DESIGN GUIDELINES FOR THE MIXED-USE VILLAGE CENTER (MVC)

TOWN OF GROTON, CT

OCTOBER 1, 2019

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This document contains design guidelines for development in the Town of Groton, Connecticut. The purpose of these guidelines is to describe design principles that, when applied, help contribute to the quality of the public realm, creating the "sense of place" that is the difference between communities that thrive and those that do not.

These guidelines are supplementary to design standards provided in the Town's Zoning Regulations, which apply to the Mixed Use Village Center (MVC). Where the design standards included in the body of the Zoning Regulations are firm and require compliance, the guidelines herein are meant to be more instructive. The guidelines communicate the intent of what the Town calls for in its Plan of Conservation and Development (POCD) and other more targeted plans that examined individual village areas. Images are used to help clarify the design language and overall vision for each village and, in some cases, clarify how different choices are appropriate for different village areas. These guidelines will help developers and the Town discuss the character of each village and how existing conditions do or do not inform applications for development. Overarching principles related to village development in Groton include:

1. A Vibrant Public Realm – "Public realm" is a term of art in urban/village planning that is used to discuss any area where people have the opportunity to mingle, gather, and visually experience their surroundings. The term often refers to the street right-of-way, park areas, sidewalks, bike paths, plazas, and similar features. Any of these areas may be publicly or privately owned. In Groton's mixed use areas, great care will be taken to provide a public realm that works as a connected system of accessible and attractive spaces that will foster positive interaction between residents, visitors, and businesses. All projects will contain a vibrant public realm or create ways to connect and be a part of a larger public realm.

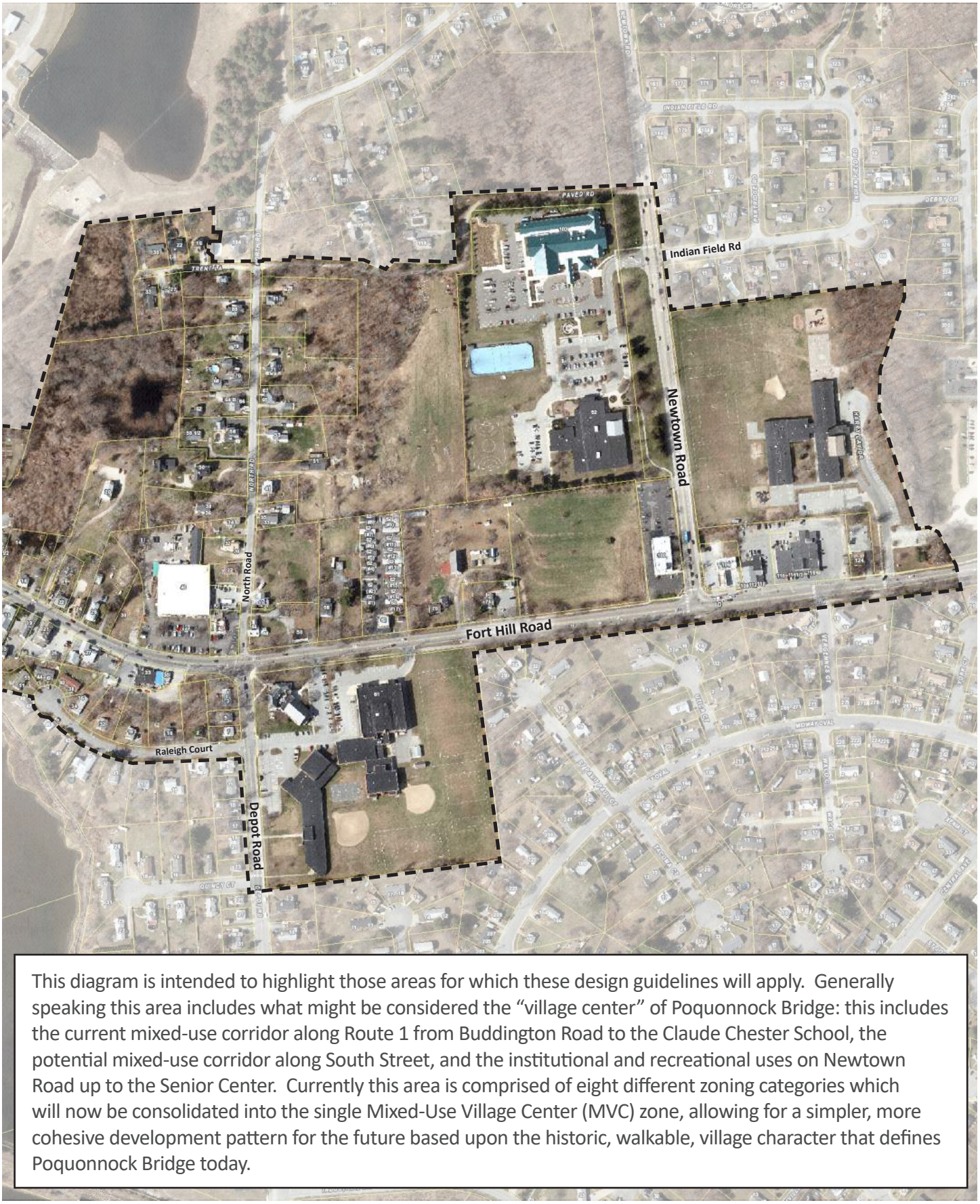
2. Environmental Best Practices – The days when urban development was incompatible with achieving environmental objectives are in the past. The Town of Groton envisions village mixed use at various scales that incorporates state-of-the-art "best practices" in the areas of construction management, stormwater management, waste management, and landscaping.

3. A Mix of Uses and Densities – The Town recognizes that market demand will play an important role in determining the types of uses and densities that are built in mixed use districts. The Town also acknowledges that the most economically resilient mixed use centers are those that foster a diverse mix of commercial uses that can respond to market trends and innovations over time. Similarly, housing shall be provided within mixed use districts and should provide options for individuals and households at all levels of abilities, incomes, and preferences.

4. Pedestrians First – The Town understands that accommodations for automobiles within mixed use areas are essential to their success. However, the Town also recognizes that the most successful and memorable mixed use centers are those where pedestrians feel safe and welcome. Circulation within newly developed or redeveloped mixed use areas in Groton shall be designed with the highest priority placed on developing a safe, attractive, accessible, and intuitive pedestrian network. The use of bicycles as an alternative form of transportation shall be incorporated into all development proposals.

5. Quality Architecture – Buildings and signs will be designed in a manner that conveys high quality design and a thoughtful approach to developing a sense of place within mixed use areas. Traditional building forms, high quality building materials, and attention to detail will be apparent and integral to the design process.

