

# WATERTOWN MASSACHUSETTS DESIGN GUIDELINES



**TOWN COUNCIL ADOPTION: JUNE 30, 2015**

architecture  
urban design

**GAMBLE  
ASSOCIATES**

# PURPOSE OF DOCUMENT

“We envision a vibrant and diverse future that builds upon our rich foundation of neighborhoods, culture, commercial squares and corridors, civic assets, and proximity to the Charles River and Boston.” Our future includes:

- Stronger relationship with the Charles River
- Commercial Squares & corridors that reinforce Watertown as a great place to live, work & play
- Leader in innovative economic development
- Proactive in maintaining public infrastructure and services
- Celebrating our diverse population, unique neighborhoods and historic and cultural heritage
- Attractive streetscapes along roadway corridors
- Progressive about sustainability
- Promoting and active and healthy lifestyle.\*

*\*Adapted from Watertown Comprehensive Plan 2014, VHB*

These Guidelines have been developed to address the design of new buildings along the major corridors and Watertown and Coolidge Squares. They are intended to enhance building, parking and the public realm interface to the Limited and Commercial district regulations.

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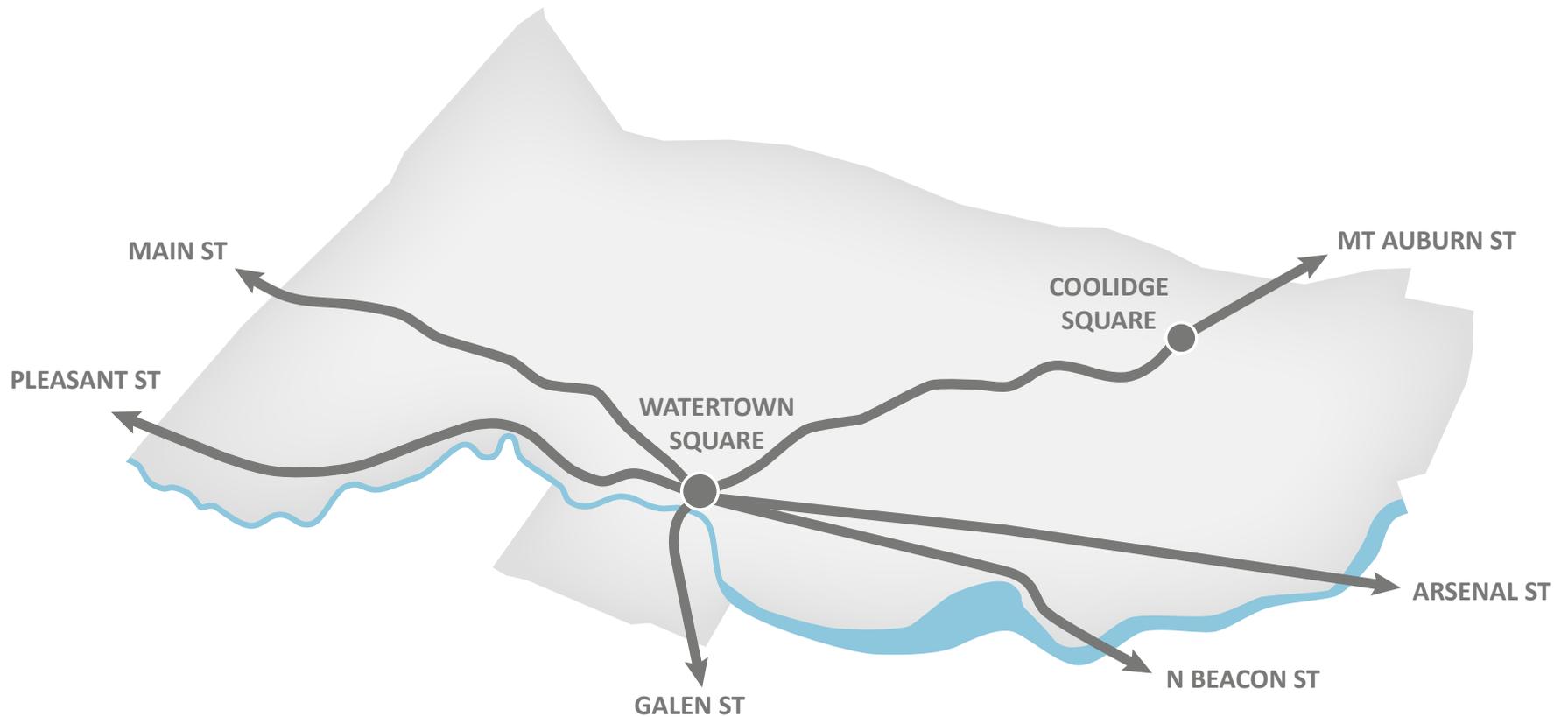
## COMMENTS/QUESTIONS:

The Design Guidelines are intended to be a living document that will evolve over time with the changing needs of the Town. In that spirit, the document invites comments and perspectives that will inform the Town of Watertown as it updates and amends this work.

Comments on this document may be made to:

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# COMMERCIAL CORRIDORS AND SQUARES OF WATERTOWN



Watertown is defined by its relationship to the Charles River, as well as by its squares and the commercial corridors that link them. Together, these stitch together the various residential neighborhoods which make up the majority of the Town.

The Design Guidelines focus on these links and nodes, outlining best practices to guide sustainable future growth. By strengthening the character of these major corridors, greater connectivity and a richer “sense of place” can be achieved.

# OVERARCHING PRINCIPALS

## ECONOMIC ACTIVITY

Watertown's Design Guidelines were created to enhance the economic vitality of selected existing commercial areas through attractive, consistent design. By following these guidelines, each project will complement another, resulting in a cohesive development over time. The guidelines were developed specifically to provide direction for the design of new infill development in commercial areas. The goal is not to limit creativity, but rather to recognize potential for architectural diversity while adhering to the overarching principles contained herein. They intend to define expectations for new development while allowing for flexibility and fostering high quality design.

## HISTORIC PRESERVATION

Urban regeneration means more than simply building anew; historic preservation is an effective economic development strategy. The reuse and regeneration of existing buildings should be encouraged in addition to new development as they provide a direct connection to Watertown's past. Existing buildings that have retained cultural or architectural significance can form the basis for economic development and growth.

## DESIGN AESTHETIC

These Design Guidelines cannot depict every possible building configuration on each site. Rather, a prototypical building footprint is shown in a manner that accommodate many conditions that emerge on a project site. The massing is general enough that it can contain a range of uses, but specific enough to highlight the critical areas of concern. Even when closely following these guidelines, each project will take its own form that will differ from the example shown here. A singular design aesthetic in Watertown is neither viable nor desirable.

## ENVIRONMENTAL PERFORMANCE

New development offers an opportunity for sustainable construction practices that acknowledge technological innovation and green building practices. It should strive to address the highest sustainable and ecological principles, using advanced green technologies and materials, and promoting high-performance buildings. New buildings should be constructed with local, low-embodied energy materials and constructed with the highest standards for environmental sustainability.

# CATEGORIES / TABLE OF CONTENTS

The Design Guidelines are organized into nine distinct sections, each identified by a specific color and icon:



**PUBLIC REALM INTERFACE**

pg 6



**PARKING + ACCESS**

pg 14



**SUSTAINABLE DESIGN**

pg 24



**BUILDING MASSING**

pg 32



**BUILDING HEIGHT**

pg 40



**BUILDING SETBACKS**

pg 48



**FACADE TREATMENT**

pg 56



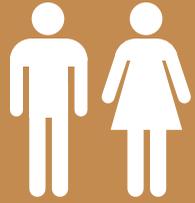
**MATERIAL SELECTION**

pg 64



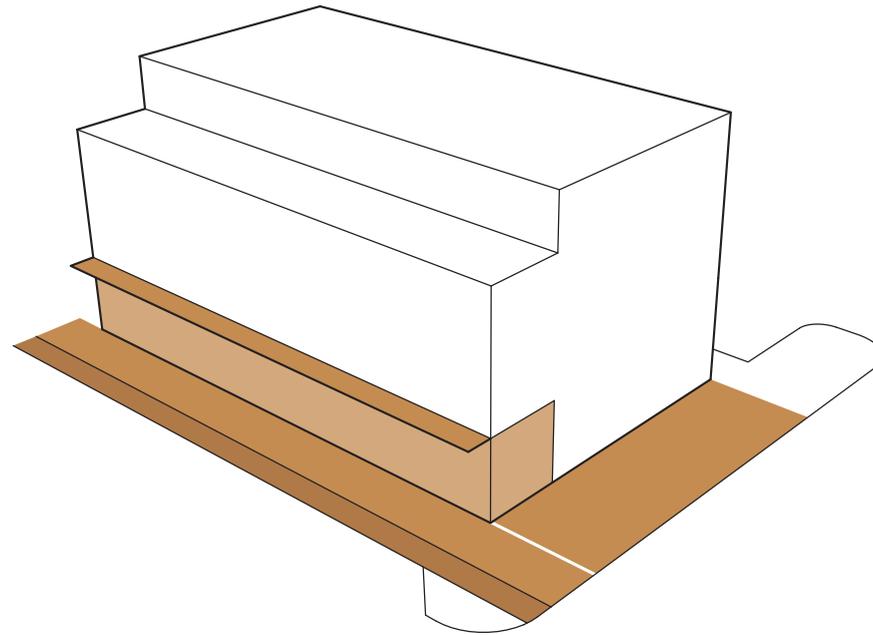
**SIGNAGE**

pg 72



# PUBLIC REALM INTERFACE

Commercial corridors are most successful when the street edge is defined with active ground floor uses with a high degree of transparency.

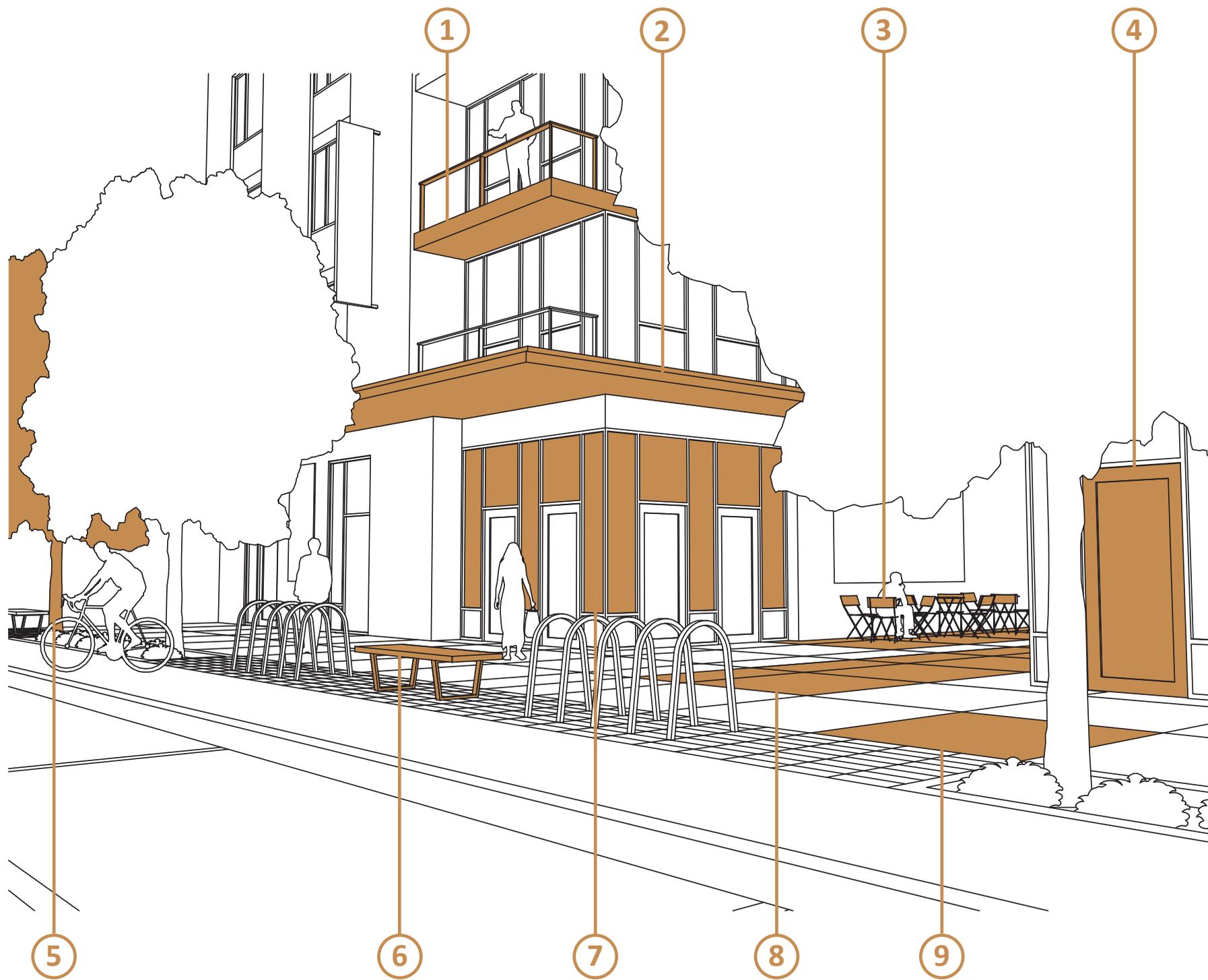


## ASPIRATIONS

The relationship of the building to the street (in the form of setbacks or build-to lines) plays a key role in the ability of a development to enhance or detract from the experience of a place. Commercial corridors are most successful when **the street edge is defined with active ground floor uses with a high degree of transparency.** A vibrant public realm interface is essential for a successful community. How a building relates to the public realm makes an enormous difference in the quality of the development and the degree to which the building contributes to public life.

While the massing of a building and its height, scale, profile and orientation have a significant impact on one's impression of a place, the manner in which it meets the ground is the most critical. Entrances and ground floor windows should be at grade, easily perceived and navigable, and they should aid in pedestrian comfort, safety and orientation. All site and entry circulation should be accessible to persons with disabilities. The public realm/project interface should be guided by the principals of universal design to accommodate the widest range of users.

