

MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Address:	402 Tulip Ave., Takoma Park	Meeting Date:	9/7/2022
Resource:	Contributing Resource Takoma Park Historic District	Report Date:	8/31/2022
Applicant:	Anthony and Sara Camilli (Ryan Doyle, Agent)	Public Notice:	8/24/2022
Review:	HAWP	Tax Credit:	n/a
Permit No.:	1002546	Staff:	Dan Bmeche1t
Proposal:	Solar Panel Installation		

STAFF RECOMMENDATION

Staff recommends the HPC **approve** the HAWP application.

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE: Contributing Resource to the Takoma Park Historic District
STYLE: Vernacular
DATE: 1923

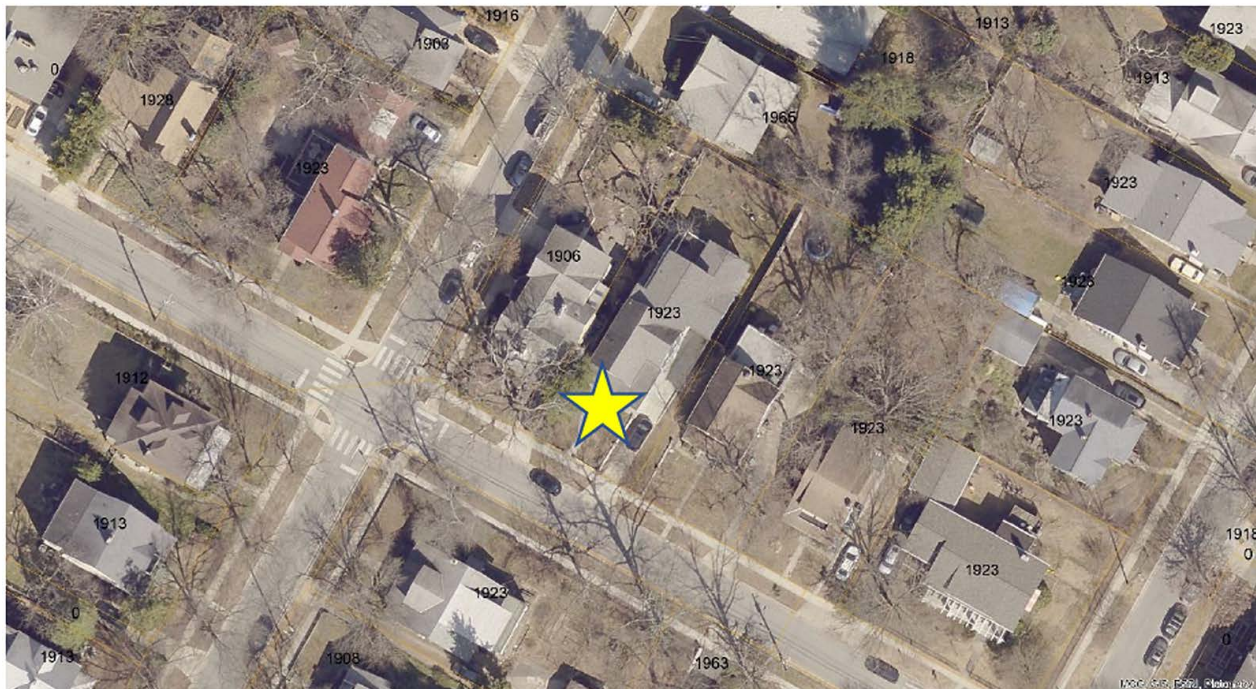


Figure 1: The subject property recently completed construction on a rear addition.

PROPOSAL

The applicant proposes to install 34 roof-mounted solar panels on the subject property.

APPLICABLE GUIDELINES

When reviewing applications for solar panel installation within the Takoma Park Historic District, several documents are to be utilized as guidelines to assist the Commission in developing their decision. These documents include the historic preservation review guidelines in the approved and adopted amendment for the *Takoma Park Historic District (Guidelines)*, *Montgomery County Code Chapter 24A (Chapter 24A)*, the *Secretary of the Interior's Standards for Rehabilitation (Standards)*, and *Historic Preservation Commission Policy No. 20-01: ADDRESSING EMERGENCY CLIMATE MOBILIZATION THROUGH THE INSTALLATION OF ROOF-MOUNTED SOLAR PANELS*. The pertinent information in these documents is outlined below.

Takoma Park Historic District Guidelines

There are two very general, broad planning and design concepts which apply to all categories. These are:

- The design review emphasis will be restricted to changes that are all visible from the public right-of-way, irrespective of landscaping or vegetation (it is expected that the majority of new additions will be reviewed for their impact on the overall district), and
- The importance of assuring that additions and other changes to existing structures act to reinforce and continue existing streetscape, landscape, and building patterns rather than to impair the character of the historic district.

Contributing Resources should receive a more lenient review than those structures that have been classified as Outstanding. This design review should emphasize the importance of the resource to the overall streetscape and its compatibility with existing patterns rather than focusing on a close scrutiny of architectural detailing. In general, however, changes to Contributing Resources should respect the predominant architectural style of the resource. As stated above, the design review emphasis will be restricted to changes that are *at all visible from the public right-of-way*, irrespective of landscaping or vegetation.

All exterior alterations, including those to architectural features and details, should be generally consistent with the predominant architectural style and period of the resource and should preserve the predominant architectural features of the resource; exact replication of existing details and features is, however, not required,

Minor alterations to areas that do not directly front on a public right-of-way such as vents, metal stovepipes, air conditioners, fences, skylights, etc. – should be allowed as a matter of course; alterations to areas that do not directly front on a public way-of-way which involve the replacement of or damaged to original ornamental or architectural features are discouraged, but may be considered and approved on a case-by-case basis,

While additions should be compatible, they are not required to be replicative of earlier architectural styles

Some non-original building materials may be acceptable on a case-by-case basis; artificial siding on areas visible to the public right-of-way is discouraged where such materials would replace or damage original building materials that are in good condition

Alterations to features that are not visible from the public right-of-way should be allowed as a matter of course

Montgomery County Code; Chapter 24A-8

- (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
 - (3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
 - (4) The proposal is necessary in order that unsafe conditions or health hazards be remedied; or
 - (5) The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship; or
 - (6) In balancing the interests of the public in preserving the historic site or historic resource located within an historic district, with the interests of the public from the use and benefit of the alternative proposal, the general public welfare is better served by granting the permit.
- (d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district. (Ord. No. 9-4, § 1; Ord. No. 11-59.)

Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior defines rehabilitation as “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.” The applicable *Standards* are as follows:

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
9. 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.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Historic Preservation Commission Policy No. 20-01: ADDRESSING EMERGENCY CLIMATE MOBILIZATION THROUGH THE INSTALLATION OF ROOF-MOUNTED SOLAR PANELS

On December 5, 2017, the Montgomery County Council adopted an Emergency Climate Mobilization resolution (Resolution No.: 18-974) which declared a climate emergency and charged the County Executive, Montgomery County Public Schools, and the Maryland-National Capital Park and Planning Commission to advise the Council on methods to reduce greenhouse gas emissions.

As a body established by the County Executive, it is incumbent on the Historic Preservation Commission (HPC) to undertake steps to achieve the goals of the Emergency Climate Mobilization resolution.

One method for reducing greenhouse gas emissions is to replace carbon-heavy methods of energy production, like coal and natural gas power plants, with renewable sources like wind and solar power. Current historic preservation best practice is to limit the locations solar panels may be installed to preserve the character of the building above all other considerations. Chapter 24A-8 (b) (6) of County Code establishes a balancing test for approval of a HAWP where there is an apparent conflict between the desired impact on the historic resource compared to the public benefit of the proposal. Because the widespread use of solar panels, both for hot water and for electricity production, will reduce greenhouse gases in the county, it is the position of the HPC that solar panels may be installed on all roof elevations of historic sites or historic resources located within a historic district provided:

1. The identified preferred location (on the rear of the property, building additions, accessory structures, or ground-mounted arrays) is not feasible due to resource orientation or other site limitations and;
2. The roof is not either architecturally significant or a slate or tile roof unless it can be demonstrated that the solar array will be installed without damaging the historic character of the resource or historic fabric; and
3. A Historic Area Work Permit (HAWP) is required for all work referenced in this policy.