VILLAGE AREA



This diagram is intended to highlight those areas for which these design guidelines will apply. Generally speaking this area includes what might be considered the "village center" of Poquonnock Bridge: this includes the current mixed-use corridor along Route 1 from Buddington Road to the Claude Chester School, the potential mixed-use corridor along South Street, and the institutional and recreational uses on Newtown Road up to the Senior Center. Currently this area is comprised of eight different zoning categories which will now be consolidated into the single Mixed-Use Village Center (MVC) zone, allowing for a simpler, more cohesive development pattern for the future based upon the historic, walkable, village character that defines Poquonnock Bridge today.

DESIGN GUIDELINES FORMAT

The majority of the design guidelines follow the general format illustrated below:

Design Element Being Addressed

Importance of Considering Particular Design Element

Key Features and Examples Showing Proper Application

Design Guidelines Section Being Addressed

Approaches and Examples Showing Improper Application

SITE COMPONENTS

LIGHTING

STREET LIGHTING IS A KEY COMPONENT TO THE MAKING OF A PLACE

Street lighting has a strong effect on the character of a place. This includes both the distribution of the light, and the character of the light fixture/pole itself.

A mix of lighting types, including appropriate street lights, helps to establish the character of a place.

DO

Key Features

- A variety of lighting types should be used to address the different needs of civic spaces, pedestrian oriented streets, and parking areas.
- Lighting should be designed to provide a uniform distribution of light while also addressing safety needs.
- Lighting should be in keeping with the character of the spaces and buildings around them. Industrial poles and fixtures concerned purely with functional requirements should be avoided.

Street lights should reflect the character of the district, with articulated treatments for the base, post, and fixture.

AVOID

Designing site lighting purely to meet functional requirements denies its ability to support character of place.

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SITE DESIGN

This section of the Design Guidelines looks at different elements of site design within the Mixed-Use Village Center, ranging from pedestrian connectivity within the public right of way (ROW) to more specific issues related to individual sites, like building placement and parking location.

BUILDING LOCATION

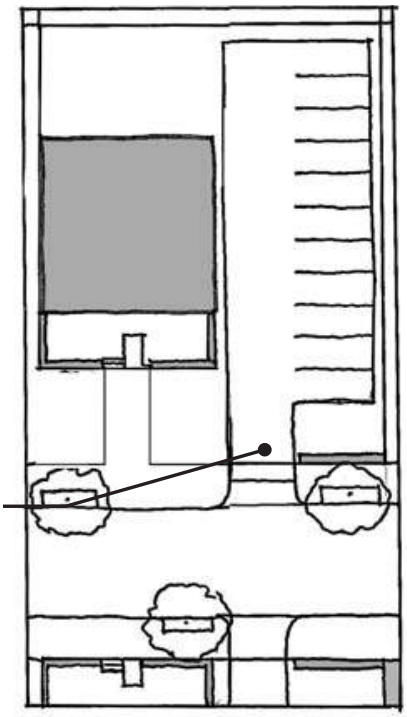
ON A TRADITIONAL MIXED-USE STREET, BUILDINGS ENGAGE THE STREET

Buildings may have varying setbacks and an informal arrangement, but should engage the street and contribute to the character of the public realm

Buildings in a village have varying setbacks but still relate to the street.

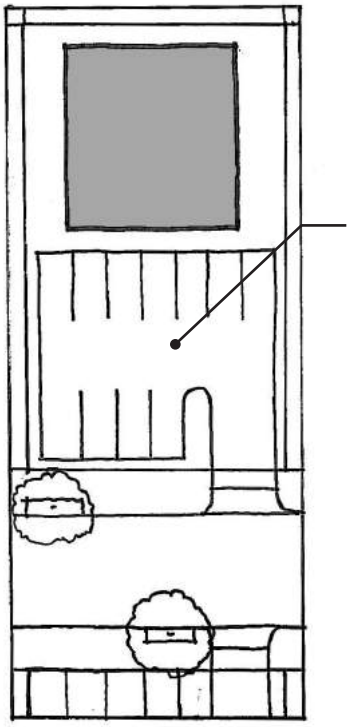
DO

Buildings should repeat the pattern of the surrounding district. A reasonable setback from the road behind a layer of landscape or casual seating is appropriate



Landscaping or seating in the front setback provide visual interest for passing pedestrians and potential customers.

AVOID



Front setback area typically used for parking is hostile to pedestrians.

Retail buildings set back from the street discourage shoppers since even adjacent shops or those across the street are separated by expanses of cars and asphalt.

Commercial entries connect directly to a public sidewalk

BUILDINGS SHOULD BE ENTERED DIRECTLY FROM THE SIDEWALK

Building entries should engage and activate the street edge. In mixed-use conditions, there should also be a clear separation and hierarchy between retail storefronts and secondary entries for upper floor uses.

DO

Secondary entrance / exits may be located facing the rear parking area, but retail entrances should never solely be located at the rear.

Provide a clear walking path from the rear parking area to the front entrance.

A corner entrance can provide both main thoroughfare entry as well as access from rear parking.

Retail entrances should always be located fronting the main thoroughfare.

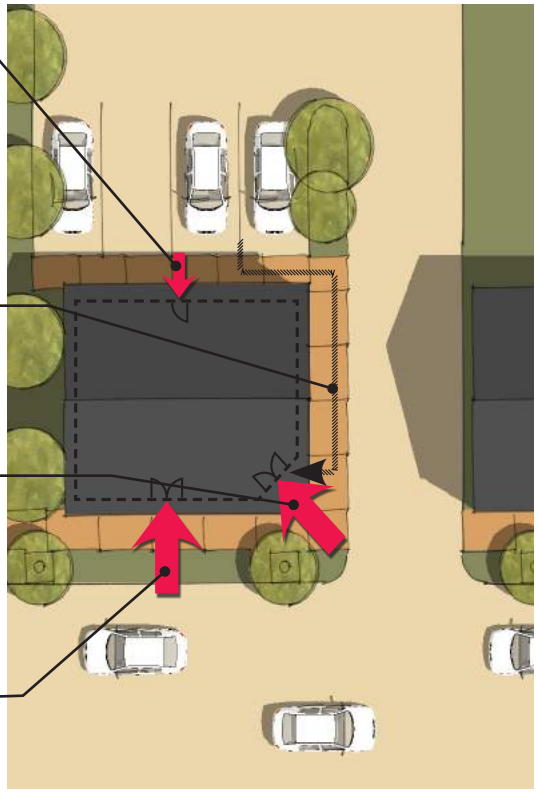


Diagram of entry location(s).

Key Points

- Entries to retail and commercial uses should be prominent and large in scale to be clearly identifiable to the public.
- Retail entries should be located directly off the sidewalk. Gallerias and indoor malls are prohibited.
- Residential entries should be separate from public entries. The location may be less prominent and the scale smaller than for retail.
- Residential entries should have their own address separate from the retail.

