripCap, Brilliant White Drip Cap,

4 9/16 Jamb,

White Jambliner, Concealed Jambliner

White Hardware,

US National-WDMA/ASTM, DP 35,

Insulated SunResist Annealed Glass, Protective Film, Black Spacer, Argon

Filled, Traditional Glz Bd,

5/8" Flat GBG Brilliant White Grid, Colonial Top Lite(s) Only 3 Wide 2

High Top.

BetterVue Mesh Brilliant White Screen,

This mull configuration complies with AAMA 450 standards and is

professional engineer-approved. (Note: Color Tone Of Grille May Vary As A

Result Of Glass Option).

PEV 2021.3.0.3573/PDV 6.360 (09/09/21)NW

1

Line 1-1(A1)

Ouote Date: 06/30/2021

Frame Size: 29 9/16 X 40 1/8

Siteline Wood Double Hung, Auralast Pine,

Primed Exterior, Primed Interior,

No Exterior Trim,

4 9/16 Jamb,

Standard Double Hung, White Jambliner, Concealed Jambliner

White Hardware,

US National-WDMA/ASTM, PG 35,

Insulated SunResist Annealed Glass, Protective Film, Black Spacer, Argon

Filled, Traditional Glz Bd,

5/8" Flat GBG Brilliant White Grid, Colonial Top Lite(s) Only 3 Wide 2 High

Top,

BetterVue Mesh Brilliant White Screen,

Product Does Not Qualify for Accidental Glass Breakage Warranty Coverage, *Custom-Width*, *Custom-Height*, IGThick=0.698(3/32 / 3/32), (Note:

Color Tone Of Grille May Vary As A Result Of Glass Option). Clear

Opening:25.8w, 16.5h, 2.9 sf

U-Factor: 0.29, SHGC: 0.18, VLT: 0.42, Energy Rating: 13.00, CR: 60.00,

CPD: JEL-N-885-01806-00001

cust-47409 Page 1 of 2 (Prices are subject to change.) JW210601EP1 (Ver:0) - 11/03/2021 6.23 PM

Drawings are for visual reference only and may not be to exact scale.

All orders are subject to review by JELD-WEN

Last Modified: 09/18/2021

Laura Smith

From:

Tracy Hurlbur

Sent:

Tuesday, November 9, 2021 10:13 AM

To: Cc: Laura Smith bryan hurlburt

Subject:

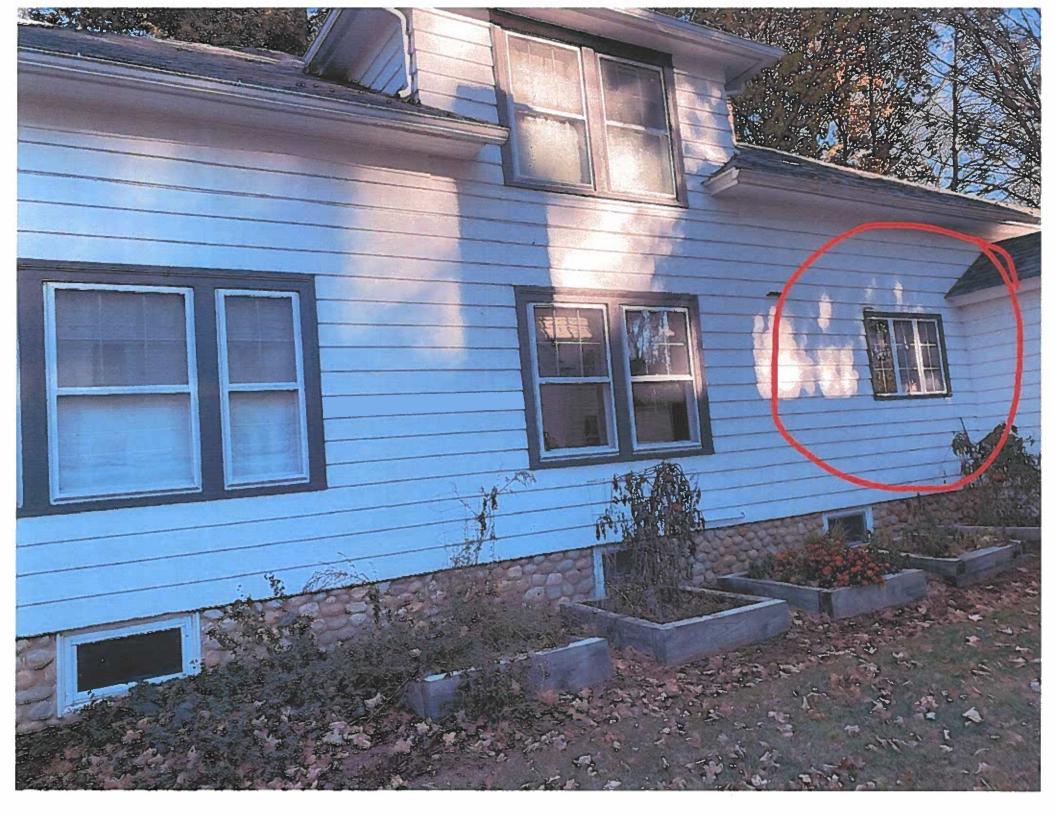
[EXTERNAL]30 Tolland Green - Window Replacement

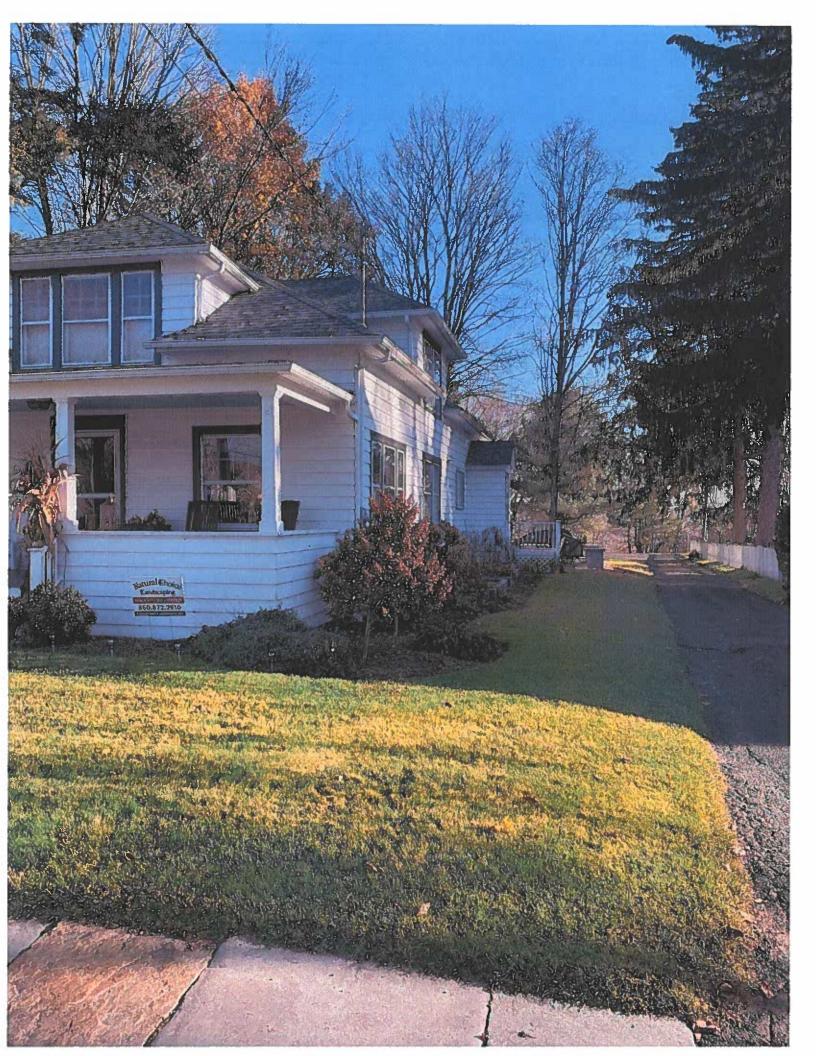
Good morning Laura,

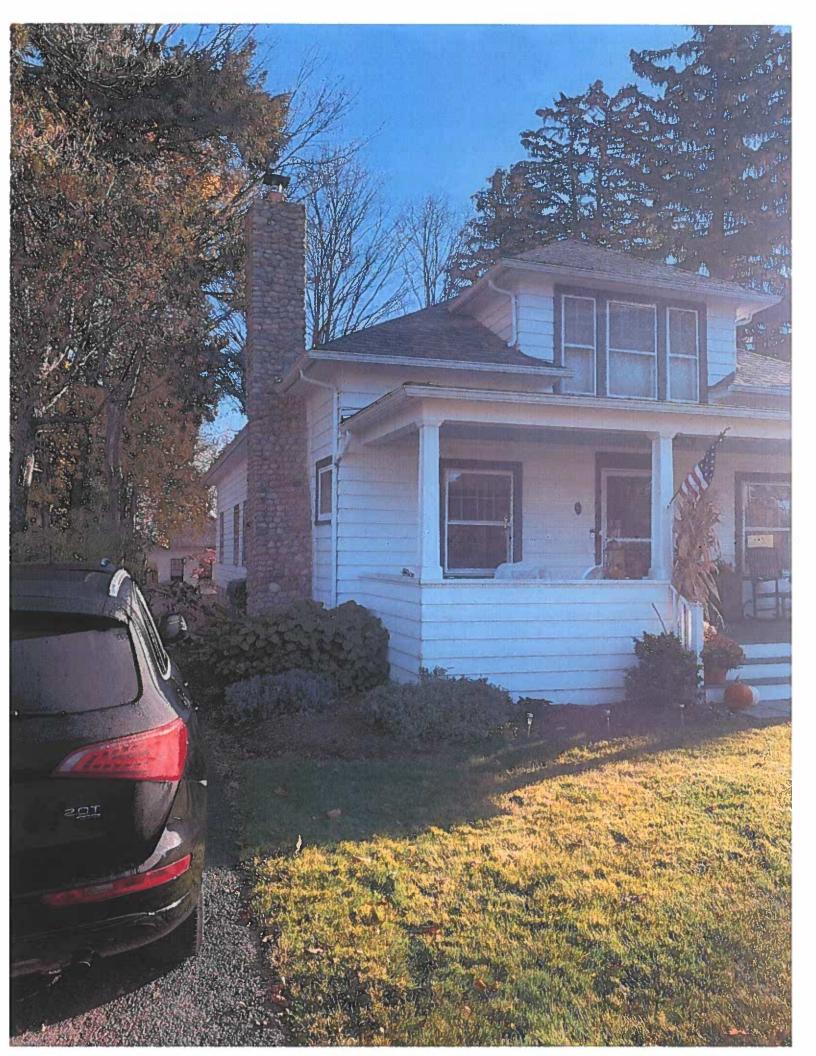
Thank you for reaching out regarding our window replacement. Here are a few pictures of the house from all sides. I have circled the window that we are looking to replace in a few pictures. Our intention is to replace it to look in line with the other windows on the house. It will be a wood window with similar grills to the others and we will update the trim to match the others as well.

This window is not overly visible from the street, but we just wanted to be sure we don't have any issues. Please let me know if there are any follow up questions.

Thank you!









Agenda Item 5

Legal Notice Tolland Green Historic District Commission

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- 1. <u>30 Tolland Green:</u> to consider an application for a Certificate of Appropriateness by Brain and Tracy Hurlburt to replace a window.
- 2. <u>63 Tolland Green:</u> to consider an application for a Certificate of Appropriateness by Frederick and Lisa Day-Lewis to install roof-mounted solar panels.
- 3. **89 Tolland Green:** to consider an application for a Certificate of Appropriateness by Theodore Jick to install a lattice fence.

These applications are online at: https://www.tolland.org/historic-district-commission/pages/applications-pending Only remote participation will be allowed. Instructions to participate will be on the agenda, which will be posted by November 15, 2021 at www.tolland.org.

To run twice in the Journal Inquirer on November 8th and November 9th.



