

## **Lasley, Timothy G**

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**From:** Lasley, Timothy G  
**Sent:** Thursday, July 19, 2018 10:02 AM  
**To:** 'dwalsh@altenergyinc.com'  
**Cc:** Werner, Jeffrey B; Mess, Camie  
**Subject:** BAR Actions - July 17, 2018 - 503 Lexington Avenue

July 19, 2018

### **Certificate of Appropriateness Application (Historic Conservation District)**

BAR 17-07-05

503 Lexington Avenue; Tax Parcel 530218000

Sean Lymon, owner/Alt Energy Inc., Daniel Walsh, applicant

Addition of Solar Panels

Dear Applicant,

The above referenced project was discussed before a meeting of the City of Charlottesville Board of Architectural Review (BAR) on May 15, 2018. The following action was taken:

[Approved on Consent Agenda \(7-0\).](#)

This certificate of appropriateness shall expire in 18 months (January 17, 2020), unless within that time period you have either: been issued a building permit for construction of the improvements if one is required, or if no building permit is required, commenced the project. You may request an extension of the certificate of appropriateness before this approval expires for one additional year for reasonable cause.

If you have any questions, please contact me at 434-970-3130 or [wernerjb@charlottesville.org](mailto:wernerjb@charlottesville.org).

Sincerely yours,  
Jeff Werner

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### **Tim Lasley**

Intern | Historic Preservation and Design Planning  
City of Charlottesville | Neighborhood Development Services  
University of Virginia | Class of 2020  
School of Architecture

Phone: (434)970-3185

Email: [lasleyt@charlottesville.org](mailto:lasleyt@charlottesville.org)

**CITY OF CHARLOTTESVILLE  
BOARD OF ARCHITECTURAL REVIEW  
STAFF REPORT  
July 17, 2018**



**Certificate of Appropriateness Application (Historic Conservation District)**

BAR 17-07-05

503 Lexington Avenue

Tax Parcel 530218000

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**Background**

This contributing structure in the Martha Jefferson Historic district is a well-preserved, 2-story, 2-bay, hipped-roof dwelling built in 1906 by L.B. Taylor. Its hipped roof, encircling porch stretches across the entire façade as well as half of the south elevation and terminates against the hipped roof rear wing of the house, which is placed just south of the south elevation, creating a recessed portion to the façade. It is approached by 4 wooden steps flanked by wooden railings, and features a spindle balustrade, turned posts with knobs, and small scroll brackets. Engaged turned post with knobs terminate the porch against the front of the building. The southern end of the east-facing façade includes a window and the front door, while the east bay features only 1 1/1-sash window. Each of the bays on the 2nd floor features 1 2/2-sash window. All of the windows have louvered shutters. A hipped-roof dormer with 3 casement windows extends out of the center of the asphalt shingle-covered roof. The recessed wing has an additional entrance facing the street on the 1st floor and a single window on the 2nd floor.



**Application**

The applicant wishes to install an array of solar panels on the southwest facing roof. The modules will be wired into one string of 10 modules in series and one string of 15 modules in series. The DC output circuits will be run internally in the attic and externally down the wall in a metallic conduit to the inverter mounted outside on the southeast wall of the house.

**Criteria, Standards, and Guidelines**

**Review Criteria Generally**

*Sec. 34-341(a) of the City Code states that,*

*In considering a particular application the BAR shall approve the application unless it finds:*

- (1) That the proposal does not meet specific standards set forth within this division or applicable provisions of the conservation district design guidelines; and*
- (2) The proposal is incompatible with the historic, cultural or architectural character of the conservation district in which the property is located.*

**Standards for Review of New Construction and Additions include:**

- (1) *Whether the form, height, scale, mass and placement of the proposed construction are visually and architecturally compatible with the site and the applicable conservation district;*
- (2) *The harmony of the proposed changes in terms of overall proportion and the size and placement of entrances and windows;*
- (3) *The impact of the proposed change on the essential architectural form and integrity of the existing building;*
- (4) *The effect, with respect to architectural considerations, of the proposed change on the conservation district neighborhood;*
- (5) *Any applicable provisions of the city's conservation district design guidelines.*