Now, THEREFORE:

WHEREAS, Historic Area Work Permit decisions are guided by the criteria in Section 24A, The Secretary of the Interior's Standards for Rehabilitation, and pertinent guidance from applicable master plan amendments and/or site or district-specific studies;

WHEREAS, The Secretary of the Interior's Standards for Rehabilitation as interpreted by the National Park Service limit the placement of rooftop solar panels under Standards 2, 9, and 10 to less conspicuous locations;

WHEREAS, the County Council has established a Climate Emergency;

WHEREAS, the Historic Preservation is a body established by the County Executive and County Council;

WHEREAS, Section 24-8 (b) (6) states, "In balancing the interest of the public in preserving the historic site or historic resource located within an historic district, with the interests of the public from the use and benefit of the alternative proposal, the general public welfare is better served by granting the permit";

WHEREAS, the widespread use of solar panels, both for hot water and for electricity production, will reduce greenhouse gases in the county, in accordance with the aims of the Emergency Climate Mobilization resolution (Resolution No.: 18-974), it shall be the policy of the Historic Preservation Commission that:

1. The preferred locations for solar panel installation(s) on a designated historic site or an historic resource located within an historic district is a) on the rear of the property, b) on non-historic building additions, c) on accessory structures, or d) in ground-mounted arrays;
2. If it is not feasible to install solar panels in one of the identified preferred locations due to resource orientation or other site limitations; and,

3. The roof is determined to be neither architecturally significant, nor a character-defining feature of the resource, nor is it a slate or tile roof, that unless it can be demonstrated that the solar array will be installed without damaging the historic character of the resource or historic fabric; then
4. The public welfare is better served by approving a Historic Area Work Permit for solar panels on all visible side or front roof slopes under Section 24A-8(b)(6).
5. A Historic Area Work Permit (HAWP) is required for all work referenced in this policy.

STAFF DISCUSSION

The subject property is a two-story, gable-L house with a large rear addition (approved by the HPC in 2016). The applicant proposes to install 34 solar panels in five arrays on the subject property. Three of the arrays are on the rear addition, and the other two arrays are on the front gable-L.

Staff finds the three arrays in the rear are in a preferred location under the adopted solar policy and will not be visible from the public right-of-way and recommends the HPC approve the panels under the solar policy, the *Takoma Park Historic District Design Guidelines*, and 24A-8(b)(2), (6), and (d).

The front two arrays comprise 11 of the 34 panels (nearly 1/3 of the total) and will be highly visible from the public right-of-way. That does not mean; however, that the panels are not allowed in those locations, only that they have to satisfy the more rigorous requirements outlined in the solar policy. The applicant provided Staff with the estimated electricity generation of the total array—10543 kWh—to compare to the annual electricity usage at the subject property—slightly more than 11500 kWh—which shows that even with the front two arrays, the total solar collection will satisfy 91% of the homes electricity needs. Staff finds this is not an instance where the array is designed in such a way to generate additional electricity to sell back to the grid.

Staff next considers the impact the front panels will have on the architectural significance of the resource. The two-story gable-L form is one of the character-defining features of the house; however, Staff finds that installing solar panels on these roof planes will not visually detract from the roof form. Additionally, Staff finds the historic roofing material has been replaced with asphalt shingles, so the solar panels will only impact the non-historic roofing material. Finally, Staff finds that the solar panels may be removed in the future without impairing the integrity and form of the historic house, satisfying the requirements of Standard 10. Staff recommends the HPC approve the front 11 solar panels under the adopted solar policy, 24A-8(b)(6) and Standard 10.

STAFF RECOMMENDATION

Staff recommends that the Commission **approve** the HAWP application under the Criteria for Issuance in Chapter 24A-8(b)(2), (6), and (d), having found that the proposal will not substantially alter the exterior features of the historic resource and is compatible in character with the district and the purposes of Chapter 24A;

Historic Preservation Commission Policy No. 20-01: ADDRESSING EMERGENCY CLIMATE MOBILIZATION THROUGH THE INSTALLATION OF ROOF-MOUNTED SOLAR PANELS;

and with the *Secretary of the Interior's Standards for Rehabilitation* #2, 9, and 10;

and with the general condition that the applicant shall present an electronic set of drawings, if applicable, to Historic Preservation Commission (HPC) staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make **any alterations** to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-563-3400 or dan.bruechert@montgomeryplanning.org to schedule a follow-up site visit.



FOR STAFF ONLY:

HAWP# 1002546

DATE ASSIGNED _____

APPLICATION FOR HISTORIC AREA WORK PERMIT

HISTORIC PRESERVATION COMMISSION
301.563.3400

APPLICANT:

Name: fky4n /oy/e,E-mail: perJl1iHi'lrz@krenqyjWCJl'ldc11JAAddress: '02. Tuip Avenue....City: 14/rbMa. fa,lr'' Zip: B.O 'fl lDaytime Phone: 410-S-79-S/?LTax Account No.: oio7q7g,

AGENT/CONTACT (If applicable):

Name: Ryan Doyle,E-mail: rerM.H:i @ hr@ee:,tM,tld.coA-fAddress: sch/ilqfn Sfru--rCity: C//f/c/qe Zip: 11DlfDaytime Phone: tl0-S79-o/7lContractor Registration No.: MHTG Ifl13 \$5

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property: _____

Is the Property Located within an Historic District? ☐ Yes/ District Name: _____
☐ No/Individual Site Name: _____

Is there an Historic Preservation/Land Trust/Environmental Easement on the Property? If YES, include a map of the easement, and documentation from the Easement Holder supporting this application.

Are other Planning and/or Hearing Examiner Approvals /Reviews Required as part of this Application? (Conditional Use, Variance, Record Plat, etc.?) If YES, include information on these reviews as supplemental information.

Building Number: '02...Street: Tuip Avenue.Town/City: Iakom far/('Nearest Cross Street: w,low Avenue.-Lot: D Block: --8'Subdivision: 0025 Parcel: 1J.A

TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items for proposed work are submitted with this application. Incomplete Applications will not be accepted for review. Check all that apply:

☒ New Construction☒ Deck/Porch☐ Shed/Garage/Accessory Structure☒ Addition☒ Fence☐ Solar☒ Demolition☒ Hardscape/Landscape☐ Tree removal/planting☒ Grading/Excavation☒ Roof☐ Window/Door☐ Other: _____

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for issuance of this permit.

Signature of owner or authorized agent

Date

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFYING
[Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address Anthony Camilli 1101 TCA Drive Takoma Park, MD 20912	Owner's Agent's mailing address Ryan Doyl, 1101 TCA Drive Takoma Park, MD 20912
Adjacent and confronting Property Owners mailing addresses	
f.wpart Joie-if-fevc;c 7201 Willow Avenue Takoma Park, MD 20912	Jevin ifet- J'a+l,n 401 TCA Drive Takoma Park, MD 20912
7205 Willow Avenue Takoma Park, MD 20912	7129 Willow Avenue Takoma Park, MD 20912

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

- Single Family Home built in 1923

Description of Work Proposed: Please give an overview of the work to be undertaken:

- Install 34 roof-mounted solar panels.
- Micro-inverters to be installed under each panel.
- Utility disconnect to be installed flexibly Mettvalon with electrical combiner box for Micro-inverters.
- Galvanized Steel Conduit to run from meter to inverter location.

Historical Area Work Permit Application for Roof Mounted Solar
Anthony Camilli, 402 Tulip Avenue, Takoma Park, MD 20912