PUBLIC REALM INTERFACE



# ELEMENTS

- 1 Upper Level Exterior Spaces**

Creating porches, terraces, and balconies on the exterior of a building help to bring the activity within to the outside, increasing both the safety of the sidewalk as well as enlivening the building façade.
- 2 Canopies and Awnings**

Exterior overhangs and projections protect pedestrians from the elements, create a threshold at the entrances to shops and restaurants, and visually complete the “ceiling” of the public realm.
- 3 Public Spaces**

Well designed, appropriately-scaled, and publicly-accessible exterior spaces create an inviting public realm that becomes an integral part of the surrounding neighborhood and can be enjoyed by the widest range of users. These should be fully accessible for persons with disabilities.
- 4 Frequent Entrances**

Having frequent entrances along public ways creates a lively and more interesting pedestrian experience. Shops, cafés, restaurants, offices, and lobbies all create destinations that increase foot traffic. Include a minimum of one automated door for ease of access.
- 5 Street Trees / Vegetation**

Street trees and other plantings help to visually soften the building, create a permeable barrier between the street and sidewalk, reduce solar gain, provide shade, and create a more appealing environment.
- 6 Street Furniture**

Benches, trash receptacles, pedestrian lighting, and other types of street furniture make a welcoming pedestrian realm that invites people to linger.
- 7 Ground-Level Transparency**

Large areas of glazing at ground level dissolve the visual barrier between the interior and exterior of a building, allowing the sidewalk to benefit from the adjacent activity.
- 8 Open Space Networks / Connectivity**

Where possible, new public open spaces around buildings should link to and expand existing networks, whether they be bike paths, walking paths, pocket parks, or pedestrian linkages. These should be fully accessible for persons with disabilities.
- 9 Paving Patterns**

Varying the paving patterns through the use of colored concrete, pavers, and other materials can help to create a unique sense of place in front of a building and visually brand the location.



# STRATEGIES

## ENCOURAGE:

### **Pedestrian Interest**

Frequent entrances, large areas of ground-level transparency, building permeability, and high-quality materials all contribute to creating an engaging pedestrian experience. Since the ground level of a building is the one the public most frequently interacts with, it should receive the highest degree of detailing so as to enliven the public realm and create a unique sense of place.

### **Appropriately Scaled Sidewalks**

The width of the sidewalk should be calibrated to the height of the adjacent building as well as the width of the street. Taller buildings and larger, multi-lane streets along primary commercial corridors require wider sidewalks. Smaller, more intimate sidewalks are appropriate for residential areas and neighborhood commercial nodes. The level of street furnishings and plantings should scale to the sidewalk environment.

### **Greater Connectivity**

In order to decrease the dependency of accessing a site solely by car, greater emphasis needs to be placed on the pedestrian and cycle connections from the site to the larger context. Developers should carefully design with each mode of transportation in mind to ensure that all users are accommodated and share equal priority through techniques employing universal design.

### **Bike Paths**

Efforts should be made to include bike paths and cycle tracks within or adjacent to a site. Developments should anticipate future connections and incorporate them in their site plans to prevent thwarting long-term planning visions. The existing cycle tracks along Arsenal St should be expanded, and on-street bike lanes should be advanced with the town if not already present along the main frontage of a site.

### **Large Caliper Trees**

Often times, small caliper trees are planted that will not achieve the benefits of a tree canopy for a number of years. Additionally, smaller caliper trees have a higher instance of dying due to shock, disease, winter conditions, or the challenging environment of developed areas. By specifying larger caliper trees, there is a higher assuredness of a successful transplant, and a more immediate positive effect from their presence.

### **Appealing, Publicly-accessible Outdoor Spaces**

Pocket Parks, public plazas, outdoor seating space, pedestrian corridors, and exterior shop space all serve to enliven the public realm, and to allow the general public to access and enjoy privately owned spaces. These transition zones between the public right of way and the building are an important interface, and provide the surrounding community with long-term benefits and amenities from a building's construction.

### **Public Art Opportunities**

Where possible, public art and other cultural considerations should be incorporated into a development. This can range from dedicated community gathering and gallery space, to showcasing local artist's work in lobbies and other publicly accessible spaces, to exterior pieces of sculpture, murals, and a number of other mediums. This serves to bolster local artists, enrich the public contribution the building makes, better engage the surrounding community, and enhance the passing pedestrian's experience.



## DISCOURAGE:

### **Residual, Privately-owned “Public Spaces”**

New development may meet the letter of the law regarding the percentage of open space without achieving the spirit as intended. This often happens when open space is captured completely within the development, rendering it inaccessible to the public, or is comprised of thin, marginal exterior spaces that lack any distinct sense of place. These are to be avoided; public spaces should be places of adequate size and value that non-users of the site would want to use them.

### **Wide Building Setbacks Along Commercial Corridors**

As opposed to residential neighborhoods, commercial corridors benefit from a coherent, relatively continuous street wall created by the facades of the buildings that line it. Overly generous setbacks remove the building from the public realm, and fail to contribute positively to the vibrancy of street life. Setbacks from the property line along commercial corridors should only be included when the existing right of way doesn't allow for an adequately scaled public realm.

### **Preferencing Automobiles**

All modes of accessing a site should be given equal priority, as opposed to the largely car-centric designs that dominate much of Watertown's commercial corridors. Buildings should front the sidewalk, pushing parking underneath or to the rear. Adequate bicycle storage facilities should be provided at all developments, and emphasis should be placed on pedestrian and cycle connections to existing networks, as well as public transit hubs.

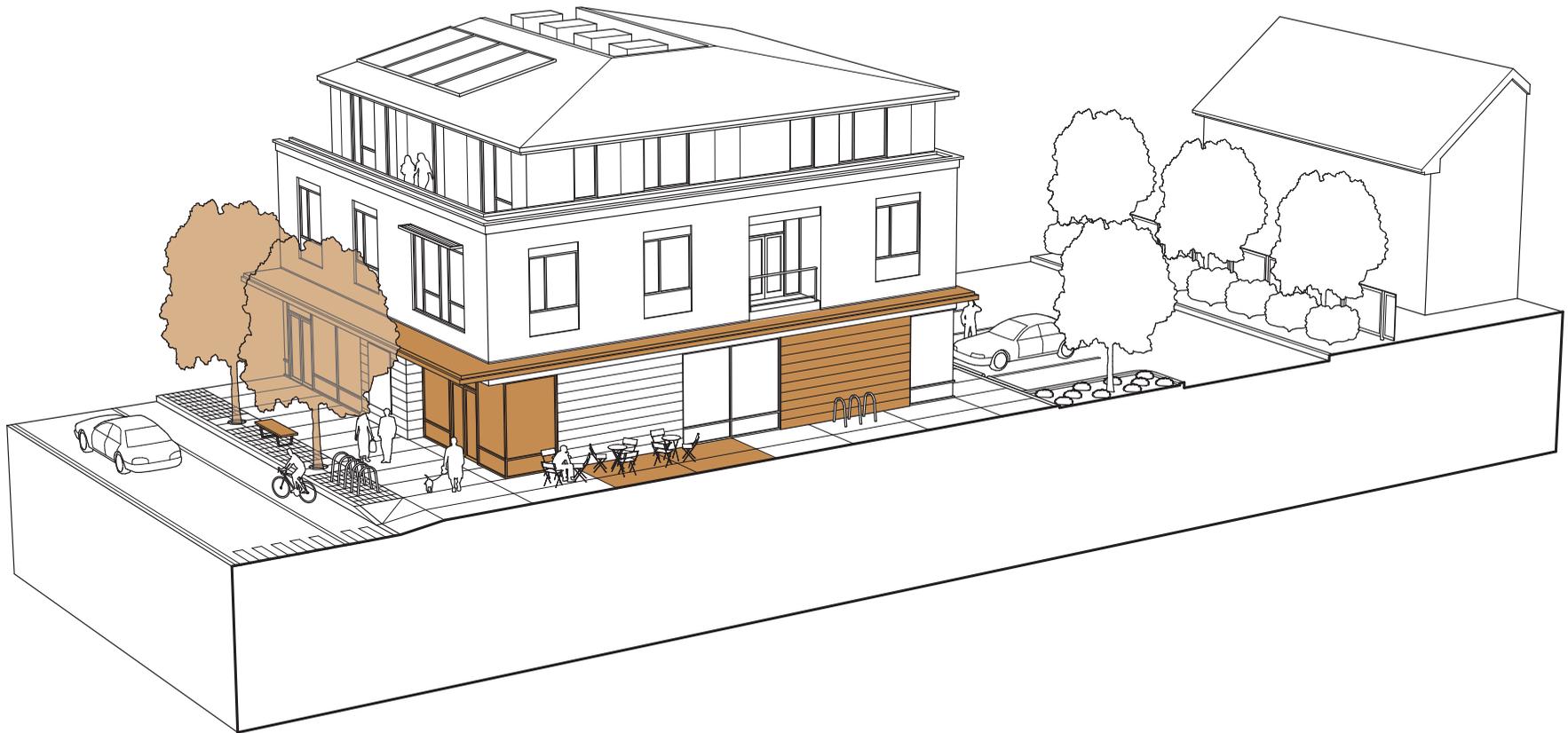
### **Multiple Curb Cuts**

Curb cuts, where a vehicle entrance or exit crosses the sidewalk to access the street, put pedestrians directly in conflict with vehicles, as well as impede the efficient flow of traffic. Developments should seek to minimize the number of curb cuts they employ so as to increase pedestrian and cyclist safety as well as create a less confusing environment for drivers.



# URBAN SCALE OPPORTUNITIES

The manner in which a building meets the sidewalk is critical. Along Watertown’s commercial corridors there is an aspiration to have a mix of uses and to enhance the pedestrian experience. This impacts the relationship of a building to its primary street frontage.



# PRECEDENTS



Paving Patterns, General Aviation Facility Logan Airport, Boston MA



Street Furnishings, 315 on A, Boston MA



Outdoor Seating, Millennium Place, Boston MA



Pedestrian Pass-Through, Old Street, London UK

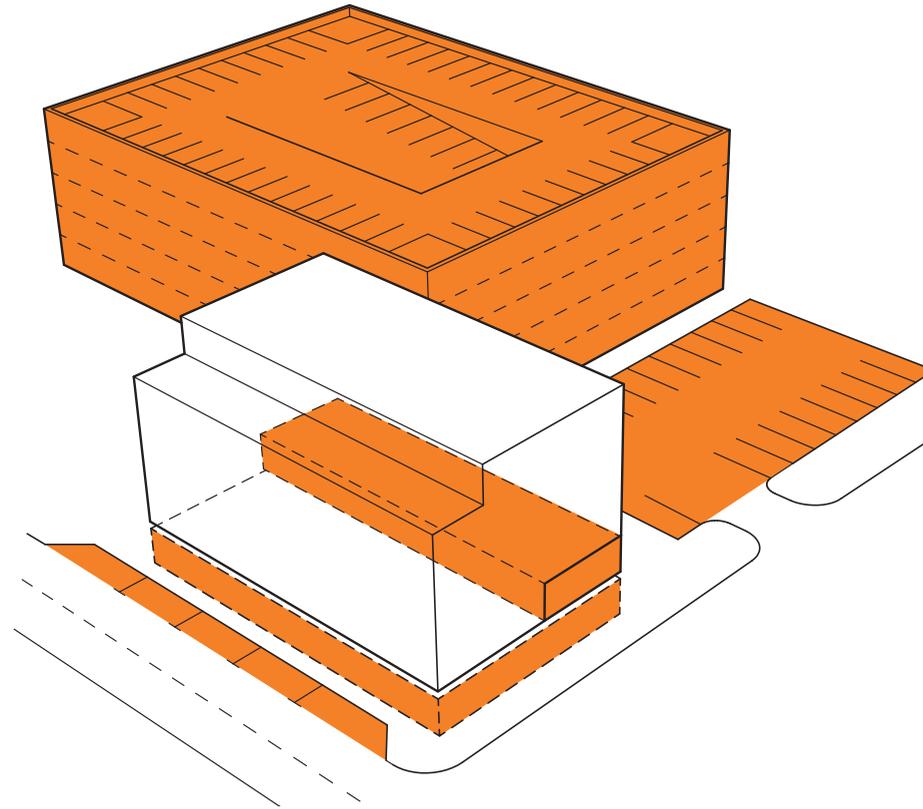


Ground Level Transparency, Brooklyn Botanical Garden, Brooklyn NY



# PARKING + ACCESS

**Development should consider the pedestrian first,  
then bicyclists, then transit and then the automobile.**

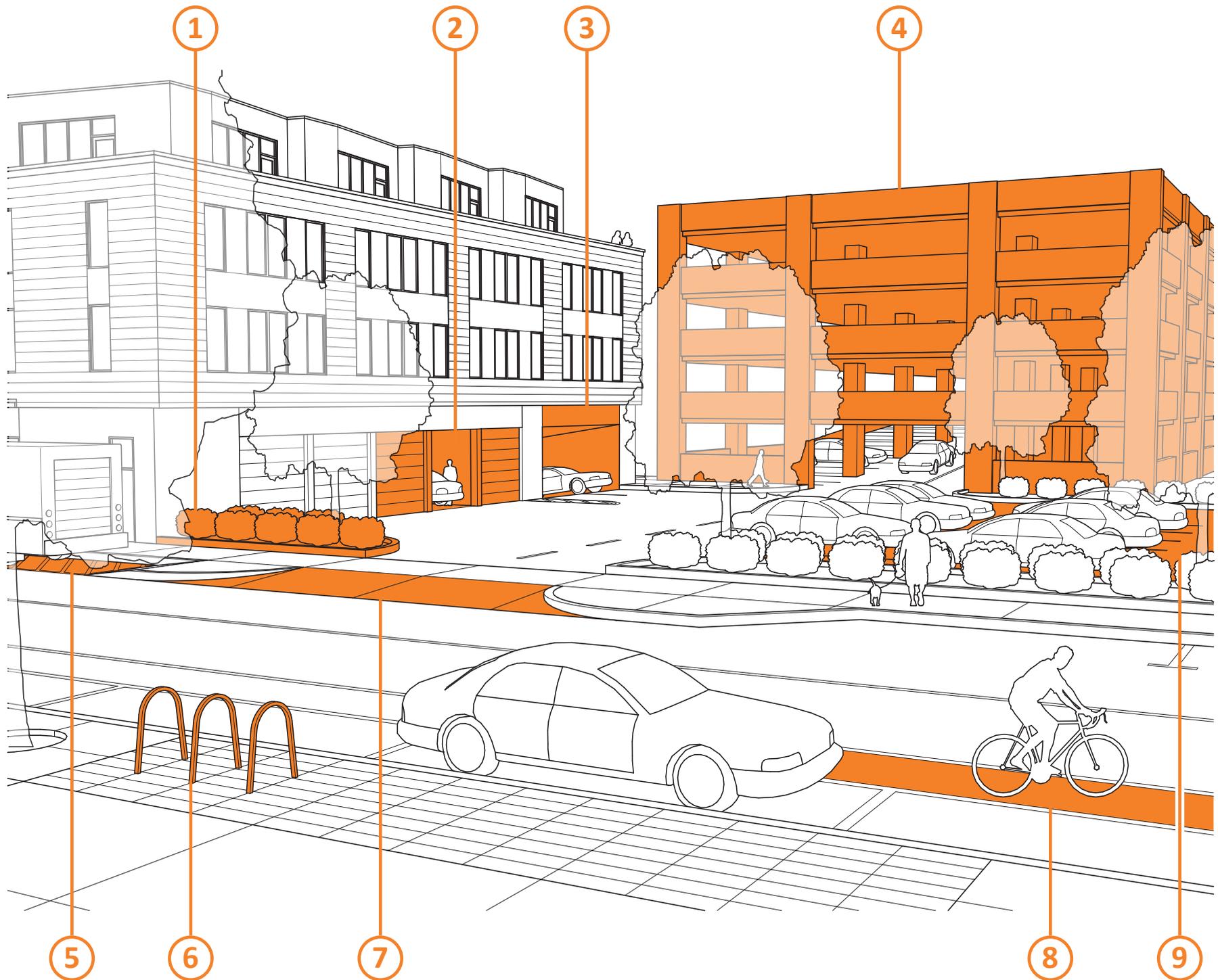


## ASPIRATIONS

Parking is always a primary consideration and its location on the site can be varied. When parking is located in front of buildings, it often requires multiple curb-cuts for the property it serves. As a result, the relationship of the building to the street favors vehicles, not pedestrians. Surface parking lots located in front of commercial establishments facilitate access for patrons but do little to improve the character of the street or public realm.

