

Keene



Marlboro Street

ZONING AND LAND USE REGULATIONS PROJECT



FINAL REPORT | 13 JANUARY 2014

Prepared for the City of Keene

by The Cecil Group | Nelson\Nygaard | Alta Planning & Design | GZA

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March 26, 2013 Public Workshop

1 OVERVIEW

Purpose of the Study

The City of Keene has undertaken this zoning and land use regulations project for Marlboro Street and the surrounding district to encourage redevelopment and enhancements in the southeast quadrant of the City. The initiative focused on an area encompassing approximately 280 acres of land along Marlboro Street east of Main Street. The specific objective of the plan was to identify potential changes in the City’s regulatory framework, to implement relevant recommendations in the City’s Master Plan and meet other City goals, including:

- Assemble coordinated zoning and regulatory changes to promote reuse and redevelopment of underutilized properties;
- Identify potential regulatory changes and initiatives to improve stormwater management practices;
- Identify potential regulatory changes and initiatives to preserve residential neighborhoods;
- Strengthen Marlboro Street and Keene’s southeastern neighborhoods as a vibrant, walkable, mixed use district;
- Streamline the development review and permitting process; and
- Pilot an improved regulatory framework in anticipation of an upcoming, city-wide rewrite of ordinances.



Marlboro Street



Marlboro Street



Beaver Brook

Planning Area

The planning area is comprised of 549 parcels on roughly 280 acres. Marlboro Street is the area's principle axis and focus. The area is bound by Eastern Avenue to the East, Main Street to the west, and Brown Street and Tiffen Street to the south, and Water Street to the north (including parcels south of Dunbar Street).

In addition to the land within the planning area, the plan has takes into account information regarding adjacent and other nearby areas to understand the context for the recommendations that have been formulated within the boundaries.



Businesses on Marlboro Street



Aerial

 Planning Area

Figure 1 Planning Area

Key Findings and Recommendations

LAND USE VISION

The land use plan implements relevant portions of the *Keene Comprehensive Master Plan* (September 2010), by providing more detailed concepts to serve as the basis for zoning and other regulatory changes for this area. Prominent findings and recommendations include:



The Baker House



Keene Historical Society

- Low-scale residential areas as an asset – Preserve and enhance the low-scale, residential and traditional neighborhood character of traditional one-and two-family areas;
- Innovative development opportunities – Provide for innovative approaches that expand the range of redevelopment opportunities by converting Industrial zoning to adapt to contemporary use and investment patterns;
- Link to the downtown – Provide for a mixed use “edge district” near the downtown;
- Marlboro as segments, not a uniform corridor – Improve Marlboro Street as linked segments, each with its own character;
- Civic campus – Design and develop the City’s land and facilities as a “civic campus” to support nearby redevelopment;
- Flooding can be reduced, but not eliminated with changes that can be made within the area – Change regulations and perform other actions to mitigate the impacts of floods in the area to reduce damage and expand useable areas;
- Sustainability can be significantly advanced – Provide for compact land use patterns with green, publicly accessible connections that reduce vehicle dependency and improve environmental health; and
- Connections are good, but can be improved – Provide new connections for vehicles, pedestrians and bicycles.

ZONING

- Innovative Development – Create an Innovative Development zone replacing the Industrial zone in the area; this could be a mixed use zone with a broad range of allowable uses, as long as they are compatible, including commercial, industrial, retail and housing. This would be a moderately scaled zone and include pedestrian connections and landscaping requirements.
- Downtown Edge – Create a Downtown Edge zone as a mixed use zone at the northern end of the area; this new zoning category to provide for more flexibility in the range of uses at the edge of the downtown, including appropriate uses from the CBD zone and the HD zone, and allow densities consistent with an urban neighborhood.
- Move towards lower density in some areas – Convert some Medium Density areas to Low Density, as part of a long-term strategy to re-establish

Single-family neighborhoods by stabilizing certain existing areas so that there are no more multifamily conversions or new construction of multi-family housing.

DESIGN GUIDELINES

- Advantages of specific guidelines for Marlboro Street – Create special guidelines corresponding to each of three major segments of Marlboro Street (north, central and southern segments), with the most active street frontage to the north, and increasing emphasis on landscaping to complement new and existing buildings to the south.
- Methods to direct and inform site and building design to optimize the value of the district, over time – Create guidelines for site, building and other design features complimentary to the new zoning categories.
- Tailored approach to implementing the guidelines – Consider different methods that can be used to implement the guidelines so that they are effectively and appropriately applied.

STORMWATER MANAGEMENT AND FLOOD PREVENTION

The flooding issues are the result of many factors that cannot be solved within the planning area, but there are several steps that can significantly improve conditions and reduce damage, including:

- Special district standards to reduce flood damage risks – Create a local standard for flood-related mitigation and damage prevention by adopting a district standard flood elevation above the FEMA levels, and associated design and construction regulations that would otherwise apply to 100-year flood zones;
- Best management practices through regulations and City actions – Adopt enhanced stormwater management practices within the district; and
- Revised water channeling and stormwater management infrastructure in concert with redevelopment and infrastructure projects – Combine investments to improve channelization and create more storage within the area, and raise some bridge or street elevations along with the redevelopment of major properties and infrastructure.

TRANSPORTATION

- Improved and reconfigured Marlboro Street – Undertake Marlboro Street improvements to slow and direct traffic, and enhance the pedestrian and bicycle environment.
- Linking the area to Victoria Street – Extend Victoria Street to provide for new connections through former industrial areas, intersecting Marlboro Street at approximately the current Laurel Street location.



Beaver Brook

- Coordinated approach to street design and improvements – Adopt design standards for the street and streetscape that plan for sidewalks, crosswalks, parking and bicycles.



October 29, 2013 Public Workshop



March 26, 2013 Public Workshop

Planning Process

PARTICIPANTS

The City of Keene Planning Department and a Steering Committee guided this zoning initiative. An active program of public workshops, stakeholder meetings and a public information program were conducted; the resulting input and ideas were incorporated into this Report. The initiative was funded by a New Hampshire Community Planning Grant and City Capital Improvement Program funds. The City hired a professional consultant team, led by the planning and urban design firm The Cecil Group, to help carry out the studies. This team included Nelson\Nygaard Consulting Associates (traffic and parking), GZA GeoEnvironmental, Inc. (stormwater and utilities planning), and Alta Planning + Design (bicycle network).

STUDY PROCESS

The planning process was conducted in several phases, and included both public and informal meetings and stakeholder interviews and discussions.

- Existing Conditions – This planning phase consisted of a review and analysis of existing conditions. The Consultant team prepared a report (*Marlboro Street Zoning and Land Use Regulations Project: Existing Conditions*, May 23, 2013) along with a presentation and brief summaries of key topics, which were made available on the City’s website. A public workshop was held to discuss the project and key issues along Marlboro Street and in the surrounding neighborhoods.
- Choices – As part of the second major step in the process, the consultant team worked with the Steering Committee and City staff to consider various options for the future planning and development of the area, including the range of zoning and other regulatory tools that might be used. A public workshop was held to consider different approaches to the long term land use and development that the City might take, and to receive public input. Additional information was made available on the City’s website.
- Draft Recommendations – The third portion of the process was devoted to crafting draft recommendations associated with the purposes of the study. Community outreach regarding the preliminary recommendations involved a public meeting, website information and follow-up community sessions to discuss the regulatory and other planning concepts.

Implementation

The implementation strategies in this Report have been listed for each of the component recommendations. Because the focus of the plan was on the City's regulatory framework as a method to encourage and direct future investments and changes, most of the implementation can be accomplished using established municipal procedures. In some cases, the recommendations are associated with the City's stewardship of infrastructure, land and facilities; in these cases, the City's methods for setting policies and advancing projects and programs can be used.

However, all of the stakeholders in the future of the area have an essential stewardship role that must also be fulfilled in order to accomplish the vision that emerged from the public planning process. The citizens, institutions, associations, businesses and landowners could be active advocates and participants in the implementation steps ahead.



1910 Map of Keene

2 PLANNING CONTEXT

The recommendations within this Report are based, in part, on evaluations of existing conditions that were accomplished as initial stages of the study. The resulting report, *Marlboro Street Zoning and Land Use Regulations Project: Existing Conditions* (May 23, 2013) serves as a separate reference document and provides useful background information.

Comments and input from community and City staff participants regarding relevant facts and information augmented the consultant team's research.

The following observations underline key findings that underpin the planning recommendations.

Planning and Regulatory Framework

KEENE COMPREHENSIVE MASTER PLAN (2010)

The Master Plan's direction for the area recognizes the potential benefits of expanding the mix of uses along and near Marlboro Street. It specifically mentions several planning goals that have been incorporated into this study, including:

- Kingsbury site redevelopment – The plan cites the opportunity to redevelop the vacant former Kingsbury site and recommends the extension of business, industrial and live/work space in the areas north of Marlboro Street and east of Beaver Brook;
- Restore a balance between low density and high density housing – The plan describes a goal to restore a balance between the extent of higher density housing permitted in the area relative to the relatively low density single- and two-family homes residential areas; and
- Segmented Marlboro Street – The plan envisions Marlboro Street as a sequence of different segments containing additional light commercial uses.

ZONING

The existing zoning includes seven different district designations. While some of the zoning categories and locations are consistent with the existing uses and with the goals of this study, there are a number of important discrepancies:

- Industrial (I) zoned land as a remnant of an earlier economic era – A majority of the planning area north of Marlboro Street has an industrial zoning designation. This designation serves to reinforce industrial busi-

ness as a primary use, and excludes primary retail and residential uses. The vacant former Kingsbury property is within this designation, as is the City's municipal campus at the south end of the Marlboro Street corridor that has repurposed some of the underutilized industrial land. Some residential properties have been captured within this designation around the old Kingsbury property;

- High Density (HD) designation supporting the conversion of lots and buildings into dense student and rental housing that has unbalanced some areas – The HD zoning permits multifamily housing along some streets and blocks that remain predominately lower density;
- Fragmented zoning at the downtown edge – While the downtown has experienced significant growth and revitalization, the zoning at the edge of the downtown is composed of fragmented zoning designations that appear to have been adapted to past patterns of use, rather than to a consistent intention for the future; and
- Industrial Park (IP) as a limited incursion into the residential areas – Portions of the industrial park designation have been extended across Tiffen Avenue to support the industrial park and the important economic contributions of the enterprises to the south of the planning area. This does not appear to create significant incompatibilities, and there were no indications that the IP designation should be expanded.



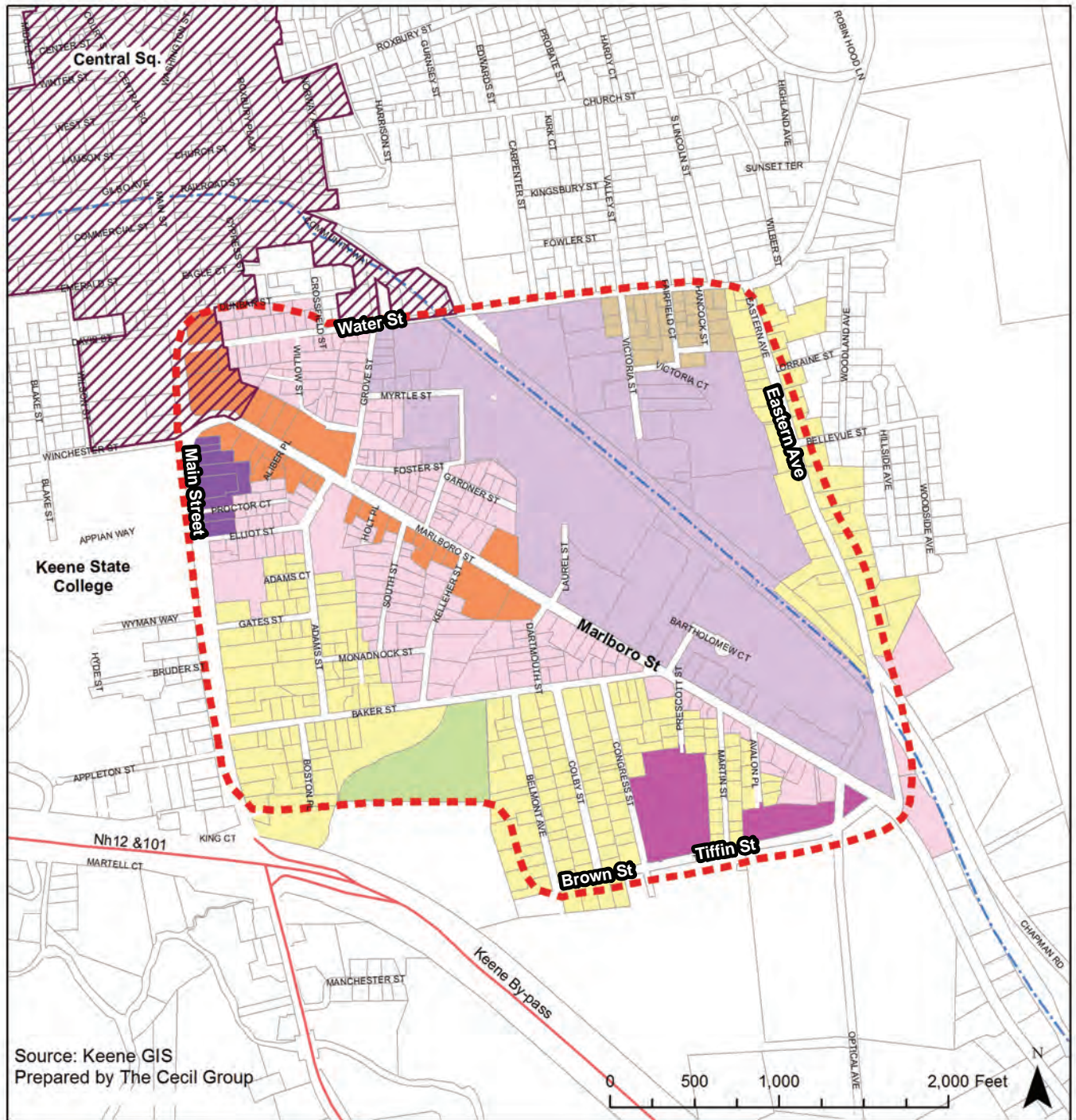
The Wheelock School

OTHER REGULATIONS

The City has a series of inter-related and relevant regulatory frameworks that address topics that are the subject of this study. In some cases, changes in these regulations may be appropriate to help implement the recommendations of this Report. In all cases, coordination and consistency among the various regulations will need to be considered. Among the prominent regulations are the following:

- Planning Board Development Standards – These standards provide guidance in reviews of various project types including site design, site improvements, and re-development;
- Chapter 38, Keene Ordinances – Environment (Article II – Pollution of Air and Water) – This portion of the City's regulations includes site design, site management methods, and requirements that have implications for stormwater management and flood prevention;
- Chapter 54, Keene Ordinances – Natural Resources (Article II Floodplain Ordinance) – This ordinance directly addresses the methods used to assess delineation of certain resource areas and practices associated with the public interesting in preventing floods and limiting economic risks and damage;
- Chapter 70, Keene Ordinances - Public Improvement Standards Existing Local – These standards address the methods that the City uses to manage stormwater that is within municipal systems and control; and

Figure 2 Zoning



Source: Keene GIS
Prepared by The Cecil Group

Zoning

- | | | |
|--|---|--|
|  Commerce |  High Density |  Planning Area |
|  Office |  Industrial |  State Roadway |
|  Low Density |  Industrial Park |  Trails |
|  Medium Density |  Conservation |  Downtown Historic District |

- Downtown Historic District – Limited portions of the planning area along the northern end of Marlboro Street are within the City’s downtown historic district are subject to associated regulations and programs.