Existing Property Condition Photographs



Front View



East View



West View

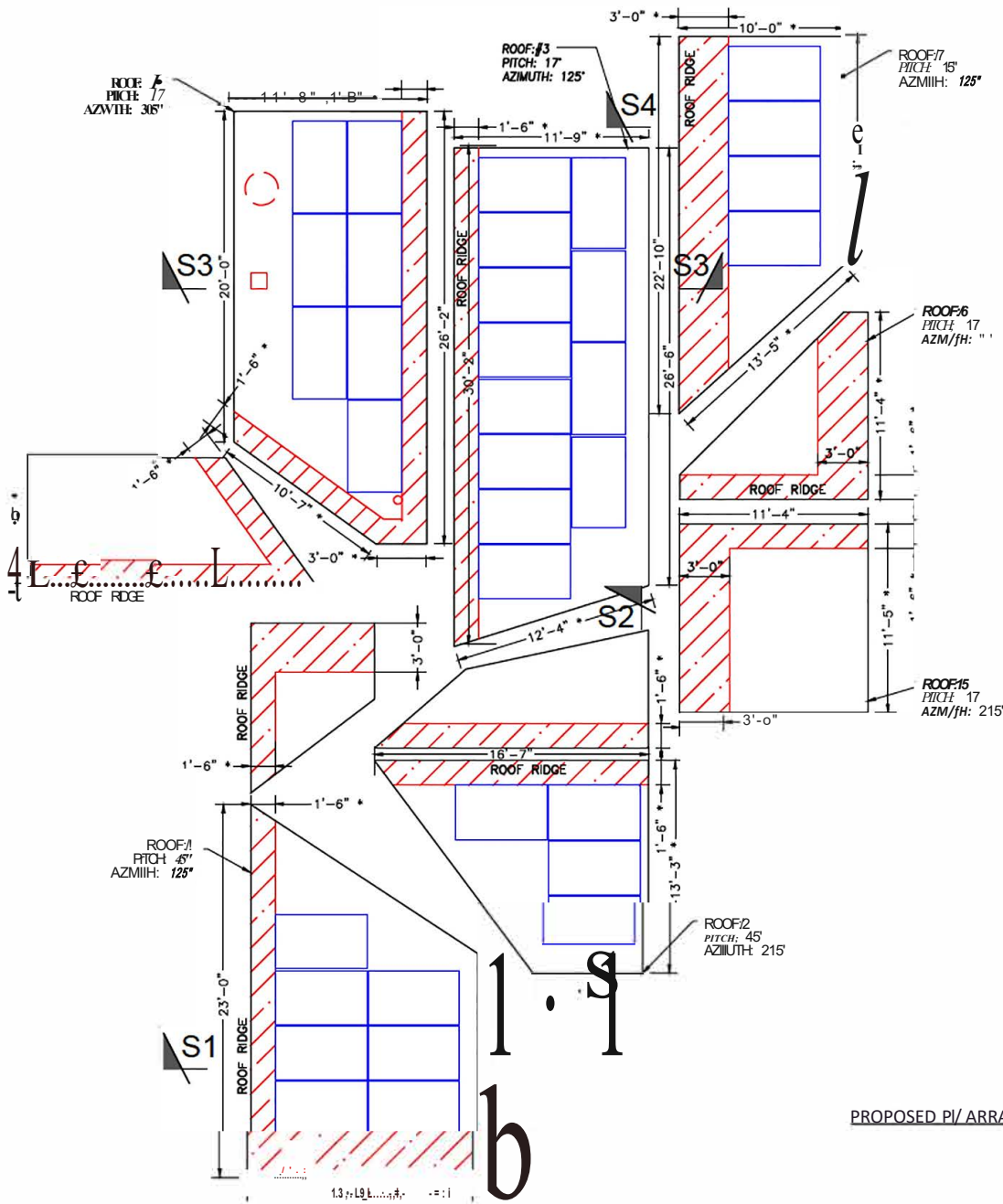


Utility Side Before Installation



Utility Side Example After Installation

IQ?



KEY

◆ FIRE SAFETY ZONE



PLAN VIEW TOTAL ROOF AREA: 2,281.6 SQFT

SOLAR ARRAY AREA: 670.4 SQFT

THE SOLAR ARRAY IS 29.4% OF THE PLAN VIEW TOTAL ROOF AREA

SOLAR PANEL LAYOUT

Scale: 1/4" = 1'-0"

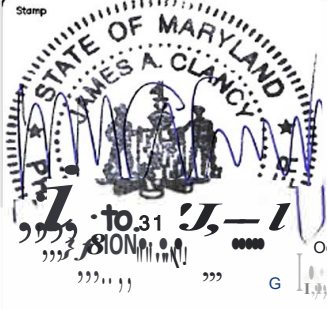
PROPOSED PV ARRAY LOCATION



Solar Energy World
Because Tomorrow Matters

Solar Energy World LLC.
5681 Main Street
Elkridge, MD 21075
(888) 497-3233

This drawing is the property of Solar Energy World Inc. The information herein contained shall be used for the sole benefit of Solar Energy World. It shall not be disclosed to others outside the recipient's organization, in whole or in part, without the written permission of Solar Energy World, except in connection with the sale and use of the respective Solar Energy equipment.



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the state of Maryland, license No. 31585, expiration date: JULY 18, 2023. Stamped and signed for structures only

*STAMPED AND SIGNED FOR STRUCTURES ONLY

Revisions			
REV	DESCRIPTIONS	BY	DATE
01			

Plotted By: Engineering Laptop 2 on 7/15/2022 4:13 PM

Anthony Camilli
402 Tulip Ave
Takoma Park, MD 20912
11.22 kW
MD11784

Drawn
J. Frey

1-15-JUL-2022

AS NOTED

Sheet

A0 01

11

MUNICIPALITY LETTER

July 29, 2022

To: Anthony Camilli / anthony.camilli@gmail.com / 610-207-4993

To: Department of Permitting Services
255 Rockville Pike, 2nd Floor
Rockville, Maryland 20850-4166 Fax 240-777-6398; 240-777-6262; 240-777-6223

From: Planning and Development Services Division

THIS IS NOT A PERMIT – For Informational Purposes Only

VALID FOR ONE YEAR FROM DATE OF ISSUE

The property owner is responsible for obtaining all required permits from Montgomery County and the City of Takoma Park. If this property is in the **Takoma Park Historic District**, it is subject to Montgomery County Historic Preservation requirements.

Representative/email: SolarEnergyWorld / kmanzo@solarenergyworld.com / 410-579-5167

Location of Project: 402 Tulip Ave Takoma Park, MD 20912

Proposed Scope of Work: Install (34) roof mounted solar panels, 11.22kw

The purpose of this municipality letter is to inform you that the City of Takoma Park has regulations and city permit requirements that may apply to your project. This municipality letter serves as notification that, in addition to all Montgomery County requirements, you are required to comply with all City permitting requirements, including:

- Tree Impact Assessment/Tree Protection Plan
- Stormwater management
- City Right of Way

Failure to comply with these requirements could result in the issuance of a Stop Work Order and other administrative actions within the provisions of the law. Details of Takoma Park's permit requirements are attached on page 2.

The issuance of this letter does not indicate approval of the project nor does it authorize the property owner to proceed with the project. The City retains the right to review and comment on project plans during the Montgomery County review process.

City Of Takoma Park

The City of Takoma Park permits for the following issues:

Tree Impact Assessment/Tree Protection Plan/Tree Removal Application:

Construction activities that occur within 50 feet of any urban forest tree (7 and 5/8" in trunk diameter or greater), located on the project property or on an adjacent property, may require a Tree Impact Assessment and possibly a Tree Protection Plan Permit. Make sure to submit a request for a Tree Impact Assessment and schedule a site visit with the City's Urban Forest Manager if any urban forest tree is in the vicinity of proposed construction activities. See the Tree Permits section of the City website for the specific conditions in which a Tree Impact Assessment is required. Depending on the Urban Forest Manager's conclusion following the Tree Impact Assessment, you may need to prepare a full Tree Protection Plan and apply for a Tree Protection Plan Permit as well. Separately, the removal of any urban forest tree will require a Tree Removal Permit application. The tree ordinance is detailed in the City Code, section 12.12. For permit information check: <https://takomaparkmd.gov/services/permits/tree-permits>. The City's Urban Forest Manager can be reached at 301-891-7612 or UrbanForestManager@TakomaParkMd.gov.

Stormwater Management:

If you plan to develop or redevelop property, you may be required to provide appropriate stormwater management measures to control or manage runoff, as detailed in City Code section 16.04. All commercial or institutional development in the city must apply for Stormwater Management Permit regardless of the size of the land disturbance. Additions or modifications to existing detached single-family residential properties do not require a Stormwater Management permit if the project does not disturb more than 5,000 square feet of land area. For more information: <https://takomaparkmd.gov/government/public-works/stormwater-management-program/>. The City Engineer should be contacted to determine if a City permit is required at 301-891-7620.

City Right of Way:

- To place a **construction dumpster or storage container** temporarily on a City right of way (usually an adjacent road), you will need to obtain a permit. A permit is not required if the dumpster is placed in a privately-owned driveway or parking lot.
- If you plan to install a new **driveway apron**, or enlarge or replace an existing driveway apron, you need a Driveway Apron Permit.
- If you plan to construct a **fence** in the City right of way, you need to request a Fence Agreement. If approved, the Agreement will be recorded in the Land Records of Montgomery County.

For more information and applications for City permits, see <https://takomaparkmd.gov/services/permits/> or contact the Takoma Park Department of Public Works at 301-891-7633.