An inset entry allows more display area and a protected place to view merchandise.

A corner entry serves customers arriving from two different directions.

AVOID

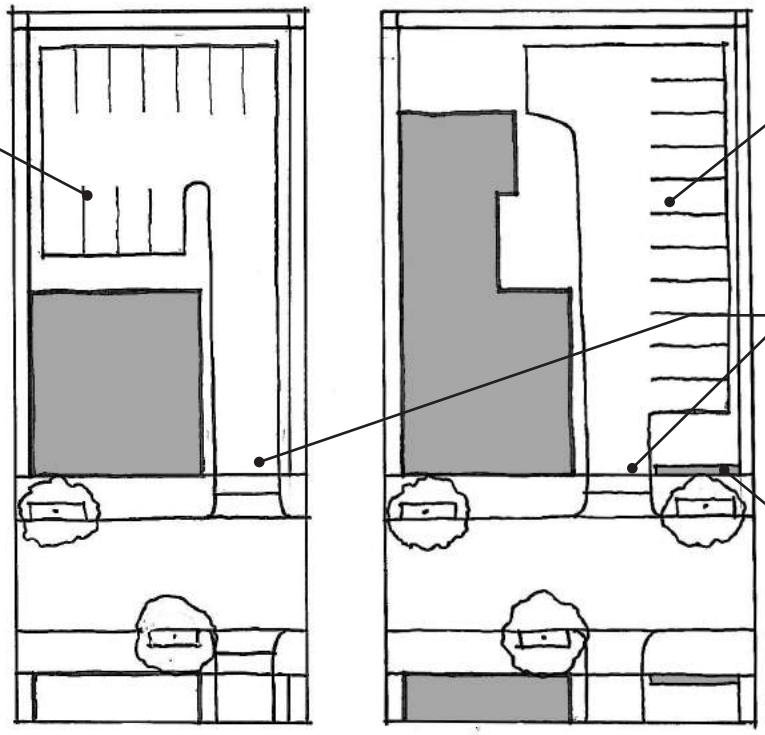
Avoid locating the primary entry at the rear of a building, regardless of its proximity to a rear parking area.

VISIBLE OFF-STREET PARKING HARMS TRADITIONAL MIXED-USE STREETS.

Off-Street parking should be hidden to the greatest extent possible by buildings, fences, walls or landscaping. See Site Components section for more details on screening and landscape.

Successful mixed-use streets prioritize the connection between building frontages and the sidewalk, not front-loaded parking lots

DO



Off-street parking is least disruptive behind or beside the building.

AVOID

Avoid parking lots in front of the building.

Wide entry and exit lanes, yield conditions and large curb radii allow traffic to enter or exit parking lots at dangerous speeds.

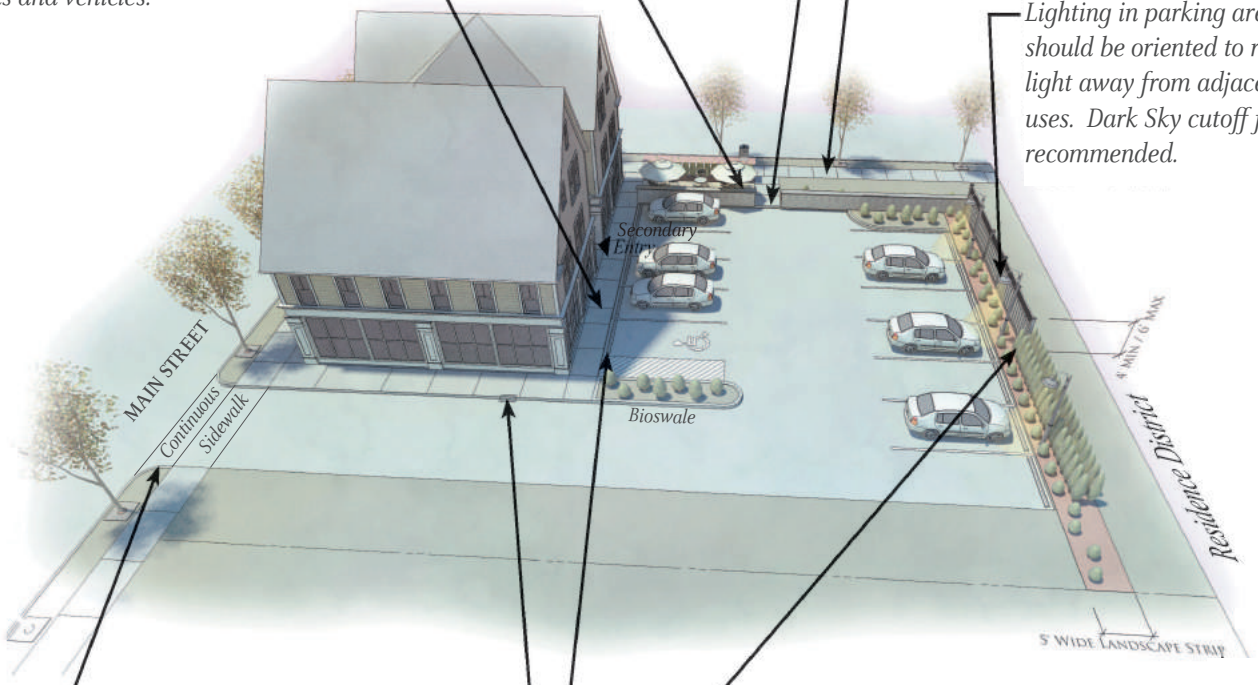
Screen parking areas from outdoor seating and sidewalks by the use of masonry walls and plantings at a minimum of three feet in height.

The layout and design of all means of circulation, including interior drives, parking areas, and walkways, should provide for safe, delineated circulation for pedestrians and vehicles.

Where parking abuts a sidewalk, a curb at least six inches high should be included to delineate the two uses.

Sidewalks or walkways should be included in commercial areas to provide a safe route from parking areas and retail establishments.

Lighting in parking areas should be oriented to reflect light away from adjacent uses. Dark Sky cutoff fixtures recommended.



Site entrances should be minimized, including sharing access drives with adjacent properties and creating contiguous parking areas wherever possible.