Existing Conditions

EXISTING URBAN DESIGN AND LAND USE PATTERNS

- The following is a breakdown of the 550 properties by total acreage:
 - * 49% residential;
 - * 1% mixed use;
 - * 16% commercial;
 - * 19% industrial; and
 - * 13% exempt (including civic).
- Residential uses range from single-family to multifamily homes and make up the majority of the properties. Single-family homes are roughly 68% of the residential properties. About one-third of single-family homes are non-owner occupied; students from Keene State College live in many of these.
- The overall structure of the area is related to the historic pattern of development, with a focus on the industrial core along Beaver Brook.
- The housing, ancillary industrial uses, commercial and retail establishments clustered in much of the district are typical of former New England factory villages.
- The growth of Keene State College has solidified the areas to the west of Main Street as an institutional campus, quite distinct from the texture of the surrounding neighborhoods.
- Many of the edges of the planning area are extensions of nearby neighborhoods or subdistricts.
- Beaver Brook is a major connecting feature, although its character changes substantially as it passes through the area.

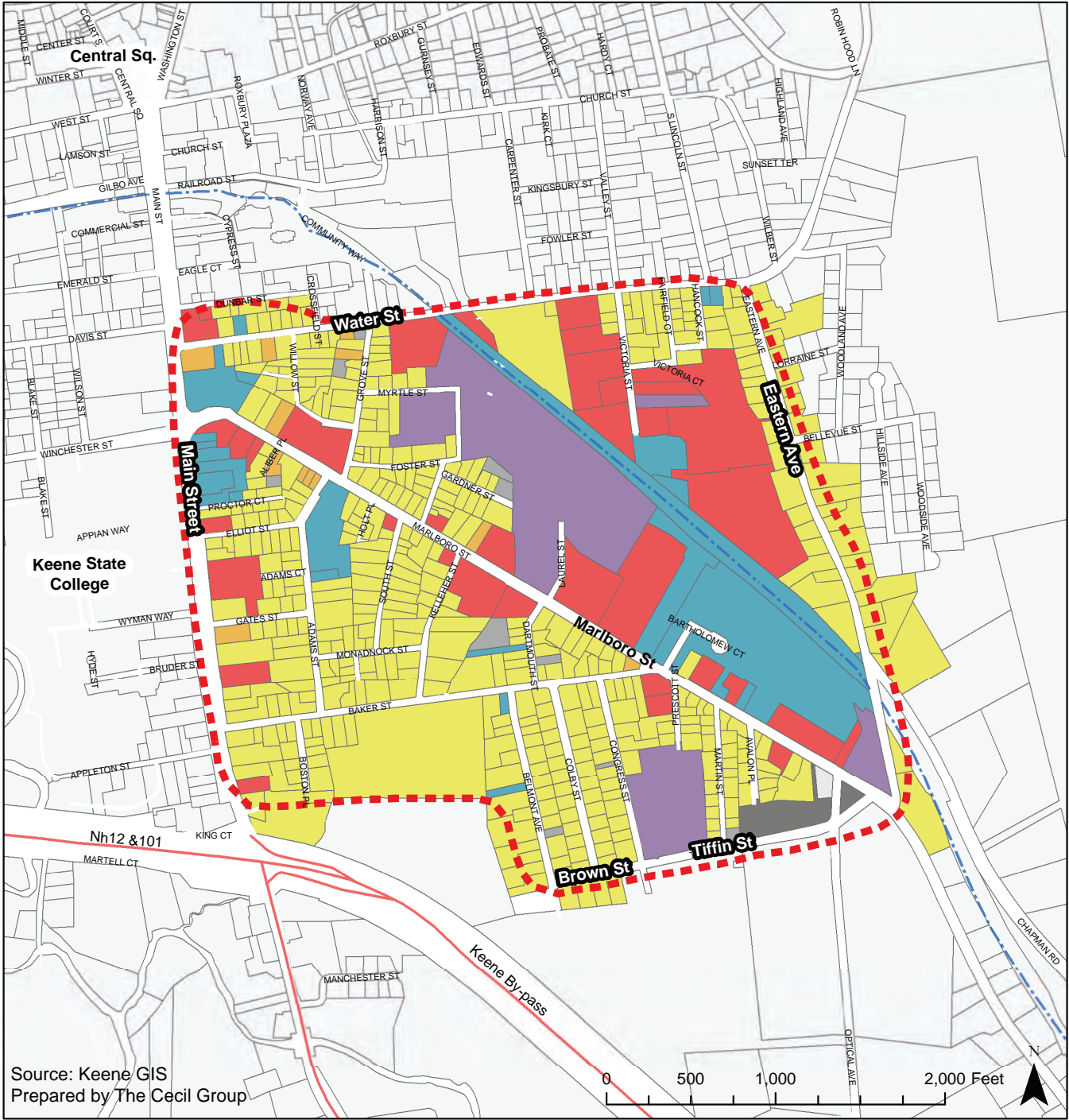


Keene Police Department



Former Automobile Dealership on Marlboro Street

Figure 3 Land Use



Source: Keene GIS
Prepared by The Cecil Group

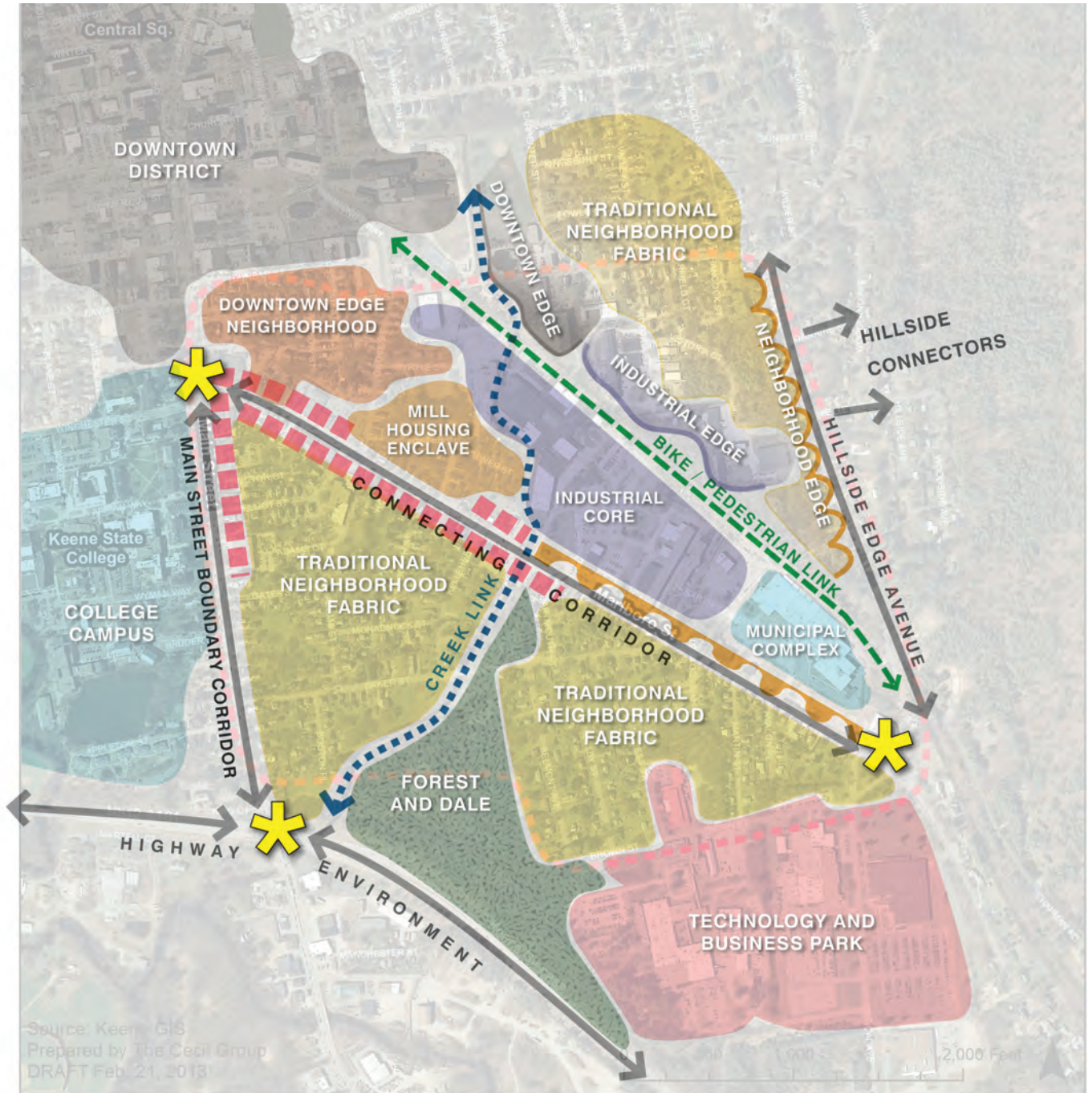
Land Use

- Residential
- Commercial
- Mixed-Use
- Industrial
- Public/Institutional
- Utility
- Residential Land
- Commercial Land




- Planning Area
- State Roadway
- Trails

TRENDS: SUSCEPTIBILITY TO CHANGE

- The lower density, single-family, and other low-density residential areas and open flood-plain areas are unlikely to significantly change because of their slow rate of change or environmental restrictions.
- Certain prominent business or high density housing sites and structures, and the College's property, are unlikely to significantly change because of the value and type of buildings and uses.
- There is a moderate likelihood of change for many of the parcels, areas that were of moderate density, and associated commercial and retail uses because of changing market forces and the shifting demand associated with college housing.
- The large and vacant industrial property is unlikely to change in the short term because of its size, flood plain condition, cost of demolition, and potential environmental mitigation.
- The City is currently considering a major recreational facility as part of its campus along Marlboro Street, which could be a significant short-term change.



Urban Design

-  Gateways
-  Traditional "Main Street" Character
-  Fragmented Large-Scale Frontage

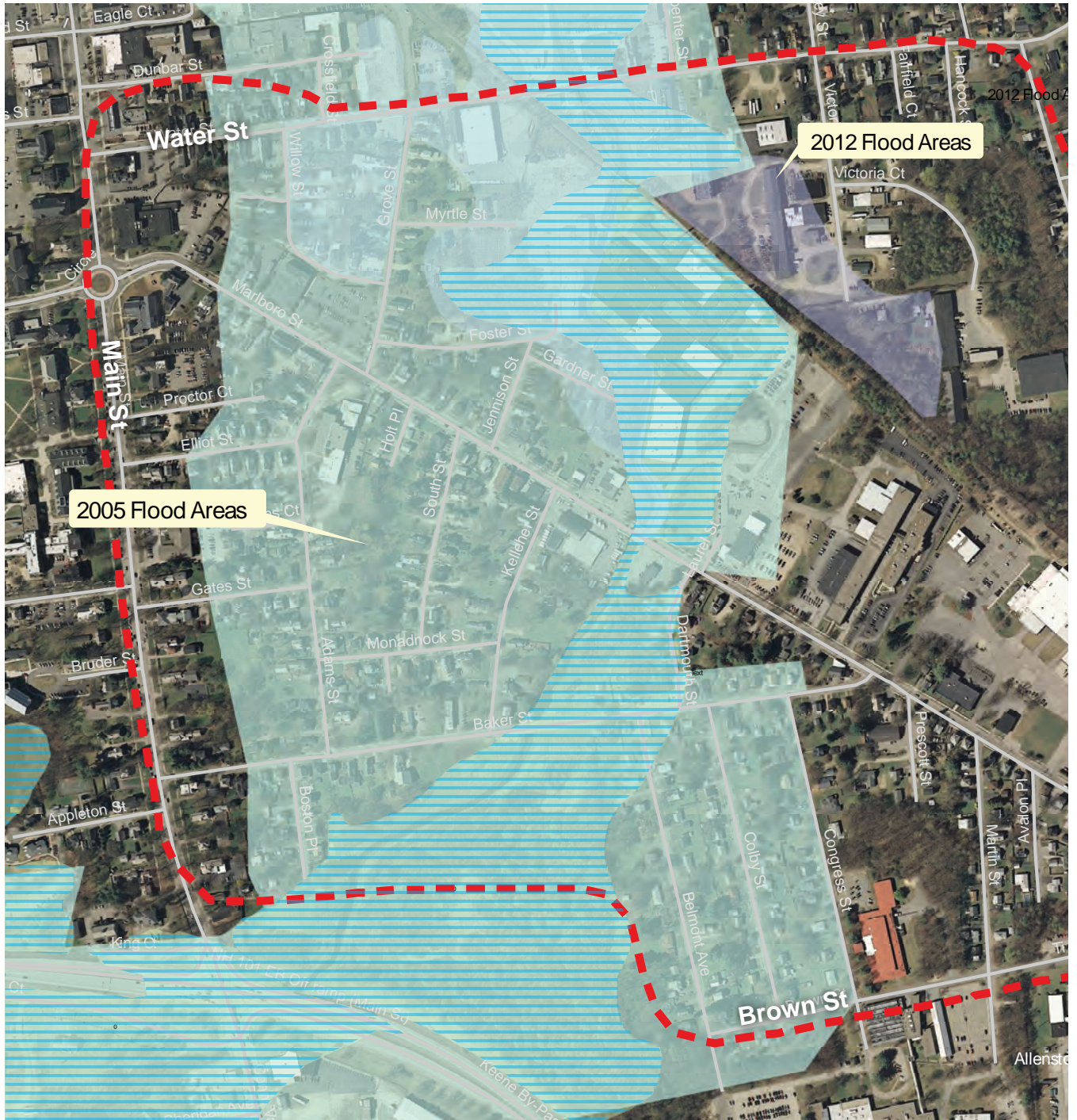
FLOODING AND DRAINAGE SUMMARY

- Each flood event is unique and may not impact the same properties.
- The old railroad bed is acting as a hydraulic divide and barrier during major storm events.
- The City of Keene collects stormwater in a separate stormwater collection system that is not connected to a public waste water treatment facility but discharges stormwater to Beaver Brook and its tributary.
- The soils within the planning area are more susceptible to erosion and sedimentation due to existing high to moderate erosivity potential.