Consideration should be given to shared parking opportunities where day and night uses do not overlap. **Opportunities for shared parking** must be pursued to increase development potential wherever possible and diminish the impact of the automobile. This has the added benefit of encouraging alternate modes of transportation and enhanced transit ridership. Regardless of where they are located, existing and future parking lots must be visually buffered by trees and native grasses. Development should consider the pedestrian first, then bicyclists, then transit and then the automobile.

 PARKING + ACCESS



# ELEMENTS

- 1 VEGETATED BUFFERS**

A mix of deciduous and non-deciduous plantings of adequate height and density so as to visually screen surface lots.
- 2 ENCLOSED PARKING**

Enclosed parking is located at-grade underneath a building. It should not face the primary frontage, but instead be located towards the rear of a building and shielded by publicly accessible uses such as retail and lobby space. Exposed portions should be naturally ventilated and visually shielded from view with plantings, architectural screening, or doors.
- 3 BELOW-GRADE PARKING**

Below-grade parking is parking located underground. Where possible, below-grade parking should be naturally ventilated, and any portions that are visible above grade should be clad in high-quality materials.
- 4 STRUCTURED PARKING**

Structured parking should be located at the center of blocks or at the rear when not directly abutting residential properties. Ideally, they should be visually screened by wrapping other uses around their periphery. In cases where this is not feasible, parking structures should be shielded with high-quality, naturally ventilated cladding or vegetation.
- 5 LOADING ZONES**

Loading zones/docks should be located so as not to be visible from the primary public way. They should be visually shielded using attractive, high-quality fencing and/or vegetation.

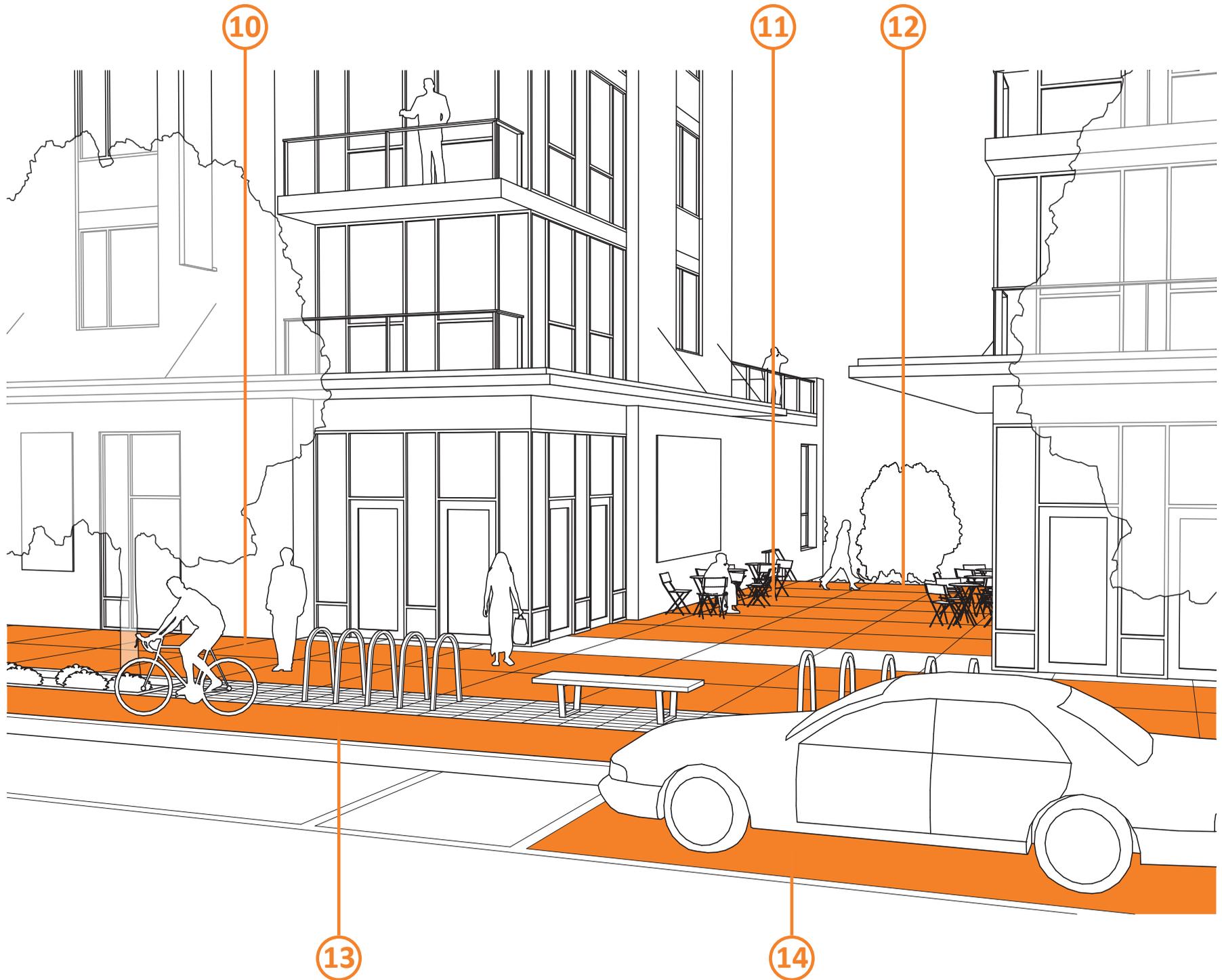
- 6 BICYCLE STORAGE**

All developments must include externally located bicycle racks easily accessible from the public way as well as covered, protected, and secure bike storage that conforms with the *“Watertown Zoning Ordinance” (10/26/10) Section 6.07 (a.2)*.
- 7 CURB CUTS / APRONS**

These are entrances and exits from parking lots and driveways that cross the sidewalk. They should address pedestrian and cyclist safety and located so as not to adversely effect traffic.
- 8 BICYCLE LANES**

Bike lanes are travel lanes within the roadway that are exclusively for bicycles. These are ideally delineated with green colored paint to increase visibility, or have white striping and bike lane graphics.
- 9 SURFACE LOT PARKING**

Surface parking lots, per *“Watertown Zoning Ordinance” (10/26/10) Section 6.01-6.02*, should be located at the middle or rear of development parcels, and shielded from the public right-of-way by the building. Entrances to retail/commercial spaces and residential lobbies should be provided at the rear of developments in addition to those in the front.



## ELEMENTS (CONT.)

- 10 SIDEWALKS**

Sidewalks encompass the pedestrian realm in the space between the building and the street. Their width should be calibrated to the width of the street and height of adjacent buildings.
- 11 PLAZAS**

Well-designed, publicly accessible plazas fronting public ways provide opportunities for pedestrians to sit and rest. These should be viewed as amenities and should enhance the user experience.
- 12 OPEN SPACE CONNECTIONS**

While roads and sidewalks are the primary way people access a site, connections to nearby open spaces and greenways represent another, often overlooked link. Creating connections to existing or newly created open spaces and trail networks is highly encouraged.
- 13 CYCLE TRACKS**

Cycle Tracks are dedicated bike lanes that are physically separated from the street. Often located between on-street parking and the sidewalk, they provide a higher degree of safety for cyclists. Clearly demarcating all curb cuts and parking structure exits is critical to reducing cyclist-vehicle collisions.
- 14 ON-STREET PARKING**

On-street parking should support the commercial and retail establishments along the public right-of-way. While typically falling outside their property boundaries, development should reinforce on-street parking through methods such as bulb-outs.

# STRATEGIES

## ENCOURAGE:

### Reduced Parking Requirements

Investigate shared parking with adjacent property owners when multiple, abutting sites are being redeveloped. Identify possible overlapping parking needs within site when calculating minimum requirements.

### Underground / Under Building Parking

Parking should ideally be hidden from the public right-of-way by locating it below ground or within the rear portion of the building. This allows for publicly-accessible uses such as shops, cafes, restaurants, galleries, and lobbies to front the public realm, activating it and creating a pleasant pedestrian experience.

### Well Landscaped Surface Lots

Incorporate shade trees and native, drought-tolerant plants of varying heights/species at parking islands and along edges to diminish the heat island effect. Include dedicated irrigation where feasible. Employ plantings of adequate height and density so as to visually buffer parking when it is unable to be located in a manner that makes it less visible from the public way.

### Rear or Mid-block Surface Parking

Locate surface parking lots behind buildings at the rear or middle of blocks, visually shielded from the public right-of-way by the building. Minimize the number of curb cuts associated with these lots, with access preferably oriented towards secondary streets so as to minimize conflicts with pedestrians.

### Car sharing, charging stations and transit shuttles

Incorporate spaces reserved for car sharing programs as well as vehicle charging stations. Explore installing shading devices with imbedded solar cells to provide power and reduce solar gain. Efforts should also be made to explore joint transit shuttle service to public transit with other nearby large property owners and campuses.

### Anticipate Winter Limitations

Design adequate space to allow for snow removal/storage.

### Bicycle, Pedestrian and Public Transit Access

Non-vehicular access should be given equal priority to cars, and the site design / circulation should reflect this.

#### Bicycle

Include a combination of bike lanes, cycle tracks, bike racks, and bike storage to encourage cycling.

#### Pedestrian

Include bulb-outs, adequately wide sidewalks, street trees, lighting, seating, open space connections, and public spaces to encourage walking.

#### Public Transit

Explore additional bus stops, shared shuttle services, and car sharing programs to encourage alternate modes of transportation.

## **DISCOURAGE:**

### **Surface Parking in Front of Buildings**

With the exception of parallel on-street parking, surface parking in front of buildings is prohibited.

### **Preferencing Cars over Pedestrians and Bicyclists**

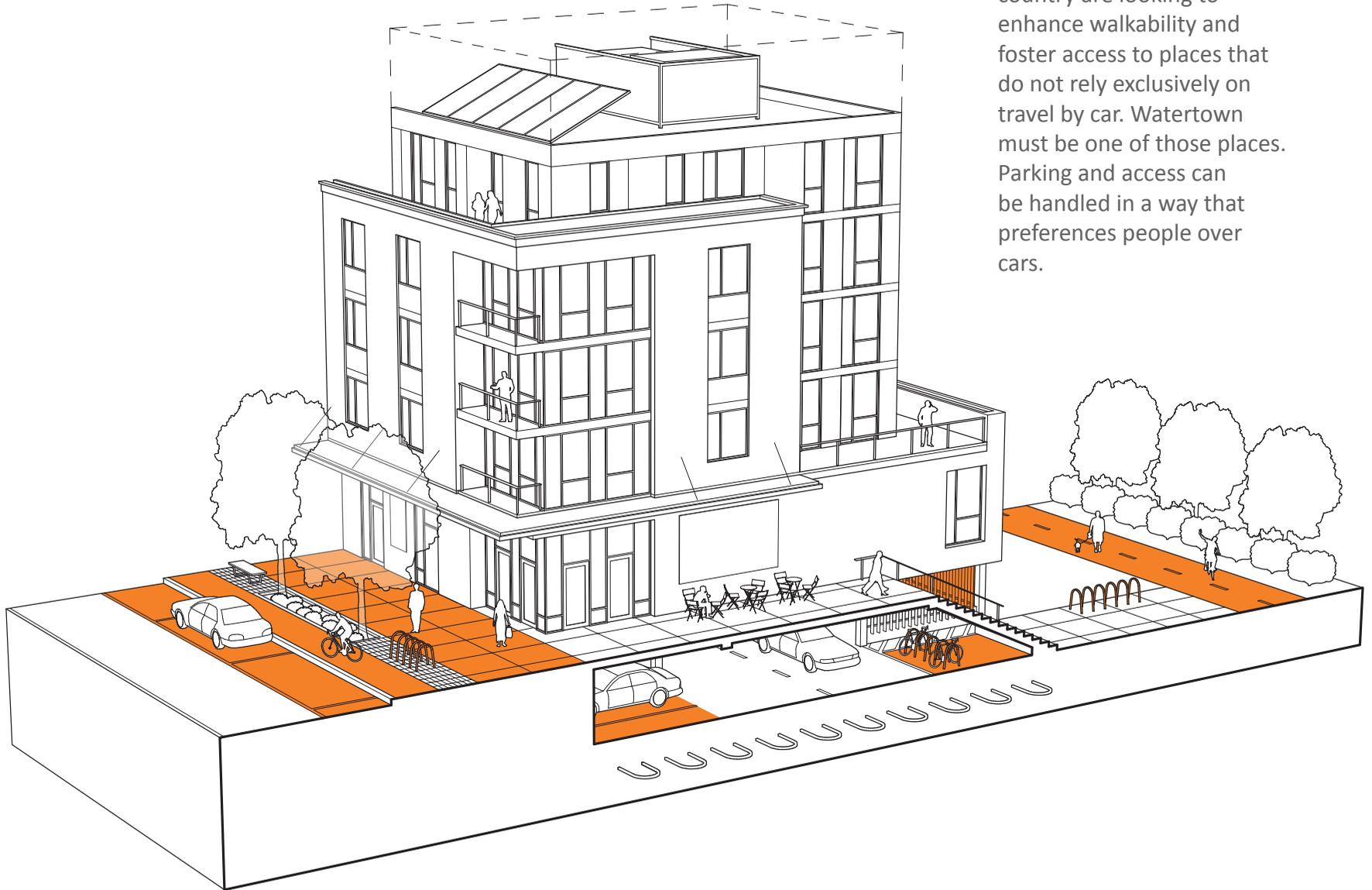
Equal consideration should be given to all modes of transportation used to access a site, and the infrastructure built to support them should reflect this philosophy.

