Historic Preservation Commission

AGENDA

Historic Preservation Commission
Cumberland City Hall, Council Chambers
Dec. 13th, 2023, 4:00 P.M.

APPROVAL OF MINUTES

- Review and approval of Nov. 2023 meeting minutes

PUBLIC COMMENT

CERTIFICATE OF APPROPRIATENESS

Consent Agenda *– these COA's received administrative approval*

- 305 Washington St. COA23-000065 (*sign permit*)
  Applicant: Allegany College of Maryland

- 201 S. Mechanic St. COA23-000067 (*after-the-fact painting*)
  Applicant: Brian Dillon

Regular Agenda *– to be reviewed by HPC*

- 308 Washington Street COA23-000063 (*solar panels*)
  Applicant: Energy Select

TAX INCENTIVES

- 505 Washington Street *(Step 3 Approval)*
  Applicant: Michael and Nancy Armiento

OTHER BUSINESS

ANNOUNCEMENTS

ADJOURNMENT

City of Cumberland

MINUTES

HISTORIC PRESERVATION COMMISSION

November 15, 2023

The Cumberland Historic Preservation Commission held its regular meeting on Wednesday, November 15, 2023, within the Council Chambers of City Hall. Members present were, Mr. Larry Jackson, Mr. Tim Hoffman, Mr. Brian Plitnik, Councilwoman Laurie Marchini, Ms. Lynda Lambert, Mr. Nathan Williams, and Mr. Justin Paulman.

Others in attendance were, Ms. Ruth Davis-Rogers, Historic Preservation Planner/Grants Management, Ms. Chelsea Rexrode, Codes Technician. There were no citizens or press representatives were in attendance.

Chairman, Mr. Larry Jackson, called the meeting to order. He read the following statement into the record: "The Cumberland Historic Preservation Commission exists pursuant to Section 11 of the City of Cumberland Municipal Zoning Ordinance. Members are appointed by the Mayor and City Council and shall possess a demonstrated special knowledge or professional or academic training in such fields as history, architecture, architectural history, planning, archeology, anthropology, curation, conservation, landscape architecture, historic preservation, urban design, or related disciplines. The Commission strives to enhance quality of life by safeguarding the historical and cultural heritage of Cumberland. Preservation is shown to strengthen the local economy, stabilize and improve property values, and foster civic beauty. The Cumberland Historic Preservation Commission operates pursuant to State of Maryland 1977 Open Meetings Act and therefore no pending applications shall be discussed between or amongst Commissioners outside the public hearing to determine the disposition of the application."

APPROVAL OF MINUTES

1. Minutes from October 2023 were approved as written. ***Mr. Tim Hoffman made the motion for approval and Ms. Lynda Lambert, seconded the motion. All members were in favor. Motion approved.***

PUBLIC COMMENTS

There were no comments made.

CONCENT AGENDA

1. 305 Washington St. – COA23-000060 (Roof & Chimney Repair)
   Applicant: Tara Collier
2. 74 Baltimore St. – COA23-000061 (Brick & Stucco Repair)
   Applicant: James Mckee
3. 19 Frederick St. – COA23-000062 (Surveillance Camera)
   Applicant: CEDC – Matt Miller
4. 514 Washington St. – COA23-000063 (Roof Repair)
   Applicant: Chris Sloan

Mr. Larry Jackson read the approval statement: We have studied the application in all other relevant documents and presentation related to the for-mention cases COA23-000060, COA23-000061, COA23-000062, and COA23-000063. We find the properties on the approve Certificate of Appropriateness contribute to the Historic Districts where they are located and the proposed changes are consisted with guidelines and criteria found in the Historic Preservation District designed guidelines for Cumberland Maryland.

REGULAR AGENDA

- Nothing to be reviewed this month by the Commission

TAX INCENTIVES

1. 305 Washington St. (Step 1 & Step 2 Approval)
   Applicant: Tara Collier/ Hemlock Leasing LLC

2. 74 Baltimore St. (Step 1 & Step 2 Approval)
   Applicant: Katherine James Realty

Mr. Larry Jackson read "Maryland State law grants the City of Cumberland the authority to provide local historic preservation tax credits. Before us are tax credit application for work to be performed at 69 Baltimore St. We have studied the applications and find that these properties quality based on City of Cumberland Code and section 9-204 of the Tax Property Article of the Annotated Code of Maryland."

OTHER BUSINESS/STAFF UPDATES

1. Handouts were given to the Commission to review after our meeting regarding Solar Panels on Historic Properties.
2. Ruth attended National Trust for Historic Preservation Conference last week and had great feedback about the activity that Cumberland is experiencing at this time.
3. Historic Preservation Plan will be presented to the Mayor and City Council on December 19, 2023 for acceptance.
4. There is a new Arts Commission that is being proposed. The Commission will review public murals and art within the arts district of the city. It will consist of 10 Commission Members.
5. The 1st Winter Festival and Market to be held on December 2nd and December 9th, 2023. If you would like to volunteer, please contact Melinda Kelleher.
6. The Maryland Historical Trust will be offering their yearly loan program. Applications will be taken until January 15, 2023.
7. The Maryland Historical Trust held an archeological dig. The State is putting in a request to the National Park Service to see if they can hold a field session.
8. The Community Legacy Reward will be announced soon. We proposed to do façade improvements on N Mechanic/ N Centre Streets and some other things to help support historical preservation in the area.
9. Ms. Lynda Lambert is currently writing newspaper articles on historic preservation. One article has been published to date.

An audio of tonight's meeting is available upon request.

ADJOURMENT

Mr. Larry Jackson adjourned the meeting.

Respectfully,

_____

Mr. Tim Hoffman, Secretary

CITY OF
CUMBERLAND
MARYLAND
DEPARTMENT OF COMMUNITY DEVELOPMENT
57 N. LIBERTY STREET, CUMBERLAND, MD 21502 • PHONE 301-759-6442 • FAX 301-759-6432 • TDD 800-735-2258
www.cumberlandmd.gov

Permit Number: COA23-000067

Approval Date: 11/27/2023

Certificate of Appropriateness Permit

Permit issued as per plans and subject to all applicable Preservations Guidelines, City Codes and regulations.

Project Location:	201 S MECHANIC ST	Date applied:	11/16/2023
MD Prop. #:	04048881	Work expected to begin:	11/27/2023
Owner:	CCVI WESTERN MD LLC		
Applicant:	Brian Dillon	Contractor:	
Address:	454 Walnut St.	Address:	454 Walnut St.
City/State/Zip:	Cumberland MD 21502	City/State/Zip:	Cumberland MD 21502
Phone:	(301) 724-1110	Phone:	(301) 724-1110
Email:		Email:	
		MD Master Plumber License #:	

Quantity	Description	Amount	Total Cost
1.0	Certificate of Appropriateness Review Fee	30.00	30.00

Project Description:
COA, after the fact, for painting the wood and brick of building at right side and rear (front remains natural brick). New colors are black and gray.

Administrative approval, for exterior painting of brick on a commercial building in the historic district, by Ruth Davis-Rogers - Historic Preservation Planner

Signature / Date

STATEMENT: I hereby agree to comply with all regulations which are applicable hereto, and further agree that the proposed work shall be faithfully carried out as described on this request and as shown on the plans accompanying same, and not otherwise. This application hereby expires six months following the file date if no action is taken to start specified work. Also, this application will expire six months following the file date if the applicant fails to provide additional information as requested by the HPC or its staff in order for the Commission to render a decision. The application is active for two years.

Signature

CERTIFICATE OF APPROPRIATENESS DECISION

Issued

Certificate of Appropriateness #COA23-000067
Agenda Item: COA23-000067
Project Address: 201 S MECHANIC ST
Meeting Date: 11/27/2023
Property Number: 04048881

Brian Dillon
454 Walnut St.
Cumberland, MD 21502

Dear Applicant:

The Historic Preservation Commission of the City of Cumberland on the above date, considered the application for construction at the above address as follows:

Exterior improvements are to include: COA, after the fact, for painting the wood and brick of building at right side and rear (front remains natural brick). New colors are black and gray.

The application was:

Issued

APPROVED with the following conditions: Administrative Approval, for exterior painting of brick on a commercial building in the historic district, by Ruth Davis-Rogers, Historic Preservation Planner

Sincerely,

Ruth Davis-Rogers

Cc:Planning and Zoning
COA File

NOTE: Please note that the approval listed above only constitutes the approval of the Historic Preservation Commission. You must still ensure that all other permits associated with this project, if required, have been applied for and approved by the Building and Zoning Officer.
EXPIRATION OF CERTIFICATES OF APPROPRIATENESS: This application hereby expires six months following the file date if no action is taken to start specified work. Also, the application will expire six months following the file date if the applicant fails to provide additional information as requested by the HPC or its staff in order for the Commission to render a decision.

City of Cumberland - Dept. of Community Development

Internal Routing Sheet

Permit or Review #: **COA23-000067**

Permit or Review Type: Certificate of Appropriateness

Project Location: 201 S MECHANIC ST CUMBERLAND, MD 21502

Applicant Contact Information:
Name: Brian Dillon
Address: 454 Walnut St.
City/State/Zip: Cumberland MD 21502
Phone: (301) 724-1110
Email:

Contractor Contact Information:
Company Name:
Contact: Brian Dillon
Address: 454 Walnut St.
City/State/Zip: Cumberland MD 21502
Phone: (301) 724-1110
Email:

Date of Application: 11/16/2023

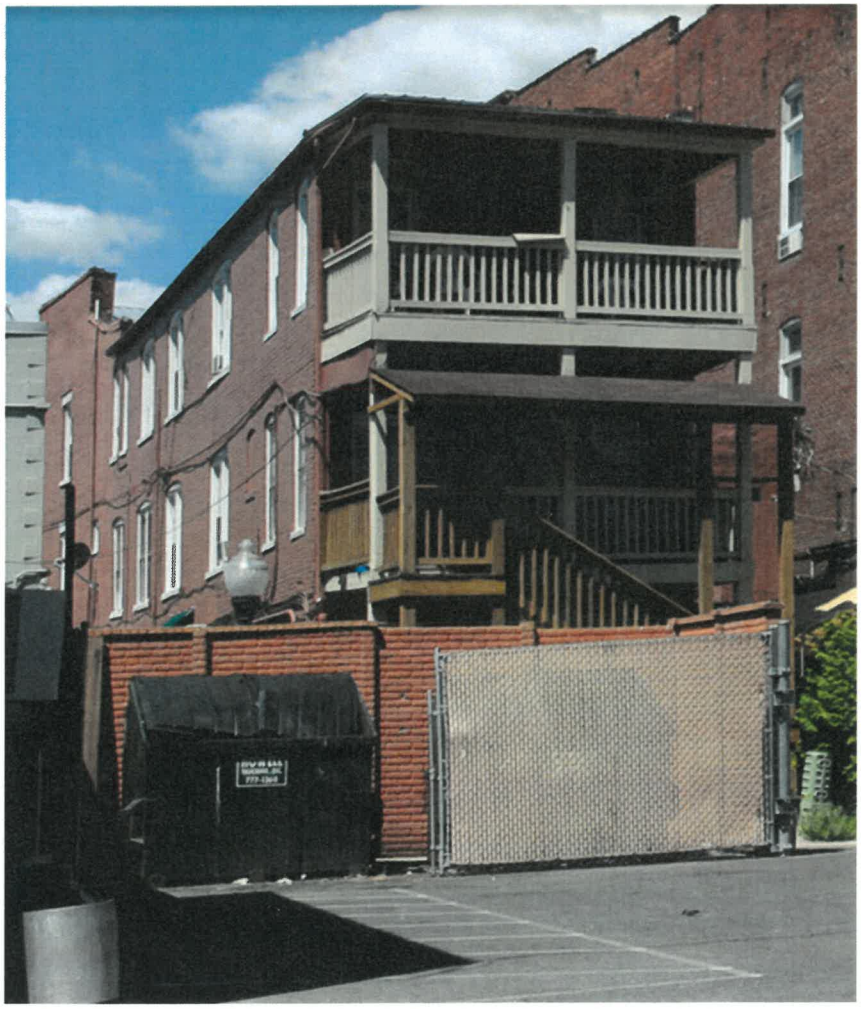
Work Description: (narrative box)

COA, after the fact, for painting the wood and brick of building at right side and rear (front remains natural brick). New colors are black and gray.