## **Pertinent Design Review Guidelines for New Construction and Additions**

### Building Location – Setback and Orientation

- 1. Align a new building close to the average building setback line on the same street, if established, or consistent with the surrounding area.*
- 2. Maintain existing consistency in spacing between buildings on the same street.*
- 3. The front elevation should be respectful of the neighborhood characteristics and features of adjacent buildings.*

### Building Scale – Height and Massing

- 1. Keep the footprint, and massing of new buildings consistent with the neighborhood characteristics and compatible with the character of buildings on the same street.*
- 2. Keep the height and width of new buildings within 200% of the prevailing height and width in the surrounding neighborhood.*
- 3. An addition should not visually overpower the existing building.*
- 4. Multi-lot buildings (commercial or multi-family) should be designed and articulated to be compatible with the scale of the majority of adjacent buildings on the same street or block.*

### Building Form – Roofs and Porches

- 1. Roof forms should be respectful of contributing buildings on the same street or surrounding area.*
- 2. If many of the contributing buildings on the same street have porches, then including a porch or similar form in the design of a new residence is strongly recommended.*

### Building Openings - Doors and Windows

- 1. A single entrance door (or both doors, if a two-family dwelling, or main entrance if a multifamily dwelling) facing the street is recommended.*
- 2. Window and door patterns and the ratio of solids (wall area) to voids (window and door area) of new buildings should be compatible with contributing buildings in the surrounding area.*
- 3. Windows should be simple shapes compatible with those on contributing buildings, and should be oriented vertically (taller than they are wide).*

### Building Materials and Textures

- 1. The selection of materials and textures for a new building should relate architecturally to the Charlottesville locality, and should be compatible with and complementary to neighboring buildings.*
- 2. Sustainable materials are preferred, including brick, wood, stucco, and cementitious siding and trim, and standing seam metal roofs. Clear glass windows are preferred.*

### Building Colors

- 1. The selection and use of colors for a new building should be coordinated and compatible with adjacent buildings, not intrusive.*

*2. More lively color schemes may be appropriate in certain sub-areas dependent on the context of the sub-areas and the design of the building.*

**Site**

*1. Fences or walls in front yards (including fences in the side yards between the street and the front of the house) should not exceed three and one-half feet in height.*

**Discussion and Recommendations**

The proposed location for the solar panels is appropriate.

**Suggested Motion**

Having considered the standards set forth within the City Code, including City Historic Conservation District Design Guidelines for New Construction and Additions, I move to find that the proposed solar panels satisfy the BAR's criteria and guidelines and are compatible with this property and other properties in the Martha Jefferson Historic Conservation district, and that the BAR approves the application as submitted.



**Board of Architectural Review (BAR)  
Conservation District - Certificate of Appropriateness**

Please Return To: City of Charlottesville  
Department of Neighborhood Development Services  
P.O. Box 911, City Hall  
Charlottesville, Virginia 22902  
Telephone (434) 970-3130

Please submit ten (10) hard copies and one (1) digital copy of application form and all attachments.

Please include application fee as follows: New construction project \$375; Demolition of a contributing structure \$375; Appeal of BAR decision \$125; Additions and other projects requiring BAR approval \$125; Administrative approval \$100. Make checks payable to the City of Charlottesville.

The BAR meets the third Tuesday of the month.  
Deadline for submittals is Tuesday 3 weeks prior to next BAR meeting by 3:30 p.m.

Project Name/Description Sean Lyman solar installation Parcel Number 530218000  
Project Address/Location 503 Lexington Ave  
Owner Name Sean Lyman Applicant Name Alt energy Inc. (Daniel Walsh)

**Applicant Information**

Address: Altenergy Inc. (Daniel Walsh)  
Email: dwalsh@altenergyinc.com  
Phone: (W) 340-448-1616 (H) \_\_\_\_\_

**Property Owner Information (if not applicant)**

Address: 503 Lexington Ave,  
Charlottesville VA 22902  
Email: sean@lyman.org  
Phone: (W) \_\_\_\_\_ (H) 434-962-9206