### **Parking Garages with Large Blank Walls**

Exposed facades of structured parking must be visually shielded from view using well-designed, naturally ventilated screening, or by employing vegetation such as vines or ivy, or green walls.

# URBAN SCALE OPPORTUNITIES

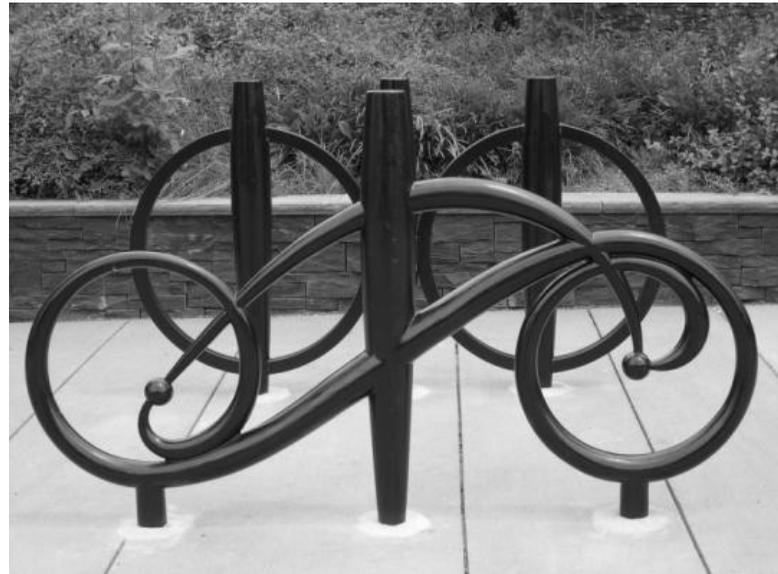
Communities across the country are looking to enhance walkability and foster access to places that do not rely exclusively on travel by car. Watertown must be one of those places. Parking and access can be handled in a way that preferences people over cars.



# PRECEDENTS



Shared Street, Winthrop Street, Cambridge MA



Bicycle Racks, Allston Public Library, Allston MA



Cycletrack, MIT West Annex Lot, Cambridge MA



Garage Screening, Lexus, Watertown MA

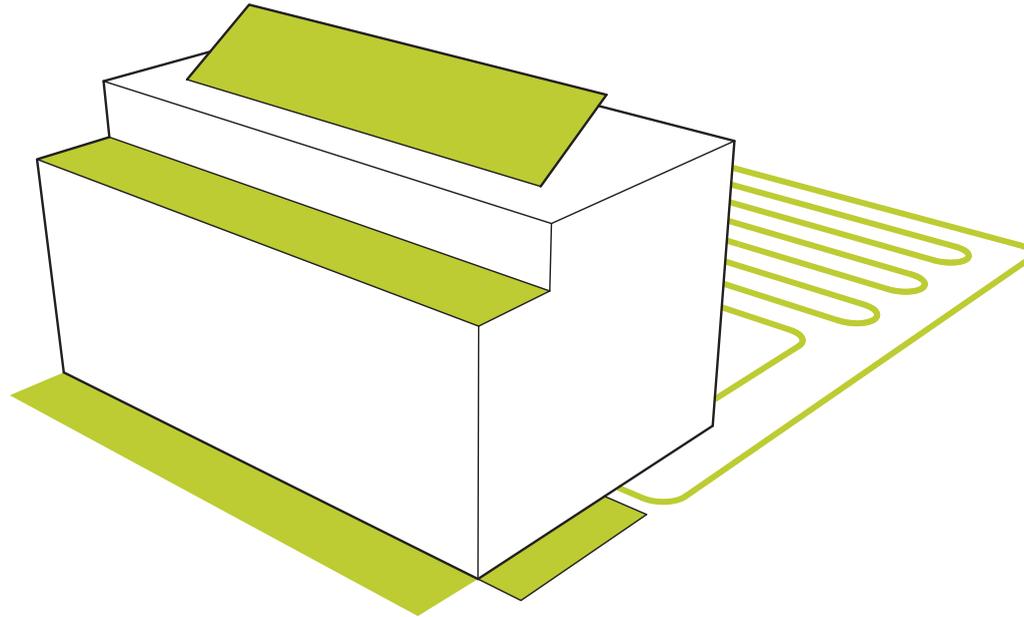


Vegetated Buffer, The Box Office, Providence RI



# **SUSTAINABLE DESIGN**

**A sustainable design approach effectively balances environmental and aesthetic concerns.**



## ASPIRATIONS

“Sustainable” is one of the most widely used but increasingly ambiguous and misunderstood terms in design vocabulary. The term is used here to describe projects that are connected with the environment in which they reside. A development that is sustainable utilizes alternative and renewable energy sources for energy generation and retention. Sustainable buildings use less energy through the use of solar panels and geothermal fields. Projects that have rainwater harvesting, green roofs, energy responsive facades, sun-shading devices, natural daylighting, recycled content and low embodied energy materials are sustainable. **A sustainable design approach effectively balances environmental and aesthetic concerns.**

A building’s use, massing, orientation, and design character influence a great deal how a building relates to its context. Deploying sustainable design and construction strategies ensures that these decisions are made in the service of a greater objective which acknowledges the impact that construction has on our environment. A sustainable design approach is one where environmental responsibility is an integral part of the design, and the negative impacts associated with development are minimized. A sustainable ethic involves making careful, ecologically conscious decisions at every point in the planning, design and construction process. A sustainable building treads lightly on the earth.





# ELEMENTS

- 1 LOCALLY SOURCED MATERIALS**

Materials that are produced locally help support the local economy, have a smaller carbon footprint due to reduced transportation needs and, in the case of natural materials, have a visual harmony with their location.
- 2 HIGH-PERFORMANCE BUILDING SKIN**

Low emissivity windows, high R-value spray insulation, reduced thermal bridging, adequate depth exterior walls, solar shading, and sustainable cladding all contribute to a high-performance building envelope.
- 3 LATENT ENERGY ( SOLAR / GEOTHERMAL )**

The energy naturally existing within a site is its latent energy. In the northeast, this is most often in the form of solar energy coming from the sun, and geothermal energy in the form the stable temperature of the ground despite seasonal temperature swings.
- 4 GREEN ROOFS**

Green roofs reduce storm water runoff by absorbing and then slowly releasing rainwater. They protect the underlying roof, reduce solar gain during the summer months, and provide habitat for wildlife. If located on a lower roof of the building, they can also be a visual amenity to higher floors or adjacent developments.

- 5 STREET TREES**

Street trees reduce solar gain, provide shade for pedestrians, filter the air and convert CO<sub>2</sub> to oxygen, provide habitat for birds, and protect pedestrians. Design must allow for proposed trees to grow to their mature size. Planning documents should specify measures to ensure that there is sufficient space for water penetration and root growth and that the location is appropriate to the mature size of the proposed tree.
- 6 PERMEABLE PAVING**

Permeable paving comes in many forms, materials, and colors. Fundamentally they share the capacity to allow rain water to filter through them and leach back into the ground. This reduces the load on storm sewers during storms, and allows for ground water recharging.
- 7 RAIN GARDENS / BIOSWALES**

Rain gardens provide holding space for storm water during large rain events, averting flooding and run off in adjacent spaces such as sidewalks and roadways. When filled with water-tolerant grasses and plants, they provide a visual amenity and additional capacity during storm events.



# STRATEGIES

## ENCOURAGE:

### **Low Impact Development / LEED\* Requirements**

LEED requirements are a good starting point, but developments should aim to exceed them, especially in ways tailored to the unique qualities of the project site. Sustainable development must be more than a simple checklist; it must be a philosophy that permeates all design and construction decisions. Buildings should seek to enrich their surrounding environments, and to minimize the extent of the negative externalities they create.

### **Renewable Energy Sources**

Wherever possible, buildings should utilize the latent energy of their sites to meet energy needs. Roof-installed solar panels not only produce energy but also reduce solar gain. When installed over surface parking lots and garages, they can provide shade as well as power. In the northeast, geothermal energy can be captured to offset the large temperature variations between seasons and reduce the thermal loading of a building.

### **Green Roofs, Garden Spaces, and Healthy Trees**

The inclusion of street trees and additional tree canopy, vegetated areas such as rain gardens and green roofs, planting areas on balconies and terraces, and publicly accessible green spaces should be conceived of as a single natural system that mutually reinforce one another. These will help to promote habitat, create a more beautiful landscape, act as an amenity for the users, and offset the impermeable surfaces that are inherent to developments.

### **Rain Gardens and Permeable Pavers**

Storm water, flooding, and ground water recharging are becoming increasingly important issues, and buildings should strive to deal with them using sustainable strategies that incorporate natural elements to create resilience. Rain gardens are natural areas that are depressed so as to soak up and temporarily retain storm water until the ground can adequately absorb it. This lessens the burden on storm sewers and reduces the risk of localized flooding. Permeable paving allows rain water to naturally leach into the ground and recharge the water table. This replenishes aquifers, filters out pollutants, and helps keep street trees healthy.

### **Energy Efficiency and Green Infrastructure**

All mechanical systems, appliances, and other devices should be chosen with energy efficiency as a priority. In a climate with large seasonal temperature swings, efficient methods for heating and cooling buildings are critical to reducing a building's carbon footprint. Where possible, passive methods should be employed first, with active systems providing a backup.

\*LEED: Leadership in Energy & Environmental Design Green Building Council, <http://www.usgbc.org/leed>



## **DISCOURAGE:**

### **Single-use, Car-focused Buildings**

Buildings should be well-constructed and valuable enough that they will be reused multiple times during their lifespan. With this in mind, they should be designed so as to allow them to be reconfigured as their programs change over time. Adaptive re-use is perhaps one of the most basic ways a building can be sustainable, and planning for this eventuality during the design and construction phase ensures there will not be later barriers that relegate a building to a single, short-term use.

### **Large surface parking areas**

Large areas of asphalt preclude groundwater recharging, create storm water runoff, reduce available habitat, contribute to the heat island effect, and are generally unfriendly to pedestrians. Parking below grade, underneath a building at the rear, or in structured parking is recommended along Watertown's commercial corridors.

### **Extensively Modifying Existing Topography**

While all developments will need to modify the topography of their site to some extent, care should be taken to nestle the building into the existing terrain as sensitively as possible so as not to severely disrupt the natural hydrological paths, thwart greenspace and pedestrian connections, or create unnecessary walls or drops that reduce the permeability of the site. Often, existing grade changes provide an opportunity to place parking below grade.



# URBAN SCALE OPPORTUNITIES

It is essential that new development addresses site specific issues related to the environment. Building and landscape strategies that mitigate the negative environmental effects of construction are no longer aspirations, they are mainstream.



# PRECEDENTS



Rooftop Solar, Gloucester Marine Terminal  
Gloucester City NJ



Shade Trees, The Arsenal on the Charles  
Watertown MA



High-Performance Skin, Artists for Humanity  
South Boston, MA

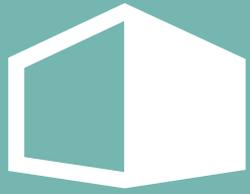


Green Roof, Alice Paul & David Kemp Residence Halls, Swathmore PA



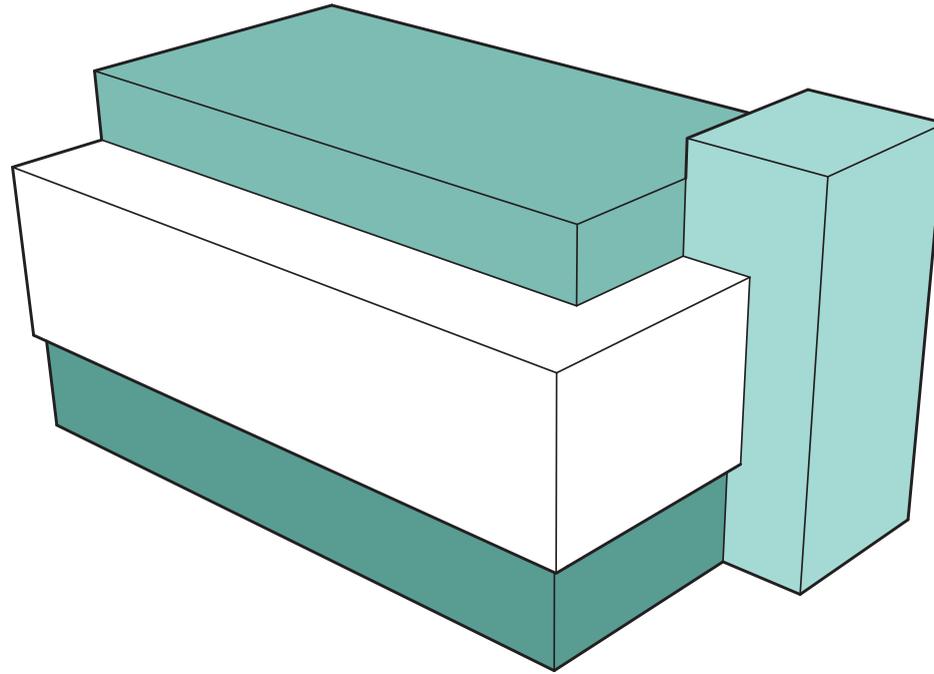
Rain Garden, Permeable Paving, + Street Trees, 6th Street, Brooklyn NY





# BUILDING MASSING

**As Watertown's density increases and previously vacant or low density sites fill in with new buildings, figuring out how to manage massing becomes increasingly important.**



## ASPIRATIONS

Building massing has to do with the overall proportion of a structure, including the dimensions of the building footprint and its relationship to the context where it resides. As Watertown's density increases and previously vacant or low density sites fill in with new buildings, figuring out how to manage massing becomes increasingly important.

Larger building masses are most appropriate for Watertown Square, the historical commercial center of the Town. Greater building height and mass is recommended in this area. The commercial corridors of Mt. Auburn Street and Arsenal Street - with their traditional mixed-use fabric - are also viable candidates for larger building masses as are portions of Pleasant Street and Main Street. As new development sites get closer to existing residential areas, **a building's mass should taper to relate more closely with the character of established neighborhoods.**



# ELEMENTS

- 1 SCALE**

Scale is concerned with the proportion of the elements of a building, the overall building itself, and its relationship to its context. Well designed buildings reveal different aspects of themselves from different distances and vantage points.
- 2 VERTICAL ELEMENTS**

In order to break up what are typically long, horizontal facades, vertical elements such as stair and elevator cores can be expressed externally in ways that help to manage or diminish a building's linear presence. Other elements that can be arranged to mitigate horizontal monotony are glazing units for living rooms in residential spaces; double-height lobby spaces, and vertical solar shading devices. Creating vertical divisions in the facade can also help to create the appearance of multiple, aggregated buildings as opposed to one long one.
- 3 VOLUME**

Volume describes the overarching boundaries of the space a building occupies. A building can appear to be composed of smaller aggregated volumes, or can be a single larger volume that is influenced by adding and subtracting space to and from it.