Amount Paid: 30.00 — via Lara from Code Violation

Amount Due: 0.00

Need:
Valuation $ ____
Full written scope of work
color(s) name
photo now/ current



14-20 S. Mechanic St.

Prop. ID #: 04-04881

20 S. Mechanic St.

Uncle Jack's Pizzeria & Pub

City of Cumberland - Dept. of Community Development

Internal Routing Sheet

Permit or Review #: **COA23-000065**

Permit or Review Type: Certificate of Appropriateness

Project Location: 112 BALTIMORE ST CUMBERLAND, MD 21502

Applicant Contact Information:
Name: Allegany College of Maryland
Address: 12401 Willowbrook Road
City/State/Zip: Cumberland MD 21502
Phone: 3017845220
Email: klayman@allegany.edu

Contractor Contact Information:
Company Name: Morgantown Printing & Binding
Contact:
Address: 915 Green Bag Rd
City/State/Zip: Morgantown WV 26508
Phone: (304) 292-3368
Email:

Date of Application: 11/13/2023

Work Description: (narrative box)

Allegany College of Maryland will be replacing decals on right-hand door of main entry doors. Decal will be installed on interior side of glass per City guidelines. Decal size is 17.3" w x 37.7" h. Total sq. ft. of signage is 4.5. Decal created by Morgantown Printing & Binding with installation being done by Allegany College of Maryland.
Ref: SP23-000065

Amount Paid: 0.00

Amount Due: 0.00

CITY OF
CUMBERLAND
MARYLAND

DEPARTMENT OF COMMUNITY DEVELOPMENT

57 N. LIBERTY STREET, CUMBERLAND, MD 21502 • PHONE 301-759-6442 • FAX 301-759-6432 • TDD 800-735-2258
www.cumberlandmd.gov

Permit Number: COA23-000065

Approval Date: 12/08/2023

Certificate of Appropriateness Permit

Permit issued as per plans and subject to all applicable Preservations Guidelines, City Codes and regulations.

Project Location:	112 BALTIMORE ST	Date applied:	11/13/2023
MD Prop. #:	14004483	Work expected to begin:	12/08/2023
Owner:	ALLEGANY COLLEGE OF MARYLAND		
Applicant:	Allegany College of Maryland	Contractor:	Morgantown Printing & Binding
Address:	12401 Willowbrook Road	Address:	915 Green Bag Rd
City/State/Zip:	Cumberland MD 21502	City/State/Zip:	Morgantown WV 26508
Phone:	3017845220	Phone:	(304) 292-3368
Email:	klayman@allegany.edu	Email:	
		MD Master Plumber License #:	00000

Quantity	Description	Amount	Total Cost

Project Description:
Allegany College of Maryland will be replacing decals on right-hand door of main entry doors. Decal will be installed on interior side of glass per City guidelines. Decal size is 17.3" w x 37.7" h. Total sq. ft. of signage is 4.5. Decal created by Morgantown Printing & Binding with installation being done by Allegany College of Maryland.
Ref: SP23-000065

APPROVED with the following conditions:

Signature / Date

STATEMENT: I hereby agree to comply with all regulations which are applicable hereto, and further agree that the proposed work shall be faithfully carried out as described on this request and as shown on the plans accompanying same, and not otherwise. This application hereby expires six months following the file date if no action is taken to start specified work. Also, this application will expire six months following the file date if the applicant fails to provide additional information as requested by the HPC or its staff in order for the Commission to render a decision. The application is active for two years.

Signature

CERTIFICATE OF APPROPRIATENESS DECISION

Issued

Certificate of Appropriateness #COA23-000065
Agenda Item: COA-000065
Project Address: 112 BALTIMORE ST
Meeting Date: 12/08/2023
Property Number: 14004483

Korey Layman
12401 Willowbrook Road
Cumberland, MD 21502

Dear Applicant:

The Historic Preservation Commission of the City of Cumberland on the above date, considered the application for construction at the above address as follows:

Exterior improvements are to include: Allegany College of Maryland will be replacing decals on right-hand door of main entry doors. Decal will be installed on interior side of glass per City guidelines. Decal size is 17.3" w x 37.7" h. Total sq. ft. of signage is 4.5. Decal created by Morgantown Printing & Binding with installation being done by Allegany College of Maryland.
Ref: SP23-000065

The application was:

Issued

APPROVED with the following conditions: Administrative Approval by Ruth Davis - Rogers, Historic Preservation Planner

Sincerely,

Ruth Davis-Rogers

Cc:Planning and Zoning
COA File

NOTE: Please note that the approval listed above only constitutes the approval of the Historic Preservation Commission. You must still ensure that all other permits associated with this project, if required, have been applied for and approved by the Building and Zoning Officer.
EXPIRATION OF CERTIFICATES OF APPROPRIATENESS: This application hereby expires six months following the file date if no action is taken to start specified work. Also, the application will expire six months following the file date if the applicant fails to provide additional information as requested by the HPC or its staff in order for the Commission to render a decision.

MPB Print & Sign Superstore
915 Greenbag Road
Morgantown, WV 26508
Tel:888-292-0001
Email:sales@mpbonline.com

ESTIMATE 114933 A / BRD

Date: 11/08/2023

Shannon Redman
Allegany College Of MD
12401 Willow Brook Rd SE
Cumberland, MD 21502

We are pleased to submit this estimate based on the following specifications:

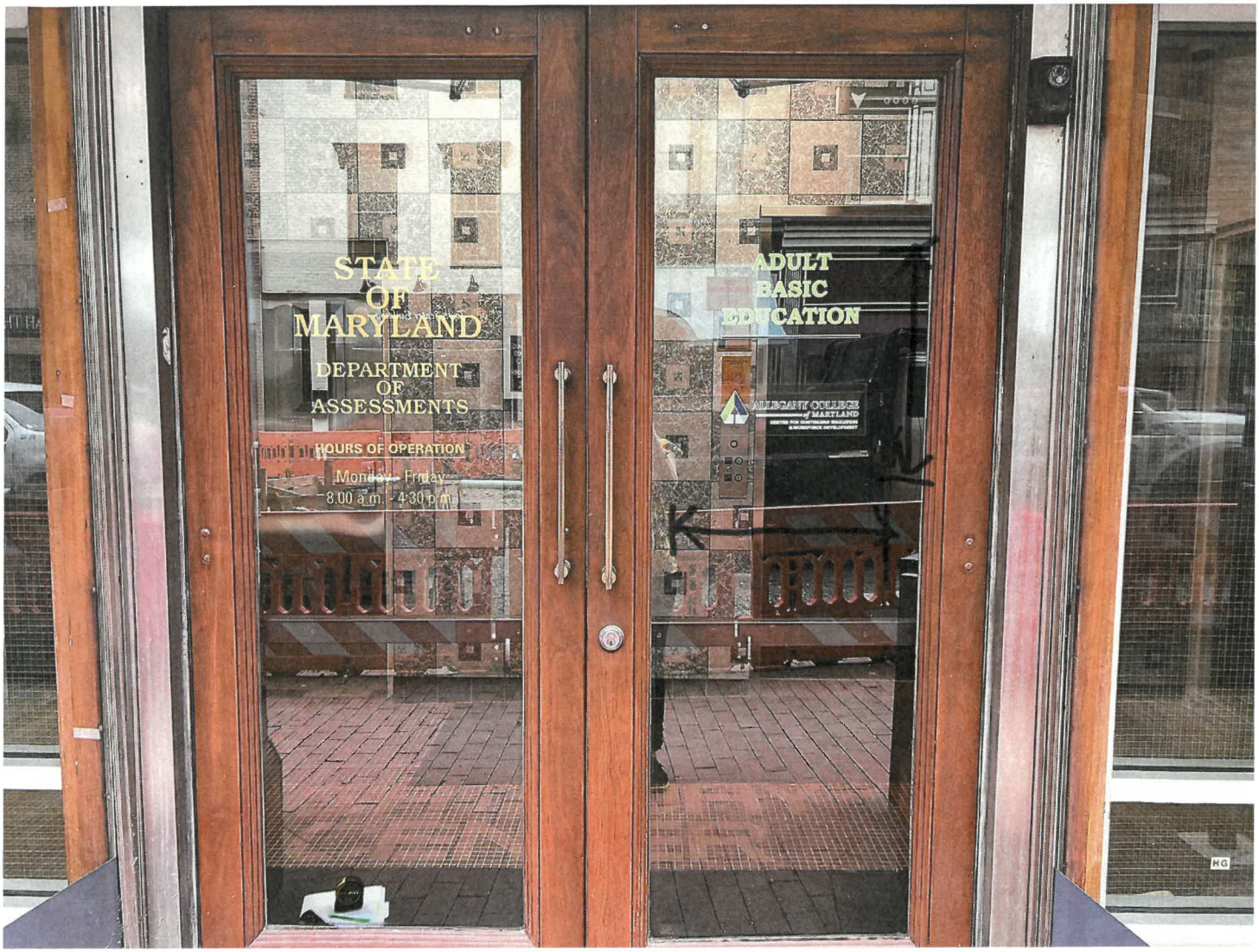
Title:	Window Decal
Size:	17.3"w x 37.7"h
Graphics:	Print ready files supplied - this quote only includes time for 1 initial prepress set up. ANY formatting, changes, or new file submission may incur additional charges. The graphics rate is $75 per hour with a $15 minimum. Last job#297941.
Proof:	PDF proof to customer
Printing:	4+white/0-face adhesive
Materials:	clear decal
Bindery:	trim, pack for customer install
Delivery:	ship ground
Notes:	

Terms: All prices exclude sales tax and postage when applicable. All orders are subject to a review of artwork and our terms & conditions, available by request. All estimates are valid for thirty (30) days. If acceptance of this estimate is received after this period has lapsed, a revised estimate may be required.

Quantity	Price
1	$75.00

I hope our estimate meets your requirements and look forward to receiving your instruction to process this order. If I can be of any further assistance, please do not hesitate to contact me.

Sincerely,
Thad Welch
Senior Account Manager


STATE
OF
MARYLAND
DEPARTMENT
OF
ASSESSMENTS
HOURS OF OPERATION
Monday - Friday
8:00 a.m. - 4:30 p.m.
ADULT
BASIC
EDUCATION
ALLEGANY COLLEGE
of MARYLAND

ALLEGANY COLLEGE
of MARYLAND

November 16th, 2023

Mayor & City Council
City of Cumberland
57 N. Liberty St.
Cumberland, MD 21502

Dear Ms. Davis-Rogers,

Allegany College of Maryland is currently in the early planning phases of replacing vinyl-lettering window signage, present on the entrance to our building at 112 Baltimore St., or better known as the "Gateway Center".

With the assistance of the Ms. Robyn Roberts, it was determined that along with the submission of the application for a "Signage Permit" and a "Certificate of Appropriateness", the College should also submit a written letter to the Mayor and City Council in order for a determination to be made as to whether or not the City of Cumberland would be considering the College tax-exempt.

Allegany College of Maryland is among the sixteen community colleges of Maryland considered to be public institutions of higher education that were established pursuant to Title 16 of the Education Article of the Annotated Code of Maryland. They are all non-profit organizations and are State tax exempt.

The tax exemption afforded community colleges allows us to not only fulfill our vision of "being the College of choice that transforms lives, strengthens communities, and makes learners the center of everything we do", our mission of "delivering diverse and relevant education centered around student success in a supportive and engaging community", but it also allows maximize the benefit that we provide to our students and community, which are then paid forward to society as a whole. Community Colleges provide communities such as Cumberland with the educated, skilled, and productive workforce needed to drive the local economy forward.

We formally ask the City of Cumberland to please consider the College's tax exemption status, and the waive any associated fees.