Failure to comply with the City's permitting requirements could result in the issuance of a Stop Work Order and other administrative actions within the provisions of the law.

PV Designer Report

7/11/2022

For:

Anthony Camilli MD11784

By:

SEW

Session Design Summary:

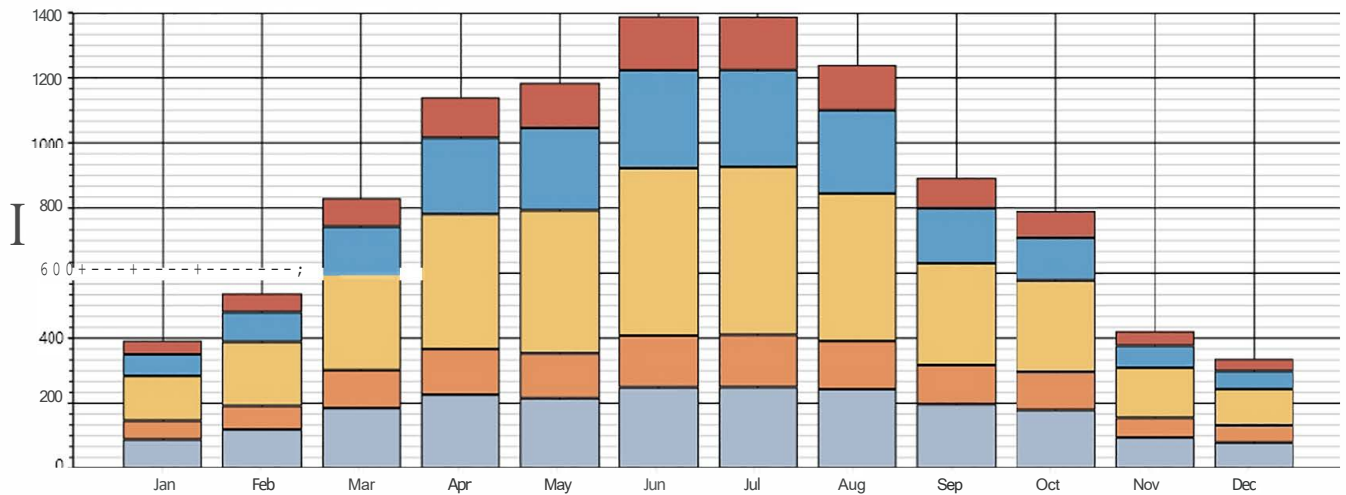
Session Design Summary:

Name: Camilli MD11784
 Location: 39.00 °N, 77.00 °W
 Minimum Temperature: -40.00 °C
 Maximum Temperature: 55.00 °C

Weather Properties:

Station Name: Arlington-Ronald Reagan Washin
 Data Source: TMY3
 Location: 38.87 °N, 77.03 °W
 Distance From Session Location: 9.14 mi

Design Result Chart:



Monthly Total AC kWh:

Month	R1 AC (kWh)	R2 AC (kWh)	R3 AC (kWh)	R4 AC (kWh)	R7 AC (kWh)	Delta AC kWh	Combined AC kWh
Jan	89.0	57.3	137.5	66.5	42.5	95.1	392.9
Feb	119.0	72.7	196.9	91.1	57.6	139.3	537.4
Mar	185.3	116.4	291.0	150.1	87.5	203.5	830.2
Apr	226.4	139.8	415.4	234.3	123.9	291.4	1139.7
May	215.2	138.3	439.4	253.2	138.6	301.0	1184.7
Jun	248.7	159.1	514.9	301.2	165.2	355.8	1389.1
Jul	249.6	160.8	515.6	297.9	164.5	354.7	1388.4
Aug	243.3	147.5	454.0	255.9	138.9	315.1	1239.5
Sep	197.0	120.4	312.6	169.4	93.5	219.1	892.8
Oct	179.2	116.9	281.8	130.4	82.6	199.2	791.0
Nov	94.5	60.9	153.8	67.8	44.6	109.2	421.6
Dec	79.3	52.7	111.5	55.3	37.2	74.3	336.1
Annual	2126.5	1342.9	3824.3	2073.0	1176.7	2647.6	10543.3

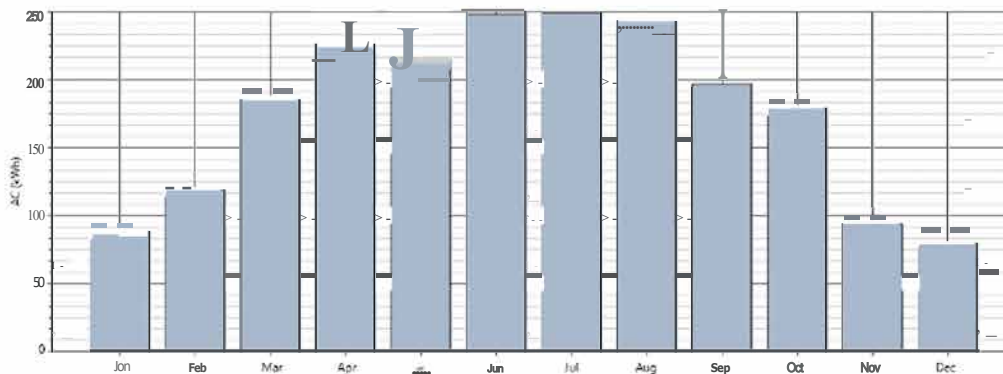
R1:

Design Properties:

Module Manufacturer: Custom
 Module Model: TRINA TSM-DD06M.05(11) 330W
 Inverter Manufacturer: Custom
 Inverter Model: Enphase IQ7-60-2-US
 (Due to spacing constraints, only the manufacturer and model of the first inverter is include in this report)
 Derate Factor: 0.83

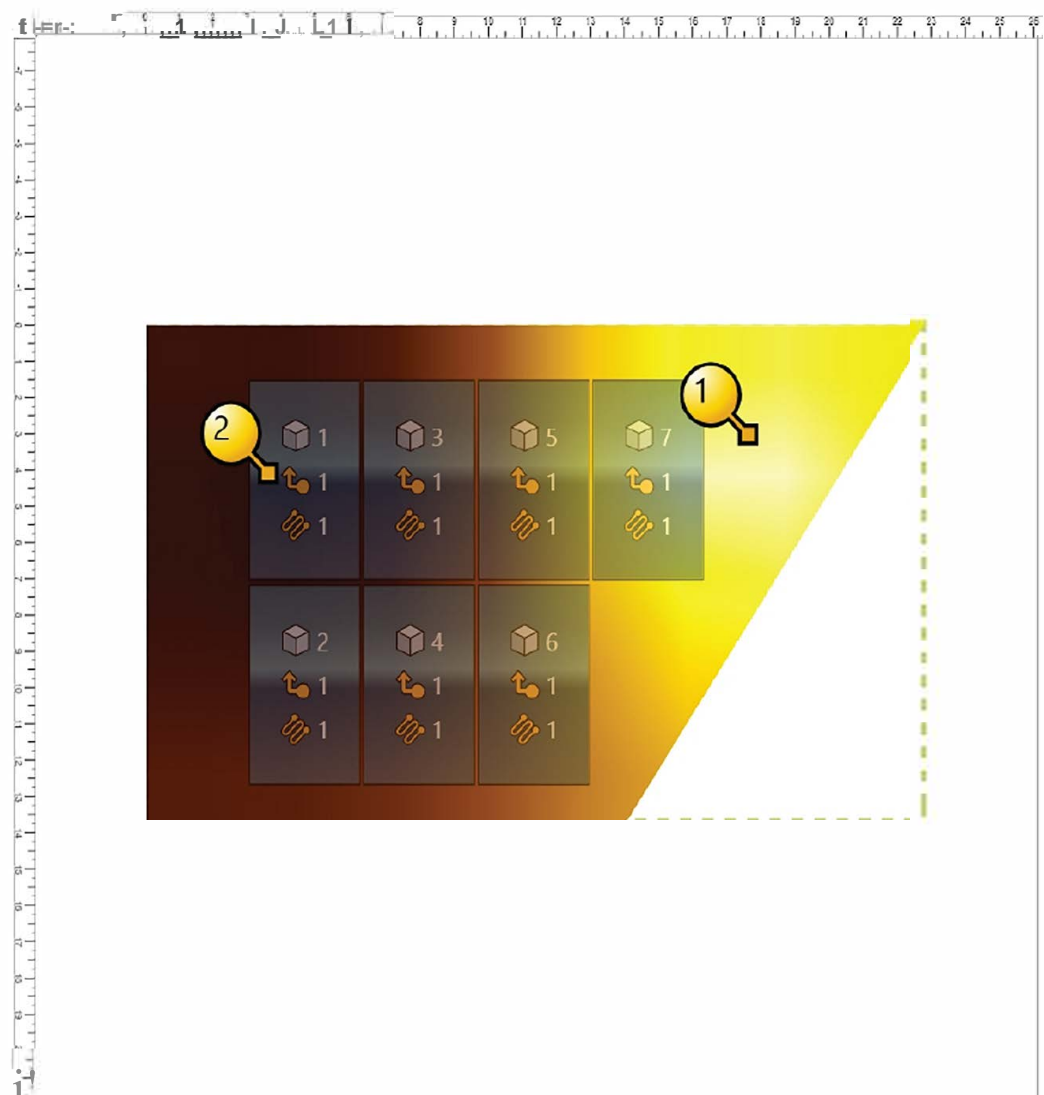
Month	R1 AC (kWh)
Jan	89.0
Feb	119.0
Mar	185.3
Apr	226.4
May	215.2
Jun	248.7
Jul	249.6
Aug	243.3
Sep	197.0
Oct	179.2
Nov	94.5
Dec	79.3
Annual	2126.5

