Regular Meeting
Burlington Planning Commission
Tuesday, October 26, 2021, 6:30 P.M.
Remote Meeting via Zoom OR
In-person option available at:
Bushor Conference Room (Room 102), 1st Floor of City Hall, 149 Church St.

To Join the Meeting on a Computer
Link: https://us02web.zoom.us/j/85319829884

To Join the Meeting on a Phone
Number: +1 312 626 6799 Meeting ID: 853 1982 9884

AGENDA

I. Agenda

II. Chair’s Report

III. Director’s Report

IV. Public Forum

V. Discussion of Enterprise Zoning District (E-LM)
Staff will present an evaluation and questions for discussion with the Planning Commission regarding the South End Enterprise Zoning District. This information follows a request by representatives from HULA to consider rezoning a portion of the district. Materials related to this item will be posted ahead of the meeting.

Staff Recommendation: No action. Discussion and feedback for staff is anticipated.

VI. Commissioner Items
   a. Upcoming Meetings will be hybrid/online unless otherwise noted –
      i. Tuesday, November 9, 2021 at 6:30pm- In Person @ City Hall (will be virtual option for public)
      ii. Tuesday, November 23, 2021 at 6:30pm

VII. Minutes & Communications
   a. The minutes of the October 12, 2021 meeting are enclosed in the agenda packet on page 3.
   b. Communications are enclosed in the agenda packet on page 5.

VIII. Adjourn
Guidance for Participating in a Virtual Planning Commission Meeting

As social distancing measures to preserve public health and safety continue to be required to prevent the spread of COVID-19, or are recommended as a standard practice, the Office of City Planning will be supporting the Planning Commission to conduct their meetings online via Zoom. Here is information about how to join a virtual meeting, and what to expect while participating.

General Guidance for Public Participation

Please remember that in this digital meeting environment, meetings are open to the public and anyone may be watching or listening even if you cannot see them. Meetings will be recorded, and both the recording and chat content of the meeting will be maintained as a public record.

Please ensure your display photo and screen name are professional, such as using your first and last name. Please test your audio and video prior to the start of a meeting, and familiarize yourself with how to join a meeting by your chosen method. And finally, please be patient with us. Technology doesn’t always work as planned, and we are all learning how to hold a successful virtual meeting!

How to Join a Virtual Meeting

Zoom allows participation via either computer or telephone. Each agenda for a meeting that will be conducted virtually will include details about how to join via either of these options, including a web address, phone number, Meeting ID, and password.

If you participate via computer, you have the option of seeing Commissioner videos and any presentation materials that may be shared. If you use either a standard phone or cell phone to call in, you will only hear the audio portion of the meeting. If you join via a smartphone, you may have the option to download the Zoom app, which will enable you to see and hear the meeting.

How to Participate in a Virtual Meeting

During meetings, only Planning Commission members and limited staff members will be viewed on video. Members of the public attending a meeting will be muted, except when invited to speak during public forum or a public hearing. Whether members of the public can speak at other times during the meeting is the discretion of the Chair.

If you want to speak during public forum, please take the following steps to assist us in making this process run as smoothly as possible:

- Email staff at mtuttle@burlingtonvt.gov by 5pm on the day before a meeting to indicate your interest in speaking. You do not need to provide your comments. Staff will enable your microphone as your name is called from a list of interested speakers.
- During a meeting, you can use the “Raise Hand” feature, or indicate in a chat message that you wish to speak during public forum. Staff will enable your microphone as your name is called.
- If you are interested in submitting your comments in writing instead of speaking during the meeting, you may do so by 5pm the day before a meeting, they will be forwarded to the Commissioners ahead of the meeting.
I. Agenda

Call to Order Time: 6:33pm
Agenda Add Item VIII before adjournment for Executive Session

II. Chair’s Report

A Montroll No report

III. Public Forum

Name(s) Comment
No comments

IV. Department Work Plan & Upcoming Commission Items

Action: Requested staff draft a letter on behalf of the Commission to advocate for additional staff

Motion by: Second by: Vote: N/A
Type: Discussion Presented by: D White

D White presented an overview of the department’s functional responsibility, the FY22 reorganization, and upcoming FY22-FY24 projects on the horizon. The presentation is available at: https://www.burlingtonvt.gov/CityPlan/PC/Agendas

Commission Discussion:
- Commissioners asked for information on specific ways that it can support the department and advocate for additional resources to achieve the work load.
- Commissioners shared ideas for comparing the size of the department to other planning departments, communicating the value of the work the department performs, and identifying grant or consultant resources that could support aspects of the department’s work plan.
- A Commissioner requested that staff help communicate priority for zoning amendment requests that come before the Commission, to balance responsiveness to community with department capacity and potential community outcomes.

V. Planning Commission Meeting Plan

Action: No action
Motion by: Second by: Vote: N/A
M Tuttle shared with the Commission that technology is now available in City Hall to accommodate hybrid Commission meetings based on the Commission’s preference. Commissioners expressed a preference to continue mostly virtual/hybrid meetings vs. in-person, except for having one fully in-person meeting in the near term so that the new Commissioners can meet other board members.

Staff indicated they would work with the Commission to schedule an in-person meeting.

### VI. Commissioner Items

- Upcoming meetings include October 26 and Nov 9 at 6:30pm

### VII. Minutes and Communications

<table>
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<tr>
<th>Action</th>
<th>Approve the minutes and accept the communications</th>
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<tr>
<td>Motion by: A Friend</td>
<td>Second by: E Lee</td>
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Minutes Approved: September 14, 2021

Communications Filed:
- Documents included in agenda packet and additional materials posted at:  
  [https://www.burlingtonvt.gov/CityPlan/PC/Agendas](https://www.burlingtonvt.gov/CityPlan/PC/Agendas)

### VIII. Executive Session

<table>
<thead>
<tr>
<th>Action</th>
<th>Enter Executive Session to discuss a personnel matter, including D White &amp; M Tuttle</th>
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<tbody>
<tr>
<td>Motion by: A Friend</td>
<td>Second by: E Lee</td>
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Commission entered the Executive Session at 7:36pm, and adjourned at 7:47pm with no action taken.

### IX. Adjourn

<table>
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<tr>
<th>Adjournment</th>
<th>Time: 7:49pm</th>
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<tr>
<td>Motion: A Friend</td>
<td>Second: M Gaughan</td>
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CITY OF BURLINGTON
HISTORIC BUILDINGS’
PATH TO NET ZERO ENERGY

A GUIDE FOR BUILDING AND HOMEOWNERS
ACKNOWLEDGMENTS

THIS GUIDE WAS DEVELOPED IN PARTNERSHIP WITH

SPECIAL THANKS

Jennifer Green
Director of Sustainability & Workforce Development | Burlington Electric Department

Katie Dorey
Sr. Innovation Projects & Customer Care Specialist | Burlington Electric Department

Mary O’Neil
Principal Planner for Development Review | City of Burlington

Abigail Ahern
Sustainability Consultant | City of Burlington

Jenna Antonino DiMare
Executive Director, Vermont Green Building Network | Director, Burlington 2030 District

Advisory Committee
Rebecca Grannis, Jesse Beck, Heather Clark, Thomas Visser, Chris Burns, Bob Bolin, Brian Reilly, Catherine Lange

Cx Associates
Eveline Killian, Lauren Hagen

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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.
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.

**HOW TO USE THE GUIDE**

**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
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
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.

**GETTING STARTED**

**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.
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
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 building's 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.

What is your building...
- Type and use
- Historic status
- Location and orientation
- Construction methods
- Character defining features
- Inherently sustainable features
- Existing mechanical systems

Energy Assessment
- Measures energy use & identifies problems & solutions
Blower Door Test
- Measures the quantity & location of air leakage
Thermal Imaging
- Determines 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?
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.

- 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.
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 building's 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 multi-wythe 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.
WALLS & ROOF

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.

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 vanes 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 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
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.
### Windows & Doors

#### 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.

#### 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.
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.
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

<table>
<thead>
<tr>
<th>LOWER COST STRATEGIES</th>
<th>HIGHER COST STRATEGIES</th>
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</thead>
</table>
| **DUCTLESS AIR-SOURCE HEAT PUMP** | - 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** | - 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 of 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.
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.
<table>
<thead>
<tr>
<th>LOWER COST STRATEGIES</th>
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<tbody>
<tr>
<td><strong>ROOF FINISH</strong></td>
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<tr>
<td>• Install a white roof finish to deflect sun and reduce heat gain.</td>
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<tr>
<td><strong>GREEN ROOF</strong></td>
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<tr>
<td>• Install on a secondary building, such as a shed or garage.</td>
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<tr>
<th>HIGHER COST STRATEGIES</th>
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<tr>
<td><strong>GREEN ROOF</strong></td>
</tr>
<tr>
<td>• Install a green roof on the primary building.</td>
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<tr>
<td><strong>SOLAR SYSTEM</strong></td>
</tr>
<tr>
<td>• Install a solar photovoltaic system or solar thermal system.</td>
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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.
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<tr>
<th><strong>LOWER COST STRATEGIES</strong></th>
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<tbody>
<tr>
<td><strong>LANDSCAPING</strong></td>
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<tr>
<td>- Preserve existing trees and plants, particularly mature trees.</td>
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<tr>
<td>- Use native plants, shrubs, and well-placed trees to reduce water consumption and provide shade and wind protection.</td>
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<tr>
<td>- Maintain trees to promote health and avoid property damage.</td>
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<tr>
<td><strong>COMPOSTING</strong></td>
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<tr>
<td>- Compost food and yard scraps to enrich soil instead of using store-bought chemical fertilizers.</td>
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<tr>
<td><strong>RAINWATER HARVESTING</strong></td>
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<tr>
<td>- Collect and store rainfall from rooftops or other impervious surfaces in rain barrels or below ground cisterns for on-site use.</td>
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<tr>
<td>- Non-potable uses include irrigation, washing sidewalks cars or pets, refilling water features or swimming pools.</td>
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<tr>
<td><strong>WATER EFFICIENT IRRIGATION SYSTEMS</strong></td>
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<tr>
<td>- Install systems that reduce water consumption such as drip irrigation, soaker hoses, moisture sensors, and timers.</td>
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<thead>
<tr>
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<tr>
<td><strong>PERMEABLE PAVING</strong></td>
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<tr>
<td>- 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.</td>
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<td>- Examples include porous asphalt, porous concrete, brick pavers, vegetated permeable pavement, and interlocking pavers.</td>
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<tr>
<td><strong>RAIN GARDENS AND PLANTER BOXES</strong></td>
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<td>- 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.</td>
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<tr>
<td><strong>RAINWATER HARVESTING-UNDERGROUND CISTERN</strong></td>
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<tr>
<td>- Install an underground cistern to collect and store rainfall from rooftops or other impervious surfaces for later use.</td>
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<tr>
<td>- 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.</td>
<td></td>
</tr>
</tbody>
</table>
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
Enclosed with this memo, please find proposed amendments to the City of Winooski’s Unified Land Use and Development Regulations. The amendments relate specifically to:

- Appendix B – Form Based Code Part 2 – Administration, Application Process, & Appeals
- Appendix B – Form Based Code Part 3 – The Regulating Plan
- Appendix B – Form Based Code Part 4 – Building Form Standards
- Appendix B – Form Based Code Part 9 – Definitions

The City of Winooski’s Planning Commission will hold a public hearing on Thursday, November 11, 2021 beginning at 6:30pm to take public comments on the proposed amendments. This hearing will be held in-person at the Winooski City Hall, 27 West Allen Street, Winooski, Vermont; or by electronic means using Zoom Webinar. Use https://us06web.zoom.us/j/82039278464 to join by computer or 646.558.8656 to join by telephone (toll charges may apply). If prompted, the webinar ID for this meeting is 820 3927 8464.

Please ensure this information is provided to the chair of your Planning Commission. Comments related to these amendments should be submitted in writing to me by the close of business on Monday, November 08, 2021.
In accordance with 24 V.S.A §4441 and §4444, the City of Winooski’s Planning Commission will hold a public hearing on Thursday, November 11, 2021 beginning at 6:30 p.m. This hearing will be held in-person at the Winooski City Hall, 27 West Allen Street, Winooski, Vermont; or by electronic means using Zoom Webinar. Use https://us06web.zoom.us/j/82039278464 to join by computer or 646.558.8656 to join by telephone (toll charges may apply). If prompted, the webinar ID for this meeting is 820 3927 8464.

Amendments to the Unified Land Use and Development Regulations

- Appendix B – Form Based Code Part 2 – Administration, Application Process, & Appeals
- Appendix B – Form Based Code Part 3 – The Regulating Plan
- Appendix B – Form Based Code Part 4 – Building Form Standards
- Appendix B – Form Based Code Part 9 – Definitions

Statement of Purpose: The purpose of these amendments are as follows:

**Part 1** – Clarifies references to other sections of the code and addresses consistency with formatting.

**Part 2** – Provides clarity and consistency related to requirements for a Certificate of Conformity, application requirements, issuing of permits, administrative amendments, and references to other sections of the regulations.

**Part 3** – Revises language related to curb cuts and common drives.

**Part 4** – Adds new language to address incentives for bonus stories, updates information on siting of buildings, and provides additional clarity on individual Building Form Standards.

**Part 9** – Includes new definitions for previously undefined terms, and amends several definitions for clarity and consistency.

