

Burlington Development Review Board

Department of Permitting & Inspections

645 Pine Street

Burlington, VT 05401

www.burlingtonvt.gov/DPI/DRB

Telephone: (802) 865-7188

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AJ LaRosa
Caitlin Halpert
Geoff Hand
Sean McKenzie
Brad Rabinowitz
Leo Sprinzen
Chase Taylor
Marina Campbell, (Alternate)
Evan Gould, (Alternate)



Development Review Board

Tuesday, May 7, 2024, 5:00 PM

645 Pine Street, Front Conference Room or Remote on Zoom:

Please click the link below to join the webinar:

Zoom: <https://us02web.zoom.us/j/83225696227?pwd=SGQ0bTdnS000Wkc3c2J4WWw1dzMxUT09>

Webinar ID: 832 2569 6227

Passcode: 969186

Telephone: US +1 929 205 6099 or +1 301 715 8592 or +1 312 626 6799 or +1 669 900 6833 or +1 253 215 8782
or +1 346 248 7799

1. Agenda

2. Communications

3. Minutes

4. Consent Agenda

4.1.

ZP-24-104; 163 Maple Street (RM, Ward 5) Taylor Post / Jacob Shapiro

Proposed construction of an L-shaped retaining wall in backyard with minor rear yard grading. (Project Manager, Garret King)

5. Public Hearing

5.1.

ZP-24-58; 140 North Prospect Street (RL, Ward 1) Marian E. Price 2005 Rev. Trust / Marian E. Price / Patrick Weise

Seeking a variance for north setback to add an ADA compliant WheelPad on lot with 3' X 4' connection to house (reopened public hearing). (Project Manager, Scott Gustin)

5.2.

ZAP-24-3; 32-34 Hickok Place (RM, Ward 3) Mary Vanburen Swasey / Francis Swasey / Lewis Creek Builders / Mel Hurlbut

Appeal of administrative denial, ZP-24-52, to replace existing slate roof with an asphalt shingle roof for the installation of solar panels. (Project Manager, Mary O'Neil)

6. Certificate of Appropriateness

6.1.

ZP-24-60; 58 Charlotte Street (RM, Ward 5) Stephen Hard / Eric Belliveau

Proposed renovation with addition to rear of existing structure. (Project Manager, Garret King)

7. Adjournment

8. Informational and Non-Discrimination Statements

8.1.

Plans may be viewed upon request by contacting the Department of Permitting & Inspections between the hours of 8:00 a.m. and 4:30 p.m. Participation in the DRB proceeding is a prerequisite to the right to take any subsequent appeal. Please note that ANYTHING submitted to the Zoning office is considered public and cannot be kept confidential. This may not be the final order in which items will be heard. Please view final Agenda, at www.burlingtonvt.gov/dpi/drb/agendas or the office notice board, one week before the hearing for the order in which items will be heard.

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Department of Permitting & Inspections

Zoning Division
645 Pine Street
Burlington, VT 05401
Telephone: (802) 865-7188

William Ward, Director
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Garret King, Associate Planner
Joseph Cava, Permit Technician
Steve Cormier, Code Compliance Officer
Ted Boylan, DPI Administrator



TO: Development Review Board
FROM: Garret King
DATE: May 7th, 2024
RE: ZP-24-104; 163 Maple Street

=====

Note: These are staff comments only; decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.

Zone: RM Ward: 5

Owner/Applicant: Jacob Shapiro

Request: Proposed construction of an L-shaped retaining wall in backyard measuring 42-feet in length, 5-foot height, and 6in-wide, with minor grading in the rear yard.

Applicable Regulations:

Article 4 (Maps & Districts), Article 5 (Citywide General Regulations), Article 6 (Development Criteria & Guidelines).

Background Information:

Applicant is looking to build a retaining wall in the rear of the property to increase the usable space available for the rear yard. Some grading work will be completed as part of this project.

Previous Zoning Permits:

5/22/2022 ZP-22-294: Rebuild front porches to same footprint. Replace six windows. Convert attic to habitable living space, creating an ADU.
6/14/2016 ZP-16-453: Install additional metal rail between existing 42" metal railing and the wooden hand rail.

Recommendation: Consent approval as per, and subject to, the following findings and conditions:

I. Findings

Article 4: Maps & Districts

Sec. 4.4.5, Residential Districts:

(a) Purpose

The Residential Medium Intensity district is intended for residential development that includes a mix of housing types such as single-family detached dwellings, with or without accessory dwelling units, duplex, triplex, quadplex, and multi-unit buildings in compact, walkable neighborhoods.

Building heights typically range from two to three stories, and development generally results in moderately higher lot coverage as compared to the RL district. Neighborhoods within this district are typically walkable to downtown or other mixed-use areas of the city, and commercial uses within the district take the form of home-based businesses and the adaptive reuse of historic buildings for neighborhood-serving uses.

The single family home will remain unchanged with this application. **(Affirmative Finding)**

(b) Dimensional Standards and Density

No changes to density or lot coverage is proposed with this project. The retaining wall is 6 inches wide and 5ft tall from grade to the top of the wall. See also Article 5 standards below.

(Affirmative Finding)

(c) Permitted & Conditional Uses

Not Applicable

(d) District Specific Regulations

Not Applicable

Article 5: Citywide General Regulations

Sec. 5.2.3, Lot Coverage Requirements

(b) Exceptions to Lot Coverage

7. Retaining walls less than eighteen (18) inches in width across the top surface; if eighteen(18) inches or greater, the entire top surface shall be considered as lot coverage;

The proposed retaining wall will be less than 18 inches wide and does not count towards lot coverage. No change of lot coverage will occur with this project. **(Affirmative Finding)**

Sec. 5.2.4, Buildable Area Calculation

The property sits in the steep slope overlay. The project is less than 400 square feet of disturbance and is, therefore, exempt from the requirements of this section. **(Affirmative Finding)**

Sec. 5.2.5, Setbacks

(c) Exceptions to Yard Setback Requirements

3. Retaining Walls. Retaining walls no greater than 5' tall may project into a required yard setback, but retaining walls should be set back a minimum of 2' from a property boundary.

Retaining walls projecting into a required setback and exceed 5' tall and/or come within 2' of a property boundary shall be subject to Development Review Board review per Article 6.

The proposed retaining wall is 5ft tall from grade to the top of the wall and is within 2ft of the property line. The new retaining wall is intended to meet up with the existing retaining wall on the adjacent property. **(Affirmative Finding)**

Sec. 5.2.6, Building Height Limits

The height from grade to the top of the wall will be 5ft tall. **(Affirmative Finding)**

Sec. 5.2.7, Density and Intensity of Development Calculations

Not Applicable

Sec. 5.5.1, Nuisance Regulations

The proposed project should not create any nuisance. **(Affirmative Finding)**

Sec. 5.5.2, Outdoor Lighting
Not Applicable

Sec. 5.5.3, Stormwater and Erosion Control

The applicant has submitted an Erosion Prevention and Sediment Control plan to water resources for review. **(Affirmative Finding as Conditioned)**

Sec. 5.5.2 Outdoor Lighting
Not applicable

Article 6: Development Review Standards
Part 1, Land Division Design Standards
Not applicable

Part 2, Site Plan Design Standards

Sec. 6.2.2, Review Standards

(a) Protection of important natural features

Not applicable

(b) Topographical alterations

Infill is proposed in the rear yard so that the finished grade at the top of the retaining wall will match the driveway. The infill and grading is intended to flatten the space between the new wall and the house. **(Affirmative Finding)**

(c) Protection of important public views

Not applicable

(d) Protection of important cultural resources

Not applicable

(e) Supporting the use of alternative energy

Not applicable

(f) Brownfield sites

Not applicable

(g) Provide for nature's events

The proposed retaining wall will fill the slope that currently sheds water onto the adjacent property. The new wall should reduce the amount of runoff that flows onto adjacent properties. Stormwater review is required See sec. 5.5.3 **(Affirmative Finding)**

(h) Building Location and Orientation

The proposed retaining wall is proposed at the rear of the lot and is similar to the adjacent neighbor's retaining wall. The new retaining wall will be mostly hidden from view, and the rest of the site will remain as is. **(Affirmative Finding)**

(i) Vehicular access

Not applicable

(j) Pedestrian access

Not applicable

(k) Accessibility for the handicapped

Not applicable

(l) Parking and circulation

Not Applicable

(m) Landscaping, fences, and retaining walls

The proposed retaining wall will be 5 feet tall and is not required to have texturing or terracing. The proposed wall will be constructed out of wood and each layer will have a ½ inch setback for each course of the wall similar to the adjacent retaining wall. **(Affirmative Finding)**

(n) Public plazas and open space

Not applicable

(o) Outdoor lighting

Not applicable

(p) Integrate infrastructure into the design

Not applicable

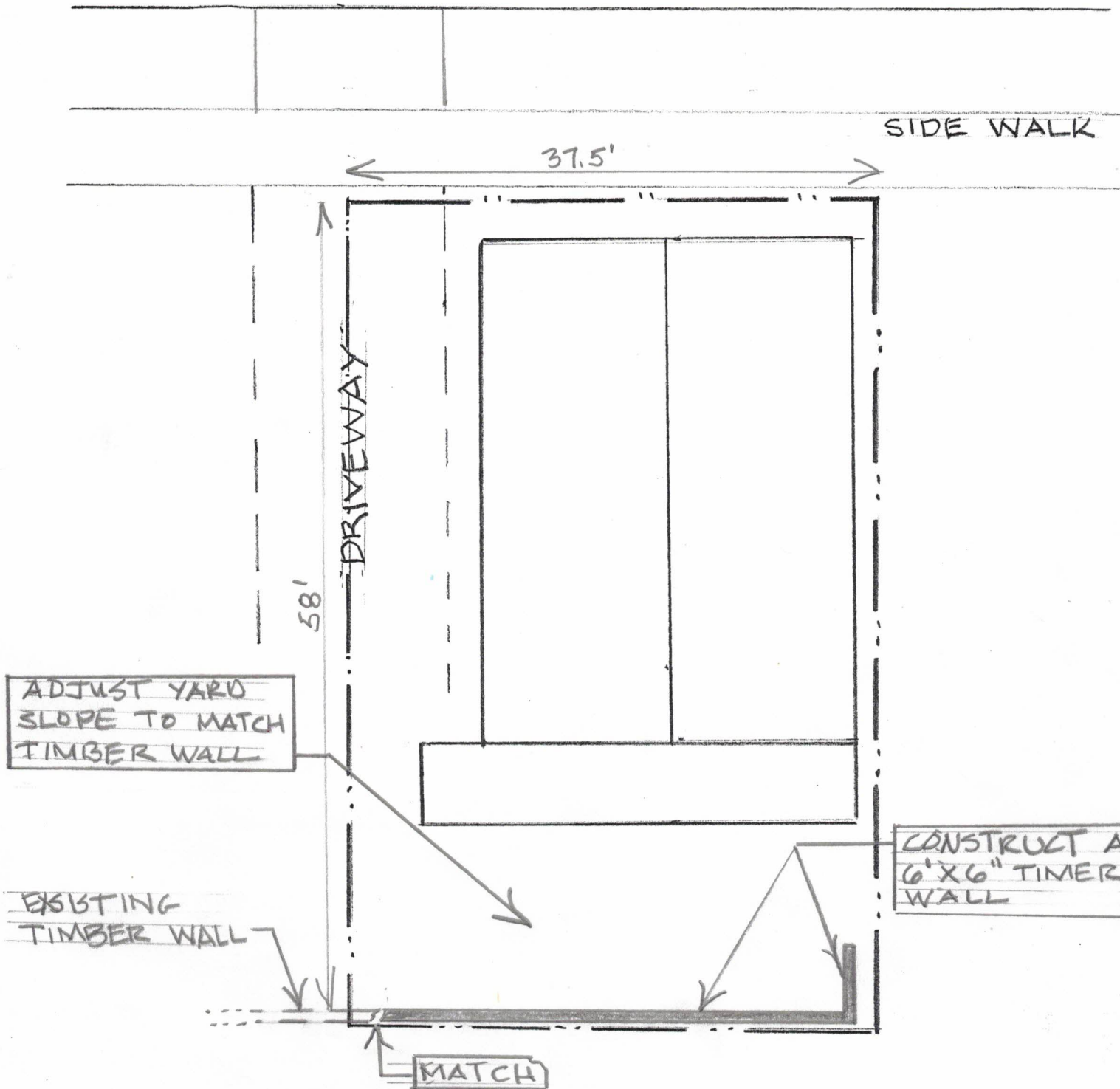
Part 3, Architectural Design Standards

Not applicable

II. Conditions of Approval

1. **Prior to the release of the Zoning Permit** the applicant needs to receive an approved EPSC plan from Water Resources.
2. The Applicant/Property Owner is responsible for obtaining all necessary Zoning Permits and Building Permits through the Department of Public Works as well as other permit(s) as may be required, and shall meet all energy efficiency codes of the city and state.
3. Standard permit conditions 1-15.

MAPLE STREET

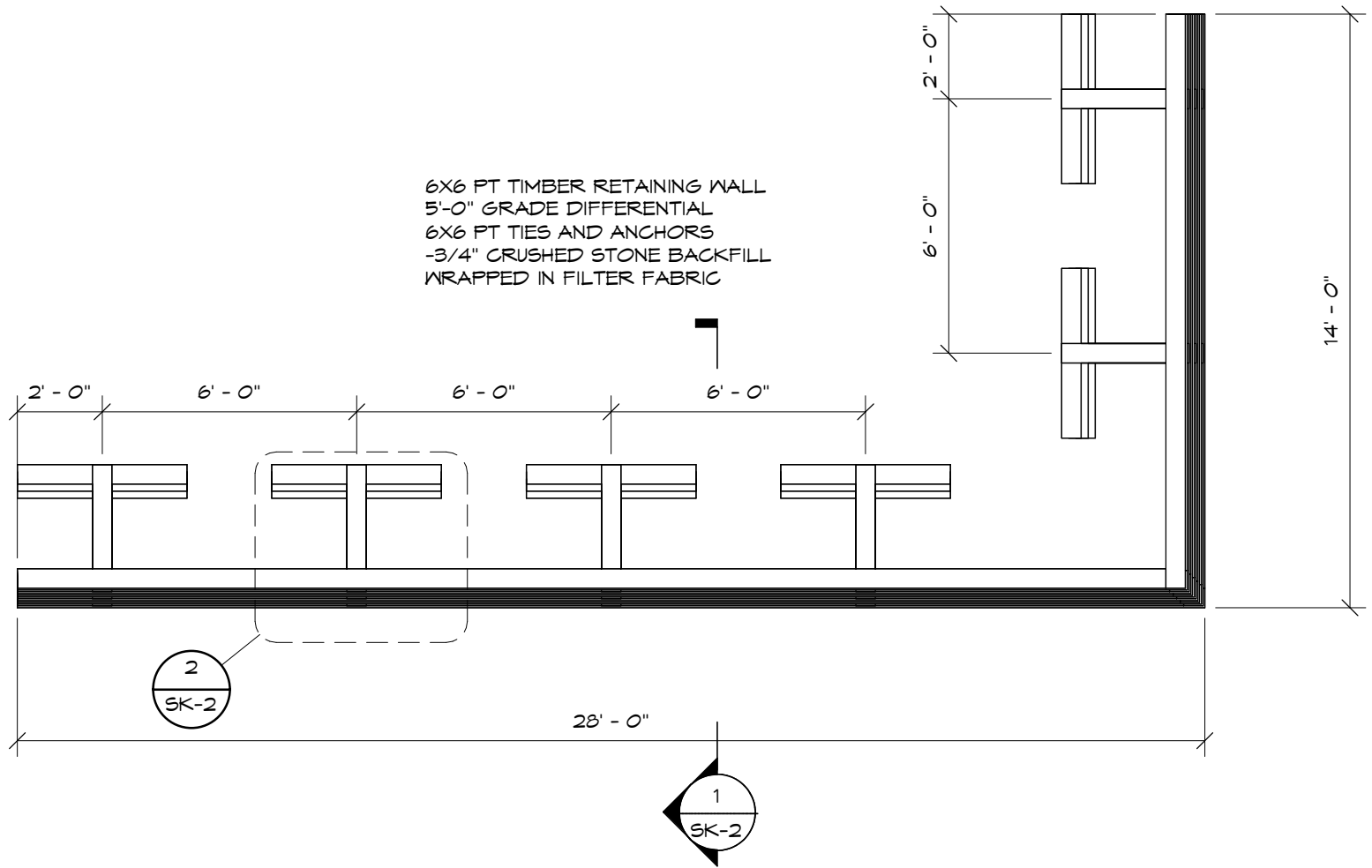
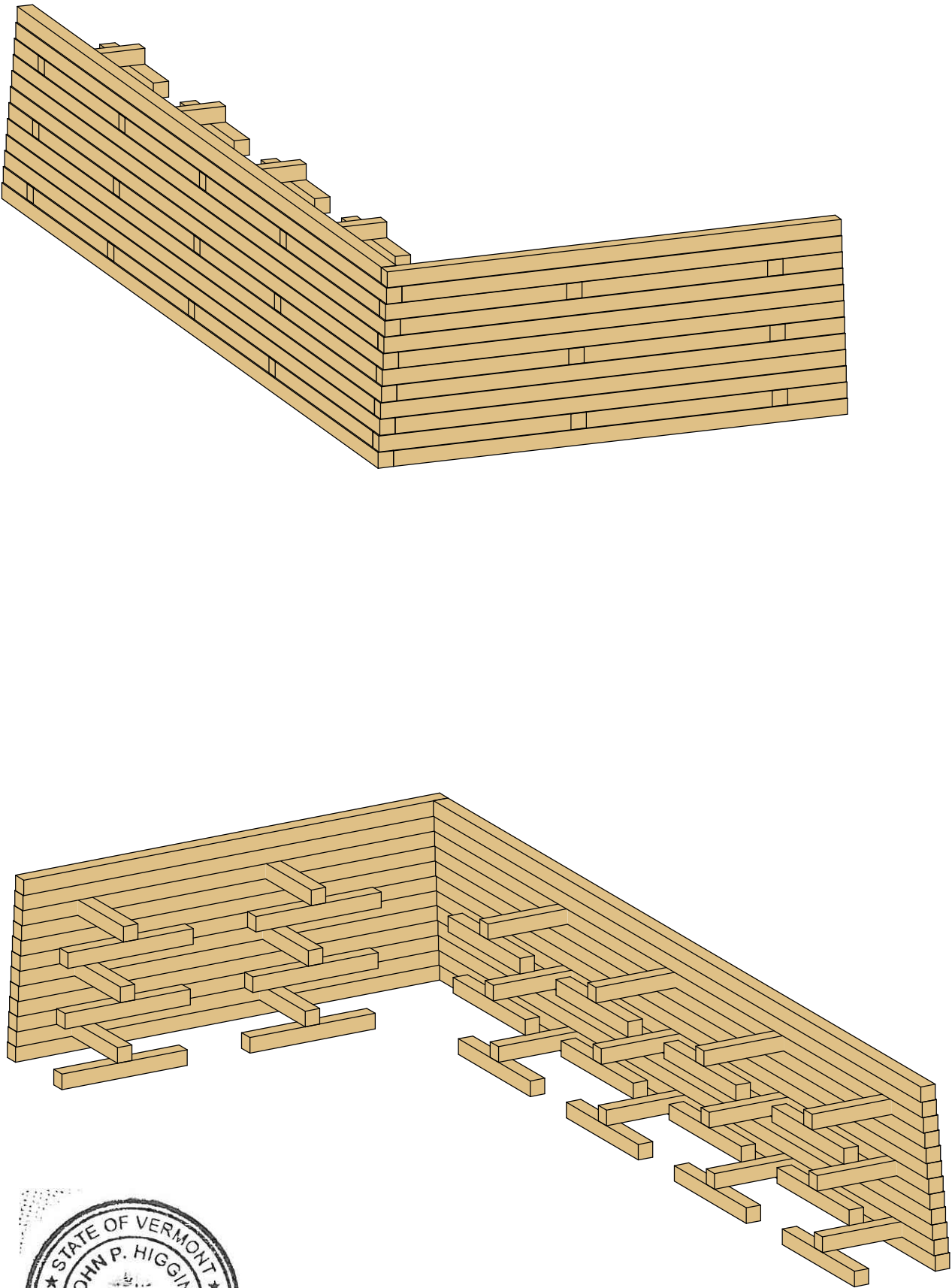


163 MAPLE STREET
TIMBER WALL BACK YARD

GRADING

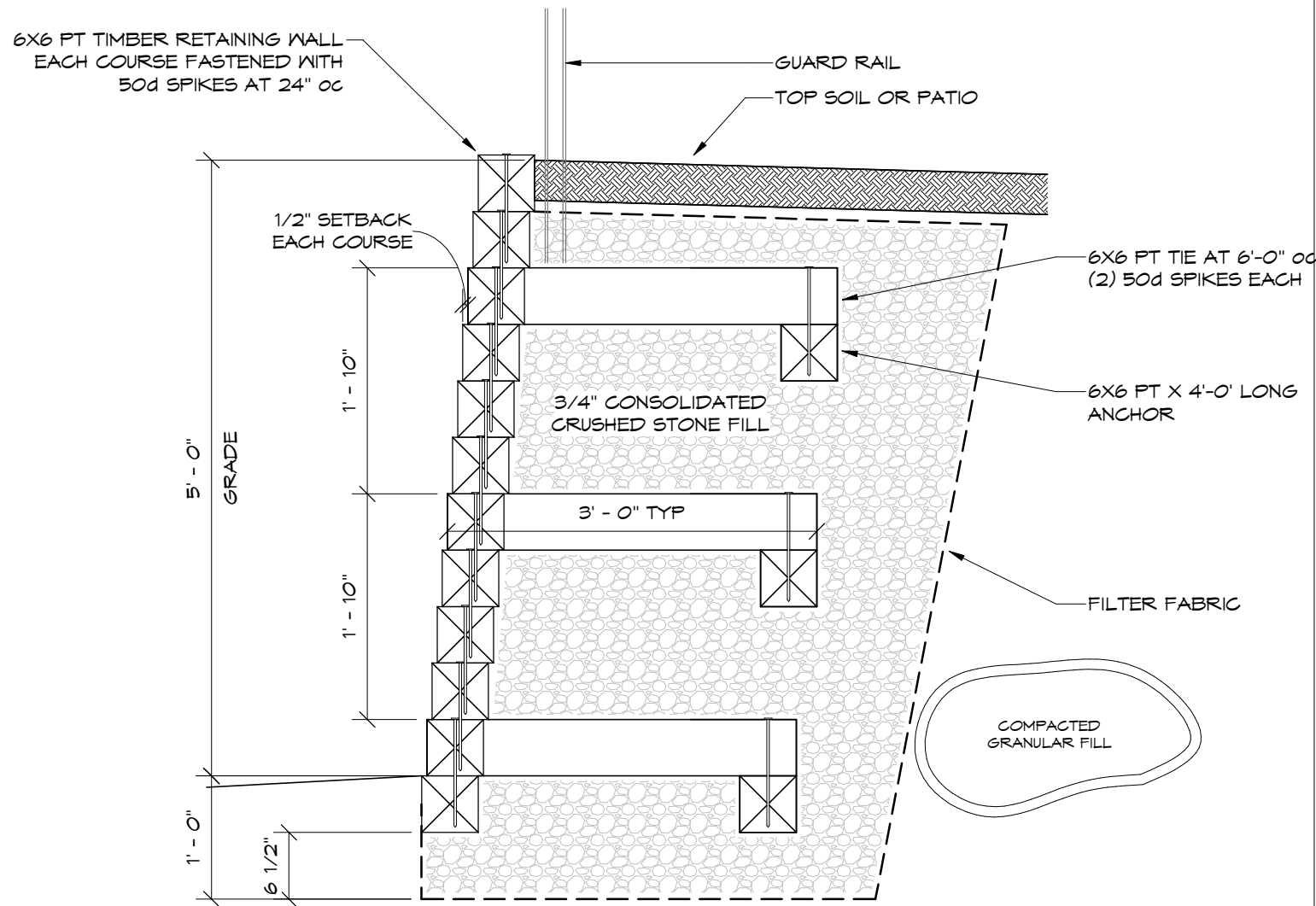
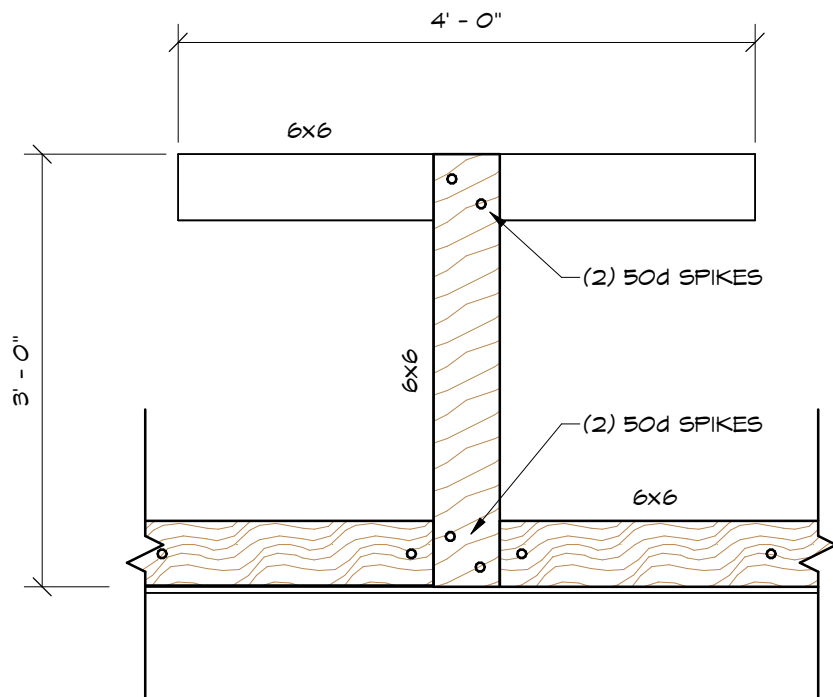
1" = 10'

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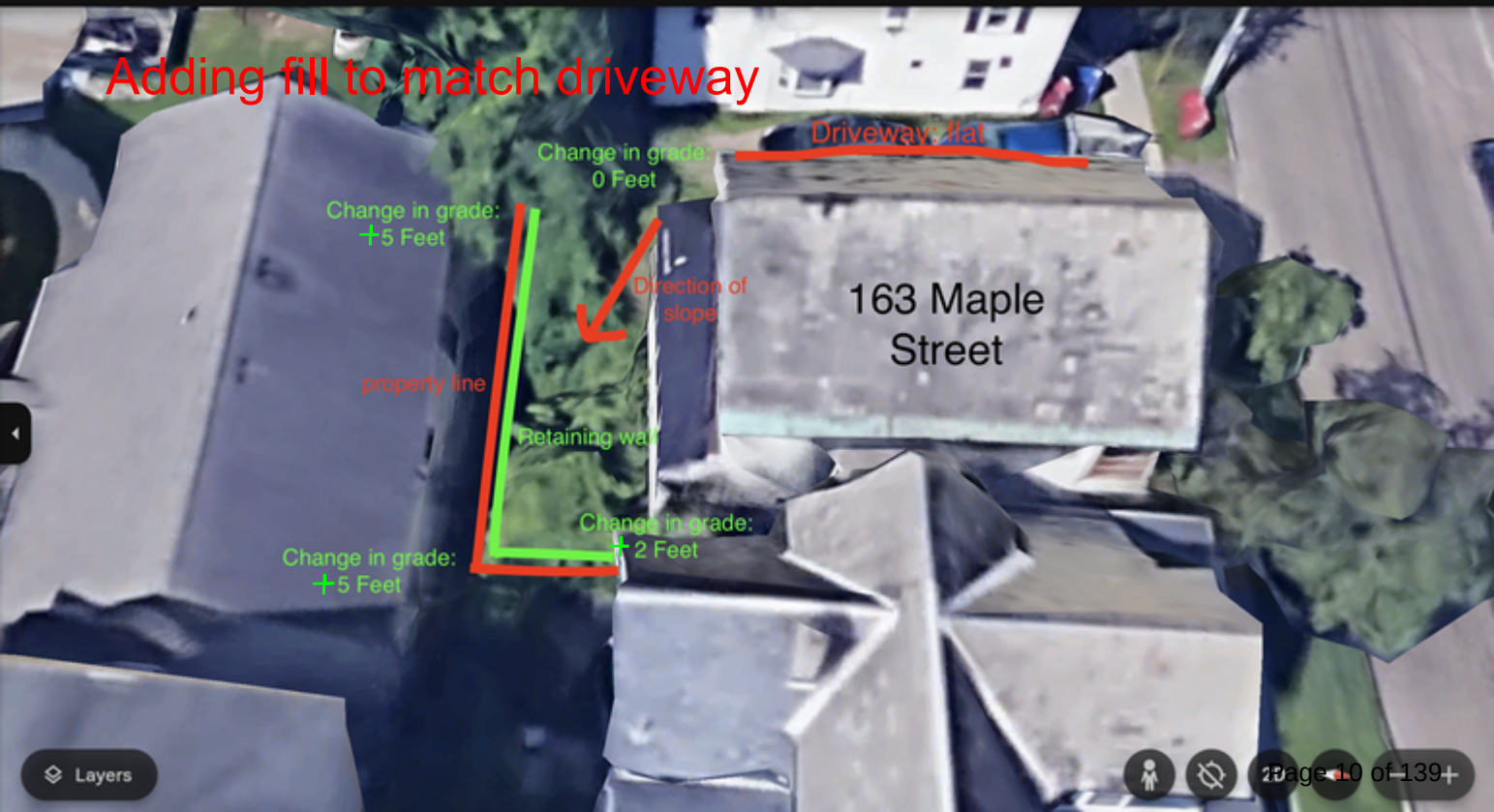
Artisan ENGINEERING 120 Graham Way, Suite 124 Shelburne, VT 05482 tel 802 497 3531 www.ArtisanEng.com STRUCTURAL ENGINEERING CONSULTANTS	Project # -	24016	Lackey Landscaping Timber Retaining Wall 163 Maple Street Burlington, VT 05401	SK-1
	Checked By -	Higgins		
	Drawn By -	Artisan		
	Date -	01/19/2024	PLAN	
	Scale -	1/4" = 1'-0"		

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 120 Graham Way, Suite 124 Shelburne, VT 05482 tel 802 497 3531 www.ArtisanEng.com STRUCTURAL ENGINEERING CONSULTANTS	Project # -	24016	Lackey Landscaping Timber Retaining Wall 163 Maple Street Burlington, VT 05401	SK-2	
	Checked By -	Higgins			
	Drawn By -	Artisan			
	Date -	01/19/2024	SECTIONS		
	Scale -	3/4" = 1'-0"			

Adding fill to match driveway



Driveway: flat

Change in grade:
0 Feet

Change in grade:
+5 Feet

Direction of
slope

163 Maple
Street

property line

Retaining wall

Change in grade:
+2 Feet

Change in grade:
+5 Feet

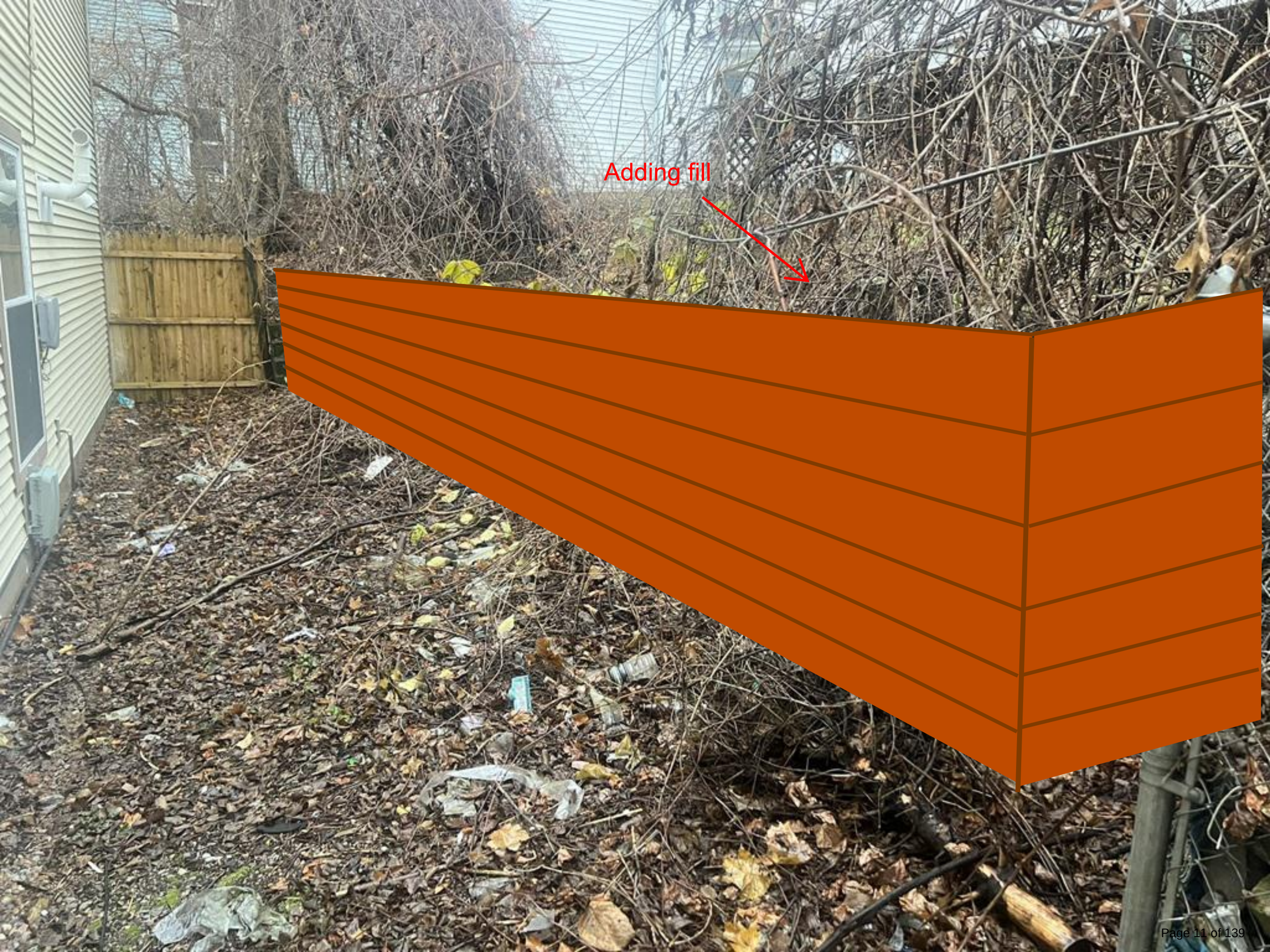


Layers



Page

10 of 139+



Adding fill

Department of Permitting & Inspections

Zoning Division
645 Pine Street
Burlington, VT 05401
Telephone: (802) 865-7188

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Ted Boylan, DPI Administrator



TO: Development Review Board
FROM: Scott Gustin
DATE: May 7, 2024
RE: ZP-24-58; 140 North Prospect Street

=====

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Zone: RL Ward: 1E

Owner/Applicant: Marian E Price 2005 Rev Trust / Patrick Weise

Request: Variance request for north side yard setback for an addition.