Design Result Chart:



Layout View:

Length: 23.00 ft
 Width: 13.75 ft
 Azimuth: 125.00 °
 Slope: 45.00 °
 Total Modules: 7



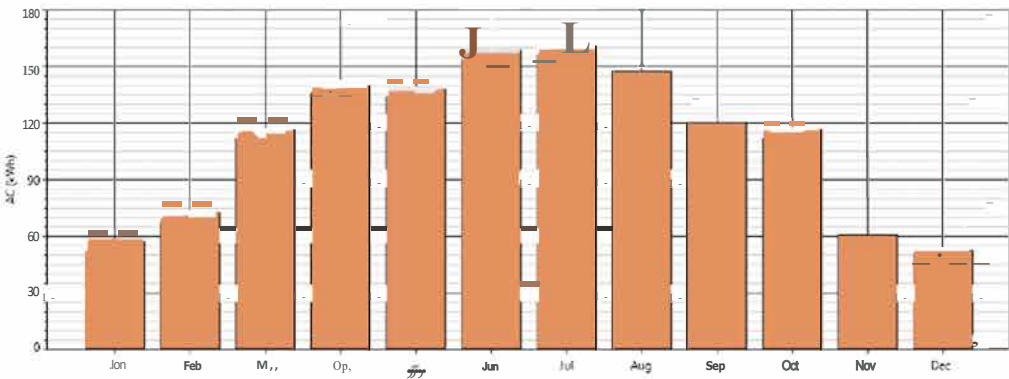
R2:

Design Properties:

Module Manufacturer: Custom
Module Model: TRINA TSM-DD06M.05(11) 330W
Inverter Manufacturer: Custom
Inverter Model: Enphase IQ7-60-2-US
(Due to spacing constraints, only the manufacturer and model of the first inverter is include in this report)
Derate Factor: 0.83

Month	R2 AC (kWh)
Jan	57.3
Feb	72.7
Mar	116.4
Apr	139.8
May	138.3
Jun	159.1
Jul	160.8
Aug	147.5
Sep	120.4
Oct	116.9
Nov	60.9
Dec	52.7
Annual	1342.9

Design Result Chart:



Layout View:

Length: 16.58 ft
Width: 13.25 ft
Azimuth: 215.00 •
Slope: 45.00 •
Total Modules: 4

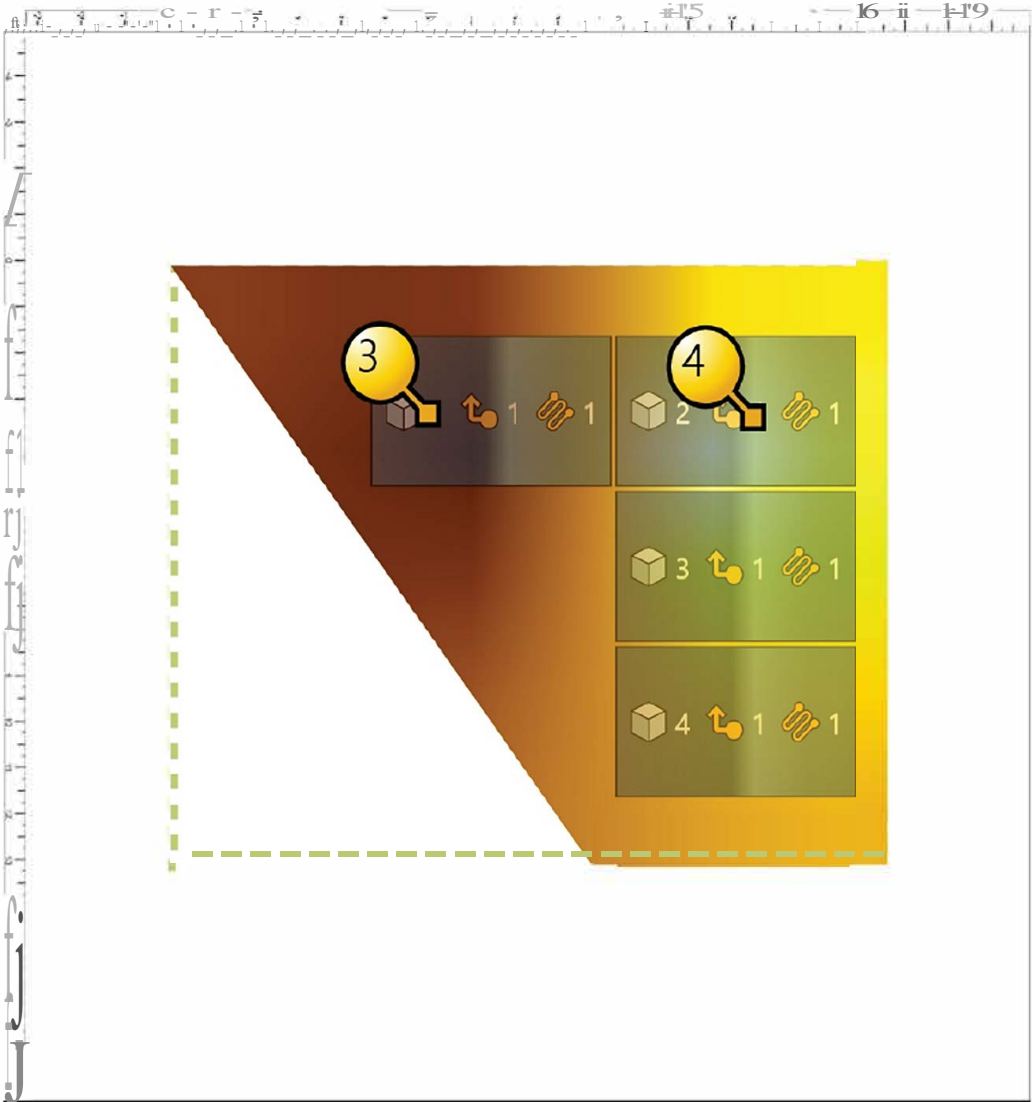
Color

Solar Access

75%

70%

65%



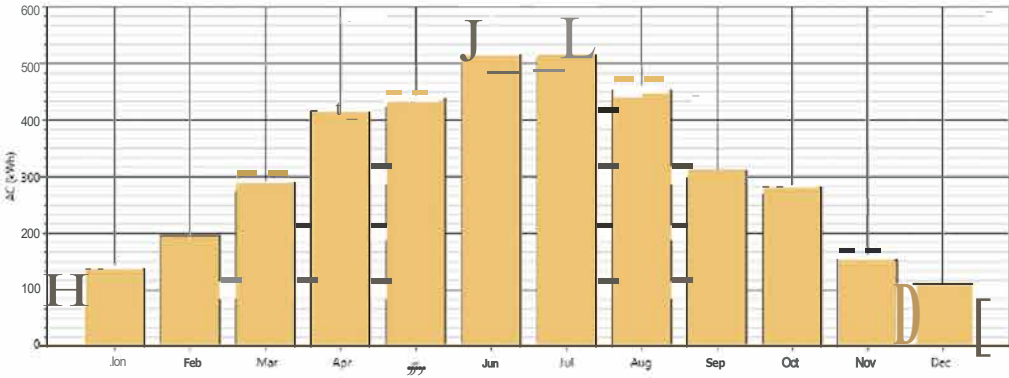
R3:

Design Properties:

Module Manufacturer: Custom
Module Model: TRINA TSM-DD06M.05(11) 330W
Inverter Manufacturer: Custom
Inverter Model: Enphase IQ7-60-2-US
(Due to spacing constraints, only the manufacturer and model of the first inverter is include in this report)
Derate Factor: 0.83

Month	R3 AC (kWh)
Jan	137.5
Feb	196.9
Mar	291.0
Apr	415.4
May	439.4
Jun	514.9
Jul	515.6
Aug	454.0
Sep	312.6
Oct	281.8
Nov	153.8
Dec	111.5
Annual	3824.3

Design Result Chart:



Layout View:

Length: 30.17 ft
Width: 11.75 ft
Azimuth: 125.00 •
Slope: 17.00 •
Total Modules: 12

Color

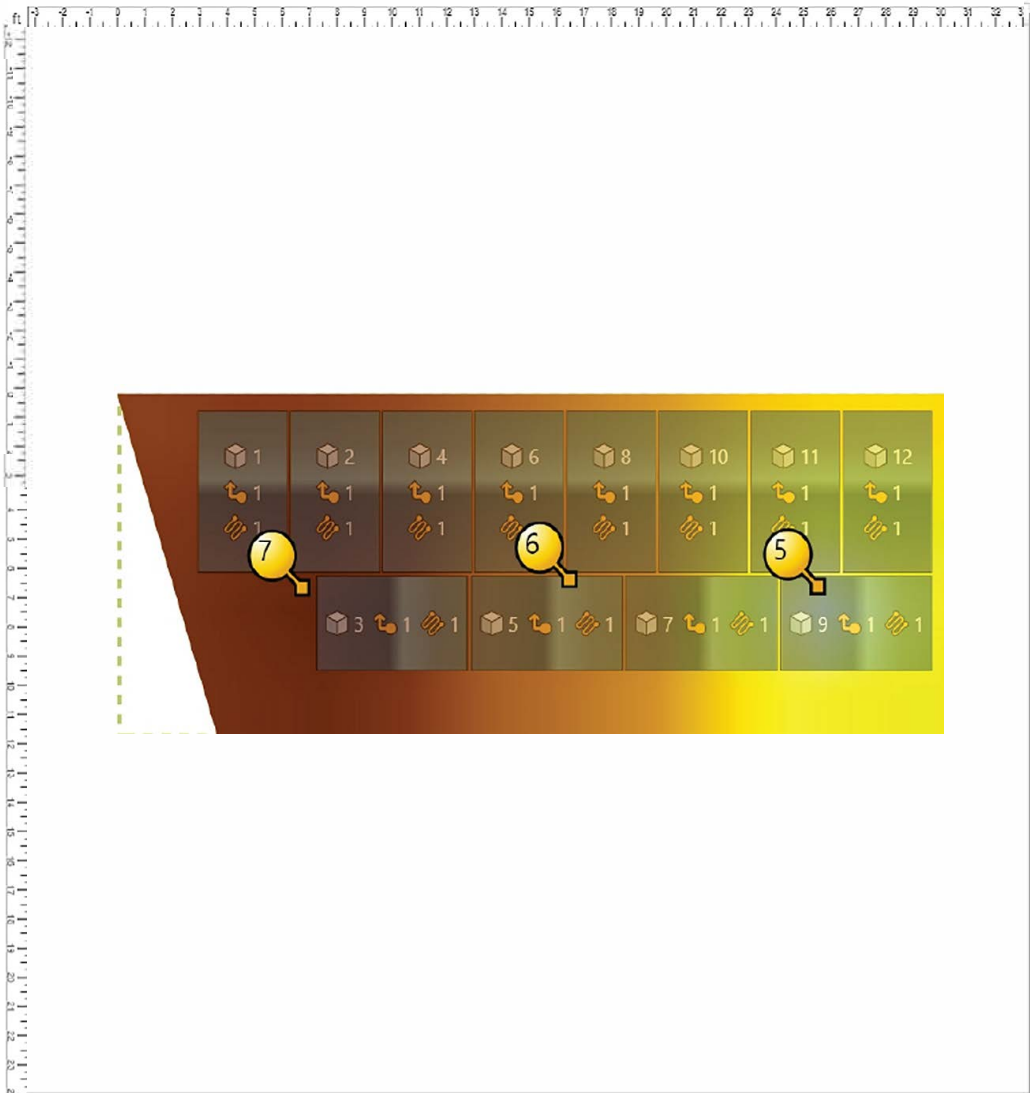
Solar Access

80%

75%

-

70%



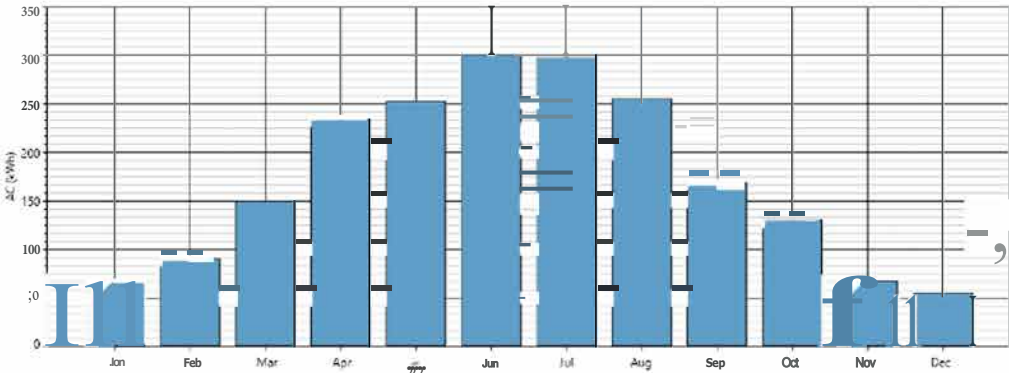
R4:

Design Properties:

Module Manufacturer: Custom
Module Model: TRINA TSM-DD06M.05(11) 330W
Inverter Manufacturer: Custom
Inverter Model: Enphase IQ7-60-2-US
(Due to spacing constraints, only the manufacturer and model of the first inverter is include in this report)
Derate Factor: 0.83

Month	R4 AC (kWh)
Jan	66.5
Feb	91.1
Mar	150.1
Apr	234.3
May	253.2
Jun	301.2
Jul	297.9
Aug	255.9
Sep	169.4
Oct	130.4
Nov	67.8
Dec	55.3
Annual	2073.0

Design Result Chart:



Layout View:

Length: 26.17 ft
Width: 11.67 ft
Azimuth: 305.00 •
Slope: 17.00 •
Total Modules: 7