TOLLAND GREEN HISTORIC DISTRICT COMMISSION Application for a Certification of Appropriateness

Property Information	· · · · · · · · · · · · · · · · · · ·
roperty information	
Property Address:	63 Tolland Green
Property Owner:	Lisa Day Lewis
Phone Number:	
Applicant Information	
Applicant Name:	Jeff Schwartz, SunPower
Applicant Address:	50 Rockwell Road Newington CT 06111
Phone Number:	Email Address:
Project Information	
Type of Building:	Dwelling
giving the position of t pertinent elevations s	n of work to be done as it affects exterior appearance. Attach appropriate drawing or plans the house or structure on the site, ground plan of house with proposed addition, and all howing size and style of windows, dormers, doors, exterior wall finishes, roofing material, prnamentation. (If more space needed, attach sheet to application.)
and the second of the second	
Poof mounted s	colar array. 2 mounting planes, South and West facing roofs on back of home.
Estimated Start and C Start: After all ap	completion Dates: opropriate permits are issued
1. Attach a photogra portion of the stru 2. Application fee of Application form,	
1. Attach a photogra portion of the stru 2. Application fee of Application form, Public Hearings wi	ph of the existing structure or place to be changed as viewed from the street showing that acture to be altered, together with a drawing of the proposed alteration or change. \$75.00 must accompany application (make checks payable to Town of Tolland). fee, plans, photograph and drawing must be submitted to <u>Planning & Building Department</u> .
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1. Attach a photogra portion of the stru 2. Application fee of 3. Application form, Public Hearings wi This application form application form application form application form application form applicant Signature:	ph of the existing structure or place to be changed as viewed from the street showing that acture to be altered, together with a drawing of the proposed alteration or change. \$75.00 must accompany application (make checks payable to Town of Tolland). fee, plans, photograph and drawing must be submitted to Planning & Building Department. Il be scheduled within not more than sixty-five days after the filing of an application.
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1. Attach a photogra portion of the stru 2. Application fee of 3. Application form, the Public Hearings wi This application form a Applicant Signature: Property Owner Signature	ph of the existing structure or place to be changed as viewed from the street showing that acture to be altered, together with a drawing of the proposed alteration or change. \$75.00 must accompany application (make checks payable to Town of Tolland). If the scheduled within not more than sixty-five days after the filing of an application. Date: 9/29/21

BY: WS

SOLAR INDIVIDUAL PERMIT PACKAGE

LISA DAY-LEWIS/FEDERICK D DAY-LEWIS

15.60 kW GRID TIED PHOTOVOLTAIC SYSTEM

AC MAX. CONTINUOUS POWER RATING OF (39) SPR-A-400-G-AC = 39 x 349W = 13.61 kW

GENERATOR NAMEPLATE kVAR RATING = 3.90 kVAR

63 TOLLAND GREEN
TOLLAND, CONNECTICUT 06084-3029

AHJ: TOLLAND
UTILITY: EVERSOURCE ENERGY (FORMERLY CONNECTICUT LIGHT & POWER CO)

CODE INFORMATION

APPLICABLE CODES, LAWS AND REGULATIONS

2018 CSBC ADOPT THE FOLLOWING CODES:
2015 INTERNATIONAL BUILDING CODE (IBC)
2015 INTERNATIONAL EXISTING BUILDING CODE (IBC)
2015 INTERNATIONAL MECHANICAL CODE (IMC)
2015 INTERNATIONAL PUMBING CODE (IPC)
2015 INTERNATIONAL RESIDENTIAL CODE (IRC)
2017 MATIONAL ELECTRIC CODE NFPA70 (NEC)
2009 ICC ALI7.1 ACCESSIBLE & USABLE BUILDING &

2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

UNPOWER SRIEMS ALL HARBOUR WAY SOUTH RICHMOND, CA 91881 (\$135,540,0558

SATELLITE IMAGE

PROJECT LOCATION-





LISA DAY-LEWIS/FEDERICK D DAY-LEWIS

13.

JOB NOTES

SCOPE OF WORK

- (N) 15.600 kW PHOTOVOLTAIC SYSTEM
- (39) 400W (Model SPR-A-400-G-AC) PV MODULES
- POINT OF INTERCONNECTION AT MAIN SERVICE PANEL WITH LINE SIDE TAP

SHEET INDEX

PV SOLAR ARCHITECTURAL DRAWINGS

 PVA-0
 COVER SHEET

 PVA-1
 ARRAY LAYOUT

 PVA-2
 LOT DIAGRAM

 PVA-3
 ELEVATION VIEW

PV SOLAR STRUCTURAL DRAWINGS

PVS-1 MOUNTING DETAILS

PV SOLAR ELECTRICAL DRAWINGS

PVE-1 ELECTRICAL SINGLE-LINE DIAGRAM & SPECIFICATIONS

SPECIFICATIONS

PVE-2 ELECTRICAL CALCULATION

PVE-3 ELECTRICAL DATA & SPECIFICATIONS
PVE-4 EQUINOX GROUNDING DETAILS

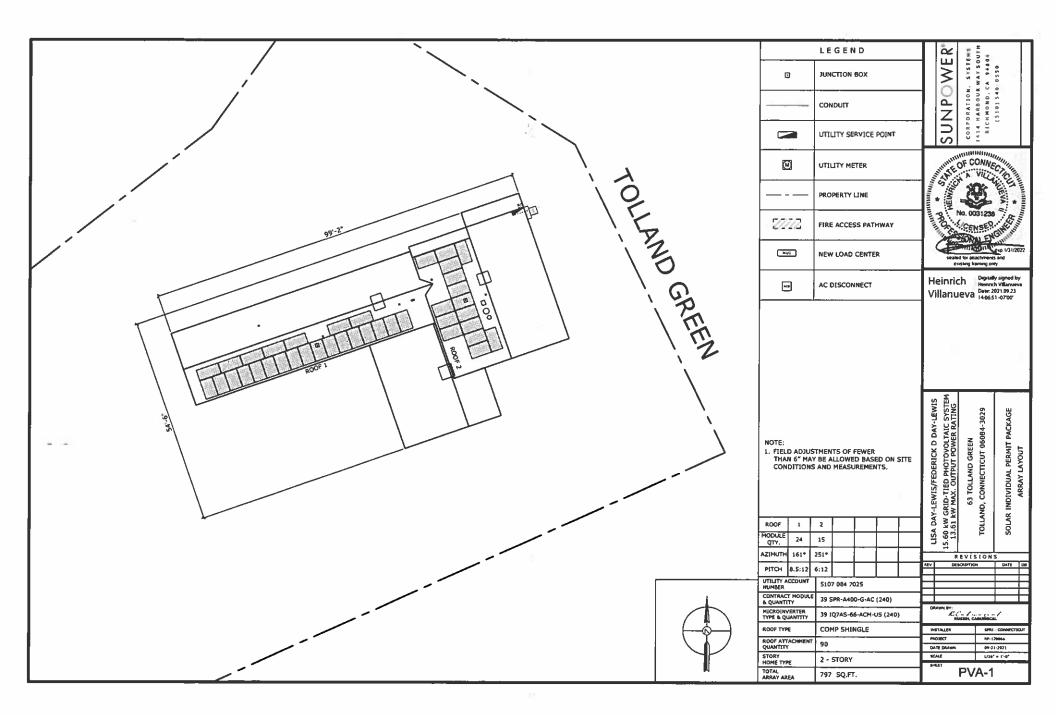
PVE-5 BRANCH DIAGRAM

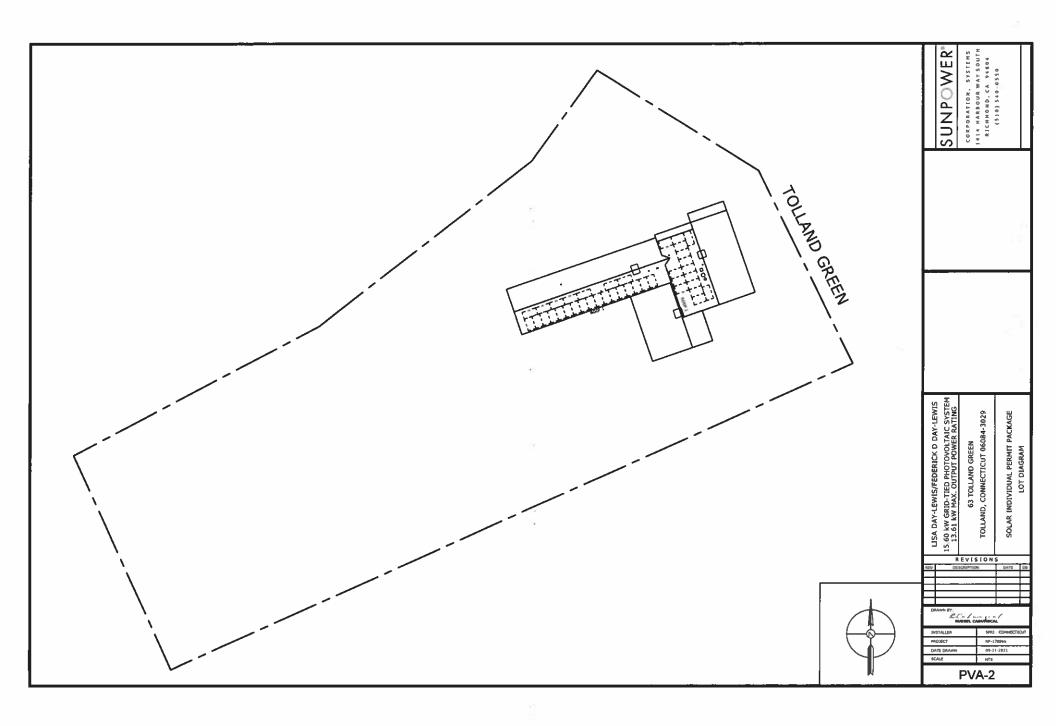
ORAWN SY:	111 122
RC-1-	andecu.
PASTALLER	SPRI - COMMECTICUT
PROJECT	RP-178866
DATE DRAWN	09-21-2821