**Signature of Applicant**

I hereby attest that the information I have provided is, to the best of my knowledge, correct

Daniel Walsh 6/20/2017  
Signature Date  
Daniel Walsh 6/20/2017  
Print Name Date

**Property Owner Permission (if not applicant)**

I have read this application and hereby give my consent to its submission

Sean Lyman 6/23/18  
Signature Date  
Sean Lyman 6/23/18  
Print Name Date

Description of Proposed Work (attach separate narrative if necessary): \_\_\_\_\_

List All Attachments (see reverse side for submittal requirements): \_\_\_\_\_

<p><b>For Office Use Only</b></p> <p>Received by: <u>[Signature]</u></p> <p>Fee paid: <u>1000</u> Cash/Ck. # <u>9918</u></p> <p>Date Received: <u>6/26/18</u></p> <p>Revised April 2017</p>	<p>Approved/Disapproved by: _____</p> <p>Date: _____</p> <p>Conditions of approval: _____</p>
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**Customer Information:**

**Date:** 6/18/18  
**Project Name:** Lyman (8.0 kW)  
**Client:** Dr. Sean Lyman  
**Address:** 503 Lexington Ave.  
Charlottesville, VA 22902  
**Phone:** 434-962-9006  
**Email:** sean.lyman@gmail.com

**Contents:**

- C1 - Cover
- A1 - Site Plan
- A2 - Roof 1 Array Dimensions & Stringing
- A3 - Roof 1 Racking Dimensions
- A4 - Roof 1 Attachment Dimensions
- A5 - Roof 2 Array Dimensions & Stringing
- A6 - Roof 2 Racking Dimensions
- A7 - Roof 2 Attachment Dimensions
- S1 - Attachment Details
- E1 - Electrical Diagram
- E2 - Electrical Calculations
- E3 - System Labeling
- Add. - System Data Sheets



**Solar Energy Solutions**  
www.altenergyincorporated.com  
208-991-3822

**Project Details:**

**AHJ:** City of Charlottesville  
**Design Loads:** 115 mph wind per ASCE 7-10 ; 25 psf ground snow  
**Electrical Code:** 2011 NEC  
**PV Modules:** (25) Canadian Solar CS1K 320 Watt Monocrystalline  
**Module Tilt:** 33°  
**Module Azimuth:** 208°  
**Inverter Type:** (1) SolarEdge SE7600H-US HD Wave w/  
(25) SolarEdge p505 DC Power Optimizers  
**Racking Type:** Iron Ridge Black XR100 Medium Rail  
**Attachment Type:** SnapNrack Flashfoot

**System Summary:**

Altenergy will be installing an 8.0 kW solar photovoltaic system using (25) Canadian Solar 32 Watt Monocrystalline PV modules with SolarEdge P505 DC Optimizers installed beneath each module flush on the Southwest facing roofs of the Lyman home. The modules will be wired into one string of 10 modules/DC optimizers in series and one string of 15 modules/DC optimizers in series. The DC output circuits will be run internally in the attic and externally down the wall in metallic conduit to the inverter mounted outside on the southeast wall of the house. The AC power from the inverter will then be run to a dedicated non-fused utility disconnect outside the house grouped with the utility service meter. Power will then be run into the main service panel to make a load side connection on a backfed breaker.