**Geographic Area Affected**: The proposed amendments will apply to the City’s Gateway Zoning District as regulated by the Form Based Code. This zoning district is generally located along the three main gateways to the City including Main Street, East Allen Street, and Malletts Bay Avenue.
Section Headings Impacted: In addition to editorial changes, the following specific updates are included with these amendments:

**Part 1** – Renumbers Section 103 for consistency with other sections and updates references to the Unified Land Use and Development Regulations as identified in Section 107.H.

**Part 2** – Revises the notification requirements to adjacent property owners under Section 203.B., including clarification on the role of the Project Review Committee. Adds additional details under Section 205 to address amendments to the Certificate of Conformity and the issuing of a zoning permit. Provides amendments to the administrative adjustments outlined in Section 206. Corrects references to variances under Section 208.

**Part 3** – Add additional language under Section 301 to clarify the treatment of existing and proposed curb cuts; and adds additional clarification for common drives, including the location, connections to adjacent properties, and dimensions of common drives. Revises the options for amendments to the neighborhood manners setback areas. Adds descriptions for required building line and parking setback line in relation to the regulating plan.

**Part 4** – Updates the requirements for neighborhood manners setbacks under Section 402.D. Adds additional standards for building heights and the requirements for ground story clear heights under Section 402.E. Updates the options and eligibility requirements for bonus stories under Section 402.F. Provides additional flexibility for the siting of buildings as regulated under Section 402.G. Clarifies the regulations on required elements under Section 402.J. Provides detailed updates for clarification of the regulations of each individual building form standard under Sections 403, 404, 405, and 406 related to height, siting, elements, and use.

**Part 9** – Includes new definitions for terms that were either not previously defined, or added through these amendments. Updates existing definitions for clarification of terms included in these regulations.

The full text of these amendments is available at the Winooski City Hall, 27 West Allen Street, during normal business hours or by contacting Eric Vorwald, AICP, City of Winooski Planning & Zoning Manager by calling 802.655.6410 or evorwald@winooskivt.gov.
This memo provides information related to proposed amendments to the City of Winooski Unified Land Use and Development Regulations and includes amendments to this report and associated sections as discussed by the Planning Commission at their regular meeting on October 07, 2021. These amendments specifically impact the following parts:

- Appendix B – Form Based Code Part 2 – Administration, Application Process, & Appeals
- Appendix B – Form Based Code Part 3 – The Regulating Plan
- Appendix B – Form Based Code Part 4 – Building Form Standards
- Appendix B – Form Based Code Part 9 - Definitions

**Background**

In 2016, the City undertook a comprehensive update to the Unified Land Use and Development Regulations (ULUDR). This was the first update in over 20 years. A major component of this update included a new Appendix B, which provides regulations for the Gateway Zoning Districts through the Form-Based Code. While these changes modernized the regulations, staff has identified additional amendments to provide clarity and improve the interpretation of the regulations, including updates responding to community feedback with development projects.

**Purpose of Amendments**

These amendments are being proposed to provide clarity for interpretation of the regulations, and to update and incorporate specific changes related to building height, siting standards, and bonus story provisions. The City developed and adopted regulations related to the Gateway Zoning District, including the Form-Based Code, through a multi-year public process. The adoption of the Form-Based Code was done with the understanding that additional changes or amendments may be necessary. This will be the first comprehensive set of amendments to these regulations since their adoption.
**Proposed Amendments**

Included with this memorandum are the proposed amendments to Parts 1 thru 4 and Part 9 of the Form Based Code. Proposed additional text is shown in red and underlined. Text that appears with a strikeout is proposed to be deleted. If specific sections are not included, no changes are being proposed in these sections.

**Consistency with the Winooski Master Plan**

The following information is provided to address the requirements of 24 V.S.A. §4441 regarding consistency of the proposed amendments to the City of Winooski Master Plan, adopted March 2019. Specifically, statute requires municipalities to consider three parts when reviewing proposals for new or amended bylaws. These considerations include:

1. *Conforms with or furthers the goals and policies contained in the municipal plan, including the effect of the proposal on the availability of safe and affordable housing.*

   The City updated their Master Plan in 2019. The master plan includes multiple components that discuss development density to be located along the gateways, including Main Street, East Allen Street, and Malletts Bay Avenue. This development density is intended to protect and preserve the existing stable neighborhoods adjacent to these gateways. The Form-Based Code provides the mechanism to support this density. The proposed changes will provide clarity to the regulations and are intended to promote affordability and expand the options for housing through incentives for additional development density. These changes would all be consistent with the goals and polices in the Master Plan.

2. *Is compatible with the proposed future land uses and densities of the municipal plan.*

   The future land use map included in the Master Plan identifies development density along the corridors and in the downtown core. The proposed amendments would further clarify the development options and processes for projects located in Gateway Zoning District, consistent with the future land uses included in the City’s 2019 Master Plan.

3. *Carries out, as applicable, any specific proposals for any planned community facilities.*

   The City is in the process of finalizing documents to support the Main Street Revitalization Plan. This includes upgrades to existing community facilities such as water, wastewater, and stormwater within the Main Street Corridor. This project also includes the undergrounding of utilities, widening of sidewalks, and adding a dedicated protected bicycle lane on the eastern side of the roadway. These facility upgrades and other improvements will be to support development density in this corridor and increase alternative transportation options, consistent with the intent of the Gateway Zoning District and the goals and policies identified in the 2019 Master Plan.
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How to Use this Code

Why are some words shown in SMALL CAPITAL LETTERS?

The Gateway Corridors Form-Based Code includes terms with special meanings and their definitions are included in Part 9. Definitions. Defined terms are shown throughout the document in SMALL CAPITAL LETTERS.

I want to know what is allowed for my property:

1A. Look at the Winooski Zoning map and determine if the property in question is located within the Gateway Corridors Form-Based Code District. If not, this Code is not applicable.

2B. Look at the adopted REGULATING PLAN in Part 3. The Regulating Plan. Find the property in question. Note the REQUIRED BUILDING LINE and the PARKING SETBACK LINE. Note the color of the fronting STREET-SPACE—this determines the applicable BUILDING FORM STANDARD (see the key located on the REGULATING PLAN).

3C. Find the applicable BUILDING FORM STANDARD in Part 4. Building Form Standards. (Note the General Provisions in Section 402 apply to all properties in the Gateway District.) The BUILDING FORM STANDARD will tell you the parameters for development on the site in terms of height, siting, elements, and use.

4D. Additional regulations regarding streets and other public spaces surrounding the property, parking requirements, and building functions are found in the following sections: Part 5. Urban Space Standards; Part 6. Architectural Standards; Part 7. Parking and Loading Standards; and Part 8. Building Functions. See also the City’s Municipal Plan for information regarding plans for the public right of ways.

5E. See Part 2. Administration, Application Process & Appeals for information on the development review process.

I want to modify an existing building:

1A. If this Code is applicable to your property, determine whether your intended changes would trigger a level of code compliance by looking at Part 2. Administration, Section 207.

2B. If yes, follow the indicated portions of steps 2-5, above.

I want to establish a new use in an existing building:

1A. Find the property on the REGULATING PLAN and determine the applicable BUILDING FORM STANDARD.

2B. Determine whether the use is allowed by looking at the Permitted Use Table in Part 8. Building Functions. If the use is listed with a cross-reference in the right-hand column, refer to those standards.

I have a use, building or site that is nonconforming:

1A. Existing uses, buildings and site configurations that met the rules when they were constructed, but do not comply with this development code are considered nonconforming.

2B. See Part 2. Section 209 Non-Conformities for further details.
I want to change the Regulating Plan regarding my property:

See Part 2. Section 207 Amendments to the Form-Based Code.

I want to subdivide my property:

1A. Property can be subdivided in accordance with the procedures in Article VI of the Winooski Unified Land Use and Development Regulations, referred to herein as “the Regulations”.

2B. Any such subdivision shall also meet the standards of this Code.
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101. Title

This Code is known as the Gateway Districts Form-Based Code.

102. Applicability

The Code is in effect for that part of the City of Winooski, Vermont, designated on the Winooski Zoning Map as the Gateway Districts.

103. Purposes

The goal of the Winooski Public Design Workshop Vision Plan was to reset the conversation and provide guidance for future development and redevelopment in these gateway corridors. This Code will implement the purpose and goals of that Plan by providing strong implementation tools for the City.

The Code shall be applied to new, infill development, and redevelopment within the Gateway District both in order to achieve the vision set forth and to provide a mechanism for implementing the following specific goals, using both public and private sector investment:

1A. Capitalize on public investment in existing infrastructure

2B. Stabilize and strengthen mixed-use commercial areas and residential neighborhoods

3C. Create a pedestrian-friendly and multi-modal district

4D. Promote, create, and expand housing options

5E. Ensure a complementary relationship between the Corridors and the surrounding neighborhoods

The creation of walkable, mixed-use development is dependent on three factors: density, diversity of uses, and design. This Code places greatest emphasis on design, or physical form, because of its importance in defining neighborhood and corridor character. All places evolve. Density and uses can be expected to change over time as the area continues to grow and mature.

104. Other Applicable Regulations

All development must comply with relevant Federal, State and City regulations. Whenever any provision of this Code imposes a greater requirement or a higher standard than is required in any State or Federal statute or other City regulation, the provisions of this Code shall govern unless preempted by State or Federal law.

Where apparent conflicts exist between the provisions of this Code and other existing ordinances, regulation or permits, or by easements, covenants, or agreements, the provisions of this Code shall govern, as is consistent with State and Federal law.

105. Minimum Requirements

In interpreting and applying the provisions of the Code, they are the minimum requirements for development under this Code.
106. Severability

Should any provision of this Code be decided by the courts to be unconstitutional or invalid, that decision shall not affect the validity of the Code other than the part decided to be unconstitutional or invalid.

107. Components of the Code

This Code places a primary emphasis on physical form and placemaking, with a secondary focus on land uses. The principal regulatory sections of this Code are described below.

A. Administration. **Part 2. Administration** covers application and review process for development plan approval.

B. Regulating Plan. A **Regulating Plan** is the application key for the Gateway District. Defined and illustrated in **Part 3**, it delineates the street-space and other public open space and provides specific information on the development parameters for parcels within the Gateway District. The **Regulating Plan** shows how each lot or development project relates to the street-space and the surrounding neighborhood. The **Regulating Plan** may identify additional regulations and/or special circumstances for specific locations.

C. The Building Form Standards. The primary purpose of the **Building Form Standards (BFS)**, located in **Part 4**, is to shape the street-space—its specific physical and functional character—through placement and form standards on buildings as they frame the street-space or public realm. Their secondary purpose is to ensure that the buildings cooperate to form a functioning and consistent block structure. The BFS aim for the minimum level of regulation necessary to meet these goals. The applicable standard(s) for a development project is determined by the street frontage designated on the Regulating Plan.

The **Building Form Standards** establish both the boundaries within which things may be done and specific things that shall be done.

D. The Urban-Space Standards. The purpose of **Part 5. Urban-Space Standards** is to ensure coherent street-space and to assist developers and owners with understanding the relationship between the public realm and their own development project or building. This part establishes rules and standards for the street-space within the Gateway District that are the responsibility of the developer/owner. They will foster an environment that encourages and facilitates pedestrian activity and "walkable" streets that are comfortable, efficient, safe, and interesting. Applicants should consult the City's Municipal Plan, Transportation Plan, Public Works Standards and related regulations and policies to understand the future/planned configurations of the vehicular part of the street, including travel-lanes, curb geometry, and on-street parking, as well as the placement of street trees, sidewalks, and other amenities or furnishings (e.g., benches, signs, street lights, etc.) within the street-space.

E. The Architectural Standards. The purpose of **Part 6. Architectural Standards** is to ensure a coherent and high-quality building character that is complementary to the best traditions of Winooski. The Architectural Standards govern a building’s exterior elements for all BFS and set the parameters for allowable materials, configurations, and techniques. Materials and products that are ‘equivalent or better’ than those specified are always encouraged and may be submitted for approval to the Zoning Administrator, who is authorized to approve them when they meet the intent of these standards.

F. Parking and Loading Standards. **Part 7. Parking and Loading Standards** provide goals and
requirements to promote a pedestrian-friendly, walkable corridor through shared parking and encourage a “park once” environment. They establish the specific vehicular and bicycle parking ratios required throughout the Gateway District.

G. Building Function Standards. Part 8. Building Function Standards establishes the range of uses allowed in the Gateway District. Uses permitted on GROUND STORIES and in upper STORIES are correlated with each BUILDING FORM STANDARD. Because these standards emphasize form more than use, they include fewer, broader categories than those provided in the Winooski Zoning Regulations.

H. Definitions. Certain terms in this Code are used in very specific ways, often excluding some of the meanings of common usage. Wherever a word is in SMALL CAPITALS format, consult Part 9. Definitions for its specific and limited meaning within this Code. Terms not defined here may be defined elsewhere in the City of Winooski’s Unified Land Use and Development Regulations. In such case, the definition included in the zoning regulations shall be used. Where there is an apparent conflict or contradiction, the definition in Part 9. Definitions shall prevail.