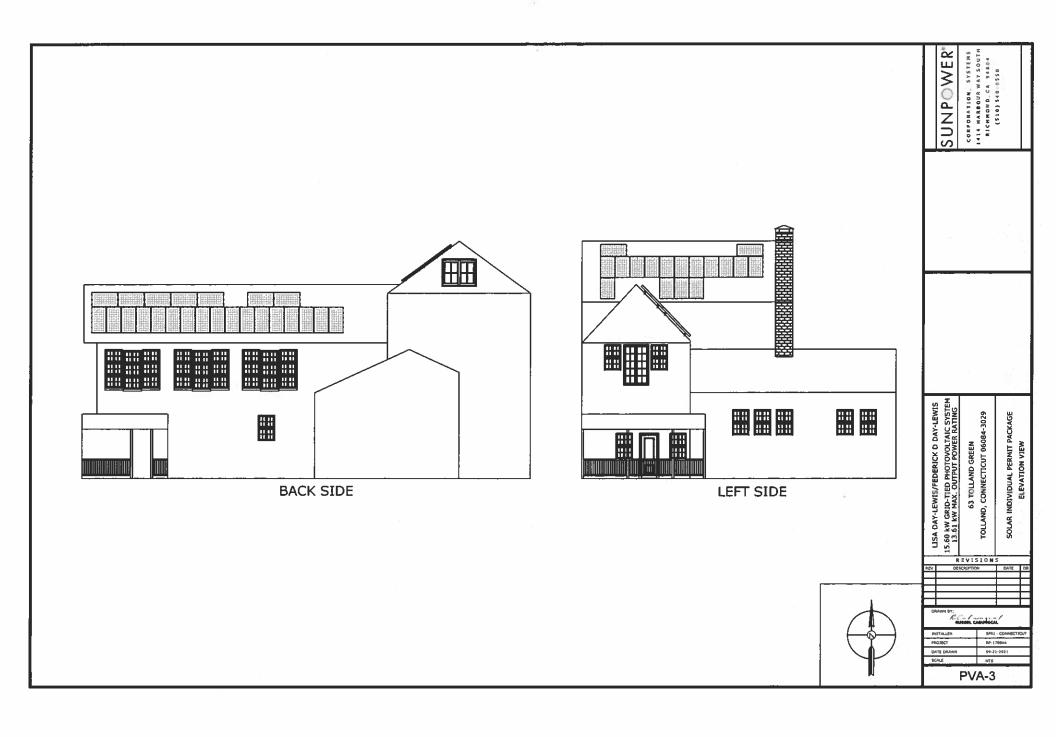
REVISIONS

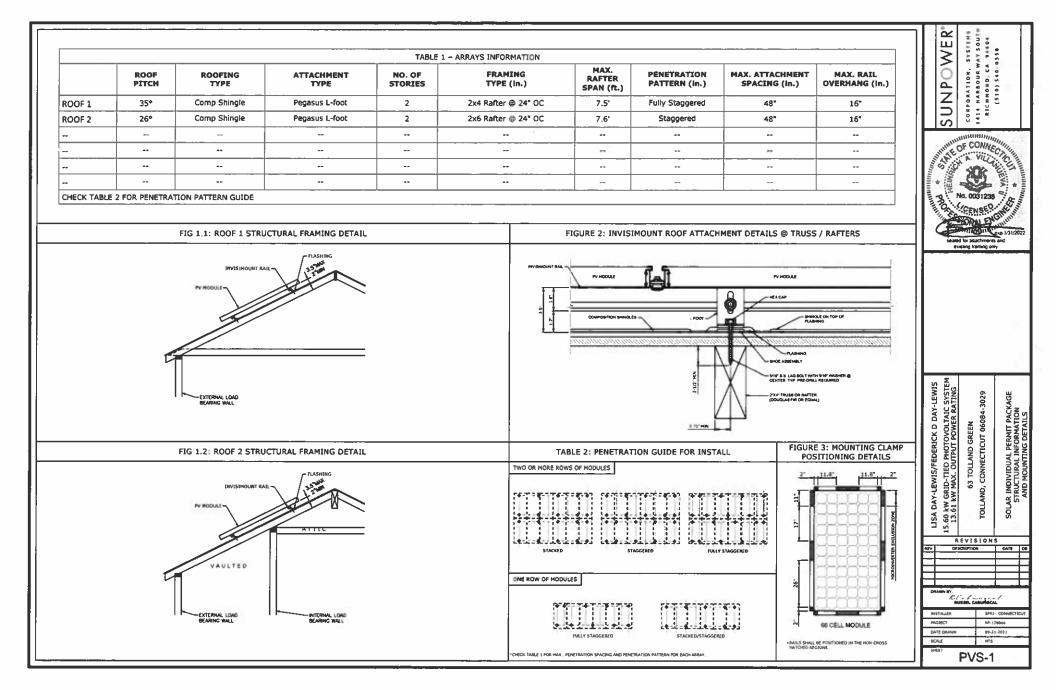
INDIVIDUAL PERMIT

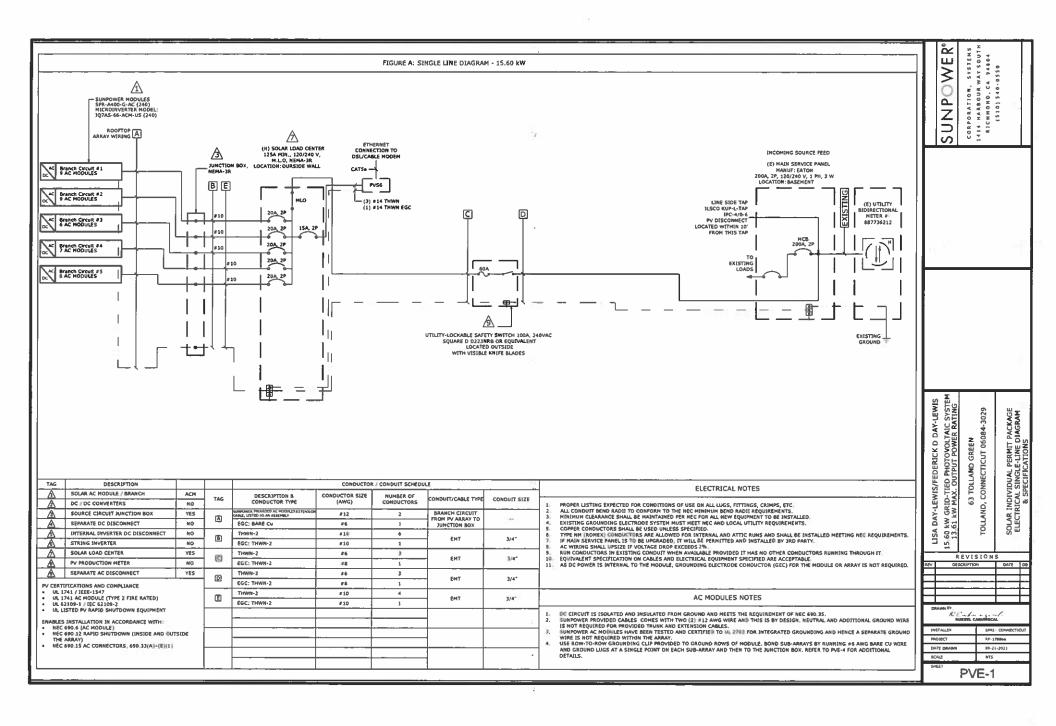
PVA-0









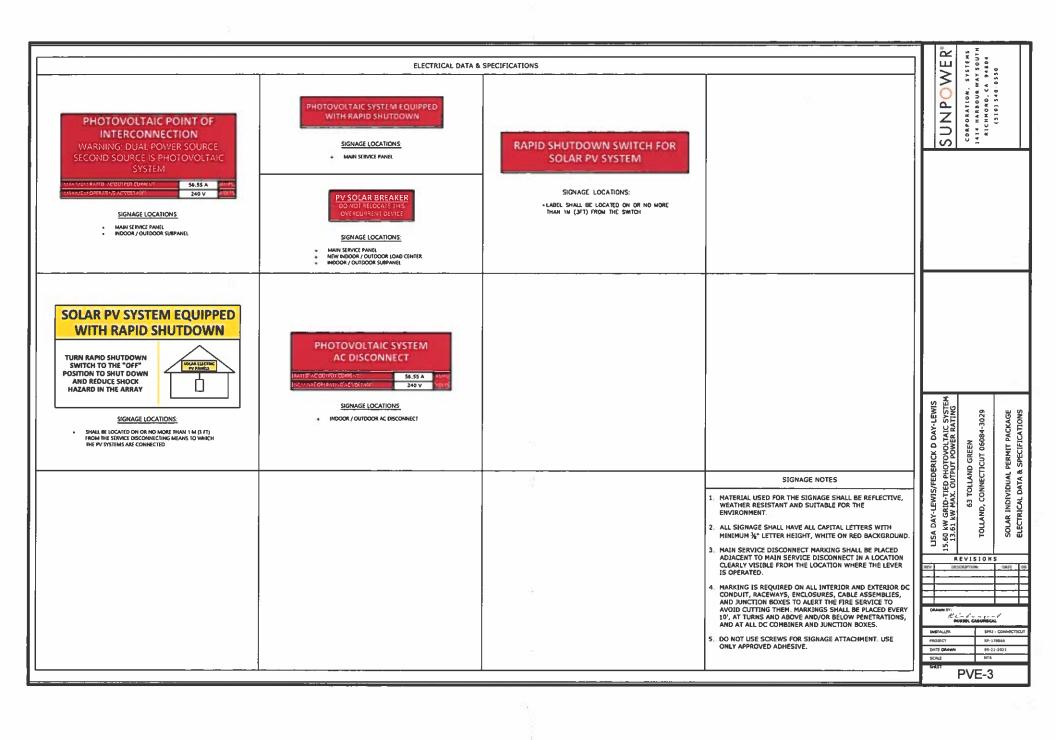


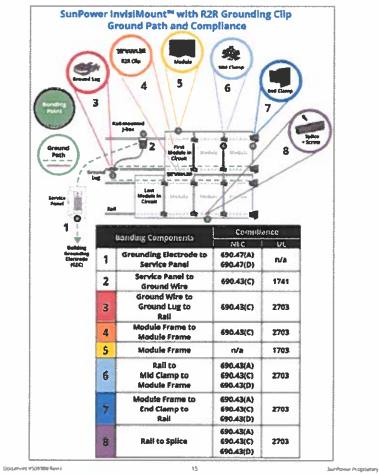
ELECTRICAL CALCULATIONS

SUBPANEL TO GRID-TIE WIRING	#6
VOLTAGE	240 V
SUM OF BRANCHES: I OUT. TOTAL =	\$6.55 A
MINIMUM WIRE AMPACITY: I _{MAX} = IOUT x 1.25	70.69 A
CONDUCTOR DE-RATING	
MAXIMUM AMBIENT TEMPERATURE	34 10
TEMPERATURE USED FOR AMPACITY DE-RATING	34 °C
TEMPERATURE DE-RATING COEFFICIENT	0.96
FILL DE-RATING COEFFICIENT	1.00
I _{WAREANN} = I _{MAX} / TEMP_COEFF / FILL_COEFF	73.63 A
WIRE SIZE AMPACITY	75 A
CONDUCTOR SIZE	#6
CONDUCTOR SIZE ADJUSTED FOR VOLTAGE DROP	#6
ONE WAY CIRCUIT LENGTH	5 FT.
VOLTAGE DROP	0,12%
OVERCURRENT PROTECTION	80A, 2P
MINIMUM OCPD = I _{OUT} x 1.25	70.69 A

	BRANCH 1	BRANCH 2	BRANCH 3	BRANCH 4	BRANCH 5	
ROOF JCT BOX TO SUBPANEL WIRING	#10	#10	#10	#10	#10	
NUMBER OF MODULES	9	9	6	7	8	
VOLTAGE	240 V					
RATED AC OUTPUT CURRENT; I _{OUT} =	13.05 A	13.05 A	8.7 A	10_15 A	11.6 A	
MINIMUM WIRE AMPACITY: MAX = I _{OUT} x 1.25	16.31 A	16.31 A	10.88 A	12.69 A	14,50 A	
CONDUCTOR DE-RATING						
MAXIMUM AMBIENT TEMPERATURE	34 °C					
TEMPERATURE ADDER	22 °C					
TEMPERATURE USED FOR AMPACITY DE-RATING	56 °C					
TEMPERATURE DE-RATING COEFFICIENT	0.71	0.71	0.71	0.71	0.71	
FILL DE-RATING COEFFICIENT	0.8	0.8	0.8	0.8	0.8	
MREMIN = IMAX / TEMP_COEFF / FILL_COEFF	28.72 A	28 72 A	19.15 A	22.34 A	25.53 A	
WIRE SIZE AMPACITY	40 A					
CONDUCTOR SIZE	#10	#10	#10	#10	#10	
CONDUCTOR SIZE ADJUSTED FOR VOLTAGE DROP	#10	#10	#10	#10	#10	
ONE WAY CIRCUIT LENGTH	105 FT.	105 FT.	105 FT	65 FT.	65 FT.	
CALCULATED VOLTAGE DROP	1.42%	1.42%	0.94%	0.68%	0.78%	
OVERCURRENT PROTECTION	20A, 2P					
MINIMUM OCPD = I _{OUT} x 1.25	16.31 A	16.31 A	10.88 A	12.69 A	14.50 A	

CORPORATION, SYSTEMS 1414 MARBOUR WAY SOUTH RICHMOND, CA 94804 (518) 540 0550 SUNPOWER LISA DAY-LEWIS/FEDERICK D DAY-LEWIS 15.60 kW GRID-TIED PHOTOVOLTAIC SYSTEM 13.61 kW MAX. OUTPUT POWER RATING 63 TOLLAND GREEN TOLLAND, CONNECTICUT 06084+3029 SOLAR INDIVIDUAL PERMIT PACKAGE ELECTRICAL CALCULATION REVISIONS DESCRIPTION PP-175064 DATE DRAW BCALE 09-21-2621 ATS PVE-2







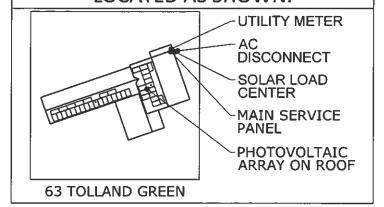


FIGURE 1: SUNPOWER EQUINOX GROUNDING DETAILS

FIGURE 2: PLACARD IDENTIFYING LOCATION OF DISCONNECTS AND POWER SOURCES

SUNPOWER CORPORATION, SYSTEMS

15. 60 kW GRID-TIED PHOTOVOLTAIC SYSTEM
13.61 kW MAX. OUTPUT POWER RATING
63 TOLLAND GREEN
TOLLAND, CONNECTICUT 06084-3029
SOLAR INDIVIDUAL PERMIT PACKAGE

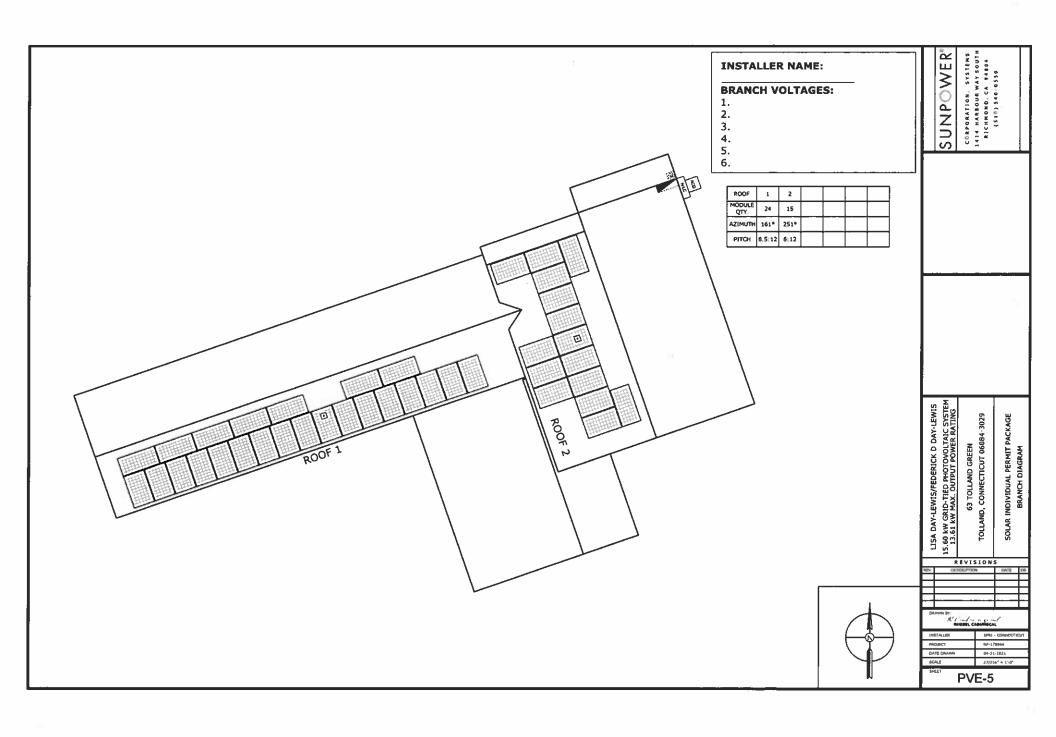
DAY-LEWIS/FEDERICK D

LISA

DRAWN SV:

INSTALLER SMAJ COMMECTICAL
PROJECT IP-178666
DATE DRAWN 09-21-2821
SCALS NTS
SWEET

PVE-4







420-390 W Residential AC Module

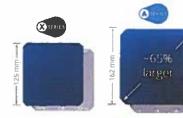
SunPower⁴⁹ Maxeon[®] Technology

Built specifically for use with the SunPower Equinox^{TV} system, the only fully integrated solution designed, engineered, and warranted by one manufacturer.