- 4 SOLID / VOID**

Windows, recesses, and similar elements are visually read as "voids" that have been subtracted from the "solid" volume of the building. This ratio of solid to void should be calibrated to the needs of the program within.
- 5 PASS-THROUGHS**

Buildings should accommodate pedestrian and cyclist pass-throughs in order to further diminish the wall-like nature of the development and increase site circulation and permeability. These should be scaled in proportion to adjacent buildings so as to avoid a "canyon-effect." These spaces can act as outdoor amenity space for both patrons of commercial spaces as well as residential tenants. Bridged or arched openings in buildings can act as pass-throughs and are encouraged. The height of these spaces should be scaled appropriately to their width.

# STRATEGIES

## ENCOURAGE:

### Breaking Building's Mass Into Smaller Forms

Within the overall volume of a building there are strategies which can be employed to further break down the massing and create a more visually interesting building. Adding or subtracting elements helps to create depth and shadows, and lends the building a more human scale.

#### Additive

These encompass projecting bays, dormers, porches, balconies, awnings, and sun screening. These elements should be scaled and detailed to blend with the overall aesthetic of the building.

#### Subtractive

These include recessed porches, terraces, and other step-backs, and serve to punctuate the facade and create depth using shadows. Inhabitable spaces should be adequately sized to allow for occupation, and uninhabited spaces provide opportunities for green roofs.

### Variation in Building Massing

Creating variation in a building's massing helps larger developments appear more in keeping with the scale of the historic fabric of the town. By varying the roof height, façade plane, setbacks, and floor-to-floor height, a large, monotonous building can be made to appear as a collection of discreet ones that are more pedestrian appropriate in their scale.

### Pass-Throughs Which Diminish Super-Blocks

Large sites should be divided into smaller parcels in keeping with the general established cadence and scale of existing, surrounding blocks. These pass-throughs serve to knit the development into its context, and presents opportunities for the introduction of new roadways and pedestrian/cyclist connections. Where possible, new connections should link into preexisting streets and paths. Special care should be given towards designing these new paths and streets in a manner that is welcoming to the general public. Projects that are enclaves or separated from their surroundings should be avoided. Dead-ends and "loop" or "ring" roads are strongly discourage except where necessary to provide additional frontage.

### Emphasizing Corners

Corner conditions are an important part of a facade. The massing of this critical junction should be treated in a way that reinforces its urban design role within the public realm. Creating multi-story facets, vertical corner elements, bays, or subtractions help to punctuate the corner. Increased height may be appropriate to further emphasize the importance of a critical corner of the building.

**Public Open Spaces Scaled to a Project's Size**

Often times, the open space required for a building is distributed in a thin band around its periphery, resulting in residual and largely unusable greenspace. Developments should seek to create meaningful, well-designed, and publicly accessible spaces that are scaled appropriately for the size of the building. These should be publicly accessible, be of a consistent grade so as to be useful for recreation, and provide amenities such as ornamental plantings, benches, public art, and bicycle storage.

**Lower Massing Abutting Residential Areas & River**

Where appropriate, the massing of a building should be sympathetic to, or referential of, its neighbors. This can be achieved in a number of ways, by indenting a building at the height of an adjacent one, aligning floor-to-floor heights, aligning the face of the building to an existing street wall, or borrowing a vertical rhythm or patterning. Aesthetics and styles can and should vary and be reflective of their time periods and uses, but underlying scales, proportions, and materials are ways in which to create a harmonious overall aesthetic with adjoining sites.

**DISCOURAGE:****Big Boxes with Monotonous Building Elevations**

Developments should not project a large, undifferentiated, and relentless facade towards the public way.

**Large Blocks with Few Connections Between Buildings**

Large "Superblocks" that have little permeability and feel fortress-like or highly internalized should be avoided.

**Building Clusters Having the Same Look and Design**

Monotonous building facades erode a distinct "sense of place" and create a bland pedestrian environment with few visual cues as to where a user is within the space.

**Large Buildings Along Narrow Right-of-Ways**

Buildings that overwhelm the public way due to their height, length, proximity to the street/sidewalk, or lack of public space create poor pedestrian environments.

**Inwardly Focused Enclaves with Few Connections**

Developments should not create overly-internalized environments that only benefit users at the expense of the larger community.

# URBAN SCALE OPPORTUNITIES

The shape, proportion and volume of a building's mass has as much of an impact on the character of the building than other characteristics. Building programs dictate the size of footprints but uses change over time. Building forms, on the other hand, endure.



# PRECEDENTS



Emphasized Corner Entrance, Allston Public Library, Allston MA



Agregate Volumes, Wilkes Passage Lofts, Boston MA



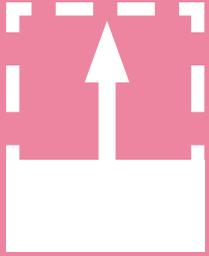
Vertical Elements, First + First, Boston MA



Pass-Through, Harvard University, Cambridge MA

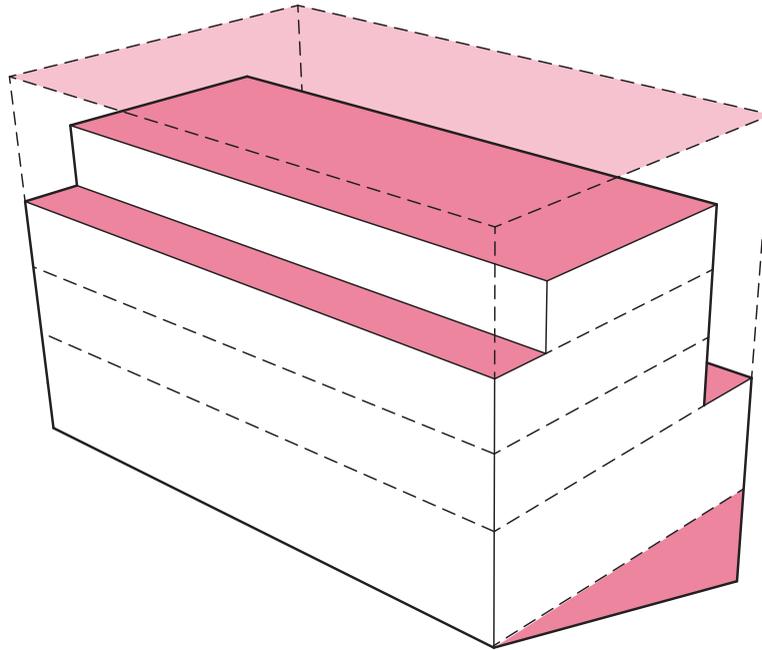


Additive/Subtractive, six9one, Boston MA



# BUILDING HEIGHT

**Greater height in certain locations can be beneficial, and increasing heights in some areas can offset the need for building in other places.**



## ASPIRATIONS

Height constitutes just one aspect of a building's massing, but it is undoubtedly the most conspicuous. Historical building heights in Watertown vary, with greater height generally reserved for civic buildings, institutions, places of worship, and older manufacturing facilities. The vast majority of the buildings, however, are just one or two stories along the primary commercial corridors. Heights are impacted by a variety of factors including the individual floor to floor dimensions, the type of construction, the contours of a site, use and the scale of the surroundings.

**Greater height in certain locations can be beneficial, and increasing heights in some areas can offset the need for building in other places.** The impact of height can be diminished when offset by the inclusion of open space or a building setback. A taller building will appear less tall when setback from the street edge. When concerns about density arise as a result of a building's height, the relationship of the building façade to the public-right-of-way can have a greater impact than any other dimension. At the same time, what is deemed an appropriate height for a building is relative to the urban context.

[A] BUILDING HEIGHT



# ELEMENTS

- 1 PARAPETS/CORNICES**

Parapets are the portions of the exterior walls of the building that continue vertically past the roof plane. They can be manipulated to create a variety of heights, as well as visually screen smaller rooftop mechanicals. These are sometimes capped by a linear, projecting architectural element called a cornice.
- 2 MODEST HEIGHT ALLOWANCES**

Height beyond that allowed as-of-right, granted only in special cases.
- 3 TRANSITION ZONES**

Zones where changes in height, scale, program, or zoning occur. Developments within these zones should tie together the disparate districts they abut by creating a transition between them.
- 4 ROOF PITCH**

While all roofs have some degree of pitch, flat roofs generally have no discernible slope and are often paired with parapets. They are typically seen in commercial and larger residential buildings. Sloped roofs are roofs with visibly discernible pitches. These are typically, though not exclusively, found on smaller residential developments, and often have eaves. They may have dormers.

- 5 MECHANICAL PENTHOUSES**

Mechanical systems on building rooftops are typically shielded from public view by visual screening. This should be designed to be compatible with the aesthetic and material language of the building, and centered on the building where possible.
- 6 AVERAGE EXISTING GRADE**

The base elevation from which the height of the building is measured. See “Town of Watertown Zoning Ordinance” Section 2.34.
- 7 AWNINGS/OVERHANGS/CANOPIES**

Overhangs protect pedestrians from the elements, reduce solar gain, and delineate the base of the building from the upper stories. These should be visually consistent with one another and create a datum that describes the “ceiling” of the public realm.

# STRATEGIES

## ENCOURAGE:

### 3-5 Stories in Primary Commercial Districts

A general datum of 3-5 stories should be encouraged within the primary commercial districts. This creates a degree of visual coherency and distinct sense of place. Ground floor levels should be designed with a greater floor-to-floor height so as to anticipate commercial or retail uses.

### Upper Story Stepbacks

Pushing back the upper stories of a building so that they are no longer visible from the public right-of-way diminishes the apparent height of a building. This strategy can be employed in instances where the adjacent buildings may be shorter than the proposed development as a way to make it appear more contextual.

### References to Context

Efforts should be made to acknowledge or reference the heights of adjacent buildings. This does not limit the height of proposed buildings to those of their neighbors, but rather seeks to foster greater visual harmony between new projects and the existing fabric. Correlating floor heights, cornices, lintels, and step-backs is encouraged.

### A Range of Building Heights

The height of large buildings should vary to add variety and visual interest, as well as to break down its massing. In smaller buildings the degree of variety may be less, such as varying the height of parapets or expressing vertical circulation elements. In large developments, height should vary by a minimum of a full story. Small changes in the height of parapets do not constitute the more substantial height variation expected in large-scale developments.

### Transitions Zones

New development should be sensitive to adjacent residential areas by transitioning from taller heights along commercial corridors to a more residential scale when approaching neighborhoods. Gradually stepping down the height across their depth allows new developments to knit together disparate districts, reducing abrupt, discordant changes in scale. Doing so reduces the likelihood that new buildings will adversely impact neighborhoods they abut, and better integrates them into the existing fabric of the town.

### Modest Height Allowances

Additional height may be warranted in the following four cases:

#### 1. At civically important intersections/squares

Additional height may be granted to buildings that appropriately reinforce the importance of prominent intersections. These taller sections should be limited to the corner facing the intersection.

#### 2. When aligned with or terminating important view corridors

There may be instances where the locations of proposed structures terminate streets, mark important locations, or align with important pedestrian corridors. In these instances, it may be appropriate to increase the height of the building at these locations to reinforce and anchor these view sheds.

**3. When the height of adjacent buildings exceeds heights currently allowed as-of-right by zoning**

Special areas or districts, such as the Arsenal, may have historically significant and aesthetically cherished buildings that are larger than typically allowed as-of-right. In instances where new structures are proposed inside these areas, they may propose matching the average height of the existing adjacent buildings in order to create a greater degree of harmony with their context.

**4. When additional approved public amenities have been incorporated into a development**

When substantial ground-level publicly accessible amenities are incorporated a development project may be allowed to recapture this lost square footage through additional height allowances. For example, exterior spaces such as pocket parks, playgrounds, walking/biking trails, and public plazas; and interior spaces such as galleries, community meeting rooms, bike repair facilities, and education centers provide additional amenities.

**DISCOURAGE:**

**Large-Scale Discrepancies**

Abrupt transitions in height can appear visually jarring, reducing the visual harmony of an area. These can cause negative externalities for the adjoining homes, and should therefore be carefully addressed.

**The “Canyon Effect”**

Tall buildings along an insufficiently wide public right-of-way can appear to loom over the public realm, compromising the pedestrian experience. Increased ground-level setbacks and upper building setbacks can reduce this effect.

**Shadow Impacts**

New developments should strive to minimize their negative impacts, such as casting shadows on adjacent properties. Developments should not cause significant shadows for extended periods on civic spaces such as parks and open space as well as direct residential abutters.

# URBAN SCALE OPPORTUNITIES

The vast majority of the buildings along Watertown's commercial corridors are one to two stories. As the town evolves, **greater height along these corridors is warranted.** Modulating the building components is necessary in order to break down the overall mass of the structure. Careful consideration needs to be placed on how new buildings relate to adjoining residential areas.



# PRECEDENTS



Upper Level Setback, Trolley Square, Cambridge MA



Corner Condition, 225 Centre, Jackson Square, Boston MA



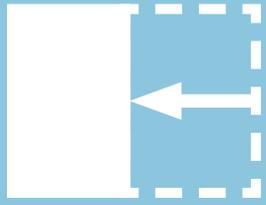
Cornice Detail, Fort Point, Boston MA



Contextural Height, 6 Newbury Street, Boston MA

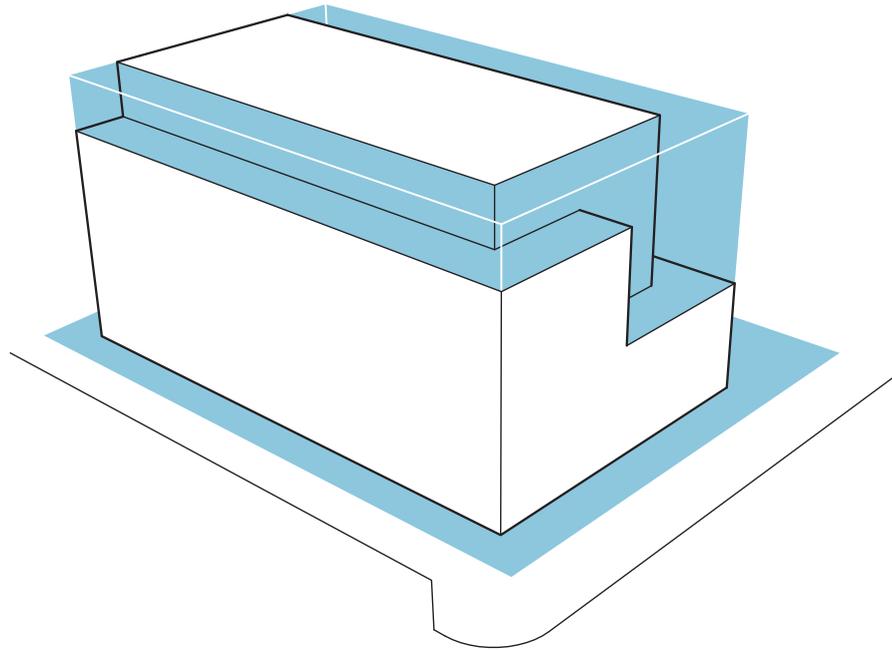


Transitional Height, Charlesview, Brighton MA



# BUILDING SETBACKS

Setbacks that do occur should be used for pocket parks, plazas, seating areas or lush landscape zones that are publicly-accessible.