ACRONYM KEY
BFS Building Form Standard
RBL Required Building Line
PSL Parking Setback Line
LBL Lot Building Limit
PRC Project Review Committee
DRB Development Review Board
Part 2. Administration, Application Process & Appeals

201. Applicability

Development proposals within the Gateway District shall be subject to the provisions of this Code. Subdivisions or lot line adjustments are subject to review under Article VI of the Regulations.

202. Zoning Administrator

A. Authority. The Zoning Administrator is authorized to approve applications for Certificates of Conformity and Administrative Adjustments, following public notification.

B. Delegation of Authority. The Zoning Administrator may designate any member of the City Staff to represent the Zoning Administrator in any function assigned by this Code. The Zoning Administrator, however, shall remain responsible for any final action taken under this Section.

203. Certificate of Conformity

An application for approval of a CERTIFICATE OF CONFORMITY, demonstrating conformity with the provisions contained in this Code and the regulating plan shall be submitted to the Zoning Administrator.

A. Certificate of Conformity Application Requirements. The application for a CERTIFICATE OF CONFORMITY shall include:

1. A brief narrative describing the Development Proposal;

2. Five (5) sets of completed plans for the Development Proposal to scale [Site Plans at 1" = 20’ to 1" = 50’, Building Plans and Elevations (not including facades) at 1" = 8’, facades drawn at 1" = 4’, and details as necessary to demonstrate form-based code (“FBC”) conformity at 1" = 4’ to 1" = 10’) prepared by a Registered Professional Engineer, Registered Land Surveyor, Architect, or Landscape Architect, as appropriate, and including the following information, which shall be submitted on the above listed or additional sheets:

   a. Location and dimensions of all proposed buildings and other construction;

   b. A mid-block access/common drive plan, showing any internal roadways, streets and/or street-spaces, common access easements, and accessways to adjacent properties and public roadways;

   c. Location and dimensions of all parking areas;

   d. Utility Strategy;

   e. Architectural drawings of all proposed building façades and elevations;

   f. A completed Form-Based District Review Checklist, the form of which shall be developed, maintained, and made available by the Zoning Administrator, demonstrating conformity with the provisions of the FBC; and

3. Any other documents and/or materials required by the Zoning Administrator to determine conformity with the FBC.
4. The application materials for a CERTIFICATE OF CONFORMITY may be submitted electronically at the discretion of the Zoning Administrator.

B. Certificate of Conformity Review.

1. A pre-application conference with the Zoning Administrator is required prior to the submission of any application for a CERTIFICATE OF CONFORMITY. The applicant shall provide a schematic site plan at a scale of 1" = 20' to 1" = 50' and schematic drawings of all FACADES at a scale of 1" = 8' for consideration by the staff. The discussions and any conclusions based thereon at such a pre-application conference are not binding on any party thereto.

2. The Zoning Administrator may administratively provide for submission and review deadlines for materials and studies required in support of any application for a CERTIFICATE OF CONFORMITY. The need for technical studies shall be at the Zoning Administrator’s discretion.

3. Applicants shall be notified no later than 7 business days following the submittal deadline if additional materials and studies will be required in order for review of their application to commence.

4. Upon submittal of a complete application, it shall be the responsibility of the Zoning Administrator to:

   a. Schedule a meeting of the PROJECT REVIEW COMMITTEE (PRC).

   b. Provide abutting landowners with a 15 day notice of the PRC meeting to be mailed no less than 10 days before the meeting.

   c. The PRC shall, at a minimum:

      i. Review and provide input as to the development project’s compliance with the code;

      ii. Recommend any changes or conditions of approval in order to meet the code;

      iii. Request additional information, including studies necessary to make a determination on impacts to other City infrastructure that might result from the development.

   d. Within thirty (30) business days of submittal of the application, and after the PRC meeting, the Zoning Administrator shall take one of the following actions:

      i. Approve the application as submitted;

      ii. Approve the application with conditions; or

      iii. Forward the application to the Development Review Board, to be heard at their next meeting.

5. After the effective date of the Form-Based Code, no property which has been zoned under the Form-Based Code may be developed or redeveloped without approval of a
CERTIFICATE OF CONFORMITY and issuance of a zoning permit from the Zoning Administrator.

6. An applicant or other “interested person” as defined under 24 V.S.A. Section § 4465 and Article VI of the Regulations, may appeal a decision or act of the Zoning Administrator within 15 days of the date of the decision or act by filing a notice of appeal with the Clerk or Secretary of the Development Review Board, and by filing a copy of the notice with the Zoning Administrator. This process is outlined in Article VI, Section 6.9 of these Regulations.
Page left intentionally blank and Section 204 reserved for the future if needed.
205. Effect of Certificate of Conformity Issuance

Issuance of a CERTIFICATE OF CONFORMITY by the Zoning Administrator allows an applicant to apply for other necessary permits and approvals which include, but are not limited to, those permits and approvals required under the City Building Code.

A. Certificate of Conformity Modification. After the Zoning Administrator has issued a CERTIFICATE OF CONFORMITY, any change in the Development Proposal from the plans submitted to the Zoning Administrator, other than those permitted under Section 206 below, shall be considered to be a Material Modification and shall be subject to the following review procedure:

1. Material Modification requests shall be submitted to the Zoning Administrator for review and approval, and shall include sufficient information to determine conformity with the FBC.
   
   a. Any modifications resulting in increases to the number of dwelling units or size of non-residential space; or an increase building height or the number of STORIES shall require review by the PROJECT REVIEW COMMITTEE as outlined in Section 203.B., including notification to adjacent property owners.

   b. Modifications that result in changes to approved site plan may require additional review and approval by City Departments to ensure conflicts with previously approved infrastructure do not exist. Site plan review by the PROJECT REVIEW COMMITTEE shall be done at the discretion of the Zoning Administrator.

   c. Modifications that result in changes to exterior materials or percentages of fenestration consistent with these regulations, including Section 206, may be approved by the Zoning Administrator or referred to the PRC for review, but will not require notification to adjacent property owners or issuing of a new CERTIFICATE OF CONFORMITY.

2. The Zoning Administrator may administratively provide for submission and review deadlines for materials and studies required in support of any application for a CERTIFICATE OF CONFORMITY.

3. The Zoning Administrator shall determine if the proposal is in compliance.

   3. Changes that result in modifications to a CERTIFICATE OF CONFORMITY will require a new zoning permit, including the posting of the property for the required 15-day appeal period as outlined in 24 V.S.A. § 4465.

B. Certificate of Conformity and Zoning Permit Expiration. A CERTIFICATE OF CONFORMITY or zoning permit duly issued by the Zoning administrator will expire according to the following:

1. A CERTIFICATE OF CONFORMITY shall lapse eighteen (18) months from its issuance if an applicant does not secure a zoning and building permit.

2. Upon written communication by the applicant submitted at least thirty (30) days prior to the expiration of the CERTIFICATE OF CONFORMITY, and upon a showing of good cause, the Zoning Administrator may grant one extension not to exceed six (6) months. Upon an application for extension, the CERTIFICATE OF CONFORMITY shall be deemed extended until the Zoning Administrator has acted upon the request for extension.
3. A zoning permit shall be issued once all conditions outlined in the CERTIFICATE OF CONFORMITY required for zoning approval have been met. The zoning permit shall be valid for 18 months from the date issued.

   a. A one-time extension of 6 months may be granted to a zoning permit upon showing reasonable cause for delay in starting development. Reasonable cause shall be based on a determination that:

      i. The delay is a result of delays in a state or federal permitting process; or

      ii. The applicant has made a good faith effort to exercise their rights under the permit and, though the use or actual construction of structures authorized under the permit has not begun, the permittee is conducting work at the site in furtherance of the permitted project.

   b. If development authorized by the zoning permit is not substantially commenced prior to the expiration date, the zoning permit will become void and a new application will need to be submitted.

4. The applicant will be required to pay recording fees only for the issuance of a zoning permit extension.

206. Administrative Adjustments

A. Purpose and Intent. The purpose and intent of this section is to provide an administrative mechanism for allowing minor adjustments to limited and specific requirements of the Gateway District, with the intent of providing relief where the application of a standard creates practical difficulties in allowing development to proceed. These adjustments are intended to provide relief for minor construction/survey issues; they are not intended for designed or intentional variances from the FBC, like those governed by Section 208 below. This optional process occurs only where an applicant requests an Administrative Adjustment to a standard specified below.

B. Administrative Adjustment Application and Review Procedure. All requests for administrative adjustments are required to submit an application to be reviewed by the Zoning Administrator according to the standards outlined below.

1. An application for approval of an Administrative Adjustment shall include:

   a. A brief narrative describing the Administrative Adjustment sought;

   b. A completed Administrative Adjustment Checklist, the form of which shall be developed, maintained, and made available by the Zoning Administrator, demonstrating that the adjustment sought is limited to the standards set forth below; and

   c. Any other documents and/or materials required by the Zoning Administrator to determine that the adjustment sought is limited to the standards set forth below.
2. The Zoning Administrator may seek assistance from the Development Review Board in making a determination under this Section.

3. Within thirty (30) business days of receipt of a complete application, the Zoning Administrator shall review the application in accordance with the Administrative Adjustment Standards below, and take one of the following actions:
   a. Approve the application as submitted;
   b. Approve the application with conditions; or
   c. Deny the application.

4. An application for an administrative adjustment may be submitted in conjunction with an application for a CERTIFICATE OF CONFORMITY as outlined in Section 203.B.

C. Administrative Adjustment Standards. The Zoning Administrator is authorized to approve Administrative Adjustment applications in strict conformance with the following standards only:

1. Height
   a. Minimum and maximum height – up to five percent (5%) for any cumulative increase or decrease in building height.
   b. STREET WALL/fence requirements – up to ten percent (10%).
   c. Finished floor elevation – up to five percent (5%).

2. Siting
   a. REQUIRED BUILDING LINE – move up to twelve (12) inches, but not into the public ROW.
   b. REQUIRED BUILDING LINE minimum percentage build-to – reduction of up to five percent (5%) of required length.
   c. PARKING SETBACK LINE – move forward as follows:
      i. Mid-block lots – up to six (6) feet.
      ii. Corner lots – up to 6 feet on the primary street and up to 15 feet on the secondary/side street.
   d. Mezzanine floor area – up to ten percent (10%) additional area.
   e. STREET WALL requirements – up to ten percent (10%) of the height/FENESTRATION/access gate requirements.
   f. Entrances (maximum average spacing) – up to ten percent (10%) increase in spacing.
3. Elements
   a. FENESTRATION (minimum and maximum percent) – up to five percent (5%).
   b. Elements (minimum and maximum projections) – up to five percent (5%).

4. Architectural Standards
   a. Primary and Secondary materials – up to ten percent (10%).
   b. Window and pane dimensions – up to ten percent (10%).
   c. SHOPFRONT entry geometry – up to ten percent (10%).

5. Streets, Blocks and Common Drives
   Street center lines (and the STREET-SPACE/RBLs with it) may be moved up to 50 feet in either direction, so long as:
   a. the street connectivity is maintained (no cul-de-sacs);
   b. any change to adjacent properties are approved by their owners;
   c. no street intersection occurs within 100 feet of another street intersection; and
   d. the BLOCK configuration meets the standards defined in Section 301.D.2.
   e. the resulting configuration is approved by the Winooski Department of Public Works.

D. Administrative Adjustment of Unlisted Standards. Any request for relief from a required FBC standard other than those listed above shall be made through the Variance procedures set forth in Article VI, Part 2 of the Winooski Zoning Regulations. (See also Section 207 below.)

E. Applicability. Any Administrative Adjustment approved under this Section shall run with the land and not be affected by a change in ownership.

207. Amendments to the Form-Based Code

A. Text Amendments. Any application for an amendment to the Code text shall be considered an application for a zoning text amendment subject to Article I, Section 1.4 of the Regulations and any other regulations applicable to zoning text amendments.

B. Regulating Plan Amendments. Any application for an amendment to the Code REGULATING PLAN shall be considered an application for a zoning map amendment subject to Article I, Section 1.4 of the Regulations and any other regulations applicable to rezoning. The exception being that notification shall be made to all parties within 400 feet of the proposed change.

In addition, any amendment to the REGULATING PLAN shall conform to the following requirements.
C. Application—Building Form Standards (BFS) Considerations. In determining the allocation and, thereby, the form and mixed-use character of the district, attention must be paid to both the physical context (what goes next to what) and diversity of allowed/required uses.

1. When amending a REGULATING PLAN, the standards of Section 301 shall apply.

2. CIVIC USE BUILDINGS (those designated on the REGULATING PLAN) are not restricted by these standards.

208. Variances

Any person seeking a variances from the provisions of the FBC shall follow the variance procedures outlined in Article VI, Part 2 of the Winooski Zoning Regulations Section 6.8 of the Unified Land Use and Development Regulations.

209. Non-Conformities

Non-conforming structures within the Gateway District may be altered or repaired according to the following schedule:

A. Single-family and duplex structures

1. Repairs and remodeling and additions to a single-family or duplex structure may be made without conformance to the Code provided that they do not encroach into any NEIGHBORHOOD MANNERS setback.

2. Repairs, remodeling and additions resulting in additional units shall require full code compliance, except one additional unit within existing structures may be permitted without full code compliance.

3. Intentional demolition requires conformance to the Code.

4. Single-family and duplex structures destroyed by fire, explosion, act of God, or the public enemy may be replaced with conformance to a like residential zoning district as determined by the Zoning Administrator.