Color

Solar Access

80%

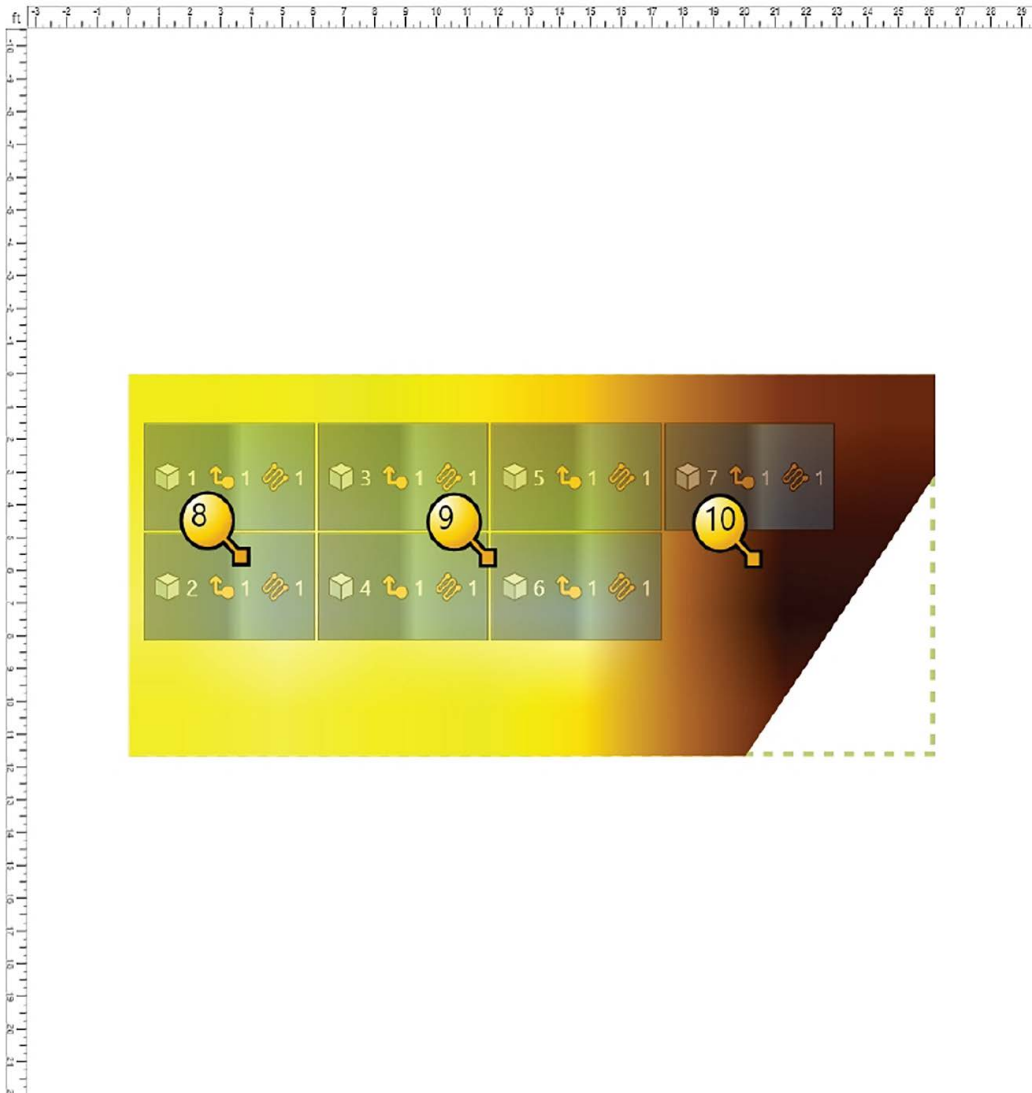
75%

-

70%

-

65%



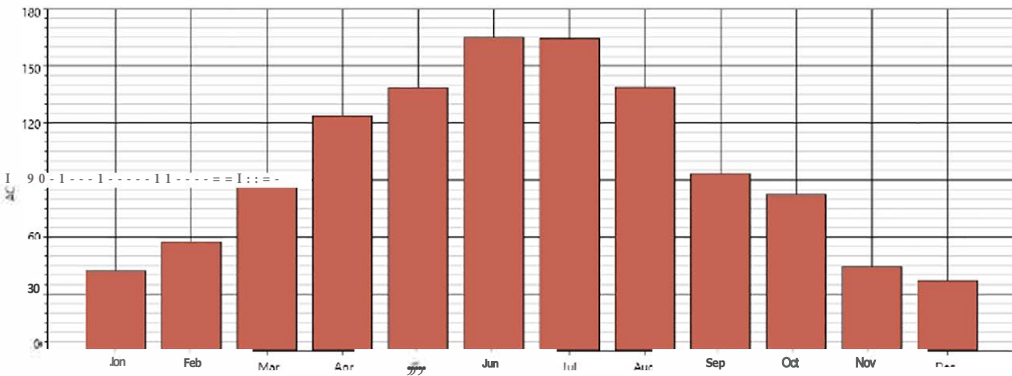
R7:

Design Properties:

Module Manufacturer: Custom
Module Model: TRINA TSM-DD06M.05(11) 330W
Inverter Manufacturer: Custom
Inverter Model: Enphase IQ7-60-2-US
(Due to spacing constraints, only the manufacturer and model of the first inverter is include in this report)
Derate Factor: 0.83

Month	R7 AC (kWh)
Jan	42.5
Feb	57.6
Mar	87.5
Apr	123.9
May	138.6
Jun	165.2
Jul	164.5
Aug	138.9
Sep	93.5
Oct	82.6
Nov	44.6
Dec	37.2
Annual	1176.7

Design Result Chart:



Layout View:

Length: 22.83 ft
Width: 10.00 ft
Azimuth: 125.00 °
Slope: 15.00 °
Total Modules: 4

Color

Solar Access

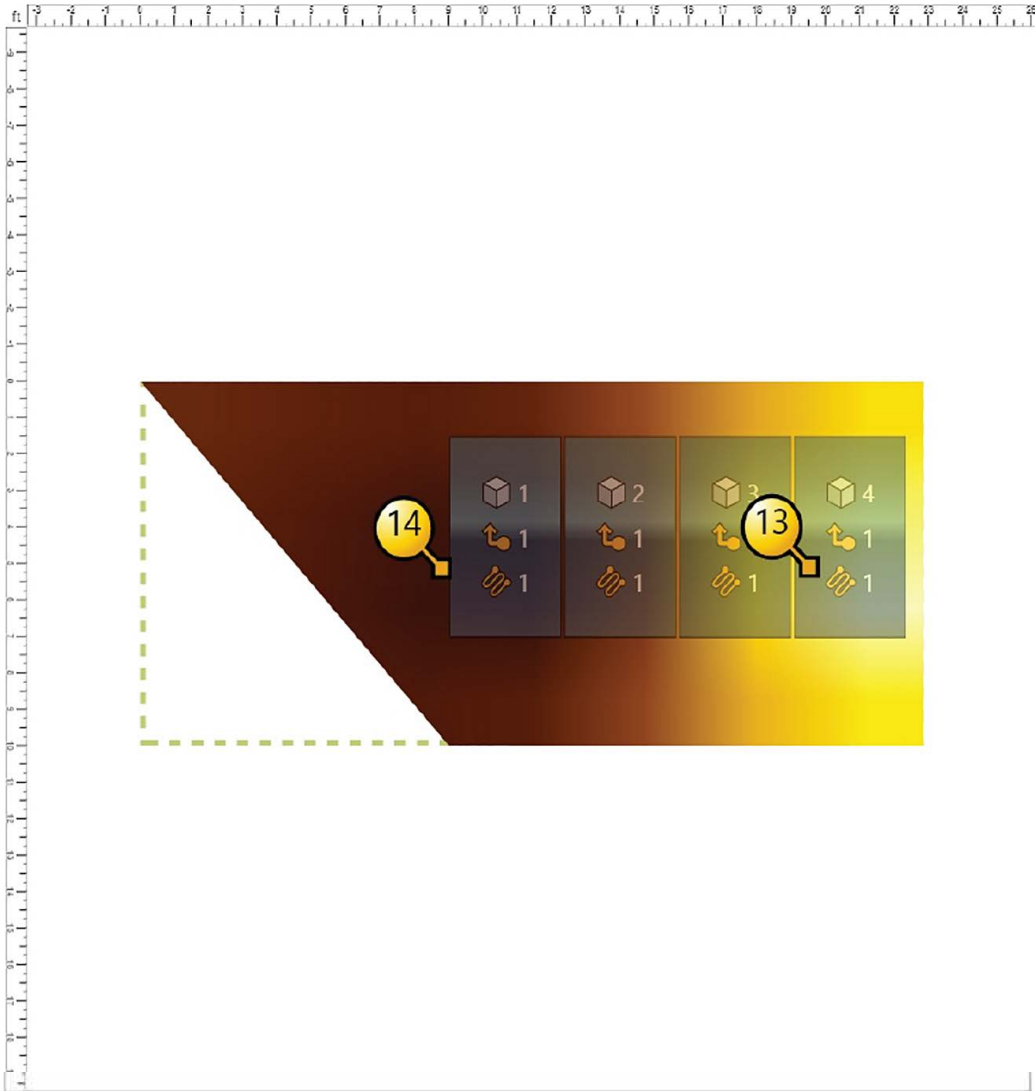
70%

65%

60%

55%

50%





Your electric bill - Mar 2022

for the period **February 15, 2022 to March 16, 2022**



WAYS TO SAVE: FIND TIPS AND PROGRAMS THAT HELP

Learn more at pepco.com/WaysToSave

ANTHONY C CAMILLI
SARA CAMILLI

Account number

Your service address: 402 TULIP AVE
SILVER SPRING MD 20912

Bill Issue date: Mar 17, 2022

Summary of your charges

Balance from your last bill	\$126.58
Your payment(s) - thank you	\$126.58-
Balance forward as of Mar 17, 2022	\$0.00
New electric charges	\$118.55
Total amount due by Apr 7, 2022	\$118.55

After Apr 7, 2022, a Late Payment Charge of \$1.76 will be added, increasing the amount due to \$120.31.