Applicable Regulations:
Article 12 (Appeals and Variances)

Background Information:

The applicant is seeking variance approval to install a modular bedroom and bathroom unit (Wheelpad) within the minimum required side yard setback along the north side of the existing home. The subject property is 45' wide and has a 4.5' minimum side yard setback requirement. As proposed, the modular unit would encroach 4' into the 4.5' side yard setback.

Newly adopted zoning standards in the "neighborhood code" increase permissible lot coverage to 45%. As a result, the additional lot coverage is permissible on this lot (with existing coverage of ~40%).

This application was considered by the Development Review Board on April 2, 2024. Upon deliberation, the Board identified a number of questions and re-opened the public hearing to gather more information. Specifically, the Board requested additional information about the potential design of the Wheelpad in the backyard and how it could be placed conforming to aspects of the zoning ordinance. The Board requested an explanation of why it is not reasonably feasible to put the Wheelpad in the rear of the house. Additionally, the Board requested a better drawing of the first floor of the house and specific limitations of why that cannot be made ADA compliant. The applicant has provided supplemental information to address the Board's requests.

Previous zoning actions for this property are as follows:

- 03/13/2013, Approval to remove aluminum siding and install fiber cement siding and rework the front porch
- 05/27/2011, Approval to replace four 2nd story windows in the rear porch
- 06/05/2009, Approval to relocate rear door and construct a rear deck

Recommendation: Variance denial as per, and subject to, the following findings:

I. Findings

Article 12: Variances and Appeals

Sec. 12.1.1 Variances

(a) That there are unique physical circumstances or conditions, including irregularity, narrowness, or shallowness of lot size or shape, or exceptional topographical or other physical conditions peculiar to the particular property, and that unnecessary hardship is due to such conditions, and not the circumstances or conditions generally created by the provisions of the zoning regulation in the neighborhood or district in which the property is located.

The subject property is rectangular in shape with dimensions of 45' X 120.' The home complies with all applicable setbacks. The garage sits within the southerly side yard setback. The shared driveway straddles the southerly side property line as allowed. The lot is not irregularly shaped, nor does it contain exceptional topographic features inhibiting compliant development. **(Adverse finding)**

(b) That because of such physical circumstances or conditions, there is no possibility that the property can be developed in strict conformity with the provisions of the zoning regulation and that the authorization of a variance is, therefore, necessary to enable the reasonable use of property.

With the exception of the garage, the property has been developed in conformance with applicable standards. There are no exceptional features that preclude compliant development on the lot.

The applicant has provided revised drawings that include several scenarios – one as proposed, one in the driveway, and two in the back yard. The driveway location is compliant with all applicable zoning standards but blocks access to the owner's garage and inhibits use of the shared driveway by neighbors. The two rear yard scenarios are also compliant with zoning standards. Both rear yard installations show removal of the existing back deck and take up space in the back yard. The rear yard installation parallel to the back of the house results in the trailer tongue projecting into the side yard setback; however, this would be permissible per Sec. 5.2.5, *Setbacks, (b) Exceptions to Yard Setback Requirements*. This particular scenario also appears to leave more of the back yard as useable space than the alternative perpendicular rear yard installation. The revised project plans also include an interior renovation scenario. The applicant notes this option would be expensive, disruptive, and time consuming. The revised plans depict compliant options. **(Adverse finding)**

(c) The unnecessary hardship has not been created by the applicant.

The request for a variance is driven by the applicant's preference to install the modular unit on the northerly side of the existing home. **(Adverse finding)**

(d) That the variance, if authorized, will not alter the essential character of the neighborhood or district in which the property is located, substantially or permanently impair the appropriate use or development of adjacent property, reduce access to renewable energy resources, nor be detrimental to the public welfare.

The proposed modular unit is fairly small and will have little, if any, impact on the essential character of the neighborhood. It appears that ~ 5' would remain between the modular unit and the abutting home to the north if installed as requested and would not permanently impair the appropriate use or development of that property. **(Affirmative finding)**

(e) That the variance, if authorized, will represent the minimum variance that will afford relief and will represent the least deviation possible from the zoning regulation and from the plan.

Given the dimensions of the modular unit and the required connector to the existing home, the variance requested is the minimum necessary to enable installation in the desired location.
(Affirmative finding)

(f) The variance, if granted, will not result in the extension of a non-complying situation or allow the initiation of a nonconforming use of land.

Except for the side yard setback encroachment requested in the variance application, the variance would not result in the extension of a non-complying situation. The residential use of the property conforms with the applicable zoning standards. **(Affirmative finding)**

II. Reasons for Denial

1. Per the adverse findings above.

Project:

WheelPad
SuitePAD
140 N. Prospect St.
Burlington, Vermont
05401

Owner:
Marian Price
Date:
4.10.24

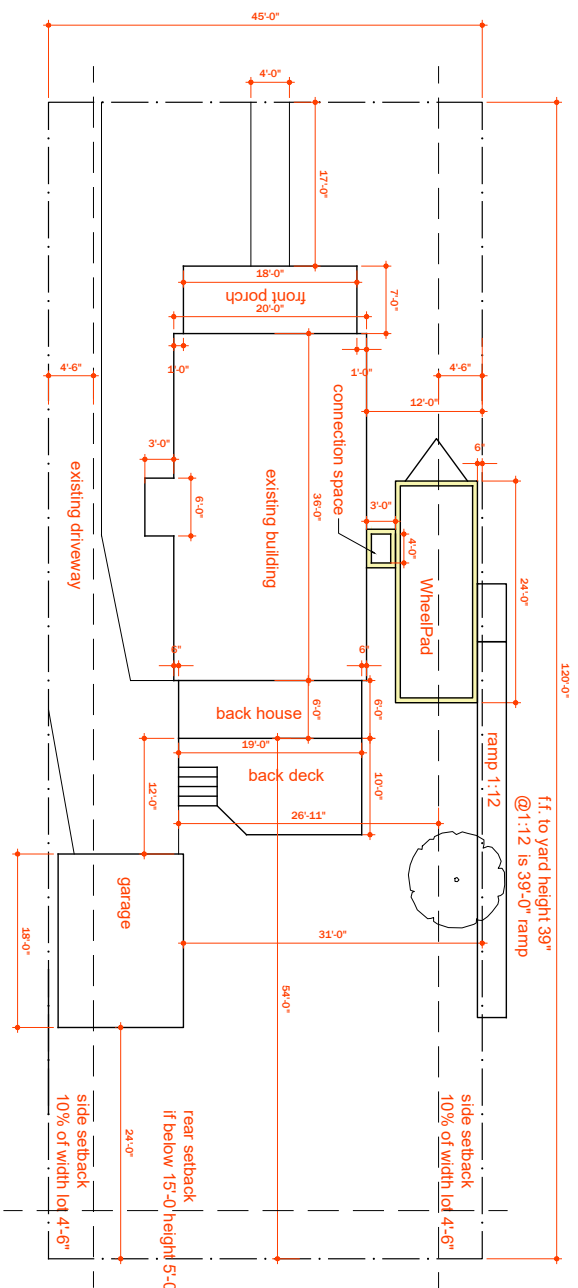
Draw By:
Patrick White

Scale: NTS

Sheet title: variance scenario

Sheet number:

S001



Site Plan

coverage calc. table

lot size 5,400sf

house	720.0sf
back house	114.0sf
front porch	126.0sf
garage	234.0sf
front stairs	18.0sf
driveway	584.5sf
front walk	56.0sf
connection space	12.0sf
WheelPad	204.0sf
total coverage	2068.5sf

total percentage of coverage
lot 38.31%

-new Wheelpad/conn. space
is highlighted areas.

Project:

WheelPad

SuitePAD
140 N. Prospect St.
Burlington, Vermont
05401

Owner:
Marian Price
Date:
4.10.24

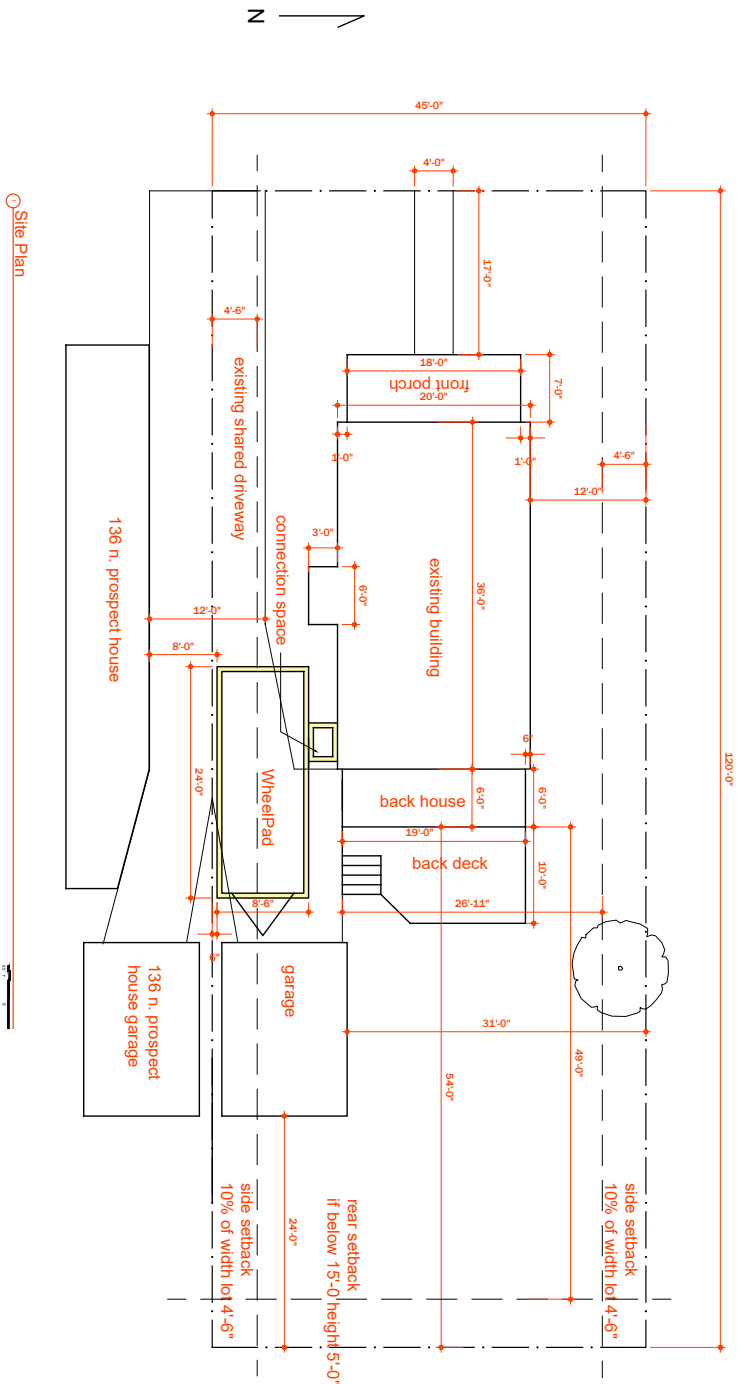
Draw By:
Patrick White

Scale: NTS

Sheet title: driveway scenario

Sheet number:

S101



Site Plan

SuitePAD

140 N. Prospect St.
Burlington, Vermont
05401

Owner:
Marian Price

Date: 4.10.24

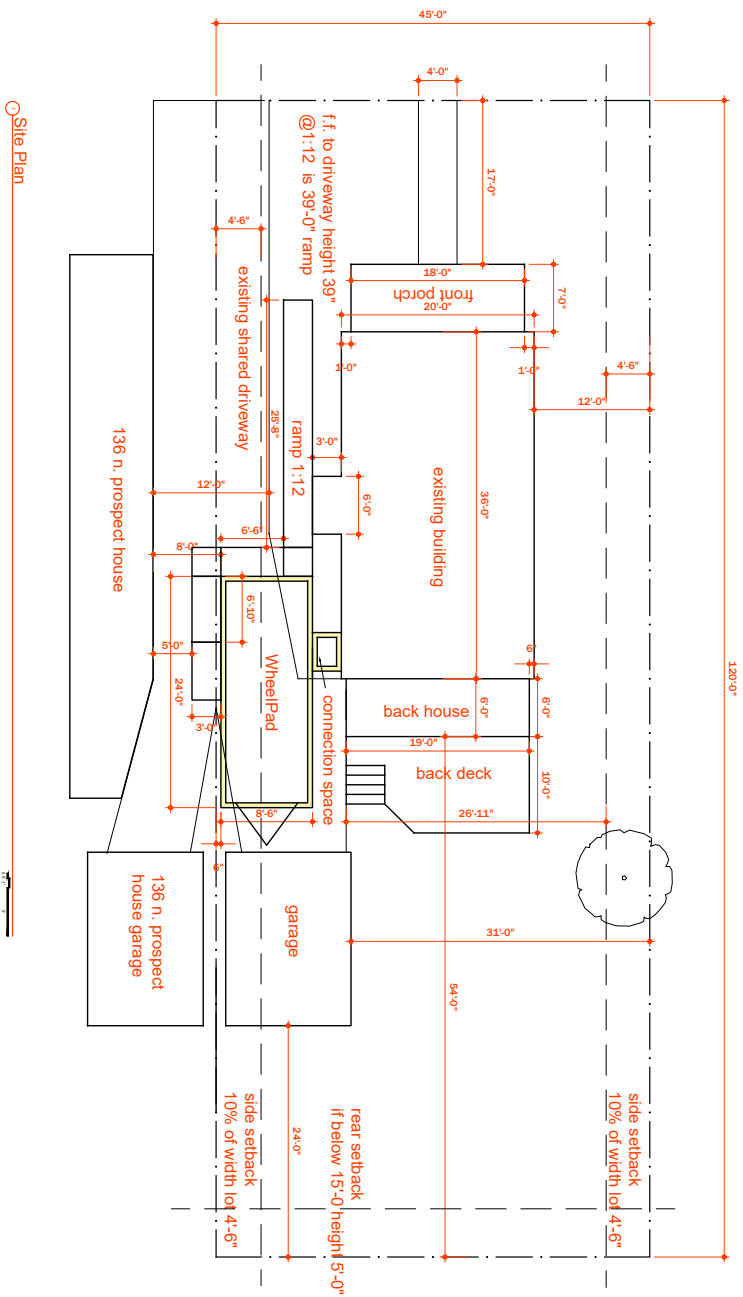
Drawn By:
Patrick Weise

scale: NTS

Sheet title: driveway scenario

Sheet number:

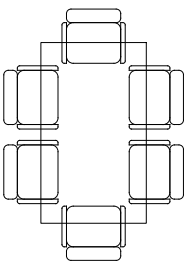
S102



SuitePAD

140 N. Prospect St.
Burlington, Vermont
05401

Owner:
Marian Price

Date:
4.10.24

Patrick Weise

scale: NTS

Sheet title: renovating bathroom scenario

Sheet number:

S201

Project:

WheelPad

SuitePAD
140 N. Prospect St.
Burlington, Vermont
05401

Owner:
Marian Price
Date:
4.10.24

Draw By:

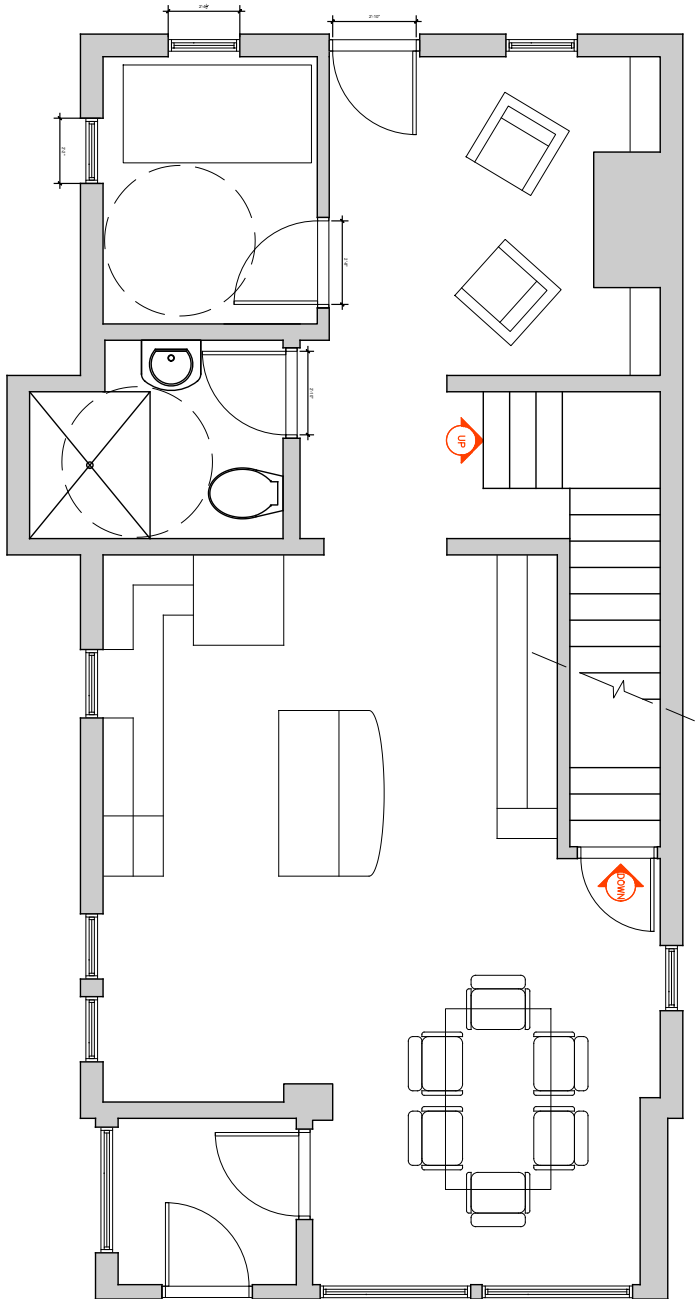
Patrick White

Scale: NTS

SuitePAD: renovating bathroom make
bedroom scenario

Sheet number:

S202



Project:

WheelPad
SuitePAD
140 N. Prospect St.
Burlington, Vermont
05401

Owner:
Marian Price
Date:
4.10.24

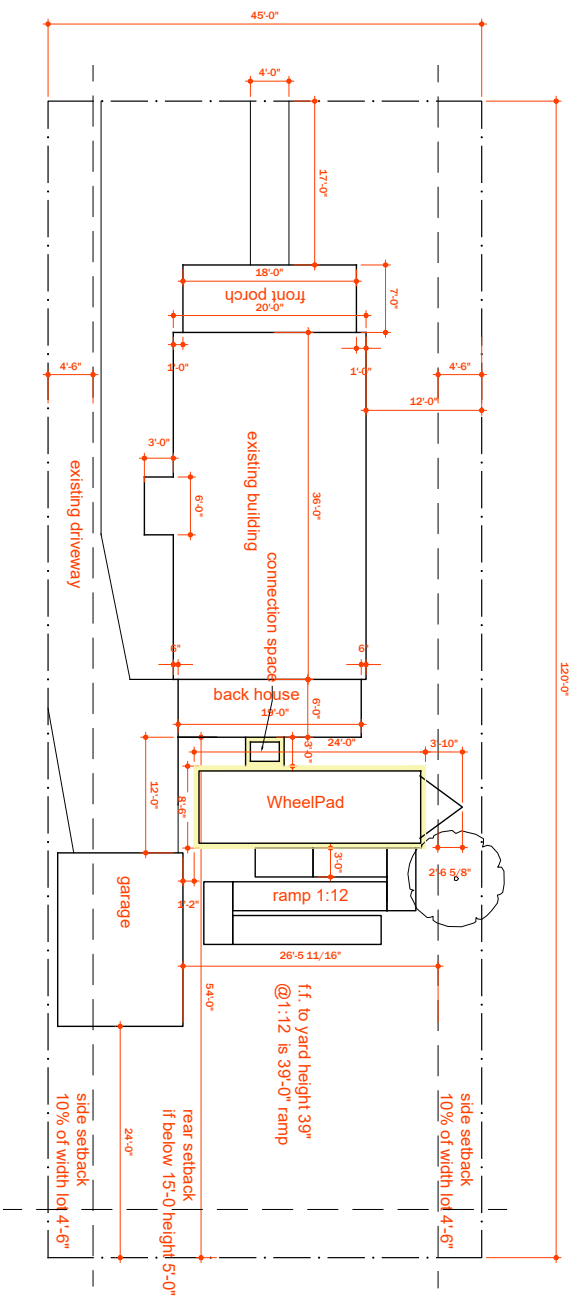
Draw By:
Patrick Whelan

Scale: NTS

Sheet title: parallel backy and scenario

Sheet number:

S301



Site Plan

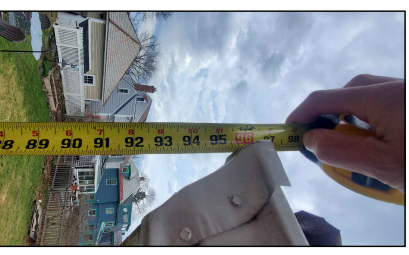


PHOTO 1



PHOTO 2



PHOTO 3

140 N. Prospect St.
Burlington, Vermont
05401

Owner:
Marian Price
Date:
4.10.24

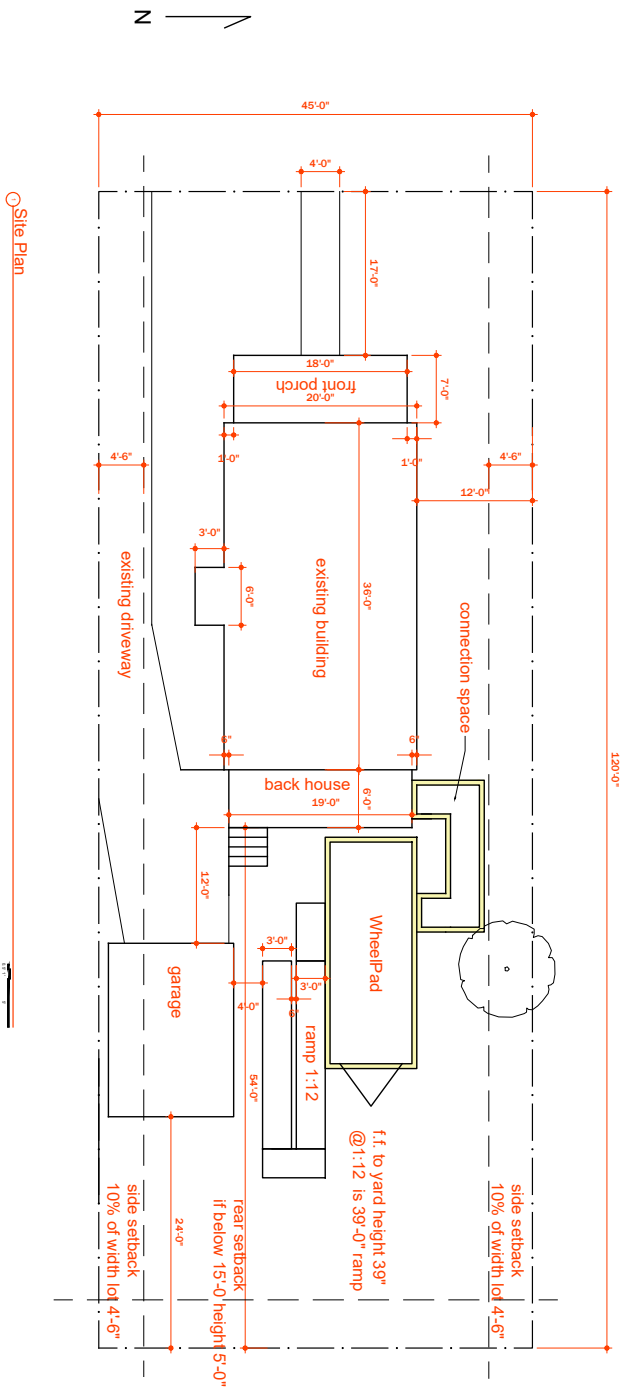
Drawn By:
Patrick Weise

scale: NTS

Sheet title: perpendicular backyard scenario

Sheet number:

S401



WheelPad Driveway Scenario (drawings S101-S102)

This will comply with Burlington zoning regulations but this would significantly reduce the function of the driveway for Marian and her neighbors with whom she shares the driveway. It would completely block access to her garage, and her neighbors would have to double park. Marian would also be unable to park in her own driveway without blocking her neighbor's access, or vice versa.

Connection to the south side of the home would also limit Hisham's independent use of the space as there would be no option to place a ramp on the south side of the WheelPad in that location because it would completely block access to the neighbor's use of the driveway, and thus only too few parking spaces would be available for the neighbors and Marian.

ADA Conversion of house Scenario (drawings S201-S202)

Why Marian's house cannot be converted to ADA Compliance. Showing a floor plan of the 1st floor.

S201 shows the current state of Marian's first floor.

- There is no exterior door that is wheelchair accessible in width 32"
- There is no 1st floor bedroom
- Bathroom door is not wheelchair accessible in width 31"

-The bathroom itself is not wheelchair accessible

S202 shows changes needed to make it wheelchair accessible

- Installing a larger front door
- Expanding the Bathroom to the west making it wheelchair accessible
- Creating a small bed room in half of the living room
- One of the windows in the bed room must be converted to an egress window
- This renovation would be an immense cost

A renovation of this sort would be extensive and cause incredible disruption to Marian's life, which has already been disrupted so incredibly by this incident. The city should be helping the Price family get back to normalcy, not making it more difficult for them to cope with the incident. This renovation would also not be completed in time for Hisham to come home from University. A renovation of this sort would take six months or more.

S301 and S401 are backyard Scenarios

- S301 if possible to maneuver the WheelPad into the backyard parallel to the rear of the house;
- We would have to remove the back deck
- Due to the overhang of the garage roof the WheelPad needs to be situated 14 inches to the north of the garage which places the trailer tongue into the setback as shown in the drawing making this not possible without a variance.

S401 works for zoning completely

- The deck has to be removed
- The connection would be twice as long making it more expensive, more time consuming and with ramp would consume most of Marian's back yard

Her backyard is the main artery of connection for her grandsons to safely walk between her house and her son's to the North. Taking up the entire space with a WheelPad would change that use, limit the use of the rest of the backyard, and be a longer, more expensive and more disruptive project for them. This option would also probably require desired landscaping (the plum tree) or the perfectly functional deck to be removed if they wanted to maintain any access to the backyard between the house and the garage.

We are also asking to place the WheelPad on the north side of the house to preserve Marian's backyard space so that Hisham can have a safe area to be able to recreate outside. Placing the WheelPad in the backyard takes that space away from Hisham and forces him to go to another location for that recreation.

As stated previously, we are asking for this variance because this placement is the least obtrusive for the Price Family in an already tumultuous year.

BURLINGTON FRIENDS MEETING

April 23, 2024

Dear Development Review Board,

RE: DRB application for a variance to install a WheelPad at 140 N. Prospect St.

Greetings from us at Burlington Friends Meeting on 173 N Prospect. We are a Quaker Faith community that lives down the street from 140 N Prospect. We are writing in support of our neighbors, Marian, Richard and Kimberly Price, whom have suffered an unimaginable tragedy in our city; the shooting of their grandson/nephew, Hisham and friends Kinnan Abdalhamid and Tahseen Ali Ahmed this past fall. Burlington Friends Meeting has been longtime supporters of Ramallah Friends School in Ramallah Palestine, where Hisham, Kinnan, and Tahseen all attended.

Hisham's injuries mean he requires a wheelchair and his grandmother's home, Marian's, is not handicapped accessible. Marian wants to install a WheelPad, a temporary structure that Hisham can stay in, we support this great idea! It means that Hisham can be close to family, continue his medical therapy and healing, and also is a cost-effective option. Another positive is WheelPad is a Vermont company, located in Wilmington. The installation of the WheelPad supports a Vermont based business. Hisham, Kinnan, and Tahseen suffered immense trauma and harm on the streets of our city, we fully support the variance that Marian has applied for so that healing can continue for our neighbors. Development Review Board we implore you to take this step of support and be part of healing in the face of hate.

Again, we beseech you to approve this variance so that Hisham and his family can continue to be a part of our vibrant neighborhood community and feel welcome in Burlington!

On behalf of Burlington Friends Meeting,

Abby and Helen

Abby Matchette & Helen Head

Co-Clerks of Burlington Friends Meeting

173 N Prospect Street Burlington, VT

presiding_clerk@burlingtonquakers.org

Dear DRB,

I am writing to support the variance requested by Marian Price and Patrick Weise for setback to add an ADA compliant WheelPad on Marian's lot with a 3' X 4' connection to the house.

This variance is being requested to give Hisham Awartani, who was paralyzed in the November 25th shooting on North Prospect Street, an accessible place to live when he is on vacation from college. This will not only give him a comfortable place to live but will allow him to spend time with many family members. An accessible structure will provide privacy and give him some independence and dignity when he stays in Burlington.

Placing the unit in the requested location keeps the backyard open, which will benefit Hisham and his family.

Hisham's aunt and uncle are the abutting homeowners and are happy to allow the requested setback variance.

The structure can be considered temporary because its removal will be straightforward if there is a change in ownership.

Please allow this variance. Hisham and his family are facing so many challenges. I am urging you to do what you can to help lighten their load.

Thank you

Catherine Bock
175A N Prospect St

Dear Development Review Board,

We are hereby giving our full support for a Marian Price to get a variance from the Development Review Board for installing a WheelPad on her property.

We understand that this includes a 4 foot variance, for its placement between her house and Richard and Kimberly's house.

The WheelPad will allow Hisham Awartani privacy, independence and autonomy when he will be visiting his family in Burlington as he had been doing for many years. Hisham and his family are part of our neighborhood family, and we hope that the City can allow his grandmother's home to be accessible to him.

Thank you for your consideration.

Respectfully,

The Daly Family
501 North St,
Burlington, VT 05401

Dear Development Review Board,

My family lives across the street from Marian Price. I want you to know that our family is very supportive of the proposed WheelPad. Since we are the ones who live directly across the street and will be looking at it more than anyone else, I hope that our support adds extra weight. Thanks!

Kind,
John Meinen(and Megan)
139 N Prospect St,
Burlington, VT 05401

April 17, 2024

To the City of Burlington Development Review Board,

Marian Price, our neighbors on Prospect Street, have reached out to ask us to add our support in getting approval for a variance for installing a WheelPad, with a bedroom area and ADA-compliant bathroom, on their property. This construct will allow Hisham Awartani, her grandson, paralyzed in a Burlington shooting in November of last year, to return to Burlington in a comfortable living situation.

The tragic circumstances surrounding the senseless shooting of Hisham and two other young men cannot be reversed. What we can do, however, is to join together in helping Hisham return to Burlington and to his family.

Speaking on behalf of our congregation, Ohavi Zedek (“Lovers of Justice”), we join with others in the neighborhood is fully supporting the variance and the so that Hisham can return to his family’s home this summer.

- Jeff Potash, President and Aaron Philmus, Rabbi of Ohavi Zedek Synagogue

Dear DRB

I am writing to support the variance requested by Marian Price and Patrick Weise for setback to add an ADA compliant WheelPad on Marian's lot with a 3' X 4' connection to the house.

This variance is being requested to give Hisham Awartani, who was paralyzed in the November 25th shooting on North Prospect Street, an accessible place to live when he is on vacation from college. This will not only give him a comfortable place to live but will allow him to spend time with many family members. An accessible structure will provide privacy and give him some independence and dignity when he stays in Burlington.

Placing the unit in the requested location keeps the backyard open, which will benefit Hisham and his family.

Hisham's aunt and uncle are the abutting homeowners and are happy to allow the requested setback variance.

The structure can be considered temporary because its removal will be straightforward if there is a change in ownership.

Please allow this variance. Hisham and his family are facing so many challenges. I am urging you to do what you can to help lighten their load.

Thank you
Cathleen Sullivan
179 North Prospect Street
Burlington, VT

9 April 2024

To the City of Burlington Development Review Board

We are writing in support of allowing the variance requested by Marian Price and Patrick Weise, ZP-24-58; 140 North Prospect Street (RL, Ward 1) Marian E. Price 2005 Rev. Trust / Marian E. Price /Patrick Weise: Seeking a variance for north setback to add an ADA compliant WheelPad on lot with 3' X 4' connection to house.