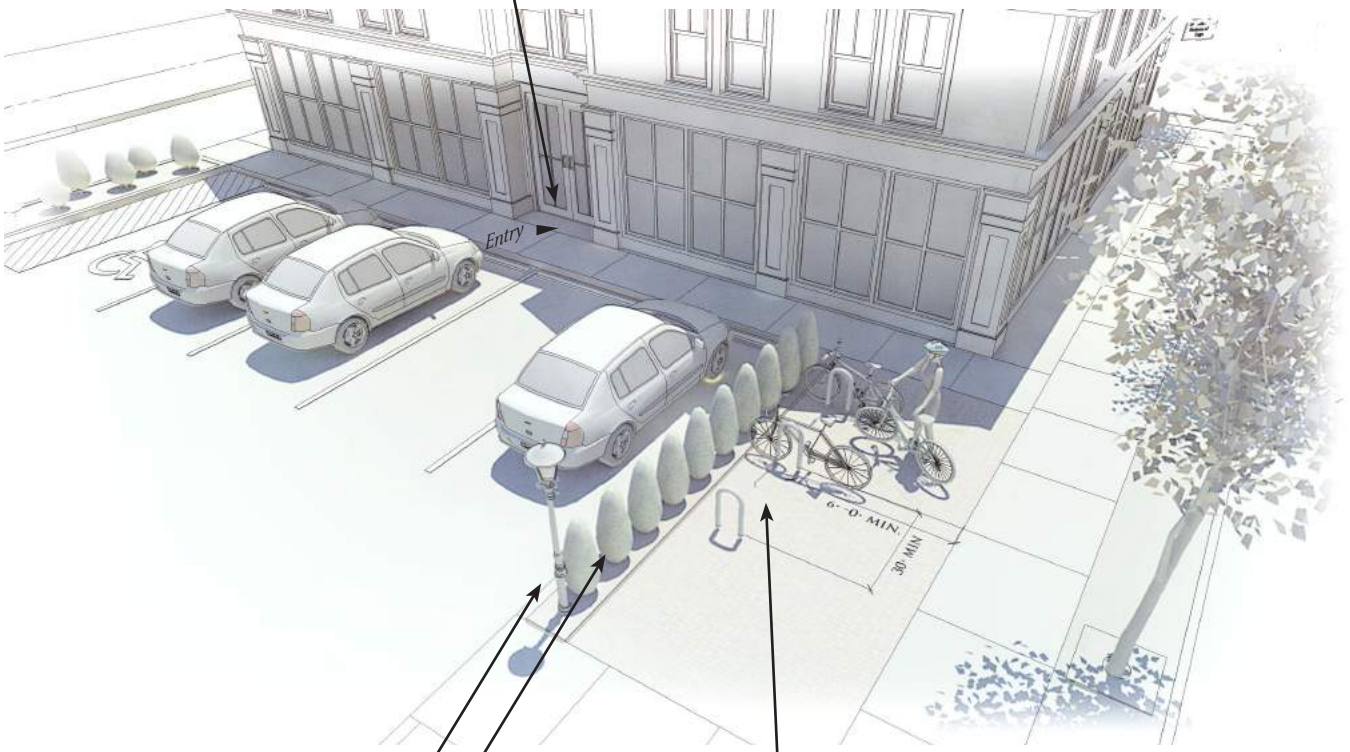
Opaque fencing and/or dense landscaping should be included to screen parking areas from adjacent residential areas.

Sidewalks should be a hard surface with provisions for managing stormwater runoff included as necessary. Where sidewalks intersect with automobile lanes, raised surfaces and/or durable, decorative alternatives to conventional pavement shall be used to connect sidewalks or bike lanes across the automobile lanes.

BIKE PARKING

SAFE AND CONVENIENT PARKING CAN ENCOURAGE BICYCLE USE.

Bike parking should be convenient to building entrances and street access but away from normal pedestrian and auto traffic.



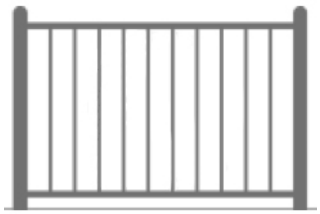
Bike parking should be well lit and separated from parking and roadways for safety and security.

Bike parking should be provided wherever possible. A highly visible location promotes use and discourages theft and vandalism.

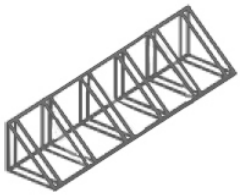
DO

Inverted 'U'

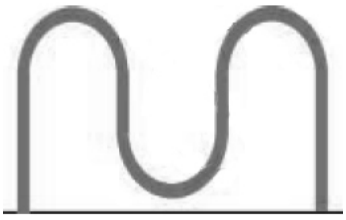
AVOID



Comb



Toast



Wave

Well designed sidewalks promote pedestrian use by a range of people, supporting local business, reducing vehicular use, and improving wellness.

WELL DESIGNED SIDEWALKS ARE CRUCIAL TO A PEDESTRIAN FRIENDLY ENVIRONMENT.

Sidewalks support pedestrian flow and mixed-use activity while also accommodating elements such as street trees, lighting and other street furniture.

DO

The ideal sidewalk includes three distinct zones. The furnishing zone is closest to the roadway and helps define the edge of the sidewalk and protects pedestrians from vehicular traffic, the pedestrian zone is dedicated to circulation and should be at least 5' for comfort and accessibility and free of obstructions, and the frontage zone is used for objects and activities associated with the building, like sales, seating, and signage.

Key Features

- Sidewalks are composed of three zones: a furnishing zone (for trees, lighting, etc.), a pedestrian zone (for movement), and a frontage zone (for activities adjacent to building).
- Ideally each of these has a dedicated area.
- In highly constrained locations, these activities may overlap but doing so will constrain use and may eliminate the ability to include certain elements, such as street trees.

AVOID

Narrow or discontinuous sidewalks end up compromised by other needs and don't promote pedestrian use.

Continuous sidewalks promote pedestrian use by a range of people, supporting local business, reducing vehicular speed, and improving wellness.

SAFE, BROAD, AND CLEARLY IDENTIFIABLE PEDESTRIAN AND NON-MOTORIZED VEHICLE CONNECTIONS ENCOURAGE ALTERNATIVE MODES OF TRAVEL

The networks of circulation in mixed use areas should be designed to balance the needs of motorists, cyclists, and pedestrians.

DO

Raised and painted crosswalks serve as traffic calming measures by extending the sidewalk across the road and bringing vehicles to the pedestrian level.

Key Features

- Where sidewalks or other pedestrian or bicycle ways intersect with automobile driveways or lanes, raised surfaces and/or durable, decorative alternatives to conventional pavement should be used to connect sidewalks or bike lanes across the automobile lane.
- Striping across the asphalt used for an automobile lane to connect the pedestrian or bicycle way is not adequate.

AVOID

Crosswalks that are designed or located to prioritize automobile traffic create hazardous conditions for pedestrians.