## ASPIRATIONS

The dimension from a building to the street edge has everything to do with how a space feels. In urban areas with a lot of commercial activity, it is important to maintain a continuous street wall with modest or few building setbacks. **Setbacks that do occur should be used for pocket parks, plazas, seating areas or landscape zones.** What constitutes an appropriate building setback is impacted by the character and scale of the street it fronts, the type of uses on the ground floor of the building and the concentration of pedestrian activity. Urban corridors are most vibrant when they help to define a streetwall.

While aligning an elevation to the property line is most often the appropriate response for a building in an urban setting, there are instances, where some spatial relief is necessary and a building setback should be included as part of a property's development. Along Watertown's commercial corridors, modest setbacks function best for residential buildings and areas of high traffic. Setbacks are also beneficial in mature neighborhoods where the street width is narrow.



# ELEMENTS

- 1 FRONT STEPBACKS**

Front stepbacks diminish the apparent height of a building when viewed from the ground. If the intent is to visually obscure an upper level, a good rule-of-thumb is a ratio of 1/1 in terms of height of the story to dimension of setback. Lesser stepbacks may serve the function of breaking up the massing of a building by recessing upper levels but still allowing them to be seen from the public way. Front stepbacks provide the potential for a development to include terraces and green roofs.
- 2 SIDE STEPBACKS**

Side Stepbacks should primarily be employed to provide adequate light, privacy, and ventilation for adjacent properties. They should strive to reduce the “canyon effect” between buildings, and in instances of cross-site public circulation serve to create an inviting public space connection.
- 3 REAR SETBACKS**

Rear setbacks should be calibrated with the scale of the adjacent parcels so a development does not to overwhelm the existing fabric. Larger rear setbacks may be appropriate to accommodate mid-block surface parking or to increase the distance between incompatible adjacencies. In instances where new development abuts non-residential uses, it may be appropriate to build closer to the rear property line. In these instances, the setback should be designed as shared public space. Collaboration with adjacent properties is encouraged.

- 4 REAR STEPBACKS**

Rear stepbacks serve to facilitate a transition in height from a proposed development to the adjacent existing fabric. Multiple stepbacks may be employed in instances where there are multi-story discrepancies in height so as to create a gradual stepping down of the building as opposed to abrupt transitions. These stepbacks should take into consideration preserving access to adequate light and ventilation for adjacent properties.
- 5 SIDE SETBACKS**

Side setbacks provide opportunities to introduce greater permeability to a site through cross-site connections. These links allow pedestrians, cyclists, and, in appropriate locations, possibly service vehicles to pass from commercial corridors into adjacent neighborhoods. These connections should be designed, landscaped, well-marked, and lit at night. Where new development abuts residential fabric, vegetated buffers should be employed.
- 6 FRONT SETBACKS**

The public right-of-way adjacent to new development may not be adequately scaled to the size of a proposed building or its uses. In these instances, developments shall include setbacks at the front of their building to add supplemental width to the public realm. These may accommodate additional sidewalk circulation, cycle tracks, rain gardens, permeable paving and street trees, space for outdoor seating, or locations for bicycle storage.



# STRATEGIES

## ENCOURAGE:

### **Stepbacks on Upper Floors**

When employed above 3-4 stories, stepbacks visually reduce the height of a building when viewed from the ground. Stepping down a building helps to create transitions between itself and the surrounding context. These also present opportunities for exterior spaces such as terraces and green roofs.

### **Active Programming**

Spill-out space for uses such as coffee shops, restaurants, shops, and similar programs help to enliven the street and enrich the public realm. These uses can be accommodated within setbacks along the public right-of-way.

### **Appropriate Landscaping**

Landscaping within the setbacks should visually enrich the public realm, be calibrated to the scale of the space, and complement the aesthetics of the building. Native, drought-resistant plants are highly preferable. Landscape design professionals should be engaged to create beautiful open spaces of high quality.

### **Wide Planting Areas**

Planting areas should be sized appropriately to allow for the health and growth of the vegetation within them. Employing permeable paving, street trees, and rain gardens is highly encouraged both to create a pleasant public realm, as well as increase storm water retention.

## DISCOURAGE:

### The “Canyon Effect”

Taller buildings along an insufficiently wide public right-of-way can appear to loom over the public realm, compromising the pedestrian experience. Increased ground-level setbacks and upper building stepbacks can greatly reduce this effect. (See also “Building Height”)

### Buildings close to sidewalks in residential areas

Residential uses, unlike commercial and retail ones, do not typically benefit from close proximity to the public way as this compromises the resident’s privacy along commercial corridors. Creating modest, well-landscaped setbacks can simultaneously increase privacy and enrich the public realm.

### Surface parking in setback zones

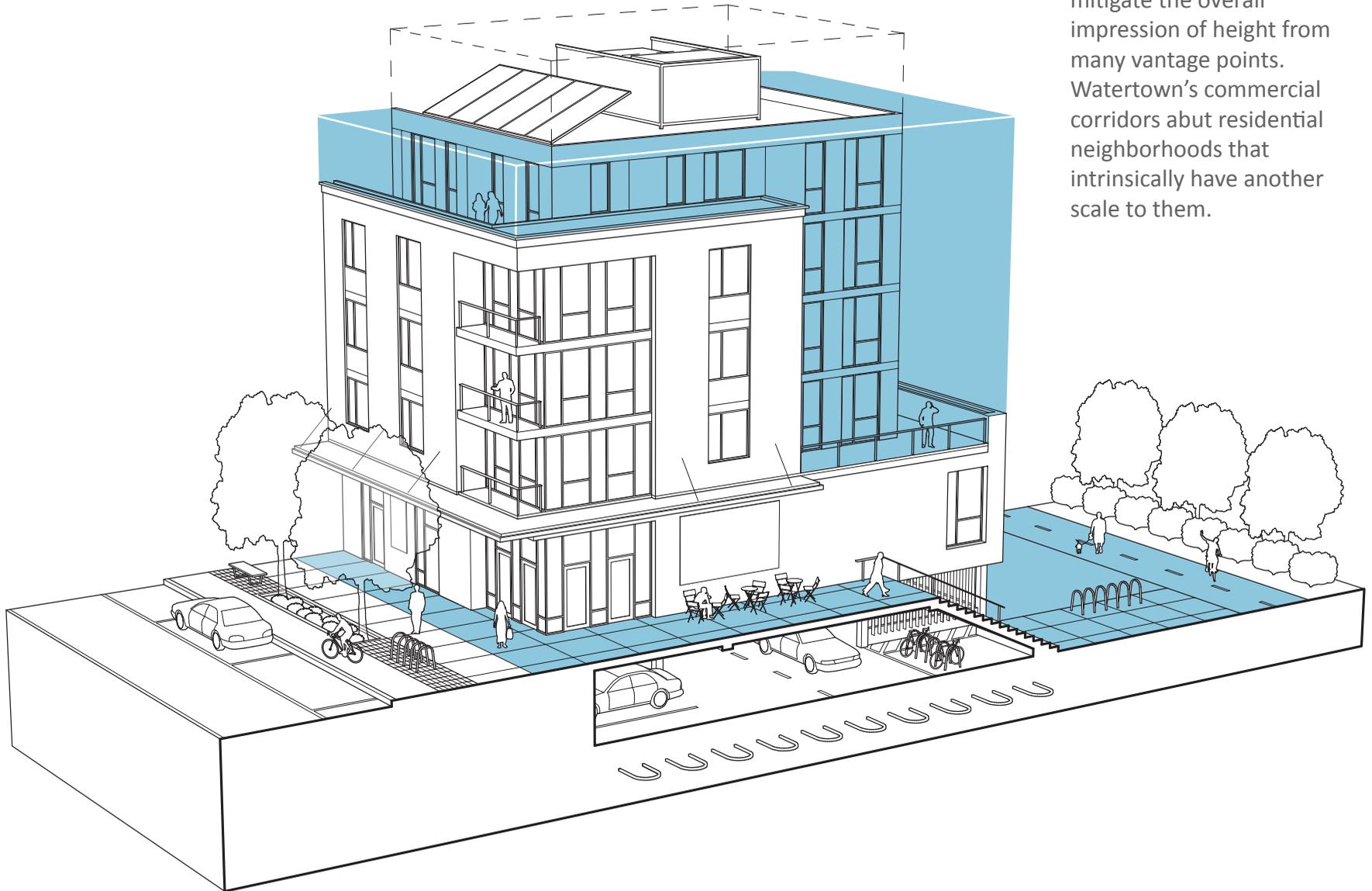
See *“Watertown Zoning Ordinance” (10/26/10), Section 4.11 (b) + (c)*.

### Oversized Setbacks

Setbacks that are overly generous and lack active uses can be as detrimental to the public realm as undersized setbacks. The vitality of the public realm is dependent on the proximity of ground floor uses to the public right of way. Excessive vegetation that walls off a building, unprogrammed landscaping, and uninviting plazas should be avoided.

# URBAN SCALE OPPORTUNITIES

Setting back upper stories of buildings from the build-to line mitigate the overall impression of height from many vantage points. Watertown's commercial corridors abut residential neighborhoods that intrinsically have another scale to them.



# PRECEDENTS



Front Setback with seating, Boston Center for the Arts, Boston MA



Planted Terrace within Stepback, Ed Roberts Campus, Berkeley CA



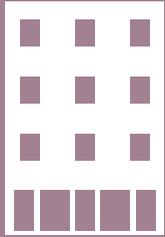
Ground Level Stepback, Meridian Building  
Wellington, New Zealand



Upper Side Stepback, 537 E First St  
South Boston MA

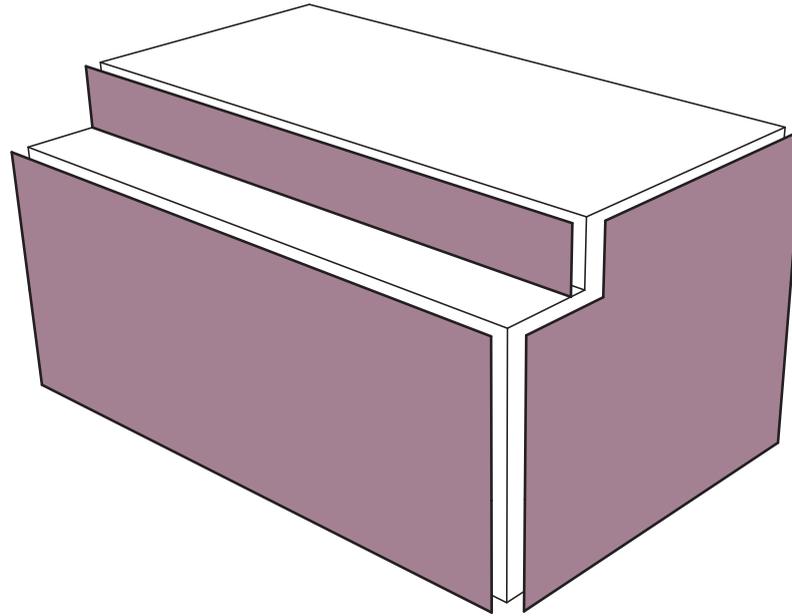


Upper Level Front Stepbacks, FP3  
Fort Point, Boston MA



# FACADE TREATMENT

**Durable, high quality materials will add a level of sophistication to a large and/or minimally-detailed façade.**



## ASPIRATIONS

The façade is defined as the primary public or streetside of the building in its entirety from the sidewalk or grade level to the uppermost portion of the roofline. Corner buildings have two primary facades. The character of an elevation depends on a number of factors: the proportion and orientation of openings, the composition of the fenestration, the color and patterning of the exterior skin and the relationship between the various parts of the exterior. **Durable, high quality materials** will add a level of sophistication to a large and/or minimally-detailed façade, whereas inexpensive materials make a nicely-proportioned building look cheap. A building's elevation or facade says a lot about the quality and character of a building.

While the overall composition of a façade is important, the greatest amount of detail needs to be reserved for the ground floor. This is the area which garners the most attention and view for pedestrians. However, the roofline is also important, and mechanical equipment and rooftop vents should be minimized from view with parapet walls or screens. Style is subjective. Some people prefer classic over contemporary or historical over modern. What matters most in a building's elevation is quality and consistency.



# ELEMENTS

- 1 WINDOWS**

Windows on upper levels will have more variety that those on the ground floor, with larger glazing units usually reserved for living spaces and offices, and smaller, more domestically-scaled windows in bedrooms and bathrooms. Windows should be arranged and aggregated to create larger patterns that lend the façade a sense of order and visual rhythm, while serving to break down the scale of the building.
- 2 AWNINGS / CANOPIES**

Awnings and canopies can help break down the overall massing of the façade by marking the delineation between the outwardly-focused, publicly-accessible uses on the ground floor from the more private ones located above. They serve to create a visual “ceiling” to the adjacent public realm.
- 3 PROJECTIONS / RECESSES**

Creating depth and variety in a façade is important. This can be achieved through the introduction of projections and recesses. Projections can take the form of bay windows, stoops, porches, balconies, and solar shading. Recesses encompass subtractive elements such as balconies, terraces, stepbacks, and arcades.
- 4 CORNICES / EAVES**

Employing subtle materials and stepbacks will help to visually reduce the presence and apparent height of the building. Conversely, in many instances the upper terminus of a building is architecturally celebrated. Regardless, attention should be given to how the top of the building is visually terminated.

- 5 GLAZING**

The lowest level of a building should have the highest degree of transparency in order to animate the adjacent public realm. Large sheet glazing, storefront windows, and retractable / accordion / moveable facades all contribute to a vibrant pedestrian experience and engender the building with a public face.
- 6 PROGRAM / USES**

Publicly accessible uses such as shops, restaurants, cafes, lobbies, galleries or performance space should be concentrated on the ground level adjacent to the public way. These uses contribute to street life.
- 7 ENTRANCES**

Entrances should be located frequently along the primary public rights of way that the building fronts. Entrances should provide brief protection from the elements, employ transparency, be clearly designated with appropriate signage (see “Signage” section), and be designed in a way that is welcoming to the general public.