This variance is being requested to allow Hisham Awartani, paralyzed victim of the November 25th attempted murder on North Prospect Street, to spend time with his grandmother and cousins. The accessible structure will provide privacy and give this young man some independence and a modicum of dignity when he stays in Burlington. Placing the unit in the requested location keeps the backyard open, which will be therapeutic for Hisham, physically and psychologically. The requested setback variance is in space the abutting homeowners, Hisham's aunt and uncle, are happy to allow. The structure is temporary in the sense that its removal is straightforward prior to changes in ownership.

The fact that Hisham was shot in Burlington does not oblige the City to do anything to help or support him at all. It does not mean extraordinary exceptions need to be made to make him comfortable. But basic humanity would dictate that the City not unnecessarily raise barriers or adhere to strict regulations or bureaucracy requirements which make someone's life, already shattered by tragedy, any harder. Basic humanity would respect the needs of Hisham and his family and make every effort to ease the hard work ahead of them all. Let's welcome Hisham home to a safe and compassionate Burlington.

Please approve the Price/Weise request for variance.

Thank you for your consideration.

Angie and Jonathan Chapple-Sokol
143 North Prospect Street

Dear Members of the Development Review Board,

Thank you for your service to our community; it is important and appreciated.

I am writing today to urge you to allow Marian Price (the owner of 140 N. Prospect) to attached a WheelPad to her home on the north side of the property, as proposed.

Given the circumstances surrounding the need for the WheelPad and given the fact that the owner's proposal seems to be the quickest, simplest, and most cost effective option to fill that need, it seems only right our community would make this accommodation.

I hope we can take this step, as an easy way our community can support Marian, Hashim, and their entire family.

With Appreciation,

Carter Neubieser

Ward 1 City Councilor

cneubieser@burlingtonvt.gov

April 8, 2024

Dear Development Review Board,

We are writing in support of our neighbors, Marian, Richard and Kimberly Price, whom have suffered an unimaginable tragedy in our city, the shooting of their grandson/nephew, Hashim, this past fall. Due to his injuries, he now requires a wheelchair and needs all of our community's support to continue to feel welcome and at home in our neighborhood and city.

Our family strongly supports Marian and Hashim's need for a Wheelpad located in the ideal location, between her home and Richard and Kimberly's home. We are fully supportive of the variance that she has applied for because it will allow Hisham to be close to his family and will be the most cost-effective option for her home. The variance will also allow her backyard to continue to be used by all family members as a gathering space when Hisham visits.

Again, we implore you to approve this variance so that Hisham and his family can continue be a part of our vibrant neighborhood community and feel welcome in Burlington!

Sincerely, Gretchen, Ethan, Adia, Cora, Maya and Wyatt Platt

Glenn McRae
131 Mansfield Ave.
Burlington, VT 05401
802-363-6700
Glennmcrae56@gmail.com

April 9, 2024

TO: Burlington DRB

RE: DRB application for a variance to install a WheelPad at 140 N. Prospect St.

I am writing both as a neighbor (we live directly across the block from No. Prospect to Mansfield from the address in question), and as a member of the Burlington Aging Council.

As a neighbor I want to wholeheartedly support the application for a variance to allow for the installation of the WheelPad unit at 140 No. Prospect. Not only does it meet a critical need for the family requesting it, but I find it an appropriate use of a technology that maintains the neighborhood aesthetics but allows for the critical changes and adaptations that homes will increasingly need. Given the number of aging neighbors, and the type of housing that has limited adaptability to allow for mobility impaired residents this is a very timely innovation to be applying in Burlington. I am familiar with the house in question and agree with the owner that first floor adaptations would be both extravagantly expensive and given the current climate in the construction industry would take an extraordinary amount of time to execute. The WheelPad is an ingenious, Vermont based device that can be rapidly deployed, meet a critical need, and is temporary – not a major structure imposition on the neighborhood. I am familiar with the WheelPad and know the owners and can attest to their integrity. This is a great technology that Burlington should be embracing.

For the past two years I have been co-chair of the Burlington Aging Council, appointed by City Council to develop an Action Plan to move Burlington to a more Age-Friendly status. I am on leave from the Council to accept a contract to write the final plan. While I do not speak for the Council and only am commenting from my experience in working with the group of stakeholders appointed by the City Council housing – and specifically lack of age appropriate and adaptive housing – is a big part of the current and future housing crisis facing the city. Adaptive technologies that allow for quick and cost-effective solutions to allowing people to age-in-place, or for people with mobility impairment to be in their homes is critical. The crisis facing those who are trying to leave our hospitals needing adaptations at home to relieve the pressure on hospital beds and the lack of adequate rehab clinics needs rapid responses that can be either temporary or permanent. WheelPad should be a very welcome tool to add to our approach in Burlington and we should celebrate being able to test it here and look at way to better accommodate this strategy rather than wait for new housing to be built or to suggest that we gut the first floors of homes to build in accessibility in the way that changes the nature of our housing stock with other consequences that we cannot foresee.

I urge the DRB to accept the application for a variance to allow this project to go forward on schedule and provide a positive city response, not just to the specific need, but to consider the greater social need that we are facing as a city.



Glenn McRae

To the Burlington Development Review Board:

We want to voice our very strong support for our neighbor, Marian Price, and her request for a four-foot variance in order to install a WheelPad on her property.

We live 2 doors away from the proposed project and think this is a wise and sensible solution for Marian to provide a home for her grandson who needs accessibility housing. It would be the responsible and just action for the Board to take after her grandson was shot and injured (paralyzed) on a Burlington street.

Please let us know if we can provide any additional information on how strongly we feel about this variance being granted as soon as possible.

Thank you for your consideration,
Kate and Scott Baldwin
132 North Prospect Street
Burlington

Dear Members of the Development Review Board,

As Marian Price's neighbor at 136 N. Prospect, we also share the driveway and want to lend our whole-hearted support for the zoning variance to allow her to place the temporary wheelchair accessible unit (wheel pad) on the north side of her property. This neighborhood, ourselves included were horrified by the shootings of Hisham Awartani, Keenan Abdalhamid and Tahseen Ali Ahmad and we hope this Wheel Pad will enable Hisham to make Burlington his home for the rest of his years of study, when not at University.

This family has been through enough, and they have researched their possibilities well, please don't make this process any more difficult than it must be and please grant them the variance they have asked for soon, so that Hisham has a place he can come home to this summer, here in Burlington, where he is surrounded by his family and that is also accessible for him.

Sincerely,

Kathleen Olwell
Wolfgang Weise
136 N. Prospect St.
Burlington, VT 05401

Dear Members of the DRB,

I'm writing to give my emphatic support for the WheelPad at 140 North Prospect Street. The structure will go between 140 and our property at 146 North Prospect.

The community lifted our family's spirits following the devastating shooting in November. I hope the community can once again support the family in this request to create a livable space for Hisham.

Best, Rich

146 North Prospect St
BURLINGTON VT 05401

Department of Permitting and Inspections

Zoning Division

645 Pine Street

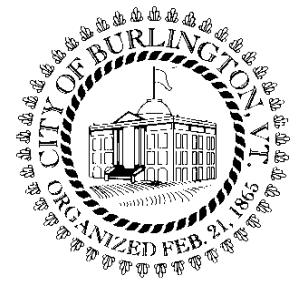
Burlington, VT 05401

<https://www.burlingtonvt.gov/DPI/Zoning-Permits>

Telephone: (802) 865-7188

(802) 865-7195 (FAX)

William Ward, Director
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Garret King, Associate Planner
Steven Cormier, Zoning Compliance Officer
Joseph Cava, Planning Technician
Ted Boylan, Permit Administrator



MEMORANDUM

To: Development Review Board
From: Mary O'Neil, AICP, Principal Planner
Date: May 7, 2024
RE: ZAP-24-3; 32-34 Hickok Place

Note: These are staff comments only. Decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.

File: ZAP-24-3

Location: 32-34 Hickok Place

Zone: RM **Ward:** 3

Date appeal application accepted: March 27, 2024

Decision date of Administrative denial: March 22, 2024

Appellant: Mel Hurlbut, Lewis Creek Builders

(The Assessor's database lists property owners as: Mary VanBuren Swasey, Francis Swasey, and Alice Van Buren)

The administrative decision (Denial, ZP-24-52) was issued March 22, 2024, and the appeal was filed March 27, 2024. No submission documents were uploaded, and no owner signature was provided.



Per Article 12, Variances and Appeals, **Section 12.2.1**, an interested person means any one of the following:

- a. *A person owning title to the property affected by a bylaw who alleges that such regulation imposes on such property unreasonable or inappropriate restrictions of present or potential use;*
- b. *The City of Burlington or any municipality which adjoins the city;*
- c. *A person owning or occupying property in the immediate neighborhood of property which is the subject of the decision and can demonstrate a physical or environmental impact on the person's interest;*
- d. *Any ten persons owning real property within the city or adjoining municipality...;*
- e. *Any department and administrative subdivision of the State of Vermont owning property or any interested therein, the city or an adjoining municipality, and the Vermont Agency of Development and Community Affairs; and;*

The programs and services of the City of Burlington are accessible to people with disabilities. For accessibility information call 865-7188 (for TTY users 865-7142).

f. The Burlington Conservation Board.

The appellant is a contracting company. The appeal application does not include a signature from any one holding title to the property, and is not submitted by any of those considered interested parties.

Section 12.2.2 Appeals of Administrative Officer Decisions, requires the following:

An appeal must be taken within fifteen (15) days after the date of decision or act appealed from, and is taken by filing a written notice of appeal with the administrative officer and the DRB. Such notice of appeal shall include:

- 1. The name and address of the appellant;*
- 2. A brief description of the property with respect to which the appeal is taken;*
- 3. A reference to the regulatory provisions applicable to that appeal;*
- 4. The relief requested by the appellant; and*
- 5. The alleged grounds why such requested relief is believed proper under the circumstances.*

As noted, the listed appellant does not satisfy the acceptable interested persons requirement of Section 12.2.1 (a contracting company, versus an owner). Additionally, no submission documents were uploaded (although the appeal submission includes some information within the “description of appeal” box). The remainder of the required submission materials are absent.

The Planning Technician commented within the appeal folder March 28, 2024 noting the absence of submission materials:

Hi Chris,

As part of our review of this appeal, can you please create and upload a narrative of the project, outlining applicable provisions in the zoning ordinance that would assist with your appeal? Thank you.

The Appeal period expired April 6th, which we would have carried forward to Monday April 8. There was no further document submission during the appeal period.

Subsequent to our communication, additional materials were uploaded to the Open Gov project folder on April 11, 2024 (Appeal letter), Roof Assessment an appeal narrative (April 16, 2024) and an additional narrative relative to the appeal (April 18, 2024. The dates of upload are within the descriptions of the attachments for confirmation.) **All** are outside of the appeal period which expired April 6, (carried to Monday, April 8) and are therefore untimely.

Recommendation: Finding that the **Appeal, as incomplete, was untimely;** and dismiss the Appeal of the Administrative Officer.

Should the DRB find the appeal timely, the following Background, Overview, and Standards will be considered:

Background:

- **Zoning Permit ZP-24-52;** Proposed replacement of failing slate roof with an asphalt shingle roof; prepare for future solar panel installation. Replace existing metal edge-band with new metal to retain architectural detail. **Denied**, March 22, 2024.
- **Zoning Permit 21-204 / 21-0882CA;** Replace siding, install fencing, install window. April, 2021.
- **Zoning Permit 20-0055CA;** rebuild front steps, add steel railing. Add small gable over steps at porch entrance. August 2019.
- **Zoning Permit 17-1196CA;** rebuild back porch at 34 Hickok, replace existing fence, replace insulation, new sheathing and replace siding in kind. May 2017.
- **Non-applicability of Zoning Permit Requirements 16-1402NA;** remove upper portion of north wall, stabilize and/or repair roof ridge, replace north wall with clapboard. Repair roof. June 2016.
- **Zoning Permit 11-0112FC;** replace 64 ft. of existing fence with new 6' high cedar stockade fence. August 2010.
- **Zoning Permit 94-098;** remove existing chimney on rear addition of existing duplex. Slate roof to remain, area to be filled in with slate or flashing. Structure listed on the State list of historic structures. August 1993.
- **Zoning Permit 89-386;** install 6' stockage fence along side property line. August 1989.

Overview:

On February 16, 2024, Mel Hurlbut of Lewis Creek Construction applied for a zoning permit for the following alteration: *Proposed replacement of failing slate roof with an asphalt shingle roof; prepare for future solar panel installation. Replace existing metal edge-band with new metal to retain architectural detail.*

The application was accompanied by an email from Edward Major of Majors Home Repairs in support of the replacement, citing an unidentified roof leak and insufficient slate headlap.

As the communication was not supported by any work references, came from a private gmail account, was not provided on a business letterhead and did not demonstrate familiarity with the nomenclature of common roof terms, staff requested and was provided a second opinion by a slate professional. The second opinion (accompanied by that of a different slater who worked on this roof in 2017) did not support the assertion of material failure to a degree that would demand wholesale replacement. The application was denied March 22, 2024 with attached Reasons for Denial.

An appeal was submitted and application paid March 27, 2024; within the 15 day appeal period. Although the date of filing was timely, the appeal lacked an owner signature, appellants that satisfied the list of *interested persons*, and did not provide supporting information. As such, it remained incomplete through the end of the appeal period.

If found to be a timely appeal, recommended motion: Uphold Administrative decision, and deny appeal of Administrator's decision per the following Findings.

I. Findings

Article 5: Citywide General Regulations

Sec. 5.4.8 Historic Buildings and Sites

The City seeks to preserve, maintain, and enhance those aspects of the city having historical, architectural, archaeological, and cultural merit. Specifically, these regulations seek to achieve the following goals:

To preserve, maintain and enhance Burlington's historic character, scale, architectural integrity, and cultural resources;

To foster the preservation of Burlington's historic and cultural resources as part of an attractive, vibrant, and livable community in which to live, work and visit;

To promote a sense of community based on understanding the city's historic growth and development, and maintaining the city's sense of place by protecting its historic and cultural resources; and,

To promote the adaptive re-use of historic buildings and sites.

(a) Applicability:

These regulations shall apply to all buildings and sites in the city that are listed, or eligible for listing, on the State or National Register of Historic Places.

32-34 Hickok Place is listed on the Vermont State Register of Historic Resources. Section 5.4.8 therefore applied.

(b) Standards and Guidelines:

The following development standards, following the Secretary of the Interior's Standards for the Treatment of Historic Properties, shall be used in the review of all applications involving historic buildings and sites subject to the provisions of this section and the requirements for Design Review in Art 3, Part 4. The Secretary of the Interior's Standards are basic principles created to help preserve the distinctive character of a historic building and its site. They are a series of concepts about maintaining, repairing and replacing historic features, as well as designing new additions or making alterations. These Standards are intended to be applied in a reasonable manner, taking into consideration economic and technical feasibility.

1. *A property will be used as it was historically or be given a new use that requires minimal change to its **distinctive materials**, features, spaces, and spatial relationships.*

The property remains residential. The request to replace the existing slate roof with asphalt shingle is not related to a change in use. A change is proposed, however, to distinctive materials.

Adverse finding.

2. *The historic character of a property will be retained and preserved. The removal of **distinctive materials** or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.*

The removal of the slate roof and replacement with asphalt shingle is contrary to this standard.

Adverse finding.



3. *Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.*

No conjectural features are proposed.

4. *Changes to a property that have acquired historic significance in their own right will be retained and preserved.*

Not applicable.

5. ***Distinctive materials**, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.*

The removal of the slate roof and replacement with asphalt shingles is contrary to this standard.

Adverse finding.

6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials recognizing that new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for*

an efficient contemporary use. Replacement of missing features will be substantiated by documentary and physical evidence.

The slate roof is an original, character defining feature of 32-34 Hickok Place. The wholesale removal and replacement with asphalt shingles is contrary to this standard.

If one qualified as a slater can provide submission documents, after inspection, that any original material has reached the end of its serviceable life, then a replacement material may be considered.

The submission email from Major's Home Repairs did not reflect experience or knowledge about the characteristics of slate roofs and a terminology that supported familiarity. (Rather than a "metal edge-band" on the roof, the accepted term is "snow belt".) Installation lap common to this area was found by Mr. Major to be a deficiency. Mr. Major's email did not assure confidence in his expertise, qualifications or submitted assessment. He was not able or did not include identification of the type and age of the existing slate, the type and condition of fasteners, and the qualitative and quantitative condition of the roof. A second opinion was sought by the City, and three slate roof companies were contacted. Two were engaged in other projects at the time of inquiry, however one confirmed he had worked on the roof as recently as 2017 and it was not in a state of failure at that time. A third slater made multiple trips to the site; his assessment is attached to this report.

When staff contacted the applicant to arrange for the 2nd opinion inspection (March 11, 2024), the contracting firm immediately tarped the roof. Split Rock Restoration made two visits to inspect the roof, and staff requested that the tarp be removed for the analysis. It was only partially removed for the 2nd opinion inspection, and the slater recorded the limitation within his report.

Split Rock Restoration indicated that general slate repair and flashing replacement were possible with a resultant anticipated continued roof life of at least 50 years.

Adverse finding.

7. *Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.*

Wholesale removal of a major historic building material is a physical treatment that diminishes the integrity of the historic building.

Adverse finding.

8. *Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.*

Not applicable.

9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment.*

Solar panels and slate are fundamentally incompatible. Either the slate has to be removed to install on a less fragile surface, or the slate is irretrievably damaged by the installation. The majority of slate loss is due to installation professionals walking on the roof.

Consideration of alternative energy solutions for historic structures, specifically solar panels, is addressed within the *City of Burlington Historic Buildings' Path to Net Zero Energy* guidance document which was released in October 2021. It includes the following:

It is NOT recommended to install solar panels on slate roofs as they can be prone to damage during the installation process. If the primary roof of your building is slate, you may install solar on shed and porch roofs. (p. 34.)

Staff suggested that solar panels be considered for the rear additions. Another available option would be to ground-mount the solar collectors.

Also from the guidance document:

Solar Panels [re: Historic Structure]: Preferably not visible from public ways. (p. 22)

While alternative energy solutions are encouraged, the loss of historic material on a listed property and the introduction of highly visible rooftop equipment is contrary to this standard.

Adverse finding.

10. *New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

While the solar panels are reversible, the loss of original material negatively affects the material integrity of the property. **Adverse finding.**

Article 6: Development Review Standards

Section 6.2.2 Site Plan Design Standards

(d) Protection of Important Cultural Resources

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves sites listed or eligible for listing on a state or National Register of Historic Places, the applicant shall meet the applicable development and design standards pursuant to Section 5.4.8 (b).

See above. **Adverse finding.**

Section 6.3.2 Architectural Design Standards

b) Protection of Important Architectural Resources

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves buildings listed or eligible for listing on a state or National Register of Historic

Places, the applicant shall meet the applicable development and design standards pursuant to Section 5.4.8 (b).

See above. **Adverse finding.**

Please note: While the *City of Burlington Historic Buildings' Path to Net Zero* is not a regulatory document, it does provide common-sense guidance to property owners. That guide underscores the need to retain historic integrity through material retention and consideration of mechanical placement while still acting towards Burlington's common goals of Net Zero Energy. There are typically alternatives in every project.

The guidance document was shared with the applicant during permit review.

NOTE: These are staff comments only. The Development Review Board, who may approve, table, modify, or deny projects, makes decisions.



Department of Permitting and Inspections

645 Pine Street
Burlington, VT 05401-8415
Phone: (802) 865-7188

www.burlingtonvt.gov/dpi

Zoning Permit Application – Owner's Signature & Consent

For use when the applicant is acting on behalf of the property owner.

PROJECT LOCATION ADDRESS: 32-34 Hickok Place

PROPERTY OWNER*: Frank Swasey

*If condominium unit, written approval from the Association is also required

APPLICANT: Lewis Creek Builders

POSTAL ADDRESS: 32-34 Hickok Place

CITY, ST, ZIP: Burlington, VT 05401

DAY PHONE: _____

EMAIL: frank.swasey@gmail.com

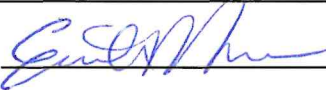
SIGNATURE: 

POSTAL ADDRESS: 14 Morse Drive

CITY, ST, ZIP: Essex Junction, VT 05464

DAY PHONE: 4135371287

EMAIL: mgmt@lewiscreekbuilders.com

SIGNATURE: 

Property owner signature authorizes the applicant (if noted) to act on owner's behalf for all matters pertaining to this zoning permit application. Signature also consents to the proposed work and to inspection by city zoning staff to close out the zoning permit upon project completion.

Description of Proposed Project: Replace failing slate roof with asphalt shingle in preparation
for future solar array. Replace existing metal edge-band with new
metal to retain architectural detail.

Frank Swasey's Roof

edward major <majorshomerepairs@gmail.com>
To: Emily Morse <emily@lewiscreekcompany.com>

Tue, Feb 20, 2024 at 12:20 PM

To whom it may concern:

My name is Edward Major, of Major's Home Repairs. I recently did some slate repairs for Frank Swasey at 32 Hickock place in Burlington. The objective was to fix a leak from an unknown source. During my exploration I could not find any single source, and it actually appeared to be coming in from everywhere. Upon investigating this further I discovered that there is only 1 1/2"- 2" of headlap on the slate. The normal for all roofs with the exception of a 12/12 pitch is 3". It's my professional opinion that this lack of headlap is the source of water infiltration. The reason it has gone unnoticed is because the water was draining out on the rosin paper beneath the slate, but now that has disintegrated. There is further evidence in the attic space where you can see insulation clumped together where water has dripped from between the roof slats onto it. Unfortunately there is no easy solution for this issue, besides redoing the roofing.

I worked as a steeplejack for Yankee Steeplejack Company out of Harvard, Ma from 2005-2017. We did historical restoration of church steeples and other hard to access structures which included lots of slate and copper work.

If there are any questions for me please contact me at:
802-782-6843
Majorshomerepairs@gmail.com

Thank you
Edward Major

On Fri, Feb 16, 2024, 11:38 AM Emily Morse <emily@lewiscreekcompany.com> wrote:
[Quoted text hidden]



NO CHANGES

32-34

32

NEW ASPHALT SHINGLE

NEW METAL

NO CHANGES





NEW ASPHALT SHINGLE (BACKSIDE TOO)

NEW METAL BAND

NO CHANGES TO PORCH ROOF



Historic Preservation
5602

HISTORIC SITES & STRUCTURES SURVEY Individual Structure Survey Form

COUNTY:	Chittenden
TOWN:	Burlington
LOCATION:	32-34 Hickok Place
COMMON NAME:	
FUNCTIONAL TYPE:	residence/apartment
OWNER:	Martin & Shiela C. VanBuren
ADDRESS:	34 Hickok Place Burlington Vt
ACCESSIBILITY TO PUBLIC:	Yes ☐ No ☒ Restricted ☐
LEVEL OF SIGNIFICANCE:	Local ☒ State ☐ National ☐
GENERAL DESCRIPTION:	

Structural System

- Foundation: Stone ☒ Brick ☐ Concrete ☐ Concrete Block ☐
- Wall Structure
 - Wood Frame: Post & Beam ☐ Balloon ☒
 - Load Bearing Masonry: Brick ☐ Stone ☐ Concrete ☐ Concrete Block ☐
 - Iron ☐ d. Steel ☐ e. Other:
- Wall Covering: Clapboard ☒ Board & Batten ☐ Wood Shingle ☒ Shiplap ☐ Novelty ☐ Asbestos Shingle ☐ Sheet Metal ☐ Aluminum ☐ Asphalt Shingle ☐ Brick Veneer ☐ Stone Veneer ☐ Bonding Pattern: Other:
- Roof Structure
 - Truss: Wood ☒ Iron ☐ Steel ☐ Concrete ☐
 - Other:
- Roof Covering: Slate ☒ Wood Shingle ☐ Asphalt Shingle ☐ Sheet Metal ☐ Built Up ☐ Rolled ☐ Tile ☐ Other:
- Engineering Structure:
- Other:

Appendages: Porches ☒ Towers ☐ Cupolas ☐ Dormers ☐ Chimneys ☒ Sheds ☐ Ells ☒ Wings ☐ Bay Window ☐ Other:

Roof Style: Gable ☒ Hip ☐ Shed ☐ Flat ☐ Mansard ☐ Gambrel ☐ Jerkinhead ☐ Saw Tooth ☐ With Monitor ☐ With Bellcast ☐ With Parapet ☐ With False Front ☐ Other:

Number of Stories: 2 1/2

Number of Bays: 4 x 2

Approximate Dimensions: _____

Entrance Location: both center

THREAT TO STRUCTURE:
No Threat ☐ Zoning ☐ Roads ☐ Development ☐ Deterioration ☐ Alteration ☐ Other:

SURVEY NUMBER:	32-34 Hickok Place
NEGATIVE FILE NUMBER:	78-A-158, 78-A-277
UTM REFERENCES:	Zone/Easting/Northing
U.S.G.S. QUAD. MAP:	
PRESENT FORMAL NAME:	
ORIGINAL FORMAL NAME:	Dr. A. J. Willard owner rental property
PRESENT USE:	apartments
ORIGINAL USE:	apartments
ARCHITECT/ENGINEER:	
BUILDER/CONTRACTOR:	Z. T. Austin
PHYSICAL CONDITION OF STRUCTURE:	Excellent ☐ Good ☒ Fair ☐ Poor ☐
STYLE:	Vernacular Shingle
DATE BUILT:	c. 1889 Style

LOCAL ATTITUDES:
Positive ☐ Negative ☐ Mixed ☐ Other:

ADDITIONAL ARCHITECTURAL OR STRUCTURAL DESCRIPTION:

Massing - Rectangular; rear 1 story ell.

Penetration - 4 x 2; 1/1 sash and 2/2 sash on rear & sides. Paired windows on facade.

Entrance - 4 x 1, 1 story end porch with chamfered posts, simple balustrade, curvilinear braces, plain entablature; 2 glass and panel doors.

Cornice - Projecting eaves, partial returns, plain frieze.

Clapboarded on 1st story with cornerboards, shingled 2nd story.

RELATED STRUCTURES: (Describe)

(In fair to poor condition) Barn c. 1895, concrete foundation, clapboard with board & batten, gable roof, 2 bays wide (garage doors now) 2 stories, 1 6/6 sash window on south elevation.

STATEMENT OF SIGNIFICANCE:

This vernacular house was built by Z. T. Lrustin for Dr. A. J. Willard, owner of Willard Sanatorium on North Prospect Street, and a prominent Burlington physician. It was most likely built as rental property and represents the rising interest in speculative and investment real estate by upper middle class Burlington citizens. It is one of very few houses, in this rapidly developing neighborhoods, to have an accompanying barn to the rear of the house. Simple in plan and design, it is one of the first buildings on Hickok Place, and, there, is an early example of the housing available to middle class workers in the late 19th century. It contributes its size, scale and massing to the cohesive profile of the streetscape.

REFERENCES:

Burlington City Directories; Burlington City Map 1890; Sanborn Insurance Maps 1889, 1894, 1900, 1906, 1912; Burlington Free Press 2/8/1889.

MAP: (Indicate North in Circle)



SURROUNDING ENVIRONMENT:

Open Land ☐ Woodland ☐
Scattered Buildings ☐
Moderately Built Up ☐
Densely Built Up ☒
Residential ☒ Commercial ☒
Agricultural ☐ Industrial ☐
Roadside Strip Development ☐
Other:

RECORDED BY:
Gloria Scott

ORGANIZATION:
VT. Div. for Historic Preservation

DATE RECORDED:
September 10, 1978



TruDefinition®
DURATION®

Shingles with Patented SureNail® Technology
Tejas con tecnología patentada SureNail®



Driftwood®



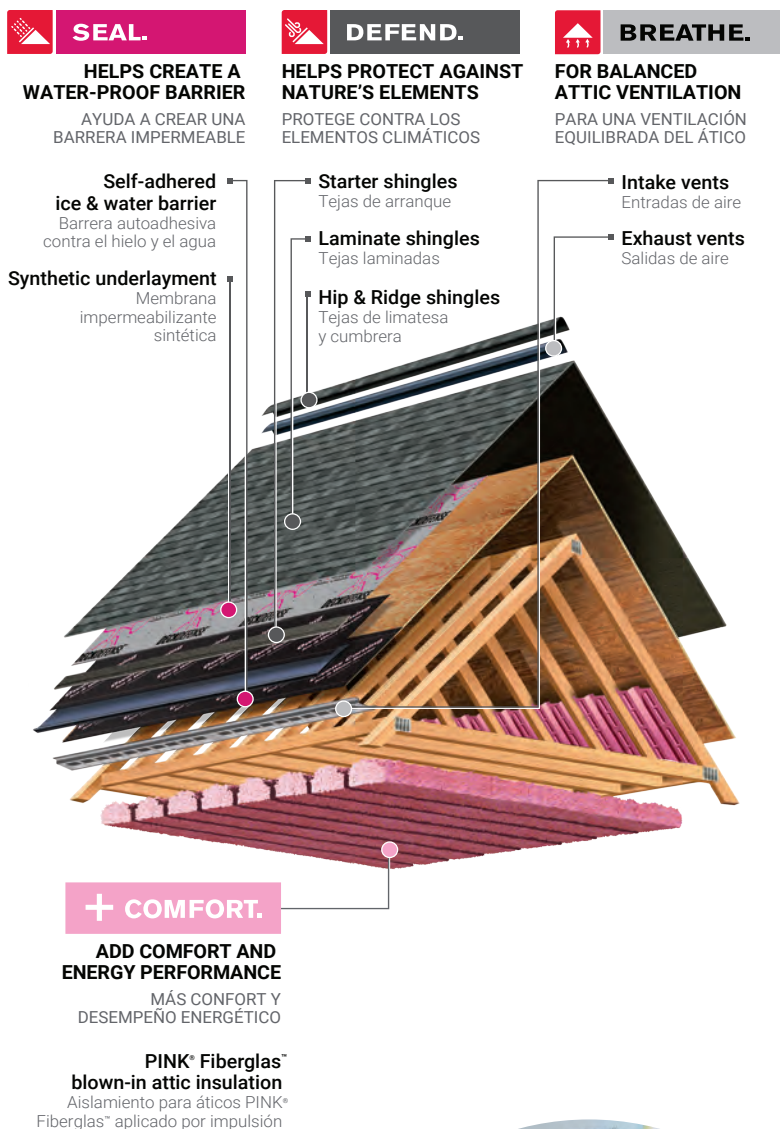


TOTAL PROTECTION SIMPLIFIED™

It takes more than just shingles to protect a home. It takes an integrated system of components and layers designed to perform in three critical areas. The Owens Corning® Total Protection Roofing System® gives you the assurance that all of your Owens Corning® roofing components are working together to help increase the performance of your roof.

PROTECCIÓN TOTAL SIMPLIFICADA™

Se necesita más que simplemente tejas para proteger su vivienda. Se necesita un sistema integral de componentes y capas diseñadas para desempeñarse en tres áreas críticas. El Total Protection Roofing System® de Owens Corning® le garantiza que todos sus componentes para cubiertas de Owens Corning® funcionan en conjunto para mejorar el desempeño de su techo.



REGISTER YOUR WARRANTY

Registering your Owens Corning® warranty ensures it's easily referenced should you ever need to access it. The process is easy—just have your installation date, shingle type, shingle color and number of squares ready. Then go online to www.owenscorning.com/roofingstandardwarranty or call 1-800-ROOFING (1-800-766-3464) to finish the process.



**SCAN TO REGISTER
YOUR WARRANTY**

Escanee para registrar
su garantía

REGISTRE SU GARANTÍA

Al registrar su garantía de Owens Corning® la podrá consultar rápidamente si fuera necesario acceder a ella. El proceso es simple: tenga a mano la fecha de instalación, el tipo y color de tejas y la cantidad de cuadrados. Luego, visite www.owenscorning.com/roofingstandardwarranty o llame al 1-800-ROOFING (1-800-766-3464) para completar el proceso.



DEEP DIMENSION OUTSTANDING PERFORMANCE

Duration® Shingles offer:

- The high-performance of SureNail® Technology
- A TruDefinition® Color Platform
- A Limited Lifetime Warranty*[‡] for as long as you own your home
- The protection of a 130-MPH* wind warranty
- StreakGuard™ Protection with a 25-year Algae Resistance Limited Warranty^{3/§}

UNA NUEVA DIMENSIÓN DESEMPEÑO SOBRESALIENTE

Las tejas Duration® ofrecen:

- El gran desempeño de la tecnología SureNail®
- La gama de colores TruDefinition®
- Una garantía limitada de por vida*[‡] mientras sea propietario de la vivienda
- La protección de una garantía contra vientos de hasta 210 km/h (130 mph)*
- Protección StreakGuard™ con una garantía limitada de 25 años de resistencia a las algas ^{3/§}



Don't let black streaks lower the value or curb appeal of your home.

Owens Corning blends specialized copper-lined granules, developed by 3M, a leading producer of roofing granules, into our colorful shingles. This helps resist blue-green algae growth.*

No deje que las manchas de algas afecten al valor o aspecto de su vivienda.

En sus coloridas tejas, Owens Corning añade gránulos especiales con recubrimiento de cobre, desarrollados por 3M, un productor líder de gránulos para techos. Esto ayuda a prevenir la proliferación de algas azul-verdosas.*



THE FINISHING TOUCH

OWENS CORNING® HIP & RIDGE SHINGLES

Owens Corning® Hip & Ridge Shingles are uniquely color matched to TruDefinition® Duration® Shingles. The multiple color blends are only available from Owens Corning® Roofing and offer a finished look for the roof.