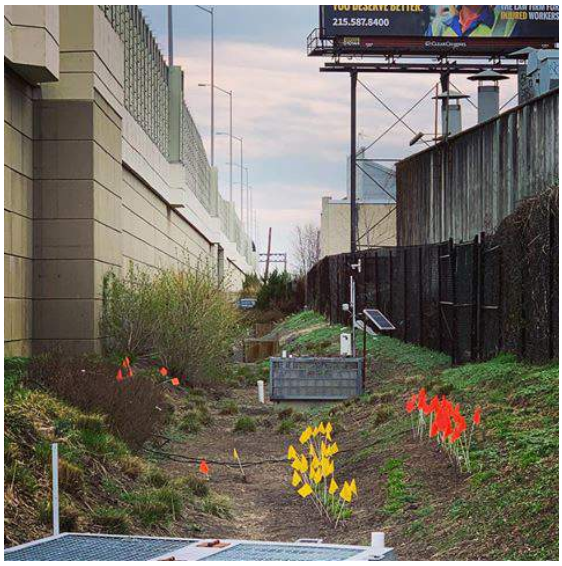
WELL-SHAPED PUBLIC SPACES CAN CREATE MEANINGFUL PLACES FOR PEOPLE TO GATHER

Concentrate public and green space into meaningful squares, parks, and greens and avoid scattered bioswales and green "features" that do not relate to each other or the public realm.

DO

Stone walls, trees, walking paths, landscape elements, and buildings all help define public green spaces that can serve as a gathering place for the community, while also helping with water retention and passive stormwater strategies

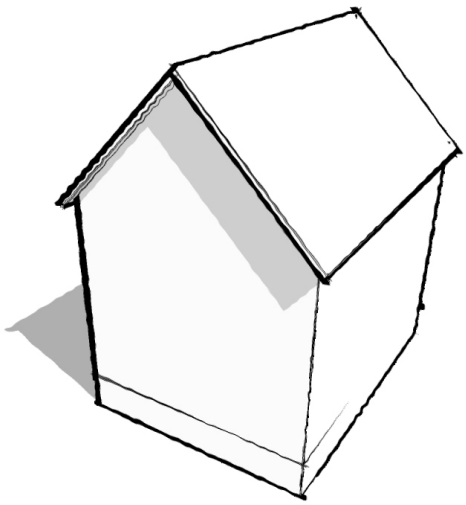
AVOID



Small and scattered green spaces that are not well-defined or well-located will not add to the quality of the public realm

BUILDING DESIGN

This section of the Design Guidelines addresses a number of issues related to new construction, including additions to existing buildings, within the Mixed-Use Village Center. The design principles described will help preserve the existing architectural character of the neighborhood while allowing for new development and growth.



Simple rectangular volumes are functional and economical

TRADITIONAL BUILDINGS ARE COMPOSED OF SIMPLE VOLUMES

Simple massing was traditionally necessitated by the limited time, skill, and resources available. Simple forms translated into buildings that were economical for homeowners to build and easy to maintain. Complexity and interest occurred with the grouping of structures at the scale of the street or neighborhood rather than within a single building.

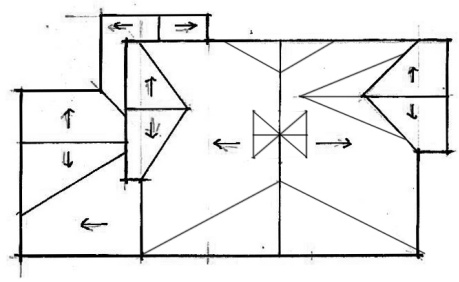
DO

Key Points

- Traditional buildings take advantage of the efficiency and economy of simple building forms
- Roofs can help express the hierarchy of building volumes. Generally, a single dominant roof form is clearly legible, with the roofs of secondary volumes deferring in scale to the main body of the building.
- Good proportion and proper detailing can make even a basic form elegant

Classic main streets are comprised of several buildings, each with its own character but following general principles that create a cohesive whole.

AVOID

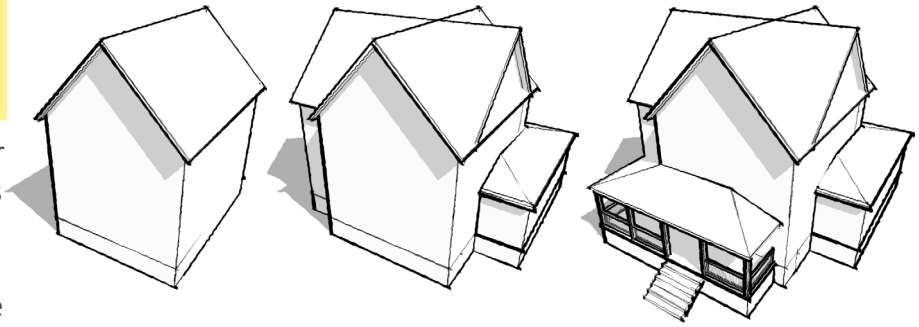


Avoid multiple changes in slope that are expensive to build and create a visually frenetic composition

This building has been overly complicated by too many roof forms. The additional ridges, valleys and eaves are a maintenance liability.

ADDITIONAL FORMS CAN ADD INTEREST AND SPACE TO A SIMPLE BUILDING

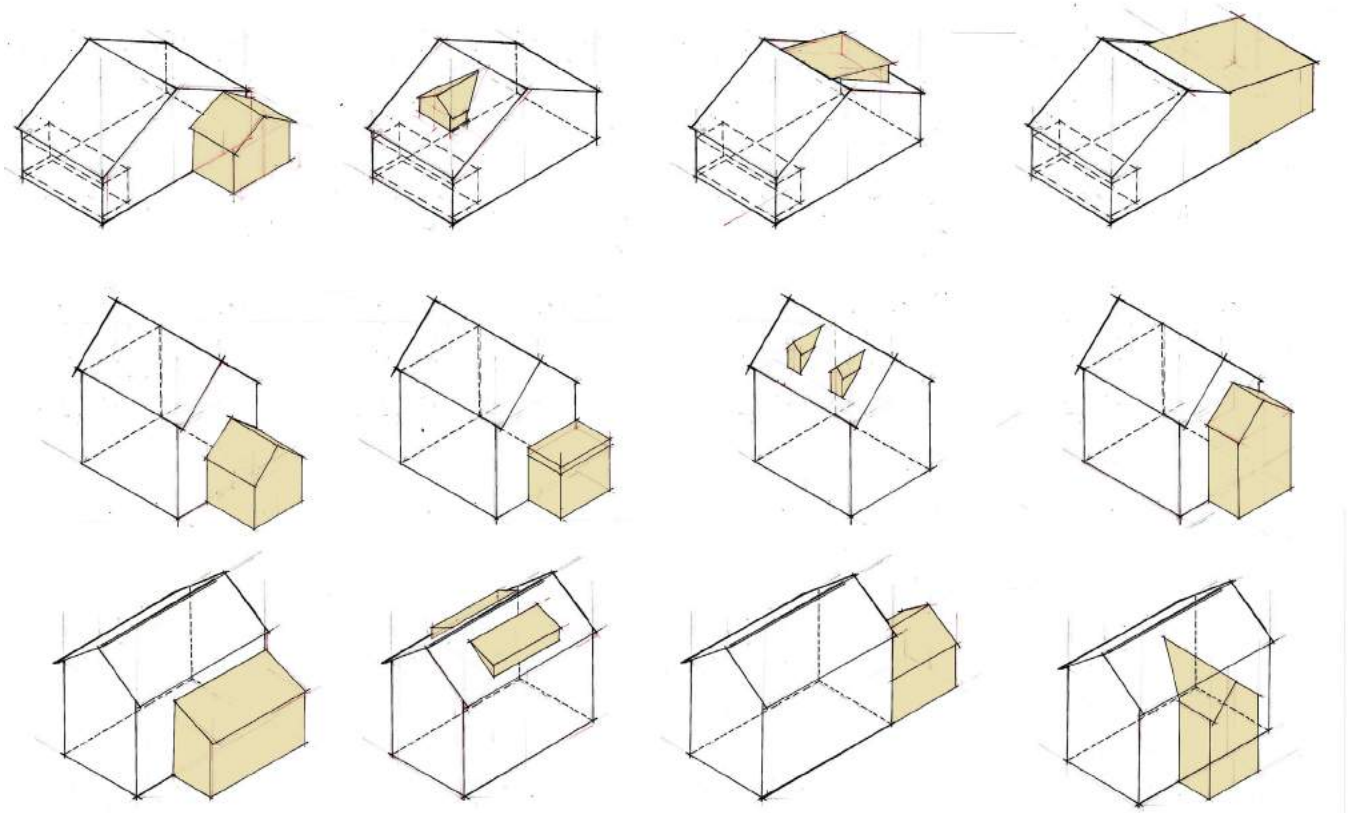
Traditional buildings change over time to accommodate the needs of new generations. Additions may provide for an expanding program, but always defer to the mass of the original building.