B. Other Structures.

1. Additions of up to 20% of the square footage of a non-conforming structure (existing as of the adoption of the Gateway District) may be made subject to conformance with only the Architectural Standards of the Gateway District relative to the new addition only.

2. Additions greater than 20% but equal to or less than 50% of the square footage of a non-conforming structure may be made subject to conformance with the Architectural Standards of the code and the site requirements of the code relative to the new addition only.

3. Additions greater than 50% of the square footage of a non-conforming structure shall be made in conformance with the code. Non-conforming site improvements must also be brought into complete conformity with the regulations applicable to the Gateway District.
4. Existing structures destroyed by fire, explosion, act of God, or the public enemy may be replaced with a structure of comparable height and gross floor area that otherwise meets the requirements of the code.

C. **Non-conforming Uses.**

1. A non-conforming use may be extended throughout any portion of a completed building that, when the use was made non-conforming by this Code, was manifestly designed or arranged to accommodate such use.

2. A non-conforming use may not be extended to additional buildings or to land outside the original building.

D. **Historic Structures.**

1. Historically-designated structures may be specified as a CIVIC USE BUILDING by the Planning Commission and City Council if they effectively serve the community as CIVIC USE BUILDINGS. If so designated, they may be added to the REGULATING PLAN.

2. Historically designated structures or properties shall comply with the standards as outlined in Section 4.4 of the Unified Land Use and Development Regulations.
### Part 3. The Regulating Plan

#### 301. Rules for The Regulating Plans

**A. Purpose and Intent**

1. A **REGULATING PLAN** is the controlling document and principal tool for implementing this Code.

2. The **REGULATING PLAN** makes the development standards place-specific, by designating the **BUILDING FORM STANDARDS (BFS)** and delineating the public spaces. The **REGULATING PLAN** identifies: the boundaries for the Gateway District; existing and new streets; the **REQUIRED BUILDING LINE (RBL)**; and the **PARKING SETBACK LINE** throughout the Gateway District.

3. A **REGULATING PLAN** may identify specific characteristics assigned to a lot or site and may identify additional regulations (and opportunities) for lots in specific locations, as well as exceptions to the **BFS** or other standards.

**B. Regulating Plan Key.** The Key includes two special circumstances:

- **a1.** *1 indicates an applicant’s choice for the RBL on this parcel, as shown by the two RBLs on the Regulating Plan.

- **b2.** *2 indicates a 5’ deep NEIGHBORHOOD MANNERS setback for this parcel.*

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**Diagram:**

**Understanding the Regulating Plan**

**Color and Symbol Key**

- **BFS Urban General**
- **BFS Urban Storefront**
- **BFS Townhouse/Small Apt.**
- **BFS Detached Frontage**
- **Neighborhood Manners 50ft Setback**
- **Public Space**
- **Civic Structure**
- **City Limits**
- **Railway Property**
- **Interstate Hwy Property**

*1 Special Site Condition, refer to City Planning Staff for more information.
C. Building Form Standards (BFS) on the Regulating Plan

a1. BUILDING FORM STANDARDS are designated on the REGULATING PLAN by STREET FRONTAGE.

b2. The allocation and distribution of BFS frontages—which define the form and character of the district—was based on the Public Design Workshop Vision Plan and determined by the physical context (what goes next to what) and diversity of allowed/required uses.

D. Streets, Blocks & Common Drives on the Regulating Plan

1. Streets

   a. The proposed Street Specifications for the Gateway District are part of the Transportation Plan. Street configurations called out there and referred to in Part 5. Urban Space Standards and/or on the REGULATING PLAN may or may not be immediately constructed. They shall be placed into the system such that, when reasonable for the City’s street maintenance/reconstruction plan, they can be rationally constructed.

   ab. Additional streets may be added to the REGULATING PLAN to create a smaller BLOCK pattern. No streets may be deleted without being replaced elsewhere within the Gateway District and the resulting configuration must meet the requirements of Part 3. The Regulating Plan.

   bc. Where new COMMON DRIVES or PEDESTRIAN PATHWAYS are designated on the REGULATING PLAN, they are critical to the working of the Gateway District and shall be considered mandatory. While the street may not be constructed until some point in the future, the RBL, LOT BUILDING LIMIT (LBL) or PARKING SETBACK LINE, and other designations of the REGULATING PLAN shall be respected at the time of redevelopment.

   ed. New COMMON DRIVES or PEDESTRIAN PATHWAYS shall be public or publicly accessible.

   de. All lots shall share a frontage line with a STREET-SPACE.

2. Blocks

   a. Maximum Size: No BLOCK FACE shall have a length greater than 350 feet without a COMMON DRIVE or equivalent access easement, or PEDESTRIAN PATHWAY
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providing through-access to another STREET SPACE, or COMMON DRIVE. Individual lots with less than 200 feet of STREET FRONTAGE are exempt from the requirement to interrupt the BLOCK face; those with over 200 feet of STREET FRONTAGE shall meet the requirement within their lot, unless already satisfied within that BLOCK face.

b. Curb Cuts: The creation and/or retention of curb cuts in the Gateway District shall be dependent on their providing access to, and circulation for, COMMON DRIVES per Section 301.D.3, and below. No new curb cuts are permitted unless otherwise specified here:

(i). Where the regulating plan shows a NEIGHBORHOOD MANNERS 20 ft. setback meeting an RBL, a curb cut is permitted to provide access to a COMMON DRIVE as indicated in Section 301.D.3.

(ii). For lots with COMMON DRIVE access, existing or in their redevelopment plan, existing curb cuts other than those necessary for COMMON DRIVE circulation, shall be eliminated/vacated at the time of redevelopment.

(iii). For lots without COMMON DRIVE access, existing curb cuts may be maintained in the current location, or relocated to an alternative location on the site, subject to the restrictions below.

1. No new or relocated curb cut may be within 100 feet of another curb cut on the same BLOCK FACE or within 50 feet of a BLOCK CORNER except where the new curb cut provides needed access for existing or planned COMMON DRIVE circulation, subject to Zoning Administer approval. New Curb cuts for shared COMMON DRIVES have priority.

2. Where a parking structure (or surface lot with more than 20 spaces) is being provided with at least 30% of its spaces available to the general public, existing curb cuts that provide access to the public parking may be retained or relocated (even if the lot has COMMON DRIVE access.)

3. When a curb cut is relocated, the original location shall be permanently closed including new curbing, sidewalk, and green belt as determined appropriate by the Director of Public Works and applicable Public Works Standards.

3. Common Drives

a. COMMON DRIVES are intended to provide internal block circulation, shared access to rear parking, access to service areas, and connections between properties. COMMON DRIVES will be accessed by shared curb cuts thereby eliminating the need for each property to maintain an individual curb cut. This may result in a property or properties not having a dedicated curb cut onto the roadway where the property has frontage. Eliminating curb cuts will prioritize pedestrians over vehicles and help create a more walkable and active street space; and create the ability to accommodate more on-street amenities such as bicycle lanes, transit facilities, or vehicle parking.
b. All properties in the Urban General, Urban Storefront, and Townhouse/Small Apartment building form standards are required to include a COMMON DRIVE on the site plan as part of their development unless any of the standards under Part 301.D.3.f. apply.

c. The following regulations will be used to establish COMMON DRIVES in the Gateway Zoning District.

   i. COMMON DRIVES shall be located as far to the rear of the property as feasible to enable connections to adjacent properties or developments.

   ii. COMMON DRIVES can be incorporated into a NEIGHBORHOOD MANNERS SETBACK or into a parking area drive aisle.

   iii. The minimum width of a common drive shall be 20 feet with a maximum width of 25 feet.

d. The following regulations will dictate the functional utilization of common drives:

   i. COMMON DRIVES shall incorporate measures to limit traffic speeds such as speed tables, speed dips, or similar methods.

   ii. No COMMON DRIVE may have a length of more than 400 feet without a stop device to control traffic.

   **COMMON DRIVES** provide internal block circulation and shared access to rear parking and service areas. They may also serve as fire lanes.

   a. COMMON DRIVES must provide access to the interior or rear of all Urban General, Urban Storefront, and Townhouse/Small Apartment frontage lots that front Main Street, East Allen Street, or Malletts Bay Avenue, except:

   (i) where a lot has streets on three sides and the absence of a COMMON DRIVE would not deprive an adjacent neighbor of rear lot access;

   (ii) or where the rear lot area provides no connection/access possibility to an existing or reserved COMMON DRIVE area;

   (iii) or where the lot is less than 80 feet in depth.

   b. For COMMON DRIVES, public access, public utility, and drainage shall be dedicated via an easement.

   c. COMMON DRIVES may be located within the NEIGHBORHOOD MANNERS Setback Area.

   d. COMMON DRIVES may be incorporated into (rear) parking lots as standard drive aisles. Access to all adjacent properties shall be maintained or established if not already connected.

   e. Where *the development or redevelopment of a property establishes the start of a* COMMON DRIVE, *but does not exist* extend or continue an existing COMMON DRIVE and *is not feasible to construct at the time of redevelopment of any property due to the existing development pattern of the adjacent properties*, the applicant is required to dedicate the COMMON DRIVE right-of-way or
easement to the City (for future construction) and maintain the area by, at a minimum:

(i). Providing routine landscape maintenance to the area. Identify the future location(s) of the COMMON DRIVE connection on the site plan including a note that authorizes future connection(s) between adjacent properties.

(ii). Keeping the area clear of debris, stored materials, and stored vehicles. Ensure the designated connection(s) to adjacent properties remains free and clear of obstructions that would limit a future COMMON DRIVE connection.

iii. Include pavement or appropriate surface treatment as close to the adjacent property as practical to assist in creating the connection to the adjacent property.

f. The area designated for future connections to adjacent properties may be used for parking until such time the connection to the adjacent property is completed.

g. A COMMON DRIVE shall not be required if:

i. where a A lot has streets on three sides and the absence of a COMMON DRIVE would not deprive an adjacent neighbor of rear lot access; or

ii. where the The rear lot area provides no connection/access possibility to an existing or reserved COMMON DRIVE area; or

iii. where the The lot is less than 80 foot in depth.

h. Any property not required to establish a COMMON DRIVE based on the criteria herein shall incorporate a setback from the rear property boundary as indicated in Parts 403, 404, or 405.

4. Any amendment or change to the REGULATING PLAN, beyond those specified above, will be a zoning map amendment of this code. See Part 2. 207. Amendments to the Form-Based Code.
E. Neighborhood Manners on the Regulating Plan

1. Intent. NEIGHBORHOOD MANNERS provide for a complementary relationship between residential zoning districts immediately behind new and larger scale development. *(See Section 402.D Neighborhood Manners for specific rules.)*

2. Location. The REGULATING PLAN specifies placement of the NEIGHBORHOOD MANNERS 20-foot Setback Area and the NEIGHBORHOOD MANNERS 50-foot Setback Area.

3. Adjustment. The application of the NEIGHBORHOOD MANNERS 20-foot Setback Area shall move in concert with any frontage change per 402. A Frontage Transitions. The NEIGHBORHOOD MANNERS 50-foot Setback Area shall only be adjusted in concert with an amendment to the REGULATING PLAN. *(see Part 2. 207. Amendments to the Form-Based Code.)*

F. Required Building Line. The REQUIRED BUILDING LINE (RBL) is designated on the regulating plan and is unique for each property in the Gateway Zoning District. The specific location is established based on a property’s location, size, orientation, physical characteristics (such as slope, sight distance, etc.), and other features. The data supporting the location of the RBL can be provided by the Zoning Administrator in a digital format to be overlaid on a site plan, thus ensuring accuracy and consistency with the requirements of the Form-Based Code.

1. Unless otherwise indicated in these regulations, all buildings within the Gateway Zoning District shall be located on the REQUIRED BUILDING LINE.

2. Specific details related to the siting of buildings are included in Section 402.G.

G. Parking Setback Line. The PARKING SETBACK LINE is designated on the REGULATING PLAN. This line is located behind the RBL and extends vertically, from the first-floor level, as a plane unless otherwise indicated on the REGULATING PLAN or in the BUILDING FORM STANDARDS (BFS). The data supporting the location of the PARKING SETBACK LINE can be provided by the Zoning Administrator in a digital format to be overlaid on a site plan, thus ensuring accuracy and consistency with the requirements of the Form-Based Code.

1. For most properties, the PARKING SETBACK LINE is located 30 feet behind the RBL, however the PARKING SETBACK LINE has been individually designated for each property and will require specific analysis to identify the exact location of this line.

2. Corner lots will have a PARKING SETBACK LINE on each road frontage that will be designated based on the specific location of the property and will be established on the REGULATING PLAN.

3. Vehicle parking shall be located behind the PARKING SETBACK LINE except as designated in Section 402.G.14.
This image of the Gateway District Regulating Plan is shown for illustrative purposes only; refer to the City for specific Regulating Plan information.
Part 4.| Building Form Standards

401. Intent

A. The goal of the BUILDING FORM STANDARDS (BFS) is the creation of a vital, and coherent public realm through the creation of good STREET-SPACE. The intent of these form standards is to shape the STREET-SPACE—the specific physical and functional character—of the Gateway District. The form and function controls on building frontages work together to frame the STREET-SPACE while allowing the buildings greater latitude behind their FACADES. The BUILDING FORM STANDARDS aim for the minimum level of control necessary to meet this goal.