EL TOQUE FINAL

TEJAS DE LIMATESA Y CUMBRERA DE OWENS CORNING®

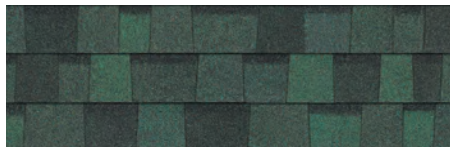
Las tejas de limatesa y cumbrera de Owens Corning® se ofrecen en una exclusiva gama de colores para combinar con las tejas Duration® TruDefinition®. Esta gran variedad de combinaciones de colores es una exclusividad de Owens Corning® Roofing para lograr techos con un acabado único.

TruDefinition®
DURATION®

Shingles with Patented SureNail® Technology | Tejas con tecnología patentada SureNail®



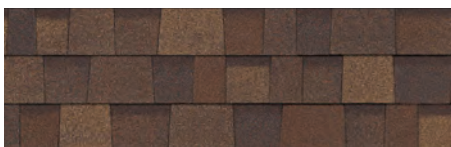
Brownwood¹



Chateau Green¹



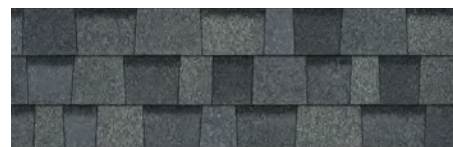
Colonial Slate¹



Desert Rose¹



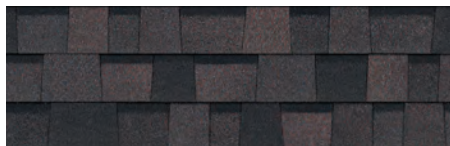
Driftwood¹



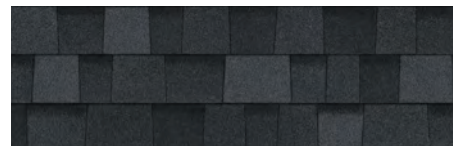
Estate Gray¹



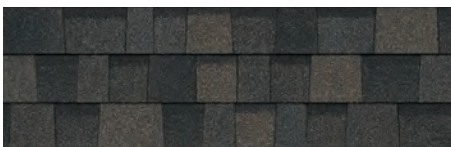
Harbor Blue¹



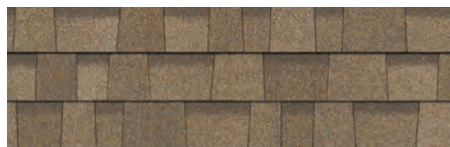
Midnight Plum¹



Onyx Black¹



Peppercorn¹



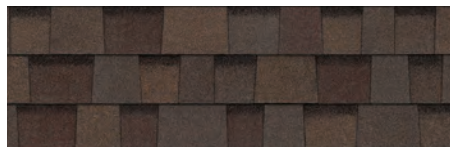
Sand Castle¹



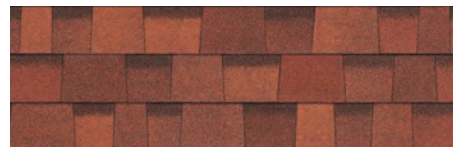
Sierra Gray¹



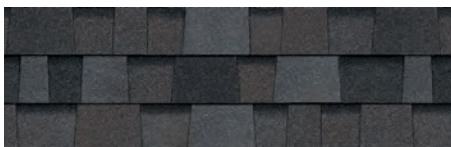
Slatestone Gray¹



Teak¹



Terra Cotta¹



Williamsburg Gray¹

COLOR DISCLAIMER

As color experts, we know getting the shingle color right is a big part of any roofing purchase. Due to printing color variations, in addition to viewing shingle literature, we suggest you request an actual shingle sample to see how it will appear on your home and with your home's exterior elements in various natural lighting conditions. Lastly, we recommend you verify your color choice by seeing it installed on an actual home; your roofing contractor or supplier can provide a sample and may be able to direct you to a local installation.

DESCARGO DE RESPONSABILIDAD SOBRE LOS COLORES

En tanto que especialistas en color, sabemos que obtener el color de teja perfecto es una parte importante en toda compra de techos. Debido a las variaciones en los colores impresos, además de mirar folletos de tejas, le sugerimos que solicite una muestra de la teja para ver como se verá en su hogar y con los elementos externos de la vivienda bajo distintas condiciones de luz natural. Finalmente, le recomendamos que para verificar su elección de colores, vea cómo lucen las tejas ya instaladas en una vivienda; su contratista de techos o su proveedor le pueden dar una muestra e incluso indicarle dónde ver un techo ya instalado.

THERE'S A LINE BETWEEN A GOOD SHINGLE AND A GREAT SHINGLE.®

It's the nailing line on your shingles. The difference between a good shingle and a great shingle is having Patented SureNail® Technology, only from Owens Corning.

HAY UNA GRAN DIFERENCIA ENTRE UNA BUENA TEJA Y UNA TEJA EXCELENTE™

Es la línea de clavado en su tejas. La diferencia entre una buena teja y una teja excelente es la tecnología patentada SureNail®, una exclusividad de Owens Corning.

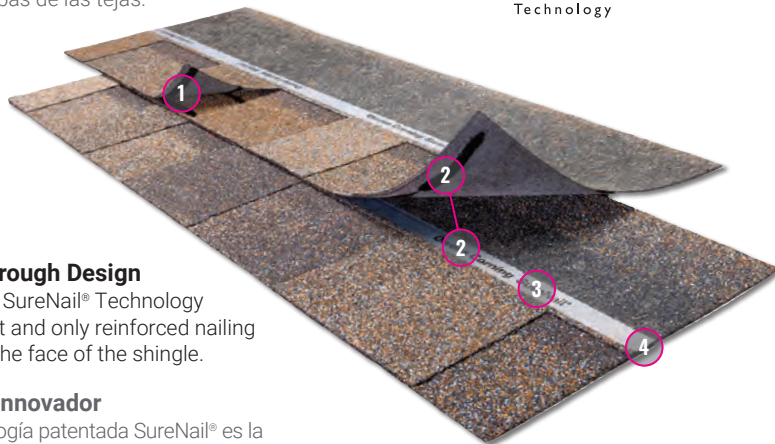
1

Excellent Adhesive Power

Helps keep the shingle layers laminated.

Excelente poder adhesivo

Ayuda a conservar el laminado de las capas de las tejas.



2

Breakthrough Design

Patented SureNail® Technology is the first and only reinforced nailing zone on the face of the shingle.

Diseño innovador

La tecnología patentada SureNail® es la primera y la única que provee un área de clavado reforzada en la cara de la teja.

"No Guess" Wide Nailing Zone

This tough, engineered woven-fabric strip is embedded in the shingle to create an easy-to-see, strong, durable fastener zone.

Área de clavado ancha, sin cálculos "a ojo"

Esta banda resistente de tela mecánica tejida está incrustada en la teja para proveer un área de sujeción resistente, duradera y fácil de detectar.

3

Outstanding Grip

The SureNail® strip enhances the already amazing grip of our proprietary Tru-Bond®** sealant for exceptional wind resistance of a 130-MPH wind warranty.

Agarre excepcional

La banda SureNail® mejora el excelente agarre de nuestro sellador patentado Tru-Bond®** con una garantía de resistencia al viento excepcional de 210 km/h (130 mph).

4

Triple Layer Protection®+

A unique "triple layer" of reinforcement occurs when the fabric overlays the two shingle layers, providing increased protection against "nail pull" from the wind.

Triple Layer Protection®+

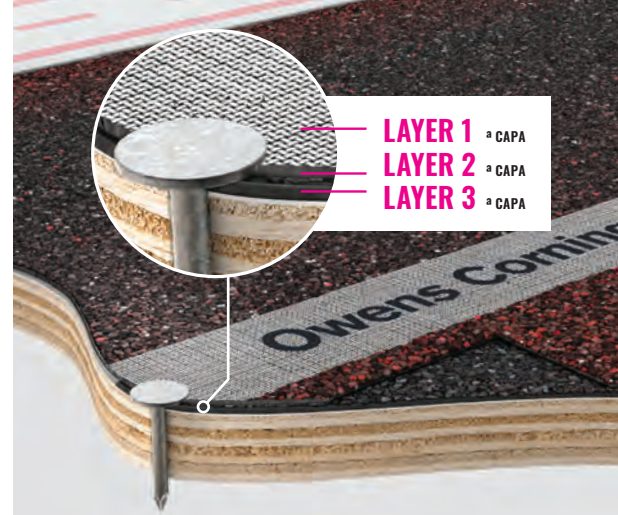
Cuando la tela cubre las dos capas de la teja, se forma una "triple capa" de refuerzo excepcional que ofrece una mayor protección ante el "arranque de clavos" debido al viento.

Double the Common Bond

SureNail® features up to a 200% wider bond between the shingle layers in the nailing zone over standard shingles.

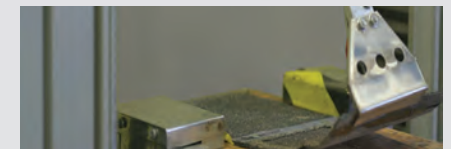
Duplica la adherencia común

En comparación con las tejas comunes, SureNail® ofrece un área de unión hasta un 200 % más ancha entre las capas de la teja en el área de clavado.



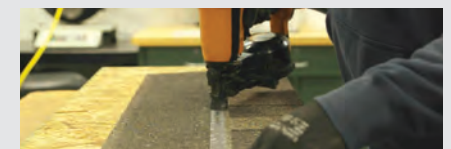
THE PROOF IS IN THE PERFORMANCE

LA PRUEBA ESTÁ EN EL DESEMPEÑO



Up to
2.5X
BETTER
NAIL PULL-THROUGH RESISTANCE

Hasta
2.5
VECES MEJOR
RESISTENCIA A LA TRACCIÓN DE LOS CLAVOS



Up to
9X
BETTER
NAIL BLOW-THROUGH RESISTANCE

Hasta
9
VECES MEJOR
RESISTENCIA AL DESPRENDIMIENTO DE LOS CLAVOS



Up to
2X
BETTER
DELAMINATION RESISTANCE

Hasta
2
VECES MEJOR
RESISTENCIA A LA DELAMINACIÓN

Product Attributes

Warranty Length*

Limited Lifetime†
(for as long as you own your home)

Wind Resistance Limited Warranty*

130-MPH

Algae Resistance Limited Warranty*§

25 Years

TRU PROtection® Non-Prorated Limited Warranty* Period

10 Years



TruDefinition® Duration® Shingles Product Specifications

Size	13¼" x 39⅝"
Application Exposure	5⅝"
Shingles per Bundle	Not less than 20
Average Shingle Count per 3 Bundles	64
Average Coverage per 3 Bundles	98.4 sq. ft.

Applicable Standards and Codes

ASTM D3462

ASTM D228

ASTM D3018 (Type 1)

ICC-ES AC438#

ASTM D3161 (Class F Wind Resistance)

ASTM D7158 (Class H Wind Resistance)

ASTM E108/UL 790 (Class A Fire Resistance)

PRI ER 1378E01

Florida Product Approval

Miami-Dade County Product Approval²

Características del producto

Período de garantía*

Garantía limitada de por vida†
(mientras sea propietario de la vivienda)

Garantía limitada de resistencia al viento*

210 km/h (130 mph)

Garantía limitada de resistencia a las algas*§

25 años

Período no prorrateado de garantía limitada TRU PROtection®

10 años



Especificaciones de las tejas Duration® TruDefinition®

Tamaño	33.65 × 100 cm (13¼ × 39⅝ pulg)
Exposición de aplicación	14.3 cm (5⅝ pulg)
Tejas por paquete	20 como mínimo
Cantidad promedio de tejas por 3 paquetes	64
Cobertura promedio por 3 paquetes	9.14 m² (98.4 pies²)

Normas y códigos pertinentes

ASTM D3462

ASTM D228

ASTM D3018 (Tipo 1)

ICC-ES AC438*

ASTM D3161 (Resistencia al viento, Clase F)

ASTM D7158 (Resistencia al viento Clase H)

ASTM E108/UL 790 (Resistencia al fuego Clase A)

PRI ER 1378E01

Aprobación del producto en el estado de Florida

Producto aprobado por el condado de Miami-Dade²

* See actual warranty for complete details, limitations and requirements.

† 40-Year Limited Warranty on commercial projects.

‡ Owens Corning testing against competing products with wide, single-layer nailing zones when following manufacturers' installation instructions and nailing in the middle of the allowable nailing zone.

** Tru-Bond® is a proprietary premium weathering-grade asphalt sealant that is blended by Owens Corning Roofing® and Asphalt, LLC.

+ The amount of Triple Layer Protection® may vary on shingle-to-shingle basis.

International Code Council Evaluation Services Acceptance Criteria for Alternative Asphalt Shingles.

^ Excludes non-Owens Corning® roofing products such as flashing, fasteners, pipe boots and wood decking.

1 See Color Disclaimer information on page 2 for additional details.

2 Applies to all areas that recognize Miami-Dade Notice of Acceptance (NOA).

3 Shingles are algae resistant to control the growth of algae and discoloration.

§ This coverage is effective 1/1/2023; Installation must include use of an Owens Corning® Hip & Ridge product. See actual warranty for details.

For Patent information, please visit owenscorning.com/patents.

SureNail® Technology is not a guarantee of performance in all weather conditions.

4 Owens Corning® Black Sable shingle includes a patented design.

* Consulte la garantía para obtener una lista completa de detalles, limitaciones y requisitos.

† Garantía limitada de 40 años para proyectos comerciales.

‡ Ensayos comparativos de Owens Corning con productos de la competencia con zonas de clavado ancho de una sola capa cuando se siguen las instrucciones de instalación del fabricante y se clava en el medio de la zona de clavado permitida.

** Tru-Bond® es un sellador asfáltico patentado de calidad premium formulado por Owens Corning Roofing® and Asphalt, LLC.

+ La cantidad de Triple Layer Protection® puede variar entre una teja y otra.

Criterios de aceptación de los servicios de evaluación del Consejo Internacional de Códigos para tejas asfálticas alternativas.

^ Se excluyen productos para techos no fabricados por Owens Corning®, como tapajuntas, sujetadores, bases de tubos y estructuras de soporte de madera.

1 Para obtener más información, consulte el Descargo de responsabilidad sobre los colores, en la página 2.

2 Aplicable a todas las zonas que reconocen el Aviso de aceptación (NOA, Notice of Acceptance) del condado de Miami Dade.

3 Las tejas son resistentes a las algas para controlar su desarrollo y la decoloración.

§ Esta cobertura entra en vigor el 1 de enero de 2023; la instalación debe incluir el uso de un producto para limatesa y cumbrera de Owens Corning®.

Para información sobre la patente, visite www.owenscorning.com/patents.

La tecnología SureNail® no es una garantía de desempeño en todos los tipos de condiciones climáticas.

4 Las tejas Black Sable de Owens Corning® incluyen un diseño patentado.



OWENS CORNING ROOFING AND ASPHALT, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO, USA 43659

1-800-GET-PINK® | 1-800-438-7465
www.owenscorning.com

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(Kearny)

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Split Rock Restoration, LLC

Grant Thibault
317 N. Winooski Ave Apt 3
Burlington, VT 05401
Splitrockrestoration.com

Slate Assessment for 32 Hickok Place Union Street-Burlington, VT

-Slate Identification:

The roof is slated with VT Sea Green .These are S1 rated slates and typically last anywhere from 150-200+ years. I was informed by the builder on site that the house was moved to that spot in the 1930's so the slate is likely around 90 years old.

Overall Assessment:

Based on the information I was given;photos of the roof before the tarp was installed; the exposed North-western rake and assessing the roof from the attic; the roof seems to be well in its lifespan of a restore. There is consistent 2" of headlap throughout which was the standard 100 years ago when these roofs were installed. The slates were sitting well and the fasteners still seemed intact as the rake slates were straight and in place. My professional opinion is that the slates themselves could last another 50 years minimum.

Like any 100 year old roof though, it's very likely that all the roof flashings need to be replaced; There's a chimney and vent on the south face that probably need to be reflashed and a tired snowbelt that might be salvageable and if so could be sanded, cleaned and painted to give it extra life. Additionally, roll on roofing applications can be installed over the existing snow pan to give it a more permanent repair.

There are also a couple areas where the roof decking might have to be replaced. General slate repairs would have to be completed throughout as there were a few noticeable nail/bib holes. Roofs of this age typically need about 20% of the slates addressed in some manner, and around 30% if there have been improper repairs. Southern faces usually produce a fair amount of end of life slates as well.

*I was also informed that the roof has been worked on by a slate professional a couple times a few years ago, and that they didn't notice anything alarming but recommended getting the snowbelt painted.

*I was only able to assess a small section of the roof as a tarp was installed and we were due for rain the next day. I have been exclusively a slate roof for over 5 years and have worked on hundreds of roofs in Burlington. I'm confident in my assessment but I had to make a lot of educated guesses based off the info given and my experience.

- Full Restore w/o snowbelt- Approx. \$20,000
- Full Restore Cost w/ new copper snowbelt- Approx. \$35,000
- Cost of emergency repairs - Approx. \$4-8,000



City of
Burlington, Vermont
645 Pine Street

Zoning Permit – Reasons for Denial

ZP #: 24-52

Tax ID: 045-2-069-000

Issue Date: March 22, 2024

Decision: Denied

Property Address: 32-34 Hickok Place

Description: Proposed replacement of failing slate roof with an asphalt shingle roof; prepare for future solar panel installation. Replace existing metal edge-band with new metal to retain architectural detail.

Reasons for Denial:

1. 32-34 Hickok Place is listed on the Vermont State Register of Historic Resources. Therefore, the standards of Section 5.4.8 apply.

2. From **Section 5.4.8 Historic Buildings and Sites**

(b) Standards and Guidelines

2. *The historic character of a property will be retained and preserved. **The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.***

The removal of the slate roof and replacement with asphalt shingle is contrary to this standard.

Adverse finding.

5. ***Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.***

The removal of the slate roof and replacement with asphalt shingle is contrary to this standard.

Adverse finding.

6. *Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials recognizing that new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for an efficient contemporary use.*

The roof slate is a character defining feature of 32-34 Hickok Place. The wholesale removal and replacement with asphalt shingles is contrary to this standard.

A second opinion provided by a qualified slater did not concur with the submission from Major's Home Repair, and found that general slate repair and flashing replacement were possible with a resultant anticipated continued roof life of at least 50 years. **Adverse finding.**

9. *New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property.*

Replacement of a historic slate roof with asphalt shingles is contrary to this standard.

Adverse finding.

3. Section 6.2.2 Site Plan Design Standards

(d) Protection of Important Cultural Resources

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves sites listed or eligible for listing on a state or National Register of Historic Places, the applicant shall meet the applicable development and design standards pursuant to Section 5.4.8 (b).

See above. **Adverse finding.**

4. Section 6.3.2 Architectural Design Standards

(b) Protection of Important Architectural Resources

Burlington's architectural and cultural heritage shall be protected through sensitive and respectful redevelopment, rehabilitation, and infill. Where the proposed development involves buildings listed or eligible for listing on a state or National Register of Historic Places, the applicant shall meet the applicable development and design standards pursuant to Section 5.4.8 (b).

See above. **Adverse finding.**

Additional comment:

City of Burlington Historic Buildings' Path to Net Zero Energy guidance document offers the following:

Solar Panels [re: historic structures]: Preferably not visible from public ways. (p. 22)

It is NOT recommended to install solar panels on slate roofs as they can be prone to damage during the installation process. If the primary roof of your building is slate, you may install solar on shed and porch roofs. (p. 34)

An interested person may appeal a decision of the Zoning Administrator to the Development Review Board within 15 days after the decision date per Sec. 12.2.2, *Appeals of Administrative Officer Decisions*. Appeals may be filed online at [burlingtonvt.viewpointcloud.com/categories/1098](https://www.burlingtonvt.gov/DPI/ViewpointCloud) or in-person at 645 Pine Street, Burlington, Vermont.

<https://www.burlingtonvt.gov/DPI/Appealing-a-Zoning-Decision>



CITY OF BURLINGTON **HISTORIC BUILDINGS'** PATH TO NET ZERO ENERGY

A GUIDE FOR BUILDING AND HOMEOWNERS

ACKNOWLEDGMENTS

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CONTENTS

01

WHY THE GUIDE?

02

HOW TO USE THE GUIDE

03

BENEFITS OF AN ENERGY RETROFIT

04

SO, YOU WANT TO RETROFIT YOUR BUILDING...

A1

APPENDIX

Planning a Retrofit
Strategies for your Retrofit
Additional Resources

WHY THE GUIDE?

Burlington, Vermont is a city with a unique history reflected in its buildings and homes. The architectural and visual character of Burlington depends on the sustainability of its historic buildings and homes, and the City is committed to ensuring their longevity.

Energy efficiency will provide long term benefits to both the Burlington historic buildings and their owners in reduced energy consumption, improved thermal comfort, and increased health of the buildings and occupants all while reducing our carbon emissions.

In addition, the City of Burlington is committed to upholding its ambitious climate goal of [Net Zero Energy \(NZE\) by 2030](#), established in 2019. To reach this goal, much of Burlington's existing housing stock will require energy efficiency and electrification measures.

To support these efforts, this guide was developed as a resource for historic building and homeowners to foster understanding of the processes, strategies, and benefits involved in the pursuit of the path to NZE.





HOW TO USE THE GUIDE

The information in this guide introduces opportunities that exist for City of Burlington historic buildings, and ways that homeowners can work to increase the energy efficiency of their property and begin on the path to NZE. The following pages are meant to offer a comprehensive overview of the processes, strategies, and benefits involved, while the appendix expands on these topics for those interested in a more detailed explanation.

KEY TERMS

Net Zero Energy (NZE)

Reducing and eventually eliminating fossil fuels. Burlington currently sources all its electricity from renewable resources, but heating and ground transportation still need to be addressed to meet this City-wide goal.

Energy Retrofit

Retrofit/retrofitting as we'll use it in this context refers to the modification or addition of equipment or systems to improve energy efficiency and reduce carbon emissions in existing historic homes or buildings.

QUESTIONS?

If you have additional questions, please reach out to the Burlington Electric Department's Energy Efficiency team!

efficiency@burlingtonelectric.com

BENEFITS OF AN ENERGY RETROFIT

Success in reducing carbon emissions from the built environment will require improving energy efficiency, beneficial electrification of heating and cooling systems, and increasing renewable energy sources. Retrofitting Burlington's existing housing stock to become Net Zero is a huge opportunity for reducing community-wide emissions. It may also result in the following positive outcomes:

- Reducing energy costs for owners
- Improving thermal comfort
- Quieter systems
- Improving indoor air quality
- Reducing structural degradation due to mold
- Maximizing the use and life of materials



SO, YOU WANT TO RETROFIT YOUR BUILDING...

GETTING STARTED

You are likely reading this guide because you own a historic home or building, and you'd like to know how you can make it more energy efficient or begin on the path to NZE. Perhaps you already have a project in mind or have heard of systems like heat pumps and are wondering if it's the most cost-effective and energy efficient option for your property. The following pages will help you identify what action you can take, and how best to achieve optimal energy efficiency.



DETERMINING HISTORIC STATUS

Is my home or building considered “historic”?

Why does it matter?

My property is not considered historic. Now what?



OPPORTUNITIES FOR ENERGY EFFICIENCY IN HISTORIC HOMES & BUILDINGS

Prioritizing projects for long-term efficiency and cost-savings.

Practical approaches to energy efficiency.



PERMITTING

Determining if your project requires permitting.

Burlington's permitting process.



DETERMINING HISTORIC STATUS

IS MY HOME OR BUILDING CONSIDERED “HISTORIC”?

“Historic” properties have been evaluated for inclusion on the State or National Register of Historic Places and are listed here:

[National Register of Historic Places](#)

[Vermont State Register of Historic Places](#)

[Historic Sites and Structures Survey](#)

There are three criteria when determining historic status: age, historic significance, and integrity. If your property is 50 years or older, and can meet the other two criteria, it may be considered historic. Visit the City's [historic resources page](#) for more information.

WHY DOES IT MATTER?

Knowing whether your property is listed as historic is important information when considering any retrofit. There are special considerations and guidelines in place for projects that alter an historic building to ensure preservation of its integrity and character. Learn more about repairs and restoration for historic properties [here](#).

MY PROPERTY IS NOT CONSIDERED HISTORIC. NOW WHAT?

If your property is not currently listed as historic, it may be eligible, and there are [benefits](#) to pursuing historic status. Reach out to the [Permitting & Inspections](#) department for more information.

If you do not meet the requirements for official historic status, your home or building may warrant the same considerations when it comes to energy efficiency. In this case, this guide is still relevant and useful.



OPPORTUNITIES FOR ENERGY EFFICIENCY IN HISTORIC HOMES & BUILDINGS

PRIORITIZING PROJECTS FOR LONG-TERM EFFICIENCY AND COST-SAVINGS

[Planning for your retrofit project](#) is a critical first step in ensuring your project is efficient and cost-effective long-term. A thorough planning process will help you uncover aspects of your home or building you may not have been aware of and foster an understanding of the basics of building science before you set out on a specific project. This will go a long way in helping you avoid inefficient strategies or costly mistakes. For example, electrification is a popular topic and, in the rush to move toward it, owners may opt to pursue a heat pump for their heating or cooling needs. While this is an excellent way to reduce your reliance on fossil fuels, it may be inefficient to do so if you haven't addressed your home or building's insulation. It is recommended that insulation come before electrification, because in order for a heat pump to provide optimal efficiency and thermal comfort, your building must be sufficiently airtight.

ENERGY EFFICIENCY STRATEGIES

There are many options for implementing energy efficiency in your home or building that will serve as steppingstones on the path to NZE. These options range from simple and inexpensive to more complex and costly, and address components of your home or building and their related energy usage including:

Building Envelope

- Windows and doors
- Roof
- Insulation

Mechanical Systems

- Heating, Ventilation, and Air Conditioning (HVAC)

See the [Strategies for You Retrofit](#) section of the appendix for in-depth information on addressing these and more.



PERMITTING

DETERMINING IF YOUR PROJECT REQUIRES PERMITTING

Below are a few examples of projects that **require** a zoning permit in Burlington before the start of construction. For a full list of projects that require a zoning permit, visit the City's [Zoning Division page](#).

- New buildings or additions to existing buildings, garages, accessory buildings, or other structures.
- Alterations to building elevations/appearances including, but not limited to, re-siding or window replacement (or addition) or other changes that alter trim details or otherwise change the exterior appearance.
- Any form of demolition on the exterior of the building.
- Altering existing or construction of new porches, patios, and decks.
- Increase in habitable living space (including, but not limited to, attic, bedroom, basement, garage, and winterizing or otherwise enclosing a porch).

Below are a few examples of projects that **do not require** a zoning permit in Burlington. Find out more [here](#).

- Normal repairs, maintenance, and weatherization that do not involve any change of materials, dimensions, or design features
- Repairs required to comply with a Written Order of the Building Inspector
- Painting
- Replacement of a building feature that do not involve any change of materials, dimensions, or design features
- Tree removal on lots smaller than 3/4 acre with a single-family home
- Temporary signs, structures or uses (30 days or less)
- Design changes to the face or roof of a building (including heat pumps) that is not a historic building or within the Design Review District

PERMITTING CONTINUED

CITY OF BURLINGTON PERMITTING PROCESS

This is a simplified step-by-step overview of the process for a typical project requiring permitting in Burlington. Depending on the project, the process may take longer or have more requirements than demonstrated here. Contact [Permitting and Inspections](#) and speak with the staff about what to expect for your specific project.

01

Contact the Department of [Permitting & Inspections](#) or [apply online](#) for a Zoning Permit and pay the applicable fees.

02

90% OF ALL APPLICATIONS RECEIVED ARE DECIDED BY STAFF WITHIN 1-2 WEEKS.

The permit application is processed by the City's Zoning staff. Simple projects are approved administratively by Zoning staff, while more complex projects must be reviewed by the Development Review Board (DRB).

03

Application for trade permits may be made simultaneously as zoning. This includes applications for your [Construction Permits](#) (building, electrical, plumbing, mechanical, fire suppression, curb cuts, excavation, etc.).

04

Once an application has been approved, there is an appeal period required by state law before you can get your permit.

05

After the appeal period ends, your Zoning Permits may be released electronically. Be sure you have completed any pre-release permit conditions and pay any outstanding fees. Post the "Z" Card public notice where it is easily seen from the street.

06

With your Construction Permits in-hand, you can get to work!

07

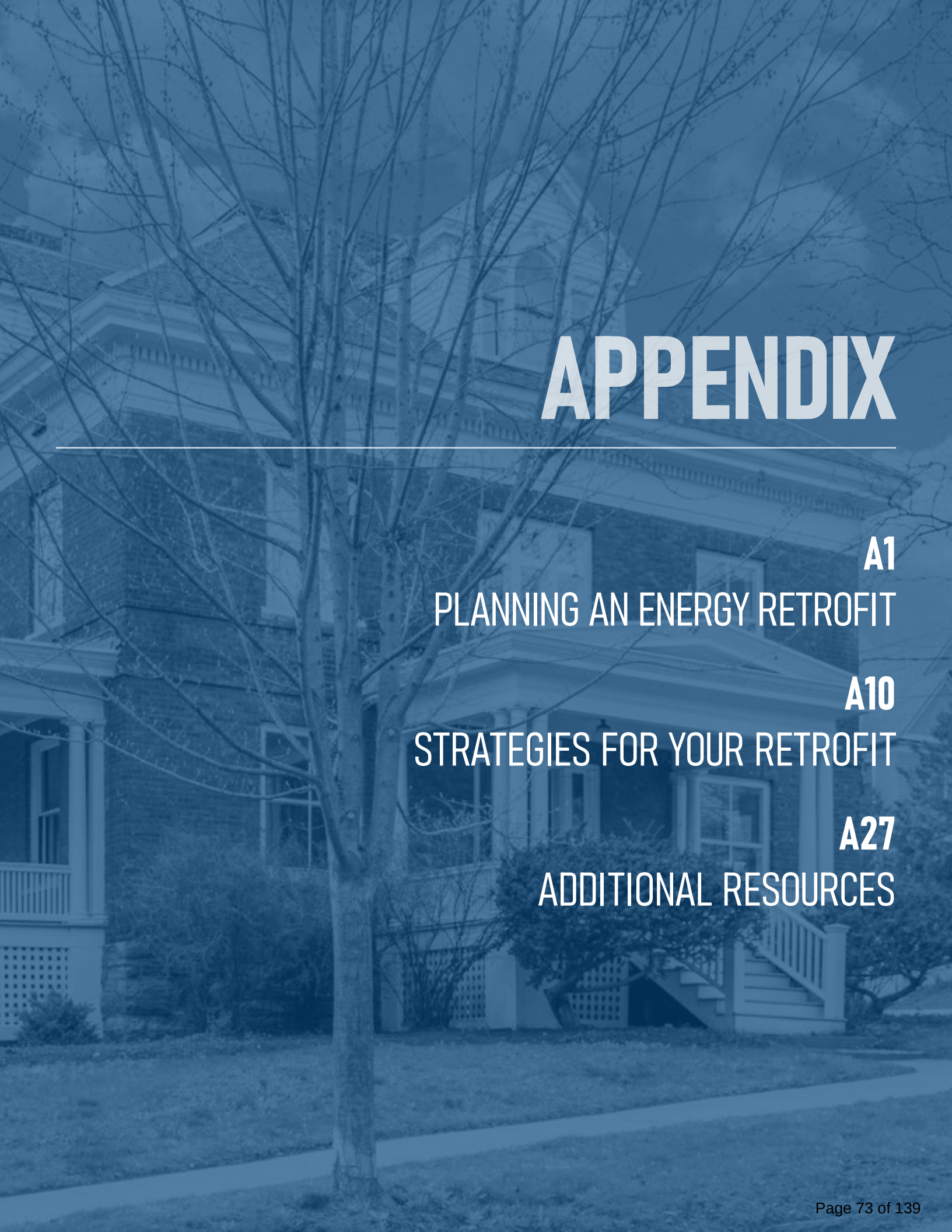
During the project one or more construction [permit inspections](#) can take place. If changes are made that alter what was approved on your Permit, consult with the Zoning staff so you understand how this may affect your permit.

08

Request a final inspection to close out your Construction Permit ([schedule online](#)). Once your Construction Permit has been closed-out, request a final [Unified Certificate of Occupancy \(UCO\)](#) from the Department of Permitting & Inspections.

09

File the Unified Certificate of Occupancy in your records and enjoy the result of all your hard work!



APPENDIX

A1

PLANNING AN ENERGY RETROFIT

A10

STRATEGIES FOR YOUR RETROFIT

A27

ADDITIONAL RESOURCES

PLANNING AN ENERGY RETROFIT

STEP 1 KNOW YOUR BUILDING

Before initiating a retrofit you must determine the buildings needs, your project goals, financing, and the best strategies to incorporate into your retrofit.

What is your building...

- Type and use
- Historic status
- Location and orientation
- Construction methods
- Character defining features
- Inherently sustainable features
- Existing mechanical systems

STEP 2 EVALUATE PERFORMANCE

Evaluating the current performance of your building envelope and systems will identify inefficiencies and help determine your priorities and goals for your retrofit.

Energy Assessment

- Measures energy use & identifies problems & solutions

Blower Door Test

- Measures the quantity & location of air leakage

Thermal Imaging

- Determine locations of air leakage or inadequate thermal insulation

STEP 3 ESTABLISH GOALS

Possible goals may include:

- Reach a specific energy usage target
- Meet code requirements or specific standards
- Reduce monthly energy costs
- Improve comfort
- Specific return on investment goals for potential renovations
- Produce renewable energy
- Meet specific air infiltration requirements

STEP 4 DEVELOP A PLAN

There are lots of sustainable retrofit [strategies](#) that are both low and high cost that can be used in your home. It's important to understand all the options available.