Your smart electric meter is read wirelessly. Visit My Account at pepco.com to view your daily and hourly energy usage.

Pepco EV charging stations are in a neighborhood near you, learn more here Pepco.com/ev.

If you are moving or discontinuing service, please contact Pepco at least three days in advance.

Information regarding rate schedules and how to verify the accuracy of your bill will be mailed upon request.

Follow us on Twitter at twitter.com/PepcoConnect. Like us on Facebook at facebook.com/PepcoConnect.

How to contact us

Customer Service (Mon-Fri, 7am - 8 pm)

202-833-7500

TTY English

1-800-735-2258

TTY Spanish

1-800-877-1264

¿Problemas con la factura?

202-833-7500

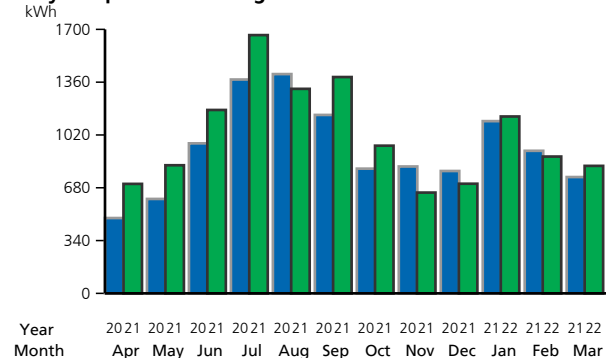
Electric emergencies & outages (24 hours)

1-877-737-2662

Visit pepco.com for service, billing and correspondence information.

Your monthly Electricity use in kWh

Daily temperature averages: Mar 2021: 43° F Mar 2022: 46° F



The EmPOWER MD charge funds programs that can help you reduce your energy consumption and save you money. For more information, including how to participate, go to pepco.com/saveenergy.

Additional messages may be on the last page of your bill.

Please tear on the dotted line below. Invoice Number: 200821605931 Page 1 of 3

Return this coupon with your payment
made payable to Pepco

Total amount due by Apr 7, 2022 **\$118.55**

Total amount due after Apr 7, 2022 **\$120.31**

Auto Pay Plan

Amount Paid:

\$.

PO BOX 13608
PHILADELPHIA PA 19101



OMR00010



ANTHONY C CAMILLI
SARA CAMILLI
402 TULIP AVE
TAKOMA PARK MD 20912-4341



ANTHONY C CAMILLI
SARA CAMILLI
Account number:

Your electric bill for the period
February 15, 2022 to March 16, 2022

Details of your Electric Charges

Residential Service - service number 0550 2225 9307 7001 4291 26
Electricity you used this period

<u>Meter Number</u>	<u>Energy Type</u>	<u>End Date</u>	<u>Start Date</u>	<u>Number Of Days</u>	<u>Total Use</u>
1ND350682925	Use (kWh)	Mar 16	Feb 15	30	821
		<u>Reading</u>	<u>Reading</u>	<u>Multiplier</u>	
		129979	129158	1	

Your meter records electric energy use in hourly intervals. Your bill is the total of all hourly intervals recorded during your billing period.
End and start date kWh meter readings are provided for informational purposes only.
Please visit My Account at pepco.com to view your energy use data.

Your next bill period is scheduled to end on April 18, 2022

Delivery Charges: These charges reflect the cost of bringing electricity to you.
Current charges for 30 days, **winter rates in effect.**

<u>Type of charge</u>	<u>How we calculate this charge</u>	<u>Amount(\$)</u>
Distribution Services:		
Customer Charge		8.01
Energy Charge	821 kWh X \$0.0364350 per kWh	29.92
Pepco Federal Tax Credit		1.44-
Franchise Tax (Delivery)	821 kWh X \$0.0006200 per kWh	0.51
Universal Service Charge		0.32
MD Environmental Surcharge	821 kWh X \$0.0001470 per kWh	0.12
EmPOWER Maryland Charge	821 kWh X \$0.0071510 per kWh	5.86
Gross Receipts Tax	at 2.0408%	0.89
Montgomery County Energy Tax	821 kWh X \$0.0113114 per kWh	9.29
Administrative Credit	821 kWh X \$0.0002912- per kWh	0.24-
Total Electric Delivery Charges		53.24

Page 2 of 3

☐ **Check here to enroll in the Direct Debit plan**

Sign and date here _____

By signing here, you authorize Pepco to electronically deduct the amount of your monthly bill from your checking account each month. The check you send with this signed authorization will be used to set up Direct Debit. You understand that we will notify you each month of the date and amount of the debit, which will be on or after the due date stated on your monthly bill. You understand that to withdraw this authorization you must call Pepco. You understand that Pepco does not charge for this service, but that your bank may have charges for this service.

Customer Service Centers

Washington DC

701 Ninth St NW

(Mon - Fri) 8:30am - 5:15pm

2300 Martin Luther King Jr Ave SE (Mon - Fri) 9:00am - 5:00pm

Maryland

201 West Gude Dr, Rockville

(Mon - Fri) 10:00am - 2:00pm

8300 Old Marlboro Pk, Forestville (Mon, Wed, Fri) 10:00am - 2:00pm

Any inquiry or complaint about this bill should be made prior to the due date, in order to avoid late charges.

Electronic Check Conversion - When you provide a check as payment, you authorize us either to use information from your check to make a one-time electronic fund transfer from your account or to process the payment as a check transaction.

ANTHONY C CAMILLI
SARA CAMILLI
Account number

Your electric bill for the period
February 15, 2022 to March 16, 2022



Supply Charges: These charges reflect the cost of producing electricity for you.

You can compare this part of your bill to offers from competitive suppliers.

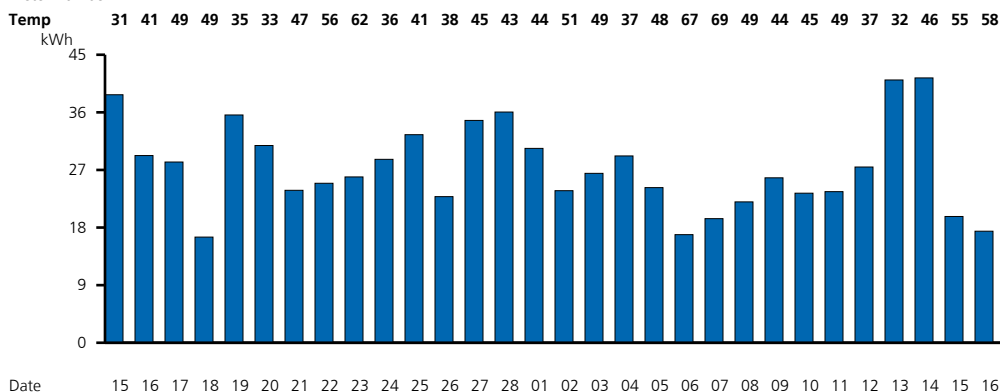
Your Price to Compare is 7.72 cents (\$0.0772) per kWh. When shopping for electric suppliers, compare this price to those proposed by other suppliers. This price reflects the average annual amount a customer on this rate pays per kilowatt-hour for Electric Supply. For information on electric energy suppliers please visit MDEnergyChoice.com.

Billing Period: Feb 15, 2022 to Mar 16, 2022 (30 days)

<u>Type of charge</u>	<u>How we calculate this charge</u>	<u>Amount(\$)</u>
Transmission Services:		
Energy Charge	821 kWh X \$0.0114500 per kWh	9.40
Gross Receipts Tax	at 2.0408%	0.19
Generation Services:		
Energy Charge	821 kWh X \$0.0706200 per kWh	57.98
Procurement Cost Adjustment	821 kWh X \$0.0027515- per kWh	2.26-
Total Electric Supply Charges		65.31
Total Electric Charges - Residential Service		118.55

Your daily electricity use for this bill period. Visit My Account at pepco.com to see your hourly electricity use.

Meter Number 1ND350682925



You can help a Pepco customer in need of assistance with their energy bills by contributing to the Good Neighbor Energy Fund. Simply pay exactly \$1.00 over your Pepco bill amount and that dollar will be contributed to the Good Neighbor Energy Fund administered by a 501(c)(3) non-profit organization in your community. Program contributions must be exactly \$1.00 over the billed amount; amounts over \$1.00 will not be identified as a program contribution and will result in a credit to your account. Pepco will match each donation by contributing a dollar to the fund, up to \$100,000.