The transformation of a simple primary volume with a succession of secondary elements

DO

Historic buildings have a variety of additions, including new porches, wings, and dormers. The new spaces provide room for growth of the changing inhabitants and market trends.



Various ways to expand and transform an existing building. Additions are most successful when they defer in scale and proportion to the primary form of the original building. Secondary masses may also be used to compose a new building to create a modern structure with the character of a traditional home that has been around for generations.

New larger buildings can be designed to fit within a historic village setting.

WHEN SEEKING TO PRESERVE HISTORIC CHARACTER, NEW BUILDINGS SHOULD RESPECT EXISTING PATTERNS

New buildings in historic settings should attempt to reflect a similar scale and massing as the existing historic buildings.

DO

Key Points

- While building heights will vary by zone, new buildings in historic districts should respect the existing context
- Smaller buildings with useful spaces between are preferred over long continuous street facades

Shed dormers provide opportunity for additional windows and increased head height on the top floor

Top floor units concealed in roof form

Keeping eave below third floor level reduces the scale of the building

Ground floor activated and transparent to contribute to pedestrian-friendly environment

A complex of smaller scale buildings is preferable to a single large structure because the varied massing provides visual interest and human scale

GROUND-LEVEL RETAIL DRAWS SHOPPERS AND ENLIVENS THE SIDEWALK.

Large displays on a storefront can entice passers-by and invite them into a store. Visibility is important to make potential customers aware of a store's offering and create a sense of welcome.

DO

Transparency of a storefront invites customers by letting them know what is offered and if the shop is welcoming business.

AVOID

Opaque façades do not invite commercial activity.

The blank walls and windows are uninteresting and shoppers may pass on by.

Key Points

- Storefronts should contain approximately 70% clear glazed area for the display of goods and services.
- Displays should allow a view through to the sales floor for customers to easily see whether the shop is open.

SITE COMPONENTS

The objects and elements that occupy the space between buildings have a big impact on the “sense of place” in the neighborhood. This section addresses how items like site lighting, landscaping, and walls all contribute to the quality of the public realm.

STREET LIGHTING IS A KEY COMPONENT TO THE MAKING OF A PLACE

Street lighting has a strong effect on the character of a place. This includes both the distribution of the light, and the character of the light fixture/pole itself.

A mix of lighting types, including appropriate street lights, helps to establish the character of a place.

DO

Street lights should reflect the character of the district, with articulated treatments for the base, post, and fixture.

Key Features

- A variety of lighting types should be used to address the different needs of civic spaces, pedestrian oriented streets, and parking areas.
- Lighting should be designed to provide a uniform distribution of light while also addressing safety needs.
- Lighting should be in keeping with the character of the spaces and buildings around them. Industrial poles and fixtures concerned purely with functional requirements should be avoided.

AVOID

Designing site lighting purely to meet functional requirements denies its ability to support character of place.

Landscape used as buffer between sidewalk and parked cars

LANDSCAPING CONTRIBUTES TO A BEAUTIFUL PEDESTRIAN ENVIRONMENT AND HELPS ABSORB WATER.

Landscaping is critical to softening the urban environment. Arrangements should be both beautiful and resilient.

DO

Use plants that complement the scale of the architecture and street.

Key Features

- Select plants that are tolerant of drought, salt, and heat
- Species should be native where possible. No invasive species allowed.
- Use landscaping as part of stormwater management wherever possible.
- Use a variety of plants that will provide some color year-round.

Integrate stormwater management into overall design.

Landscaping can help define the pedestrian realm.

STREET TREES PROVIDE SEVERAL PEDESTRIAN-FRIENDLY BENEFITS.

For pedestrians, street trees can serve as a buffer to vehicular flow and as protection from the elements, while also adding an element of natural beauty and softening an otherwise hard landscape.

Street trees can help delineate zones of a street and add character.

DO

Regularly-spaced street trees create a continuous canopy that covers sidewalks while physically and visually separating pedestrians and cars.

Where space is limited, trees can be incorporated in curb extensions.

Key Features

- Continuous, regularly spaced street trees are best for creating a consistent canopy, but even periodic trees (where feasible) are worthwhile.
- Proper installation and maintenance are required to promote health and avoid hazardous situations.

AVOID

Improper maintenance or tree selection creates hazards.

Pedestrian-friendliness is hard to achieve without trees.

Fences and walls can have a big impact on the character of a place.

FENCES AND WALLS HELP HOLD AN EDGE WHERE BUILDINGS CAN NOT

Low stone walls and fences can mark the boundaries of a property to identify the edge of public and private space. They can also serve to help screen parking lots or define open spaces.

DO

Dressed masonry walls, wrought iron, and decorative wood fences are appropriate in more urban and/or formal settings and can help define boundaries like parking edges or deep setbacks.

Key Points

- Fences and walls can be used in combination with landscaping to help create separation between the public realm and private property.
- Construct fences of durable, paint-able materials such as wood, fiberglass, or wrought iron. Walls may be brick or stone masonry.
- The design of fences should be appropriate in scale and style to the building, site, and surrounding properties.