# STRATEGIES

## ENCOURAGE:

### High Quality and Natural Materials

The ability for a building to endure has to do with the economic climate and real estate pressures. From a design point of view, it also is impacted by how resilient it is against deterioration, and how cherished it is as part of the town's fabric. The material choices for the facade of a building place a critical role in both considerations. In terms of physical durability, materials should be chosen that are resilient, easily sourced and repaired, resist aging poorly, and are natural and sustainable.

### Transparency at Ground Level

Activating the public realm is a crucial metric of the success of a building along a commercial corridor. This is typically achieved through placing publicly accessible uses such as cafes, restaurants, and shops at ground level. However, merely locating the program at grade is not sufficient. Large sections of glazing allow even internalized uses to visually “spill out” into the sidewalks and street, activating them and enhancing the pedestrian experience. At its most literal level, retractable windows and doors dissolve the threshold between inside and outside, and allow for the greatest interaction between a building's ground floor uses and the sidewalk.

### Balconies and Terraces

Creating depth in the facade adds interest through the interplay of light and shadow, as well as visually breaking down the massing. This can be achieved through additive or subtractive means. Balconies are additive elements that need to be carefully integrated into the architecture so as not to appear “tacked-on” or an afterthought. Terraces act in the opposite way, carving out volume from a building to provide exterior spaces. These appear as voids if subtracted from the middle portion of a building, and as stepbacks if carved from uppermost levels.

### Outdoor Seating Areas

While ground level glazing and retractable components of the facade allow internal uses to visually “spill out” onto the sidewalk, there are instances where having those uses actually spill out onto the sidewalk can be beneficial to creating a vibrant public realm. By creating setbacks along the primary frontage of a building, space can be reserved that is accommodating to cafe and restaurant seating, as well as outdoor displays for shops. Areas with even greater setbacks can accommodate landscaping and vegetation that serves to break up the monotonous character of long building facades.

### Breaking Up Building Lines

Long, monotonous facades can lack a human scale. By breaking up vertical and horizontal building lines, large masses appear composed of smaller, discrete volumes. These can be achieved through variations in the depth, changes in material, aggregating architectural elements, and by additive/subtractive processes. Vertical elements such as circulation cores, window banks in living spaces, and projections such as bays help. Horizontal breaks frequently correspond to vertical changes in program. Additionally, stepbacks, bands of windows, awnings, canopies, and joined balconies act to horizontally divide a building.





## DISCOURAGE:

### **Cheap Exterior Finishes**

Cheap, non-durable cladding and finishes age poorly, require frequent maintenance, and fail to add visual richness to the public realm. Great care should be taken to specify durable, beautiful, natural materials that work harmoniously with one another and project value.

### **Monolithic Façade Treatments**

Many modern developments are executed at a large scale to achieve high efficiencies. The negative aspect of this is that buildings often end up with large, monotonous facades that are neither beautiful, distinguished, or enrich the public realm.

### **Long, Uninterrupted Elevations**

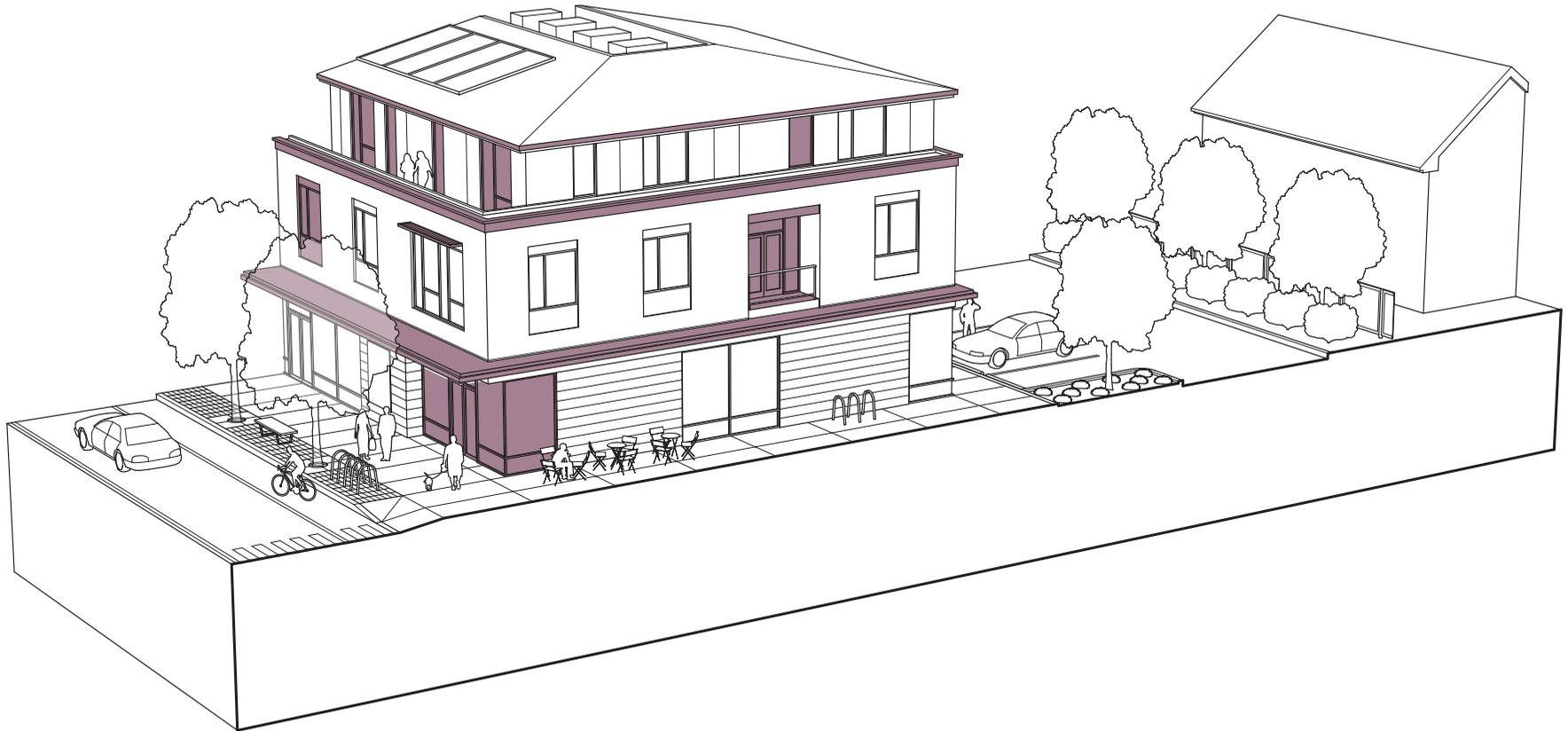
Changes in the depth of a building's facade break down long and uninterrupted elevations. Buildings with significant linear frontage must manipulate the footprint of the building so as to create a visually interesting and engaging facade. Varied setbacks, vertical breaks that span the complete height of the building, variations in building height, subtractive and additive volumes, and pass-throughs help to relate the scale of the pedestrian and user to the scale of the building.

### **Flat, Blank Walls**

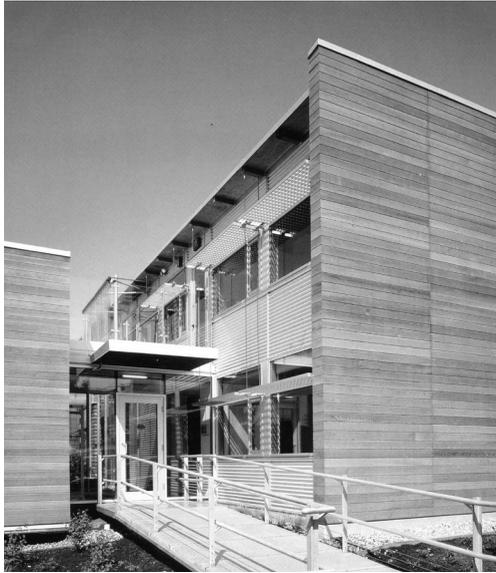
Flat, blank walls fail to enliven the sidewalks and public spaces they abut, and reduce visibility into and out of buildings. Reducing the numbers of "eyes on the street" leads to a less safe pedestrian environment, and gives a building a fortress-like or internalized mentality.

# URBAN SCALE OPPORTUNITIES

The amount of transparency in a building and the proportion and distribution of windows has a big impact on the character of a building. All elevations of a building are important, but the building's primary façade along the commercial corridors and those adjacent to the Charles River are paramount.



# PRECEDENTS



Natural Materials, City Operations Building  
White Rock, BC



Solar Shading, Kirpatrick Oil Field Office  
Hennessey, OK



Facade Patterns, Troy  
South End, Boston MA



Windows, Harry Parker Boathouse, Brighton MA



Retractable Wall, Sonsie, Boston MA



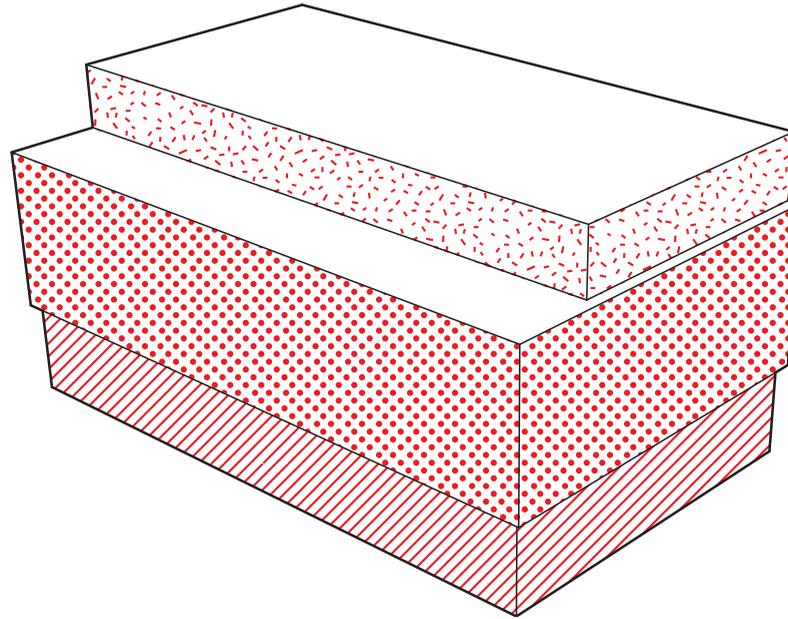
Retail Base Below Housing, Ink Block, Boston MA





# MATERIAL SELECTION

**Products and materials that are specified for construction should be selected with respect to their performative and sustainable qualities rather than just trends or aesthetics.**



## ASPIRATIONS

There is a direct connection between material choice and environmental stewardship. Buildings account for half of all the world's greenhouse gases and consume 50% of its raw materials. **Products and materials that are specified for construction should be selected with respect to their performative and sustainable qualities rather than just trends or aesthetics.** With this in mind, materials should be chosen based on their durability, maintenance and recyclability characteristics, energy use, and consumption profile. In other words, projects should be built with natural and sustainable materials.

Whenever possible, materials should be selected that are locally harvested, have a low embodied energy content and are recyclable. Using local materials reduces the transportation and distribution costs of the product. Products that reduce raw material use should be chosen because of their resource conservation. Zero or low-emission building products should be specified to improve air quality.



# MATERIAL SELECTION



# ELEMENTS

**1 GROUND LEVEL**  
The quality of materials and detailing at a building's ground level should be the highest, as this is the level that the public will primarily interact with. It should incorporate large amounts of glazing for customers, carefully consider signage to alert people to businesses, and deploy awnings and canopies to protect people from the elements and visually denote entrances.

**2 UPPER LEVELS**  
The upper levels of a building often are handled in one of two ways: they celebrate its height with cornices, eaves, decorative parapets, or a high level of detail; or they are visually downplayed with stepbacks, sloped roofs, or material breaks. In the first case, materials should be selected that complement the level of detail on the ground level and draw the viewer's eye upward. In the latter case, materials should be chosen that visually recede with more restrained details.

**3 DETAILING**  
Detailing encompasses the ways in which materials are physically assembled together to form the façade of a building. The joints between materials must be carefully considered and constructed to convey quality and create a harmonious composition.

**4 INTERMEDIATE LEVELS**  
Intermediate building levels require a lesser degree of detailing than the ground level. Care must be taken to avoid long, monotonous panels.

**5 PAVING**  
Paving encompasses the various materials used to create sidewalks, plazas, and other hardscapes. Using natural materials such as stone, or patterns using colored concrete, can foster a stronger sense of place and create a more interesting pedestrian experience. Surfaces should facilitate movement for persons with disabilities.

**6 GLAZING WALLS**  
Walls of glass such as curtain walls and storefronts should be located primarily on the ground level, with possible exceptions being primary living spaces in residential units above. The glazing should ideally be low-e and low-iron, and mullions should be placed to reinforce horizontal and vertical composition lines.



# STRATEGIES

## ENCOURAGE:

### **High-quality, Locally Sourced Materials**

The durability and aesthetic value of a material is intrinsically related to its quality. Choosing high-quality materials ensures that the buildings last. Locally sourced materials offer an additional layer of benefits in the form of stimulating the local economy, reducing the energy involved in transportation, and being a product of the area.

### **Recyclable, Low Embodied Energy Materials**

The carbon footprint of a material is a product of the cumulative amount of energy invested in it over its lifespan, including the harvesting of raw materials, refinement, production, transportation, and disposal. Choosing materials that require lower levels of energy at each stage of this process can substantially lessen its environmental impact. If the product is designed to be recycled, this reduces the energy needed to harvest raw materials in its next iteration.

### **Environmentally, Historically Appropriate Materials**

Exterior cladding and detailing should be chosen for its ability to work with the local climate and resist degradation. Materials should be honest about the time in which they are employed.

### **Texture, Variation, and Tactility**

Natural materials such as wood and stone are good materials, as they read as monolithic from a distance but revealing variations in tone and texture as one moves closer towards them. Finding the correct number of materials for the façade of a building is a balancing act: too few and a building can look uninteresting and stark; too many and it can appear overstimulating and busy.



## **DISCOURAGE:**

### **Flat, Repetitive Facades**

The scale of many mixed-use and residential developments is very different today than that of the historic residential fabric. Without being visually broken down by a well composed organization of materials, they can feel imposing and out of character for their surroundings. In order to better complement the existing context, buildings should employ a variety of materials that manage the building's façade to better integrate it with its context.

### **Vinyl Siding, Large Panels, and Inexpensive Materials**

Certain materials should be expressly avoided, namely cheap, flat, monotonous materials such as vinyl siding. These suggest a building of poor quality, and detract from the character of the Town.