BEAVER BROOK FINDINGS





- At flood stage, waters in the R1S3 section are contained on one bank by a dike that exceeds the channel height on the opposite bank.
- At flood stage, waters in the R1S4 section are contained within the stream channel by a dike and the opposite stream bank.
- Streamside residential and commercial development north of Baker Street limits opportunities for stream restoration and habitat improvements.
- Riparian habitats along Beaver Brook, which would have historically been forested, have been replaced with development and landscaped areas.
- Existing development within the contributing landscape to Beaver Brook impacts surface water quality. The majority of R1S3 and R1S4 segments of Beaver Brook are “very at risk” or “at risk” for non-point source pollution.

Figure 5 Flood Risk Management



Flood Risk Management

Map Legend

-  FEMA FIRM 100-Year Flood Zone
-  2005 Flood Areas
-  2012 Flood Areas
-  Project Area

EXISTING CIRCULATION AND PARKING INFRASTRUCTURE FINDINGS

- Four major regional highway systems feed traffic and out of Keene. These regional gateways include NH 9 Chesterfield, NH 10 Swanzey, NH 101 Marlborough, and NH 12 Westmoreland.
- Major roadways that act as gateways corridors into the city include, Main Street, Marlboro Street, Winchester Street, West Street, Court Street, Washington Street, and Park and Maple Avenue.
- Peak parking demand in on- and off-street lots is largely influenced by employee parking and Keene State College students and visitors.
- Demand for parking on residential streets is present throughout the planning area; however there is a lack of clarity for where to park, which has created “on street private parking” on front lawns of properties.
- There is scattered on-street parking with varying and often unclear regulations.

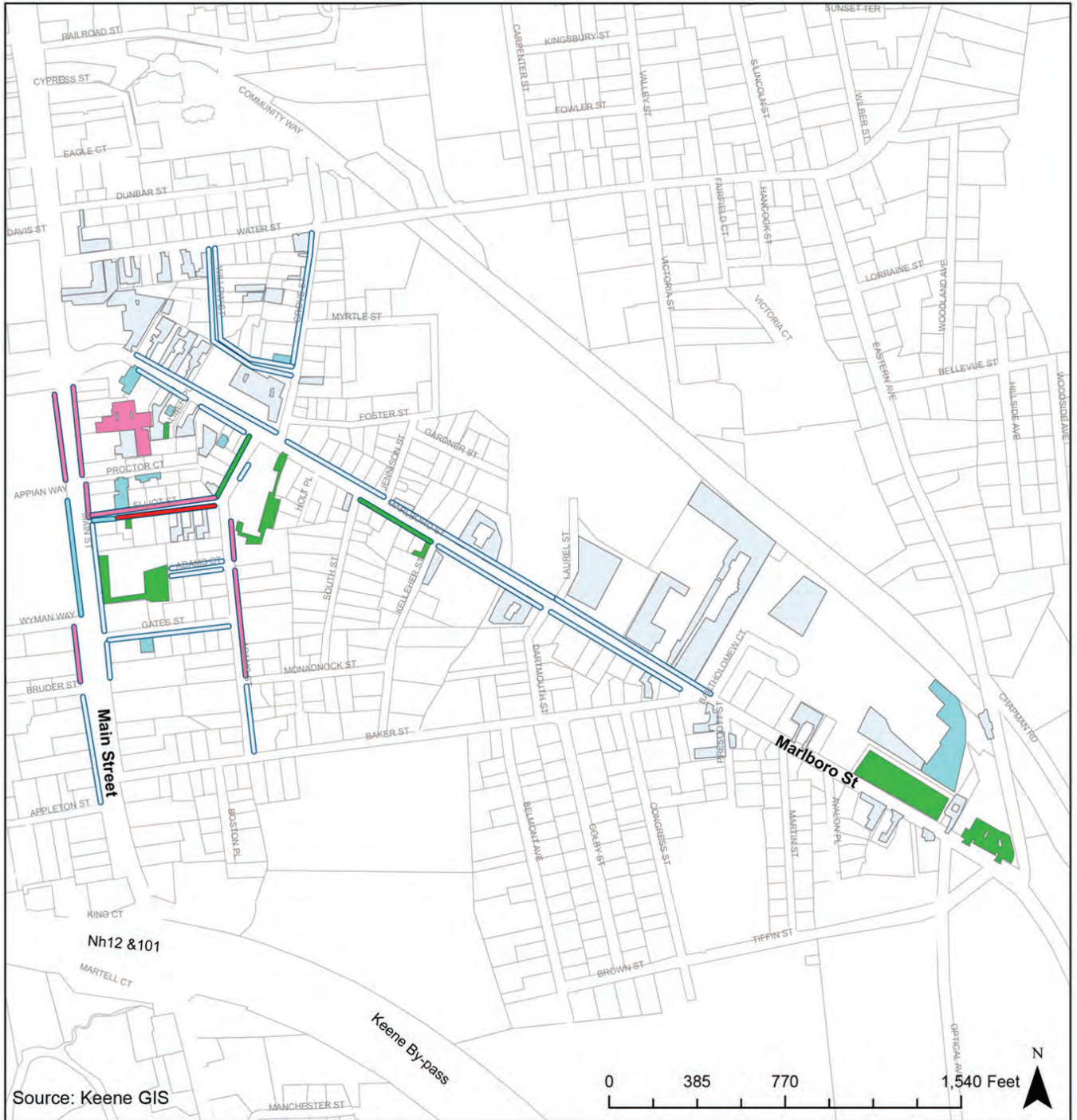


Bicycle Path

BICYCLE AND PEDESTRIAN ENVIRONMENT FINDINGS

- Marlboro Street is unfriendly to pedestrians as buildings are set back, numerous curb cuts are present, and a lack of crosswalks and inadequate facilities make mobility difficult.
- Other than major roads, residential streets lack adequate sidewalk facilities, having sidewalks on only one side of the road, which are in poor condition.
- The Cheshire Trail serves as a regional bike gateway and corridor for the Marlboro Street planning area as well as the City of Keene.

Figure 6 Parking Utilization



Parking Utilization

Legend

- Less than 60%
- 60% to 80%
- 80% to 90%
- 90% to 100%
- Over 100%



COURTESY OF KEENE PUBLIC LIBRARY

Historic photo of Marlboro Street from Main Street, 19th century, looking southwest

3 LAND USE VISION

Overall Vision

The vision calls for land uses along and adjacent to the Marlboro Street corridor can evolve as collection of different areas, centered on Marlboro Street as an attractive mixed use spine. Through successful re-investment in well-connected, well-designed sites and buildings, the areas can become significant contributors to the City's long term economic and environmental sustainability by enhancing the quality of life for everyone who lives in, works within, or visits this part of Keene.

Some of these areas could be distinctive clusters of mixed use that create a transition from the Downtown and transform former industrial land. Other areas can be stabilized and restored as single-family and low-density districts that provide good neighborhoods and housing choices for all types of families and residents. Over time, the number of student rentals could decline, rebalancing the mix of residents and opening attractive opportunities for new residents that can take advantage of the nearby employment, shopping and amenities.

The component areas can be linked by a network of streets, pedestrian and bicycle routes that provide convenient access to and from other nearby areas of Keene. The circulation and parking infrastructure could be efficient relative to vehicles, and create a pedestrian- and bicycle-friendly environment that is both safe and attractive, adding to the economic value and quality of life.

Flooding impacts can be reduced and new infrastructure and new building developments could be designed to significantly reduce flood damage risks. Segments of Beaver Brook can be reconfigured or restored to improve flood prevention and stormwater management with accompanying visual, environmental and open space links.



Main Street

Proposed Land Use and Development Patterns

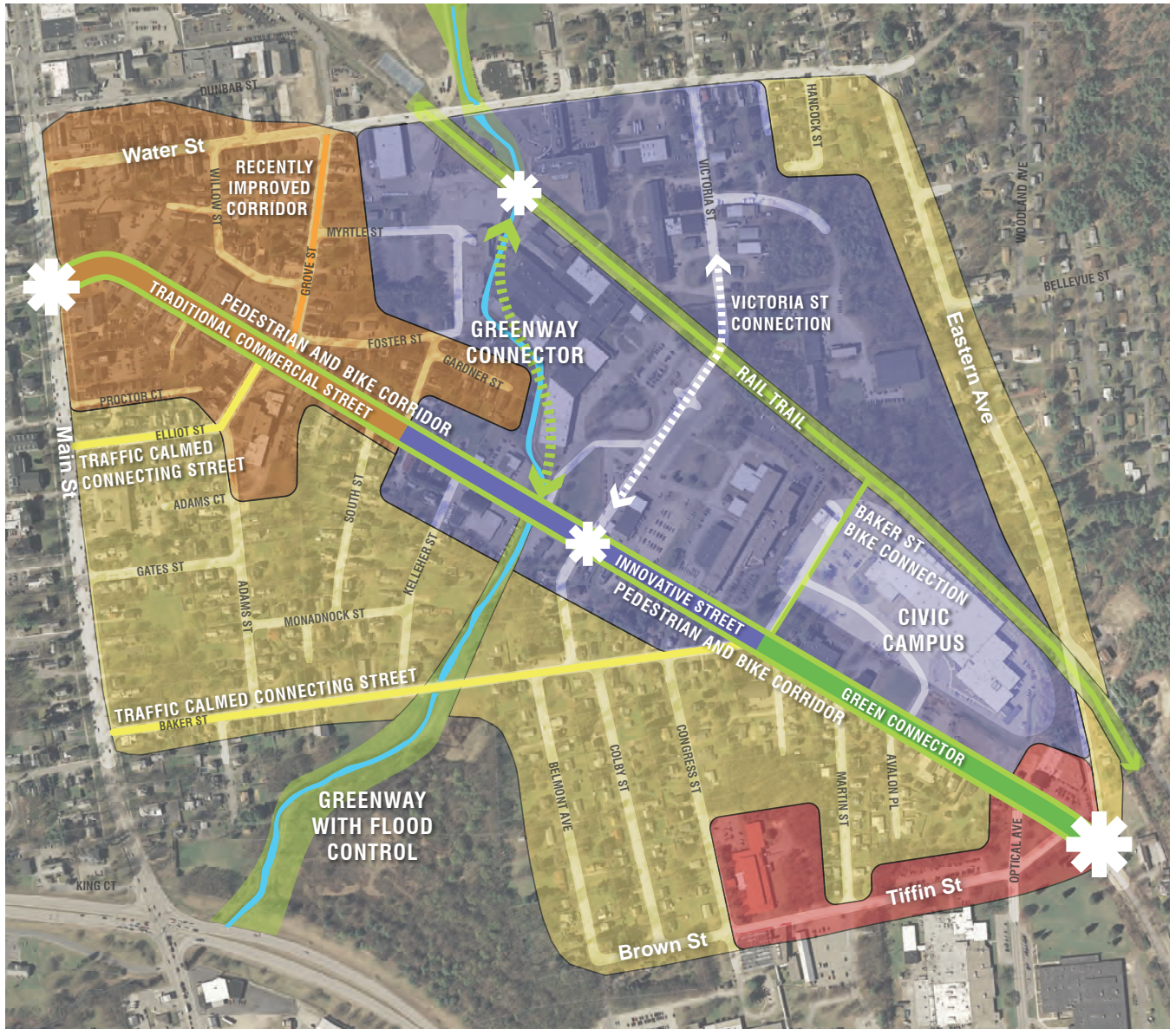
The recommended land use and development patterns seek new avenues for future growth and redevelopment where land is either underutilized or adjacent to the downtown. The recommendations for these redevelopment areas recognize the benefits of districts that have a broad mix of compatible uses that support one another as places to work, live, shop, visit and enjoy. In other portions of the planning area, this study recommends preserving and enhancing the traditional residential neighborhood character. With a predominant pattern of residential uses at relatively low densities, these residential neighborhoods will benefit from the nearby businesses, shops, institutions and amenities that can be expanded over time. By emphasizing a modest scale of development in these neighborhoods, these areas would not be subject to the type of multifamily housing redevelopment that occurred in the past. This overall approach does not envision the expansion of Keene State College's academic facilities or future College housing in the area, which is consistent with the College's campus master planning.

AN AREA FOR INNOVATIVE REDEVELOPMENT

The recommendations include converting central portions of the planning area into a diverse district that is attractive to a wide range of uses because of the unusual opportunities that it provides. Centered around the former Kingsbury industrial complex, this area encompasses large tracts of underutilized land along with a broad array of uses—light industrial, commercial, municipal, residential and others. This mix can be one of its strengths and allow development to respond to changing market conditions, and be supported by new infrastructure, open space and amenities that did not exist in the past.

Vacant and underutilized industrial land can be restored to environmental and economic health and transformed with innovative, mixed-use development that may include a wide range of business, commercial or light industrial uses—but also provides for shops, restaurants, housing and services—as long as they are compatible with one another. The land use vision for this area recognizes that many people are drawn to areas that have unconventional use patterns and innovative developments if they are well designed and avoid negative impacts. With thoughtful site planning and design, the increments of new development could contribute to a growing network of pedestrian links, bicycle-friendly destinations and landscaping that becomes an emblem of the positive changes.

Figure 7 Land Use Plan



Land Use Plan

Plan Elements

- Innovative Development Area with Mixed-Use
- Mixed-Use Downtown Edge District
- Traditional Low Density Neighborhood
- Industrial Park
- Dedicated Bikeways
- New Street Connections
- Greenway Connector
- Gateways

DOWNTOWN EDGE: A MIXED USE AREA

The edge of the downtown can be improved as a mixed use district that has a moderate density and incorporates a wider range of uses than would be permitted within current zoning. The area can include blocks and parcels near the Downtown, beginning along Main Street and flanking Marlboro Street. Additional blocks and parcels in this area are located along segments of Water, Willow, Grove, Myrtle, Foster, Gardner, and Elliot Streets, and along Proctor Court. This is an area where additional development and investment could be targeted so that it can benefit from the proximity to adjacent areas. The strength of this area will include the convenient access to the Downtown, Keene State College, and the innovative development that can occur to the south and east.

Current zoning reinforces a patchwork pattern of uses in this area and density rules that tend to discourage redevelopment. For example, some of the land is zoned for high density residential use, but other uses are discouraged, even though they might be compatible with housing and feasible within the market. The reverse is true in the land zoned for commercial use along Main and Marlboro—housing is discouraged, even though some of the parcels and buildings are used for residences, as “grandfathered” uses.