STEP 5 MONITOR PERFORMANCE

After implementing upgrades, your building should be monitored for performance to determine how the strategies are working and if adjustments still need to be made in the long-term.



1. KNOW YOUR BUILDING

Before initiating an energy retrofit, it is crucial that you gain a better understanding of your building. Answering the following questions will help you determine needs, project goals, financing, and the best strategies to incorporate into your retrofit.

HISTORIC STATUS

Depending on your project you may require review by the Zoning and Trades Division to assure that alterations and deep energy retrofit strategies do not negatively impact the historic character of the structure.

- Is your property listed on the State or National Register of Historic Places?

BUILDING TYPE & USE

The type of building, its use, and activities will play a large role in the type and amount of energy used and as a result, the best strategies to implement in your deep energy retrofit.

- Is your building use residential, mixed use, or commercial?
- If residential, is it single-family or multi-family?
- If commercial or mixed use, is it occupied by a retail store, restaurant, or office?

CONSTRUCTION

The most common building materials on older existing buildings in Burlington are wood and brick. Different materials and construction methods will require different retrofit and upgrade strategies to reach the same energy efficiency levels.

- When was your building constructed and what are its primary materials?
- Alterations may help you identify areas of flexibility or any areas that may need attention during the retrofit.
- Are there any noticeable alterations?
- How many stories is your building? Does it have a basement or attic? What is the roof shape and structure?

Different window materials and types may lend themselves to different retrofit strategies.

- What type of windows does the building have? What is the material?
- Are they functional?
- Are they double-hung, casement, fixed, or other?

LOCATION & ORIENTATION

Location and orientation can influence a property's visibility, sun exposure, shading, potential moisture issues and more.

- How is your building oriented towards the sun?
- Where is it located on the block or in relationship to its neighbors? Is it detached, or semidetached, part of a row?
- Where is it located in relation to a public street or way and rivers?



1. KNOW YOUR BUILDING

CONTINUED

EXISTING SYSTEMS

- How do you heat and cool your house? Forced hot air, water pipes, or steam pipes?
- Are your existing systems operating effectively?
- Did you identify inherently sustainable features that you can take advantage of for passive heating and cooling?

CONDITIONS ASSESSMENT

The assessment of the following existing conditions should occur before treatments are planned. Learn more about energy efficiency improvements [here](#).

Have the condition of your building assessed by a qualified professional to determine where there may be any active deterioration or materials in poor condition or that may have hazardous materials.

- Is lead paint present?
- What is the condition of the roof?
- What is the condition of the siding?
- What is the condition of the masonry?
- What is the condition of the windows and doors?
- What is the condition of the porch?
- Are there structural issues?
- Are there drainage issues?
- Are trees or shrubs too close to the building?

CHARACTER DEFINING FEATURES

Regardless of whether a building is designated historic, older existing buildings contribute to the character and diversity of Burlington's neighborhoods. Character is defined by the elements that make a building unique or special, including distinctive materials, features and spaces, architectural styling or design, and unique construction methods. These character defining features should be identified during the planning phase and preserved when implementing the retrofit.

- What are the unique character-defining features on your building?

INHERENTLY SUSTAINABLE FEATURES

Inherently sustainable features should be identified and incorporated into your overall plan, so they work in cooperation with other strategies implemented. These features can include operable windows, operable shutters, attic vents, storm windows, screens, awnings, porches, permeable surfaces, and landscaping. Maintaining and using these efficient features will improve sustainability and reduce unnecessary waste.

- What passive systems and inherently sustainable features exist in your building and what is their condition? Are there passive systems that could be integrated into the retrofit?

2. EVALUATE PERFORMANCE

Evaluating the current performance of your building envelope and systems will identify inefficiencies and help determine your priorities and goals for your retrofit. Your home also may be eligible for rebates for making energy efficiency improvements. The evaluation can provide an understanding of how the building is operating and will help identify improper equipment performance. It can also determine what equipment or systems need to be rehabilitated, retrofitted, or replaced. In these cases, there are opportunities for saving energy and money.

ENERGY ASSESSMENT

An energy assessment can help determine how much energy your home or building uses, where it's losing energy, and which problem areas and fixes you should prioritize to make it more efficient and comfortable. An energy assessment should be your first step before making improvements.

BLOWER DOOR TEST

Blower door tests are performed by certified energy auditors to determine to what degree a building is airtight. A temporary "blower door" equipped with a powerful fan is fitted into the frame of an existing front or back door, and when the fan is turned on, it sucks the air out of the building to find where it leaks in. Digital gauges compare the difference in air pressure between the inside air and the outside air to determine how much air is leaking into the house. The goal is to learn where your building is leaking to make it as airtight as possible to conserve energy.

THERMAL IMAGING

Thermal imaging can be performed on the interior or exterior of a building to determine locations of air leakage or inadequate thermal insulation. Addressing these locations is a productive first step in an energy retrofit.





3. ESTABLISH GOALS

Once you have evaluated your current performance it is important to define the goals and priorities you want to achieve in your retrofit. This will determine which deep energy retrofit strategies you will begin to implement into your historic or older home. You should identify your goals with the concept of “do no harm”, meaning you do not want to create new problems in the process of integrating your strategies like trapping moisture, creating condensation, or causing deterioration. There are several goals that you may want to achieve but choose the ones that apply directly to what you want and could apply to your building.

EXAMPLES OF GOALS

- Reaching a specific energy usage target or a specific percentage in reduction.
- Meeting code requirements or specific standards such as LEED or Passive House.
- Reducing monthly energy costs.
- Improving comfort and overall livability.
- Setting specific return on investment goals or payback periods for potential renovations.
- Producing renewable energy.
- Meeting project-specific air infiltration requirements.
- Transitioning to Net Zero Energy.



4. DEVELOP A PLAN

PLANNING FOR MAJOR UPGRADES

When planning a deep energy retrofit, keep in mind that there are ideal circumstances and points in time where major upgrades could save you money and time. By planning for when these conditions occur or significant replacements are needed, you may be able to include supplementary improvements at a minimal additional cost.

Major Renovation of Improvements

When planning a major renovation project or replacing mechanical equipment that is near the end of its service life, energy-efficient upgrades, such as a ground or air-source heat pump, could be incorporated at minimal additional cost.

Building Envelope Improvements

When combined with major end-of-life equipment upgrades, like HVAC, improvements to the building envelope, such as improving wall and roof insulation and weatherstripping windows and doors, can offer opportunities for reduced costs. Additional insulation and air-sealing that improve the efficiency of your building envelope could result in reduced heating and cooling loads and smaller less expensive mechanical equipment.

Life Safety & Code Requirements

When implementing life safety or code requirement upgrades that require a high cost and effort, consider installing energy-efficient upgrades that could be incorporated with minimal additional investment. This can include improved insulation, ventilation, or the implementation of energy efficient mechanical systems.

Hazardous Materials Abatement

Lead can be found in many things, but in Burlington the biggest problem is the lead-based paint used before 1978. Vermont has an extremely old housing stock, and more than 80% of the houses in Burlington can have lead-based paint hazards. For more information contact the [Burlington Lead Program](#).

Building Purchasing or Refinancing

When financing, a retrofit can be included in the transaction cost.

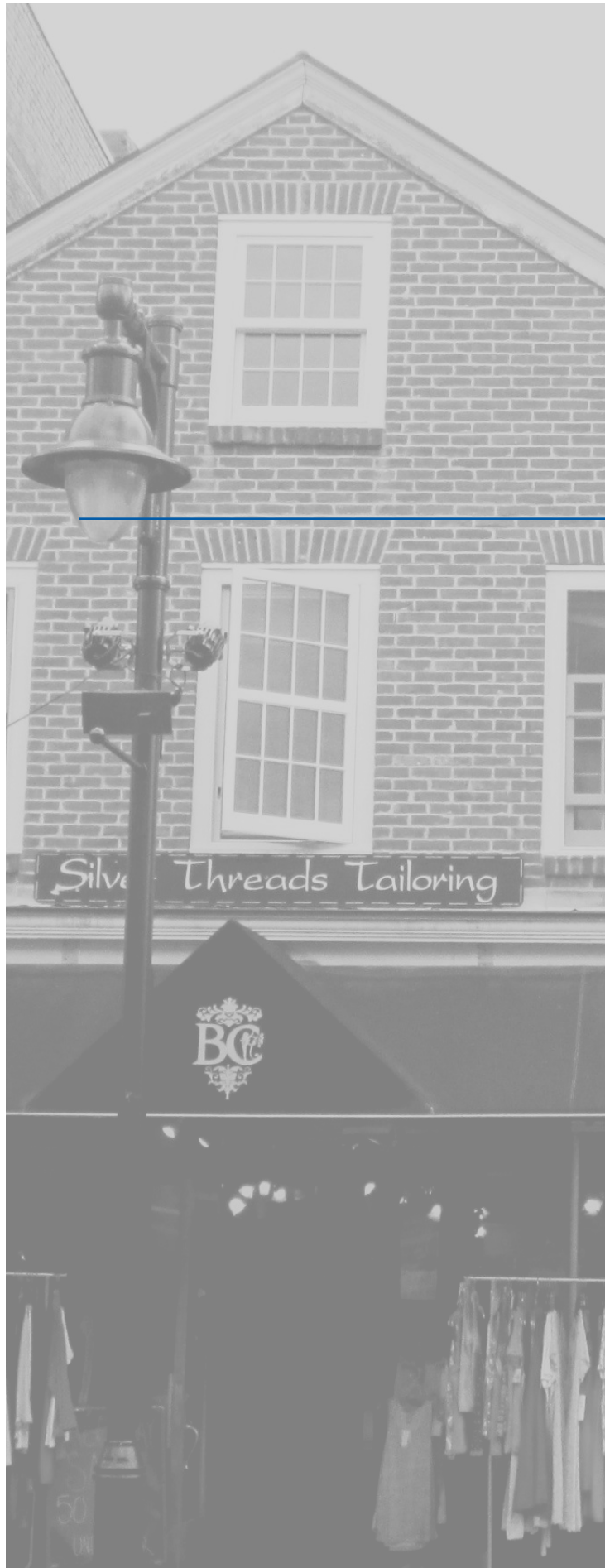


4. DEVELOP A PLAN CONTINUED

CONSIDER MATERIALS LIFESPAN & IMPACT

While considering strategies you should also recognize the lifespan of your building's materials and components, such as the following:

- Certain materials are intended to be repairable and have a long lifespan such as: masonry walls, slate roofs, and wood windows. You should try to minimize intrusions, alterations, and long-term impacts to these features.
- Passive and inherently sustainable features require little energy and maintenance to perform however, complex systems will require more maintenance to operate properly. Preserve and restore sustainable features that provide daylighting and ventilation such as windows, shutters, attic vents, storm windows, and awnings/porches.
- Consider design systems that can allow repairs and replacements without disrupting the entire building or damaging historic features. Some improvements can be very intrusive to a home especially when installing mechanical systems, consider the consequences of installing these systems if repairs or replacements take place in the future. Simple repairs to inherently sustainable features can be very effective and are less invasive and damaging to the home.
- Throughout the retrofit process, if new materials will be installed within your building it is important to be aware of the health and environmental impacts these materials may have. The following should be considered:
 - Preserve existing materials when possible. Replace with similar materials that do not disrupt the building's character-defining appearance when needed.
 - Try to use locally sourced materials when able. This makes the product "greener" by reducing transportation distances, which lowers greenhouse gas emissions.
 - Avoid building materials and products that contain toxins or have high VOC emissions.
 - Select and specify healthy building products. Seek out materials and products that are free of toxins, socially responsible and respects the rights of workers, and are sustainable with net energy positive and benefits both people and the environment.



4. DEVELOP A PLAN CONTINUED

FINANCING OPPORTUNITIES

When planning for a retrofit it is important to consider the long-term savings and ease of maintenance when budgeting. The initial cost of a product or design is only part of the true cost and owners should consider the costs and savings over the lifetime of the upgrade. Analyze prospective investments based on their expected financial and environmental benefits (maintenance savings, utility bills, comfort). There are a wide range of [incentives, resources, and financing opportunities](#) available to Burlington residents for implementing certain energy efficient upgrades.

PROFESSIONAL SERVICES

Depending on the size and scope of your project, you may want to consider consulting a professional to address specific retrofit strategies or design challenges. Larger projects require integrated teams that should be formed early in the planning process. It is also important when picking out consulting professionals that they have experience working with historic buildings AND sustainable design. You want someone who is willing to answer your questions and willing to let you be involved throughout the project. Typical professionals involved in energy retrofits include:

- Energy Auditor
- Historic Preservationist
- Licensed Architect
- Structural Engineer
- General Contractor



5. MONITOR & MAINTAIN PERFORMANCE

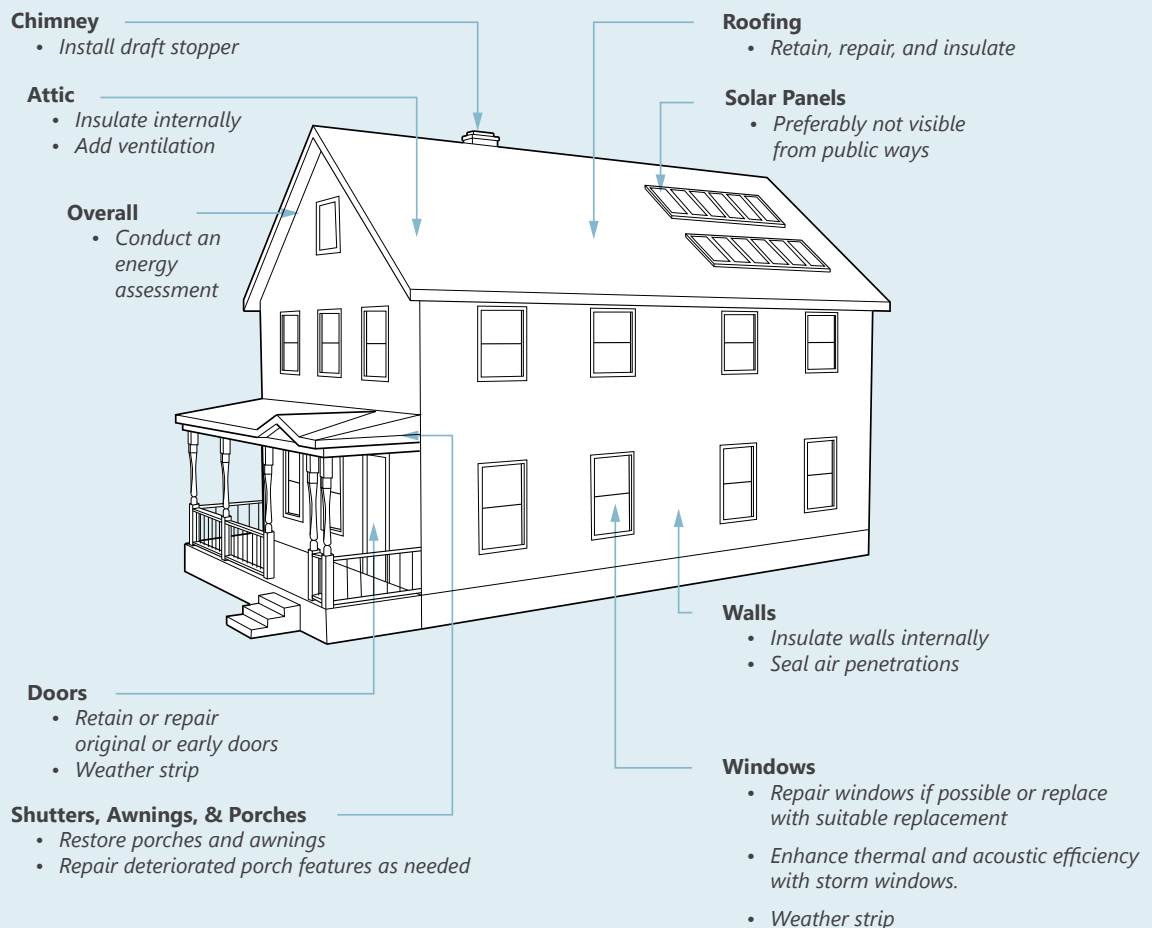
After an energy retrofit, your building should be regularly monitored for its performance to determine how the strategies are working and if adjustments still need to be made in the long-term. The Burlington 2030 District uses the [Energy Star Portfolio Manager \(ESPM\)](#), an online tool you can use to measure and track energy and water consumption, as well as greenhouse gas emissions. You can use the ESPM to manage the energy and water use of your building. All you need are your energy bills and some basic information about your building to get started.

Although it is important to monitor your building, it is equally important to maintain the improvements that have been made. Existing buildings must be maintained regularly to preserve their historic character and maximize their reliability, performance, and efficiency. This includes routine maintenance such as:

- **Gutters and Down Spouts.** Clean all debris from gutters and ground spouts.
- **Roofing and Flashings.** Clean all debris and remove any standing leaves or debris from all flashings and valleys. Check for any settling water, rust or damaged flashing or roofing materials.
- **Chimney Bases and Foundations.** Check for any cracks, loose mortar, or damaged bricks.
- **Painted Wood.** Apply any caulk or silicone as needed prior to painting. Fading and sun damaged paint should be touched up with a matching paint product.
- **Chimney Tops.** Look for loose bricks, weak mortar and flashing damages like rust. Inspect the inside of the chimney for leaks or hidden mortar damages.
- **Painted and Unpainted Masonry.** Pitted and decaying masonry, cracks or scaling should all be noted. A stiff bristled brush and some oxygenated bleach can help remove any stains or debris.
- **Mortar Joints.** Inspect all [mortar joints](#) especially where moisture may enter and where structural movements may occur for cracks, loose pieces, or spalling mortar. Mortar joints should be repointed with mortars that have the appropriate color, texture, hardness, and joint profiles.
- **Windows and Doors.** Check for any air leaks, water damage, loose panes, or crumbling glazing putty. Paint the [windows](#) and doors that are faded to prevent future damage from sun, wind, and rain.
- **Claddings (Siding).** Peeling paint and sun damage can be easily repaired with paint. Cupping, splitting, or loose nails are all signs that your siding may need some professional help. Beware of [lead paint](#) as it is common in older homes in Burlington and can be very poisonous.

STRATEGIES FOR YOUR RETROFIT

After evaluating the current performance of your building envelope and systems you will be able to identify inefficiencies and help determine your priorities and goals for your retrofit. This section discusses a variety of energy retrofit strategies that can be used to improve your buildings efficiency and is organized by building components. It provides a variety of techniques in making these improvements as well as lower and higher cost options.

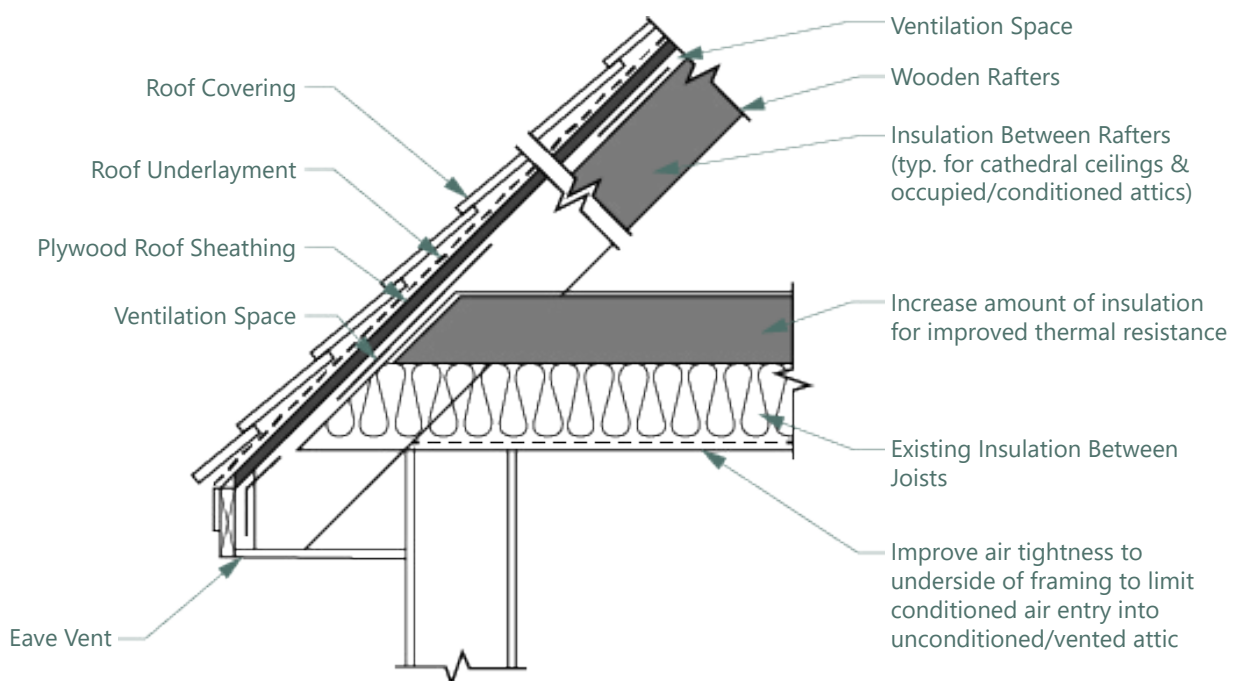


Exterior walls and roofs are the most visible components of a building, and for historic buildings are also important aspects of the building's character. Typical wall materials of older buildings in Burlington include brick and wood. Wood framed houses are generally covered with clapboard siding and shingles. Older brick buildings generally consist of multiwythe walls, meaning a wall consisted of multiple thicknesses of brick. The typical interior wall finish for both construction types is plaster on lath unless later replaced with drywall. Roofs are also often distinctive features of historic buildings. Their shape, materials, and detailing contribute to a building's appearance and character. Roofs can be flat, low-sloped, or steep-sloped and can be covered with metal, slate, asphalt, or wood shingles. Providing proper ventilation and insulation for walls and roofs is one of the most cost-effective strategies for improving the energy efficiency of older buildings. Improving ventilation and insulation are also easy to do without impacting the exterior character of older and historic buildings.

VENTILATION

A common problem that occurs when retrofitting older buildings is inadequate ventilation. Older buildings were built to "breathe" and designed to use passive ventilation but when they are sealed up for energy

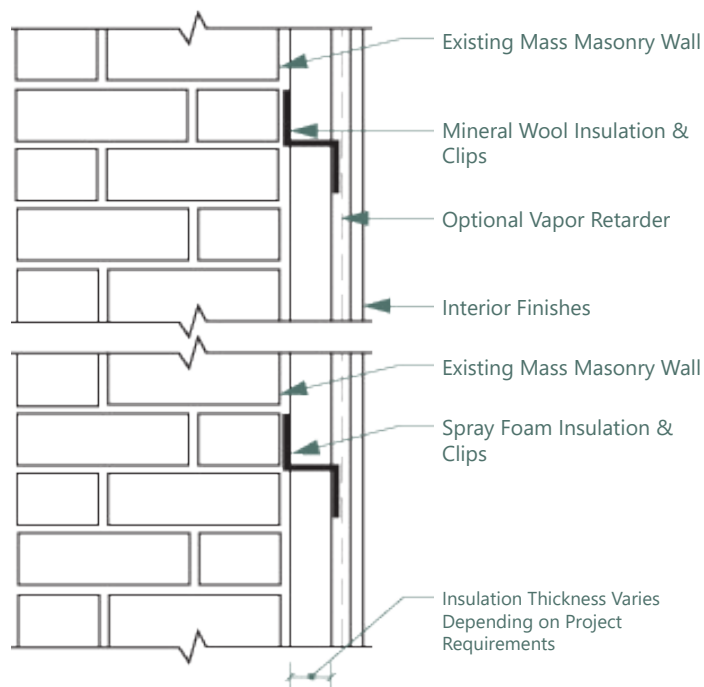
efficiency the stagnant air can cause an increase in moisture and heat build-up in interior spaces. This moisture and heat can flow into the attic when there is no dedicated air seal provided between the attic and living space below. A simple solution is venting the attic using louvers in gable ends, ridge vents, and soffit or eave vents which can increase air flow and help control moisture and heat build-up. However, venting can negate whole-building air sealing and result in energy loss from unwanted air exfiltration or infiltration. Roof eaves and attics are common areas for thermal and air barrier inefficiencies, allowing for conditioned interior air to escape. Improving the air tightness of the ceiling assembly or providing a dedicated air barrier above the conditioned space can improve energy efficiency while maintaining passive ventilation. To avoid energy loss, one solution is to install air sealing and insulation to separate the attic from interior living spaces to prevent interior conditioned air from flowing into the attic. That way attic venting can be installed to prevent moisture build-up and keep the space cooler. Improving ventilation both to attics and interior living spaces, with a combination of appropriate natural (passive) and mechanical (active) ventilation can improve air circulation, keep the building cooler, and reduce moisture build-up.



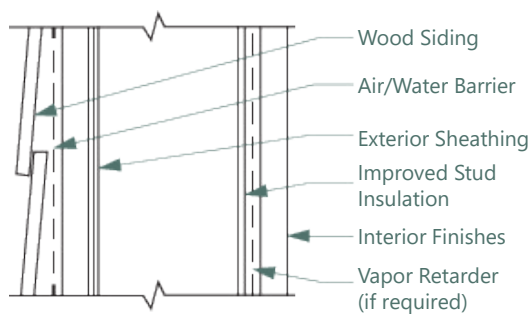
WALL INSULATION

When adding insulation to your historic building it is important to preserve the exterior walls of your home as to not affect the historic appearance. Adding continuous exterior insulation to walls may be an effective increase in thermal efficiency, however, this will typically have a harmful impact on the exterior aesthetic and character of a historic building and should not be undertaken on primary elevations. Installing insulation from the interior is the more appropriate option for older buildings. Before installing interior insulation, it is important to confirm that the installation will not cause damage to the existing historic materials.

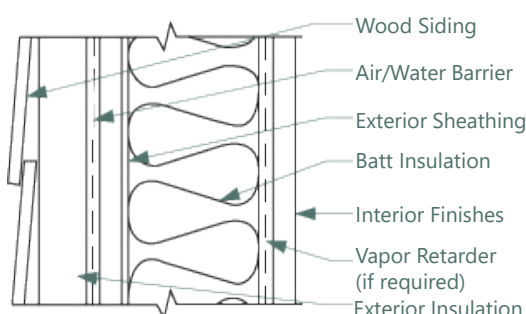
Before insulating the interior of masonry walls, you should have your home reviewed by a building envelope professional. Masonry walls are built to “breathe”, this allows them to absorb, store, and evaporate moisture on both the interior and exterior. Insulation on the interior may hinder needed evaporation, causing the wall to stay wet for a longer period and potentially leading to damage by the freeze/thaw cycle. A building envelope professional can evaluate whether an existing masonry wall is durable enough to allow for interior insulation.



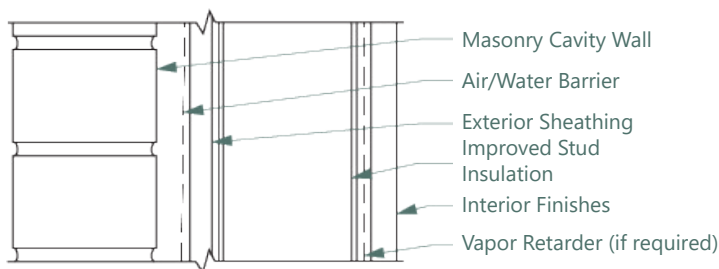
Mass Masonry Wall with Interior Insulation



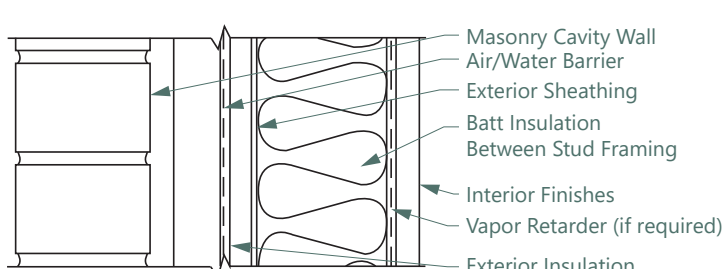
Framed Wall with Veneer



Framed Wall with Veneer



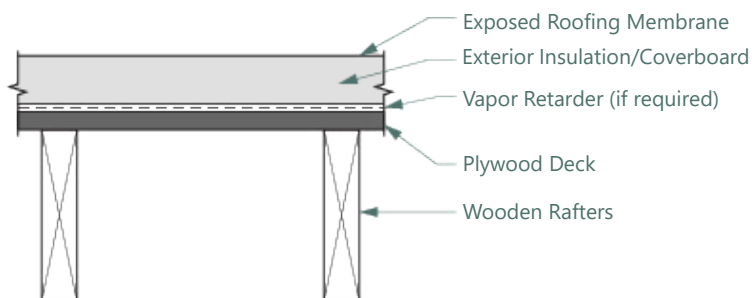
Framed Wall with Masonry Veneer



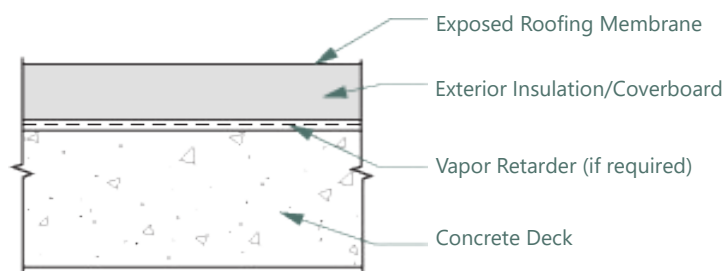
Framed Wall with Masonry Veneer

ROOF INSULATION

Insulating a roof or attic space is typically the most important step towards increasing energy efficiency within buildings. There are several options for adding additional insulation to existing roof assemblies including insulation above the roof deck, insulation below the roof deck, or insulation in the attic space below a roof. Installation of rigid insulation above a roof deck works best for low-sloped roof assemblies, a wood-framed structure typical of residential row houses. The insulation may also go below the roofing membrane. Insulation installed below the roof deck is typically used on steep-sloped roof assemblies. Insulating along the underside of the roof deck between the rafters increases the total conditioned space in the building and is required when temperature or moisture-sensitive mechanical equipment is placed in the attic space. Alternatively, insulating the attic floor with batt insulation between the ceiling joists can be used when it is not necessary to condition the attic space. Regardless of the insulation arrangement, ventilating the space above the insulation by way of eave, gable and ridge vents is critical for passive ventilation.



Wood Framed Roof Assembly



Concrete Roof Assembly

WALLS & ROOF GUIDELINES & TIPS

- Coordinate strategies with information learned from a home energy assessment.
- Consider continuous or comprehensive insulation layouts and their appropriateness for repairs, additions, and new buildings.
- Identify and preserve inherent thermal properties of the building and determine appropriate insulating measure for the characteristic features and climate.
- Evaluate material durability and expected service life of existing and replacement materials when considering repairs, rehabilitation, or replacement of walls and roofing. For example, a slate roofing shingle, which has a high upfront cost, can have a 75+ year lifetime, compared to an asphalt roofing shingle, which has a 10+ year lifetime.
- Retain, preserve, and repair character-defining features of walls and roofs, including finish materials, functional elements, and decorative features.
- Avoid making new penetrations or cuts through primary elevations, limiting air intake and ventilation through secondary elevations or through the roof. Seal new penetrations appropriately to prevent air and water entry.
- Install insulation and ventilation features so that it will not damage or result in loss of character-defining features of the building.
- New exterior wall and roof finish materials should convey a similar scale, texture, and visual appearance to those originally found on the building.
- Properties with significant historic interiors, avoid changes to the proportional relationships of wall to trim and wall to window.

LOWER COST STRATEGIES

ROOF INSULATION

- Consider adding either batt insulation in the attic floor to prevent heat gain and loss through the attic space or insulation hung along a sloped roof deck (be sure to allow for ventilation) to have a conditioned attic space.

ROOF VENTS & AIR CIRCULATION

- Provide attic vents to allow for air flow within the attic so moisture and condensation does not build-up. This could include louvers in gable ends, ridge vents, or soffit vents.
- Attic and ceiling fans can help vent and circulate air to improve the comfort of occupant.

ROOF & WALL AIR SEALING

- Evaluate areas that could have improper connections such as wall-to-roof connections. Improving these areas could reduce air leakage or heat transfer.
- Replace interior and exterior perimeter sealant, weather stripping, or loose and missing wall and roof sheathing.

HIGHER COST STRATEGIES

WALLS (WOOD FRAMED BUILDINGS)

- Provide additional wall insulation. Either from the exterior cavity insulation or interior insulation between the stud framing to increase thermal performance. When possible, provide continuous insulation without thermal breaks (such as studs or similar wall elements) interrupting the insulation.

WALLS (MASONRY BUILDINGS)

- Repoint exterior masonry to provide increased wall durability and limit the air and water infiltration to your building.
- Consult a building professional when considering insulation to avoid negative impacts to the durability of the masonry walls.

ROOF MEMBRANE

- Install a “cool-roof” membrane that reflects the sun and absorbs less solar radiation.

ROOF INSULATION

- Add roof insulation in conjunction with a roofing-membrane/system replacement project.

WINDOWS & DOORS

Windows and doors are important architectural features of older buildings in providing a sense of scale, craftsmanship, proportion, and architectural style. Historic windows come in a variety of styles and configurations and are typically constructed of wood with a painted finish. Windows require regular maintenance and repair. Replacement windows are a large expense and will only improve a limited area of the exterior enclosure. The typical ratio of fenestration to exterior wall surface area on historic buildings is around 20%, meaning the expense for full window replacements may not be a cost-effective solution given the long pay-back period based on the projected energy savings from the upgrade. Replacement windows may be justifiable if there is window failure. Upgrading the solid area of the exterior walls and roof and only performing moderate improvements to existing windows may provide better return on investment while preserving important character-defining features.