Highest Power Density Available.

SupPower's new Maxeon* Gen 5 cell is 65% larger than prior generations, delivering the most powerful cell and highest efficiency module in residential solar. The result is more power per square meter than any commercially available solar...



Fundamentally Different. And Better.



SunPower* Maxeon* Technology

- Most powerful cell in home sclar
- Delivers unmatched reliability?
- Patented solid metal foundation prevents breakage and corros-on



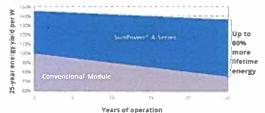
Factory-integrated Microinverter (MI)

- Highest-power integrated AC module in solar
- * 60% Eghter than onor SunPower MIs
- . Engineered and calibrated by SunPower for SunPower AC modules



Highest Lifetime Energy and Savings.

Designed to deliver 60% more energy over 25 years in real-world conditions like partial shade and high temperatures.





Best Reliability. Best Warranty.

Withi more than 25 million modules deployed autorid the world. SunPower technology is proven to last. That's why we stand behind our module and microrriverter with the industry's best 25-year Combined Power and Product Warranty, including the Lighest Power Warranty



A-Series: A420 | A415 | A410 | A400 | A390 SunPower® Residential AC Module

	AC Electrical Data
inverter Model: Type G / SPWR-A4 (IQ 7A5)	@240 WAC
Feak Gutout Power	366 VA
Mac Continueus Output Power	. 349 VA
Nom (L-1) Valengerfamper of	2407211-264
(Also Continuous O aput Current (A)	1.45
Havi Ontopai 20 k (L-E) Branch Circuit	31
CEC Weighted Efficiency	97.0%
Nom Frequency	50 Hz ·
Evernes Possional Pungo	47-53 Ht
AC Short Circuit Fault Corrent Over 3 Cycles	5.9 A rms
© ercoltage Class AC Foot	3H
At Fort Backfeed Current	18 mA
From Factor Secting	10
Proves Forte: (an ustable)	0.7 lead / 0.7 lag

Paver Tq1	C) w/26
Module Efriciency	725 724 720 715 209
Tenip Coer (Power)	-1705970
Shade Foi	Integrated hogs level may be well part (Tacket)
WORKS ON	lested Operating Conditions
Operating Terro	-40°= (o +185°= (+40°C to +85°C)
Max. Amplent Temp	122°F(90°C)
Max Testioad'	Wind 125 ptf, 6000 Pa 611 kg/mF blick Speyr 187 psf, 5000 Pa 917 kg/mF front
Design Load	#/md 75 psf, 3600 Pal 367 kp/m² back Snow 125 psf, 6000 Pal d11 kg/m² front
Impact Resistance	Timon (25 mm) diameter, half at 53 mph (23 m/s)
	Afechanical Data
Solar Cells	66 Monortystalline Maxeon Seri 5
Front Glass	High-transmission rempered glass vato anti-reflective coating
Enviror mental Pating	Outstor rated
Frame	Class I black anopized (highest AAMA rating)
Treight	46.5 lbs (21.1 kg)

I sumbound at 4.32, 22, ill-infecting, compared to a Constitutional Planet on same object analysis of the Proceedings of the Procedings of the Procedin

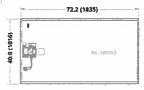
- paper 2013 4 Factory set to 1547a-2014 detauh setures CARule 21 detauh sett resignof le set during community mer
- commission and Schandard Best Conditions (1000 Winn-ara)banke, JAM 1.0, 2013. Niekt clibination standard, 50 Microticke, LATCS Fand vollage. All Disvolvare in fully restained within the module. El This princial is with "Ned as FVPCE and conforme with INTC 2014 over INEC 2017 1925. and 1727-12015 Robe Hebrita Hand Charlose in PM Spacetis, Se HC and DC concession. where it stilled according to manufacture to instructions.

 7 Please read the safety and installation instructions for more information regarding load.

Recommended Max

- For more details, see extended awaybeet years, sumptivier, curvastastieets specifications included in this distances are subject to a bango in thous notice.
- \$ 2020 surphopoli Corporation, All forms Reserved, SUNPOWER, the SUNPOWERlogo, Equation, and MAREON are registered trademallies of SunPower Corporation in the U.S. and other countries as well 1-is 00-008 POWER

		0.7 lead / 0.7 lag
1		Warranties, Certifications, and Compliance
	Warranties	25-year I mited power warranty 25-year I mited product warranty
	Certifications and Compliance	+ UE, 1741 AC Module (Type 2 fire raced) + LB 62109-1 / EEC 62:09-2
		Enables installation in accordance with "NEC 690 of AC morally "NEC 690 12 Rapid Shuddwin (in de annious de the array) "NEC 690 15 AC Commetons 690 33(Aim(Ex))
		When used with Invisitaount racking and thinstation tracessories (UL 2703). Vodule grounding and bonding through Insistaount (Class Africiated and bonding through Insistaount (UL 5703 and UL 2328). 10 22289. 10 384 dig to Isaa broak disconnect.
	PID Test	Potential-ir duced degradation free







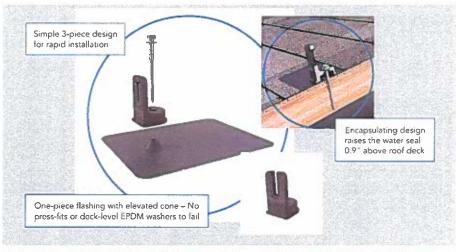


534092 Rev8



A BETTER DAY ON THE JOB

COMP MOUNTS











WATERTIGHT FOR LIFE

Pegasus Solar's Comp Mounts are a cost effective, high-quality option for rail installations on composition shingle roofs. Designed to last decades, the one-piece flashing with elevated cone means there is simply nothing to fall.



25-year Warranty

Manufactured with advanced materials and coatings to outlist the roof itself



Superior Waterproofing

Tested to AC286 without scalant 0.9" elevated water scal



Code Compliant

Fully IBC/CBC Code Compliant Exceeds ASCE 7-16 Standards



All-In-One Kit Packaging

Flashings, L-Feet and SS lags with bonded EPDM washers are included in each 24-pack

COMP MOUNTS

Drill pilot hole in center of rafter.



Optional: Apply a
 "U-shape" of sealant
 to underside of
 flashing and position
 under 2nd shingle
 course, cone over
 pilot hole.



3. Place L-Foot over cone and install lag with washer through L-Foot.



4. Drive lag to required depth. Attach rail per rail manufacturer's instructions













Specifications			Comp Mount Install Kits		
SKU	PSCR-CBB0	PSCR-U880	SPCR-CBBH	PSCR-CMM0	PSCR-UMMO
Finish	Blac	k L-Foot and Black Flashir	ng .	Mill L-Foot an	d Milt Flashing
L-Foot Type	Closed Slot	Open Slot	Closed Slot	Closed Slot	Open Slot
Kit Contents	L-Foot, Flashing, 5/16"x 4-1/2" SS Lag with metalized EPOM washer	L-Foot, Flashing, 5/16"x 4-1/2" SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16"x 4-1/2" SS Lag with metalized EPDM washer and M10 Hex Bolt	L-Foot, Flashing, 5/16°x 4-1/2° SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16*x 4-1/2" SS Lag with metalized EPDM washer
Roof Type			Composition Shingle		
Certifications			BC, ASCE/SEI 7-16, AC28	6	
Install Application			Railed Systems		
Compatible Rail			Most		
Flashing Material		Painted Galvalume Plus		Galvalu	me Plus
L-Foot Material	AND RESIDENCE		Aluminum		
Kit Quantity			24		
ARTON HERE	TO SERVICE SHARES	Marin Company	72		





Residential Mounting System

Simple and Fast Installation

- Integrated module-to-rail grounding
- Pre-assembled mid and end clamps:
- Levitating mid clamp for easy placement
- Mid clamp width facilitates consistent, even module spacing
- · UE 2703 Listed integrated grounding

Flexible Design

- · Addresses nearly all sloped residential roofs
- Design in landscape and portrait with up to 8' rail span
- · Pre-drilled rails and rail splice
- Rails enable easy obstacle management

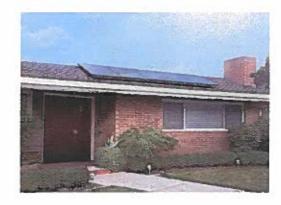
Customer-Preferred Aesthetics

- #1 module and #1 mounting zesthetics
- Best-in-class system aesthetics
- · Premium low-profile design
- · Black anodized components
- Hidden mid clamps and capped, flush end clamps

Part of Superior System

- · Built for use with SunPower DC and AC modules
- Best-in-class system reliability and aesthetics
- New optional rooftop transition flashing, railmounted l-box, and wire management rail clips
- Combine with SunPower modules and SunPower EnergyLink® monitoring app





Elegant Simplicity

SunPower* InvisiMount* is a SunPower-designed rail-based mounting system. The InvisiMount system addresses residential sloped roofs and combines faster installation time, design flexibility, and superior aesthetics. The InvisiMount product was specifically envisioned and engineered to pair with SunPower modules. The resulting system-level approach amplifies the aesthetic and installation benefits—for homeowners and for installers.

sunpower.com



ITWENVOCAL COMPONE

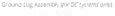


and Private

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	Invisiviourit Component Detail	
Mid damp	Black oxide stanless steel 300 series	63 g (2.2 oz)
End clamp	Black anodized aluminum 6000 series	110 g (3 88 oz)
Rail	Black anodized aluminum 6000 series	530 g/m (9 ozitt)
Rall splice	Alureman alby 6000 senes	\$30 g/m (9 oz:1t)
Rail poit	M10: 1.5 x 25 mm; 01N 193 55304	nominal
Pail not	M10-1.5: DIN 6923 55304	nominal
Ground lug assembly	SSE04: AC-70 host tin-plated copper fug	06.5 g/m (3.75 oz)

9 - 12	Uplift	664 lb!
Mid clamp	Shear	540 lbt
	Uplift	599161
End damp	Shear	220 lbt
Rail	Moment: upward	548 tbf-tt
PAR .	Moment: downward	580 (b/rt
0.1	Morrent upward	548 Ibf-ft
Rail splice	Moment; downward	580 lbt-ft
Lines	Lplift	1000 lbf
L-foot	Shear	390 lbt

Temperature	-40" C to 90" C (-40" F to 194" F)	
Max. Load (LPFD)	- 3000 Pa uplib - 6000 Pa downforce	

Roof Attachment Hardware Supported by Design Tool	
Application	Composition Shingle Rafter Attachment Composition Shingle Roof Decking Attachment Conved and Raff life Roof Attachment Universal interface for other roof attachments.

InvisiVount Warranties And Certifications	
Warranties	- 25-year product warranty
	5-year triish warranty
Certifications	+ UL 2703 Listed
	· Class A Fire Pated

Roof Attachment Hardware manufacturers documentation

1.5/104

ware interoperability.

2 SunPower recommends that all Equinox* InvisiMount*, and AC module systems always be designed using the SunPower Design Tool if a designer decides to instead use the component capacities listed in this document to design a system, note that the capacities shown are Load and Resistance Factor Design (ARPD) design (ASD) calculations, and that a licensed Professional Engineer (PE) must then stamp all calculations. Should you have any questions please contact SunPower Technical Support at 1-860-SUNPOWER (1-800-7863).

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All full-in budge matter are true properly of their respective comments, Specifications of dualities for highly seed are subject to change without public.

SURDOWER.COR







Improve Support, Reduce Costs

An intuitive monitoring website enables you to:

- See a visual map of customer sites
- Remotely manage hundreds of sites
- Remotely diagnose and troubleshoot system issues
- Drill down for the status of individual devices

Add Value for Customers

With mySunPower* monitoring customers can:

- Track their energy production by day, month, year and in different weather conditions
- See their energy use and estimated bill savings
- Maximize their savings with automatic system alerts and hos
- Customize storage settings and easily monitor and track available battery power
- Receive elective system reports.