AVOID

PVC, plastic and other synthetic fences have been shown to lower property values in historic neighborhoods.

Chain-link fencing should be confined to the least visible locations.

Tall stockade type fences are typically not found in a mixed-use setting.

ILLUSTRATIVE EXAMPLES

This final section of the Design Guidelines illustrates how many of the different design guidelines come together in different scenarios, including sites where infill and other improvements help older sites contribute more positively to the Mixed-Use Village Center.

BEFORE - FORT HILL ROAD AT DEPOT ROAD / NORTH ROAD

With a particular focus on residential conversions and infill, this site plan shows how the area of Fort Hill Road at Depot/ North could support additional residential units without losing the village character of the MVC district.

For more details on the Residential Conversion, located to west of Johnson's True Value, see page 30. For more details on the Residential Infill area, located to the east of North Road, see page 31.

AFTER - FORT HILL ROAD AT DEPOT ROAD/NORTH ROAD

BEFORE - FORT HILL ROAD AT NEWTOWN ROAD / VERGENNES COURT

This site plan illustrates how the design guidlines could be applied to new commercial and mixed-use buildings around the Fort Hill Road / Newtown Road intersection.

For more details on Commercial Redevelopment, see page 32.

AFTER - FORT HILL ROAD AT NEWTOWN ROAD / VERGENNES COURT

BEFORE

Where residences exist on main thoroughfares in close proximity to mixed-use and commercial buildings, consider increasing residential density and/ or incorporating a mixed-use component.

Fort Hill Road, West of Depot Road / North Road

AFTER

Regularly-spaced street trees.

Shared drives and parking lots.

Parking located behind and beside buildings

New buildings in scale with existing buildings.

Sidewalk on both sides of Fort Hill Road

Fewer curb cuts interrupting sidewalk

Fort Hill Road, West of Depot Road / North Road

BEFORE

The lack of sidewalk on the north side of Fort Hill Road, the big gap in development along North Road, and the wide variety of building setbacks all make this an uneven and underutilized site. Such sites can be reconfigured to support greater residential density without hurting the village character of the MVC District.

Fort Hill Road, East of North Road

AFTER

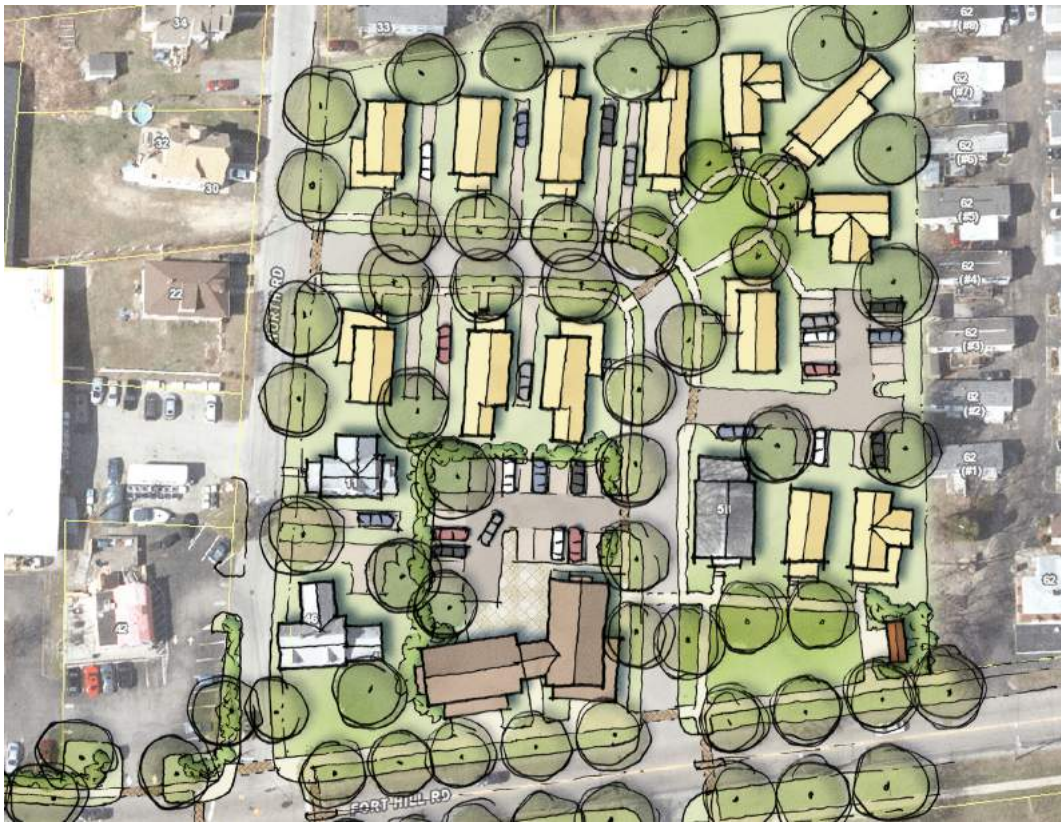
Regularly-spaced street trees.

New street that connects two existing streets (no cul-de-sac).

Parking located behind and beside buildings.

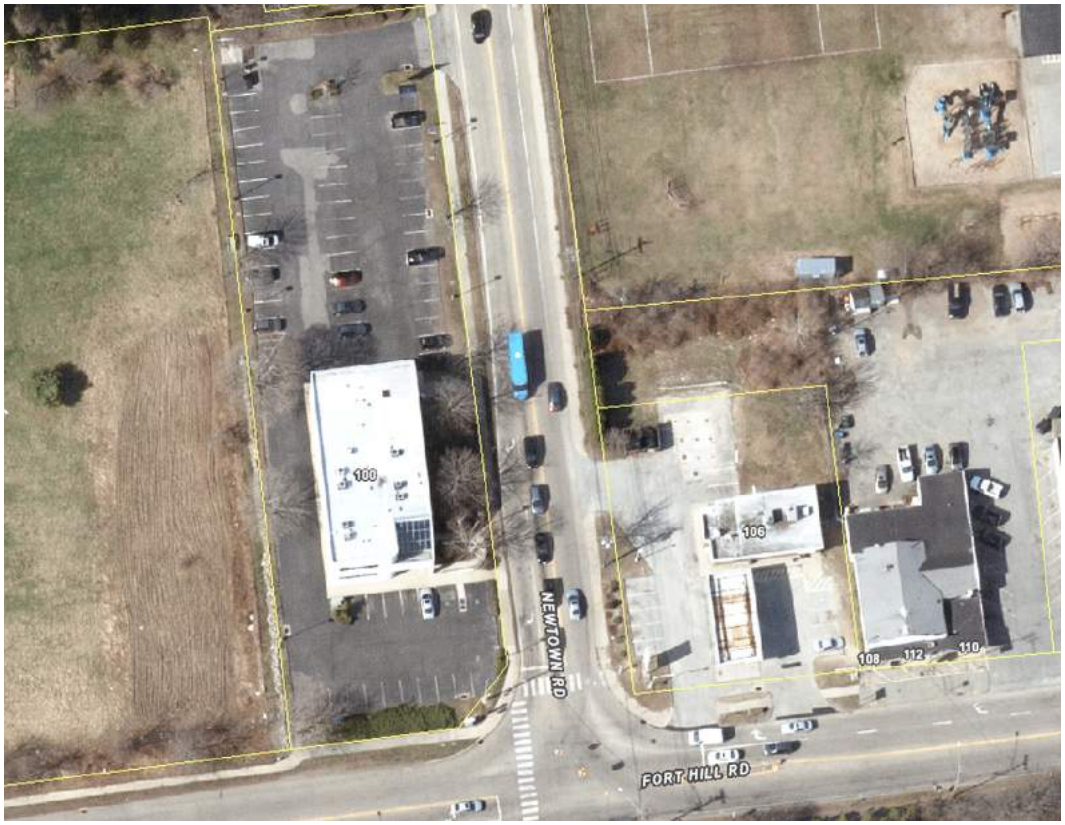
New buildings in line with existing historic patterns, setbacks, etc.