The planning vision for this area seeks to replace a static patchwork pattern with an integrated approach to mixing uses. Residential uses could be allowable anywhere within this edge district, as could the types of commercial, retail and restaurant uses permitted within the downtown—as long as they are compatible neighbors. The site and buildings in the district can be oriented to support the traditional character of streets and blocks, reinforcing pedestrian connections and limiting the visual impacts of parking areas, so that it is a consistently pleasant place to walk or bicycle. The scale and density of the buildings can be less than in the downtown, but greater than in the single-family neighborhoods. Along Main Street and Marlboro Street, this edge district could become a lively extension of Downtown, with more buildings and active uses approaching the sidewalk edge.

LOW SCALE NEIGHBORHOODS

Many of the blocks south and west of Marlboro Street were once composed of homes or two-family houses, and this scale remains the predominate pattern in these neighborhoods. Zoning has supported the expansion of multi-family housing along some of these blocks, and the conversion of units into rental housing oriented to the student market has further shift the character and density of residential uses.

The land use vision recognizes the long-term value associated with Keene’s high quality neighborhoods that are composed of single-family and low-den-

sity housing clusters, particularly in an area that is within such convenient access by walking and biking to jobs, shopping, schools, institutions, amenities and services. These qualities can be preserved and enhanced by limiting the locations where additional multifamily housing may be created, reversing trends from past decades. Overtime, this could reduce the potential to create or provide housing units devoted to student rentals, restoring a balance conducive to ownership and families—as well as other housing choices.

FUTURE DEVELOPMENT PATTERNS ALONG MARLBORO STREET

Within this land use vision, Marlboro Street is reframed as three distinct segments with distinctive use characteristics and development patterns. Each segment could provide street, sidewalk and bicycle accommodations suited to the areas through which it passes. This segmentation could reduce perceptions that Marlboro Street is a uniform and auto-oriented arterial corridor. Instead, the characteristics of each segment could be appropriate to the nearby uses and area that it serves. The northerly segment could be relatively dense and incorporate new uses and development to create a near-continuous frontage defining the street edge and reinforcing the pedestrian environment along an attractive streetscape. The middle segment can support both existing and innovative new development, while providing for site design that increases the amount of landscaping and setbacks, consistent with the “green” sustainable character of the future redevelopment. The most southerly edges could be planned to support the dominant characteristics of the existing, neighboring uses ranging from low-scale residential and commercial enterprises, with an emphasis on extending a landscaped, “green” corridor to the intersections with Tiffen Street and Eastern Avenue.

Relationships to Adjacent Areas

The land use patterns in the boundary areas can be calibrated to reinforce intentional relationships to adjacent and existing areas. These relationships include:

- Keene State College edge – With the exception of existing College uses and appropriate improvements to existing facilities, future campus development and the distinctive characteristics of a coherent College campus are not recommended to extend across Main Street and into the areas included in this plan;
- Downtown transition – The transition to the Downtown can be gradual, and the benefits associated with living, working and visiting the compact mix of uses in the Downtown could be extended towards the south through streetscape and sidewalks, organization of sites and building frontages, and an emphasis on limiting and sharing parking;

- Business park transition – Pedestrian, streetscape, bicycle routes and landscaping can be extended towards the business park uses at the southern end of Marlboro Street and along other connecting streets; and
- Residential area transitions – The transitions between innovative business areas and lower scale residential areas could provide for site design and landscaped edges that reinforce existing open space and topography changes that buffer uses and reduce potential incompatibility.

Managing Stormwater and Floods



Recent Flooding in Keene

The risks and problems associated with storms and floods can be steadily reduced through incremental and coordinated steps over time. This can include enhancing the regulations for stormwater management within the immediate areas along this portion of Beaver Brook, and pursuing City-wide actions to reduce the amount of stormwater contributing to problems along this portion of the Beaver Brook drainage basin. Site grading, infrastructure and building improvements could be designed to avoid potential damage for severe conditions such as those already experienced within Keene that exceed the FEMA-defined 100-year flood plain designation. Improvements to the channels and structures along the water course can contribute to flood prevention and risk reduction, with the understanding that complete solutions cannot be achieved within these areas alone.

Connectivity

Marlboro Street can have different characteristics along its length, so that it becomes clearly different segments that are linked by an excellent bicycle and pedestrian path/sidewalks stretching along its length. Intersections can be improved and designed to enhance appropriate vehicle and pedestrian links to and across the areas that flank Marlboro Street. New street connections can penetrate the innovative development areas and provide access to the light industrial/business and mixed use areas, including completion of a continuous street link between Victoria Street and Marlboro Street.

The network of bicycle and pedestrian connections can be expanded to provide new linkages and loops connecting the areas and intersecting the existing elevated rail trail. These connections could be off-road paths, shared paths or bicycle routes through public land or easements.

Adequate parking spaces can be provided through sharing and/or other methods to allow more efficient and compact parking solutions that are linked to destinations through excellent pedestrian routes. This approach could enhance the efficient use of land for development and the provision of open space and landscaping within the areas.

Sustainability/Resilience

In addition to complying with City-wide policies and programs, the land uses within these areas can contribute to Keene’s goals for sustainability in several ways, including:

- Compact land development patterns – This land use plan provides for compact new development replacing significant areas of vacant and under-developed land that is within areas that are served by existing municipal and regional transportation and utility infrastructure;
- Lower vehicle miles travelled – The central location of the areas with mixed uses providing jobs, housing, goods, services and amenities can reduce the vehicle miles travelled relative to other, less urban locations. In addition, the expanded network of sidewalks and bicycle facilities and the provision of shared parking could facilitate a shift to non-vehicular modes and distances, reducing total vehicle miles travelled in comparison to other potential development patterns;
- Sustainable site design practices – New site design standards and guidelines use sustainable site design practices as the method for improving, redeveloping, and altering land;
- Improved stormwater and flood control measures – Improvements can work from existing conditions to reduce and mitigate stormwater and flood hazards while expanding green infrastructure and improving water quality, erosion control, and condition of the waterways; and
- Biodiversity – The design guidelines encourage conservation of resources and valuable, functional open space while restricting invasive species in the landscapes.



Curb-cut Bioswale

NYC DOT



Marlboro Street Stormwater Drain to Beaver Brook

Historic Photo of Marlboro Street

COURTESY OF KEENE PUBLIC LIBRARY



4 RECOMMENDATIONS

Introduction

This portion of the report summarizes key recommendations for zoning and other regulatory strategies for the Marlboro Street planning area. Each topic has a corresponding appendix that provides the specific details and recommendations, including:

- Zoning
- Design Guidelines
- Flood Risk Management Strategies
- Stormwater Management Strategies
- Transportation Strategies

The summary of recommendations also describes related actions and strategies that could be undertaken to support the community land use vision that emerged during the planning process.

Zoning

Zoning is a fundamental regulatory method that allows municipalities to identify and manage the shared community interests associated with land use and development. Zoning compliance is a requirement for a wide variety of new development projects, changes in use, and improvements to existing properties. As a result, it is a tool that is most appropriate for guiding the incremental changes and investment patterns that occur over time.

POTENTIAL ZONING METHODS

There are many different methods that can be used to structure zoning regulations. These include new and innovative approaches that communities have adopted to meet specific purposes, as well as more established methods that have traditionally been employed to help guide land use and development. The planning process for the Marlboro Street planning area included consideration of a wide range of special zoning tools and practices that could be available to Keene.

Each approach has different benefits and challenges. Once the overall land use vision was established, the consultant team considered alternative zoning methods that might be appropriate for this planning area and for Keene, prior to assembling the recommendations contained in this report.

The following is a brief list and summary of several relevant zoning methods that were considered. This list is accompanied by observations regarding the appropriateness of these tools for adoption or use.

- Existing Keene Zoning Framework – The existing Zoning Ordinance is organized to provide land use and development guidance within an internal structure that is generally similar to many communities in New Hampshire. This fundamental framework depends upon a zoning map that indicates various districts that organize the City into sub-areas. Each type of district has specific standards for the types of uses that are allowed, permitted or prohibited. Each of the districts has specific standards regarding the basic dimensional requirements for lots, buildings and other improvements. Integrated into this framework are standards for many other aspects of land use and development.

Observation: Keene's Zoning Ordinance has evolved through applied practice over many years. The evaluation of the potential benefits and challenges associated with the current framework was not evaluated on a City-wide basis for this planning effort. However, the current zoning framework is not oriented towards mixed-use districts with non-traditional patterns of development such as those contemplated for portions of the planning area. There are limited provisions within the current zoning structure addressing key topics of compatibility and design quality for sites or buildings, although it does include important dimensional standards related to heights and effective density.

- Overlay Districts – Overlay districts are supplemental zoning districts that are placed over underlying zoning districts and identify special provisions for the given area. These overlay districts can be created to add requirements to an area (for example, extra environmental protections) or to provide greater flexibility in an area (for example, allowance of more uses or increased density).

Observation: Overlay zoning creates a relatively complicated system to understand and enforce, because of the interaction between the underlying zoning standards and the special standards created for a special geographic area. If the future use and development characteristics of a district are distinctive and unlike other districts in the community, it is often more clear, simple and appropriate to create distinct, new zoning districts rather than create a complex network of overlays.

- Incentive Zoning – This method provides a zoning benefit to encourage development that meets specific municipal goals, increasing allowable development beyond a baseline standard. For example, incentive zoning can provide a “bonus” allocation of additional development area, building heights or other benefits to proposals that meet criteria. In some cities, incentive zoning is used to create affordable housing within private sector housing development, or to ensure that commercial development creates desirable retail uses. Keene has adopted such a measure, in its Sustainable Energy Efficient Development (SEED) Overlay District.

Observation: Incentive zoning is effective where real estate market conditions provide high potential returns on investment associated with the scale and type of development that can benefit from the bonus provision, including any additional cost of development associated with providing the public goal that the zoning seeks to implement. Within the Marlboro Street Planning Area, it appears unlikely that these conditions exist today. Instead, the planning and regulatory challenge is to attract and provide for feasible market-based development meeting the use and scale preferences of the community.

- Planned Development Areas (PDA's) or Planned Unit Developments (PUD's) - Many communities have created opportunities for innovative planning within large areas, if they are effectively planned and meet municipal interests. Various terms are used to describe this approach, including Planned Development Areas (PDA's) and Planned Unit Developments (PUD's). In effect, this approach establishes a special new zoning district after a joint planning process is completed between landowners, developers, and the municipality.

Observation – PDA's and PUD's are most appropriate when there is a single entity developing a large area. Within the Marlboro Street Planning Area, the land use intentions extend beyond the limits of any single parcel, and the community goals are associated with creating a more connected, coherent development pattern that includes both small and large developments. As a result, these tools do not appear appropriate at this time.

- Form-Based Codes –Form-Based Codes have been created to help manage the physical form of entire districts, recognizing the benefits associated with high quality approaches to the design of individual sites and buildings, all of which are well integrated within a connecting pattern of streets, blocks, open space, amenities, and the circulation infrastructure. Typical Form-Based Codes include a “regulating plan” that defines subdistricts associated both with the density of uses and distribution of uses. These codes include building form and site standards for the types of development anticipated and allowed. They provide design and other standards for the public spaces and circulation infrastructure including streets, sidewalks, paths and parking. Such codes include a special administrative procedure, because they require different methods to review, approve and regulate development relative to more standard zoning tools.

Observations - Form-Based Codes first emerged as an effective approach for managing large scale development on land that had not been previously developed. This type of zoning has been adapted for communities and district where there is a mix of existing and new development. Form-Based Codes tend to be complex to administer, and can limit both design flexibility and economic feasibility for some types of uses if the regulations are impractical. Also, for municipalities, the standards for streets and roads that it administers are not typically subject to zoning, but rather to its own policies and practices.

- Hybrid Form-Based Codes – Variations on Form-Based Codes have begun to emerge, where a community adopts only relevant aspects of the practices. However, such hybrid codes retain an emphasis on using design standards within the zoning mechanism to help manage the quality and relationships between sites and buildings within an entire district.

Observations - Many communities are finding that Form Based Codes need to be adapted to the pragmatic administrative and economic circumstances within their communities; a Hybrid Form-Based Code appears more likely to be appropriate for this area of Keene than a standard Form-Based Code.

RECOMMENDED APPROACH

The zoning recommendations within this report have been assembled to convey the content of the zoning changes that could occur. However, the City retains several options for determining the best framework and method for adoption and implementation.

The zoning approach is formatted to match the City's current regulatory structure, and could be adopted within the existing framework through amendment. This approach identifies new districts that would be created and indicates changes in the boundaries of existing districts. This would be accomplished through a map change. For each of these districts, the associated rules, standards, definitions and other components are listed, just as they are for other districts today. This approach has been employed because it simplifies the review of the proposed changes with those familiar with the current zoning and how it is administered.

Design guidelines have been created as a distinct product within this report. These guidelines have been structured so that they correspond to the district designations. The City could incorporate such guidelines directly into its Zoning Ordinance. Such an approach would create a Hybrid Form-Based Code, including the relationship of design standards to a specific geographic plan and the need for a special administrative process.

Guidelines for streets and streetscapes are also provided in this report. Should the City choose to incorporate standards such as these into its Zoning Ordinance along with design standards, the result will effectively become Form-Based Zoning.

The zoning recommendations are expressed as potential amendments to the existing Zoning Ordinance that would create two new zoning districts and amend the official Zoning Map in ways that implement elements of the land use vision. The new district designations would be accompanied with new district standards. The potential mapping amendments also include the reassignment of some high density residential areas to a low density classification to align the boundaries with the land use vision.

INNOVATIVE DEVELOPMENT (ID) ZONING DISTRICT

This zone would largely encompass the former industrial zone but support the transformation of industrial areas into a more flexible, innovative zone oriented to business, light manufacturing and research and development or other entrepreneurial ventures also allowing for live/work, retail, and residential uses as part of a mix. The recommended zoning and development standards stress significant, functional green space, which could contribute to natural resource values, flood and stormwater management, and public access. Shared parking, connecting walkways and other methods can be used to decrease the impact of cars and enhance pedestrian access. The City's own civic campus is within the recommended district, and the City can set an example with an innovative design to ensure that new recreational facilities, parking and other components are connected to greenways, walkways, bike-way and amenities.

The following is an outline of the standards and other elements of the recommended ID regulation:

Permitted Uses

- As found in the Summary of Allowable Uses in Appendix A, the allowable uses in Industrial zones except for Warehousing and Bulk Storage are allowed in ID as a Principal Use (Warehousing may be allowed as an Accessory Use);
- Research and development laboratory;
- Public parks, hiking trails, recreational uses;
- Art center;
- Dedicated flood storage areas;
- Mixed use buildings;
- Live/Work units (as defined in *Part II - Code Of Ordinances, Chapter 102 - Zoning, Article I. In General, Sec. 102-2. Definitions*); and
- Flex space (multiple principal uses per building).