SunPower® Monitoring— Plug-and-Play Installation

This complete solution for residential monitoring and control includes the SunPower® PV Supervisor (PVS) which improves the installation process, overall system reliability, and customer experience:

- . Compact footprint for improved aesthetics
- * Robust cloud connectivity and comprehensive local connectivity
- * Flexible configuration of devices during installation
- * Consumption metering
- * Revenue-quality production metering
- *Web-based commissioning
- Remote diagnostics of PVS and inverters
- * Durable UL Type 3R enclosure heips reduce maintenance costs
- *Easy integration with SunPower eBOS

Robust Cloud Connectivity

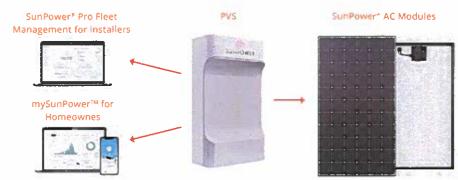
Multiple options to maintain optimal connectivity:

- *Hardwired Ethernet
- *WiFi
- *Cellular backup



sunpower.com





Site Requirements		
Number of modules supported per PVS	* 85 (SunPower AC modules)	
Internet access	 High-speed internet access via accessible router or switch 	
Power	= 100-240 VAC (L-N), 50 or 60 Hz = 208 VAC (L-Lin phase 3), 60 Hz	

Mechanical	
Weight	- 5.5 lb (2.5 kg)
Dimensions	• 11 8 × 8.0 × 4.2 in. (30 5 × 20 5 × 10.8 cm)
Enclosure rating	* * UL 50E Type 3R

Operating Conditions	
Temperature	22°F to +140°F (-30°C to +60°C)
Humidity (max.)	95%, non-condensing

Warranty and Certifications	
Warranty 10-year Limited Warranty	
Certifications	• Ut., cUL. CE, UL 61010-1 and -2, FCC Part 15 (Class B)

	Communication
RS-485	Supports string inverters, external meters and other auxiliary devices
Integrated metering	One channel of revenue-quality production metering Two channels of consumption metering
Ethernet	* 1 LAN (or optional WAN) port
PLC	Supports SunPower AC modules
WIFi	≠802 11b/g/n 2 4 GHz and 5 GHz
Cellular	• LTE Cat-M1/3G UMTS
Zig8ee	* IEEE 802.15.4 MAC, 2.4 GHz ISM band
Data storage	• 60 days
Upgrades	*Automatic firmware upgrades

Web and Mobile Device Support	
Customer site	+ mysuripower com
Partner site	• monitor sunpower.com
Browsers	• Firefox, Safari, and Chrome
Mobile devices	■ iPhone®, iPad®, and Android®
Customer app	1 Create account online at mysunpower.com 2 On a mobile device, download the SunPower Monitioning app from Apple App Store or Google Play™ Store 3 Sign in using account email and password





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530536 Rev D

Product data sheet Characteristics

DU323RB

Safety switch, general duty, non fusible, 100A, 3 poles, 30 hp, 240 VAC, NEMA 3R, bolt-on provision

Product availability: Stock - Normally stocked in distribution facility



Price*: 816.00 USD



Product	Single Throw Salety Switch
Current Rating	100 A
Certifications	UL listed file E2875
Enclosure Rating	NEMA 3R
Disconnect Type	Non-fusible disconnect switch
Factory installed Neutral	None
Mounting Type	Surlace
Number of Poles	3
Electrical Connection	Lugs
Duty Rating	General duty
Voltage Rating	240 V AC
Wire Size	AWG 14AWG 1 copper AWG 12AWG 1 atuminium

Short-circuit withstand	200 kA
Maximum Horse Power Rating	15 hp 240 V AC 60 Hz 1 phase NEC 430.52
	30 hp 240 V AC 60 Hz 3 phase NEC 430.52
Tightening torque	35 lbf.in (3.95 N.m) 0.000.01 in2 (2.085.26 mm2) AWG 14AWG 10)
	35 lbf.in (3,95 N.m) AWG 14AWG 10)
	40 lbf.in (4.52 N.m) 0.01 in² (8.37 mm²) AWG 8)
	45 lbf.in (5.08 N.m) 0.020.03 in3 (12.321.12 mm²) AWG 6AWG 4)
	50 lbf.in (5.65 N.m) AWG 3AWG 1)
Height	17.5 in (444.50 mm)
Width	10.5 in (266.70 mm)

^{*} Price is "List Price" and may be subject to a trade discount - check with your local distributor or retailer for actual pri

Mar 28, 2021

Main



Product data sheet Characteristics

D223NRB

Safety switch, general duty, fusible, 100A, 2 poles, 30 hp, 120 VAC, NEMA 3R, bolt-on provision, neutral factory installed

Product availability: Stock - Normally stocked in distribution facility





Price* : 480.00 USD



Main	
Product	Single Throw Safety Switch
Current Rating	100 A
Certifications	UL listed file E2875
Enclosure Rating	NEMA 3R
Disconnect Type	Fusible disconnect switch
Factory Installed Neutral	Neutral (factory installed)
Short Circuit Current Rating	100 kA maximum depending on luse H, K or R
Mounting Type	Surface
Number of Poles	2
Electrical Connection	Lugs
Duty Rating	General duty
Voltage Rating	240 V AC
Wire Size	AWG 14AWG 1 copper AWG 12AWG 1 aluminium

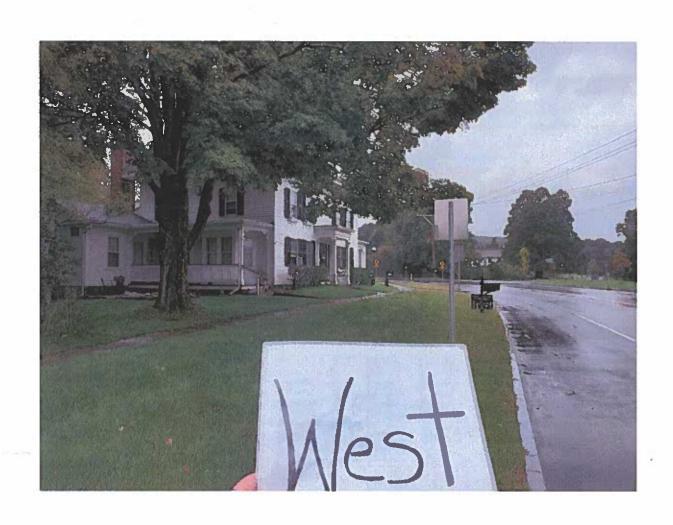
Maximum Horse Power Rating	7.5 hp 240 V AC 60 Hz 1 phase NEC 240.6 15 hp 240 V AC 60 Hz 2 phase NEC 240.6 15 hp 240 V AC 80 Hz 1 phase NEC 430.52	
Tightening torque	30 hp 240 V AC 60 Hz 3 phase NEC 430.52 30 bt.in (3.95 N.m) 0.000.01 in² (2.085.26 mm²) AWG 14AWG 10) 40 bt.ln (4.52 N.m) 0.01 in² (8.37 mm²) AWG 8)	
	35 lbr.lin (3,95 N.m) AWG 14",AWG 10) 45 lbr.lin (5,08 N.m) 0,02030 in' (12,321,12 mm²) AWG 6AWG 4) 50 lbr.lin (5,65 N.m) AWG 3AWG 1)	
Height	17,5 in (444,50 mm)	

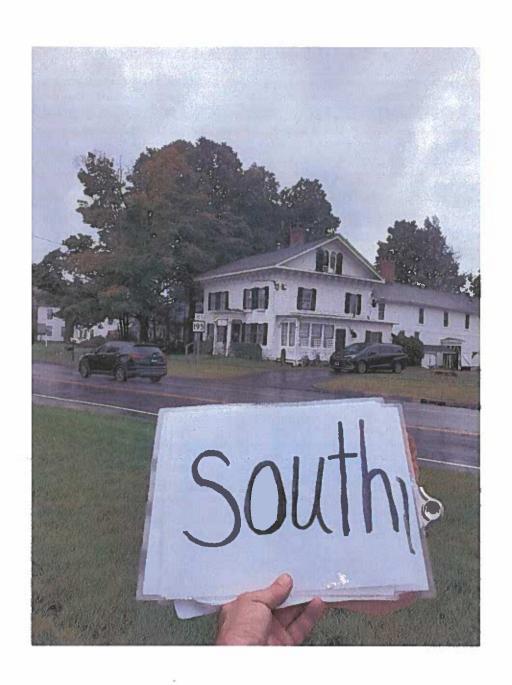
^{*} Price is "List Price" and may be subject to a trade discount - check with your local distributor or retailer for actual price

Mar 28, 2021



1





Laura Smith

From:

Lisa Day-Lewis

Sent:

Tuesday, November 2, 2021 11:18 AM

To:

Laura Smith

Subject:

[EXTERNAL]Re: COA 63 Tolland Green

Hi Laura! Yes I will.

I was also thinking it would be helpful to put the link below in the packet. It is the link that is on the Historic District's website under "Other Resources" and gives some guidelines for Solar Panels in Historic Districts. If board members aren't yet familiar with it they should probably review it prior to attending the meeting, as the Historic Committee attests to follow guidance from these standards.

https://www.nps.gov/tps/sustainability/new-technology/solar-on-historic.htm

Specifically, there is one example (The Vermont Residence) where it is stated that the panels

"Though visible, these few panels have relatively little impact on the historic character of the property."

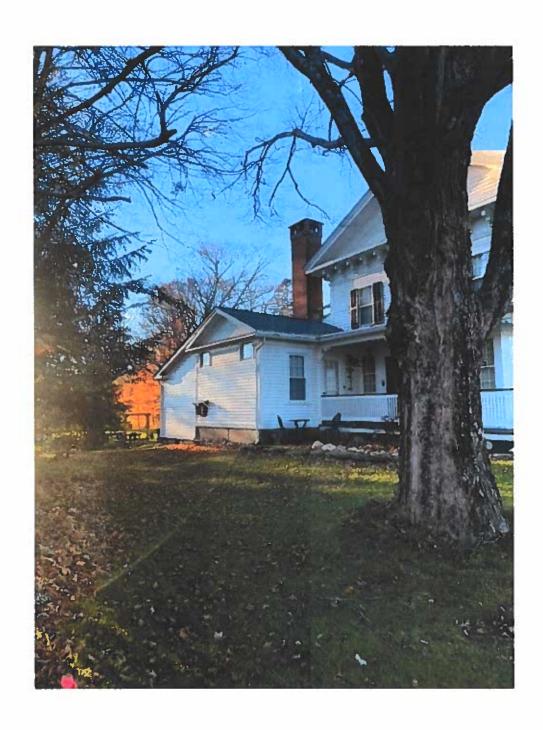
I think it's important that the argument be made that while some very small amount of the rear roof will be visible from the road in the winter while looking directly towards the back of the house (so not a natural focal point when passing by) that need not disqualify the project from going forward, according to these standards.

Included below are 4 photos taken from the sidewalk leading up to the house. As you will see, the second photo, taken while standing in front of my neighbor's house is the only photo that has a view of any part of the roofs that would contain solar. And actually, according to the plan, I am not even 100% certain they will be back that far, as the panels do not extend to the very end of the roof.

My solar consultant was going to have his assistant mock up a photo of that portion of the roof with the panels. If and when he does I will pass it along.

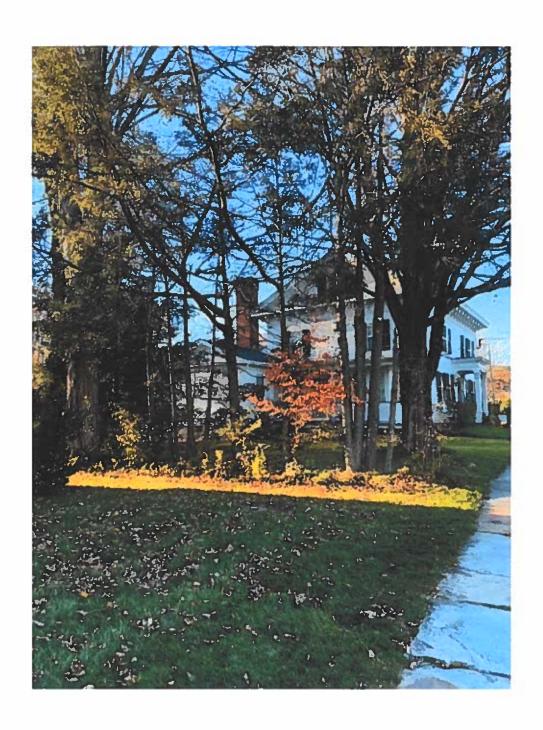
Hope this helps!

Lisa









Technical Preservation Services



Home > Sustainability > New Technology > Solar Panels

Solar Panels on Historic Properties

Overview

On a New Addition

On a Flat Roof

Pole-Mounted Array

On a Low-Slope Gable

On a Cross Gable

On a Rear Porch Roof

Avoided Impact

Additional examples will be added to this site over time, so please check back to see more installations of solar panels on historic properties.



Installing Solar Panels and Meeting the Secretary of the Interior's Standards

Solar panels installed on a historic property in a location that cannot be seen from the ground will generally meet the Secretary of the Interior's Standards for Rehabilitation. Conversely, an installation that negatively impacts the historic character of a property will not meet the Standards. But what about the grey area between out-of-sight and obviously obtrusive installations?

1 of 2

Although every project is different and must be evaluated on its own merit, the National Park Service has developed this information on how to apply the Standards to the installation of solar panels.