Sincerely,

Christina Kilduff
VP of Finance and Administration

PERMIT PROJECT

FILE #: 23-001704
308 WASHINGTON ST CUMBERLAND MD 21502
INSTALLATION OF (20) ROOF MOUNTED SOLAR PANELS AND (20) MICROINVERTERS

PERMIT #: COA23-000066

Permit Type
Certificate of Appropriateness

Subtype
Certificate of Appropriateness

Work Description:
Installation of (20) roof mounted solar panels and (20) microinverters

Applicant
Energy Select LLC - Kristi Felton

Status
Online Application Received

Valuation
0.00

FEES & PAYMENTS

Plan Check Fees	30.00
Permit Fees	0.00
Total Amount	30.00
Amount Paid	0.00
Balance Due	30.00

☐ Non-Billable

PERMIT DATES

Application Date
11/13/2023

Approval Date

Issue Date:

Expiration Date:

Close Date

Last Inspection

Non-Billable Comments

Contractor
Energy Select LLC - Kristi Felton

Contact
Energy Select LLC - Kristi Felton

Estimated Cost of the project
$24,400.00

Attach a full written scope of work
Signed - Call - Contract.pdf

Attach photographs of the site and structure
jpg2pdf (4)-min.pdf

Facade Elevations
screenshot-1697136067006.pdf

Sample of Proposed Materials
Call Material.pdf

Scaled Drawings
screenshot-1697136083233.pdf

Digital Renderings, when available
screenshot-1697136067006.pdf

Color Scheme/Paint Chips
v2 Call.pdf

Manufacturer Cut-Sheets or Product Specifications

Call Material.pdf

Provide one (1) complete original copy of all supplementary materials

v2 Call.pdf

The HPC meets the second Wednesday of each month and complete applications are due the first Wednesday of each month before 4:00 p.m. You (or a representative) are required to attend the meeting scheduled for your COA review.

Preservation Guidelines (Updated 1/1/16) can be found on the City of Cumberland website at www.cumberlandmd.gov.

Do not begin work until an approval is received on Permits from both The Historic Preservation Commission and the City of Cumberland.
A signed, approved, and stamped COA and MB or RB permit form is required for application to be considered complete.
These will be sent to you upon approval of the department manager or designated representative.

Signing Method
Acknowledgement

☑ By checking this box I acknowledge that I am electronically signing this document

Type your name
Kristi Felton

Today's Date
10/25/2023

FEES

FEE	DI	QUANTITY	AMOUNT	TOTAL
Certificate of Appropriateness Review Fee				30.00
			Plan Check Fees	**30.00**
			Permit Fees	**0.00**
			Total Fees	**30.00**

PAYMENTS

DATE	TYPE	REFERENCE	NOTE	RECEIPT #	RECEIVED FROM	AMOUNT
				Amount Paid		**0.00**
				Balance Due		**30.00**

ACCOUNT INFORMATION

Contact Type: Contractor

Association:

Portal Access:

PERSONAL INFORMATION

Contact Name: Kristi Felton

Personal Mailing Address:

COMPANY INFORMATION

Company Name: Energy Select LLC

Company Mailing Address: 22815 Washington St

Leonardtown MD 20650

CONTACT INFORMATION

Primary Number: 3014756727

Work Number:

Email: operations@energyselectllc.com

Mobile Number:

Home Number:

Fax:

OTHER INFORMATION

User Name: operations@energyselectllc.com

Title:

District:

Notes:

Created On: 08/07/2023 - 08:00 AM

Created By: Kristi Felton

MD License: 447

Por

ENERGY SELECT
WE KNOW ENERGY

YOUR ENERGY SELECT SOLAR CONTRACT			
Customer Name:	Derek Call	Date:	10/3/2023
Job Address:	308 Washington Street, Cumberland, MD	Phone:	(435) 713-5395
		E-mail	derek.rulon.call@gmail.com
Consultant:	Rodney Oates		
Email:	rodney@energyselectllc.com	Phone #	301-453-7447

Maryland Home Improvement License # 133726
Maryland Master Electrician #447
Maryland Contractor's License #18168299

This Agreement is made 10/03/2023, between Derek Call (Owner) and Energy Select LLC (Contractor).

The Owner owns the real property located at 308 Washington Street, Cumberland, MD (Property) and desires Contractor to install a Solar Photovoltaic Electric System (System) on the Property, and Contractor has the expertise and ability to install the System.

Now, therefore, for good and valuable consideration, the receipt of which is hereby acknowledged, the parties agree as follows:

1. CONTRACT WORK. Contractor agrees to furnish all labor and materials and to perform the work necessary for the installation of the System at the Property ("Contract Work"). The Contract Work does not include roof repair or reinforcement, engineering, painting, electrical system upgrades, or transformer upgrades (Notably, the Main or Sub Panels and the Utility Equipment such as the Transformer), drywall repair, or repair service or work other than that set forth in the Scope of Work for Solar Electric Photovoltaic System.

A. Transformer upgrades: depending on the size of the current electrical transformer, the utility company might demand an upgrade. The appropriate size of transformer is critical to the powering of your solar system. It is the responsibility of the Owner to make this upgrade.

B. For Recessed Main Service Panels, an access panel will be installed. If drywall repair is required, Contractor is responsible for tape coat only, not final finishing or can recommend a drywall company.

2. PRICE. Owner agrees to pay Contractor the Contract Price for the performance of the Contract Work. If not Financed through our lenders who have a previously arranged payment schedule, the remainder of the Contract Price shall be paid as follows:

A. Ten percent (10%) is due upon signature of this Agreement.

B. Forty percent (40%) of the Contract Price shall be paid after the planning site visit, Solar Engineer final system design, Customer approval on equipment and solar placement, and material sourcing.

C. The following forty percent (40%) of the Contract Price shall be paid after all relevant permits are obtained, permission granted for Utility Interconnection, and the material is delivery to site.

D. The final ten percent (10%) of the Contract Price shall be paid upon a passed Electrical Inspection, Notification to Utility, and System being 100% operational.

3. ACCESS. Owner agrees to cooperate fully in the performance of the Contract Work and to provide unobstructed, safe and convenient access to the roof or other areas upon which the System is to be installed. Owner will be responsible for removing or covering any items inside or outside the structure that might be soiled or damaged by the performance of the Contract Work. Owner represents and warrants that there are no restrictions or covenants of which it should reasonably be aware that would prevent the installation of the System.

4. WARRANTY. Contractor warrants the installation of the System against defects in workmanship for a period of 10 (ten) years following the conclusion of the Onsite Installation. The warranty does not cover power outages, force majeure, damage normally covered by homeowners insurance such as damage caused by falling trees or limbs, or normal wear and tear of the roof, sub-structure, siding or electrical system. The warranty also does not cover problems caused by animals, by improper maintenance of the structure or the System or by any action of a party other than the Contractor. In the event that Owner discovers a defect in the System within the warranty period, Owner shall notify Contractor in writing providing a complete description of the nature of the defect. Contractor will correct any defect covered by the warranty and repair the System at no additional cost to Owner. If it is necessary to repair or replace any part of the System, Owner shall cooperate fully with Contractor to provide for a safe and efficient repair process. Contractor makes no warranty, express or implied, except as expressly set forth herein. Without limiting the generality of the foregoing, Contractor hereby disclaims any implied warranty of merchantability or fitness for a particular purpose.

5. SITE CONDITIONS. If there are latent or unanticipated conditions of the site that would affect the safety of the Contract Work, require reinforcement or repair of the roof or structure or materially increase the cost to Contractor of the Contract Work, the parties may agree upon an additional price for the Contract Work or Contractor may terminate this Agreement. Any needed drywall patching will include drywall, taping, and one coat of joint compound.

6. LIABILITY. Contractor shall be liable only for damage to the installation area of the System and shall not be liable for damage to old, deteriorated or improperly installed roofing, sub-roofing, roof coverings or supports, siding, exterior covering or paint, or any other non-visible installations. Contractor's aggregate liability shall be limited to amounts paid by Owner to Contractor under this Agreement. Owner shall bear the roof, walls and floors and otherwise make areas necessary for performance of the Contract Work accessible to Contractor. Contractor specifically disclaims and disavows any guaranteed output of the installed system, including any claims made orally or in writing by Contractor or its employees or agents. The parties waive all claims against each other for incidental and/or consequential damages arising out of or in any way relating to the Agreement. There are no third party beneficiaries to this Agreement.

7. PAST DUE PAYMENT POLICY. In the event that any payment due pursuant to Paragraph 2 of this Agreement is late, interest shall accrue at the rate of two percent (2%) per month or the maximum amount permitted by law, whichever is less, on any outstanding balance. In the event that Contractor engages an attorney for collection of a past due amount, Owner shall be responsible for all of Contractor's costs and reasonable attorneys fees. If any payment due pursuant to this Agreement remains unpaid more than one hundred and twenty (120) days after such payment was due, Owner grants to Contractor the right to enter the Property and remove the System or any part thereof; provided, that Contractor shall notify Owner in writing of its intent to remove the System and allow Owner thirty (30) days from the date of such notice to cure its default and pay the past due amount. There shall be a fifty dollar ($50.00) charge for all returned checks.

8. ARBITRATION. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled by arbitration administered by the American Arbitration Association under its Construction Industry Arbitration Rules. The parties recognize and agree that by agreeing to this provision, they are waiving any right they may have to a jury trial. Judgment on the arbitration award may be entered in any court having jurisdiction thereof.

9. BUYERS RIGHT TO CANCEL. If this agreement was solicited at or near your residence and you do not want the goods or services, you may cancel this agreement by mailing a notice to the seller. The notice must say that you do not want the goods or services and must be mailed before midnight of the third business day after you signed this contract. The notice must be mailed to: Energy Select LLC, P.O. Box 475, Leonardtown, MD, 20650. If you cancel within 3 days of signing, the seller may not keep any part of your cash down payment.

I hereby cancel this transaction. _____ Date: _____

10. After your 3-day right to cancel expires This Agreement can only be terminated upon mutual agreement. You will be subject to a termination fee which increases as the project progresses and will be determined on a case-by-case basis. Project progress guidelines are 1) Pre-engineering and within 4-7 days after signature, $1500, 2) Post engineering and past 7 days, $3000, 3) Post engineering and material staging and before physical work commencement, $5000, plus a 25% restocking fee on equipment (inverters, racking, batteries, PV modules). Customer will also be liable for any third party financing fees due as a result of cancellation.

11. Contractor agrees to provide the setup of solar system monitoring via wireless network or CAT5 through an existing high-speed wired internet connection. The Owner agrees to provide access to the internet router. The contractor is not responsible for firewall or other network setup and troubleshooting.

12. If due to pre-existing conditions, the Authority Having Jurisdiction (AHJ) requires additional work to meet code requirements, the Contractor is not responsible to meet those requirements. The Owner may contract with the Contractor via written change order to meet AHJ requirements.

13. If financed through a Contractor financing partner, all conditions of this contract are based on receiving lender approval within 60 days of contract signature.

14. Draw payments or signature(s) on loan documents may not be withheld under any circumstances after work is performed as defined under the System Description and Scope of Work.

15. Energy Select is not a tax professional and applications for tax related grants or rebates are the responsibility of the customer, namely the MD state tax credit (which is a first come, first served grant that has budgeted funds which may run out), the Federal Investment Tax Credit (ITC), and any local jurisdiction tax grants or benefits. Energy Select will handle all paperwork for the Solar Renewable Energy Credits (SRECS), System Monitoring, the Utility Interconnection Agreement, and the Maryland Clean Energy Rebate Program.

16. MISCELLANEOUS.

A. This Agreement constitutes the complete and exclusive statement of the agreement between the parties. It supersedes all prior written and oral statements, including any prior representation, statement, condition, or warranty. Except as expressly provided otherwise herein, this Agreement may not be amended without the written consent of the parties.

B. The headings herein are inserted as a matter of convenience only and do not define, limit or describe the scope of this Agreement or the intent of the provisions hereof.

Certificate of Appropriateness Application
Presentation of Information
By Ruth Davis-Rogers

COA#23-000063
Residential Home
Address: 308 Washington Street
Project Contact: Energy Select *(applicant)*

Project Summary:
This proposed project involves the installation of a solar Photovoltaic Electric system on the roof of this home as a means of energy for the home.