B. The BFS set the basic parameters governing building construction, including the building envelope (in three dimensions) and certain required or permitted functional elements, such as FENESTRATION (windows and doors), STOOPS, BALCONIES, FRONT PORCHES, and STREET WALLS.

C. The BFS establish the rules for development and redevelopment on private lots, unless otherwise indicated on the REGULATING PLAN.

D. The REGULATING PLAN identifies the BUILDING FORM STANDARD within the Gateway District, establishing the rules for development and redevelopment on all lots, unless otherwise indicated on the REGULATING PLAN.

402. General Provisions

The following apply to all BFS, unless expressly stated otherwise within an individual BFS or otherwise designated on the REGULATING PLAN.

A. Frontage Transitions. When the BFS designation shown on the REGULATING PLAN changes along a property’s REQUIRED BUILDING LINE (RBL), the property owner has the option, for that property’s STREET FRONTAGE only, of applying either BFS for a maximum additional distance of 50 feet, from the transition point shown on the REGULATING PLAN, in either direction along said RBL. This shall be limited by and within the parcel lines as they exist on the REGULATING PLAN and shall not be affected through lot line adjustments, lot mergers, or subdivisions—except through a formal rezoning process. (See 205.B Regulating Plan Amendments).

B. Façade Composition. "FAÇADE COMPOSITION" is the arrangement and proportion of FAÇADE materials and elements (windows, doors, columns, pilasters, bays). "COMPLETE AND DISCRETE" distinguishes one part of the FAÇADE from another to give the appearance of distinct FAÇADES.

1. For each BLOCK FACE, FAÇADES along the RBL shall present a COMPLETE AND DISCRETE VERTICAL FAÇADE COMPOSITION to maintain and/or create the pedestrian-scale for the STREET-SPACE, at no greater than the following average STREET FRONTAGE lengths:

a. 60 feet for Urban Storefront frontage sites,

b. 75 feet for all other BFS frontages,

c. A longer FAÇADE may be presented, as long as smaller FAÇADE COMPOSITIONS appear within the same BLOCK FACE in order to achieve the above-stated average.
32. Each FAÇADE COMPOSITION shall include a functioning street entry door.

43. Individual infill projects on lots with STREET FRONTAGE of less than 100 feet on a BLOCK FACE are exempted from the overall FAÇADE COMPOSITION requirement for that BLOCK FACE, but shall still include a functioning street entry. This requirement may be satisfied by liner shops (small/shallow shops that sit in front of a larger footprint such as grocery stores).

54. To achieve a COMPLETE AND DISCRETE VERTICAL FAÇADE COMPOSITION (Item 2 above) within a STREET FRONTAGE requires, at a minimum, Item a. below, and at least two additional items b–e that differ from one FAÇADE COMPOSITION to the next:

a. Clearly different ground story FAÇADE COMPOSITION (both framing materials and FENESTRATION proportions).

b. Different FENESTRATION proportions of at least 20 percent in height or width or height:width ratio. (See illustration 402.B.5.b.)

c. Different FAÇADE configurations with a clearly different ‘bay’ rhythm (e.g. ‘ABA’ – ‘ABB’ – ‘BACB’ – ‘ABC’). (See illustration 402.B.5.c.)

d. Change in wall material (color changes are insufficient).

e. Change in total FENESTRATION percentage (minimum difference 12 percent; ground floor FAÇADES are not included).

C. Building Size. The maximum footprint for a building is 20,000 gross square feet. This shall not limit publicly accessible parking structures built according to the standards of this Code.

D. Neighborhood Manners. For the Urban General and Urban Storefront BFS frontages sharing a COMMON LOT line with a Detached Frontage or with a residential zoning district outside the Gateway District, the following rules apply: (see 402.E. Illustrative intent).

1. The NEIGHBORHOOD MANNERS setback areas are specified in the regulating plan.

2. Each NEIGHBORHOOD MANNERS setback area shall include the following:

   a. An uninterrupted GARDEN WALL or fence between 4-6 to 8 feet in height, and completely opaque shall be constructed within one (1) foot of the COMMON LOT LINE of the NEIGHBORHOOD MANNERS setback area.

   b. Trees from the Street Tree List as outlined in Section 506 shall be planted, on maximum 30-foot centers, between 5 and 10 feet from this wall or fence. At planting, trees shall be at least 2.5 inches in diameter at designated breast height (DBH) and at least ten feet in overall height.
3. Within 80ft of the RBL:
   a. There shall be a 20 foot setback from the COMMON LOT LINE. COMMON DRIVES, trees, and surface parking are permitted within this setback, but there shall be no structures within this area (See diagram 402.D.3.a.).
   b. Between 20 and 50 feet of the COMMON LOT LINE, any structure shall have a maximum height of 30 feet. This requirement supersedes any BFS story height requirement. (See diagram 402.D.3.b.)
   c. The NEIGHBORHOOD MANNERS 20-foot Setback Area shall be adjusted with any frontage change per 402.A Frontage Transitions.
   d. This area is specified in the REGULATING PLAN.

4. Farther than 80 feet from any RBL:
   a. There shall be a 50-foot setback from the COMMON LOT LINE. No structures with a height greater than the required GARDEN WALL maximum (per D.2 above) shall be permitted within this setback, excepting automobile-parking shelter-roofs, that are 10 feet or less in height. Parking, at grade and below, and COMMON DRIVES are allowed in this area. (See diagram 402.D.1.c.)
   b. The NEIGHBORHOOD MANNERS 50-foot Setback Area shall move only in concert with a rezoning per Part 2. Administration as outlined in Section 207 Amendments - Amendments to the Form-Based Code.
   c. The location of this area is specified in the regulating plan.

5. GARDEN WALLS or fences included in the NEIGHBORHOOD MANNERS SETBACK area are prohibited from including FENESTRATION as may be required by this code, except one pedestrian scale gate may be included as outlined in Section 605.

E. Height. The following identifies specific requirements related to building height including how building height is calculated.
1. The height of all buildings is measured in stories, with an **ULTIMATE BUILDING HEIGHT** in feet, measured from the average fronting sidewalk elevation to the top of the wall plate, unless otherwise designated herein.

2. The minimum **FAÇADE** height that is required at the RBL is shown on the individual BFS.
   
   **a.** In the Urban General or Urban Storefront BFS, where the **GROUND STORY CLEAR HEIGHT** of a building with more than two stories exceeds 16 feet, it will be considered to meet the minimum height requirements at the RBL.

   **b.** Any stories above a 16-foot CLEAR HEIGHT **GROUND STORY** in the Urban General or Urban Storefront BFS can be set back from the RBL.

3. The ceiling of an **ENGLISH BASEMENT** shall be at least 3 feet above the average fronting sidewalk grade with windows above grade. **ENGLISH BASEMENT** units do not count against the maximum story limit but do count against the ultimate height measurement.

4. An **ATTIC STORY** is not included in the **ULTIMATE BUILDING HEIGHT** or story height measurement.

5. Any portion of a parking structure within 30 feet of a building constructed under this Code shall not exceed that building’s primary ridge or parapet height.

6. **MEZZANINES** that have a floor area greater than 1/3rd of the floor area of the story in which they are located shall count as an additional full story in the building height measurement.

7. **MEZZANINES** shall be set back from the RBL at least 25 feet.

8. The prescribed minimum **STORY CLEAR HEIGHT** shall be met by at least 80 percent of the specified **STORY** area.

9. The **GROUND STORY** finished floor elevation requirements shall be measured:
   
   **a.** from the average exterior sidewalk elevation at the RBL, and
   
   **b.** within 30 feet of any RBL.

10. For Urban General and Urban Storefront frontages the maximum **GROUND STORY HEIGHT** shall be measured from the average fronting sidewalk elevation to the second story floor.

F. **Bonus Story.** Where an Urban General or Urban Storefront property has been approved by the City as eligible for a **BONUS STORY,** it is **eligible** for **entitled to** the maximum story limit and **ULTIMATE BUILDING HEIGHT** identified in the BFS in exchange for the provision of affordable housing or for the following energy efficient construction standards:

   **1.** To be eligible for a **BONUS STORY,** each project must meet or exceed at least one of the
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following:

a. Affordable Housing. (see text box for details) The uppermost FULL story will be allowed so long as a Gross Floor Area equal to 50% of that additional story is provided in the same building as Affordable Housing, as defined as 80% to 120% of Area Median Household Income. (See Affordable Housing Development and Performance Standards in Section 804 for further requirements).

b. Sound Mitigation Construction Standards. Construction of the building shall meet or exceed Vermont Commercial Building Energy Standards (VCBES) Stretch Standards. Or current (relevant) equivalent to be determined by the Zoning Administrator sound mitigation standards to limit interior acoustic levels from external influences to no more than 45 decibels and incorporate windows and doors with a minimum sound transmission class rating of 30.

c. Green Building Construction Standards. Construction shall meet or exceed a LEED rating of no less than Silver as identified by the U.S. Green Building Council or equivalent green building construction standard.

2. Documentation certified by a Vermont Licensed Engineer or equivalent design professional shall be submitted with the application verifying the standards under subpart b or c above in order to qualify for the BONUS STORY.

23. The BONUS STORY shall only be constructed within 80 feet of the RBL.

G. Siting. Siting of buildings is critical to establishing a vibrant and active STREET SPACE. The following information describes the requirements related to the siting of buildings:

1. Building FAÇADES shall be built to the RBL as prescribed in the BFS.

2. The building FAÇADE shall be built to the RBL within 30 feet of a BLOCK CORNER, unless otherwise specified in the BFS. (See diagram 402.G.2.)

3. The RBL, for all BFS frontages except Detached, designated on the REGULATING PLAN as an absolute line, incorporates an offset area (or depth) of 24 inches behind that line (into the BUILDABLE AREA) allowing for jogs, FAÇADE articulation, etc. unless otherwise designated herein. Therefore, where the FAÇADE is placed within that 24-inch zone, it is considered to be “built to” the RBL.

4. In order to create interest, activate the STREET SPACE, and provide a pedestrian scale in the Urban General and Storefront BFS, when the RBL is co-located with the front property boundary on the REGULATING PLAN, the following requirements will apply to any building with a FAÇADE length greater than 60 linear feet.

a. Up to two-thirds of the building in the Urban General or Storefront BFS may be set back up to 8 feet from the RBL and still be considered “built to” the RBL. This offset shall accommodate features such as entry ways, seating, landscaping, street furniture, or other amenities to enhance the STREET SPACE as noted under
Part J. Elements.

b. Each offset shall encompass a COMPLETE AND DISCRETE FAÇADE COMPOSITION (as defined under Section 402.B.) including at least one functional entry door either to a SHOPFRONT or to a publicly accessible interior finished space of the building during commonly accepted business hours.

5. Buildings in the Urban General or Storefront BFS where the RBL is co-located with the front property boundary on the REGULATING PLAN and have a FAÇADE length of 60 feet or less may set the entire building or any portion thereof back up to 8 feet from the RBL.

6. Buildings in the Townhouse/Small Apartment BFS may be set back up to 8 feet from the RBL and still be considered “built to” the RBL provide that:

a. the RBL is co-located with the front property boundary and a setback is not already incorporated into the REGULATING PLAN.

b. a front porch is not proposed for the development since an off-set between 7 and 9 feet is required in this BFS to accommodate a front porch.

7. The 8-foot offset is a maximum distance and is inclusive of the 24-inch offset described under 402.G.3.

48. For Detached frontages the RBL incorporates an offset area (or depth) of 10 feet behind that line (into the BUILDABLE AREA) allowing for jogs, FAÇADE articulation, etc. unless otherwise designated herein. Therefore, where the FAÇADE is placed within that 10 foot zone, it is considered to be “built to” the RBL.

59. Where a STREET WALL is required, it shall be located along the same plane as the building’s FAÇADE adjacent to the STREET WALL and parallel to the any RBL frontage that is not otherwise occupied by a building, within the 24-inch RBL zone.

610. Buildings may only occupy that portion of the lot specified as the BUILDABLE AREA; within any LOT BUILDING LIMIT and outside of any NEIGHBORHOOD MANNERS setback.

711. No part of any building may be located outside of the BUILDABLE AREA except overhanging eaves, awnings, SHOPFRONTS, BAY WINDOWS, STOOPS, steps, handicapped ramps approved by the Zoning Administrator, or BALCONIES. STOOPS, steps, and ramps shall not be located within the CLEAR SIDEWALK area. For appropriate COMMERCE and RETAIL uses, temporary displays or cafe seating may be placed in the DOORYARD.

812. There is no required setback from COMMON DRIVES except as otherwise indicated in the BFS.

913. There are no side lot setbacks, except as specified in Section E. Neighborhood Manners (above) or in the individual BFS.

1014. The PARKING SETBACK LINE is generally 30 feet behind the RBL and extends, vertically, from the first floor level, as a plane unless otherwise indicated on the REGULATING PLAN or in the BFS. Vehicle parking shall be located behind the PARKING SETBACK LINE, except where parking is provided completely below the MINIMUM FRONTING SIDEWALK ELEVATION, on-street, or otherwise indicated on the REGULATING PLAN.
15. **The BUILDABLE AREA** is defined for each BFS in Sections 403 thru 406 respectively and represents the maximum area where buildings can be located. If a setback is incorporated into the design as described in 402.G.3. or 402.G.4., then the BUILDABLE AREA will be similarly adjusted for each setback to maintain the maximum BUILDABLE AREA permitted by each BFS but will not be permitted to encroach into a NEIGHBORHOOD MANNERS setback.