This "invisible" installation of solar panels on a historic industrial building—hidden behind a low parapet—meets the Standards for Rehabilitation.



This installation negatively impacts the character of this mid-twentieth century house and does not meet the *Standards*.

First Example



EXPERIENCE YOUR AMERICA"

Technical Preservation Services



Home > Sustainability > New Technology > Solar Panels > On a Low-Slope Gable

Solar Panels on Historic Properties

Overview

On a New Addition

On a Flat Roof

Pole-Mounted Array

On a Low-Slope Gable

On a Cross Gable

On a Rear Porch Roof

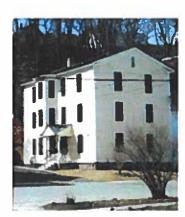
Avoided Impact

Additional examples will be added to this site over time, so please check back to see more installations of solar panels on historic properties.

Vermont Residence

The gable end of this historic apartment building faces the street. Low profile solar collectors for a water heating system were flush mounted on the sloped roof on the south side of the gable. Though visible, these few panels have relatively little impact on the historic character of the property. However, if the roof had been a more prominent feature of the property, this installation may not have been appropriate.





Low-profile solar collectors located on the south side of the gable roof are minimally

11/2/2021, 12:41 PM

1 of 2

Laura Smith

From: Lisa Day-Lewis

Sent: Friday, November 5, 2021 10:49 AM

To: Laura Smith

Subject: [EXTERNAL]More photos

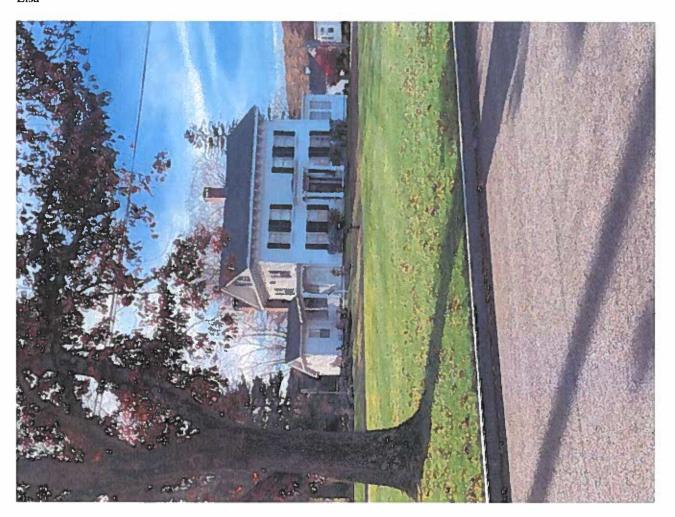
Hi Laura!

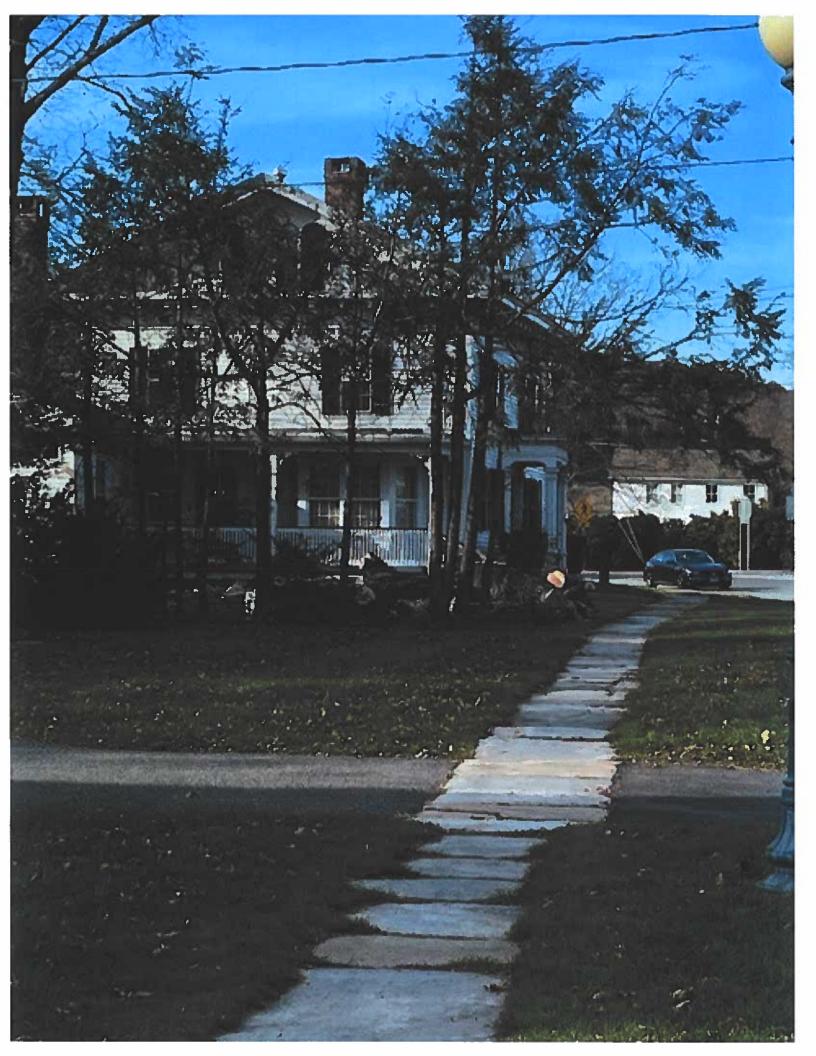
The DOT came by and removed a tree from the front left of our property so I did a walk around the green and snapped some more photos of the house from different angles.

The tree removal did not actually change the visibility to the back at all, there is still only one angle (photo 10) where a small view of the rear roof is visible from in front of the neighbors house, but I included a bunch more recent photos to add to the package.

Hope this helps! Have a great weekend.