Property Description:
This property is located in the Washington Street Historic District. This historic district consists of a six-block stretch of this prominently sited thoroughfare that includes much of the City of Cumberland's most significant civic, religious, and residential architecture. This wide street, with brick sidewalks shaded by old-growth trees, is architecturally and historically significant. These structures represent the heyday of Cumberland, when the city was the second largest in the state (next to Baltimore) and was recognized as an important center of industry and transportation.

This house, located at 308 Washington Street, retains many of its original exterior features and commands attention. The Secretary of the Interior's Standards for the Treatment of Historic Properties address four types of treatments to properties undergoing renovations: preservation, rehabilitation, restoration, and reconstruction. As stated in the regulations (36 CFR Part 68), "one set of standards …will apply to a property undergoing treatment, depending upon the property's significance, existing physical condition, the extent of documentation available, and interpretive goals, when applicable. The Standards will be applied taking into consideration the economic and technical feasibility of each project." The purpose of these standards is to provide guidance, not case-specific advice, to historic building owners (and those involved) before beginning work. The renovation of this structure would be rehabilitation. Rehabilitation is defined 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, and/or architectural values.

The rapidly growing trend toward retrofitting homes to be more energy efficient has brought an increase in applications for the installation of solar energy systems on buildings within locally designated historic districts. 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

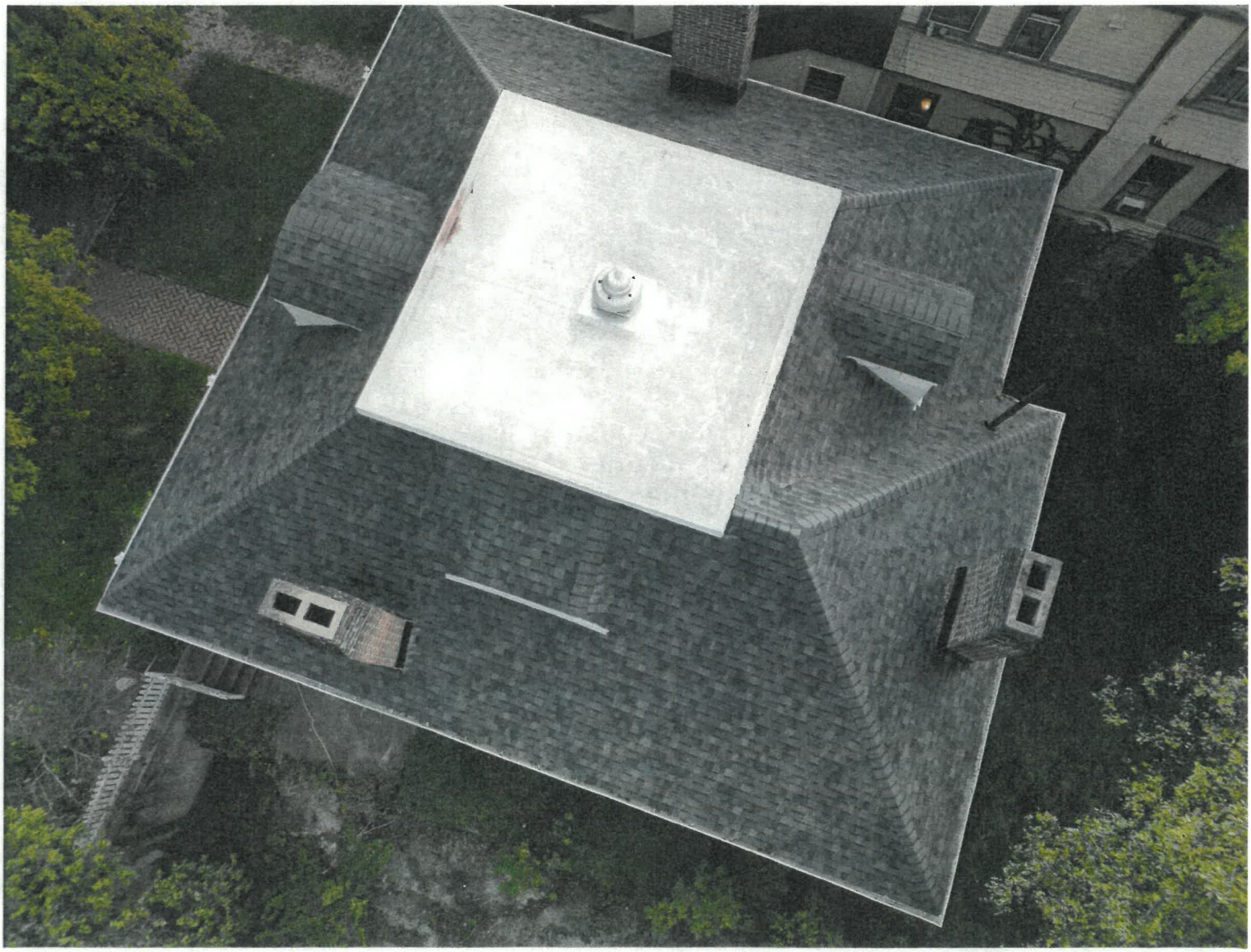
installations on historic homes, or homes located in historic districts, must be considered on a case-by-case basis recognizing that the best option will depend on the characteristics of the property under consideration. All solar panel installations should conform to the Secretary of the Interior's Standards for Rehabilitation. Generally speaking, 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.

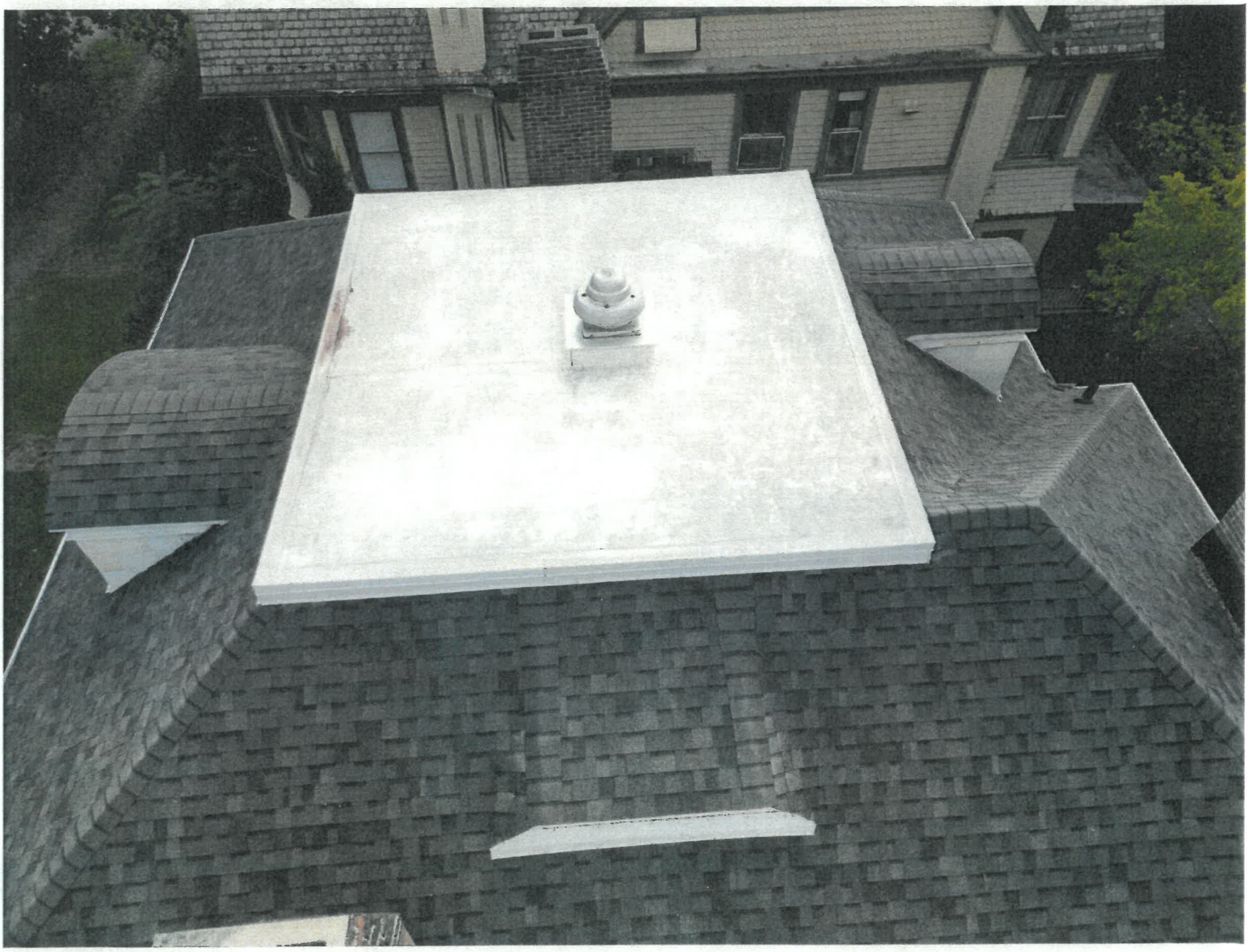
Applicable Standards to consider are:

Standard Two: The historic char acter 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.

308 Washington Street



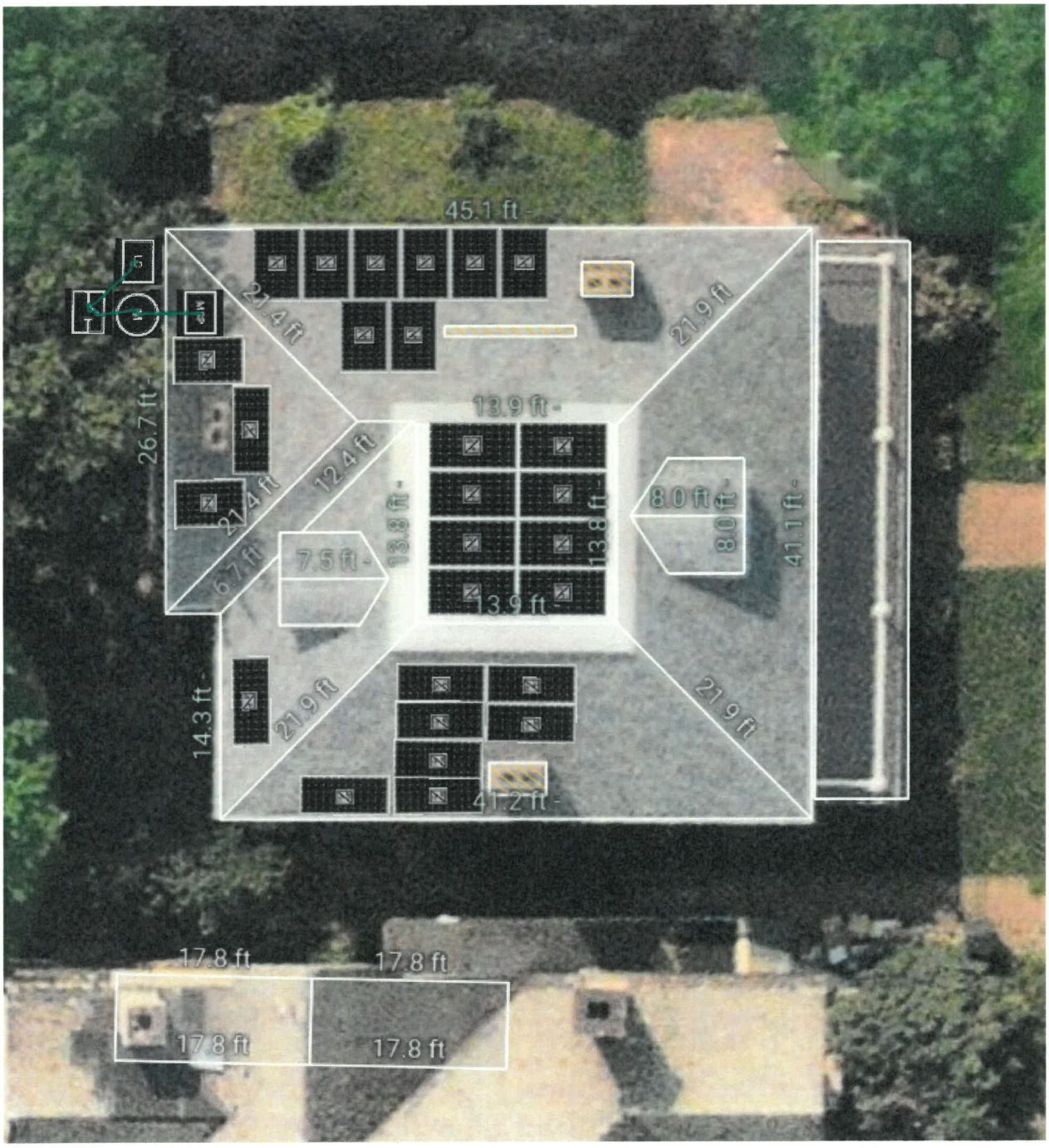


ENERGY SELECT
SOLAR + SOLUTIONS

Customer: Derek Call
Address: 308 Washington Street
Cumberland, MD

System size: 10.80 kW
Yr 1 Production: 8,786 kWh
Designer: Zach Schoonover
Date: November 7th, 2023