WINDOWS

Typical concerns regarding windows include operability, air infiltration, maintenance, and appearance. Generally, the appearance of a window that has not been properly maintained can seem significantly worse than its actual condition. Replacement of an entire window because of a deteriorated component, typically the sill or bottom rail, is rarely necessary. In many instances, selective repair or replacement of damaged parts and the implementation of a regular maintenance program is all that is required. It is generally possible to repair windows in fair or good condition relatively economically.

Maintenance

- Regularly review condition, repair, and repaint windows
- See NPS Preservation Brief 9 The Repair of Historic Wooden Windows

Improve Operation

- Verify that sash cords, chains and weights are functional- Install metal sliders or sash tape, balances, or operators at jambs if repair is not practical

- Repair or replace deteriorated components such as parting beads that separate window sash
- Remove built-up paint, particularly at jambs

Reduce Air Infiltration

- Replace broken glass (glazing)
- Install weather-stripping snugly between moving parts- Quality metal weather-stripping can last 20 years
- Re-caulk perimeter joints and remove and replace missing or cracked glazing putty
- Add sash locks to tighten windows
- Add interior or exterior storm window- A storm window can achieve similar R-values to a new thermal window

Reduce Solar Heat Gain or Loss

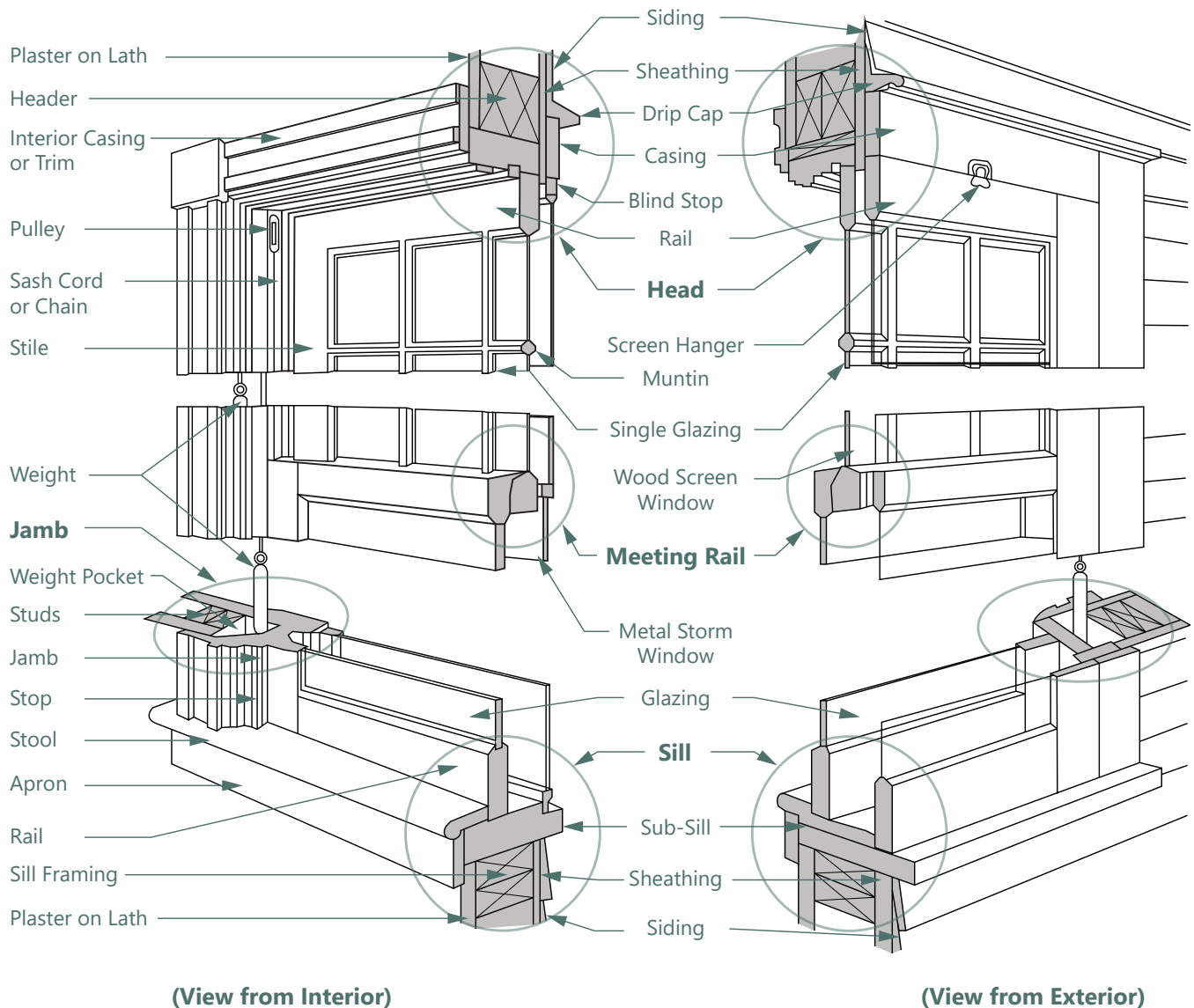
- Install and utilize operable exterior shutters where historically appropriate
- Install interior blinds, curtains, or UV window shades
- Plant deciduous trees at south and west elevations to block summer sun and allow in winter sun, and plant conifer trees at north to reduce effect of winter winds

Repair or Replace Existing Window Components

Deteriorated sills, sash and muntins are repairable by a craftsman with wood consolidate or replacement parts, retaining original fabric and function. In-kind replacement sash components and sills can be custom-made to replace deteriorated elements if necessary. Property owners are strongly encouraged to explore repair and selective replacement parts options prior to considering whole sash or frame replacement, particularly at historically significant buildings.

- **Sash-Only Replacement** - Installation of new sash in existing frame. Can include new jamb liners
- **Window Replacement Insert** - Installation of new sash and frame unit within existing opening. This typically reduces the overall size of the sash and glass, reducing interior daylight

WINDOWS & DOORS CONTINUED



Double-Hung Window Components

DOORS

Historic wood doors are also significant features and should be retained where possible. Historic doors have similar maintenance as windows. Regular painting and renewed weather stripping are the most effective low-cost strategies for improving energy performance. Replacement doors may have more thermal resistance, but doors are only a small area of the total exterior wall surface meaning it may not have a significant effect on the overall building energy performance. Regular maintenance and replacement of interior and exterior perimeter seals, gaskets, and weather stripping around windows and doors can significantly improve their energy performance.

Common Door Types

- **Hinged** - Swings to close at opposite jamb - almost always mounted at interior thickness of wall swinging inward
- **Double or Paired** - A pair of swinging doors that close an opening by meeting in the middle - includes French doors
- **Sliding** - Either a fixed panel with a horizontally sliding door or overlapping horizontally sliding doors - includes patio doors
- **Overhead** - Horizontal sections that open upward by sliding on tracks - most often found at garages

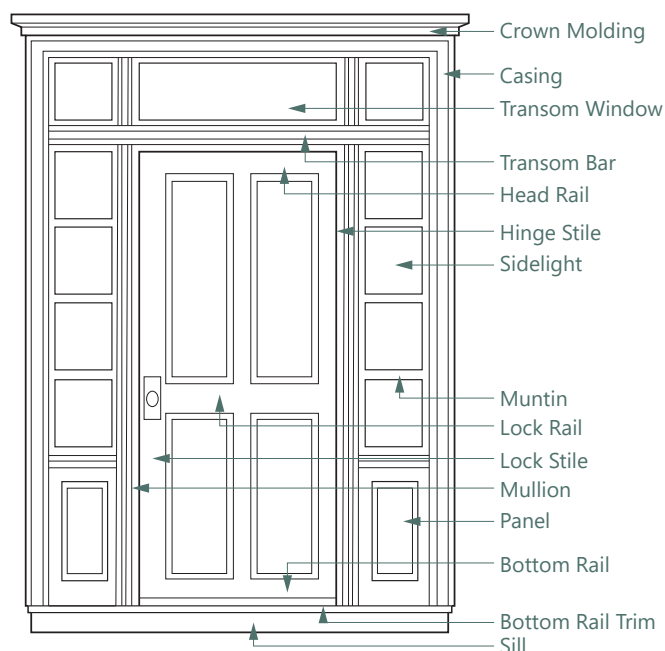
Common Door Styles

All door styles can have glazing installed in different configurations.

- **Batten** - Full height boards attached edge to edge with horizontal boards nailed to the verticals
- **Paneled** - A frame of solid wood parts with either glass or wood panels
- **Flush** - A single plain surface on its face, typically wood veneer

WALLS & ROOF GUIDELINES & TIPS

- Perform regular maintenance on older windows and doors to ensure functionality and weather tightness.
- Apply weather stripping, install storm windows and doors, and undertake basic repairs to windows and doors to improve thermal efficiency.
- Repair or reopen transoms to improve air flow and cross ventilation.
- Maintain, repair, or reinstall operational shutters and awnings.
- Retain, preserve, and repair original windows and doors unless repair is not a reasonable option.
- Replacement windows and doors on primary elevations should closely match the historic appearance. New windows and doors should fit properly within the original openings, replicate the pane configuration, dimensions and profiles of sash or door leaf, and match the finish and visual qualities of the historic windows and doors.



LOWER COST STRATEGIES

WEATHER STRIPPING

- Add weather stripping to existing windows, this can increase the energy efficiency of windows by up to 50%.
- Tighten and seal around the window and between the upper and lower sash to make the windows more energy efficient. Most of the heat loss through older and historic windows occur around the perimeter of the sash.
- Replace interior and exterior perimeter sealant and putty glazing, these components have significantly shorter lifespans than the wood and glass components.
- Use joint filler, caulk, glazing putty and sealants to seal cracks and opening on non-moving parts such as around frames and glazing.
- Use metal, silicone, rubber, or felt weather stripping on moving window elements to provide a tighter fit without sealing them shut.

LOCKING MECHANISMS

- Repair or replace locking mechanisms to prevent excess air and heat loss through the window perimeter.

WINDOW TREATMENTS

- Add interior shading or drapes to minimize heat gain or loss through windows.

HIGHER COST STRATEGIES

STORM WINDOWS/DOORS

- Install storm windows on the interior or exterior of an older window to improve thermal efficiency. Storm windows provide additional insulation in the air space between the existing window and the storm window. To be effective, ensure proper seal between both the glass and the frame and the frame of the wall.
- Install storm doors to improve the thermal performance of historic doors. Storm doors should be compatible with the appearance of the historic door, such as a fully glazed storm door with a frame that matches the existing door.

WINDOW REPLACEMENT

- If original windows are deteriorated beyond repair, replace existing windows with new insulated windows. Replacement windows should closely resemble the existing windows.
- When selecting replacement windows and doors considering choosing ones that are durable, repairable, and recyclable.

WINDOW RESTORATION

- If original windows are not deteriorated beyond repair, restoring the window is the best option for historic homes within the historic districts with original windows.

MECHANICAL SYSTEMS

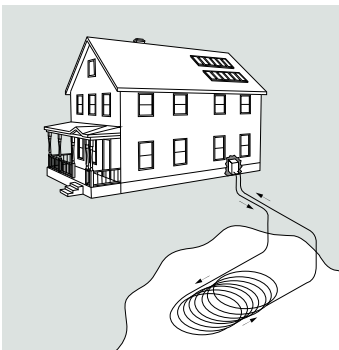
When considering installing or replacing mechanical systems in your historic home it is important to understand your options as mechanical system updates can have a large cost impact. Try to retrofit or update your mechanical systems when they are close to end of life use. Do not assume you have to replace an older system with the same type of older system. There are newer HVAC technologies that have significant benefits for historic buildings and the environment. An air-source heat pump system is one option; these systems do not necessarily require ductwork, which can be helpful when trying to limit damage to existing walls, ceilings, and building structures. These systems are also extremely quiet, energy efficient and customizable for zoned operation. Both air-source and ground-source heat pump systems do not burn fossil fuels; they use electricity to run a compressor. Ground-source heat pumps take advantage of the stable, underground temperature of the earth, ground-source heat pumps are the most efficient heating and cooling system available.

GROUND SOURCE HEAT PUMPS

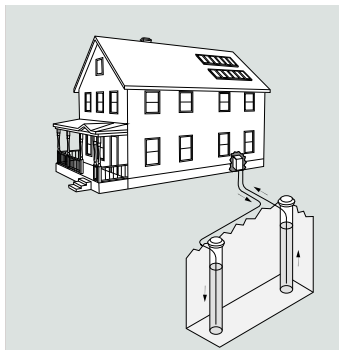
A ground-source heat pump (GSHP) is a central heating and cooling system that transfers heat to or from the ground. It uses the earth as a heat source or a heat sink. This design takes advantage of the moderate

temperatures in the ground to boost efficiency and reduce the operational costs of heating and cooling systems. A ground loop is a heat exchanger, like a cooling coil, that either extracts or adds heat to the ground. There are four types ground loop systems: horizontal, vertical, and pond/lake (closed-loop systems), and open loop. The type of system used depends on the climate, soil conditions, available land, and installation costs. The most common system for historic homes is generally vertical, closed loop.

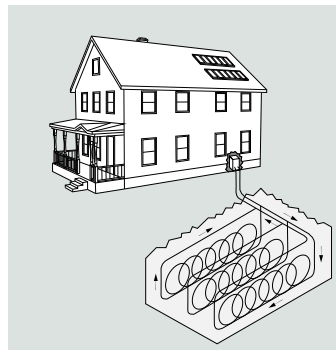
GSHPs are extremely efficient, last a long time, and are typically well suited for historic buildings because they require little equipment and are not visually intrusive to the historic character. Please note that the location of exterior mechanical unit is regulated by the zoning ordinance; and prohibited from a primary façade in Burlington. Screening may be required elsewhere. GSHP's require less equipment, have fewer moving parts, provide better zone space conditioning, and maintain better internal humidity levels than traditional HVAC systems. GSHPs can cut energy bills by up to 65%. The cost for a ground-source heat pump system can be high as they require drilling and placement of wells deep below grade, though typically, energy cost savings allow the investment to be recouped within two to ten years.



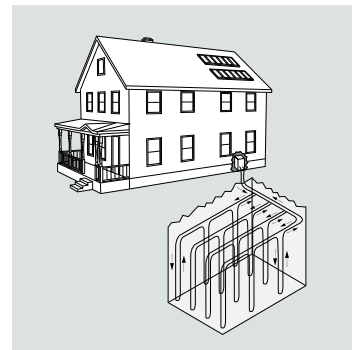
Pond/Lake Closed Loop System



Vertical Open Loop System



Horizontal Closed Loop System



Vertical Closed Loop System

AIR-SOURCE HEAT PUMPS

Air-Source Heat Pumps (ASHP) are heating and cooling systems that move heat into a home in the winter and draw heat out of the home in the summer. Instead of burning fossil fuels, they operate on the same principle as your refrigerator: using a refrigerant cycle, powered by electricity, to move heat and to keep your home at a comfortable temperature year-round. They are much more efficient than electric resistance (electric baseboard) heating and provide highly efficient air conditioning.

There are two main system types of air-source heat pumps: ducted or ductless. Ducted systems have an outdoor unit (like a central air conditioner), which is connected to an indoor air handling unit that connects to the home's ductwork. Ducted systems can work well for homes that already have ducts or where the homeowner is planning to install ducts. A version of ducted systems known as "compact-ducted" uses much smaller air handlers that usually serve two to four rooms.

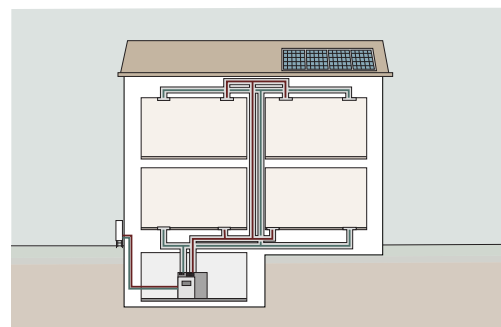
Ductless systems (including "mini-splits") have an outdoor unit which is connected to one or more indoor units (or "heads") by small copper refrigerant pipes. Each head typically serves one room or area of a house. Ductless heads can be mounted on a wall, mounted to the floor, or embedded in the ceiling. Ductless systems are a great option for houses that have no existing ductwork. Homes can be outfitted with a combination of ducted and ductless systems for a custom configuration that meets a home's needs.

The cost to install an air-source heat pump in your home will depend on the specific characteristics of the building, how much of your home's heating and cooling you want to cover with your heat pump system, the kind of system and the features you choose, and your installer. Air-source heat pumps have the lowest up-front installation cost of any low carbon heating or cooling solution and are also cost-competitive to operate compared to oil, propane, or electric heat.

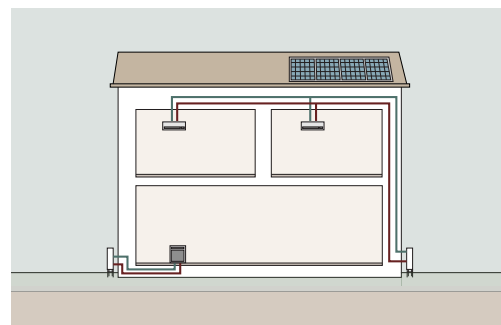
MECHANICAL SYSTEMS GUIDELINES & TIPS

- Determine which mechanical system is the best fit for your home and your home energy priorities
- Understand the costs of the mechanical system that is best for your home and plan how you will finance the project.

- Try contacting at least three installers to learn more about installing ground source or air-source heat pumps in your home. Installers may also give multiple quotes for different installation or unit configurations so you can understand all your options.
- If necessary, take preliminary measures to get your home ready for a new heating system, such as upgrading your electrical service or completing any weatherization work recommended in your home energy assessment, like sealing air leaks or installing insulation. If you are planning to improve the weatherization of your home, make sure your installer is aware so that they take the reduced heating and cooling needs of your home into account when designing your ground-source heat pump system.
- Talk to your installer about how long installation will take. Ground-source heat pump installations typically take between 2-4 weeks and air-source heat pump installations typically take between 3 days and 2 weeks, depending on home size, system complexity, and schedules of the driller and installer.



Ducted System



Ductless System

MECHANICAL SYSTEMS CONTINUED

DUCTLESS AIR-SOURCE HEAT PUMP

LOWER COST STRATEGIES

- If you're looking to use a ductless air source heat pump as your sole source of heating and cooling, an entire ductless system is going to be much more varied in cost because the required number of internal and external units will change based on the unique characteristics of your home.
- These units will have to be installed throughout the home in each zone you are looking to heat, or cool, so overall costs can range considerably.

DUCTED AIR SOURCE HEAT PUMP

HIGHER COST STRATEGIES

- Ducted (or central) systems tend to be more expensive, but more standardized in cost since the installer will simply need to replace your old air handling unit that is already connected to your existing ductwork with an air source heat pump.
- If your home does not have a duct system already, installing a complete duct network in your home will add a significant extra cost.

GROUND SOURCE HEAT PUMP

- Geothermal heating systems price varies depending on the type of loop system, vertical or horizontal are most common depending on available space. Horizontal loops are typically more cost effective than vertical loop systems, but you need adequate space to have a horizontal loop system installed.

SOLAR & GREEN ROOF SYSTEMS

There are a few different roof installations that can be implemented into your historic home that can be used to capture storm water or to generate renewable energy. Installations of such systems need to consider the building's structural capacity and architectural character.

PHOTOVOLTAIC (PV)/SOLAR SYSTEMS

Solar photovoltaic (PV) systems capture sun rays and convert the sunlight into electricity. These systems have the potential to be cost-effective and reliable producers of electricity for your home. When installing these systems in Burlington there may not be a perceptible change in the building's massing, height, or roofline, as seen from any major public street. These systems also cannot cover or obscure distinctive roof features or finishes on primary elevations. It is NOT recommended to install solar panels on slate roofs as they can be prone to damage during the installation process. If the primary roof of your building is slate, you may install solar on shed and porch roofs.

The PV system is built from solar cells, which consist of semiconductor materials that absorb sunlight and convert it into energy for immediate use or storage in batteries. There are a variety of solar cell materials available which vary in their appearance and efficiency. PV systems can be designed to meet the specific energy needs of a building and its users. Solar cells are interconnected with other cells to form flat-plate panels or modules that are installed on a building or in a rack to form a PV array. Panels can either be fixed in place or installed to track the movement of the sun throughout the day. Thin-film PVs make it possible for solar cells to double as roof shingles, roof tiles, building facades, and even glazing for skylights. These systems are new to the residential market but are increasing in popularity and effectiveness. Products such as solar roof shingles have the potential to integrate renewable solar energy in a subtle and attractive way on older existing buildings.



Solar array mounted on an historic home.



Solar shingles.

GREEN ROOFS

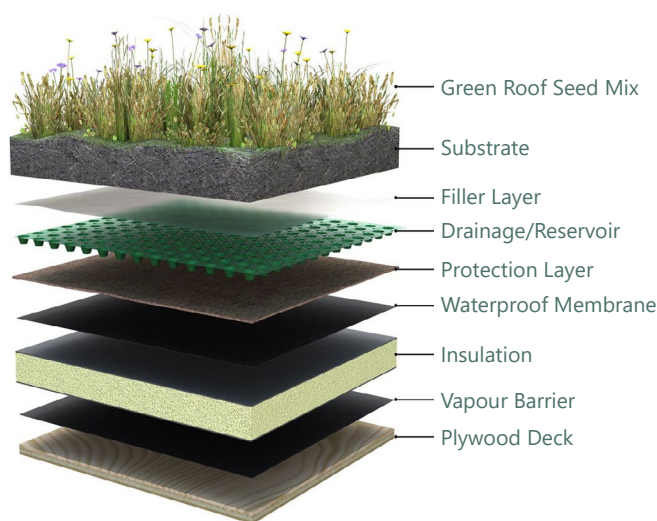
Green roofs can have many environmental benefits, they capture and slow storm water run-off, provide insulating qualities to a building, and reduce urban heat-island effect. A green roof typically includes the following components: a supporting structure, continuous waterproofing membrane, root barrier, a drainage layer/ moisture retention mat system, insulation, and soil and plantings. To provide a durable watertight long-term roofing assembly, the selection of an appropriate waterproofing membrane and the proper construction of detailing and base flashing is crucial. The soil media, insulation, and drainage/ moisture retention systems must all be designed to reduce the volume of runoff.

It's important to consult a licensed architect or engineer as a first step to determine whether the structural capacity of the existing roof can support the green roof installation. It may be necessary to supplement the existing structure. Additionally, a licensed roofing contractor or vegetative roofing supplier should be involved to assist in reviewing the relevant details, drainage, installation, and any suggested quality control measures for testing of the system.

SOLAR & GREEN ROOF GUIDELINES & TIPS

- Consult a structural engineer or architect to assess the roof's structural capacity when considering installing a green roof or roof-top solar array.

- Consult a specialist in green roofs or solar installations to ensure that the system is professionally designed and scaled for your building.
- Consider the life-expectancy of the existing roof and whether replacement should be undertaken prior to installing a green roof or solar array. The roof should be watertight and have adequate slope and drainage.
- When implementing roof installations retain original character-defining roof features and finish materials.
- Install green roofs and solar panels so that they do not result in a perceptible change in the building's massing, height or roofline, as seen from public street view, and do not cover or obscure distinctive roof features or finishes on primary elevations.
- For buildings with flat roofs, locate green roofs and solar installations back from the front edge of the roof (and from the exposed side edge for corner properties) to minimize their visibility from public street view.
- For buildings with sloped roofs, locate solar installations on secondary elevations to minimize their visibility from public street view, away from roof edges and ridges. Use low-profile panels set flush with the roof and in a complementary color with the roof finish to avoid a discordant or visually obtrusive appearance.



SOLAR & GREEN ROOF SYSTEMS CONTINUED

LOWER COST STRATEGIES

ROOF FINISH
GREEN ROOF

- Install a white roof finish to deflect sun and reduce heat gain.
- Install on a secondary building, such as a shed or garage.

HIGHER COST STRATEGIES

GREEN ROOF
SOLAR SYSTEM

- Install a green roof on the primary building.
- Install a solar photovoltaic system or solar thermal system.

LANDSCAPE & SITE FEATURES

Landscape and site features can cost effectively reduce energy use, resource consumption, and heating and cooling costs as well as improve the appearance of a property. These features can also help manage storm water and reduce heat island effect. Heat island effect is a phenomenon where extensive paved surfaces in urban areas raise the ambient temperature above the surrounding region. As a result, downtown is sometimes 10-15 degrees hotter than surrounding neighborhoods. Incorporating more vegetation in dense areas can reduce this effect.

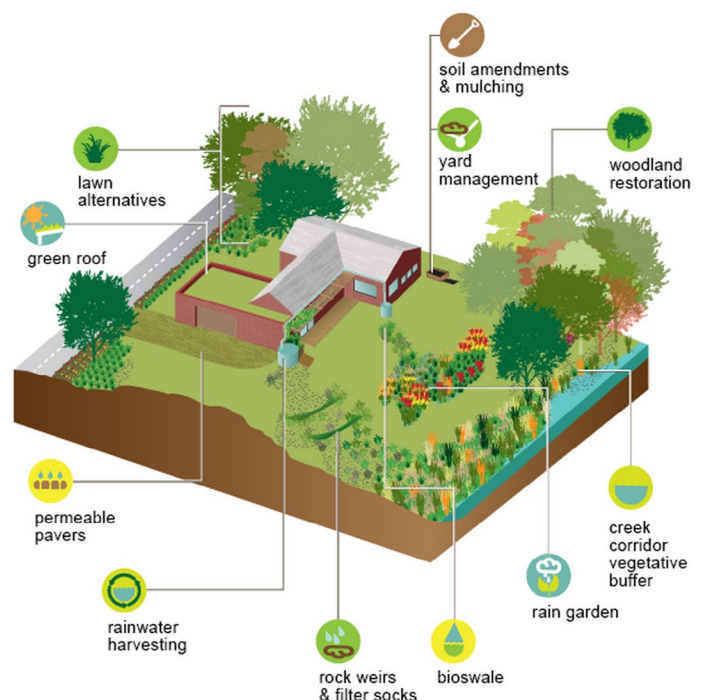
Existing landscape and site features that enhance building performance, manage storm water, and improve interior comfort should be maintained and supplemented. Strategies could include removal of paving and/or installation of permeable paving, installation of green roofs, reestablishment of tree canopy, incorporating bioswales or rain gardens and planter boxes, and rainwater harvesting. Bioswales are landscape elements designed to concentrate or remove debris and pollution out of surface runoff water. They consist of a swale drainage course with gently sloped sides (less than 6%) and filled with vegetation, compost and/or riprap. As the roofs of most buildings drain to the rear (rather than to the front) rainwater harvesting and the installation of bioswales and cisterns are most appropriate on side or rear yards. Paving should be limited in front yards to reduce impervious surfaces and to retain neighborhood character.

LANDSCAPE & SITE FEATURES GUIDELINES & TIPS

- Identify and retain existing sustainable features such as permeable paving and mature trees that block summer sun or serve as a wind break.
- Place new trees and landscaping away from foundations or basement walls to avoid moisture infiltration and damage from roots.
- Select plant and tree species according to their mature size to account for the long-term impact of mature growth.
- Prevent vines, ivy, and other plants from growing directly on the building as they can cause damage to the underlying materials.
- Consider permeable paving options when installing new or replacement paving. Avoid paving up to the building foundation with

impermeable surfaces as this can increase building temperature, cause damage to the foundation, and trap moisture.

- Ensure protection of nearby buildings, trees, site features, and known archaeological features when undertaking excavation or regarding for the installation of an underground cistern.
- Identify, preserve, and repair character-defining landscape features such as masonry walls, walkways, topographical features, plantings, or other man-made and natural features.
- Install new paving that is compatible with the character of the building and surroundings, using permeable paving if appropriate, for walkways, driveways, and patios.
- Install rain gardens, bioswales, and cisterns or other rainwater harvesting systems in a manner that is compatible with the landscape character of the property and surrounding context. Side and rear yards are typically the most appropriate place for larger landscape features that require substantial excavation or changes in topography.



Landscape and site features that can be integrated into your property to help reduce energy use and manage storm water.

LANDSCAPE & SITE FEATURES CONTINUED

LOWER COST STRATEGIES

LANDSCAPING

- Preserve existing trees and plants, particularly mature trees.
- Use native plants, shrubs, and well-placed trees to reduce water consumption and provide shade and wind protection.
- Maintain trees to promote health and avoid property damage.

COMPOSTING

- Compost food and yard scraps to enrich soil instead of using store-bought chemical fertilizers.

RAINWATER HARVESTING

- Collect and store rainfall from rooftops or other impervious surfaces in rain barrels or below ground cisterns for on-site use.
- Non-potable uses include irrigation, washing sidewalks cars or pets, refilling water features or swimming pools.

WATER EFFICIENT IRRIGATION SYSTEMS

- Install systems that reduce water consumption such as drip irrigation, soaker hoses, moisture sensors, and timers.

HIGHER COST STRATEGIES

PERMEABLE PAVING

- Install permeable paving materials to allow stormwater to filter through voids or pervious joints in the surface where it is captured in underground layers of soil and gravel.
- Examples include porous asphalt, porous concrete, brick pavers, vegetated permeable pavement, and interlocking pavers.

RAIN GARDENS AND PLANTER BOXES

- Use shallow vegetated basins or planter boxes to capture and store stormwater runoff and pass it through a filter bed of engineered soil composed of sand, soil, and organic matter. Filtered runoff may be collected and returned to a storm sewer or allowed to infiltrate into the soil.

RAINWATER HARVESTING- UNDERGROUND CISTERNS

- Install an underground cistern to collect and store rainfall from rooftops or other impervious surfaces for later use.
- Residential cisterns typically have a capacity between 1,500-5,000 gallons. Most cisterns have a standard pressurized plumbing system that conveys water to the house or wherever needed for use.



ADDITIONAL RESOURCES

GENERAL RESOURCES

- [Burlington Electric Department](#)
 - › [Net Zero Energy Roadmap](#)
 - › [Energy Efficiency Annual Report \(2020\)](#)
- [Burlington 2030 District](#)
- [Vermont Green Building Network](#)
- [Efficiency Vermont](#)
- [Vermont Gas](#)
- [Department of Public Service – Vermont Energy Saver](#)
- [City of Burlington Department of Permitting and Inspections](#)
- [Burlington Lead Program](#)

FINANCING RESOURCES

- [Burlington Electric Department Energy Efficiency Audit Program](#)
- [Burlington Electric Department Rebates](#)
- [Efficiency Vermont Rebates](#)
- [Vermont Gas Residential Rebates](#)
- [Vermont Gas Commercial Equipment Rebates](#)
- [Vermont Renewable Energy Resource Center](#)
- [VEDA Energy Financing](#)
- [VEDA Commercial Energy Loan Program](#)

HISTORIC PRESERVATION RESOURCES

- [National Park Service Preservation Briefs](#)
- [NPS Standards for Rehabilitation](#)
- [City of Burlington Historic Preservation](#)
- [State of Vermont Historic Preservation](#)
- [Building Green](#)

The following was added under the “Appeal Description” within the Open Gov permitting platform.

The direction given is *Describe the City action you are appealing. Include any Permit Number or Complaint Number.*

Appeal Description*

1. Placing solar on the rear-facing roof slope is not a functional option; the roof faces due north which will severely limit the system's productivity, and solar installers will not install on a slate roof and thus the north façade would need to be asphalt. Spending money on a roof that is not compatible with a solar array is an undue burden on the homeowner.
2. Favoring slate replacement over electrification of an existing home is in opposition to what the city has claimed to prioritize.
3. Asphalt roof installation is expected to be substantially less costly, even with sheathing replacement, than the proposed slate repairs. A formal estimate can be provided.
4. Asphalt roof will come with a 50 year warranty. Slate repairs will not have a warranty available, putting an undue risk on the client for continued and further damage to the interior.
5. The contractor the city appointed to conduct the second opinion has stated to have less experience than the initial assessor (Majors Home Repair). The assertion that Majors Home Repairs is not a qualified contractor is based on a lack of professional polish unrelated to roofing; additional materials to support qualifications can be provided.
6. The original assessment provided by Majors Home Repair was conducted from the roof level of the home, at eye-level with the issues. The contractor providing a second opinion originally intended to conduct the assessment from the ground, and initially didn't show up. On the reschedule, despite being told there was a tarp covering the roof (to prevent further water damage) and that a ground-level evaluation wouldn't be possible, they came by anyways, resulting in having to schedule a 3rd time to ensure the tarp was removed and that the assessment was conducted properly.
7. The existing 2" head-lap, while consistent with historical standard, is currently allowing wind-driven rain into the attic. This installation does not match current best-practice and is a contributing factor to the damage that has accrued over the lifetime of this roof. Repair of the existing slate in-kind would mean continuing to jeopardize the substrate and interiors with poor install practices. .



To whom it may concern,

Acting as an agent of Frank Swasey and Mary VanBuren, Lewis Creek Builders (LCB) is appealing the ruling against replacing the existing slate roof on the property with asphalt.

The current slate roof is failing, creating damage to the structure and interior finish of the home. In our professional opinion, the best practice to avoid future and continued risk to the structure is to replace with a new roof that holds a warranty and is easily and readily repaired if needed.

Proposed costs to client for slate roof repairs to existing: \$53,156

Costs here include:

- \$35,000 estimate from Split Rock Restoration including snow belt
- Time and materials proper safety practices and protections
- LBC mark-up and management time
- *No guarantee or warranty on materials or install*

Proposed costs to client for asphalt roof replacement: \$30,620

Costs here include:

- Asphalt roofing installation, including underlayment
- New roof sheathing throughout
- Time and materials proper safety practices and protections
- LBC mark-up and management time
- *Up to 50-year+ warranty on materials, 5-year+ on install*

We, Lewis Creek Builders, have submitted this appeal on behalf of our clients, Frank Swasey and Mary VanBuren at 32-34 Hickok Place, Burlington. Additional documentation is provided in separate attachments.