Allowed by Special Exception or as a Conditional Use

- All of the uses listed as a special exception for Industrial zones except for Warehousing and Bulk Storage as a special exception;
- Processing and/or packaging of materials associated with computer software, biotechnology and/or medical industries;
- Motor vehicle uses;
- Multifamily housing; and
- Institutional uses.

Prohibited Uses

- Drive-in (drive-through window) uses.

Dimensions

- Maximum building height of 4 stories, or 50 feet (except within 150 feet of Marlboro Street or an adjacent low or mid-density zone, where 3 stories and 35 feet are to be permitted);
- Minimum lot area of 8,000 square feet, plus minimum lot area 2,000 square feet per unit;
- Special frontage requirements to allow multiple buildings on a site;
- Front yard setbacks 15 feet;
- Rear and sideyard setbacks 15 feet typical, more adjacent to sensitive adjacent zones; and
- Minimum green space of 25%.

Other Standards and Guidelines

- Allowances for shared parking;
- Encouragement for shared green open space and access;
- Standards for providing on-site circulation and bonus benefits associated with providing public access to walking networks that connect multiple sites;
- Standards for orientation and location of parking lots to reduce their visual impact from public vantage points; and
- Sustainable site planting, storm water management standards associated with the flood plain conditions; and
- Special signage standards.

DOWNTOWN EDGE (DE) ZONING DISTRICT

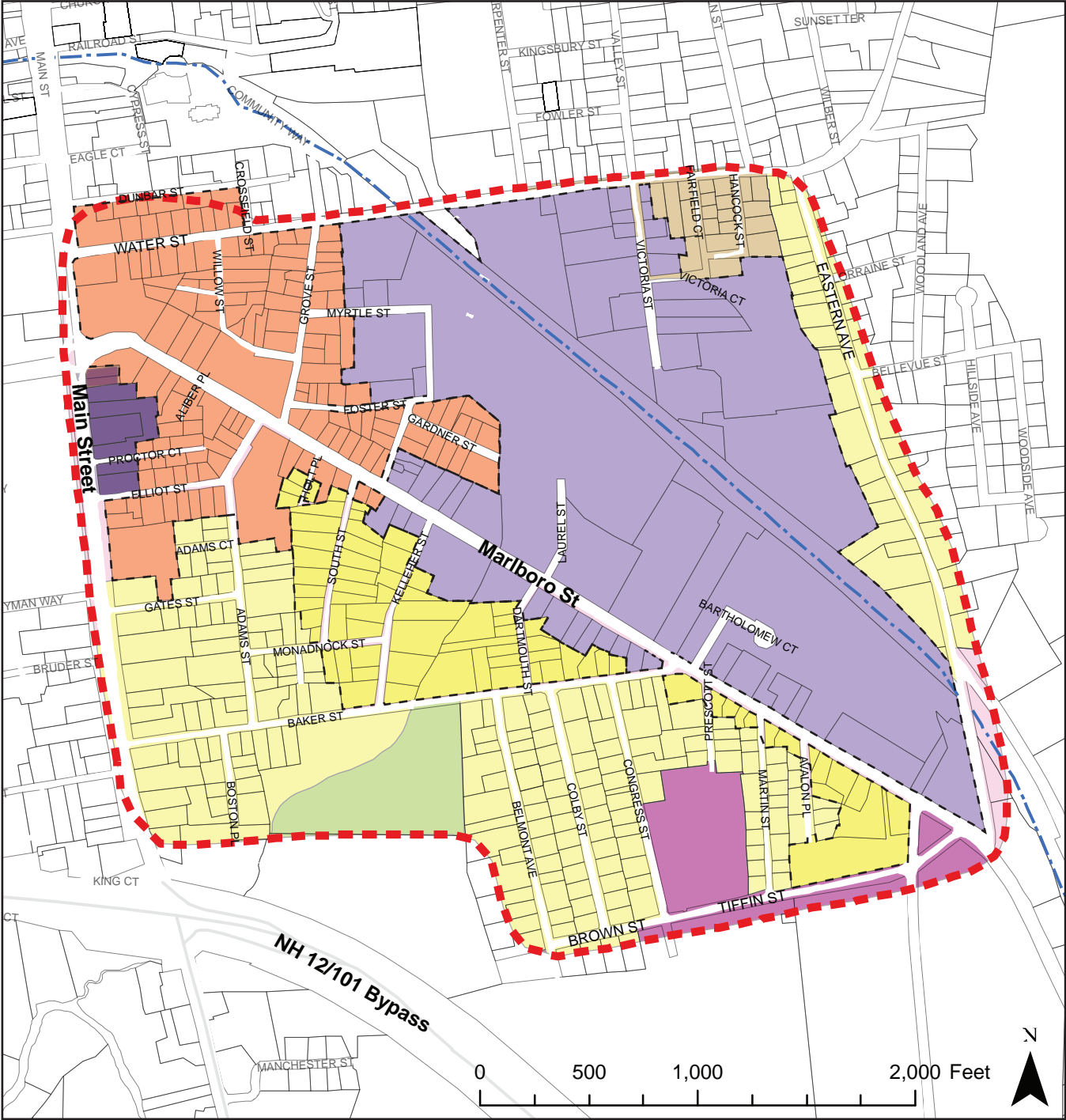
This district aggregates some of the high density residential and commercial zoned land that is directly linked to the downtown at the western edge of the Planning Area. This area has a recognized potential for mixed use development to extend the assets of the downtown, but at densities that are intermediate between the downtown and the Planning Area. The recommended approach creates incentives to redevelop deteriorated properties by allowing adequate density to afford and therefore encourage improvements. The recommended scale and character is in keeping with the qualities of a downtown neighborhood that encourages exploration and activation of the streets.

The following is an outline of the standards and other elements of the recommended DE regulation:

Permitted Uses

- As found in the Summary of Allowable Uses in Appendix A, all of the uses currently listed for High Density (HD) except Fraternity/sorority and includes uses from Commerce that are appropriate for smaller-scale

Figure 8 Proposed Zoning



Proposed Zoning

New Zones

- Downtown Edge
- Innovative Development

Existing Zoning and Re-Zoning

- Low Density
- Low Density (Re-Zoned)
- Medium Density
- Industrial Park
- Office
- Conservation

development in a transition area, such as Neighborhood grocery store, Office, and Retail;

- Mixed use buildings; and
- Live/work.

Uses Allowed by Special Exception or a Conditional Use

- All Special Exception uses in High Density;
- Restaurants; and
- Nursery or child care facility.

Prohibited Uses

- All uses prohibited in High Density except for additional uses adopted into DE from the Commerce district as listed above in Permitted Uses; and
- Fraternity/sorority.

Dimensional Concepts

- Maximum building height for residential or residential mixed use of 3 stories, or 40 feet; Special Exemption 4 stories or 50 feet;
- Minimum lot area of 6,000 square feet, and minimum lot area 1,500 square feet per unit;
- Minimum frontage 50 feet;
- Front yard setbacks 15 feet;
- Maximum lot coverage by structures 80%;
- Rear and sideyard setbacks 15 feet typical, more adjacent to sensitive adjacent zones; and
- Minimum green space of 15%.

Other Standards

- Allowances for shared parking;
- Standards for orientation and location of parking lots to reduce their visual impact from public vantage points;
- Sustainable site planting, storm water management standards, and associated flood plain standards; and
- Special landscape standards to help create an identity and sustainable environment.

CHANGING HIGH DENSITY (HD) RESIDENTIAL TO LOW DENSITY (LD) RESIDENTIAL

This recommended district remapping does not change the standards of either district. It is a remapping of HD to LD along Marlboro Street to serve the purpose of stemming the conversion of Single-family homes or other buildings into multi-unit residential properties geared towards the student market.

This is recommended as one step in re-establishing certain areas as predominately Single-family streets and blocks over time.

Additional standards that could be included in the district can also apply City-wide, if found applicable to all the LD districts, are as follows:

- Standards for the location of parking areas (side or rear yard requirement);
- Maximum number of parking spaces (per unit or per dwelling);
- Materials associated with the provision of on-site parking to reduce environmental impacts, such as recycled, porous, low energy, and planting materials; and
- Additional definitions so that rooms are not converted into units.

If found not appropriate for all LD districts, these standards can be included in the Design Guidelines.

Design Guidelines

In addition to the zoning, special design criteria and guidelines to direct the specific character of development are recommended. These criteria can vary along the length of Marlboro Street, gradually converting the frontage properties into three visibly distinct segments. Each segment can be coordinated with the adjacent zoning and address all aspects of the public realm including the character of the buildings, site improvements, and adjacent rights-of-way.

Specific elements of the recommended Design Guidelines can be customized for each district and link along Marlboro Street, which are recommended as follows.

DOWNTOWN EDGE

Features of the design criteria for these segments are:

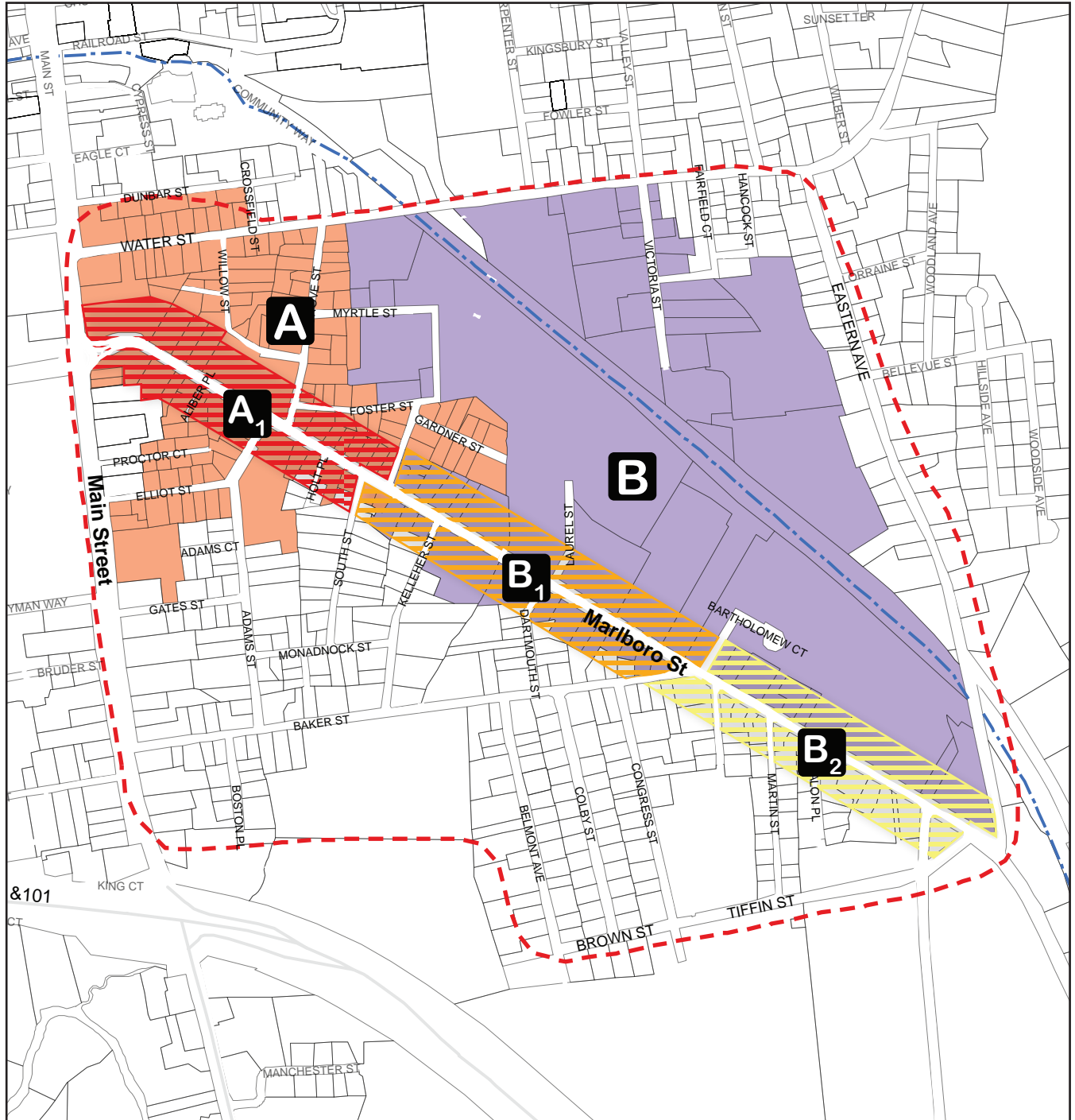
- Provisions for the orientation of buildings and entrances towards the street entrances and activation of ground floor edges;
- Limits on ground floor and building front yard setbacks to activate the street environment;
- Guidelines for transparency and window patterns along the street elevations;
- Distinctive street tree palette different from other segments;
- Streetscape guidelines for roadway, curb, planting edges, lighting, bicycle enhancements, parking, and other elements for public implementation;
- Recommendations for on-building lighting;
- Recommendations regarding architectural character; and
- Recommendations on signage types.

INNOVATION EDGES

Features of the design criteria for these segments are:

- Provisions for the orientation of buildings relative to streets, accessways or driveways as well as the visibility of entrances and activation of ground floor edges;
- Character of front yard setbacks to create a balance of “green” and built environment;
- Guidelines for transparency and window patterns along the street elevations;
- Distinctive street tree palette different from other segments;
- Streetscape guidelines for roadway, curb, planting edges, lighting, bicycle enhancements, parking and other elements for public implementation;

Figure 9 Design Guideline Districts



Design Guideline Districts

New Zones

- Downtown Edge
- Innovative Development

Marlboro Street Districts

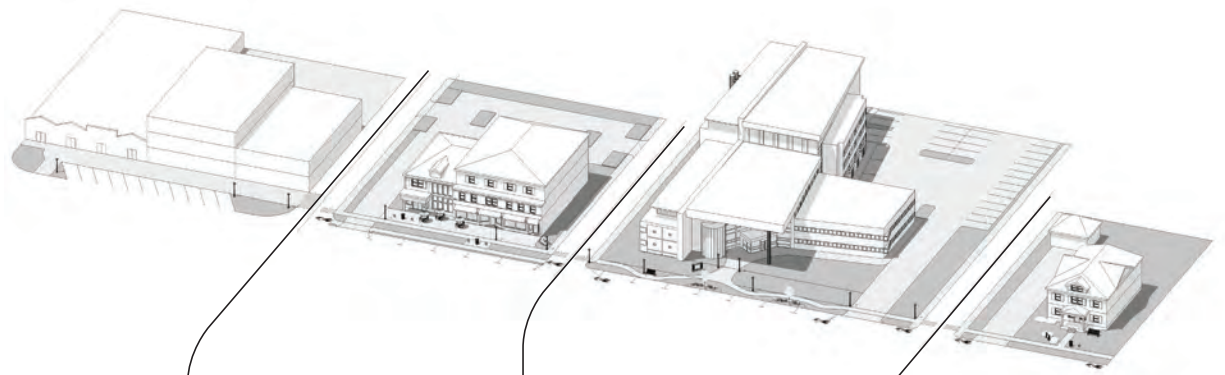
- A₁: Marlboro Street
- B₁: Marlboro Street
- B₂: Marlboro Street

- Recommendations for building lighting;
- Recommendations regarding architectural character; and
- Recommendations on signage types.