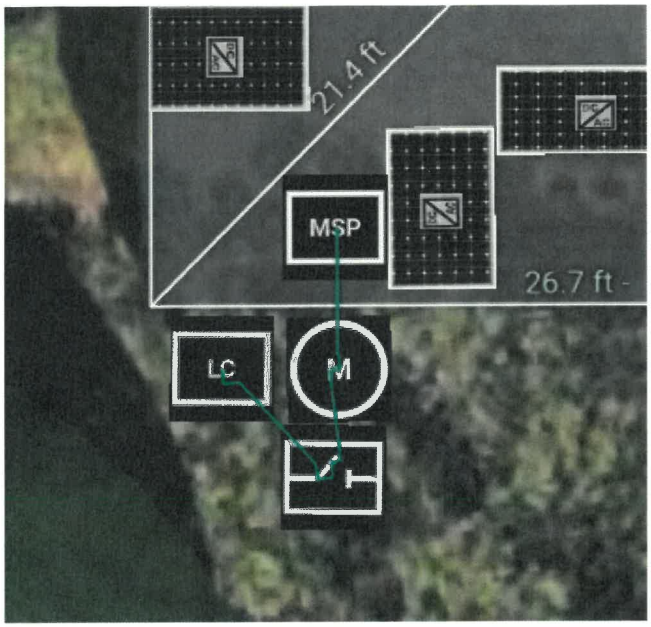
Site Assessment



powered by aurora

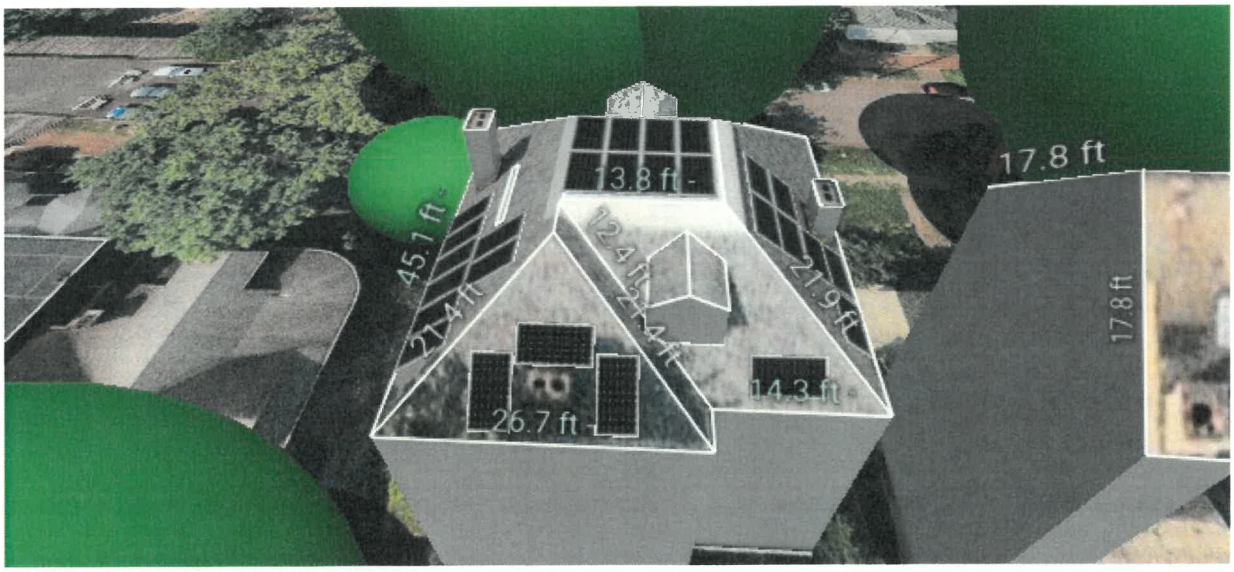
Site Assessment

Customer: Derek Call
Address: 308 Washington Street
Cumberland, MD



Component List

Manufacturer	Model	Quantity
Silfab Solar	SIL-400 HC+	27
Enphase Energy Inc.	IQ8PLUS-72-2-US	27
Enphase Energy Inc.	X-IQ-AM1-240-4	1
(none)	Meter	1
Square D	Non-Fused 100A AC D/C	1



Notes: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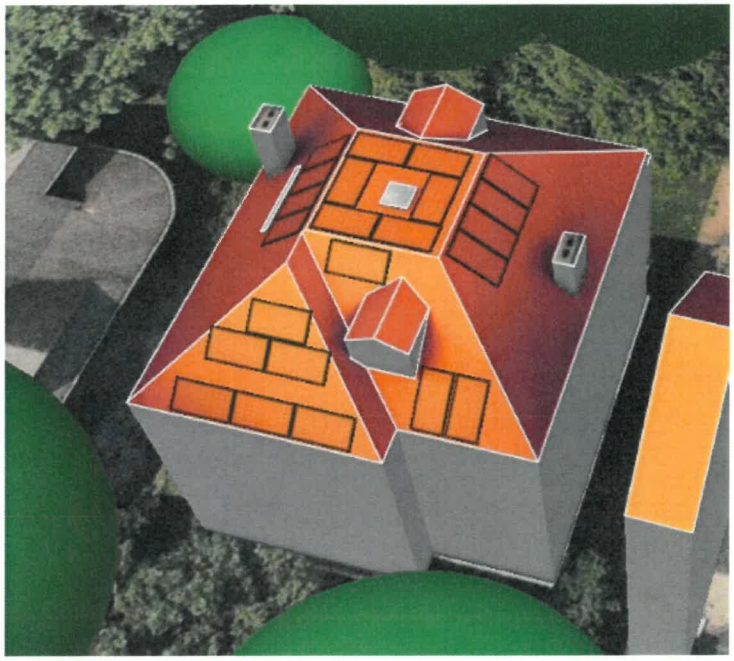
ENERGY SELECT
SOLAR + SOLUTIONS



Derek Call

308 Washington Street,
Cumberland, MD

Your New Solar System:

System Size: 9.2 kW

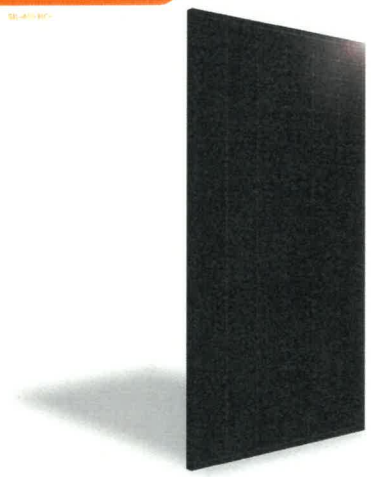
Year One Production: 9,462 kWh

Number of Solar Panels: 23

Electrical Usage Covered by Solar: 52%

SILFAB PRIME

SILFAB SOLAR



RELIABLE ENERGY. DIRECT FROM THE SOURCE.

Designed to outperform.

Dependable, durable, high-performance solar panels engineered for North American homeowners.

SILFABSOLAR.COM

ELECTRICAL SPECIFICATIONS		400	
Test Conditions		STC	NOCT
Module Power (Pmax)	Wp	400	298
Maximum power voltage (Vpmax)	V	36.05	33.50
Maximum power current (Ipmax)	A	11.10	8.90
Open circuit voltage (Voc)	V	43.62	40.35
Short circuit current (Isc)	A	11.58	9.34
Module efficiency	%	20.2%	18.8%
Maximum system voltage (VDC)	V	1000	
Series fuse rating	A	20	
Power Tolerance	Wp	0 to +10	

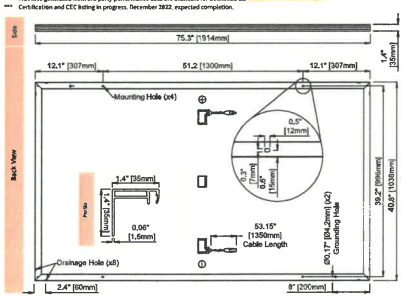
Measurement conditions: STC 1000 W/m² - AM 1.5 - Temperature 25 °C - NOCT 800 W/m² - AM 1.5 - Measurement uncertainty ± 3%
Sun simulator calibration reference modules from Fraunhofer Institute. Electrical characteristics may vary by ±5% and power by 0 to +10W.

MECHANICAL PROPERTIES / COMPONENTS	METRIC	IMPERIAL
Module weight	21.3kg ±0.2kg	47lbs ±0.4lbs
Dimensions (H x L x D)	1814 mm x 1016 mm x 35 mm	71.3 in x 40.0 in x 1.37 in
Maximum surface load (wind/snow)*	5400 Pa rear load / 5400 Pa front load	112.8 lb/ft² rear load / 112.8 lb/ft² front load
Hail impact resistance	ø 25 mm at 83 km/h	ø 1 in at 51.6 mph
Cells	132 Half cells - Si mono PERC 9 busbar - 83 x 166 mm	132 Half cells- Si mono PERC 9 busbar - 3.26 x 6.53 in
Glass	3.2 mm high transmittance, tempered, DSM antireflective coating	0.126 in high transmittance, tempered, DSM antireflective coating
Cables and connectors (refer to installation manual)	1350 mm, ø 5.7 mm, MC4 from Staubli	53 in, ø 0.22 in (12AWG), MC4 from Staubli
Backsheet	High durability, superior hydrolysis and UV resistance, multi-layer dielectric film, fluorine-free PV backsheet	
Frame	Anodized Aluminum (Black)	
Bypass diodes	3 diodes-30SQ045T (45V max DC blocking voltage, 30A max forward rectified current)	
Junction Box	UL 3730 Certified, IEC 62790 Certified, IP68 rated	

TEMPERATURE RATINGS		WARRANTIES	
Temperature Coefficient Isc	+0.064 %/°C	Module product workmanship warranty	25 years**
Temperature Coefficient Voc	-0.28 %/°C	Linear power performance guarantee	30 years ≥ 97.1% end 1st yr ≥ 91.6% end 12th yr ≥ 85.1% end 25th yr ≥ 82.6% end 30th yr
Temperature Coefficient Pmax	-0.36 %/°C		
NOCT (± 2°C)	45 °C		
Operating temperature	-40/+85 °C		

CERTIFICATIONS		SHIPPING SPECS	
Product	UL 61215-1-2017 Ed.1***, UL 61215-2-2017 Ed.1***, UL 61730-1:2017 Ed.1***, UL 61730-2:2017 Ed.1 ***, CSA C22.2#61730-1:2019 Ed.2***, CSA C22.2#61730-2:2019 Ed.2***, IEC 61215-1:2016 Ed.1***, IEC 61215-2:2016 Ed.1***, IEC 61730-1:2016 Ed.2***, IEC 61730-2:2016 Ed.2***, IEC 61701:2020 (Salt Mist Corrosion) , IEC 62716:2013 (Ammonia Corrosion), UL Fire Rating: Type 2, CEC Listing***	Modules Per Pallet:	26 or 26 (California)
		Pallets Per Truck	32 or 31 (California)
Factory	ISO9001:2015	Modules Per Truck	832 or 806 (California)

* ⚠ Warning: Read the Safety and Installation Manual for mounting specifications and before handling, installing and operating modules.
** 12 year extendable to 25 years subject to registration and conditions outlined under "Warranty" at
PAN files generated from 3rd party performance data are available for download at.
*** Certification and CEC listing in progress. December 2022. expected completion.