Thank you,

Chris Swasey
Lewis Creek Builders

Frank Swasey
32-34 Hickok Place, Burlington

TRANSPARENCY | COMMUNICATION | PARTNERSHIP

14 Morse Drive | Essex Junction, VT 05452 | 802-662-1630 | info@lewiscreekbuilders.com | www.lewiscreekbuilders.com



To whom it may concern,

On behalf of property owners Francis Swasey and Mary VanBuren, Lewis Creek Builders is appealing the denial of permit application #ZP-24-52 for 32-34 Hickok Place. The application is for replacement of the existing slate roof with asphalt shingles with the purpose of rectifying the failing roof condition and creating a suitable surface for the installation of solar panels.

The structure at 32-34 Hickok appears on the 1894 Sanborn map¹. It was gifted as a wedding present to Harry W. Chase and Edith (Sherwin) Chase in 1907² by Edith's father, George Delano Sherwin. The Chase's are the grandparents of the current owner, Mary VanBuren. This property was part of a parcel containing the adjacent 28 Hickok Place and 10-12 Converse Court, and was split into three separate parcels in 1937.

Given this history, the slate roof is presumed to be at the very least 117 years old, likely older. The assessment provided by Grant Thibault of Split Rock Construction states that the structure was moved in 1930 and that the slate is 90 years old. This is incorrect. Moreover, it took three attempts to schedule and conduct this evaluation in a proper manner; the first attempt was intended to be done from the ground, and the second was attempted in spite of a tarp covering the roof. Factoring this information, we find the assessment from Split Rock Construction that states the slate could last another 50+ years to be unfounded.

The existing slate roof was installed with a 2" headlap, which was typical at the time. Over a century later, this is a known poor practice and is not how current slate roofs are installed. This 2" headlap has been assessed to be a significant factor contributing to water damage on the interior of the home and the roofing substrate caused by driving rain. The homeowner has completed necessary maintenance and repairs to the roof over the years³, which may have prolonged the life of the current slate but has not been an effective deterrent for the damage caused by the failure-prone installation method. Repairing the slate roof in-kind will not address these conditions nor will it provide any sort of warranty against future damage. This places an undue burden on the homeowner.

Section 5.4.8.b.6 of the Zoning Ordinance states *"Where the severity of deterioration requires replacement of a distinctive feature, ...new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for an efficient contemporary use."* Through incentive programs such as "Switch and Save", the "Heat Pump Bill Credit" pilot program, and the HEAR rebate program⁴, Burlington has made clear its goals for reducing fossil

¹ <https://www.loc.gov/resource/g3754bm.g089121894/?sp=7&st=image&r=0.279,0.986,0.274,0.165,0>

² https://www.findagrave.com/memorial/160132807/edith_may_chase

³ Sec. 5.4.8.c is not applicable.

⁴ <https://publicservice.vermont.gov/efficiency/inflation-reduction-act-bolster-vermont-weatherization-and-electrification-efforts>



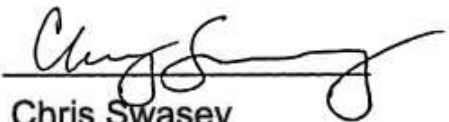
fuel dependence and emphasis on electrification. With this context, a roofing material such as asphalt shingles can be interpreted as an “appropriate alternative” based on the ability to support a PV system, which should be considered an “efficient contemporary use”.

The City of Burlington Historic Buildings’ Path to Net Zero Energy guidance is that solar panels on historic structures are *preferably* not visible from public ways. The roof is orientated with slopes facing north and south; placing the solar on the non-visible north side would greatly reduce its effectiveness, and therefore is not a viable alternative. The city’s guide also does not recommend placing solar on slate roofs⁵. Given these conflicting guidelines, the only feasible option for a solar array is to replace the slate roof with asphalt shingles and install on the south-facing side. It should also be noted that a neighboring property at 23 Hickok Place has recently-approved permits for the installation of a PV array and has replaced their slate roof with asphalt shingles in order to complete the approved work.

The age, construction type, and layout of this home limit the viable options for energy retrofit projects. A manageable path to electrification for the homeowner leads directly to reliance on solar-generated electricity. The city-backed incentive programs mentioned above have been credited for reducing fossil fuel consumption in the building sector by 19% since 2018⁶. These initiatives ring hollow when compared with the denial of electrification projects in historic homes based on shallow assessments, encouragement of poor installation practices, and inconsistently applied guidelines.

We ask that the Development Review Board reconsider this denial based on the information outlined above.

Sincerely,



Chris Swasey
Lewis Creek Builders

⁵Page 34, City of Burlington Historic Buildings - NZE Guide.

⁶<https://www.burlingtonvt.gov/Press/mayor-weinberger-and-burlington-electric-announce-major-progress-in-annual-net-zero-energy>

Major's Home Repairs
159b River Rd
Essex Junction Vermont 05452

To whom it may concern:

My name is Edward Major, of Major's Home Repairs. I recently did some slate repairs for Frank Swasey at 32 Hickock Place in Burlington. The objective was to fix a leak from an unknown source. During my exploration, I could not find any single source, and it actually appeared to be coming in from everywhere. Upon investigating this further, I discovered that there is only 1 1/2"- 2" of headlap on the slate. The normal for all roofs with the exception of a 12/12 pitch is 3".

While 1-1/2" - 2" headlap may be common in the Burlington area, it is not industry standard and risks water and moisture mitigation in driving and high volumes of water. 3" headlap is ideal and industry standard to allow for a durable, long lasting roof.

It's my professional opinion that this lack of headlap is the source of water infiltration. The reason it has gone unnoticed is because the water was draining out on the rosin paper beneath the slate, but now that has disintegrated. There is further evidence in the attic space where you can see insulation clumped together where water has dripped from between the roof slats onto it. Unfortunately, there is no easy solution for this issue, besides redoing the roofing.

Any slate repairs that are done in the current condition, without addressing the overarching headlap issue, will not prevent against leakage from driven and high volumes of water. No warranty or guarantee will be available for these repairs, leaving the client vulnerable to subsequent leaks and needed repairs indefinitely.

It is my professional opinion that to provide the client with a long lasting, durable, guaranteed product, with the ability to install solar, replacing the existing roof with asphalt is the best course of action.

I have over 12 years of experience in the slate industry. I worked as a steeplejack for Yankee Steeplejack Company out of Harvard, MA from 2005-2017. We did historical restoration of church steeples and other hard-to-access structures which included lots of slate and copper work. Below is a reference if you are interested in knowing more about the work we did repairing historic churches and structures. I have continued to tackle slate and roof repairs over the past 7 years on my own, and as Majors Home Repairs.

Tom Evarts - Owner of Yankee Steeplejack Company
978-456-7339
<http://www.yankeetower.com/>

If there are any questions for me please contact me at:
802-782-6843
Majorshomerepairs@gmail.com

Thank you
Edward Major





To whom it may concern,

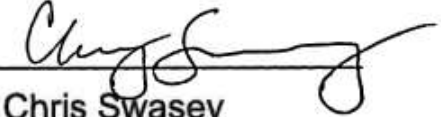
Acting on behalf of the homeowner, Frank Swasey, Lewis Creek Builders would like the following information to be considered by the Development Review Board when evaluating whether to hear our appeal of the denial of zoning permit application #ZP-24-52 for 32-34 Hickok Place.

Unlike the process for submitting a zoning permit application, the application process for filing a zoning appeal does not ask for, have language referencing, or link to a form for the homeowner's signature. At no point prior to accepting the appeal fee is there mention of who specifically can appeal, or what specific documents are required to consider an application complete.

The fee for the appeal was paid on March 27th. The following day, zoning department staff asked us to create "... a narrative of the project, outlining applicable provisions in the zoning ordinance that would assist with your appeal". We had no further communication from zoning staff until April 9th, when we were informed that a contractor can not appeal on behalf of a homeowner and that the 15-day appeal period had ended on April 6th.

Given the above information, we find it astounding that all supporting documentation including the specific information asked for on March 28th is being considered "untimely".

Sincerely,


Chris Swasey
Lewis Creek Builders

Staff comments on subsequent submissions from Lewis Creek Builders:

-There are no permits on file for slate removal at 23 Hickok Place. If work was completed there, it was without permits.

-Lewis Creek quotes slate repair from Split Rock Restoration as \$35,000. That is inaccurate. The 2nd opinion offered three price points: Immediate repair, intermediate repair, and full restoration. The quote for immediate repair was \$4-8,000. Full restoration/replacement was the higher number.

-The owner signature on the original zoning permit application (FCS) is different from the owner signature on the bottom of the untimely Appeal Letter, received April 11, 2024. (Francis C. Swasey, different handwriting.)

Good afternoon,

I am writing to express a concern of safety and potential liability related to the proposed slope and height of the new roof on the rear addition.

Over the years, we have had instances, while shoveling, when large amounts of snow and ice have fallen next to us and/or on a vehicle in our driveway. There have never been any personal injuries as a result, but fallen ice has resulted in a broken headlight.

With the slope and height of the added roof, we are concerned that these episodes of fallen ice and large amounts of snow will increase, thus increasing risk.

We understand that there are no ordinances that refer to being mindful of the safety of neighboring residents. That said, we respectfully request that some kind of ice and snow block be included on the new roof adjacent to our driveway.

Thank you in advance for your attention to our safety.

Johanne and Norm Larson
50 Charlotte Street

Department of Permitting & Inspections

Zoning Division
645 Pine Street
Burlington, VT 05401
Telephone: (802) 865-7188

William Ward, Director
Scott Gustin, AICP, CFM, Principal Planner
Mary O'Neil, AICP, Principal Planner
Garret King, Associate Planner
Joseph Cava, Permit Technician
Steve Cormier, Code Compliance Officer
Ted Boylan, DPI Administrator



TO: Development Review Board
FROM: Garret King
DATE: May 7th, 2024
RE: ZP-24-60; 58 Charlotte Street

=====

Note: These are staff comments only; decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.

Zone: RM Ward: 5

Owner/Applicant: Stephen Hard / Eric Belliveau

Request: Proposal to expand 3rd unit with a rear second story addition. Add a window to the front dormer and 3 new windows on the second floor of the west facade. Create new front landing, rear yard parking and turn around area.

Applicable Regulations:

Article 4 (Maps & Districts), Article 5 (Citywide General Regulations), Article 6 (Development Criteria & Guidelines), Article 8 (Parking)

Background Information:

Applicant is looking to add a window to the front dormer and three additional windows to the west façade. An addition on the rear to expand the 3rd unit and reconstructed front steps are proposed. In the back yard, a new parking and turn around area will be constructed.

The current home was built in 1924 and is listed as part of the 5 Sisters historical district. A 1973 inspection recorded that the building was 3 separate units at that time. This application went to the DAB on March 26th and the applicant was asked to return with changes to the design of the front stairs and dormer. The application returned to the DAB on April 23rd with changes and the DAB recommended the application for approval with the suggestion for the front stairs to be changed from stone to wood and only lead out towards the street.

Prior zoning permit actions for this property:
11/4/2021 ZP-21-766 Install replacement windows

Recommendation: Certificate of Appropriateness approval as per, and subject to, the following findings and conditions:

I. Findings

Article 4: Maps & Districts
Sec. 4.4.5, Residential Districts:

(a) Purpose

(2) Residential Medium Intensity (RM)

The Residential Medium Intensity (RM) district is intended for residential development that includes a mix of housing types such as single-family detached dwellings, with or without accessory dwelling units, duplex, triplex, quadplex, and multi-unit buildings in compact, walkable neighborhoods. Building heights typically range from two to three stories, and development generally results in moderately higher lot coverage as compared to the RL district. Neighborhoods within this district are typically walkable to downtown or other mixed-use areas of the city, and commercial uses within the district take the form of home-based businesses and the adaptive reuse of historic buildings for neighborhood-serving uses.

The proposed addition to the triplex will keep the structure within the district's scale and purpose.

(Affirmative Finding)

(b) Dimensional Standards

Residential density will not change from three dwelling units in the single structure.

Prior/Current lot coverage is roughly 45%. The proposed lot coverage is 58.5% as calculated from the provided site plan.

Side yard setbacks for the addition will match the existing setbacks of the structure, roughly 1.76ft and 14 feet respectively. The North side yard setback is calculated by averaging adjacent neighboring properties of 44-46 Charlotte, 60 Charlotte, and 64 Charlotte Street resulting in a side yard setback of approximately 1.16ft. The side yard setbacks are greater than required. Front yard setback is not affected. The proposed parking and turn around area will comply with the 10% lot width (40ft wide lot) and 15ft rear yard setback requirements, respectively. The parking and turn around area will have a minimum side yard setback of 4ft and a rear yard setback of 41ft.

The tallest point of the rear addition will be as tall as the current top of the roof and will stay under the 3 story max height.

(Affirmative Finding)

(c) Permitted & Conditional Uses

The use of the property will not be changing. **(Affirmative Finding)**

(d) District Specific Regulations

1. Additional Residential Development – Permitted

Not Applicable.

2. Exceptions to Dimensional Standards

Not Applicable.

3. Exception for Neighborhood Commercial Uses

Not Applicable.

4. Miscellaneous Standards

(B) Accessory Residential Structures, Buildings, and Uses

The proposed parking and turn around area will be created behind the house and will follow the required setbacks as required in Sec 4.4.5 and the parking requirement of Article 8. **(Affirmative Finding)**

Article 5: Citywide General Regulations

Sec. 5.2.3, Lot Coverage Requirements

See Sec. 4.4.5 above

Sec. 5.2.4, Buildable Area Calculation

Not applicable

Sec. 5.2.5, Setbacks

See Sec. 4.4.5 above.

Sec. 5.2.6, Building Height Limits

See Sec. 4.4.5 above.

Sec. 5.2.7, Density and Intensity of Development Calculations

See Sec 4.4.5 above.

Sec. 5.4.8 Historic Buildings and Sites

(a). Applicability.

The building was found to be a contributing resource in the 2007 Historic Sites and Structures survey of its neighborhood. As a result, the standards of Sec. 5.4.8 pertain to this application.

(Affirmative Finding)

(b). Standards and Guidelines.

1. A property will be used as it was historically or be given a new use that requires a minimal change to its distinctive material, features, spaces, and spatial relationships.

The home was likely a single family home originally, but during an inspection in 1973 it was recorded that the property was a three unit building. The building is still 3 units today. A building permit from 1986 notes new vinyl siding over wood clapboard. The existing use of the building will remain unchanged. **(Affirmative Finding)**

2. The Historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

This will not be the first change to the front of the property as the front porch was enclosed at some point, and vinyl siding was put on in 1986. It is likely that the existing rear addition is not part of the original home. One additional window on the dormer on the front of the house is consistent with the recommendation from the DAB. **(Affirmative Finding)**

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

Not applicable

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

Not Applicable

5. Distinctive material, feature, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

While the original form of the building has been retained, the previous enclosure of the front porch was a substantial alteration to the home that altered a distinctive feature as well as the massing of the home. One additional window on the dormer on the front of the house is consistent with the recommendation from the DAB. **(Affirmative Finding)**

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and where possible, materials recognizing that new technologies may provide an appropriate alternative in order to adapt to ever changing conditions and provide for an efficient contemporary use. Replacement of missing features will be substantiated by documentary and physical evidence.

No historic building materials or features will be replaced or restored as part of this application. **(Affirmative Finding)**

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Not Applicable

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

There are no known archaeological resources identified at this parcel. **(Affirmative Finding)**

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic material, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The additional window on the dormer on the front of the house is consistent with the recommendation from the DAB. The rear addition will sit on top of the existing rear addition and fills the current void between the rear of the house and the ridgeline of the existing roof in a square massing reflecting existing building lines. The proposed materials will be similar in style to what exists on the rest of the building. Overall the rear addition will fit into the size, form and style that is compatible with the existing building. **(Affirmative Finding)**

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The additional window on the dormer on the front of the house is consistent with the recommendation from the DAB meeting. **(Affirmative Finding)**

Sec. 5.5.1, Nuisance Regulations

The proposed project should not create any nuisance. **(Affirmative Finding)**

Sec. 5.5.2, Outdoor Lighting

Lighting positions are shown in the provided elevations next to the front door. All proposed outdoor lighting conforms to the low output and full cut off standards for residential areas.

(Affirmative Finding)

Sec. 5.5.3, Stormwater and Erosion Control

Over 400sf of land disturbance is proposed so the applicant will need to apply and submit an Erosion Prevention and Sediment Control plan to water resource for review. **(Affirmative Finding as Conditioned)**

Article 6: Development Review Standards

Part 1, Land Division Design Standards

Not applicable

Part 2, Site Plan Design Standards

Sec. 6.2.2, Review Standards

(a) Protection of important natural features

Not applicable

(b) Topographical alterations

Significant grading is not indicated in the plans. The site is basically flat and will remain so.

(Affirmative Finding)

(c) Protection of important public views

The property is not associated with any important public views. **(Affirmative Finding)**

(d) Protection of important cultural resources

The property is not affected by any identified archaeological site points. **(Affirmative Finding)**

(e) Supporting the use of alternative energy

There is no indication that the proposed building will utilize alternative energy. Solar energy utilization is encouraged. In any event, the building will not adversely impact the actual or potential use of alternative energies by neighboring properties. **(Affirmative Finding)**

(f) Brownfield sites

The subject property is not an identified brownfield. **(Affirmative Finding)**

(g) Provide for nature's events

The proposed plan will not alter the shedding of snow, ice, or rain in a way that will affect neighbors or entrances in a way that is different than the current building. **(Affirmative Finding)**

(h) Building Location and Orientation

Not applicable

(i) Vehicular access

The existing driveway that connects the garage to the road will remain as is. The proposed parking and turn around area will connect to the existing driveway behind the house to provide additional

parking as well as a turnaround area so residents will not have to back out into the street.

(Affirmative Finding)

(j) Pedestrian access

The building is along a road with a sidewalk where public access is granted by the main driveway and front walkway to the front door. A new set of stairs, landing and reconfigured walkway are proposed to provide access to the front of the home. **(Affirmative Finding)**

(k) Accessibility for the handicapped

No handicapped accessibility is shown and is not required. **(Affirmative Finding)**

(l) Parking and circulation

Parking and circulation will be provided by the main driveway and provides access to the garage as well as the new proposed parking and turn around area. The parking area is hidden behind the building and is screened from the rest of the neighborhood by the garage and the neighbor's garage. The applicant is proposing a short stone wall and retaining wall to border the proposed parking and turn around area to prevent vehicles from encroaching into the yard. **(Affirmative Finding)**

(m) Landscaping, fences, and retaining walls

Not applicable

(n) Public plazas and open space

Not applicable

(o) Outdoor lighting

See Sec. 5.5.2

(p) Integrate infrastructure into the design

No changes to site infrastructure are proposed. **(Affirmative Finding)**

Part 3, Architectural Design Standards

Sec. 6.3.2, Review Standards

(a) Relate development to its environment

1. Massing, Height, and Scale

The proposed building additions will increase the scale of the existing building. The proposed additional window on the dormer will not create any change in height, scale or massing on the street façade. The rear addition will increase to two stories while keeping the straight lines and square edges that define the building. The scale of the building with the new proposals is similar to other buildings in the neighborhood. Overall, the scale of the home will be larger, but from the street only the alterations to the dormer will be seen.

2. Roofs and Rooflines

The rear addition will include a gable roof and will be minimally visible from the street. The front dormer will continue to have a shed roof.

3. Building Openings

The front of the building has a characteristic upper floor dormer that will have one additional window, and three additional windows will be added to the second story of the south elevation. All of the other windows and doors on the building will be replaced with double hung fiberglass windows and wooden doors. Resulting fenestration will be consistent throughout the residence with this proposal.

(Affirmative Finding)

(b) Protection of important architectural resources

See Sec. 5.4.8

(c) Protection of Important Public Views

Not applicable

(d) Provide an active and inviting street edge

Not applicable

(e) Quality of materials

The material for the new construction will mainly consist of fiber cement siding, asphalt shingle roofing, and fiberglass windows and doors. The roof, windows, and doors are all made of materials that are commonly seen on other modern structures. The new front steps will be stone and have a metal railing. As alterations to unoriginal materials, these materials are acceptable. **(Affirmative Finding)**

(f) Reduce energy utilization

Proposed building must comply with current energy efficiency standards. **(Affirmative Finding)**

(g) Make advertising features complimentary to the site

Not applicable

(h) Integrate infrastructure into the building design

No new exterior infrastructure is included in the project plans. If any is proposed, it will have to be shown on the project plans and screened to integrate into the overall design and materials of the building. **(Affirmative Finding)**

(i) Make spaces safe and secure

Proposed building must comply with the city's current egress requirements. Building entries will be illuminated. **(Affirmative Finding)**

Article 8: Parking

Sec. 8.1.9, Maximum On-Site Parking Spaces

The new parking and turn around area will provide 3 parking spots and turning space so residents will not have to back out of the driveway. The proposal keeps parking under the maximum parking allowed. **(Affirmative Finding)**

II. Conditions of Approval

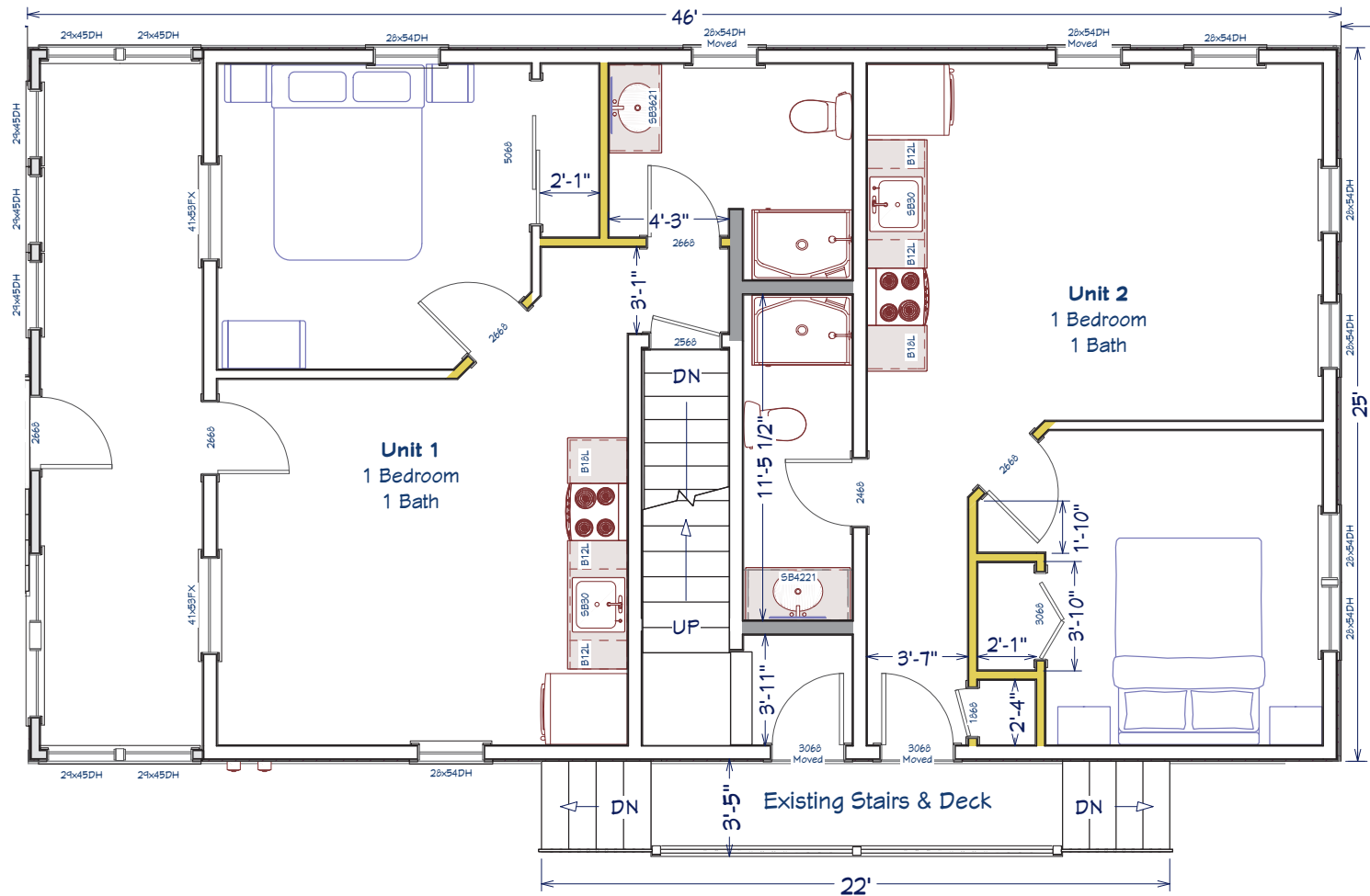
1. Prior to the release of the Zoning Permit:

- a. The applicant shall submit EPSC plans to Water Resources for review.

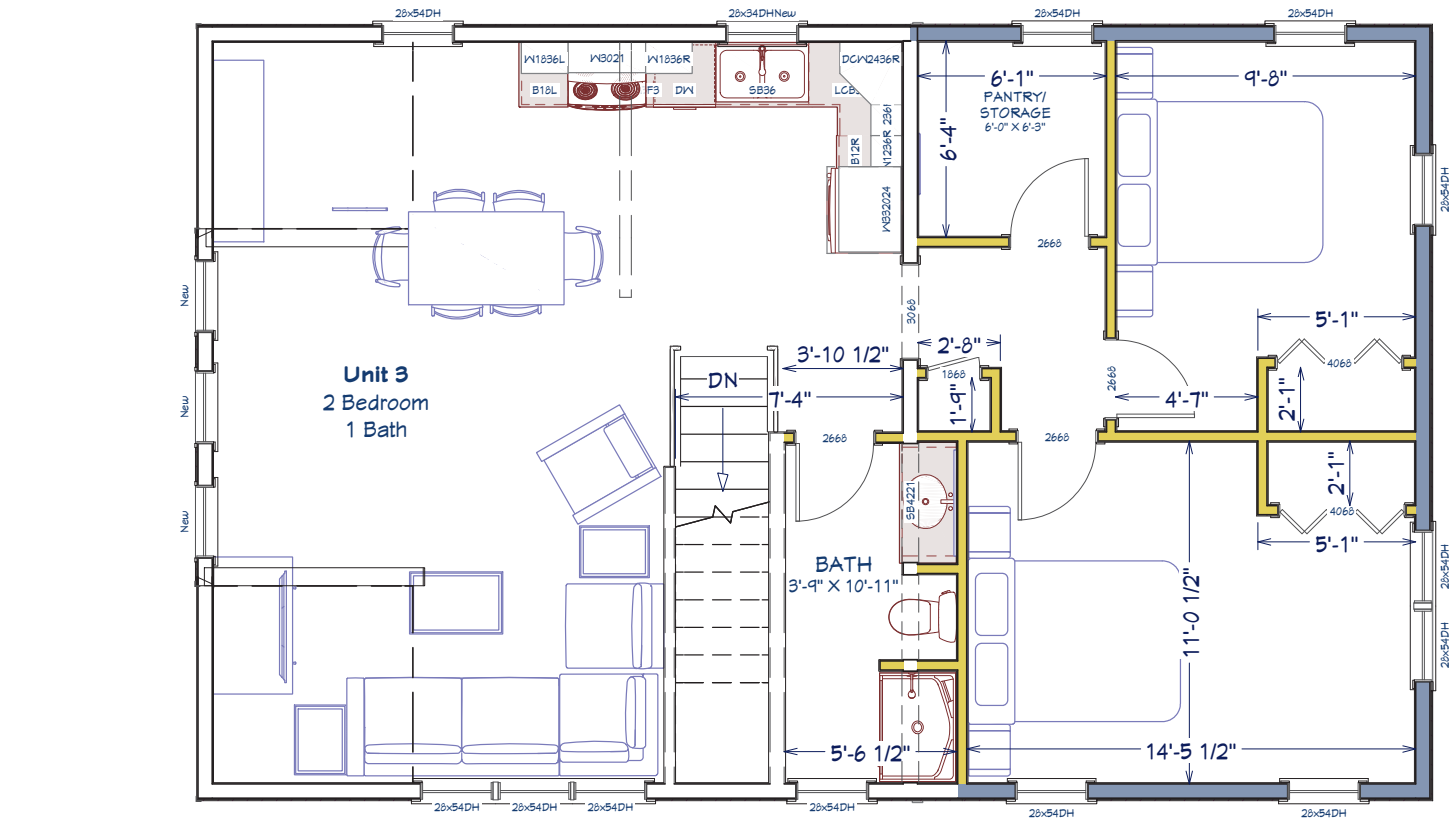
- b. Any proposed site or building infrastructure shall be depicted on revised site plans and subject to staff review and approval.
2. Vermont Residential Building Energy Standards apply to this project. Compliance with the standards is the Owner's responsibility. Prior to requesting a Certificate of Occupancy, a copy of a completed Vermont Residential Building Energy Standards Certificate shall be submitted with a Certificate of Occupancy (final or temporary) request, and filed in the Land Records located at the Clerk/Treasurers office in City Hall (149 Church Street). For more information, see http://publicservice.vermont.gov/energy_efficiency.
3. At least **7 days prior to the issuance of a certificate of occupancy**, the applicant shall pay to the Permitting & Inspections Department the impact fee as calculated by staff based on the net new square footage of the proposed development. If no net increase in square footage, no impact fees are due.
4. The Applicant/Property Owner is responsible for obtaining all necessary Zoning Permits and Building Permits through the Department of Public Works as well as other permit(s) as may be required, and shall meet all energy efficiency codes of the city and state.
5. Standard permit conditions 1-15.