Underutilized land turned into shaped space that can serve as public amenity.



Fort Hill Road, East of North Road

BEFORE - NEWTOWN ROAD



Front-loaded parking, buildings with deep setbacks, wide turning radii, irregular crosswalks, and inconsistent landscaping all combine to create a hostile pedestrian experience. This critical intersection can and should be a major contributor to the village character of the MVC District but in its current configuration it falls short.

AFTER - NEWTOWN ROAD

Fort Hill Road at Depot Road / North Road

Regularly-spaced street trees.

Shared drives and parking lots.

Parking located behind and beside buildings.

Gas station designed for both automobiles and pedestrians.

Pedestrian islands and special pavement to slow vehicular traffic and create more comfortable crossings.

BEFORE

Existing conditions at the intersection of Newtown Road and Fort Hill Road.

AFTER

Continuous sidewalks behind regularly spaced street trees

Utilities relocated underground

Screening for parking areas

Improved pedestrian crossings

Building frontages converted to pedestrian uses

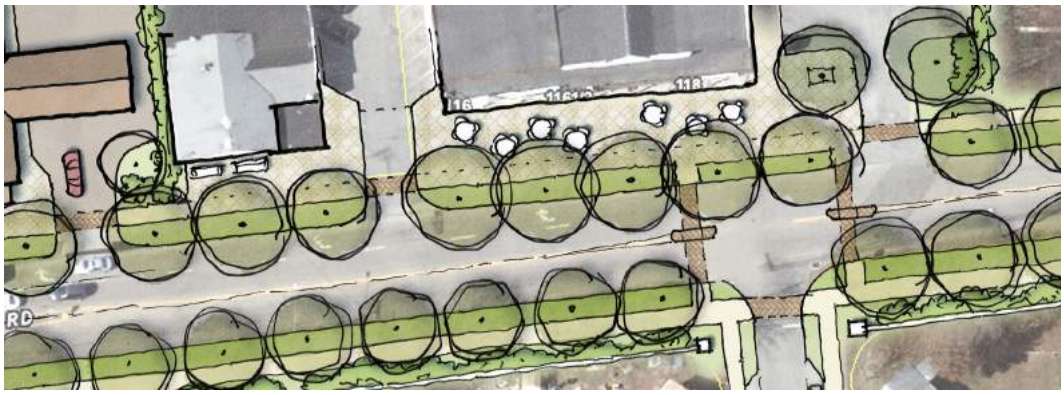
New buildings and entries face street

BEFORE - FORT HILL ROAD

Extremely long curb cuts and front-loaded parking lots create an unattractive and unsafe environment for pedestrians. Lack of street trees creates a sense of barren-ness.

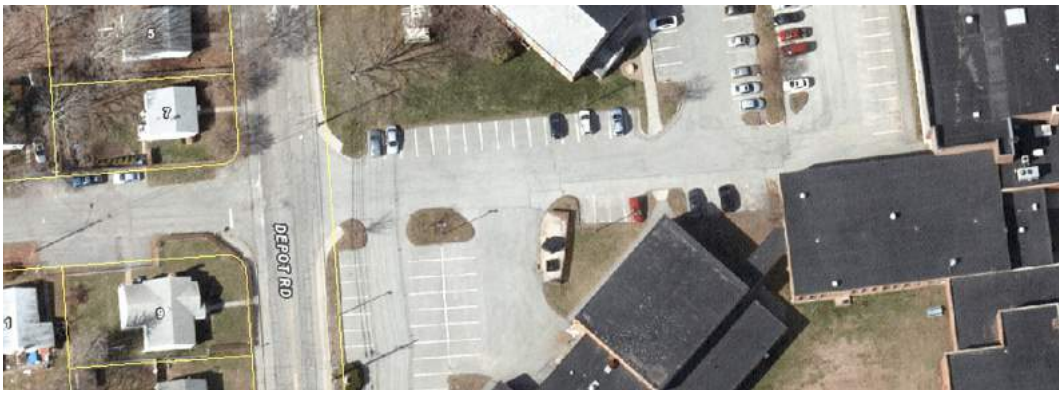
AFTER - FORT HILL ROAD

Relocating the parking beside/ behind the buildings, converting parking into pedestrian-friendly amenities, and reducing curb cuts creates a more welcoming streetscape.



BEFORE - TOWN HALL

Town Hall and the school are separated and surrounded by a large sea of parking.



AFTER - TOWN HALL

Where large parking lots are necessary, organize them in a way that resembles a typical street and block structure with street trees and a continuous sidewalk network throughout.

Fort Hill Road at Newtown Road / Vergennes Court

BEFORE

Existing conditions at the Poquonnock Bridge Fire House

AFTER

Screening for parking areas

Utilities relocated underground

Continuous sidewalks behind regularly spaced street trees

Building entries face street

Building frontages converted to pedestrian uses

Storefronts allow visibility into active uses

APPENDIX

For further reading and guidance, see the following resources:

The Architectural Pattern Book: A Tool for Building Great Neighborhoods
Urban Design Associates, 2004

Designing Walkable Urban Thoroughfares: A Context Sensitive Approach
Institute of Transportation Engineers, 2010

Model Design Manual for Living Streets
Los Angeles County, 2011

SmartCode (version 9.2) & SmartCode: Bicycling Module
The Town Paper, 2009

Street Design Manual
New York City Department of Transportation, 2009

Urban Street Design Guide
National Association of City Transportation Officials, 2013