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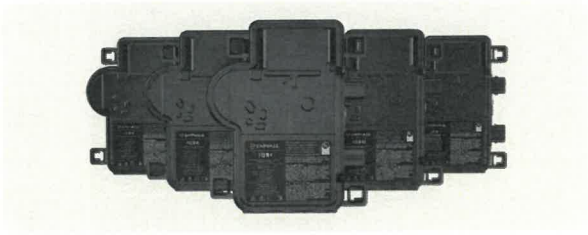
ENPHASE.

DATA SHEET



IQ8 Series Microinverters

Our newest IQ8 Microinverters are the industry's first microgrid-forming, software-defined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently. The brain of the semiconductor-based microinverter is our proprietary application-specific integrated circuit (ASIC) which enables the microinverter to operate in grid-tied or off-grid modes. This chip is built in advanced 55nm technology with high speed digital logic and has super-fast response times to changing loads and grid events, alleviating constraints on battery sizing for home energy systems.

Part of the Enphase Energy System, IQ8 Series Microinverters integrate with the Enphase IQ Battery, Enphase IQ Gateway, and the Enphase App monitoring and analysis software.

IQ8 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 25 years.

Connect PV modules quickly and easily to IQ8 Series Microinverters using the included Q-DCC-2 adapter cable with plug-n-play MC4 connectors.

IQ8 Series Microinverters are UL Listed as PV Rapid Shut Down Equipment and conform with various regulations, when installed according to manufacturer's instructions.

Easy to install

- Lightweight and compact with plug-n-play connectors
- Power Line Communication (PLC) between components
- Faster installation with simple two-wire cabling

High productivity and reliability

- Produce power even when the grid is down
- More than one million cumulative hours of testing
- Class II double-insulated enclosure
- Optimized for the latest high-powered PV modules

Microgrid-forming

- Complies with the latest advanced grid support
- Remote automatic updates for the latest grid requirements
- Configurable to support a wide range of grid profiles
- Meets CA Rule 21 (UL 1741-SA) requirements

IQ8 Series Microinverters

INPUT DATA (DC)		IQ8-60-2-US	IQ8PLUS-72-2-US	IQ8M-72-2-US	IQ8A-72-2-US	IQ8H-240-72-2-US	IQ8H-208-72-2-US[1]
Commonly used module pairings[2]	W	235 – 350	235 – 440	260 – 460	295 – 500	320 – 540+	295 – 500+
Module compatibility		60-cell/120 half-cell		60-cell/120 half-cell and 72-cell/144 half-cell			
MPPT voltage range	V	27 – 37	29 – 45	33 – 45	36 – 45	38 – 45	36 – 45
Operating range	V	25 – 48			25 – 58		
Min/max start voltage	V	30 / 48			30 / 58		
Max input DC voltage	V	50			60		
Max DC current[3] [module Isc]	A			15			
Overvoltage class DC port				II			
DC port backfeed current	mA			0			
PV array configuration		1x1 Ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit					
OUTPUT DATA (AC)		**IQ8-60-2-US**	**IQ8PLUS-72-2-US**	**IQ8M-72-2-US**	**IQ8A-72-2-US**	**IQ8H-240-72-2-US**	**IQ8H-208-72-2-US[1]**
Peak output power	VA	245	300	330	366	384	366
Max continuous output power	VA	240	290	325	349	380	360
Nominal (L-L) voltage/range[4]	V			240 / 211 – 264			208 / 183 – 250
Max continuous output current	A	1.0	1.21	1.35	1.45	1.58	1.73
Nominal frequency	Hz			60			
Extended frequency range	Hz			50 – 68			
Max units per 20 A (L-L) branch circuit[5]		16	13	11	11	10	9
Total harmonic distortion				<5%			
Overvoltage class AC port				III			
AC port backfeed current	mA			30			
Power factor setting				1.0			
Grid-tied power factor (adjustable)				0.85 leading – 0.85 lagging			
Peak efficiency	%	97.5	97.6	97.6	97.6	97.6	97.4
CEC weighted efficiency	%	97	97	97	97.5	97	97
Night-time power consumption	mW			60			
MECHANICAL DATA							
Ambient temperature range		-40°C to +60°C (-40°F to +140°F)					
Relative humidity range		4% to 100% (condensing)					
DC Connector type		MC4					
Dimensions (HxWxD)		212 mm (8.3") x 175 mm (6.9") x 30.2 mm (1.2")					
Weight		1.08 kg (2.38 lbs)					
Cooling		Natural convection – no fans					
Approved for wet locations		Yes					
Acoustic noise at 1 m		<60 dBA					
Pollution degree		PD3					
Enclosure		Class II double-insulated, corrosion resistant polymeric enclosure					
Environ. category / UV exposure rating		NEMA Type 6 / outdoor					
COMPLIANCE							
Certifications		CA Rule 21 (UL 1741-SA), UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 section 690.12 and C22.1-2018 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according to manufacturer's instructions.					

(1) The IQ8H-208 variant will be operating in grid-tied mode only at 208V AC. (2) No enforced DC/AC ratio. See the compatibility calculator at https://link.enphase.com/module-compatibility (3) Maximum continuous input DC current is 10.6A (4) Nominal voltage range can be extended beyond nominal if required by the utility. (5) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

Data Sheet
Enphase Networking

IQ Combiner 4/4C

The **IQ Combiner 4/4C** with IQ Gateway and integrated LTE-M1 cell modem (included only with IQ Combiner 4C) consolidates interconnection equipment into a single enclosure. It streamlines IQ Microinverters and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.

X-IQ-AM1-240-4C
X2-IQ-AM1-240-4C (IEEE 1547:2018)

X-IQ-AM1-240-4
X2-IQ-AM1-240-4 (IEEE 1547:2018)

Smart

- Includes IQ Gateway for communication and control
- Includes Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), included only with IQ Combiner 4C
- Includes solar shield to match Enphase IQ Battery aesthetics and deflect heat
- Supports Wi-Fi, Ethernet, or cellular connectivity
- Optional AC receptacle available for PLC bridge
- Provides production metering and consumption monitoring

Simple

- Mounts on single stud with centered brackets
- Supports bottom, back and side conduit entry
- Allows up to four 2-pole branch circuits for 240VAC plug-in breakers (not included)
- 80A total PV or storage branch circuits

Reliable

- Durable NRTL-certified NEMA type 3R enclosure
- Five-year limited warranty
- Two years labor reimbursement program coverage included for both the IQ Combiner SKUs
- UL listed
- X2-IQ-AM1-240-4 and X2-IQ-AM1-240-4C comply with IEEE 1547:2018 (UL 1741-SB, 3rd Ed.)

LISTED

To learn more about Enphase offerings, visit enphase.com

ENPHASE

IQ Combiner 4/4C

MODEL NUMBER	
IQ Combiner 4 X-IQ-AM1-240-4 X2-IQ-AM1-240-4 (IEEE 1547:2018)	IQ Combiner 4 with IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 ± 0.5%) and consumption monitoring (± 2.5%). Includes a silver solar shield to match the IQ Battery and IQ System Controller 2 and to deflect heat.
IQ Combiner 4C X-IQ-AM1-240-4C X2-IQ-AM1-240-4C (IEEE 1547:2018)	IQ Combiner 4C with IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 ± 0.5%) and consumption monitoring (± 2.5%). Includes Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), a plug-and-play industrial-grade cell modem for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.) Includes a silver solar shield to match the IQ Battery and IQ System Controller and to deflect heat.
ACCESSORIES AND REPLACEMENT PARTS	(not included, order separately)
Supported microinverters	IQ8, IQ7, and IQ8. (Do not mix IQ8/7 Microinverters with IQ8)
Communications Kit COMMS-CELLMODEM-M1-06 CELLMODEM-M1-06-SP-05 CELLMODEM-M1-06-AT-BS	- Includes COMMS-KIT-01 and CELLMODEM-M1-06-SP-05 with 5 year Sprint data plan - 4G based LTE-M1 cellular modem with 5 year Sprint data plan - 4G based LTE-M1 cellular modem with 5 year AT&T data plan
Circuit Breakers BRK-10A-2-240V BRK-15A-2-240V BRK-20A-2P-240V BRK-15A-2P-240V-B BRK-20A-2P-240V-B	Supports Eaton BR210, BR215, BR220, BR230, BR240, BR250, and BR260 circuit breakers. Circuit breaker, 2 pole, 10A, Eaton BR210 Circuit breaker, 2 pole, 15A, Eaton BR215 Circuit breaker, 2 pole, 20A, Eaton BR220 Circuit breaker, 2 pole, 15A, Eaton BR215B with hold down kit support Circuit breaker, 2 pole, 20A, Eaton BR220B with hold down kit support
XA-SOLARSHIELD-ES	Replacement solar shield for IQ Combiner 4/4C
XA-PLUG-120-3	Accessory receptacle for Power Line Carrier in IQ Combiner 4/4C (required for EPLC-01)
X-IQ-NA-HD-125A	Hold down kit for Eaton circuit breaker with screws
Consumption monitoring CT (CT-200-SPL/CT-200-CLAMP)	A pair of 200A split core current transformers
ELECTRICAL SPECIFICATIONS	
Rating	Continuous duty
System voltage	120/240VAC, 60 Hz
Eaton BR series busbar rating	125A
Max. continuous current rating	65A
Max. continuous current rating (input from PV/storage)	64A
Max. fuse/circuit rating (output)	90A
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series Distributed Generation (DG) breakers only (not included)
Max. total branch circuit breaker rating (input)	80A of distributed generation/95A with IQ Gateway breaker included
IQ Gateway breaker	15A or 15A rating GE/Siemens/Eaton included
Production metering CT	200A solid core pre-installed and wired to IQ Gateway
MECHANICAL DATA	
Dimensions (WxHxD)	37.5 cm x 49.5 cm x 16.8 cm (14.75 in x 19.5 in x 6.63 in). Height is 53.5 cm (21.06 in) with mounting brackets.
Weight	7.5 kg (16.5 lbs)
Ambient temperature range	-40°C to +46°C (-40°F to 115°F)
Cooling	Natural convection, plus heat shield
Enclosure environmental rating	Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction
Wire sizes	• 20A to 60A breaker inputs: 14 to 4 AWG copper conductors • 60A breaker branch input: 4 to 1/0 AWG copper conductors • Main lug combined output: 10 to 2/0 AWG copper conductors • Neutral and ground: 14 to 1/0 copper conductors • Always follow local code requirements for conductor sizing.
Altitude	Up to 3,000 meters (9,842 feet)
INTERNET CONNECTION OPTIONS	
Integrated Wi-Fi	IEEE 802.11b/g/n
Cellular	CELLMODEM-M1-06-SP-05, CELLMODEM-M1-06-AT-05 (4G based LTE-M1 cellular modem). Note that an Mobile Connect cellular modem is required for all Enphase Energy System installations.
Ethernet	Optional, IEEE 802.3, Cat5E (or Cat6) UTP Ethernet cable (not included)
COMPLIANCE	
Compliance, IQ Combiner	CA Rule 21 (UL 1741-SA) IEEE 1547:2018 - UL 1741-SB, 3rd Ed. (X2-IQ-AM1-240-4 and X2-IQ-AM1-240-4C) CAN/CSA C22.2 No. 107.1, Title 47 CFR, Part 15, Class B, ICES-003 Production metering: ANSI C12.20 accuracy class 0.5 (PV production) Consumption metering: accuracy class 2.5
Compliance, IQ Gateway	UL 60601-1/CAN/CSA 22.2 No. 61010-1

Tech Brief

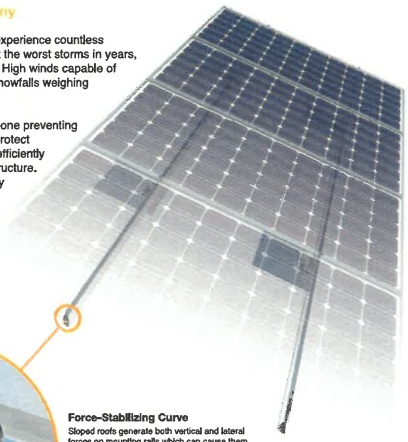
IRONRIDGE

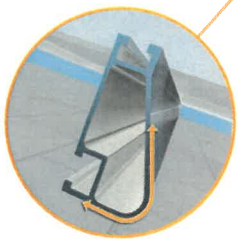
XR Rail Family

Solar Is Not Always Sunny

Over their lifetime, solar panels experience countless extreme weather events. Not just the worst storms in years, but the worst storms in 40 years. High winds capable of ripping panels from a roof, and snowfalls weighing enough to buckle a panel frame.