NEIGHBORHOOD TRANSITION

Features of the design criteria for these segments are:

- Provisions for orientation of buildings relative to streets;
- Scaling principles for facades along streets;
- Character of front yard setbacks to create substantially “green” environment;
- Distinctive street tree palette different from other segments;
- Streetscape guidelines for roadway, curb, planting edges, lighting, bicycle enhancements, parking, and other elements for public implementation;
- Recommendations for building lighting; and
- Recommendations regarding architectural character.



Downtown Keene

4 stories, 6 by Special Exemption (CB zone)

The downtown is an important abutter to the planning area with strong walkability, high quality streetscapes, and vibrant economic activity.

Downtown Edge (A, A₁)

3 stories, 4 by Special Exemption

- Streets should extend the character, quality and amenities of the walkable core of the downtown environment while enhancing circulation, accessibility, and comfort for pedestrians and bicyclists.
- Sites should physically define and focus activity at primary street edges. Passive uses, service and parking functions should be at the interior of blocks away from the street.
- Primary façades should be oriented to the street. Buildings should contribute to the downtown environment.
- Building and site lighting should reinforce the continuity of a downtown district with ornamental fixtures for building, street and pedestrian lighting.
- Low impact site design and stormwater management features should be incorporated into the streetscape, parking and site design.

Innovative Development (B, B₁)

4 stories, 3 within 150 feet of Marlboro Street

- Streets should create a campus-like setting with connected pedestrian and bicycle access systems between public right-of-ways, private developments and abutters.
- Sites and open space should create a network of connected parks and plazas throughout the district, connect to pedestrian and bicycle paths, and be combined across parcels where possible to create larger, shared, open spaces.
- Freedom of architectural expression and innovation should be celebrated in the design of new buildings.
- Innovative designs should aspire to leading practices of sustainability. Building and site design should pioneer low impact environmental features that reduce energy use, enhance resource management and sustain healthy buildings and sites.

Low Density (B₂)

2 stories

- Shared-use paths should accommodate pedestrians and bicycles.
- The character of a low density and landscaped neighborhood should be preserved. The character of the front yard setbacks should be reinforced to create a substantially green environment with buildings setback behind a green space, garden, or rain garden.

Flood Risk Management Strategy

A significant goal of this planning initiative is to identify regulatory approaches to solving or improving the problems in the Planning Area due to major flooding events. The major flooding events are indicated by the extents of the '100-year' floodplain shown on the Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA). However, the extent of actual flooding during recent events shows that the flooded areas can vary significantly and can be more extensive than the FIRM mapped boundaries. The regulatory approach to manage the hazards associated with the floodplain areas includes reducing potential property damage from flood events and increasing safety, and better defining the impact of, and mitigation for, project specific flood events. This may be accomplished with the following regulatory approaches:



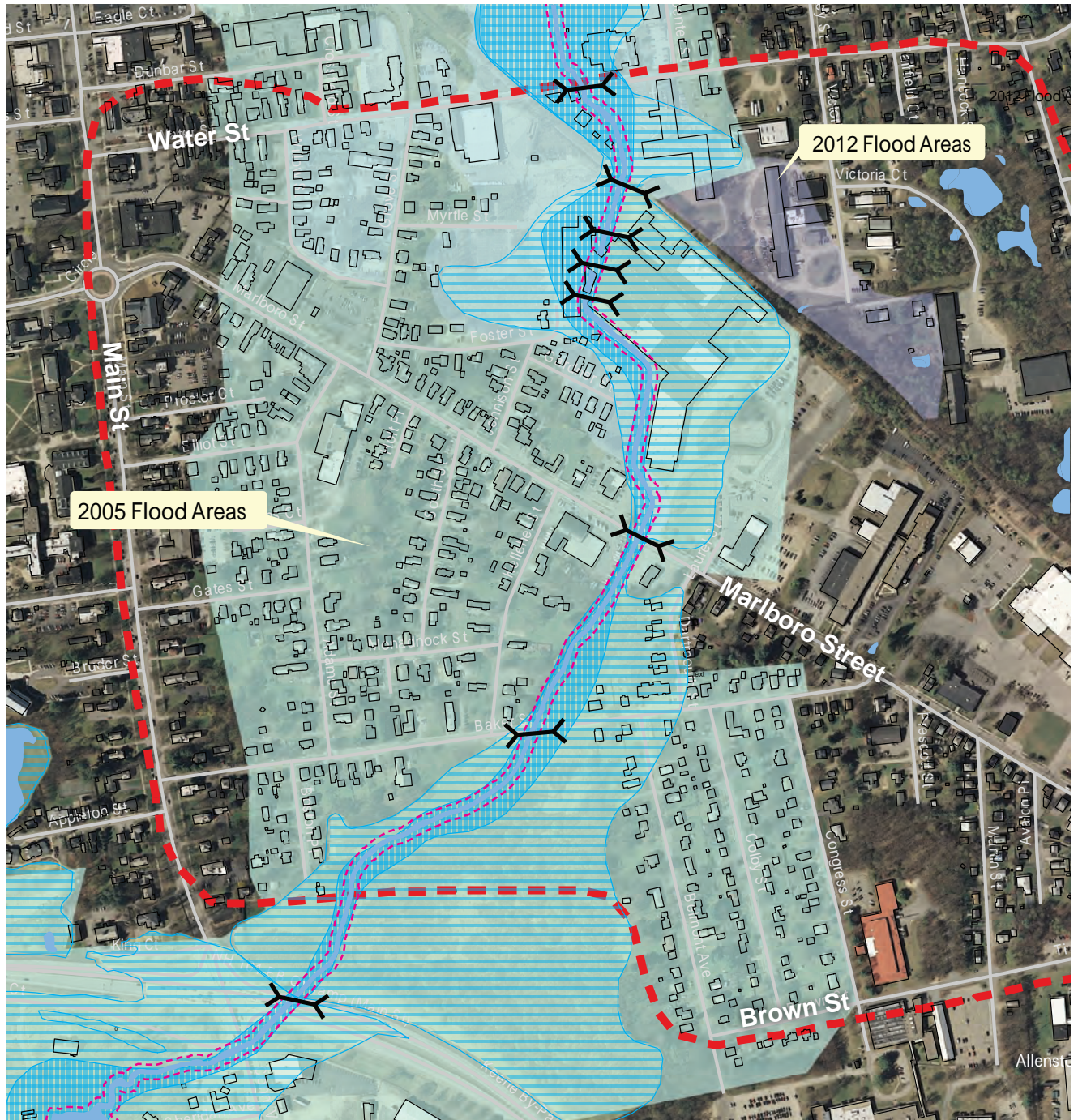
Beaver Brook



Japanese Knotweed Infestation just North of Water Street











- Amend Chapter 54, Natural Resources, Article II Floodplain Ordinance – Increase separation from the Base Flood Elevations for both residential and commercial uses. Restrict all development in the Regulatory Floodway and increase flood storage compensation requirements to mitigate long-term changes in flood hazards;
- Amend Chapter 54, Natural Resources, Article II Floodplain Ordinance – Require wetland delineation in accordance with the most current wetland delineation methodology. This can ensure protection of natural resource areas that attenuate the impacts of flood events;
- Amend Chapter 54, Beaver Brook Special Flood Hazard Area – Consider the creation of a flood protection overlay zone to require development to adhere to the same standards as in the FIRM Special Flood Hazard Areas. The City could establish a presumption that the development within the overlay district is within a flood hazard area with the same constraints as the FIRM Special Flood Hazard Areas with the City's own methodology to define the regulatory flood elevation, and would require projects involving new fill, construction, additions or renovations requiring a building permit to submit engineering surveys indicating whether any changes would be occurring within the enhanced flood plain elevation, and establish that appropriate mitigation measures have been taken just as though the projects were subject to Special Flood Hazard Areas standards set by the FIRMs;
- Amend Chapter 54, Natural Resources, Establishment of a Natural Resources Overlay District – Consider the creation of an overlay district that provides flexibility and applies to a specific district or natural resources depending on the desired outcome and the desired extent of regulatory control. This can include the imposition of restrictions on the FIRM Floodway, where no development should occur that impacts the Base Flood Elevation as defined by the FIRM Floodway. This provides areas for flood storage and mitigation, and for natural resource enhancement objectives.

Figure 10 Flood Protection



Flood Risk Management

Map Legend

- | | |
|--|--|
|  FEMA Floodway |  Beaver Brook |
|  FEMA 100-Year Flood Zone |  Proposed 15-foot greenway on either side of Beaver Brook |
|  2005 Flood Areas |  Buildings |
|  2012 Flood Areas |  Open Water |
|  Project Area |  Waterway Barriers |



Stream Bank Armoring South of Kingsbury

The Natural Resource Overlay (NRO) District could include several different elements including incentives similar to the Keene Sustainable Energy Efficient Development (SEED) Overlay District. The purpose of the NRO District can be to encourage environmental stewardship of wetlands and surface waters by creating conditions within which property owners could have the option of implementing BMPs, flood mitigation, stream restoration, vegetated buffers, and LID in exchange for zoning incentives. The same density, height, dimensional, and parking incentives established for SEED can be applied to the NRO. The NRO could have specific requirements for the establishment of riparian buffers and wetland buffers, limits on impervious surfaces and flood storage requirements. If the project occurs along Beaver Brook the NRO can require the establishment of vegetated flood benches as flood mitigation; and

- Amend Planning Board Development Standards – Given that the FIRM boundaries are based on broad information and are not site specific, require a detailed floodplain analysis that determines project-specific conditions, to better meet standards for floodplain construction at the project.

Stormwater Management Strategy

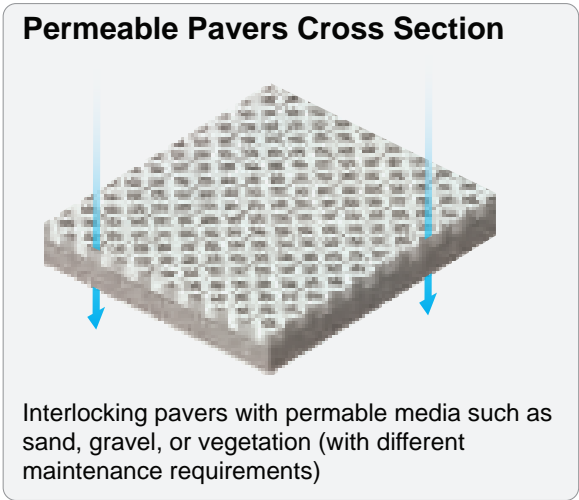
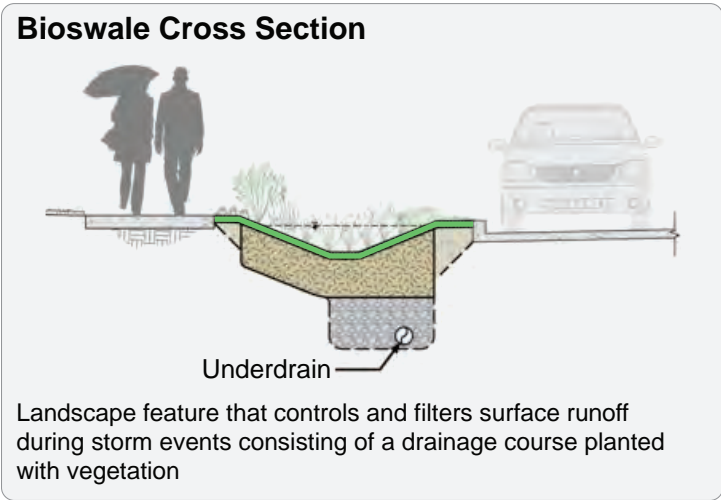
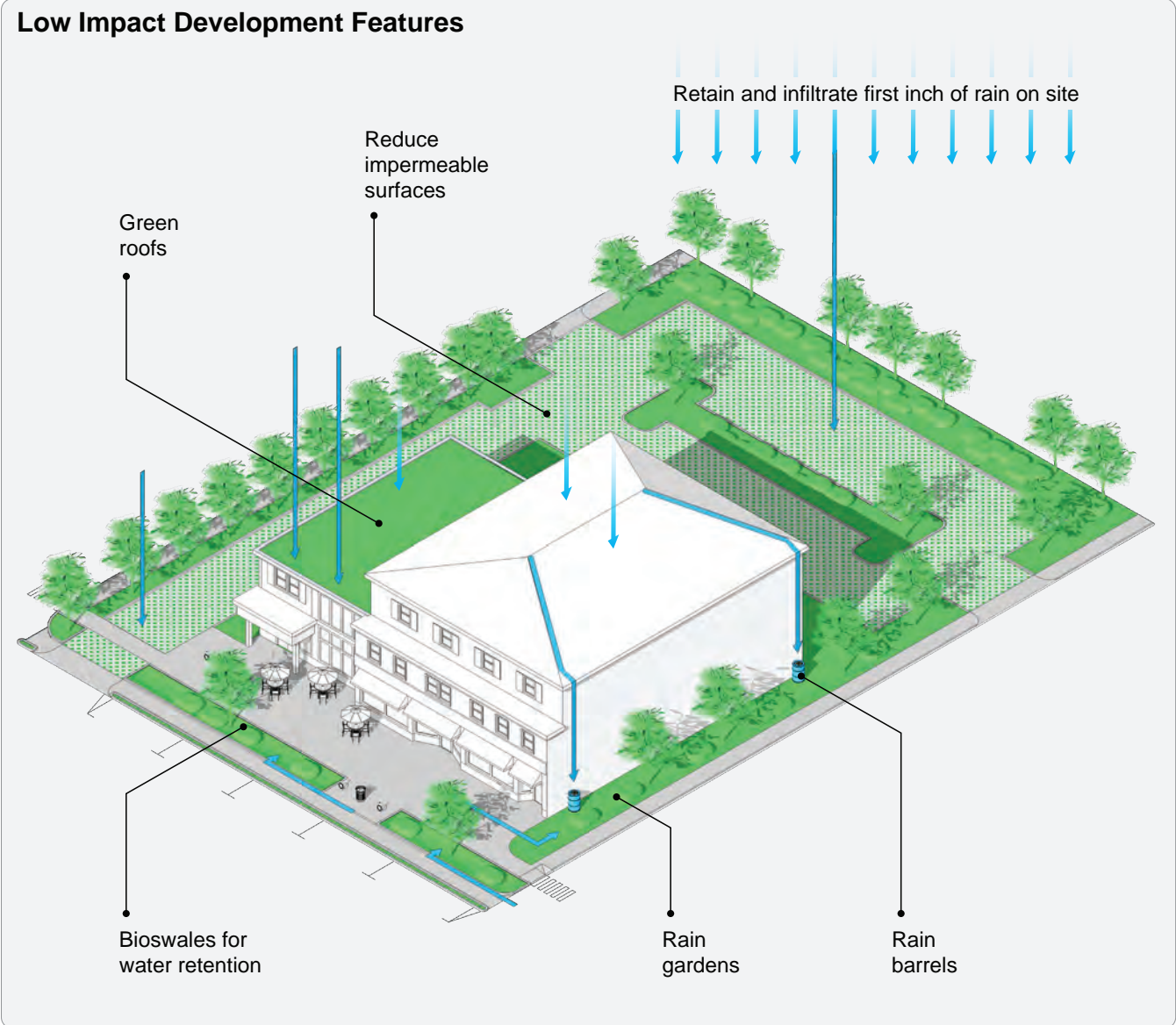
Directly related to flood events is another goal of this planning initiative which is to identify regulatory approaches to improving stormwater management. As discussed in the Existing Conditions, key issues include problems with the maintenance and condition of existing stormwater systems, and the need for higher standards to mitigate the more frequent storm events. Potential regulatory actions to improve conditions within the Planning Area include:

- Amend Chapter 70 – Public Improvement Standards – Include periodic maintenance inspections of stormwater controls by Public Works Department or through owner reports to ensure stormwater controls are properly functioning. Specify that storm drains and conveyance systems must be designed using the most updated precipitation data to both smaller and larger storm events (e.g. 2-year, 10-year and 50-year storm events) for all areas. Require Best Management Practices that capture and infiltrate roof run-off (e.g. rain barrels or rain gardens) rather than directing run-off to the stormwater system for projects larger than a specified threshold;
- Amend Chapter 38 – Environment – Specify that illicit discharges to storm drains are prohibited (*Article II – Pollution of Air and Water*). Specify that unstabilized (unpaved compacted dirt) driveways and denuded areas are considered public nuisances and must be stabilized to prevent erosion and sedimentation into stormwater conveyance systems;
- Amend Chapter 54, Natural Resources, Establishment of a Natural Resources Overlay District – Create an overlay district as described in the Flood Risk Management Strategy with its application to stormwater management; and



Erosion into Storm Drain on Victoria Street and into Beaver Brook

Figure 11 Stormwater Management Strategies



- Planning Board Development Standards – Continue enhancing and improving upon Low Impact Development and Best Management Practices standards for stormwater management.

Transportation Strategy

The purpose of the transportation strategy is to transform the district into a dynamic pedestrian- and bicycle- friendly corridor. There are a number of specific recommendations along Marlboro Street itself, including curb cut reductions, bicycle lanes and tracks as well as reconfigured turning lanes. Recommendations are provided for the neighborhood streets off Marlboro Street, the future street network and increased connections to the Cheshire Rail Trail. Lastly, this section includes a parking strategy with reduced minimum parking requirements, municipal parking leases and new parking policy standards with time-limited spaces.



Cheshire Rail Trail Looking North



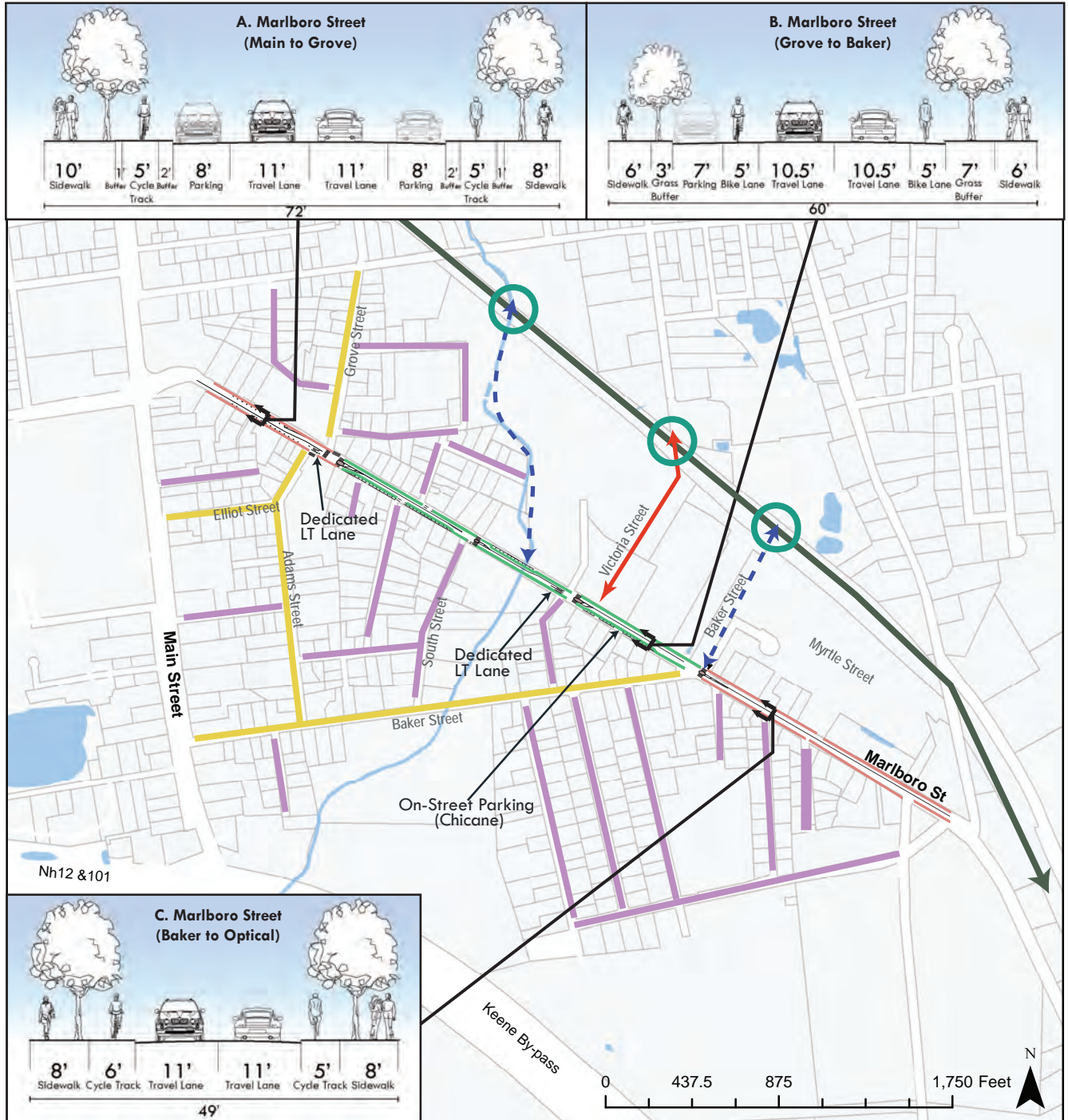
Marlboro Street



Elliot Street

- Parcel Access – Future curb cuts and parcel redevelopments can be planned with an eye towards consolidating curb cuts to minimize conflicts and improve pedestrian and bicycle comfort and safety. As shown in *Appendix E: Transportation Strategy*, there are opportunities to limit the number of curb cuts, which can be realized through shared access easements.
- Vehicle/Truck Access – With the recent reconstruction of Grove Street and proposed redesign of Marlboro Street, an alternative truck route is recommended to access Water Street and eastern downtown businesses via Marlboro Street and a turn right onto Grove Street. The City may need to reconstruct the curb line to help aid trucks taking a right turn at this intersection and will need to widen Grove and Marlboro Street to accommodate this truck turning movement.
- Cheshire Rail Trail – Recommendations include formalizing existing and creating new access points to encourage pedestrian and bicycle mobility between residential neighborhoods looking to connect to and from downtown as well as within the district. Important access points include intersections with proposed streets such as Victoria Street, the Baker Street bike connector, and the Greenway connector. Another recommendation is to improve the Water Street and Cheshire Rail Trail intersection for pedestrians and bicyclists. Finally, providing lighting along the length of the trail can help to provide better visibility and safety for those on the trail during the evening hours.
- Future Street Network – The vision of new connecting streets, shown in Figure 12, provides an interconnected network of streets that improves connectivity within the district in order to make destinations more accessible and safe for all modes of transportation as well as to promote an innovative mix of uses that supports a wide range of businesses and industrial uses, supported by shops, restaurants, and new housing.
- Complete Streets – On Marlboro Street, interim and permanent cross sections are proposed for each of the three segments with widened sidewalks, bicycle lanes and tracks, and street trees. Off of Marlboro Street,

Figure 12 District Transportation Recommendations





District Transportation Recommendations





Marlboro St Improvements

-  Cycle Track
-  Bicycle Lanes

Street Typologies

-  Connecting Streets
-  Residential Streets

New Streets and Connections

-  Street Extensions
-  Bike Trail Connections
-  Chesire Rail Trail
-  Rail Trail Access Points

street typologies have been created to signify the hierarchical difference in proposed roadway cross-segments within the district and to distinguish the differences between the various residential neighborhoods streets. Proposed designs consider the connections and accessibility within the residential neighborhoods and between the neighborhood and Marlboro Street.

- Parking Management – Sharing parking spaces among a mix of uses reduces the total number of spaces required compared to the same uses in stand-alone developments. The benefit to the surrounding community is a more efficient use of land resources with the potential for redevelopment at infill locations that might otherwise be dedicated for parking. The City can create a shared parking program between public and private parking spaces along the corridor to create additional parking opportunities for visitors, employees, and customers. On-street parking in the district could be time-limited and/or subject to permit parking for long-term residential or employee parking.

Related Actions and Strategies

This planning process focused upon specific aspects of the City’s regulatory framework and policies which have been described above – zoning, design guidelines, transportation, stormwater management and flood protection within the limits of the planning area. The balance of this Report contains the associated recommendations for each of these topics.

However, discussions of other related actions and strategies emerged during the course of studies. The consultant team has noted possible steps that the City may consider in the future to address these issues or accomplish these goals. Although these topics were not within the scope of the studies or the subject of this Report, they have been noted and are assembled in this section for several reasons:

- Other community concerns and goals – This is a record of community concerns or goals which were expressed during meetings and work sessions that cannot be reasonably addressed by the zoning or other regulatory measures that are the subject of this study;
- Actions or regulatory steps outside of the Marlboro Street planning area – The City can consider actions or regulatory changes outside of the planning area that can improve conditions within the district and
- Non-regulatory actions to complement planning and regulatory goals – In some cases, the City can take non-regulatory actions that will support the planning goals for the Marlboro Street area.

PROPERTY DETERIORATION AND NEGLECT

The review of existing conditions noted instances of significant deterioration of buildings and accumulated neglect of both buildings and properties

in various portions of the Marlboro Street area. The reasons for such neglect were not determined, but there are likely to be a combination of factors:

- Low demand for commercial and retail space – Demand for commercial and retail space in the district is likely to have declined considerably from earlier eras. When some of the buildings were first constructed, there was substantial employment within the industrial complex, Marlboro Street served as a major regional connector road, and alternative retail and commercial development had not yet been established in other locations;
- Student rental housing – Student tenants tend to be sensitive to price and convenience, rather than to quality as consumers of housing; landlords do not need to maintain properties at a high level to attract student tenants; and
- Low rents relative to maintenance costs – As the quality and maintenance of the district has declined, it may be difficult to correct deferred maintenance with the revenues available from supportable market-rate rents. This circumstance can be exacerbated if properties have been financed based on overvalued property during a speculative cycle.

Indirectly, zoning can create incentives for owners to maintain properties by discouraging conversions of property to low-rental rate uses and supporting new investment; the zoning recommendations in this Report serve these goals.

However, zoning cannot directly require maintenance of properties. Steps that the City can take to induce higher levels of maintenance are:

- Code enforcement – Where deterioration violates certain building and safety codes, the City can require owners to correct conditions;
- Façade improvement programs – The City can seek and dedicate funding for façade improvements for key areas, such as frontages along Marlboro Street; and
- Low cost loan programs – In some communities, area banks have collaborated with municipalities or non-profits to focus low cost loans to accomplish basic building and site improvements.

COMMUNITY/COLLEGE RELATIONSHIP: ISSUES AND OPPORTUNITIES

Some participants in community discussions communicated negative experiences associated with residency of college students within the project area's neighborhoods. The complaints were largely associated with the crowding within housing units, crowded parking on lots and lawns because of the large number of vehicles, and the noise and disturbances in the afternoons and evenings. On-street parking near the campus was also noted as an issue.



Keene State College

Zoning offers limited solutions to these issues. Zoning can be used to include or exclude dedicated student housing (dormitories), and the Keene zoning for this area does not – and is not proposed to – allow student housing as a permitted use. In addition, the zoning proposal can reduce the ability to convert or create new multifamily housing by reducing the extent of the High Density zoning within the area, and reduce the ability to create additional multifamily units in those locations to house students (or others).

In general, however, zoning cannot be employed to discriminate between the types of renters and residents based on their occupation or enrollment status. The consultant team researched this topic to find examples of municipal zoning that has attempted to regulate student rental housing. One example attempts to regulate residency based on status as full-time students. However, the difficulties associated with enforcing such an ordinance are considerable and its legality is questionable. As a practical matter, there could be an overwhelming enforcement problem with establishing student identity, current enrollment status, changes in enrollment status, the numbers of students who are part-time and other issues.

More effective solutions to student/neighborhood relationships are found through a variety of methods and practices. The City, neighborhood and Keene State College can work together with the following goals and actions:

- Increase on-campus student housing – This requires policy, planning and financial commitments on the part of the College and University of New Hampshire system;
- Allow student-oriented housing in other appropriate locations – Focus on providing or supporting expansion of student rental housing opportunities in other areas of Keene that are more appropriate;
- Communication – Create a regular system of meetings, forums, reporting and discussions involving the community, KSC and the City to monitor problems, explore and implement solutions. As part of this process, participants could research, monitor and adopt best practices for improving “town/gown” relationships among the many communities that have similar issues; and
- Enforcement – Some of the problems are violations of City ordinances and do not require creating new regulations; these are best addressed through enforcement measures.