4116. All lots, including CORNER LOTS and through lots, shall satisfy the build-to requirements for any and all of their RBL frontages, and the DOORYARD and/or FRONT YARD requirements for each designated BFS, unless otherwise specified in this Code.

H. **Private Open Area.** The required PRIVATE OPEN AREA for projects regulated by the Form-Based Code is designated in each BUILDING FORM STANDARD and is generally represented as a percentage of the buildable area.
1. Any ground level required PRIVATE OPEN AREA shall have at least 1 tree per 800 square feet, of at least 2.5 inches in diameter at designated breast height (DBH) and at least 10 feet in overall height. Where new trees are planted to meet this requirement, they shall be no closer than four feet on center to any COMMON LOT LINE. Urban Storefront lots, and lots that are reusing existing structures where there is no existing ground level PRIVATE OPEN AREA are exempt from this requirement.

2. Species listed on the Vermont Invasive Plant Council list are prohibited from PRIVATE OPEN AREAS.

   a. Garage and Parking. Curb cuts or driveways shall be located at least 75 feet away from any BLOCK CORNER or parking structure entry on the same BLOCK FACE. This does not apply to driveways accessed off COMMON DRIVES.

   b. Elements. Each building form standard includes detailed information regarding required elements. The following provides additional information on the configuration of the required and optional elements.

   1. FENESTRATION is regulated as a percentage of the FAÇADE between floor levels. FENESTRATION is measured as glass area (including mullions, muntins, and similar window frame elements with a dimension less than one inch) and/or open area.

   2. FENESTRATION shall be distributed such that no 30-foot section of a FAÇADE violates the BFS percentage parameters.

   3. Windows shall not direct views into an adjacent private lot where the COMMON LOT LINE is within 20 feet. Specifically: the window opening and its window panes shall be at an angle of greater than 90 degrees to/with the COMMON LOT LINE, unless:

      a. GROUND STORY

         a.i. that The view is contained within the lot (e.g. by a PRIVACY FENCE or GARDEN WALL) or

         b.ii. the The window’s sill is at least 6 feet above its finished floor level.

      b. Upper Stories

         i. The window’s sill is at least 6 feet above its finished floor level; or

         ii. The side of the building is adjacent to a permanent access or shared driveway serving multiple properties, is no less than 15 feet in width, and recorded in the City’s Land Records.
c. otherwise specified in the individual BFS.

4. A GROUND STORY configured with non-residential uses may incorporate windows on the side of a building for a depth of no greater than 8 feet as measured from the RBL.

45. No part of any building may project forward of the RBL except overhanging eaves, AWNINGS, SHOPFRONTS, BAY WINDOWS, STOOPS, steps, BALCONIES, or handicapped ramps approved by the Zoning Administrator.

56. GROUND STORY AWNINGS shall have a minimum of ten-foot clear height above the sidewalk and a minimum five-foot depth, measured from the FAÇADE. The maximum depth is to back-of-curb or the TREE LAWN edge, whichever is less.

67. BALCONIES shall not project within 5 feet of a COMMON LOT LINE or encroach within the public right-of-way.

78. Where an individual BFS includes balconies as a method for achieving the required PRIVATE OPEN AREA, the BALCONY:

   a. shall be enclosed by balustrades, railings, or other means that block at least 55 percent of the view through them;

   b. shall not otherwise be enclosed above a height of 42 inches, except with insect screening and/or columns/posts supporting a roof or connecting with another BALCONY above; and

   c. shall be roofed.

89. BAY WINDOWS shall have an interior clear width of between four and eight feet at the main wall. BAY WINDOWS shall project no more than 42 inches beyond the RBL and walls and windows of the bay shall be between 90 degrees (perpendicular) and 0 degrees (parallel) relative to the primary building wall from which they project.

910. ATTIC STORIES are permitted for all BFS frontages.

   a. On the RBL/FAÇADE side of the roof pitch (BLOCK interior elevations are not restricted) ATTIC STORY windows may only be located in DORMERS and/or gable-ends.

   b. ATTIC STORY DORMERS are permitted so long as they do not break the primary eave line, are individually less than 15 feet wide, and their collective width is not more than 60 percent of the RBL FAÇADE length.

   c. ATTIC STORIES do not count against the ULTIMATE BUILDING HEIGHT or maximum STORY height as long as they meet the above standards.

1011. For Urban General and Urban Storefront frontages, as an alternate to the ATTIC STORY, a HALF STORY is allowed above the maximum full story, provided that:

   a. its footprint is no more than 50% of any of the STORIES below it,

   b. it is set back from the FAÇADE below no less than 15 feet, and
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44.12. At least one functioning entry door shall be provided along each GROUND STORY FAÇADE. No GROUND STORY FAÇADE may include a section of greater than 75 feet without a functioning entry door, unless otherwise specified in the BFS.

42.13. All required FRONT PORCHES shall be completely covered by a roof. FRONT PORCHES may be screened (insect screening) when all architectural elements (columns, railings, etc.) occur on the outside of the screen on the side facing the STREET-SPACE. The finished FRONT PORCH floor height shall be no more than 8 inches below the first interior finished floor level of the building to which it is attached. FRONT PORCHES shall not extend past the DOORYARD into the CLEAR WALKWAY.

43.14. The finished STOOP floor height shall be no more than 8 inches below the first interior finished floor level of the building to which it is attached. STOOPS shall not extend past the DOORYARD into the CLEAR WALKWAY.

44.15. PRIVACY FENCES may be constructed along and within 6 inches of COMMON LOT LINES, except those forward of the RBL, and along COMMON DRIVES. PRIVACY FENCES shall have a maximum height of 8 feet.

16. Any setbacks, as described under Section 402.G.4, that are incorporated into a building design shall comply with the following:

a. Setbacks shall incorporate methods suitable to control any runoff or erosion.

b. Setbacks shall include landscaping, street furniture (such as benches), bicycle parking facilities, or other pedestrian scale elements as approved by the Zoning Administrator or Director of Public Works.

c. Setbacks that are done in conjunction with a SHOPFRONT shall include space that can be used for seating; temporary display of goods or merchandise; or similar facilities to support the use associated with the SHOPFRONT.

K. Building Functions. Allowable uses for GROUND STORIES and UPPER STORIES are identified in each BFS. Additional use standards are provided in Part. 8 Building Functions.

L. Civic Buildings. When CIVIC BUILDINGS are designated on the REGULATING PLAN, they are exempt from Part 4, except NEIGHBORHOOD MANNERS.
ILLUSTRATIONS AND INTENT

Note: These are provided as illustrations of intent. The illustrations and statements on this page are advisory only and do not have the power of law. Refer to the standards on the following pages for the specific prescriptions and restrictions of this Building Form Standard. Where these photos or statements may be inconsistent with the regulations, the regulations prevail.

Urban General is the basic urban street frontage, once common in towns and cities across the United States. The purpose of this frontage is to develop multi-story buildings placed directly at the sidewalk with one or more entrances and windows across the façade. The uses range from commercial to residential, municipal to retail and restaurants—and combinations of all of the above. There could be several buildings lined up shoulder to shoulder, filling out a block, or on smaller blocks, a single building might fill the block face. This frontage is designated in the more intense areas of the Gateway Corridors District and it is anticipated that there will be significant pedestrian traffic along these frontages.
HEIGHT

Building Height
The building shall be at least 2 STORIES in height at the REQUIRED BUILDING LINE, but no greater than 41/2 STORIES and 58 feet in height, except where designated 51/2 on the REGULATING PLAN (south of the rail line). There the ULTIMATE BUILDING HEIGHT is 65 feet.

*In all cases, the uppermost full STORY shall only be permitted as a BONUS STORY. (See also 402. General Provision, F. Bonus Story on page 19.)

Ground Story Height
The GROUND STORY height of each complete FAÇADE shall be no less than 12 feet and no more than 22 feet in height for a minimum depth of 30 feet as measured from the building FAÇADE, regardless of intended use.

1. COMMERCE, RETAIL and CIVIC uses
(See also Section 404 - Urban Storefront Frontage on page 24.)
   a. The GROUND STORY finished floor elevation of each complete FAÇADE shall be:
      i. no lower than the average fronting exterior sidewalk elevation - and
      ii. no higher than 18 inches above the average fronting exterior sidewalk elevation where the complete FAÇADE is located.
   b. The GROUND STORY shall have a CLEAR HEIGHT of at least 12 feet contiguous to the RBL frontage for a minimum depth of 30 feet.

2. Residential Units
   a. The finished floor elevation shall be no less than 3 feet above the average fronting sidewalk elevation.
   b. The GROUND STORY shall have a CLEAR HEIGHT of at least 8.8 feet.

Upper Story Height
The minimum CLEAR HEIGHT for UPPER STORIES is 8.8 feet.

Street Wall Height
A STREET WALL not less than 5 feet in height or greater than 12 feet in height shall be required along any RBL frontage that is not otherwise occupied by a building on the lot.

SITING

Facade
1. On each lot the building FAÇADE shall be built to the REQUIRED BUILDING LINE for at least 75% of the RBL length.

2. Within 8 feet of the BLOCK CORNER, the GROUND STORY FAÇADE may be CHAMFERED to form a corner entry.

Buildable Area
1. The BUILDABLE AREA is delineated in the diagram above.

2. A PRIVATE OPEN AREA equal to at least 15% of the total BUILDABLE AREA shall be preserved on every lot. Up to 33% of the required PRIVATE OPEN AREA may be satisfied through the BALCONIES of individual units. At least 67% of the PRIVATE OPEN AREA shall comprise no more than two separate contiguous areas, as follows:
   a. Where located at grade, such PRIVATE OPEN AREA may be located anywhere behind the PARKING SETBACK LINE, including within the NEIGHBORHOOD MANNERS Setback Area, but not in or beyond any COMMON DRIVE.
   b. Where provided above the second STORY but below a building's highest roof level, the PRIVATE OPEN AREA may be located forward of the PARKING SETBACK LINE (such as in a raised courtyard configuration) and shall open onto no more than one STREET-SPACE and shall be set back at least 30 feet from any BLOCK CORNER or BUILDING CORNER.
   c. Where located on the building’s highest roof level, the PRIVATE OPEN AREA may be located anywhere on the roof.

Garage and Parking
Openings in any RBL for parking garage entries shall have a maximum CLEAR HEIGHT no greater than 16 feet and a clear width no greater than 22 feet.
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**ELEMENTS**

**Fenestration**

1. Blank lengths of wall exceeding 20 linear feet are prohibited on all REQUIRED BUILDING LINES (RBL) including any off-sets or setbacks as identified in Section 402.G.

2. **GROUND STORY FENESTRATION** for each complete FAÇADE shall be designated by use based on the following:
   a. **FENESTRATION** for residential uses shall comprise between 33% and 70% of the GROUND STORY FAÇADE.
   b. **FENESTRATION** requirements for non-residential uses shall follow the standards outlined in Section 404 - URBAN STOREFRONT FRONTAGE for each GROUND STORY FAÇADE.

3. **UPPER STORY FENESTRATION** shall comprise between 20% and 70% of the FAÇADE area per STORY.

**Building Projections**

1. Awnings shall project a minimum of 5 feet from the FAÇADE.

2. * These BALCONY depth parameters are necessary to achieve any required PRIVATE OPEN AREA credits.

**Street Walls**

One access gate no wider than 22 feet and one pedestrian entry gate no wider than 5 feet shall be permitted within any required STREET WALL.

**USE**

**Ground Story**

The GROUND STORY may only house COMMERCE or RESIDENTIAL uses. See height specifications above for specific requirements unique to each use.

**Upper Stories**

1. The upper STORIES may only house RESIDENTIAL or COMMERCE uses. *No restaurant or retail sales uses shall be allowed in upper STORIES unless they are second STORY extensions equal to or less than the area of the ground story use.

2. No COMMERCE use is permitted above a RESIDENTIAL use.

3. Additional habitable space is permitted within the roof where it is configured as an ATTIC STORY.
These photos are provided as illustrations of intent. The are advisory only and do not have the power of law. Refer to the standards below and on the previous pages for the specific prescriptions and restrictions of this Building Form Standard. Where these photos or statements may be inconsistent with the regulations, the regulations prevail.

Where Urban Storefront is designated on the REGULATING PLAN, the Urban General BFS standards (previous pages) shall apply, except that the GROUND STORY configuration shall be that of a SHOPFRONT with uses, forward of the PARKING SETBACK LINE, limited to COMMERCE.

a. The GROUND STORY shall have a CLEAR HEIGHT of at least 12 feet contiguous to the RBL frontage forward of the PARKING SETBACK LINE across the entire GROUND STORY FAÇADE.

b. GROUND STORY FENESTRATION shall comprise between 50% and 90% of the GROUND STORY FAÇADE.

c. Single panes of glass shall not be permitted larger than 10 feet in height by 5 feet in width.

d. GROUND STORY windows may not be made opaque by window treatments (excepting operable sunscreen devices within the conditioned space). A minimum of 80% of the window surface shall allow a view into the building interior for a depth of at least 12 feet.

e. SHOPFRONTS may extend up to 24 inches beyond the FAÇADE or RBL into the DOORYARD, but shall not project into the CLEAR WALKWAY.
ILLUSTRATIONS AND INTENT

Note: These photos and statements are provided as illustrations of intent and are advisory only. They do not have the power of law. Refer to the standards on the following pages for the specific prescriptions and restrictions of the Townhouse/Small Apartment Building Form Standard. Where these photos or statements may be inconsistent with the regulations, the regulations prevail.