Conceptuals Only
Not For Construction

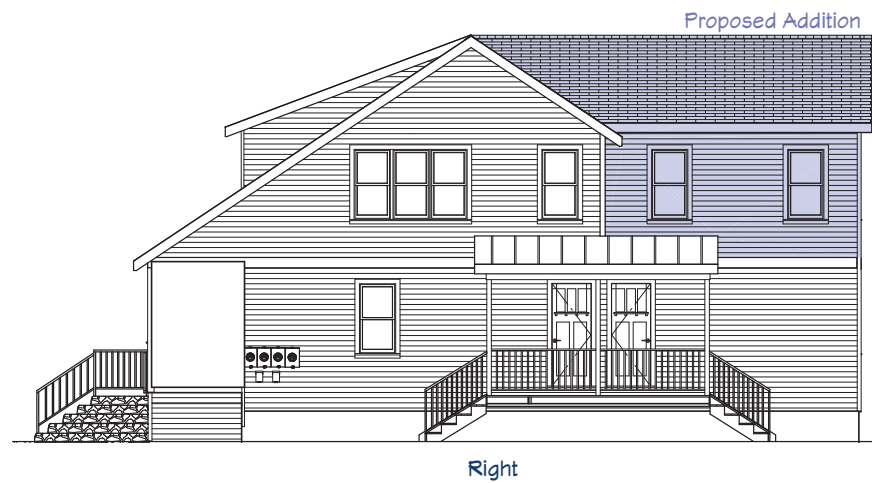
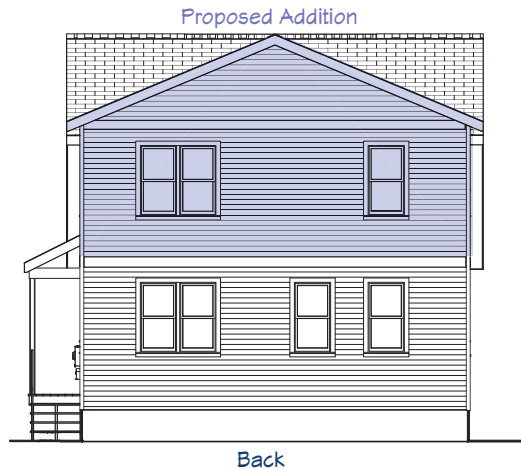
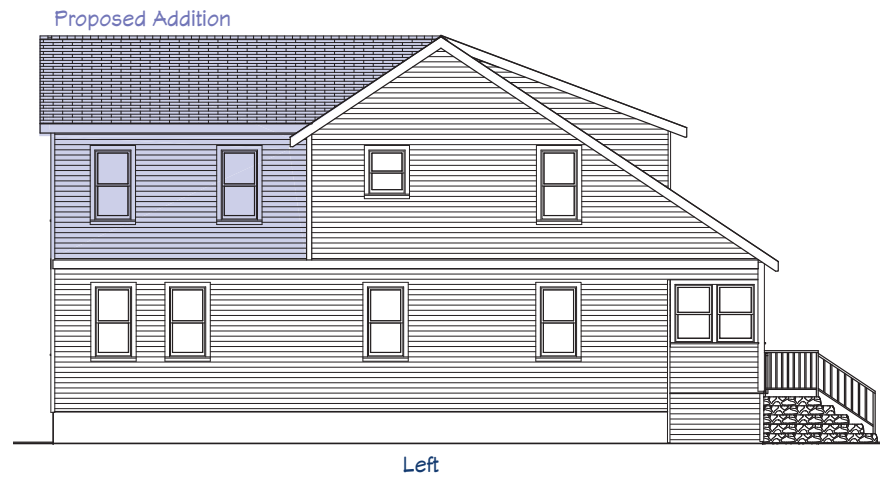
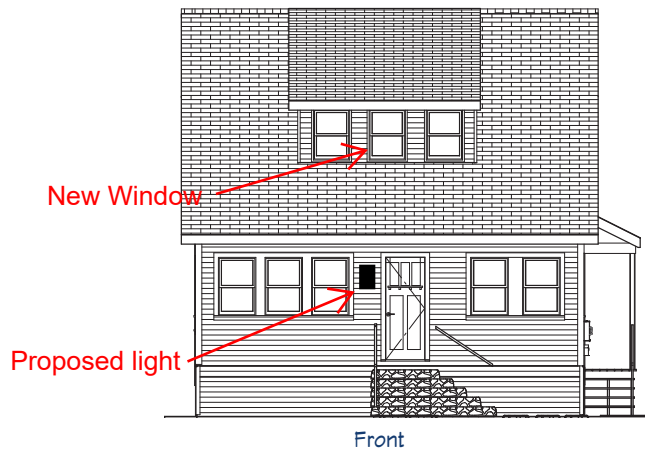


Conceptuals Only
Not For Construction



- | | | | |
|---|---------------------------|--|---|
|  | Existing Exterior Wall |  | Existing 4 1/2" Interior Wall |
|  | New Exterior Wall |  | New 4 1/2" Interior Wall |
|  | Existing 6" Interior Wall |  | Existing 4 1/2" Interior Wall To Be Removed |
|  | New 6" Interior Wall | | |

Conceptuals Only
Not For Construction



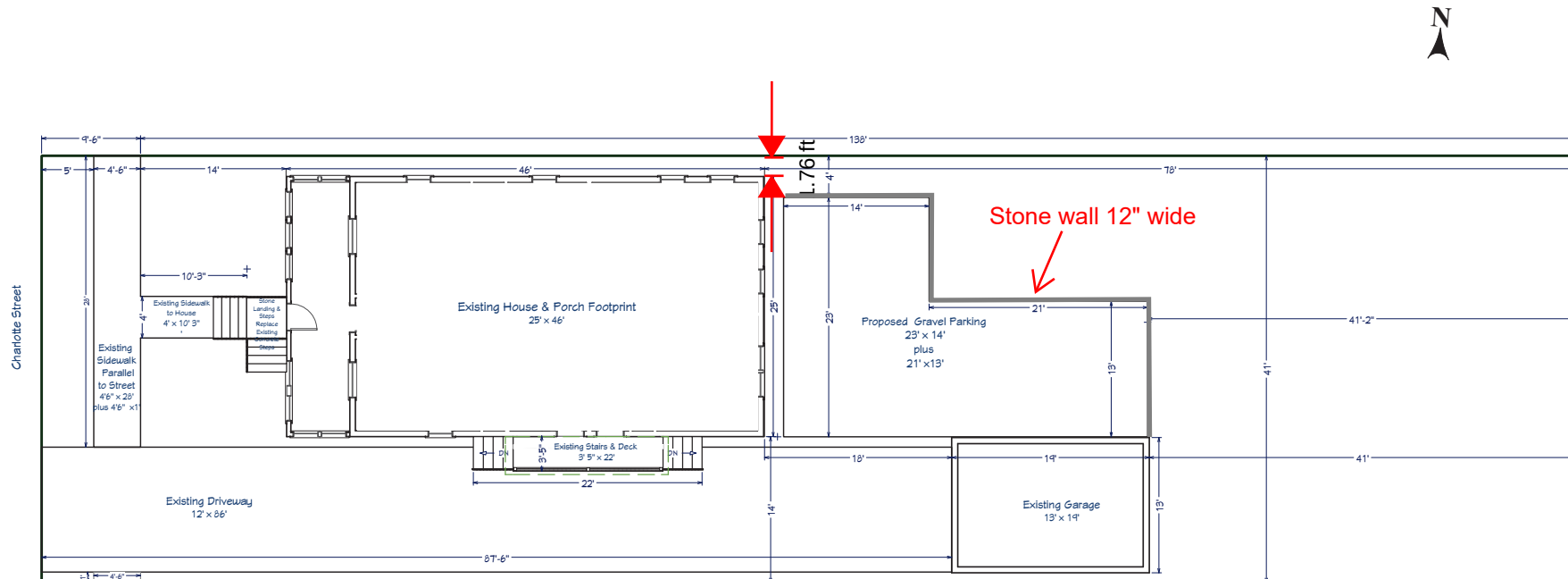
Conceptuals Only
Not For Construction

58 Charlotte St. Page: 4

DATE: 4/15/2024

SCALE: 1/8" = 1'
at 11x17

DESCRIPTION: Elevations



Example parking barrier



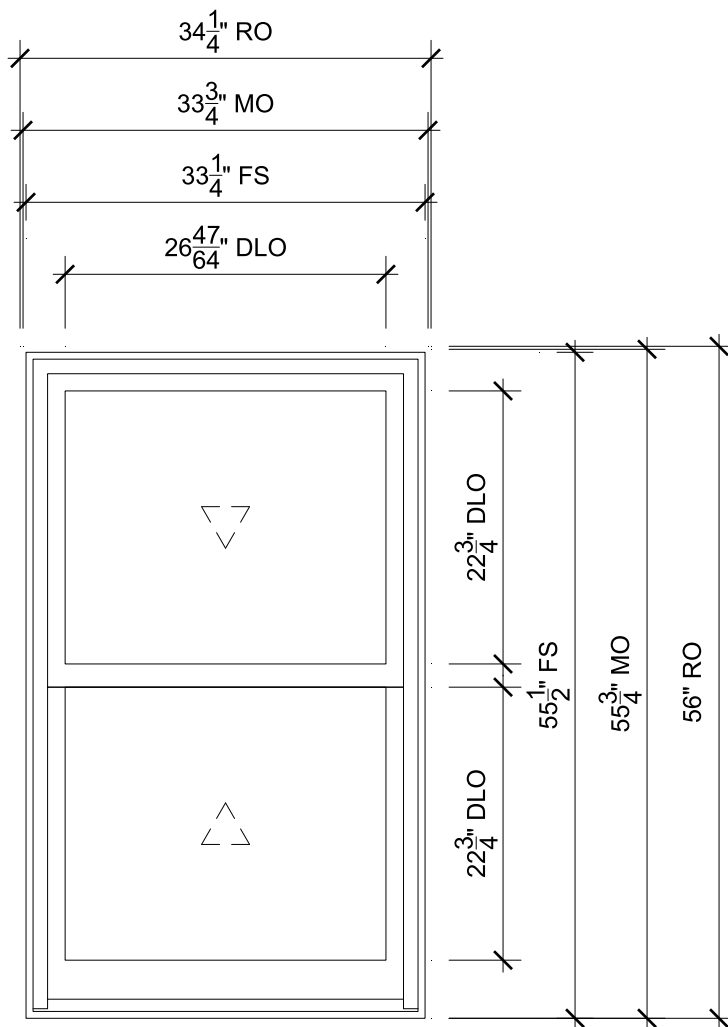






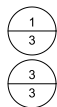






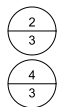
ULTIMATE DBL HUNG

SCALE: 3/4" = 1'-0"



Head

Sill



Jamb

Checkrail



PROJ/JOB: ERIC BELLIVEAU - CLAD ULTIMATE / CHARLOTTE STR. BURLINGTON

DIST/DEALER: WINDOWS & DOORS BY BROWNELL-GO

DRAWN: PAUL GODARD

QUOTE#: KXC3AWE

PK VER: 0004.07.00

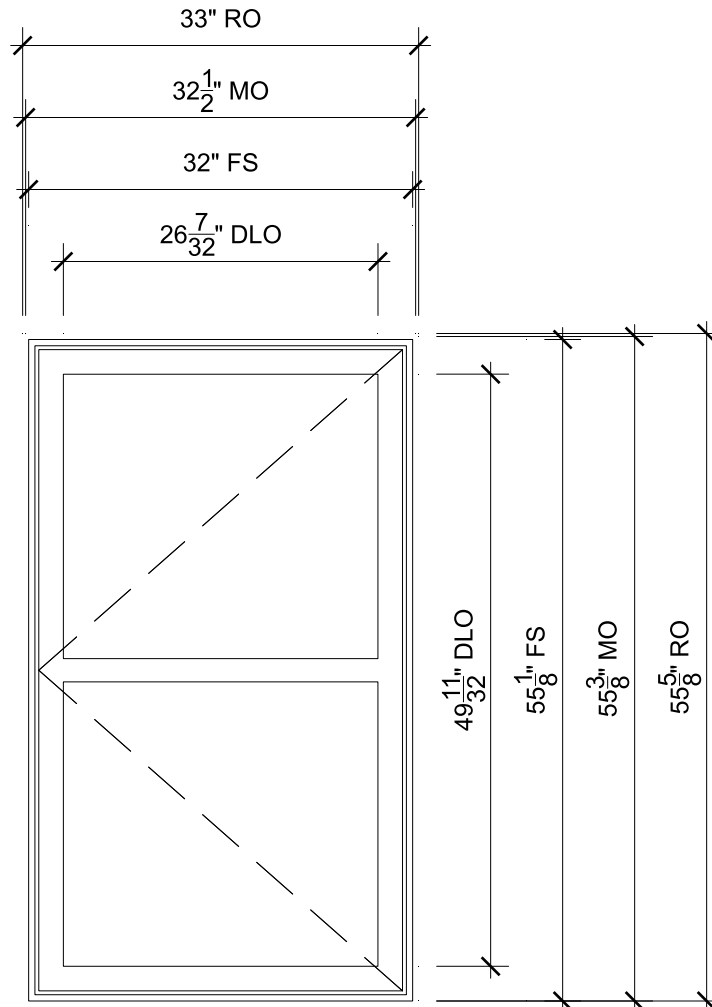
CREATED: 02/26/2024

REVISION:

SHEET

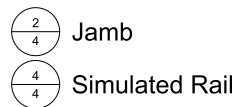
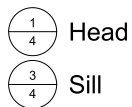
1

OF 4



ULTIMATE CASEMENT

SCALE: 3/4" = 1'-0"



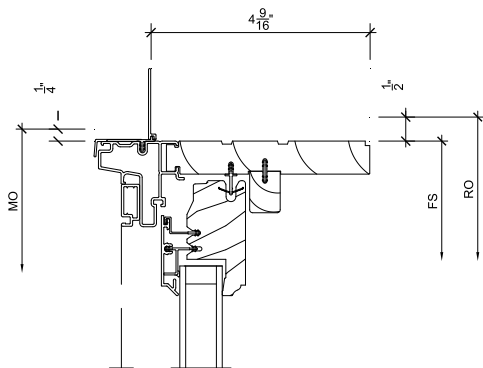
PROJ/JOB: ERIC BELLIVEAU - CLAD ULTIMATE / CHARLOTTE STR. BURLINGTON
 DIST/DEALER: WINDOWS & DOORS BY BROWNELL-GO
 DRAWN: PAUL GODARD
 QUOTE#: KXC3AWE PK VER: 0004.07.00

CREATED: 02/26/2024 REVISION:

SHEET

2

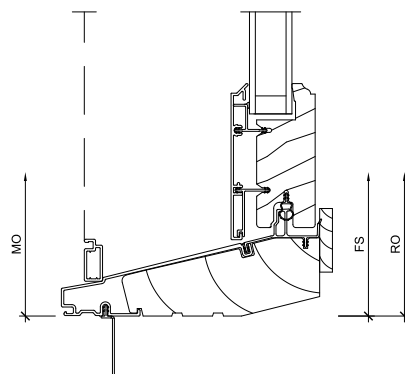
OF 4



1
3

Head

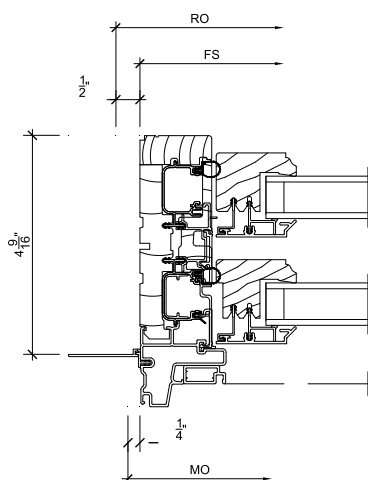
SCALE: 3" = 1'-0"



3
3

Sill

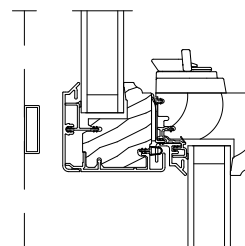
SCALE: 3" = 1'-0"



2
3

Jamb

SCALE: 3" = 1'-0"



4
3

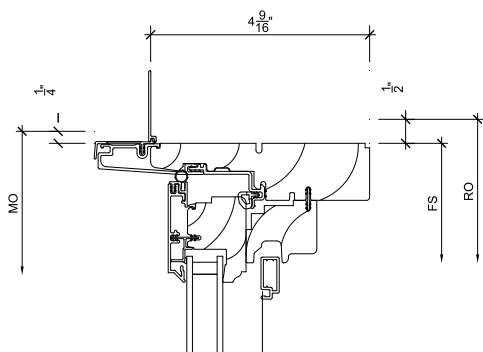
Checkrail

SCALE: 3" = 1'-0"

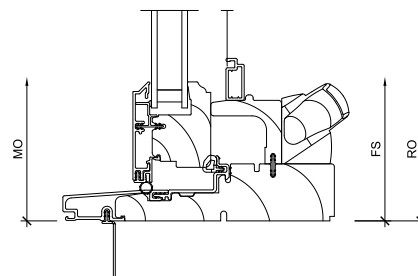


PROJ/JOB: ERIC BELLIVEAU - CLAD ULTIMATE / CHARLOTTE STR. BURLINGTON
DIST/DEALER: WINDOWS & DOORS BY BROWNELL-GO
DRAWN: PAUL GODARD
QUOTE#: KXC3AWE PK VER: 0004.07.00 CREATED: 02/26/2024 REVISION:

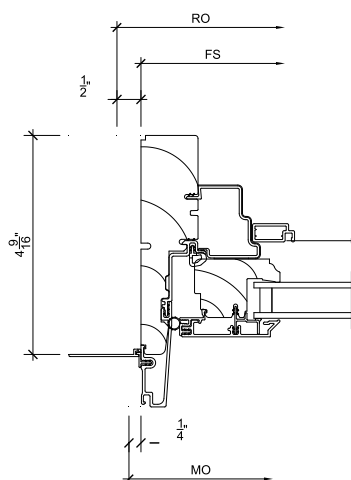
SHEET
3
OF 4



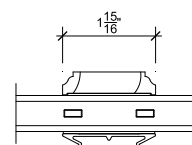
1 Head
4 SCALE: 3" = 1'-0"



3 Sill
4 SCALE: 3" = 1'-0"



2 Jamb
4 SCALE: 3" = 1'-0"



4 Simulated Rail
4 SCALE: 3" = 1'-0"



PROJ/JOB: ERIC BELLIVEAU - CLAD ULTIMATE / CHARLOTTE STR. BURLINGTON
DIST/DEALER: WINDOWS & DOORS BY BROWNELL-GO
DRAWN: PAUL GODARD
QUOTE#: KXC3AWE PK VER: 0004.07.00 CREATED: 02/26/2024 REVISION:

SHEET
4
OF 4



THE LIGHTING HOUSE
Vermont's Premier Lighting and Outdoor Furniture Store



3002
Shelburne
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Shelburne,
VT 05482



www.vermontlightinghouse.com



802-985-
2204
Fax: 802-
985-8931



info@vermontlightinghouse.com



LED Wall Mount

\$359.00



Item ID: **581023**
MFG #: **1660SK**
Manufacturer: **Hinkley**
Finish: **Satin Black**
Collection: **Luna**
Width: **6.00"**
Height: **16.00"**
Length: **3.50"**



Bring home modern versatility with Luna, a collection of solid aluminum fixtures offered in a unique combination of contemporary styles. Ideal for indoor and outdoor applications, each fixture style has bold lines and strong architecture to complement a wide range of décors while providing just the right amount of functional light.

Bulbs

Voltage: **120 V**

Qty.	Type	Base	Watt	Incl.	Source	LM.	CCT	CRI	Avg.Life	Dim	Beam
2	Bi-Pin	GU10	7.00 W	-	LED	-	-	-	-	Yes	-

Details

Safety Listing: **C-US**

Weight: **5.00 lb**

Safety Rating: **Wet**

UPC: **640665166088**

Glass: **Etched Lens**

Canopy: **6"x16"**

Top to outlet: **10.00"**

Extension: **3.50"**

Collection



LED Wall Mount
1660BZ



LED Wall Mount
1660TT



LED Wall Mount
1664BZ



LED Wall Mount
1664TT



LED Wall Mount
1664BZ-LED



LED Wall Mount
1664TT-LED



LED Wall Mount
1660BZ-LED



LED Wall Mount
1660SK



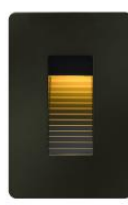
LED Wall Mount
1660SK-LED



LED Wall Mount
1664SK



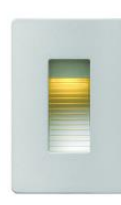
LED Wall Mount
1664SK-LED



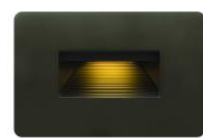
LED Landscape
Deck
58504BZ



LED Landscape
Deck
58504SW



LED Landscape
Deck
58504TT



LED Landscape
Deck
58508BZ

HardiePlank® Lap Siding Product Description

HardiePlank lap siding is factory-primed fiber-cement lap siding available in a variety of styles and textures. Please see your local James Hardie® product dealer for product availability. HardiePlank® lap siding comes in 12 ft. lengths. Nominal widths from 5¼ in. to 12 in. create a range of exposures from 4 in. to 10¾ in.

HardiePlank lap siding is also available with ColorPlus® Technology as one of James Hardie's prefinished products. ColorPlus Technology is a factory applied, oven-baked finish available on a variety of James Hardie siding and trim products. See your local dealer for details and availability of products, colors and accessories.



Select Cedarmill®



Smooth



Beaded Cedarmill®



Beaded Smooth



Custom Colonial Roughsawn®



Custom Colonial Smooth®

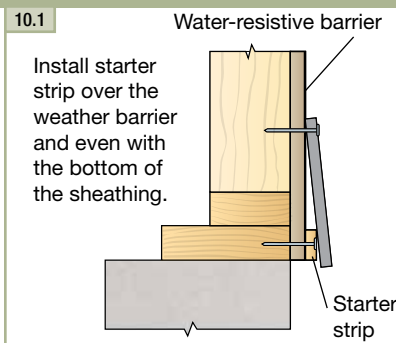


Installation of HardiePlank® Lap Siding

INSTALL A STARTER STRIP

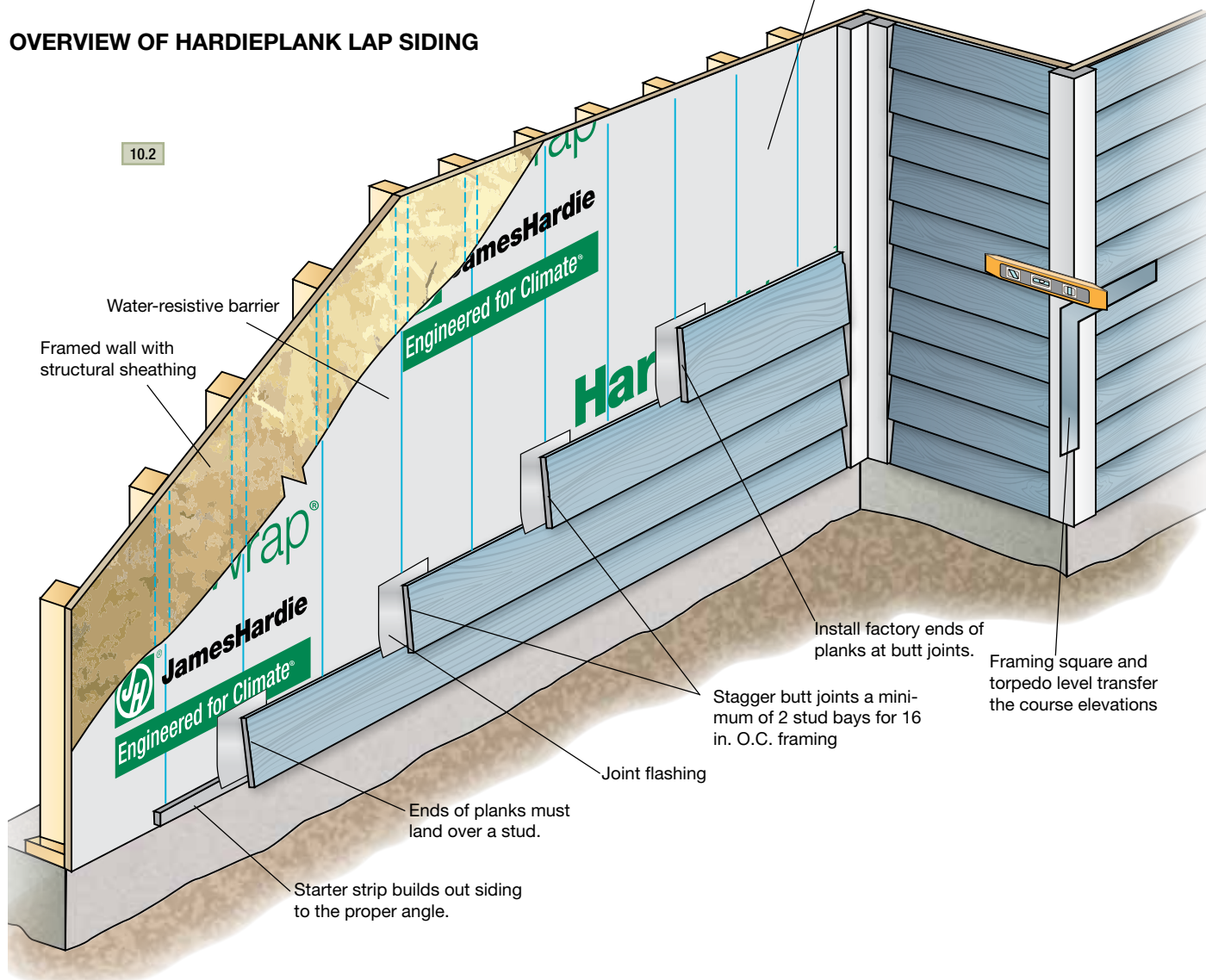
HardiePlank® lap siding requires a starter strip beneath the first course to set it on the proper angle and to create a proper drip edge at the bottom of the siding. Starter strips are easily made by ripping 1 ¼ in. pieces of HardiePlank siding from full or partial planks.

The bottom of the starter strip should be installed even with the bottom of the mudsill or the bottom edge of the sheathing. The strip must be installed over the water-resistive barrier, but occasional gaps should be left in the starter strip to allow any accumulated moisture behind the siding to drain away safely.



TIP: For accurate fastening, snap vertical chalk lines on the water-resistive barrier at the center of every stud location.

OVERVIEW OF HARDIEPLANK LAP SIDING



INSTALLING THE PLANKS

The first course of HardiePlank® siding is critical to the proper installation of the plank on the rest of the building. The first course should start at the lowest point of the house and within required clearances. Special attention should be made to ensure that it's straight and level. Attention should also be paid to staggering any butt joints in the planks so that the installation is attractive while making efficient use of material.

1. Use a level (4 ft. or longer) or chalked level line to be sure that the first course is level. As installation proceeds up the wall, periodically check the level and straightness of the courses. When correcting for flatness over products such as exterior insulation, use drywall shims. It is good practice to snap a chalk line every 3 to 5 courses to keep the planks straight and level.
2. Position the bottom edge of the first course of siding a minimum $\frac{1}{4}$ in. below the edge of the starter strip (maintain required clearances) and secure.
3. Run the siding to the HardieTrim® board leaving a $\frac{1}{8}$ in. gap between the siding and trim.

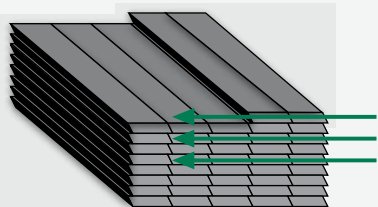
The bottom of the siding should be kept even with the bottom of the trim, or if desired, the trim may extend below the bottom of the siding. But the siding should never hang below the trim. ***When installing the first course make sure ground clearances are in accordance with James Hardie requirements and those of local codes.**

PLANK ALIGNMENT AT CORNERS

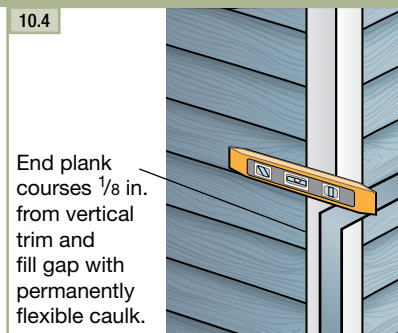
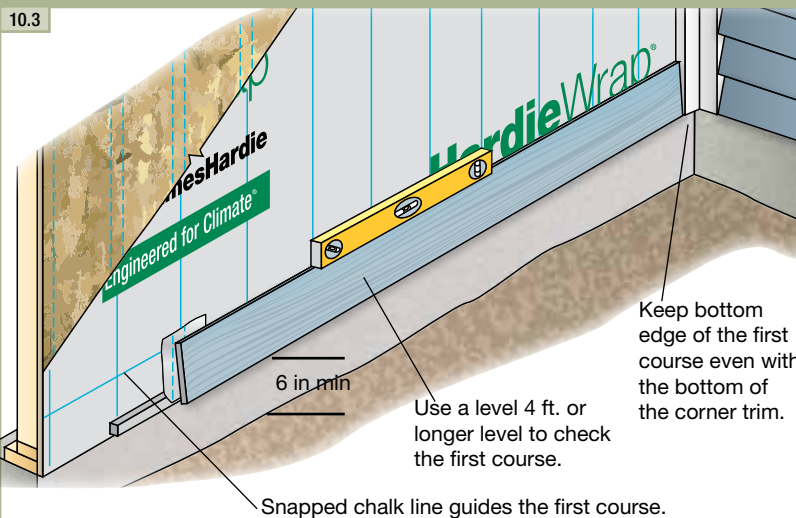
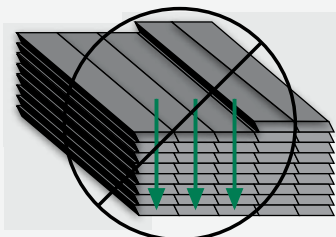
For the best looking installation, make sure that the heights of the plank courses match on both sides of a corner. Use a framing square, speed square or a level to match up the plank heights. Check every few courses to make sure proper heights are being maintained.

TIP: When taking planks from the pallet installation, avoid repeating the texture pattern by working across the pallet. Two to four planks can be removed from a stack at one time. But then material should be taken from adjacent stacks, again working across the pallet. Texture repeat is typically a concern on large walls with few breaks such as windows or doors.

Pull from across the stack



Do not go down the stack



Installation of HardiePlank® Lap Siding (cont.)

BLIND NAILING (nailing through top of plank)

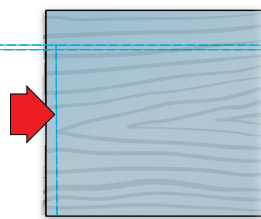
Blind nailing is recommended for installing any type of HardiePlank® lap siding including ColorPlus® siding. With blind nailing, each course covers the fasteners on the course below, which provides a better looking installation.

For blind nailing HardiePlank lap siding, James Hardie recommends driving fasteners 1 in. from the top edge of the plank. Additionally fasteners should be placed no closer than 3/8 in. from the ends of the plank.

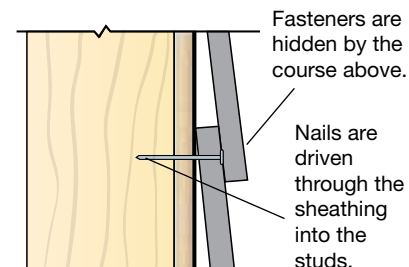
10.5 Blind nailing measurements

Nails for blind nailing shall be between 3/4 in and 1 in. from the top of the board.

Keep nails 3/8 in from ends of boards.



10.6 Blind nailing

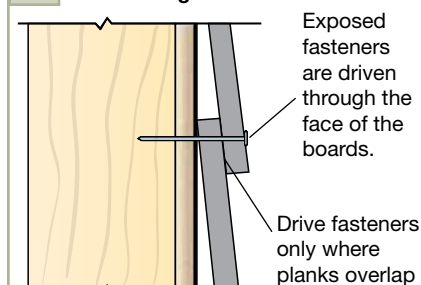


Avoid placing fasteners near the top edge of the plank. This practice, called “high nailing”, may lead to loose planks, unwanted gaps or rattling. **Pin-backed corners may be done for aesthetic purposes only. Finish nails are recommended for pin-backs. Headed siding nails are allowed. Place pin-backs no closer than 1 in. from plank ends and 3/4 in. from plank edge into min. 3/8 in. wood structural panel. Pin-backs are not a substitute for blind or face nailing**

FACE NAILING (nailing through the overlap at the bottom of the plank)

Although blind nailing is recommended by James Hardie, face nailing may be required for certain installations including: installations in high wind areas, fastening into OSB or equivalent sheathing without penetrating a stud, or when dictated by specific building codes. Refer to Appendix D for related code matters.

10.7 Face nailing



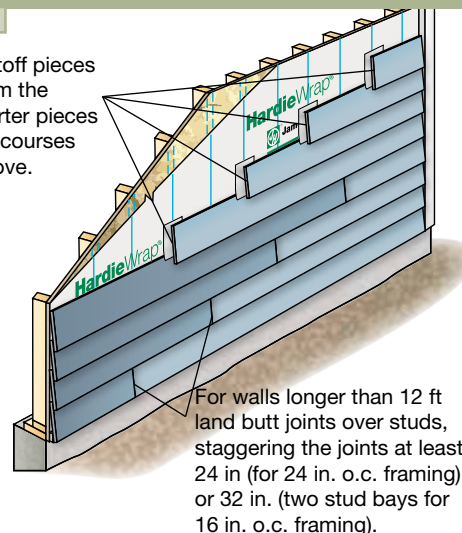
STAGGERING THE BUTT JOINTS

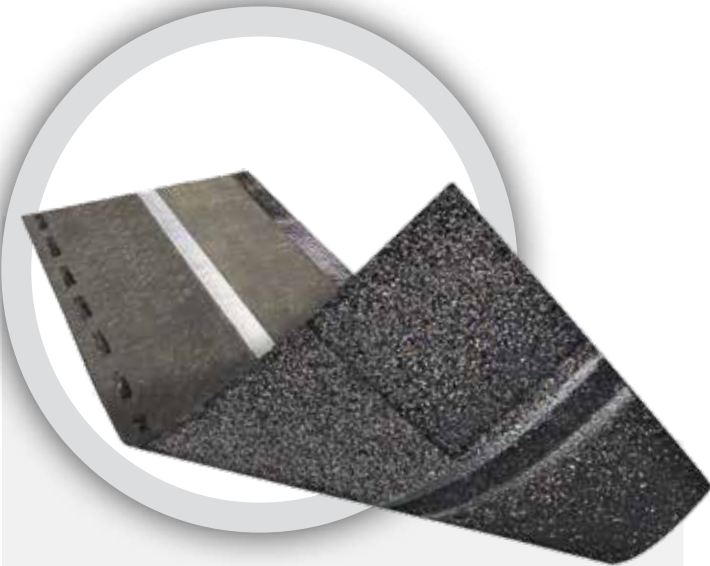
For walls longer than 12 ft, it is necessary to butt joint additional lengths of HardiePlank siding. These butt joints should be staggered to avoid noticeable patterns, which is determined by the placement of the first course. Butt joints between consecutive courses should be spaced apart by at least two stud bays for 16 in., o.c. framing or one bay for 24 in. o.c. framing.

While random placement of the planks is usually the most aesthetically pleasing, a progressive stagger pattern can make the job easier and faster without the pattern becoming too noticeable. With this strategy, the cut off piece for one course becomes the starter piece for a course above, making efficient use of materials and ensuring that all butt joints land on studs. The pattern can be modified for different stud placement.

10.8

Cutoff pieces form the starter pieces for courses above.





FIBERGLASS-REINFORCED ASPHALT SHINGLES

Dynasty's durable fiberglass mat and thick asphalt coating not only make it one of the heaviest shingles in its class, but also enable Dynasty to achieve a Class 3 Impact Resistance rating.¹ IKO's proprietary FastLock® sealant along the shingle's bottom edge, once activated by the radiant heat of the sun, creates a super-strong bond to help the shingles seal down. Unlike many other laminated shingle brands, three bundles of Dynasty cover a full square (100 square feet) of roof area.

Dynasty laminated two-piece, asphalt shingles feature IKO's Armourzone, a 1 1/4-inch-wide nailing area, made with a tough reinforcing band for incredible nail-holding power.

FEATURES AND BENEFITS

- ✓ ARMOURZONE REINFORCEMENT
- ✓ FULL SQUARE COVERAGE
- ✓ CLASS 3 IMPACT RESISTANCE RATING¹
- ✓ PROPRIETARY FASTLOCK SEALANT
- ✓ BLUE-GREEN ALGAE RESISTANT

GENERAL INFORMATION

SHINGLES/BUNDLE	20
COVERAGE/BUNDLE	33.3 ft. ² (3.1 m ²)
COVERAGE/THREE BUNDLES	100 ft. ² (9.29 m ²)
BUNDLES/PALLET	56
PALLET SIZE	40 x 53 1/2 in. (102 x 136 cm)
PRODUCT STOCK NO. (U.S.)	4973XXX
PRODUCT STOCK NO. (CANADA)	4974XXX

NOTE: XXX refers to numerical product color code. Product color availability varies by region.

PRODUCT DIMENSIONS

LENGTH	40 7/8 in. (1,038 mm)
WIDTH	13 3/4 in. (349 mm)
EXPOSURE	5 7/8 in. (149 mm)

Product dimensions shown are subject to normal manufacturing tolerances of +/- 1/4 in. (6 mm) on the shingle's length and +/- 1/8 in. (3 mm) width.

Click [here](#) or scan this QR code for product literature, color swatches and color availability.