XR Rails are the structural backbone preventing these results. They resist uplift, protect against buckling and safely and efficiently transfer loads into the building structure. Their superior spanning capability requires fewer roof attachments, reducing the number of roof penetrations and the amount of installation time.





Force-Stabilizing Curve

Sloped roofs generate both vertical and lateral forces on mounting rails which can cause them to bend and twist. The curved shape of XR Rails is specially designed to increase strength in both directions while resisting the twisting. This unique feature ensures greater security during extreme weather and a longer system lifetime.

Compatible with Flat & Pitched Roofs

XR Rails are compatible with FlashFoot and other pitched roof attachments.

IronRidge offers a range of tilt leg options for flat roof mounting applications.

Corrosion-Resistant Materials

All XR Rails are made of 6000-series aluminum alloy, then protected with an anodized finish. Anodizing prevents surface and structural corrosion, while also providing a more attractive appearance.

Tech Brief

XR Rail Family

The XR Rail Family offers the strength of a curved rail in three targeted sizes. Each size supports specific design loads, while minimizing material costs. Depending on your location, there is an XR Rail to match.

XR10

XR10 is a sleek, low-profile mounting rail, designed for regions with light or no snow. It achieves spans up to 6 feet, while remaining light and economical.

- 6' spanning capability
- Moderate load capability
- Clear & black anodized finish
- Internal splices available

XR100

XR100 is the ultimate residential mounting rail. It supports a range of wind and snow conditions, while also maximizing spans up to 10 feet.

- 10' spanning capability
- Heavy load capability
- Clear & black anodized finish
- Internal splices available

XR1000

XR1000 is a heavyweight among solar mounting rails. It's built to handle extreme climates and spans up to 12 feet for commercial applications.

- 12' spanning capability
- Extreme load capability
- Clear anodized finish
- Internal splices available

Rail Selection

The table below was prepared in compliance with applicable engineering codes and standards.* Values are based on the following criteria: ASCE 7-16, Gable Roof Flush Mount, Roof Zones 1 & 2e, Exposure B, Roof Slope of 8 to 20 degrees and Mean Building Height of 30 ft. Visit IronRidge.com for detailed certification letters.

Load		Rail Span					
Snow (PSF)	Wind (MPH)	4'	5' 4"	6'	8'	10'	12'
None	90						
	120						
	140	XR10		XR100		XR1000	
	160						
20	90						
	120						
	140						
	160						
30	90						
	160						
40	90						
	160						
80	160						
120	160						

Table is meant to be a simplified span chart for conveying general rail capabilities. Use approved certification letters for actual design guidance.

Tech Brief

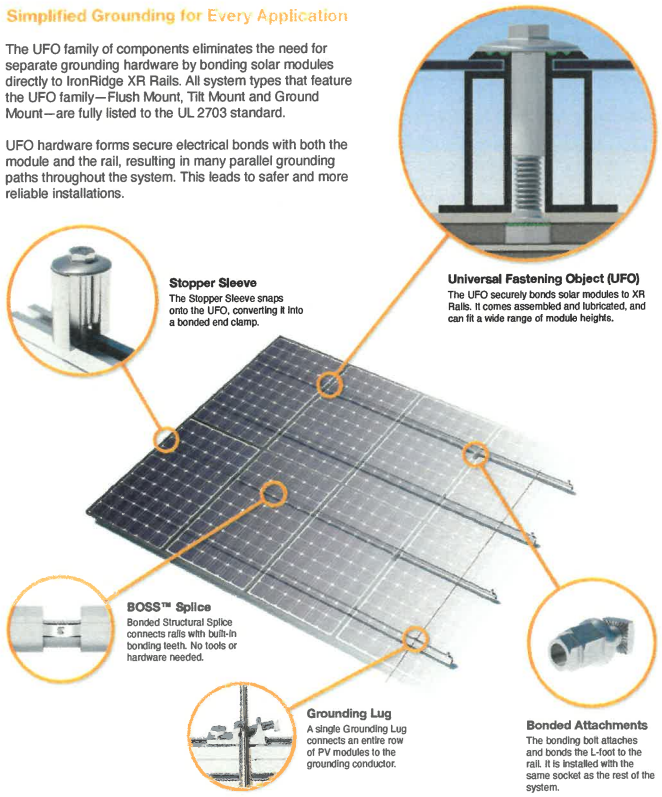
IRONRIDGE

UFO Family of Components

Simplified Grounding for Every Application

The UFO family of components eliminates the need for separate grounding hardware by bonding solar modules directly to IronRidge XR Rails. All system types that feature the UFO family—Flush Mount, Tilt Mount and Ground Mount—are fully listed to the UL 2703 standard.

UFO hardware forms secure electrical bonds with both the module and the rail, resulting in many parallel grounding paths throughout the system. This leads to safer and more reliable installations.



Stopper Sleeve
The Stopper Sleeve snaps onto the UFO, converting it into a bonded end clamp.

Universal Fastening Object (UFO)
The UFO securely bonds solar modules to XR Rails. It comes assembled and lubricated, and can fit a wide range of module heights.

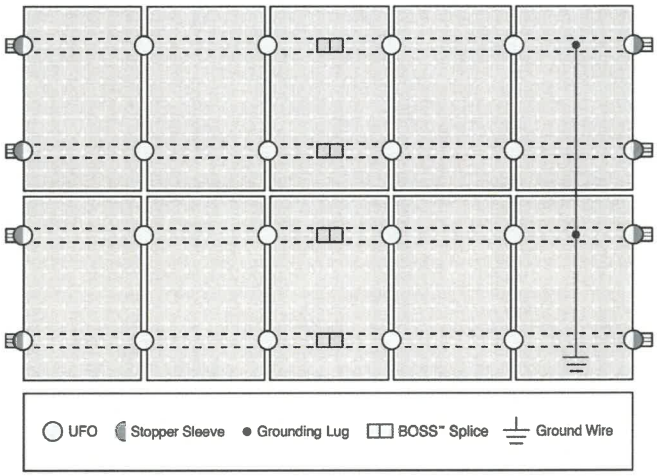
BOSS™ Splice
Bonded Structural Splice connects rails with built-in bonding teeth. No tools or hardware needed.

Grounding Lug
A single Grounding Lug connects an entire row of PV modules to the grounding conductor.

Bonded Attachments
The bonding bolt attaches and bonds the L-foot to the rail. It is installed with the same socket as the rest of the system.

Tech Brief

System Diagram



Approved Enphase microinverters can provide equipment grounding of IronRidge systems, eliminating the need for grounding lugs and field installed equipment ground conductors (EGC). A minimum of two microinverters mounted to the same rail and connected to the same Engage cable is required. Refer to installation manuals for additional details.

UL Certification

The IronRidge Flush Mount, Tilt Mount, and Ground Mount Systems have been listed to UL 2703 by Intertek Group plc.

UL 2703 is the standard for evaluating solar mounting systems. It ensures these devices will maintain strong electrical and mechanical connections over an extended period of time in extreme outdoor environments.

Go to IronRidge.com/UFO

Cross-System Compatibility			
Feature	**Flush Mount**	**Tilt Mount**	**Ground Mount**
XR Rails	✔	✔	XR100 & XR1000
UFO/Stopper	✔	✔	✔
BOSS™ Splice	✔	✔	N/A
Grounding Lugs	1 per Row	1 per Row	1 per Array
Microinverters & Power Optimizers	Compatible with most MLPE manufacturers. Refer to system installation manual.		
Fire Rating	Class A	Class A	N/A
Modules	Tested or Evaluated with over 400 Framed Modules Refer to installation manuals for a detailed list.		

Tech Brief

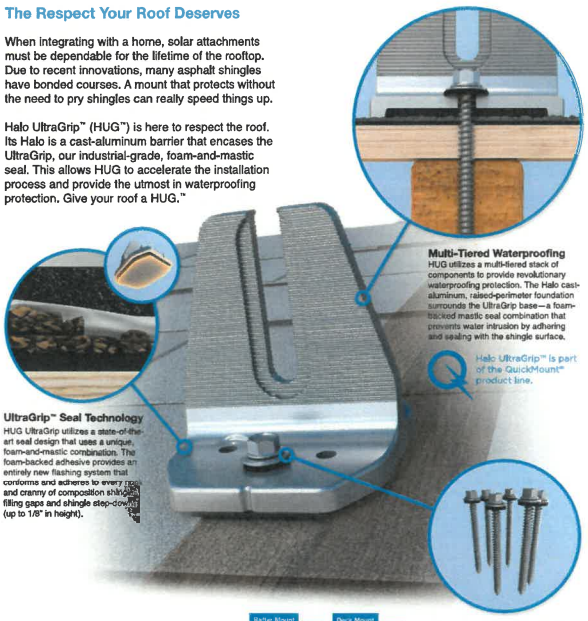
IRONRIDGE

QuickMount® HUG

The Respect Your Roof Deserves

When integrating with a home, solar attachments must be dependable for the lifetime of the rooftop. Due to recent innovations, many asphalt shingles have bonded courses. A mount that protects without the need to pry shingles can really speed things up.

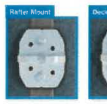
Halo UltraGrip™ (HUG™) is here to respect the roof. Its Halo is a cast-aluminum barrier that encases the UltraGrip, our industrial-grade, foam-and-mastic seal. This allows HUG to accelerate the installation process and provide the utmost in waterproofing protection. Give your roof a HUG.™



Multi-Tiered Waterproofing
HUG utilizes a multi-tiered stack of components to provide revolutionary waterproofing protection. The Halo cast-aluminum, raised-perimeter foundation surrounds the UltraGrip base—a foam-backed mastic seal combination that prevents water intrusion by adhering and sealing with the shingle surface.

Halo UltraGrip™ is part of the QuickMount™ product line.

UltraGrip™ Seal Technology
HUG UltraGrip utilizes a state-of-the-art seal design that uses a unique, foam-and-mastic combination. The foam-backed adhesive provides an entirely new flashing system that conforms and adheres to every [illegible] and cranny of composition shingle, filling gaps and shingle step-downs (up to 1/8" in height).



Rafter & Deck Mounting Options
Mount HUG to the roof rafters, the roof deck, or both with our custom-engineered RD (rafter-or-deck) Structural Screw. The RD Structural Screw anchors HUG to the roof with an EPDM sealing washer, completing the stack of waterproofing barriers. See backside for more installation information.

Intertek

Triple Rated & Certified to Respect the Roof™
UL 2703, 441 (27)
TAS 100(A)-95

Tech Brief

Adaptive, Rafter-Friendly Installation

Hit the rafter? Good to go!
When you find a rafter, you can move on. Only 2 RD Structural Screws are required.

Miss the rafter? Try it again.
Place another screw to the left or right. If rafter is found, install 3rd and final screw.

Still no luck? Install the rest.
If more than 3 screws miss the rafter, secure six screws to rack mount it.

Trusted Strength & Less Hassle

Structural capacities of HUG™ were reviewed in many load directions, with racking rail running cross-slope or up-slope in relation to roof pitch.

For further details, see the HUG certification letters for attaching to rafters and decking.

IronRidge designed the HUG, in combination with the RD Structural Screw to streamline installs, which means the following:

- No prying shingles
- No roof nail interference
- No pilot holes necessary
- No sealant (in most cases)
- No butyl shims needed

Attachment Loading

The rafter-mounted HUG has been tested and rated to support 1004 (lbs) of uplift and 368 (lbs) of lateral load.