The Townhouse/Small Apartment frontage is of moderate intensity, often created by a series of smaller attached structures—configured as single-family residential or stacked flats. This BUILDING FORM STANDARD has regular STREET SPACE entrances, as frequently as 18 feet. The character and intensity of this frontage varies depending on the STREET SPACE and the location of the REQUIRED BUILDING LINE—the buildings may be placed up to the sidewalk with STOOPS, or further back with small DOORYARD gardens and/or FRONT PORCHES.

Similar in scale to the townhouse and row house, a small apartment is of limited size and can also be used to transition from the more intense areas of the Gateway District to adjacent, and less intense, neighborhoods. It is anticipated that the pedestrian activity along these frontages will vary considerably based on the time of day and week.
**Building Height**

1. Each building shall be at least 2 STORIES high at the REQUIRED BUILDING LINE (RBL), but no more than 3 STORIES with an ULTIMATE BUILDING HEIGHT of 40 feet, unless otherwise designated on the REGULATING PLAN.

2. A SIDE WING or ancillary structure shall be no higher than 15 feet in height.

**Ground Story Height**

1. The finished floor elevation of each FAÇADE shall be no less than 3 feet and no more than 8 feet above the average exterior sidewalk elevation at the RBL where the FAÇADE is located.

2. At least 80% of the GROUND STORY shall have an interior CLEAR HEIGHT of at least 8.8 feet.

3. Main entrances may be at grade, with transitions to meet the minimum finished floor elevation within the building interior.

**Upper Story Height**

At least 80% of each upper story shall have an interior CLEAR HEIGHT of at least 8.8 feet.

**English Basements**

The finished floor level of the ENGLISH BASEMENT shall be no greater than 4 feet below the average elevation of the fronting sidewalk.

**Street Wall Height**

A STREET WALL not less than 4 feet in height or greater than 8 feet in height shall be required along any RBL frontage that is not otherwise occupied by a FAÇADE.
Appendix B
Gateway Districts FBC

ELEMENTS

Fenestration

1. Blank lengths of wall exceeding 15 linear feet are prohibited on all façades.

2. Fenestration shall comprise between 25% and 70% of the façade.

3. Each townhouse and/or small apartment building shall include a functioning street-space entry.

Building Projections

1. Each townhouse or small apartment building shall include either:
   a. a stoop of not more than 4 feet deep and 6 feet wide (not including steps), or
   b. a front porch, between 7 and 9 feet deep,
      • that projects no more than 1 foot forward of the RBL, and
      • with a width not less than 65% of the façade

Street Walls

One access gate no wider than 15 feet and one pedestrian entry gate no wider than 5 feet shall be permitted within any required street wall.

USE

All Stories

1. Only residential uses and limited non-residential uses consistent with Part 8 are permitted. This includes Home Occupation uses.

2. Individual townhouses shall have no more than two residential units, including the accessory unit.

3. Buildings configured as small apartments have no set limit to the number of units. The maximum number of units in a small apartment building is set by limits on the building’s size.

4. English basement accessory units are only permitted in townhouses.
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ILLUSTRATIONS AND INTENT

Note: These photos and statements are provided as illustrations of intent and are advisory only. They do not have the power of law. Refer to the standards on the following pages for the specific prescriptions and restrictions of the Detached Building form standard. Where these photos or statements may be inconsistent with the regulations, the regulations prevail.

The detached frontage is represented by the traditional single family house with small front, side, and rear yards along a tree-lined street. Structures are 1 to 2 stories in height with pitched roofs and front porches. Its purpose is to reinforce the character of existing single family neighborhoods.
**Detached**

**Building Height**
1. Each building shall be at least 15 feet tall at the REQUIRED BUILDING LINE (RBL), but no greater than 2 STORIES with an ULTIMATE BUILDING HEIGHT of 27 feet.

2. A SIDEWING or ancillary structure shall be no higher than 15 feet.

**Ground Story Height**
1. The finished floor elevation shall be no less than 3 feet and no more than 8 feet above the average exterior sidewalk elevation at the RBL.

2. At least 80% of the first story shall have an interior CLEAR HEIGHT of at least 8.8 feet.

**Upper Story Height**
1. At least 80% of each upper story shall have an interior CLEAR HEIGHT of at least 8.8 feet.

**Front Yard Fence**
Any FRONT YARD FENCE has a minimum height of 30 inches and a maximum height of 40 inches.

**Façade**
1. For Detached frontages the REQUIRED BUILDING LINE (RBL) shall be ten (10) feet deep/wide, extending into the lot (see 402.G.4).

2. On each lot the FAÇADE shall be built parallel to the REQUIRED BUILDING LINE (RBL) for at least 60% of the building width. The FRONT PORCH shall be built to the RBL.

3. For CORNER LOTS the minimum 60% build-to shall include the frontage within 20 feet of the BLOCK CORNER.

**Buildable Area**
1. The BUILDABLE AREA is as defined in the diagram above.

2. A contiguous PRIVATE OPEN AREA equal to at least 25% of the total BUILDABLE AREA shall be preserved on every lot. Such contiguous area shall be located at grade, anywhere behind the PARKING SETBACK LINE and not include any side or rear setbacks.

**Lot Size and Setbacks**
1. All lots of record are buildable under this code.

2. Newly subdivided lots shall have a minimum width at the RBL of 32 feet, a maximum width of 55 feet, and a minimum depth of 85 feet.

3. The minimum side lot setbacks are 5 feet or as otherwise designated on the REGULATING PLAN.

**Front Yard**
1. The FRONT YARD/DOORYARD shall not be paved excepting walkways.

2. Where through lots or CORNER LOTS exist, any FRONT YARD standards shall be applied on both STREET-SPACE FRONTAGES.

**Garages, Parking and Common drives**
1. Garage doors shall not be located on the RBL/FAÇADE.

2. There is a 2 foot required setback from COMMON DRIVES.
Appendix B
Gateway Districts FBC

ELEMENTS

Fenestration
1. Blank lengths of wall exceeding 15 linear feet are prohibited on all FAÇADES.

2. FENESTRATION shall comprise at least 25%, but not more than 70%, of all FAÇADES.

3. No window may face or direct views toward a COMMON LOT LINE within 10 feet unless:
   a. that view is contained within the lot (e.g. by a PRIVACY FENCE/GARDEN WALL), or
   b. the window sill is at least 6 feet above the finished floor level.

Building Projections
1. Each building FAÇADE shall include a FRONT PORCH at the RBL, between 8 feet and 12 feet deep with a width not less than 1/2 of the FAÇADE width.

2. No building element except the FRONT PORCH eaves and steps may encroach beyond the RBL into the DOORYARD.

Doors/Entries
At least one functioning entry door shall be provided along the GROUND STORY FAÇADE of each building FAÇADE.

Street Walls and Fences
1. There is no STREET WALL requirement.

2. Any FRONT YARD FENCE shall be within one foot of the CLEAR WALKWAY/DOORYARD line parallel to the RBL and along COMMON LOT LINES to a point at least 10 feet behind the RBL.

3. A PRIVACY FENCE may be constructed along a COMMON LOT LINE behind the FAÇADE.

USE

All Stories
1. Only RESIDENTIAL uses are permitted. This includes Home Occupation uses.

2. Individual DETACHED lots may have up to two residential units, plus one ACCESSORY UNIT, provided one unit is owner occupied.

Gateway District Perimeter Frontages
Where a Detached frontage at the perimeter of the Gateway District is under common ownership with an Urban General frontage: the front porch and side setback requirements are waived. The building may then be attached and a part of the adjacent Urban General building. The façade shall then be built to the RBL instead of the front porch.
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Part 9.__-Definitions

901.__-Defined Terms

The following terms are defined for the purpose of this Code. Terms not defined here may be defined elsewhere in the City of Winooski Zoning Ordinance.

In such case, the definition contained in the Zoning Ordinance shall be used. Certain terms in this Code are used in very specific ways, often excluding some of the meanings of common usage. Where there is an apparent conflict or contradiction, the definition herein shall prevail.

Accessory Unit. A building or addition for living purposes that is not the primary structure or principal dwelling unit on a lot, that can be used as additional residential or home occupation space.

Attic Story. Habitable space situated within the structure of a pitched roof and above the uppermost STORY. They are permitted for all BFS sites and do not count against the maximum STORY height or ultimate height limits of their BFS.

Average Fronting Sidewalk Elevation. The central elevation of the sidewalk directly in front of a property (or properties) included in a development proposal as measured along the property’s REQUIRED BUILDING LINE. The AVERAGE FRONTING SIDEWALK ELEVATION for a property (or properties) is established by dividing the sum of the MAXIMUM FRONTING SIDEWALK ELEVATION and the MINIMUM FRONTING SIDEWALK ELEVATION by 2.

Balcony. An exterior platform attached to the upper floors of the building FAÇADE (forward of the REQUIRED BUILDING LINE).

Bay Window. Generally, a U-shaped enclosure extending the interior space of the building outward of the FAÇADE/REQUIRED BUILDING LINE (along its STREET-SPACE side).

Block. An increment of land comprised of lots, COMMON DRIVES and tracts circumscribed and not traversed by streets (PEDESTRIAN PATHWAYS excepted). BLOCKS shall be measured at the REQUIRED BUILDING LINE (RBL).

Block Corner. The outside corner of a BLOCK at the intersection of any two STREET-SPACES (the RBLs). Inside corners, where the resulting angle formed by the BLOCK face is less than 180 degrees (concave) are not considered BLOCK CORNERS for the purposes of this Code.

Block Face. The outside/public side of the block, coincident with the RBL, between 2 BLOCK CORNERS.

Bonus Story. The full STORY permitted in exchange for the provision of a specifically defined public benefit, such as affordable housing. Where an Urban General or Urban Storefront frontage property has been approved by the City as eligible.

Buildable Area. The area of the lot that building(s) may occupy, which includes the area of the lot behind the REQUIRED BUILDING LINE as designated by the BUILDING FORM STANDARD and the REGULATING PLAN. The BUILDABLE AREA sets the limits of the building footprint now and in the future—any additions shall be within the specified BUILDABLE AREA.

Building Corner. The outside corner of a building where the primary building mass is within an angle less than 180 degrees. Inside corners, where the exterior space of the building mass forms an angle of more than 180 degrees are not considered BUILDING CORNERS for the purposes of
this Code.

**Building Form Standards (BFS).** The part of this Code that establishes basic parameters regulating building form, including the envelope (in three dimensions), placement and certain permitted/required building elements, such as SHOPFRONTS, BALCONIES, and STREET WALLS. The BUILDING FORM STANDARDS establish both the boundaries within which things may be done and specific things that must be done.

**Building Face.** See façade.

**Certificate of Conformity.** A CERTIFICATE OF CONFORMITY is a document issued by the Zoning Administrator that outlines a project’s conformance with these regulations and includes any conditions necessary to be met before a zoning permit will be issued. The CERTIFICATE OF CONFORMITY is intended to document consistency with the regulations, and is not a permit. A zoning permit shall be issued on a project that is consistent with these regulations, and fulfills any conditions as outlined in the CERTIFICATE OF CONFORMITY.

**Chamfered Corner.** A cut corner (beveled edge), generally at an even 45 degree angle. For purposes of the Gateway District, this refers to an allowance in the BUILDING FORM STANDARDS for Urban General frontages to have such a ‘cut corner’ extending as far as 8ft away from a BLOCK CORNER.

**Civic Green or Square.** A public open space designated on the REGULATING PLAN. The term square is generally used to describe spaces that have more paved surface area. The term civic green is generally used to describe a formally configured small public lawn or park that is primarily unpaved. CIVIC GREENS and SQUARES do not include active recreation structures such as ballfields and courts. See Part 5. Urban Space Standards for the specific controls on SQUARES and CIVIC GREENS.

**Civic Use Building.** Those buildings that house strictly CIVIC USES or historically and urbanistically significant structures designated on the REGULATING PLAN. CIVIC USE buildings and publicly-owned public art are not subject to the BUILDING FORM STANDARDS prescriptions of this Code. See also Use, CIVIC.

**Clear Height.** Within a structure, the distance between the floor and ceiling. For entrances and other external building features, the unobstructed distance from the ground to the bottom of the lowest element above.

**Clear Sidewalk.** The portion of the sidewalk within a STREET-SPACE that shall remain clear of obstructions and allow public passage. The CLEAR SIDEWALK width is specified in the Street Type Specifications.

**Clearly Visible from the Street-Space.** Many requirements of this Code apply only where the subject is “CLEARLY VISIBLE FROM THE STREET-SPACE.” (Note that the definition of STREET-SPACE includes SQUARES, CIVIC GREENS, PEDESTRIAN PATHWAYS, parks, and all public space except COMMON DRIVES and COMMON DRIVES.) A building element more than 40 feet from a REQUIRED BUILDING LINE or STREET-SPACE is by definition not CLEARLY VISIBLE FROM THE STREET-SPACE (such as elements facing a COMMON LOT LINE). Also, common or party walls are by definition not CLEARLY VISIBLE FROM THE STREET-SPACE. This does not exempt vehicle parking lots or parking structures from any BUILDING FORM STANDARDS requirements.