**Altenergy Incorporated**  
1132 E Market St Bay 5  
Charlottesville, VA 22902  
434-293-3763



**ISSUE**  
6/18/18

**PROJECT NAME**  
Lyman

**Project Address**  
503 Lexington Ave  
Charlottesville, VA  
22902

**DRAWN BY:** CW

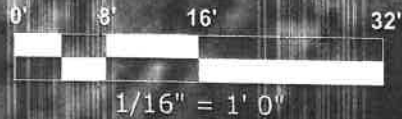
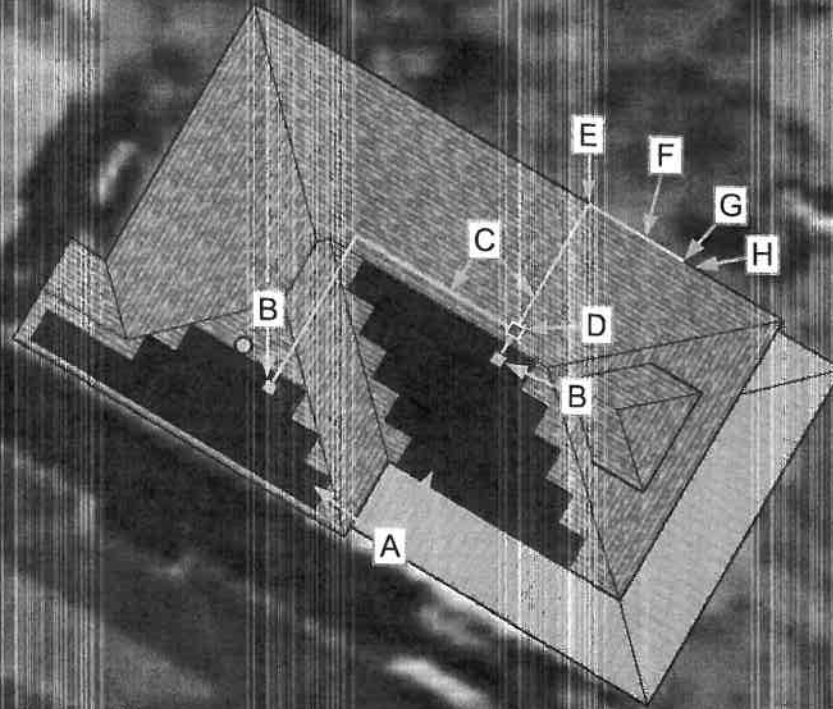
**DESCRIPTION**  
8.0 kW  
PV Array

**C**

**1**

**Schedule of Components:**

- A) Solar PV Array with DC/DC Optimizers under Each Module
- B) Soladeck Wire Transition Box
- C) DC Outputs Circuit in EMT Conduit
- D) Junction Box in Attic Space
- E) Inverter Location - Outside on Wall
- F) AC Output Raceway
- G) Utility Meter & Main Service Panel Location - Outside on Wall
- H) PV AC Disconnect Location



**Altenergy Incorporated**  
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Charlottesville, VA 22902  
434-293-3763



**ISSUE**  
6/18/18

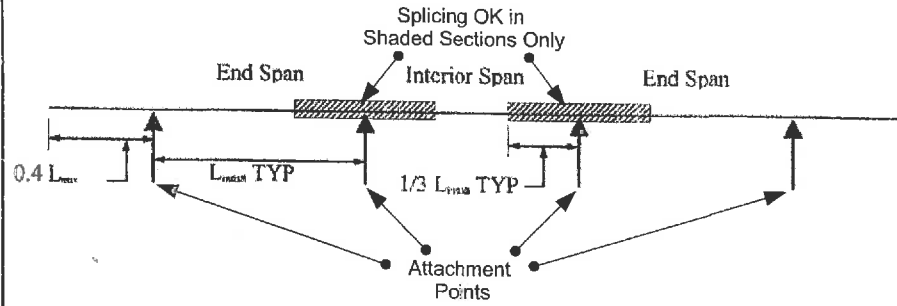
**PROJECT NAME**  
Lyman  
**Project Address**  
503 Lexington Ave  
Charlottesville, VA  
22902

**DRAWN BY:** CW

**DESCRIPTION**  
Site Plan

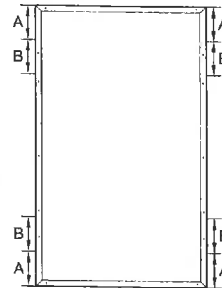
**A**

**Note: IronRidge rail lengths are specifically set to prevent splicing in the middle third of the rail between typical spans. If splice locations are changed, splices can only be placed in the shaded zones as shown in drawing below:**

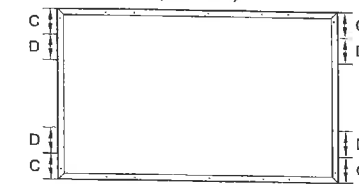


Canadian Solar Mono Perc Modules Allowable Clamping Zones

Portrait Mounting  
(113 PSF)