Lisa





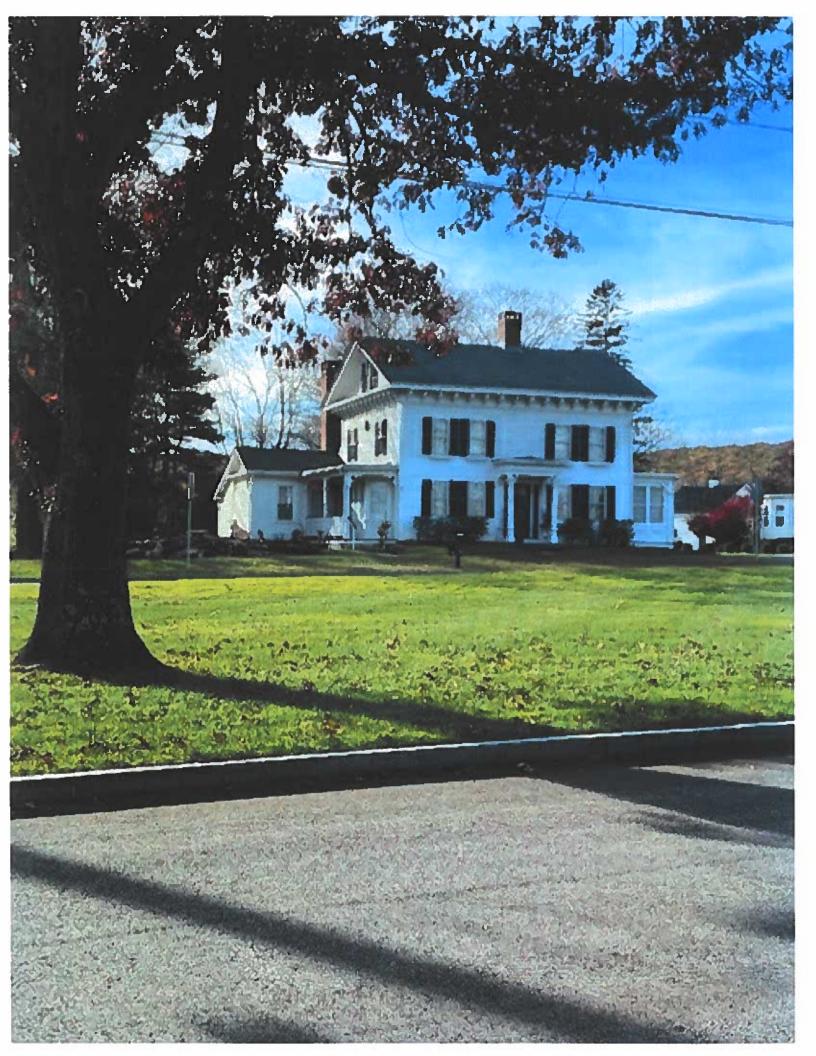




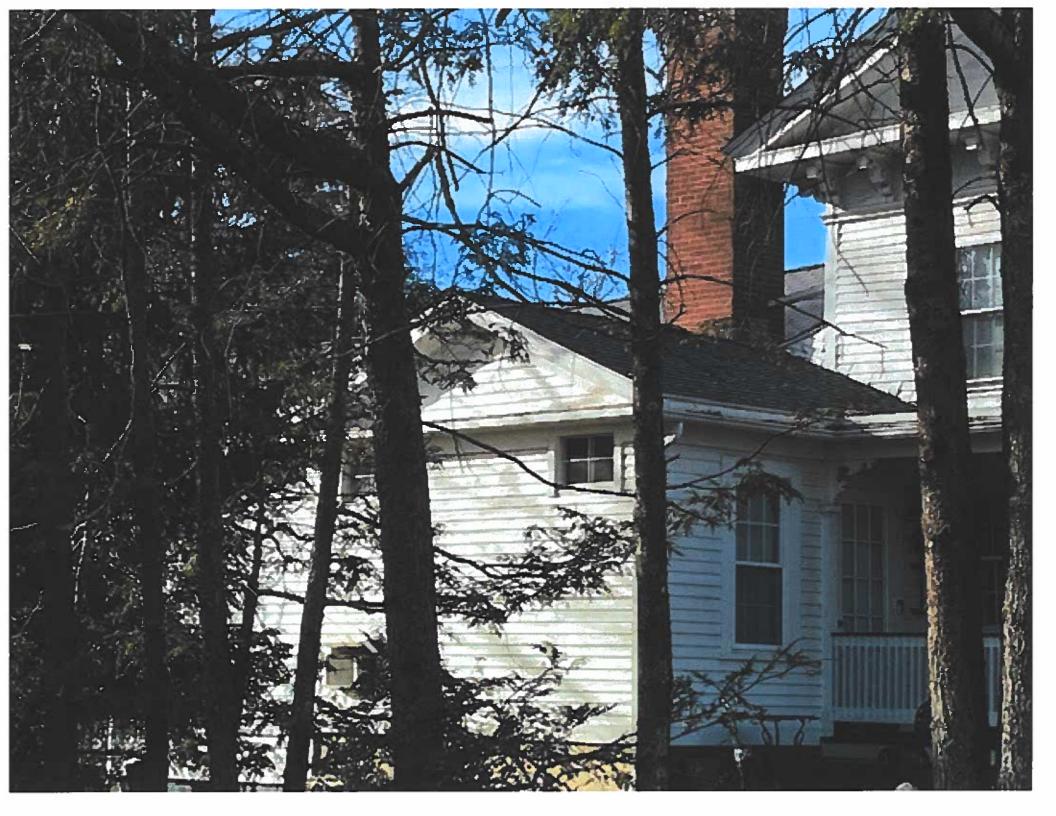


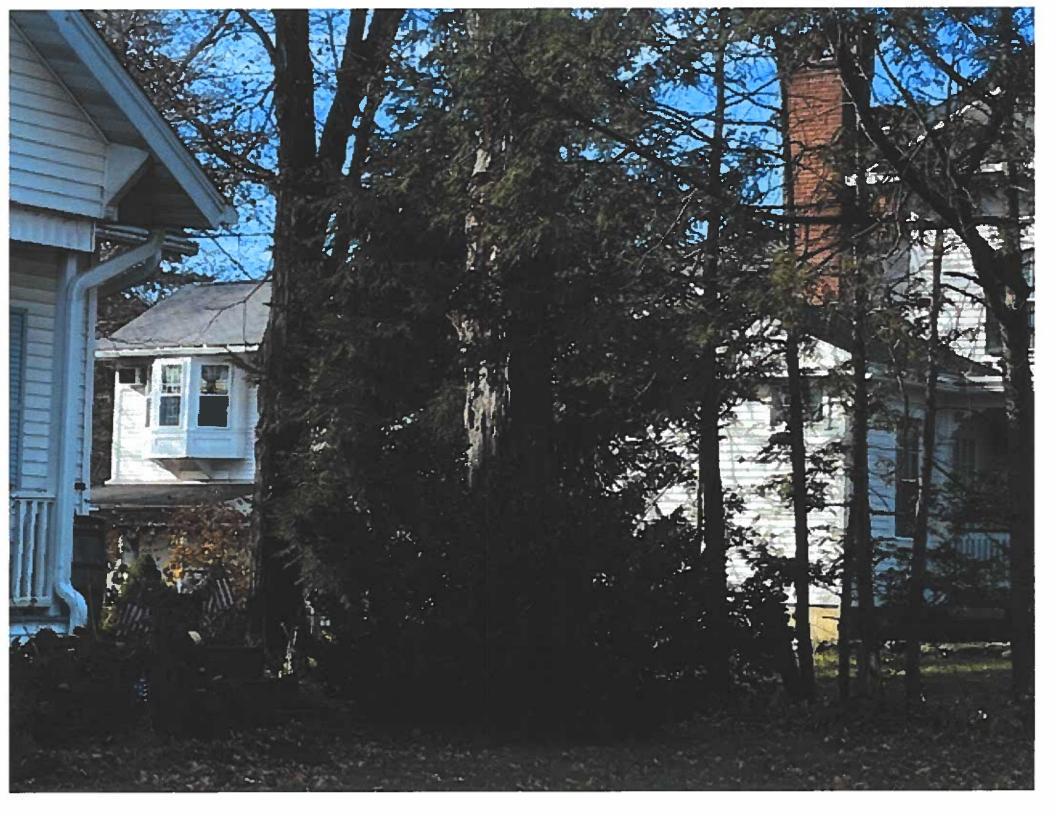




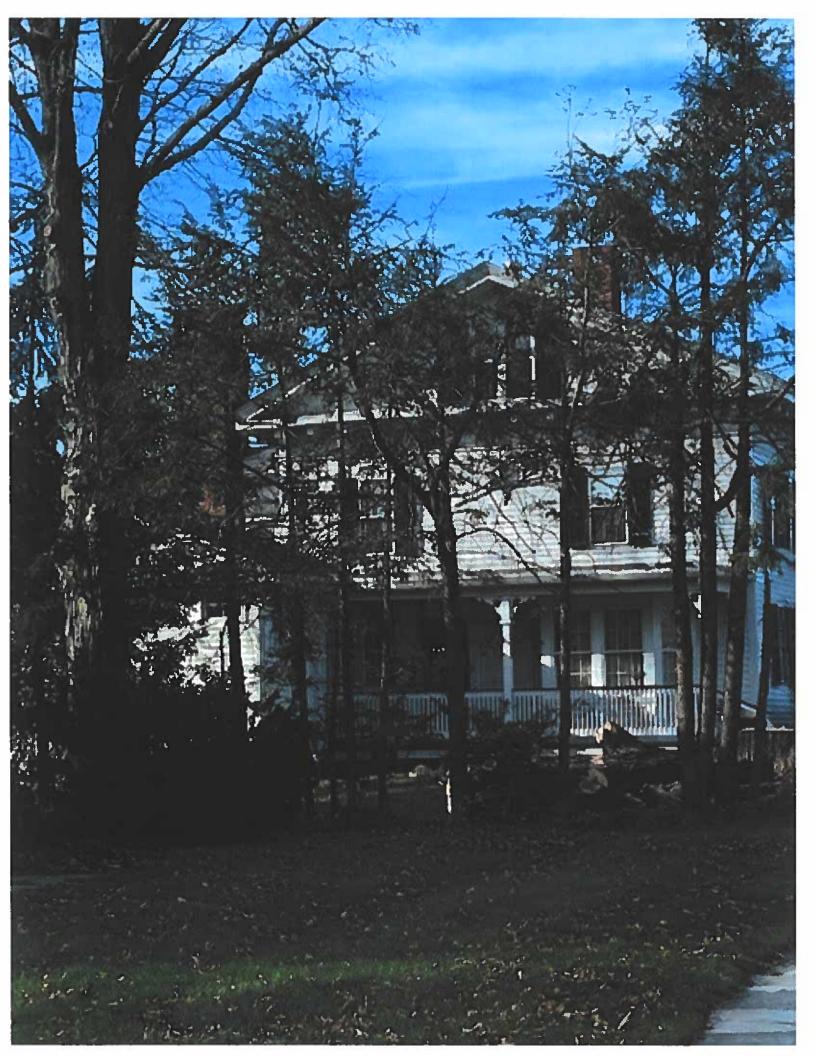






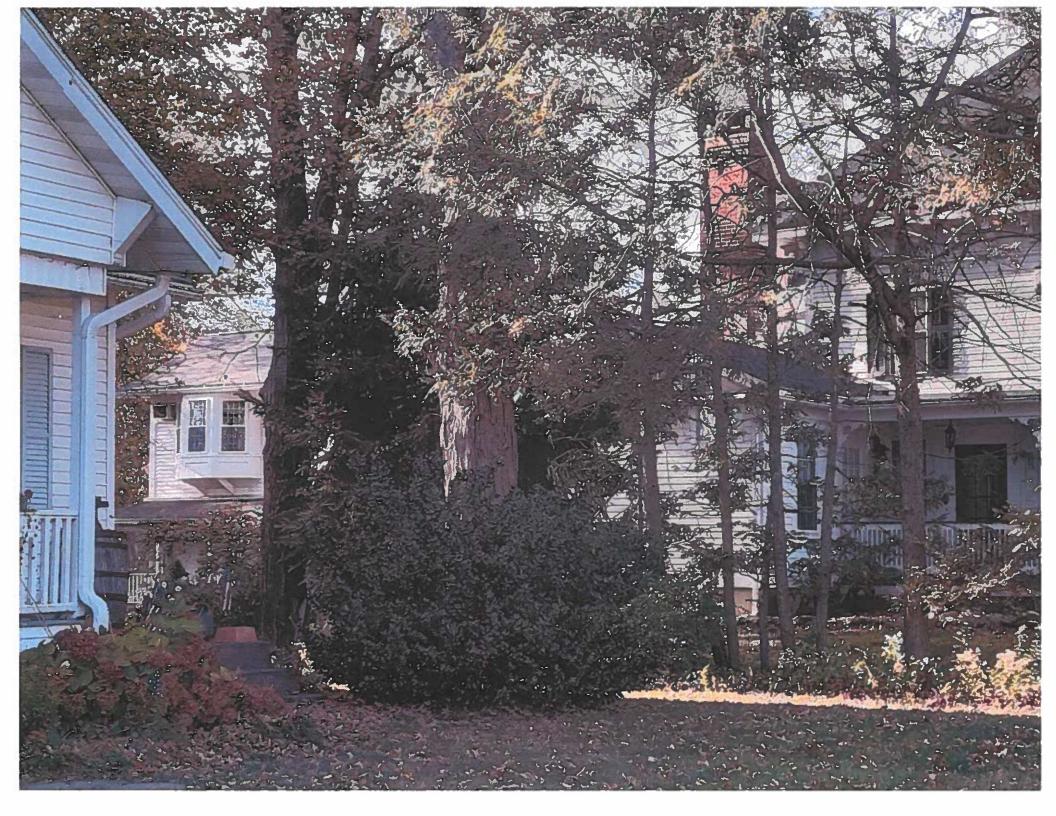












Agenda Item 5.2

Laura Smith

From:

Linda Calabrese

Sent:

Friday, November 12, 2021 12:50 PM

To:

Laura Smith

Subject:

[EXTERNAL]63 Tolland Green Solar Application

Attachments:

Historic District re Day-Lewis solar panels.docx

Laura, please provide the attached letter from Tom and me to the Historic District Commission for their meeting on November 17th.

I understand that, at the prior meeting, our letter was not read nor was it entered into the minutes. Apparently the chair read the letter and conveyed only that we had supported the fence at 63.

At this moment I wish to reiterate the request to have the chair read the letter in its entirety during the meeting. Our intention is not simply to blindly support our neighbor, it is to discuss our understanding and reasons for having made this decision. We hope to provide reassuring and relevant information and published sources which led to our own opinions. Persuasion is generally considered a relevant element of any thoughtful decision.

Thank you for your assistance!

Sent from Mail for Windows

To the Tolland Green Historic Commission, please read this letter at your hearing and enter it into the minutes as well.

We are Linda Calabrese and Thomas Calabrese at 59 Tolland Green, immediately South of the Day-Lewis property at 63 Tolland Green, and which is the subject of this action.

After reviewing a number of sites addressing the acknowledged need to accommodate solar access in locally recognized historic districts, it's clear that the overarching goal is to "preserve character-defining features and historic fabric . . . to the greatest extent possible". *

The roof of the main building is parallel to the road. The side away from the road, not visible therefrom, is the site of part of the installation. The building extends back and behind the original structure, forming an el perpendicular to the road. The 90 degree corner which is created is the location of all of the proposed solar panels. Neither of these roof sections is a primary façade. None of the panels will be visible from the road on the East or North approaches. They would also not be easily visible from the South approach as our own house is in the way and any glimpse would be fleeting and unnaturally high for drivers or pedestrians. For most of the year foliage and hedge growth would block the view of any of panels entirely.

The only clear view of this installation would be from our home or yard. We fully support the Day-Lewis family in their goal to capture the sun's energy in this considerate and responsible manner.

Respectfully,

Linda C Calabrese

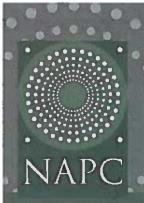
Thomas E Calabrese

References ~

*National Alliance of Preservation Commissions "Sample Guidelines for Solar Systems"

National Park Service Technical Preservation Services "Solar Panels on Historic Properties"

Energy News Network "Connecticut Historic Preservation Boards Warming Up to Solar Panels"



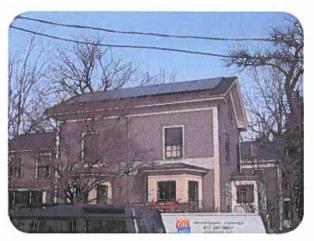
National Alliance of Preservation Commissions

Sample Guidelines for Solar Systems in Historic Districts

The rapidly growing trend toward retrofitting homes to be more energy efficient has brought an increase in the number of applications for installing solar energy systems on buildings within locally designated historic districts. The increase in solar systems applications in recent years has prompted numerous local preservation commissions to hastily develop guidelines for them with varying degrees of success.

The following Sample Guidelines for Solar Systems for Locally Designated Historic Properties were developed in 2009 by Kimberly Kooles, NAPC support staff and revised by Caty Rushing in 2011. They are intended to serve as a starting point for local preservation commissions developing their own guidelines for solar systems.





Types of Systems:

• Photovoltaic

A photovoltaic system (or PV system) is a system which uses one or more solar panels to convert sunlight into electricity. It consists of multiple components, including the photovoltaic modules, mechanical and electrical connections and mountings and means of regulating and/or modifying the electrical output.



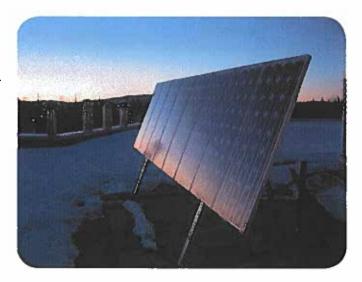
Solar shingles, also called photovoltaic shingles, are solar cells designed to look like conventional asphalt shingles. There are several varieties of solar shingles, including shingle-sized solid panels that take the place of a number of conventional shingles in a strip, semi-rigid designs containing several silicon solar cells that are sized more like conventional shingles, and newer systems using various thin film solar cell technologies that match conventional shingles both in size and flexibility

Freestanding

Freestanding PV panels or freestanding arrays allow the benefits of renewable solar power without disrupting the roofline or altering the house. They are placed away from the residence and connected through an undergroud wiring. When a roof may be blocked by trees or not recieving direct sunlight, the mobillity of a freestanding panel allows the ability to move into optimal sunlight areas that may change seasonally.







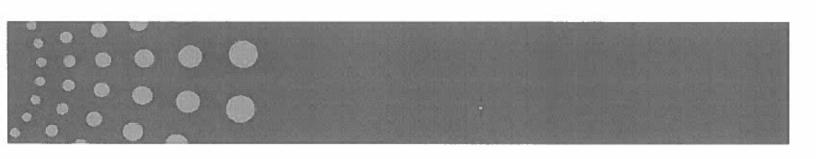
Sample Guidelines for Solar Systems for Locally Designated Historic Projects

When planning the installation of solar panels the overall objective is to preserve character-defining features and historic fabric while accommodating the need for solar access to the greatest extent possible. All solar panel installations must be considered on a case by case basis recognizing that the best option will depend on the characteristics of the property under consideration. Some guidelines apply to virtually all installation options and are repeated in each section.

All solar panel installations should conform to the Secretary of the Interior's Standards for Rehabilitation. Applicable Standards are:

Standard Two: 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.

Standard Nine: New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.



1 Primary Elevations

For most properties, locating solar panels on the primary facade is the least desirable option because it will have the greatest adverse effect on the property's character defining features. All other options should be thoroughly explored.

- Utilization of low-profile solar panels is recommended. Solar shingles laminates, glazing, or similar materials should not replace original or historic materials. Use of solar systems in windows or on walls, siding, and shutters should be avoided.
- Panels should be installed flat and not alter the slope of the roof. Installation of panels must be reversible and not damage to the historic integrity of the resource and district.



These solar panels low profile and location make them unobtrusive even though they are visible from the public right of way. Photo by Paul Trudeau

- Solar panels should be positioned behind existing architectural features such as parapets, dormers, and chimneys to limit their visibility.
- Use solar panels and mounting systems that are compatible in color to established roof materials. Mechanical equipment associated with the photovoltaic system should be treated to be as unobtrusive as possible.