**Commerce.** See Use, COMMERCE.
**Common Drive.** The public right-of-way or easement for vehicles and pedestrians within a block that provides access to the rear or side of properties, vehicle parking (e.g., spaces and/or garages), utility meters, recycling containers, and garbage bins.

**Common Lot Lines.** Lot lines shared by adjacent private lots.

**Comparative Pedestrian Crossing.** The measured distance, shown on the Street Type Specifications, that a pedestrian would be within an automobile travel lane (or turning movement) while crossing a street. A crossing time is calculated based on a pedestrian speed of 3.7 feet per second (a generally accepted urban average). This distance/time is calculated to provide a relative gauge of pedestrian comfort level in crossing the street.

**Complete and Discrete Facade Composition.** The façade articulation that breaks down the apparent scale of a large building into smaller perceived pieces. The intent of such a façade composition is to provide ‘human scale’ for the street-space. The objective requirements of the complete and discrete façade composition section of the building form standards regulate and ensure such scalar break-down.

**Corner Lot.** A lot in which one side lot line is adjacent to a street or street-space. Special building placement, fencing and landscape requirements may apply.

**Covered Sidewalk.** A roofed or built structure attached to the façade and extending beyond the required building line and over the sidewalk or square, open to the street-space except for supporting columns, piers, or arches. (See Building Form Standards for complete specifications.)

**Detached Frontage Building.** Building form and functions resulting from/as determined by the detached building form standard as indicated on the regulating plan.

**Dooryard.** The area within the street-space between the façade of the building (generally the required building line) and the clear walkway area of the sidewalk. The dooryard area is designated in the Street Type Specifications.

**Dormers.** Roofed ancillary structures with windows providing light and air to an attic story.

**Eave Height.** Eave height shall be measured at the bottom of the top layer of roofing material at its outermost point from the building wall.

**English Basement.** A unit in a habitable floor level below the first floor in a townhouse configuration, that is partially above and below grade, with direct street-space access. An English basement unit is considered an accessory unit.

**Equivalent or Better.** A building material or construction technique that has been determined, by the zoning administrator, to be at least equal to, in appearance, durability, etc., or surpassing those expressly permitted herein.

**Façade (Building Face).** The building elevation facing the street-space or required building line. Building walls facing private interior courts, common lot lines, and common drives are not façades.

**Façade Composition.** The arrangement and proportion of materials and building elements (windows, doors, columns, pilasters, bays, etc.) on a given façade.
Fenestration. Openings in the building wall, including windows and doors, allowing light and views between interior (private realm) and exterior (public realm) and/or STREET-SPACE.

First Floor. See GROUND STORY.

Front Porch. The ground floor platform attached to the FAÇADE or REQUIRED BUILDING LINE side of the main building.

Front Yard. An open (unpaved) space required by certain BUILDING FORM STANDARDS extending across the entire width of the lot between the FAÇADE and the CLEAR WALKWAY. This area is contiguous with the STREET-SPACE, and includes any FRONT PORCH.

Front Yard Fence. The wood (picket) fence, wrought iron fence, or masonry wall located along and surrounding the FRONT YARD. (For placement, height and gate specifications, see the BUILDING FORM STANDARDS.)

Garage Entry. An opening (with curb cut) in the building FAÇADE and/or street wall where vehicles may enter into a parking structure in the block interior for general parking and business servicing.

Garden Wall. A wall defining a property line or delineating a private area. (For placement, height and gate specifications, see the BUILDING FORM STANDARDS.) A GARDEN WALL may serve as a FRONT YARD FENCE.

Ground Story. The first habitable level of a building at or above grade. The next STORY above the GROUND STORY is the second floor or STORY.

Half Story. Habitable space, with a limited footprint, that is situated above the uppermost full STORY.

Lot Building Limit (LBL). A line or plane indicated on the REGULATING PLAN that extends vertically beyond which no building shall be placed (unless otherwise specified in this code).

Maximum Fronting Sidewalk Elevation. The highest elevation of the sidewalk directly in front of a property (or properties) as measured along the property’s REQUIRED BUILDING LINE. The MAXIMUM FRONTING SIDEWALK ELEVATION and MINIMUM FRONTING SIDEWALK ELEVATION are used to establish the AVERAGE FRONTING SIDEWALK ELEVATION to determine the ULTIMATE BUILDING HEIGHT. If no sidewalk exists, the location of the RBL as designated on the REGULATING PLAN will be used to establish this value.

Mezzanine. An intermediate level between the GROUND STORY and the second STORY. It may be in the form of a platform, podium, or wide balcony, with uses limited to a continuation of the GROUND STORY uses.

Minimum Fronting Sidewalk Elevation. The lowest elevation of the sidewalk directly in front of a property (or properties) as measured along the property’s REQUIRED BUILDING LINE. The MINIMUM FRONTING SIDEWALK ELEVATION and MAXIMUM FRONTING SIDEWALK ELEVATION are used to establish the AVERAGE FRONTING SIDEWALK ELEVATION to determine the ULTIMATE BUILDING HEIGHT. If no sidewalk exists, the location of the RBL as designated on the REGULATING PLAN will be used to establish this value.

Mullion. A vertical or horizontal element that forms a division between units of a window, or door. When dividing adjacent window units, its purpose is as a rigid support to the glazing (glass panes) of the window.
Muntin. A strip of wood, metal, or synthetic material separating and holding panes of glass in a window or giving the appearance of individual panes of glass in a window.

Neighborhood Manners. A set of rules in this Code designed to ensure a positive and complementary relationship between the new and more intense redevelopment under this Code and existing residential zoning districts abutting the Urban Storefront and/or Urban General frontages.

Open Area. See PRIVATE OPEN AREA.

Parking Setback Line. A line or plane indicated on the REGULATING PLAN which extends vertically up from the GROUND STORY floor level (unless otherwise noted on the REGULATING PLAN or BFS) and is generally parallel to the REQUIRED BUILDING LINE. The PARKING SETBACK LINE is a permissive minimum distance from the REQUIRED BUILDING LINE and parking may be placed anywhere within the lot behind this line, except where otherwise specified in this Code.

Pedestrian Pathway. An interconnecting paved way providing pedestrian and bicycle passage through BLOCKS running from a STREET-SPACE to another STREET-SPACE, a COMMON DRIVE or an interior block parking area. The area within a PEDESTRIAN PATHWAY shall be a public access easement or public right-of-way.

Plaza. See CIVIC GREEN.

Privacy Fence. An opaque fence made of wood or masonry (not chain link or any other type of rolled fence) along COMMON DRIVES, PEDESTRIAN PATHWAYS, and COMMON LOT LINES (where behind the required building line). See the BUILDING FORM STANDARDS for height and placement specifications.

Private Open Area. An occupiable area within the BUILDABLE AREA and generally behind the PARKING SETBACK LINE, accessible only to occupants of the particular building or site, and (primarily) open to the sky. Additional specifications for the PRIVATE OPEN AREA may be included in each BUILDING FORM STANDARD. The PRIVATE OPEN AREA shall not be built-upon, used to satisfy minimum stormwater Best Management Practice area (if thereby excluding active tenant use), parked or driven upon (except for emergency access).

Project Review Committee (PRC). The PROJECT REVIEW COMMITTEE consists of the City of Winooski’s departments heads, and is chaired by the City Manager. The purpose of the PRC is to solicit input and feedback on projects that are requesting a CERTIFICATE OF CONFORMITY as outlined in Section 203. Comments from the PRC will provide guidance to the Zoning Administrator and may result in specific conditions that are included as part of zoning approval. The PRC is an advisory committee only and meetings of the PRC do not include formal recorded testimony from the public, but do provide an opportunity for the public to comment on projects. Comments provided during the PRC meeting are non-binding unless specifically included as conditions of approval as outlined in the CERTIFICATE OF CONFORMITY and zoning permit.

Regulating Plan. The implementing site plan for the development of the Gateway District under this Code. REGULATING PLANS allocate the BUILDING FORM STANDARDS and street types and provide specific information for the disposition of each building site. The REGULATING PLAN also shows how each site relates to adjacent STREET-SPACES, the overall district, and the surrounding neighborhoods. Unless outlined in Section 206 of these regulations, adjustments or changes to any features or elements on the REGULATING PLAN shall only be done through an amendment to these regulations as identified in Section 207.B.
Required Building Line (RBL). A line or plane indicated on the REGULATING PLAN, defining the STREET FRONTAGE which extends vertically and generally parallel to the street, at which the building FAÇADE shall be placed. This is a requirement, not a permissive minimum. The minimum length and height of FAÇADE that is required at the RBL is shown on the appropriate BUILDING FORM STANDARD.

Shown on the REGULATING PLAN as an absolute line, it incorporates an area (or depth) of 24 inches offset into the BUILDABLE AREA for all BFS frontages except Detached. This is to allow for jogs, FAÇADE articulation, etc. For Detached frontages the RBL incorporates an offset area (or depth) of 10 feet.

Sidewing. The portion of a building extending along a COMMON LOT LINE toward the COMMON DRIVE or rear of the lot.

Small Apartment Building. See TOWNHOUSE/SMALL APARTMENT FRONTAGE BUILDING.

Square. See CIVIC GREEN.

Stoop. An entry platform on the FAÇADE of a building. (See the BUILDING FORM STANDARDS for specifications.)

Shopfront. That portion of the GROUND STORY FAÇADE intended for marketing or merchandising of COMMERCE USES and allowing visibility between the sidewalk and the interior space.

Story (Story Height). That space within a building and above grade that is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling above. STORY HEIGHT parameters are as specified by the appropriate BUILDING FORM STANDARD.

Street Frontage. That portion of the lot or building that is coincident with the REQUIRED BUILDING LINE as required by this Code.

Streetlight. A luminaire installed on both sides of the STREET-SPACE, along the STREET TREE ALIGNMENT LINE or median centerline, unless otherwise designated in this code, with the design criteria in the Gateway District giving equal weight to the lighting of the pedestrian areas and the automobile areas.

Street-Space. All space between fronting REQUIRED BUILDING LINES (streets, SQUARES, PLAZAS, PEDESTRIAN PATHWAYS, CIVIC GREENS, sidewalks, parks)—including any transit service operator passenger platform—but not garage entries or COMMON DRIVES.

Street Tree. A tree located in the STREET-SPACE (and required per this code) and listed in the Street Tree List located in Part 5. Urban Space Standards that is of a proven hardy and drought tolerant species and large enough to form a canopy with sufficient clear trunk to allow traffic to pass under unimpeded.

Street Tree Alignment Line. A line along which STREET TREES shall be planted and STREETLIGHTS and other such infrastructure are to be placed. It is generally parallel with the STREET-SPACE and mid-way between the back-of-curb and the CLEAR SIDEWALK.

Street Wall. A masonry wall set on the REQUIRED BUILDING LINE which assists in the definition of the STREET-SPACE in the absence of a building. See the BUILDING FORM STANDARDS for height and gate specifications.
Townhouse/Small Apartment Frontage Building. Building form and functions resulting from/as determined by the Townhouse/Small Apartment BUILDING FORM STANDARD indicated on the REGULATING PLAN.

Tree Lawn (Tree Trench). A continuous strip of soil area—typically covered with grass, other vegetation, bridging pavement, or sometimes porous pavers—located between the back of curb and the CLEAR SIDEWALK AREA, and used for planting STREET TREES and configured to foster healthy STREET TREE root systems. TREE LAWN dimensions are specified in the Street Type Specifications and in Part 5. Urban Space Standards.

Ultimate Building Height. A height limit for structures in the Gateway District, measured from the average fronting sidewalk elevation to the top of the FACADE wall plate.

Urban General Frontage Building. Building form and functions resulting from/as determined by the Urban General BUILDING FORM STANDARD as indicated on the REGULATING PLAN.

Urban Storefront Frontage Building. Building form and functions resulting from/as determined by the Urban Storefront BUILDING FORM STANDARD as indicated on the REGULATING PLAN.

Use, Civic. For the purpose of this Code, CIVIC USES include: meeting halls; libraries; schools; police and fire stations; post offices (retail operations only, no primary distribution facilities); places of worship; museums; auditorium; arena; transit centers; community center; farmers market; government functions open for the public; and, other similar community uses. Public ownership alone does not constitute CIVIC USE.

Use, Commerce. For the purpose of this Code, COMMERCE USES shall be considered to encompass all of the permitted and conditional uses included under the "commercial uses" category in Table 2.4 of Article II of the Unified Land Use and Development Regulations, and all of the CIVIC USES defined above, except transit centers.

Use, Residential. RESIDENTIAL USES shall be considered to encompass all of the uses listed in Section 803.A of this Code.

Use, Retail. Includes the following:

Retail Service. Establishments providing services, as opposed to products, to the general public, including restaurants, hotels and motels, finance, real estate and insurance, travel agencies, health and educational services, and galleries; as well as personal services as defined in the Regulations.

Retail Sales. Establishments wherein the primary use is the sale of merchandise for use or consumption by the immediate purchaser.