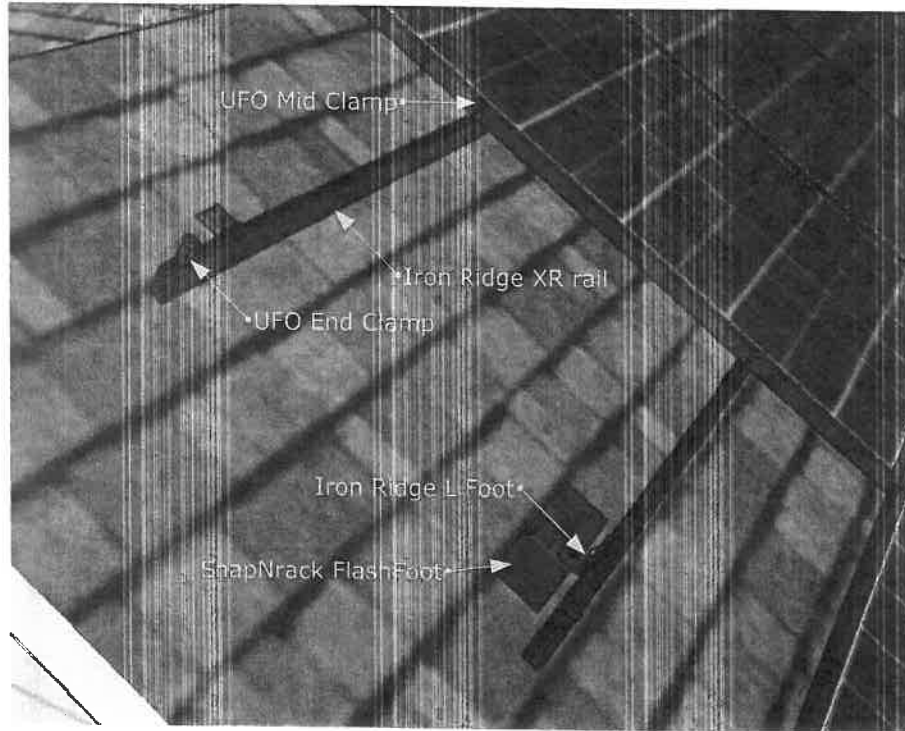
Landscape Mounting  
(50 PSF)



A = 9.5" (NO CLAMP ZONE)  
B = 3.5"  
C = 8" (NO CLAMP ZONE)  
D = 2"

(Top down clamping allowed in Zones B & D)

Racking & Attachment Detail (NTS)



**Complete Array Racking Parts List**

- (2) 17' 0" IR XR100 Black Rails
- (10) 14' 0" IR XR100 Black Rails
- (12) 11' 0" IR XR100 Black Rails
- (14) IR Bonding Splice Bars
- (8) IR Ground Lugs
- (34) IR UFO Mid-Clamps
- (32) IR UFO End-Clamps w/ 40 mm Stopper Sleeves
- (51) SnapNrack Flashfeet
- (51) Ironridge L feet - Black

**Complete Array Racking Cut List**

- (2) Complete 17' IR XR100 Black Rails
- (10) Complete 11' IR XR100 Black Rails
- Cut (2) x 7' 0" from (1) 14' 0" IR XR100 Black Rail
- Cut (10) x 6' 2 3/4" from (5) 14' 0" IR XR100 Black Rails
- Cut (4) x 11' 7" from (4) 14' 0" IR XR100 Black Rails
- Cut (2) x 10' 2 3/4" from (2) 11' 0" IR XR100 Black Rails

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1132 E Market St Bay 5  
Charlottesville, VA 22902  
434-293-3763



ISSUE  
6/18/18

SCALE  
NTS

PROJECT NAME  
Lyman

Project Address  
503 Lexington Ave  
Charlottesville, VA  
22902

DRAWN BY: CW

DESCRIPTION  
Flush Mount  
Racking &  
Attachment  
Details

**S**