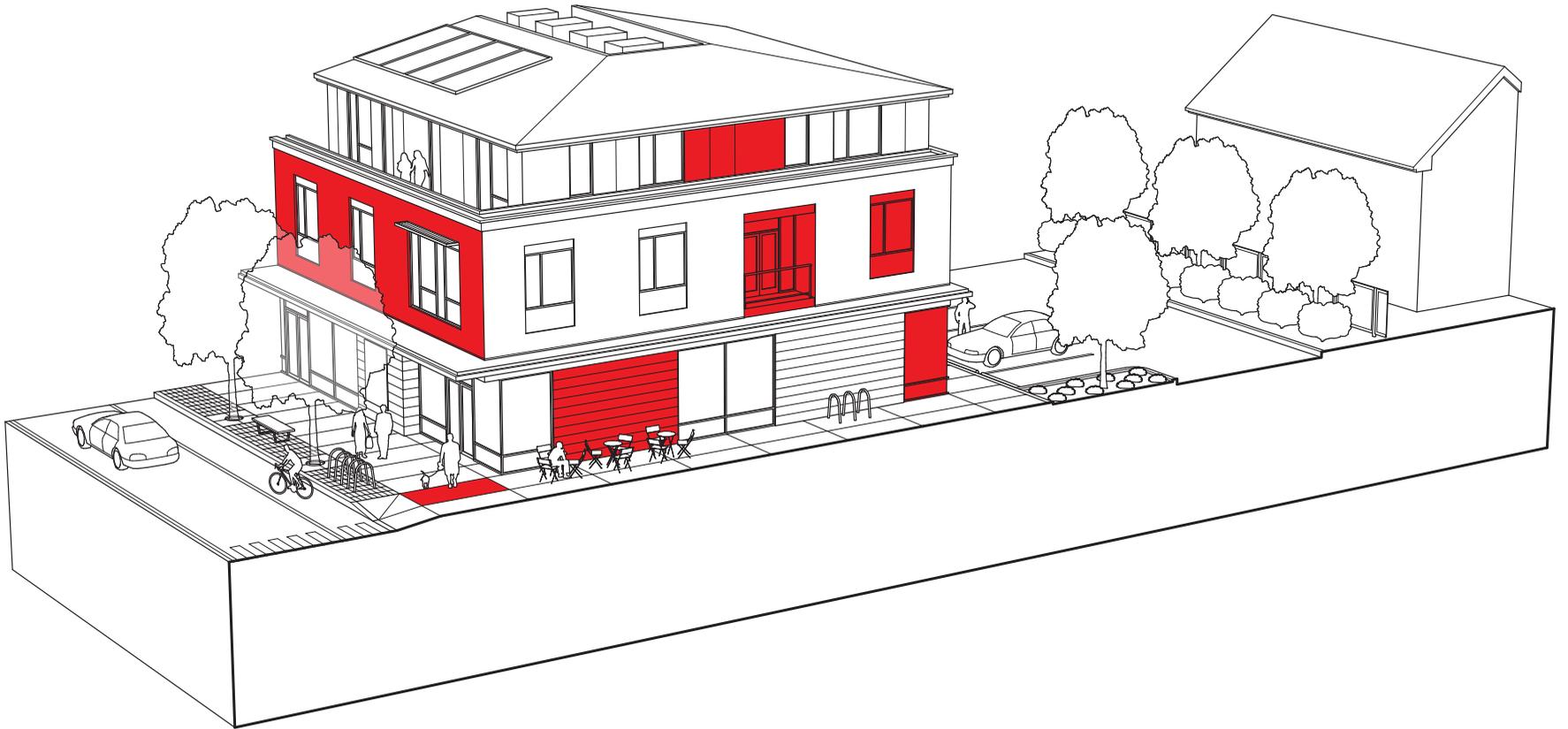
### **Historical Facsimiles**

Faux-historical treatments, such as concrete decorated to look like brick, should be avoided.



# URBAN SCALE OPPORTUNITIES

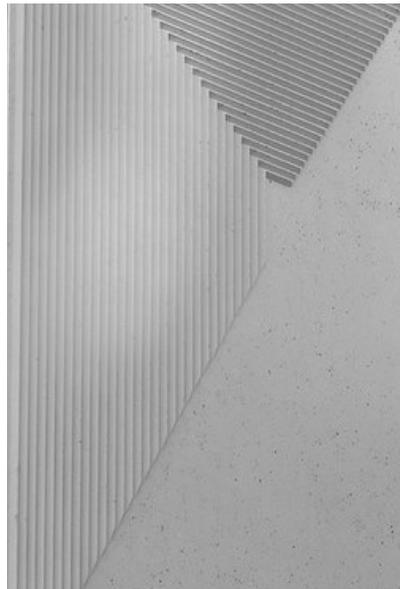
MATERIAL SELECTION  
Durable and natural materials ensure that the building is built for the long-term.



# PRECEDENTS



Curtain Wall, Bolling Municipal Building  
Dudley Square, Roxbury MA



Precast Panels, Suffolk Dormitory  
Beacon Hill, Boston MA



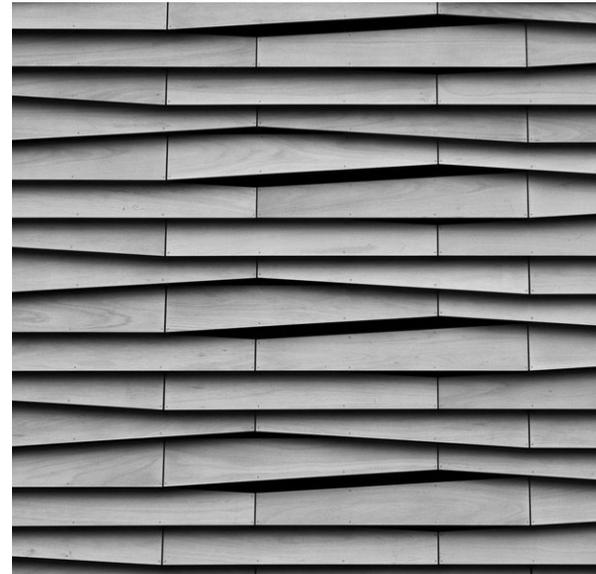
Wood Rainscreen and Operable Shutters, Kripalu Center  
Stockbridge MA



Stone Base, Allston Public Library, Allston MA



Brick Pattern, Millennium Place, Boston MA



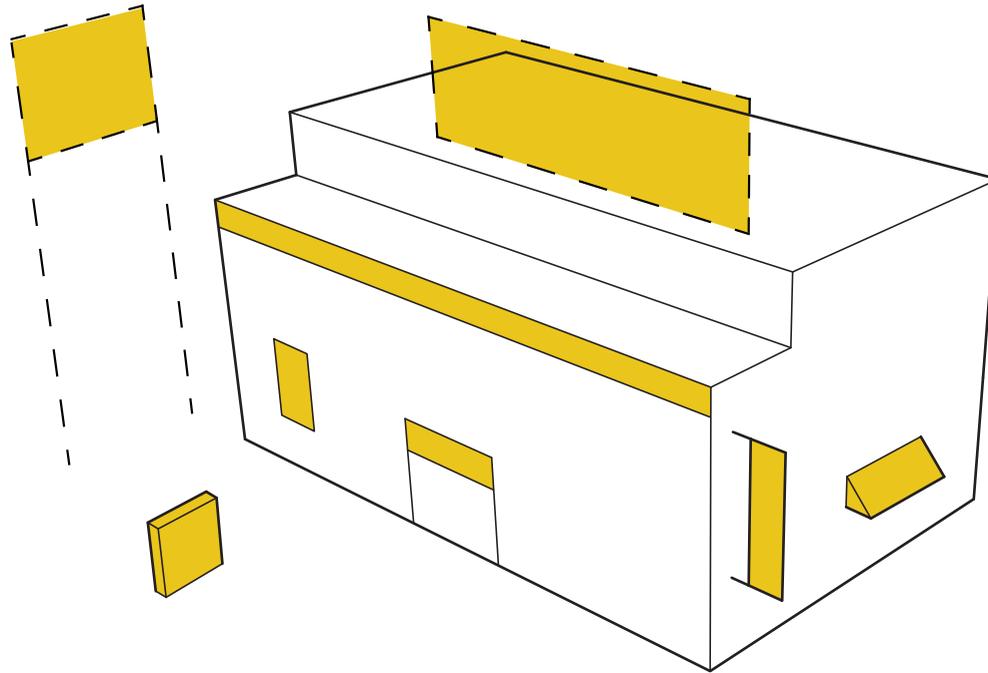
Wood Shingles, Harry Parker Boathouse, Brighton MA





# **SIGNAGE**

**A balance needs to be struck between the desire to call attention to individual businesses and the desire for a positive collective image for Watertown.**



## ASPIRATIONS

Commercial establishments need to advertise. However, advertising signs should be effective and appropriate to Watertown's historic areas without contributing to visual clutter. A balance needs to be struck between the desire to call attention to individual businesses and the desire for a **positive collective image for Watertown**. Signs can either complement or detract from that image a depending on their design, placement, quantity, size, materials, colors and condition.

Certain types of signs are more appropriate to specific areas than others. What is appropriate for a suburban strip mall is inappropriate for a downtown setting. These sign guidelines relate to the commercial corridors.



# ELEMENTS

- 1 PROJECTING SIGNAGE**

Projecting signage encompasses all signs that are permanently affixed to yet stand off from a building. They can be an element such as an awning or canopy. While their shape, character, and materials may be informed by the identity of the thing they reference, their scale, level of detail, and proportions should be calibrated with that of the building.
- 2 ARCHITECTURAL SIGNAGE**

Architectural signage is signage that is specifically integrated into elements of a building's architecture. Careful attention should be given to ensure the detailing, material palette, scale, and proportions of these types of signage match the architecture of the building in an integrated way. Their design and placement should be outlined in the building's construction documents.
- 3 FREE-STANDING SIGNAGE**

Free-standing signage may be appropriate where setbacks are such that signage attached to the building would be illegible to pedestrians. In these cases, well designed, high-quality signs utilizing natural, durable materials may be permitted. These should be oriented perpendicular to the public way.

- 4 APPLIED SIGNAGE**

Applied signage covers all signage that is affixed parallel to the surface of the building that is not an integral part of the architecture. The most common is "wall signage," which is typically a linear sign affixed to the surface of a building. These should be composed of high quality materials, and the design should be drawn up by a graphic professional. Proportions and scale should be sympathetic to the building which it is affixed. Locations should be chosen so as not to conflict with street tree canopy.
- 5 SIGNAGE LIGHTING**

The ideal lighting for exterior signage is to have a sign lit from a secondary source. This prevents unwanted light from spilling into adjacent properties, and avoids the cheap appearance of lighted box signs. The fixture chosen to light the sign should be either hidden from view, or complement the architecture of the building. Internally lighted or animated signs are to be avoided.



# STRATEGIES

## ENCOURAGE:

### **Attractive, Proportionally Appropriate Signs**

Signs should be integrated into the building's design, not an afterthought. Signs must also be sized according to the viewer. For example building directories, read by stationary pedestrians at close proximity, should be smaller in size and text than those directing vehicles, which need to be seen from farther away and while possibly moving.

### **Traditional Sign Materials**

Materials such as carved wood or raised metal letters are preferable due to their durability and timelessness. While variety is encouraged to add visual interest, material choices for signs should be consistent with the building to which they are affixed, and also attempt to convey some degree of consistency throughout the surrounding district.

### **Modest, Pedestrian-Oriented Projecting Signs**

Building faces are typically parallel to the public right of way, and therefore may be harder to see for pedestrians and cyclists. Employing projecting signage perpendicular to the sidewalk helps to alleviate this issue and create a more interesting and engaging public realm. This signage should be carefully designed to complement the building, should be high enough not to interfere with pedestrian traffic, and should be scaled for the pedestrian experience.

### **Decorative Signs That Aren't Overwhelming**

Signage should seek a balance between the need to capture the viewer's attention while simultaneously not visually overwhelming the building to which it is attached. When in doubt, signage should typically err on the side of being understated.

### **Signs Located Above Storefronts**

The location of signage is of vital importance as to how effectively it conveys locational information. Typically, signs should be in the immediate vicinity of that which they are labelling, ideally above the doorways or shop windows of the business.

### **Materials and Colors that Complement the Building**

Signs should be conceived of as an integral part of a building's architecture, and as such designed with the same degree of consistency and attention to detail that is employed for the larger building. The colors, materials, and the overarching aesthetic of a sign should work seamlessly with the architecture to create a visually harmonious façade. The design and materials employed in a building's signage should be illustrated both on renderings for the building, as well as in the construction documents.

## **DISCOURAGE:**

### **Unintegrated, Stand-alone Signs**

Pole signs and other auto-centric signs that are not attached or related to their building are not allowed. These signs have the appearance of being an afterthought, and are typically out of scale with the pedestrian environment.

### **Internally Lit Plastic Molded Signs**

Internally lit signs project light beyond the property lines, are frequently composed of cheap, non-durable materials, and are typically of a scale that is inappropriate for pedestrians.

### **Neon and Fluorescent or Beacon Signs**

Mass-produced neon and fluorescent signage, such as the ubiquitous “open” sign, and similar styles are inappropriate. Signs are additionally prohibited from employing any sort of flashing or animation.

### **Inconsistency Amongst Signs**

Signs will naturally vary according to what they are signifying and the aesthetics of the building, but there should be a general overarching consistency concerning aspects such as size, scale, and placement on the building. Discordant, randomly placed, and poorly designed signage should be avoided.

### **Rooftop Signage**

Rooftop billboards and similar signage mounted to the top of a building and projecting above the roofline are prohibited. Blade signs and marquee signs that are mounted to the side of a building but project above the roofline may be allowed on a discretionary basis.

# URBAN SCALE OPPORTUNITIES

Signage along Watertown's commercial corridors need to operate at a number of scales. Large-scale commercial entities that advertise along Arsenal Street and are seen mainly from the automobile have demands than pedestrian-oriented signs which are attached to small shops in Watertown Square. Size matters but quality is more important.



# PRECEDENTS



Architectural Facia Signage, Thomson Family Adventures, Watertown MA



Applied Street Signage, Channel Center, Fort Point, Boston MA



Projecting Blade Signage, Arsenal on the Charles Watertown MA



Freestanding Monument Signage, MIT Cambridge MA



Projecting Marquee Signage, Town Delux Diner Watertown MA





**PUBLIC REALM INTERFACE**



**PARKING + ACCESS**



**SUSTAINABLE DESIGN**



**BUILDING MASSING**



**BUILDING HEIGHT**



**BUILDING SETBACKS**



**FACADE TREATMENT**



**MATERIAL SELECTION**



**SIGNAGE**