Structural Design

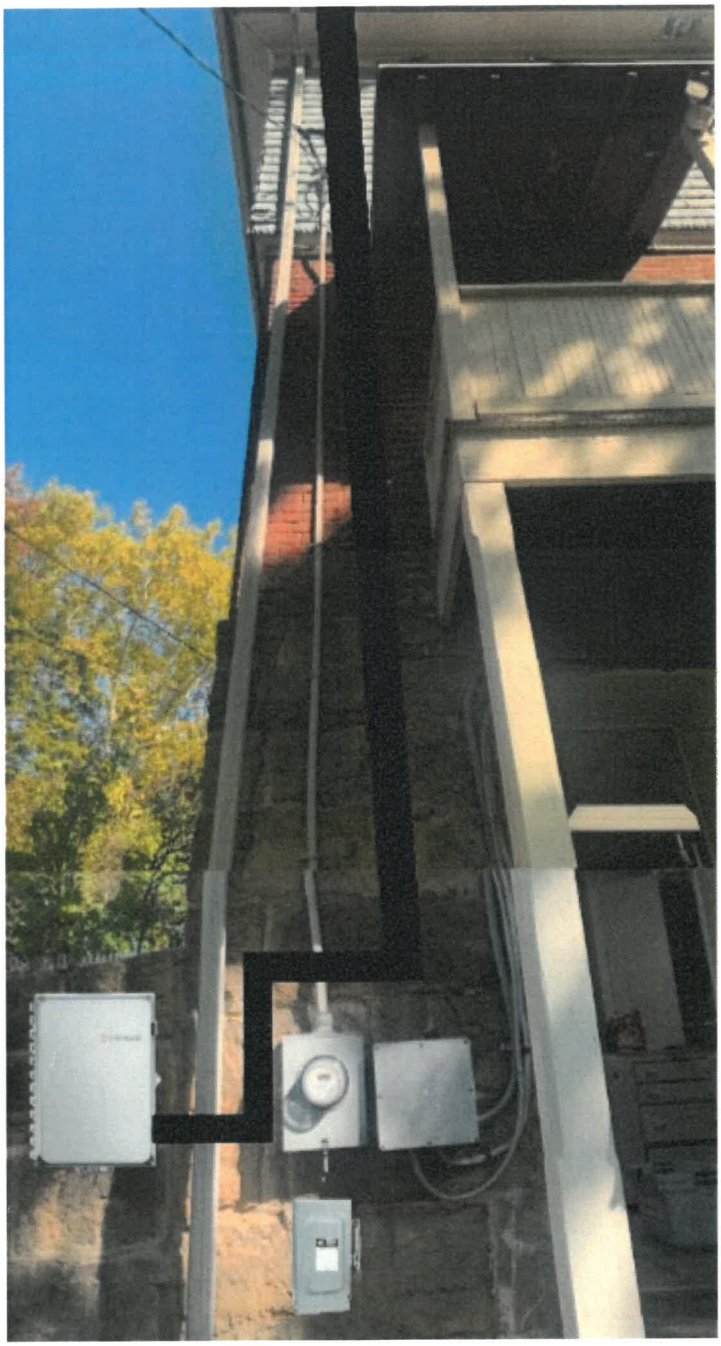
Parts are designed and certified for compliance with the International Building Code & ASCE/SEI-7.

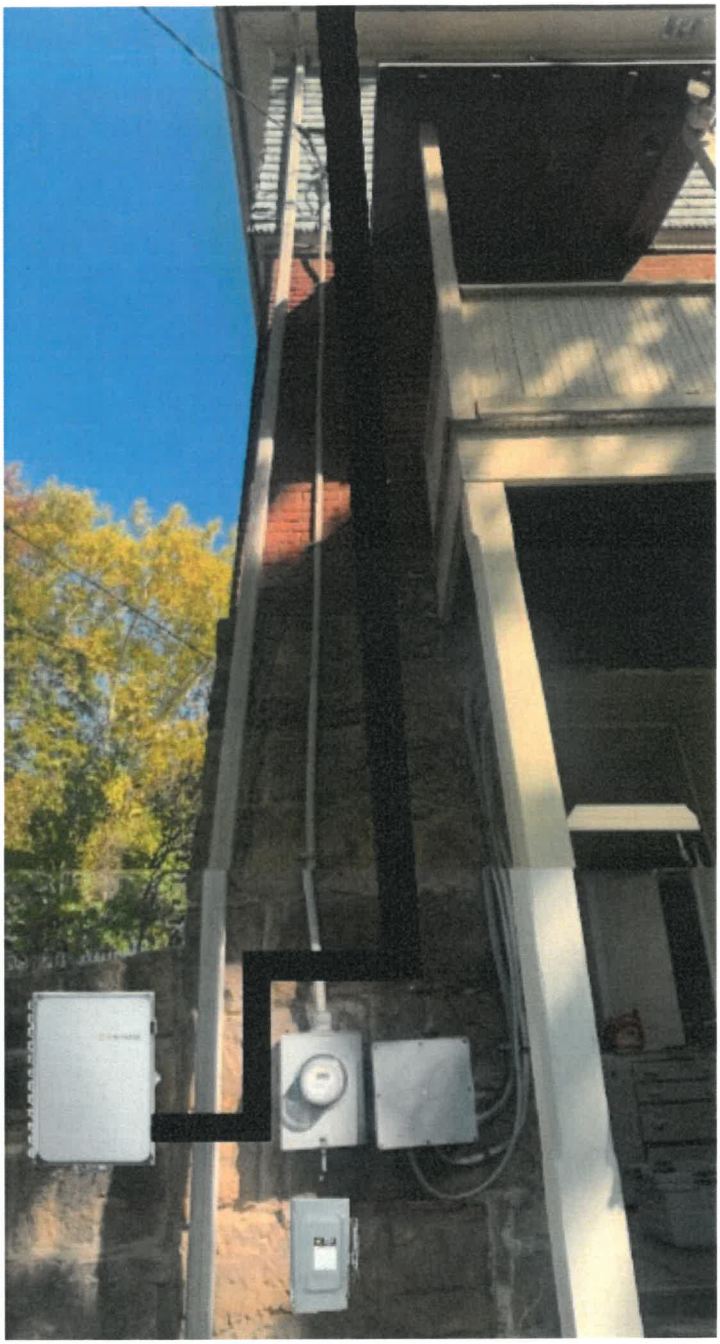
Water Seal Ratings

HUG passed both the UL 441 Section 27 "Rain Test" and TAS 100(A)-95 "Wind Driven Rain Test" by Intertek.

UL 2703 System

Systems conform to UL 2703 mechanical and bonding requirements. See Flush Mount Manual for more info.





Gmail

Robyn Roberts <robyn.roberts@cumberlandmd.gov>

Re: Certificate of Appropriateness Permit

1 message

Brooke Barnett <brooke@energyselectllc.com> Wed, Nov 8, 2023 at 8:18 AM
To: Ruth Davis-Rogers <ruth.davis-rogers@cumberlandmd.gov>
Cc: Robyn Roberts <robyn.roberts@cumberlandmd.gov>

Good morning, Ruth and Robyn :)

I've attached several after pictures of our completed installations. Of course we would not put any panels on the front of the house, but this should give you a better idea of how the panels look.

On Tue, Nov 7, 2023 at 15:11 Ruth Davis-Rogers <ruth.davis-rogers@cumberlandmd.gov> wrote:

> Brooke,
> If you could submit after pictures, of other similar installations that have been completed, it would help the HPC visualize how the solar panels will look.
> Thanks!
> ~Ruth
>
> On Tue, Nov 7, 2023 at 2:50 PM Brooke Barnett <brooke@energyselectllc.com> wrote:
>
> > Hi Ruth and Robin,
> >
> > Our engineer is working on the drawings and my hope is that we can submit everything for the COA permit by Wednesday for review at the next HPC meeting. I'm not sure he will be able to complete the design before then, but he's working on it. In the interim, I am sending over what we have for your review. Can you please let me know if you see anything that needs attention before submitting with the engineering plans?
> >
> > Thank you!!
> > --
> > **Brooke Barnett**
> > *Managing Director*
> >
> > ENERGY SELECT
> > WE KNOW ENERGY
> > 119 Baltimore Street, Cumberland, MD 21502
> > EnergySelectLLC.com | Tel: 301-747-1294
>
> On Mon, Nov 6, 2023 at 12:41 PM Ruth Davis-Rogers <ruth.davis-rogers@cumberlandmd.gov> wrote:
>
> > Brooke,

National Alliance of Preservation Commissions

NAPC

Sample Guidelines for Solar Systems in Historic Districts

education + advocacy + training

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

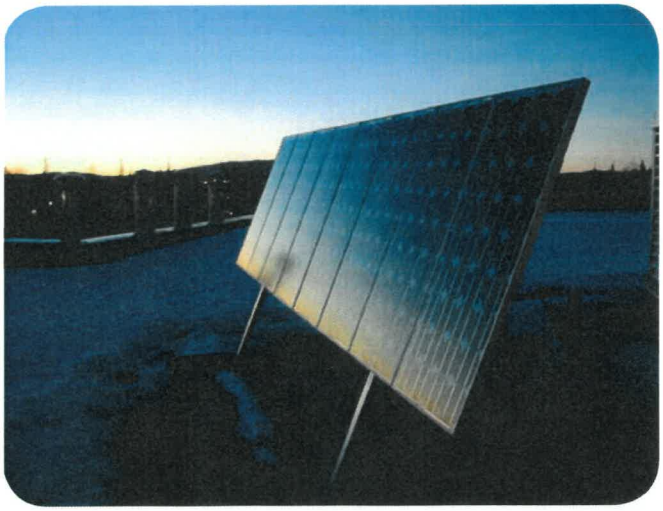
A photovoltaic system (or PV system) is a system which uses one or more solar panels to convert sunlight into electricity. It consists of multiple components, including the photovoltaic modules, mechanical and electrical connections and mountings and means of regulating and/or modifying the electrical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

- ## Solar Shingles

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-of-way.

- 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.)

NAPC

"Helping local preservation commissions succeed through education, advocacy, and training"

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Technical Preservation Services

Solar Panels on Historic Properties

Installing solar panels and meeting the Secretary of the Interior's Standards for Rehabilitation

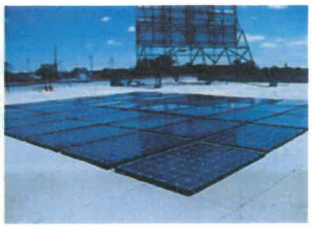
Solar panels installed on a historic property in a location that cannot be seen from the ground will generally meet the Secretary of the Interior's Standards for Rehabilitation. Conversely, an installation that negatively impacts the historic character of a property will not meet the Standards. But what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

See examples of solar panels on historic properties

- Solar panels on a new addition (https://www.nps.gov/articles/000/solar-panels-on-historic-properties-new-addition.htm)
- Solar panels on a flat roof (https://www.nps.gov/articles/000/solar-panels-on-historic-properties-flat-roof.htm)
- Pole-mounted array of solar panels (https://www.nps.gov/articles/000/solar-panels-on-historic-properties-pole-mounted-array.htm)
- Solar panel on a low-slope gable (https://www.nps.gov/articles/000/solar-panels-on-historic-properties-low-slope-gable.htm)
- Solar panels on a cross gable (https://www.nps.gov/articles/000/solar-panels-on-historic-properties-cross-gable.htm)
- Solar panels on a rear porch roof (https://www.nps.gov/articles/000/solar-panels-on-historic-properties-rear-porch-roof.htm)
- Avoiding the impact of solar panels on a cultural landscape (https://www.nps.gov/articles/000/solar-panels-on-historic-properties-avoiding-impact-cultural-landscape.htm)

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 popping up from the roof negatively impacts the character of this mid-twentieth century house and does not meet the Standards for Rehabilitation.

Last updated: September 8, 2022

Was this page helpful?

- ◯ Yes
- ◯ No

EXPERIENCE MORE

SUBJECTS

Historic Preservation (https://www.nps.gov/subjects/historicpreservation)

ORGANIZATIONS

Cultural Resources Partnerships and Science Directorate (https://www.nps.gov/orgs/1345)