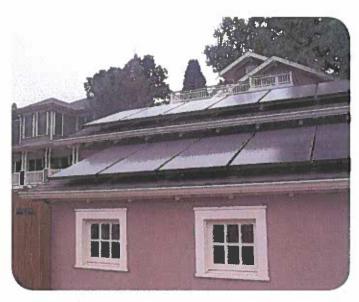
2 Secondary Elevations

- Solar panels should be installed on rear slopes or other locations not easily visible from
 the public right-of-way. Panels should be installed flat and not alter the slope of the roof.
 Installation of panels must be reversible and not damage the historic integrity of the
 resource and district.
- Flat roof structures should have solar panels set back from the roof edge to minimize visibility. Pitch and elevation should be adjusted to reduce visibility from public right-ofway.
- Solar panels should be positioned behind existing architectural features such as parapets, dormers, and chimneys to limit their visibility.

2 Secondary Elevations (Continued)

- Use solar panels and mounting systems that are compatible in color to established roof materials. Mechanical equipment associated with the solar panel system should be painted or treated to be as unobtrusive as possible
- Use of solar systems in non-historic windows or on walls, siding, or shutters should be installed as to limit visibility from the public right of way.

3 Historic Accessory Structures



Solar panels placed on an accessory structure not visible from the public right of way should still follow the slope of the roof and have a low profile. Photo courtesy of Dan Corson

- Solar panels should be installed on rear slopes or other locations not highly visible from the public right-of-way. Panels should be installed flat and not alter the slope of the roof. Installation of panels must be reversible and not damage the historic integrity of the resource and district.
- Flat roof structures should have solar panel installations set back from the roof edge to minimize visibility. Pitch and elevation should be adjusted to reduce visibility from public right-of-way.
- Solar panel installations should be positioned behind existing architectural features such as parapets, dormers, and chimneys to limit their visibility.
- Use solar panels and mounting systems that are compatible in color to the property's roof
 materials. Mechanical equipment associated with the photovoltaic system should be as unobtrusive as possible.
- Use of solar systems in non-historic windows or on walls, siding and shutters should be installed as to limit visibility from the public right of way.

4 Freestanding or Detached

- Freestanding or detached on-site solar panels should be installed in locations that minimize visibility from the public right of way.
 These systems should be screened from the public right of way with materials elsewhere in the district such as fencing or vegetation of suitable scale for the district and setting.
- Placement and design should not detract from the historic character of the site or destroy historic landscape materials.



Freestanding solar panels should be installed in locations that minimize visibility from the public right of way.

Consideration to the visibility of solar panels from neighboring properties should be taken, without infringing upon the required solar access.

5 New Construction On-Site

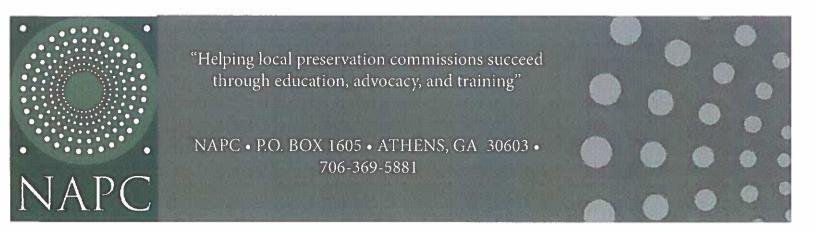
- Solar panels should be integrated into the initial design of new construction or infill projects, when possible, to assure cohesion of design within a historic context.
- Solar panels should be installed on rear slopes or other locations not highly visible from the
 public right of way whenever possible. Panels should be installed flat and not alter the slope
 of the roof.
- Flat roof structures should have solar panels set back from the roof edge to minimize visibility. Pitch and elevation should be adjusted to reduce visibility from the public right-of-way.
- Use solar panels and mounting systems that are compatible in color to established roof materials. Mechanical equipment associated with the solar panel system should be treated to be as unobtrusive as possible.
- Use of solar systems in windows or on walls, siding, or shutters should be installed with limited visibility from the public right-of-way.

Not Recommended for Any Reason

- Removal of historic roofing materials during the installation of solar systems.
- Removing or otherwise altering historic roof configuration dormers, chimneys, or other features to add solar systems.
- Any other installation procedure that will cause irreversible changes to historic features or materials.

When considering retrofitting measures, historic building owners should keep in mind that there are no permanent solutions. One can only meet the standards being applied today with today's materials and techniques. In the future, it is likely that the standards and the technologies will change and a whole new retrofitting plan may be necessary. Thus, owners of historic buildings should limit retrofitting measures to those that achieve reasonable energy savings, at reasonable costs, with the least intrusion or impact on the character of the building.

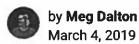
(National Park Service. Preservation Brief 3: Conserving Energy in Historic Buildings. Available from http://www.nps.gov/history/hps/TPS/briefs/brief03.htm#Preservation%20Retrofitting. Accessed on August 10, 2009.)



ENERGY NEWS NETWORK

NEWS NORTHEAST

Connecticut historic preservation boards warming up to solar panels





A historic district in New London, Connecticut. Credit: John Phelan via Wikimedia Commons

Historic preservation boards are seeing more requests related to solar panels and increasingly finding compromise.

Historic preservation boards are increasingly finding ways to compromise with homeowners who want to install solar panels in historically significant areas.

The acceptance of solar comes as technology helps to make systems less obtrusive, and also as more historic preservationists recognize the urgency to address climate change.

Cases involving solar panels are also becoming more common. In Connecticut, about a tenth of the state's 3,000 historic preservation cases last year involved solar installations. That's a significant increase from five years ago, said Todd Levine, an architectural historian for the state's preservation office.

Of those 300 solar cases, only 10 were concluded to have adverse effects, but even in those cases the state office was able to work with stakeholders and ultimately approve them all.

"In some ways, the solar panels help the historic structure and don't harm it," said Catherine Labadia, deputy state historic preservation officer. "That's not to negate the few cases when it's bad."

The National Trust for Historic Preservation and the Department of the Interior recommend installing solar panels on the area least visible to the public or on any new addition on the property, like a garage. Typically, historic commissions don't want panels on the principal facade of the building facing the public right-of-ways. If they have to be on the roof, it's better to have them on the non-street-facing part, or even ground-mounted in a backyard. They also suggest solar panels and mounting systems that match the roof's color scheme. In general, the lower the profile the better.

'In some ways, the solar panels help the historic structure and don't harm it.'

While the Department of the Interior <u>provides guidance</u> for installs in historic districts, the responsibility ultimately falls on the local historic commissions. In Connecticut, the state historic preservation office also provides resources and guidance, as well as handles cases that require state or federal permitting.

In New Haven, Connecticut, a home in one of the city's three historic neighborhoods is the latest to successfully petition for approval from its local Historic District Commission. Nestled on a sunny street corner in Fair Haven, the single-family home received immediate approval from the commission last month to install a rooftop solar array, despite a few hiccups during the approval process.

Trinity Solar, the company behind the install, approached the commission in January with a <u>mea culpa</u> after starting the installation before getting formal approval from the commissioners. After realizing its mistake, the company apologized and temporarily stopped the installation, deciding to wait for the commission's approval before proceeding. Since the planned solar array was street-facing and highly visible, the commission's approval was critical.

After making some adjustments — including moving some equipment inside — Trinity Solar received unanimous approval for the three-panel array on the home's rooftop. This case is one example of the evolving relationship between historic preservation and green technology in Connecticut and across the nation.

"It's something people want to see happen and in a way that respects historic integrity in these buildings," said Elizabeth Holt, director of preservation services at the New Haven Preservation Trust.

That hasn't always been the view of historic preservationists. Several cities and towns have pushed back against solar on certain properties, believing it would compromise their historic character. In Washington, D.C, a local commission <u>denied homeowners</u> from installing visible rooftop solar panels on their house in the historic Cleveland Park district in 2013. This year, the same commission loosened its restrictions, <u>allowing for visible solar panels</u>, at least in some cases.

"I have a sense that there's rapidly growing sophistication among preservationists that there's a societal mandate to achieve greater sustainability and energy efficiency," said Anthony Veerkamp, director of policy development at the National Trust for Historic Preservation.

He only has an anecdotal sense of what's happening on the ground, but noted a shift from commissions defaulting to "no." More boards seem open to working with property owners, whether that means adjusting where to situate an array, or opting for ground-mounted panels instead. He attributes the shift partially to improved technology, with solar panels becoming more streamlined in recent years, as well as the emergence of solar roof tiles. It's analogous to television antennas or satellite dishes. "First, TVs were the size of car, and now they're the size of pizza pan," Veerkamp said.

Plus, a home solar installation can make a difference for state or city climate goals. Municipalities can't just rely on new housing to reduce carbon footprints; they need to maximize older stock, too.

"I want to believe historic commissions around country are looking for ways that historic buildings can help contribute to reaching carbon goals," Veerkamp said.

As a preservationist, Holt thinks the realities of climate change mean that preservation and sustainability must go hand in hand. New Haven's commission has become flexible and collaborative, and she believes they can do that while still championing New Haven's historic architecture.

"Each case should be reviewed individually to find a solution that respects the historic integrity of the building and maximizes the effectiveness of the solar panels," she said.

At the state level, the historic preservation office has partnered with the quasi-public clean energy agency, the <u>Connecticut Green Bank</u>, to mitigate any adverse effects installs could have on historic properties. Together, they're developing a publication they plan to distribute in the coming months outlining best practices on the intersection of energy efficiency, renewable energy, and historic preservation.



MEG DALTON

Meg is a freelance journalist and audio producer based in Connecticut who reports on the environment, gender and media. She's reported and edited for the Columbia Journalism Review, PBS NewsHour, Architectural Digest, MediaShift, Hearst Connecticut newspapers, and more. In addition, her audio work has appeared on WSHU, Marketplace, WBAI, and NPR. Meg covers Connecticut and Rhode Island.

More by Meg Dalton

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Regular Meeting

Agenda Item 2.1

Agenda Item 2.2

Agenda Item 2.3

Agenda Item 4

MINUTES TOLLAND GREEN HISTORIC DISTRICT COMMISSION

Wednesday, October 20, 2021 at 7:00 p.m. REMOTE MEETING

Public Hearing

1. Call to Order at 7:04 PM

2. Roll Call

Jodie Coleman-Marzialo, Chair, Rod Hurtuk, Vice-Chair, Tim Malone, Ann Deegan and Kathy Bach, Co-Clerks

Guests: Tom and Linda Calabrese, Brenda Falusi, Town Council liaison

- 3. 89 Tolland Green POSTPONED due to absence
 - 3.1 Consideration of Application for a COA for a fence made of wood lattice
 - 3.2 Neighbor comments, both for and against
 - 3.3 Close of Public Hearing

4. 59 Tolland Green

- 4.1 Consideration of Application for a COA for front porch remodel and replacement of the window Commissioners reviewed the application complete with photos. There were some questions discussion about the style and make-up of the window to be used in the upper eave. Additionally, there were questions about the posts for the proposed porch.
 - 4.2 Neighbor comments, both for and against None
- 4.3 Close of Public Hearing Regular Meeting Motion to close the PH by Kathy Bach, 2^{nd} by Rod Hurtuk, Vote Unanimous.

Regular Meeting

- 1. Call to Order at 7:32 PM
- 2. New Business
 - 2.1 Determination of COA for 89 Tolland Green and vote thereon NO ACTION
- 2.2 Determination of COA for 59 Tolland Green and vote thereon Motion to grant a COA for 59 Tolland Green for a.) 3 over 1 pane window fabricated of wood in the front eave and b.) porch remodel/repairs as presented, by Rod Hurtuk, 2nd by Kathy Bach, Vote Unanimous.
 - 2.3 Discuss gazebo inquiry at 63 Tolland Green to determine if a COA is needed POSTPONED
- 3. Miscellaneous

- 3.1 Discuss 2022 meeting schedule, Officers, and terms Motion to approve the 2022 schedule as presented and to continue to meet remotely until further notice by Kathy Bach, 2nd Ann Deegan, Vote Unanimous. Motion to maintain the current slate of officers in 2022 by Rod Hurtuk, 2nd Ann Deegan, Vote Unanimous. Kathy agreed to another 5 year term.
- 3.2 The chair discussed adding additional period street lights on TSR/RT 74 toward the Creative School for the Arts. Possible funding sources are DOT since it was discussed in the recent road project, Sustainable CT, ARP (American Rescue Plan), Hartford Foundation for Giving and the Community Fund in town, the new to be hired Tolland grant writer.

Traffic concerns - Call the Resident Trooper directly at 860.875.8911.

- 4. Approval of Minutes from September 15, 2021 Regular Meeting Motion to Approve by Rod Hurtuk, 2nd by Tim Malone, Vote Unanimous
- 5. Adjournment Motion to adjourn made at 8:22 by Rod Hurtuk. 2nd by Ann Deegan, Vote Unanimous

Respectfully submitted,

Kathy Bach, Commissioner Clerk