Baker Street Stream Crossing

CIRCULATION INFRASTRUCTURE AND FLOOD PRONE AREAS

The circulation and roadway strategy is primarily intended to support the land use and development vision and contribute to the quality of life in the district. In addition, the engineering of improvements can contribute to flood

prevention or mitigate flood impacts. Concepts discussed by the consultant team included:

- Modification in grades and bridge conditions along Marlboro Street – A review of FEMA mapping suggests that the bridges over Beaver Brook serve as dams during extreme storm events, raising water levels upstream. In addition, portions of Marlboro Street are inundated under some conditions. Studies should consider whether raising grades and reconfiguring bridges and channelling in this area could provide uninterrupted access during storm events and contribute to flood control or prevention; and
- Grades and alignments with future street extensions or construction within the former industrial properties – The design of a potential Victoria Street connection and possible internal streets associated with subdivision and redevelopment must take into account the potential contributions to limiting or mitigating flood conditions and their impacts.

EXTENSION OF PUBLIC OPEN SPACE AND ACCESS NETWORKS

The Land Use Vision for Marlboro Street and its nearby areas includes expanding the green open space network in the area. This expansion can serve several purposes, including preserving and extending natural open space corridors conducive to wildlife and biodiversity, and reserving flood-prone land for stormwater storage during flood conditions. These open spaces can contribute to the pedestrian networks that connect different districts of Keene. Other public open spaces could contribute to the recreational facilities.

The preservation and provision of landscaped open space and natural areas on private property as part of the overall community health and economic sustainability – including stormwater management – are integral parts of the zoning and other regulatory recommendations contained in this report. However, expansion of public open space and access could require other methods, including:

- Acquisition of open space corridors or spaces as part of public infrastructure investment – The City can acquire land or easements in conjunction with public expenditures or projects associated with transportation, stormwater management or other utilities;
- Direct acquisition of open space assets for use by the community – The City can acquire open space assets for public purposes through purchase or negotiated agreements using the standard methods that it has available; and
- Improvement of existing land and open spaces – The City can incrementally improve open spaces and recreational opportunities on land that it already owns, including the land which accommodates municipal uses along the southern segment of Marlboro Street, with initiatives for pedestrian circulation and new connections to the Rail Trail over time.



Cheshire Rail Trail Crossing Water Street

STORMWATER MANAGEMENT AND FLOOD PREVENTION OUTSIDE OF THE MARLBORO STREET AREA

The City has powers to improve conditions in the Beaver Brook watershed, which extends beyond the Marlboro Street planning area, both upstream and downstream. In addition, these same principles may also be applied in the other City watersheds as part of a comprehensive, city-wide approach to stormwater and flood hazard management. These principles include:

- Apply best practices to City projects – Apply high standards to the design of infrastructure and public works initiated by the City. Where appropriate, partner with private development in the application of public resources for these types of improvements. When applied outside of the Marlboro Street area but within the watershed, the benefits from reduction of stormwater and flood hazards could accrue to all properties;
- Inspections and maintenance – Maintenance inspections of stormwater controls by the City’s Public Works Department to ensure stormwater controls are properly functioning. These inspections could be supported by maintenance easements and an inspection fee;
- Mitigation – Identify projects and parcels in the Beaver Brook upper watershed, outside of the Marlboro Street neighborhood, that have significant opportunity to reduce stormwater inputs and mitigate flood waters to reduce peak flow discharge. Provide tax or zoning incentives to conduct mitigation projects where the properties are in public ownership. The parcels identified for mitigation projects may also be considered as potential links in the open space network;
- Public education on flooding hazards – Continue City efforts to educate the public on the hazards associated with flooding, the ways people may prepare themselves in the event of a flood hazard, and what to expect regarding post-event actions by public agencies. In addition the City can further reinforce the need and benefits in protecting natural and water resources by controlling runoff and pollutant discharges to the resource areas; and
- Monetary incentives – The City can promote reductions in flood insurance premiums when the actions taken by the City under the FEMA Community Rating System lift the City to a higher class. In addition, the City can provide tax incentives to encourage the construction and addition of stormwater control measures such as rain barrels and rain gardens.

CITY PROPERTY AND A CIVIC CAMPUS

The City is a substantial landowner at the southern end of the Marlboro Street corridor in the district. In addition to the public safety facilities and multi-use space, the City is in the process of redeveloping a warehouse into an indoor skating facility. As a major owner in the district, the City can consider the benefits of a master planned approach to site improvements and devel-

opment that could benefit the surrounding district and serve other public purposes. This approach is:

- Creating a municipal “campus” master plan – The City can conduct a master planning process for the site and consider how it could be improved over time, including current and prospective uses, parking and circulation locations and patterns, pedestrian and bicycle facilities and amenities, landscaping, lighting, signage and sustainable environmental characteristics;
- Improving the image of the campus from Marlboro Street – Keene State College and the City can provide landscaping and re-organization of parking and circulation to create a more attractive appearance from the street;
- Using municipal land to enhance walkway and bikeway connections – The City-owned land can directly contribute to expanded circulation networks sought by the community; and
- Adding non-municipal uses within the property – The City can consider opportunities to lease portions of the land that it may not need for private sector redevelopment or uses that could contribute to the character, amenities and patterns of use, particularly along the Marlboro Street frontage.

SUPPORTING REDEVELOPMENT OF FORMER INDUSTRIAL PROPERTIES

The redevelopment of former industrial property within the planning area—most notably the former Kingsbury complex—is an important community goal that was mentioned at every public meeting. It can bring city-wide economic benefits associated with converting underutilized land into productive uses and expanding the City’s tax base. From the perspective of the neighborhood, redevelopment could have many benefits, including diversifying and expanding the range of business and employment opportunities, expanding the range of housing choices, contributing to open space, circulation and both flood control and stormwater management. The Land Use Vision component of this Report describes these opportunities.

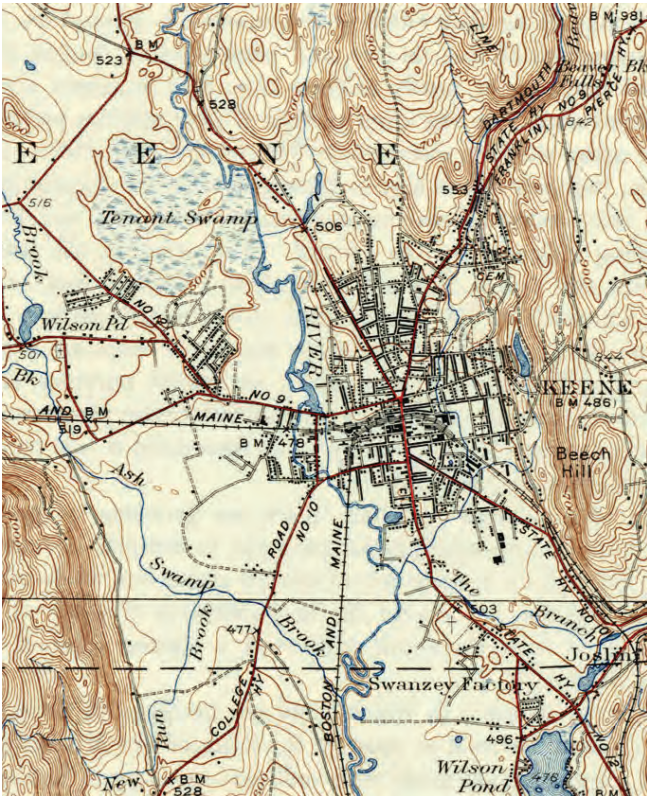
The redevelopment of this land could most likely be a highly complicated, multi-phased endeavor that can require collaborative public and private reinvestment. This report is confined to the regulatory framework and provides general recommendations concerning enhanced circulation and access for all modes of travel. The range of additional municipal tools to support redevelopment is very large, and it is substantially beyond the scope of this plan to evaluate or suggest additional specific methods or the actions that the City can best pursue.

In selecting the most effective tools and actions, however, the City can have opportunities to accomplish multiple goals through coordinated engineering and land planning that are consistent with the recommendations in this Report. The City can consider approaches that combine removal of obsolete

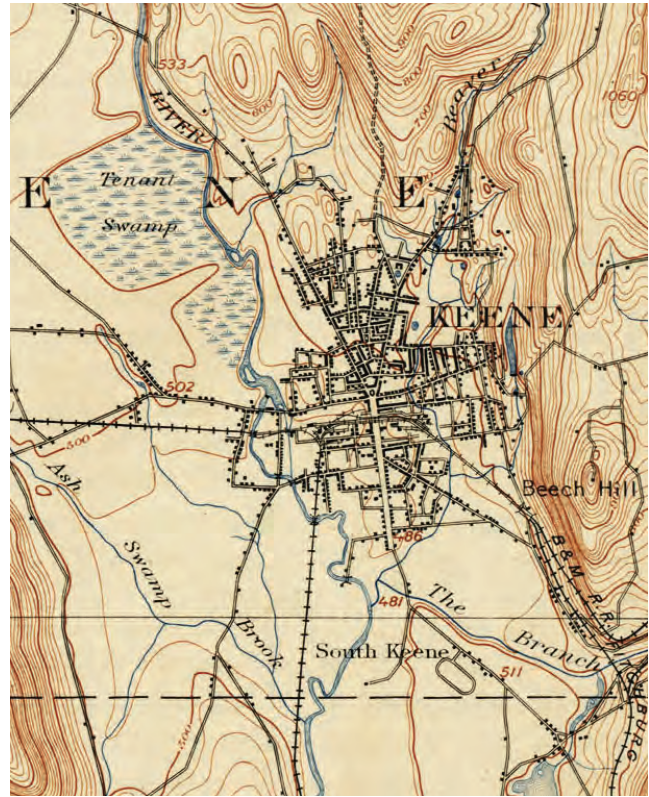


Vacant Kingsbury Factory Site

structures, mitigation of hazardous environmental materials, reconstruction of waterways, with the creation of stormwater storage or other flood prevention and mitigation improvements, location and provision of access and utilities, and re-organization of grades to optimize buildable land and create more valuable building sites.



Detail of USGS map, 1895



Detail of USGS map, 1932

5 METHODS FOR IMPLEMENTATION

The City is provided powers by State laws to create regulations and ordinances, when following the specified administrative procedures for public notice, hearing and adoption. Within these powers are several methods for adopting the regulations, ordinances and programs. This section reviews the authorities provided for local adoption of the recommended elements for implementation of the Land Use Vision.

Zoning

The Land Use Vision may be implemented through the application of the powers afforded to the City by State law. Key among those powers as provided by RSA 674 is regulating land use through local zoning regulations, which includes both the geographic distribution of land uses as dictated by the local zoning map and the establishment of standards consistent for each district within the City zoning regulations. Of particular interest is RSA 674:21 *Innovative Land Use Controls* that, according to the law, allows local zoning to include:

- Timing incentives;
- Phased development;
- Intensity and use incentives;
- Transfer of density and development rights;
- Planned unit development;
- Cluster development;
- Impact zoning;
- Performance standards;
- Flexible and discretionary zoning;
- Environmental characteristics zoning;
- Inclusionary zoning;
- Accessory dwelling unit standards;
- Impact fees; and
- Village plan alternative subdivision.

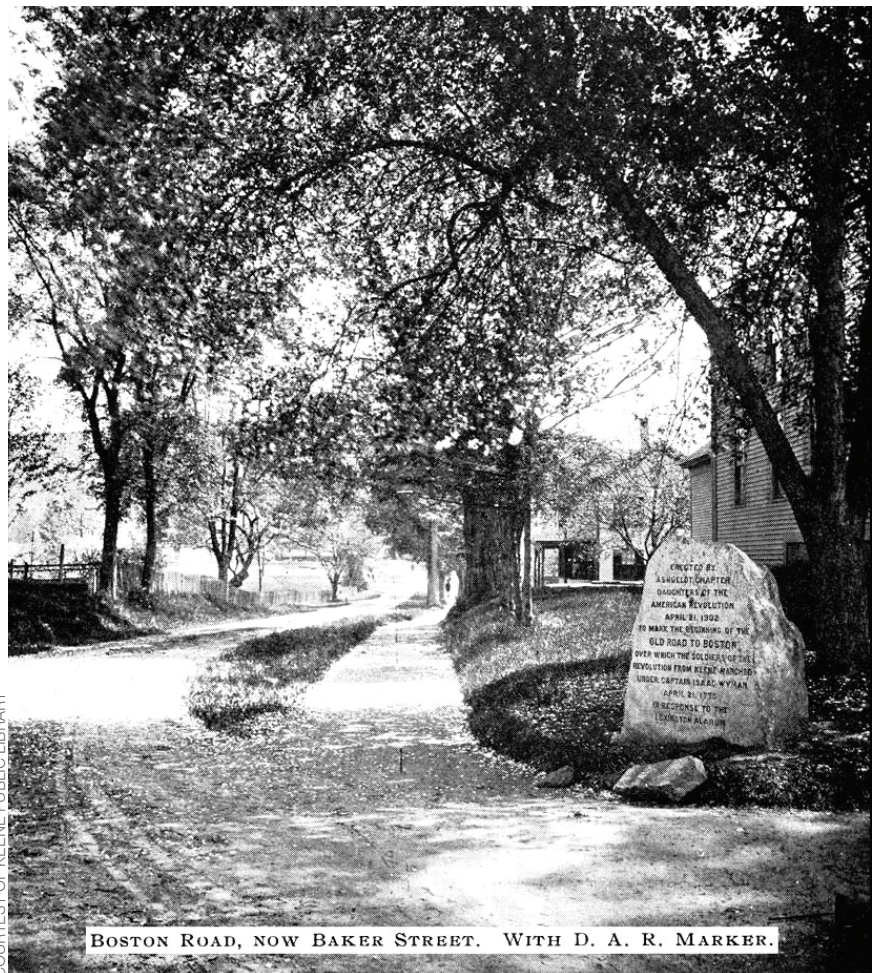
This provides some flexibility in the content of the local zoning regulations to reflect opportunities for development and conservation concepts.

ZONING ADOPTION PROCEDURES

Local adoption procedures for zoning regulations are specified by RSA 675. These procedures require proper public notice and hearing before adoption of all zoning regulations and zoning map amendments.

Design Guidelines

Design guidelines may be established through zoning in the same manner as adoption of zoning regulations. Under this scenario the Design Guidelines take on a more specific legal demand for conformance. This means that interpretation of the standards is subject to appeal to the Board of Adjustment and the courts. Another option is that the Design Guidelines may be adopted with more flexibility and less strenuous application as development standards applied by the land use boards; in particular, the Design Guidelines could be part of the Planning Board Development Standards. The Design Guidelines could also exist as a stand-alone document administrated by a district-specific design review commission, akin to the Historic District Commission and their specific Historic District Commission Regulations.



COURTESY OF KEENE PUBLIC LIBRARY

BOSTON ROAD, NOW BAKER STREET. WITH D. A. R. MARKER.

Historic photo of Baker Street

Flood Risk Management

State law found at RSA 674:21 and 674:56 provide the ability to local government to protect environmental characteristics and include floodplain management and performance standards to meet flood hazard management objectives. There are two principal methods for implementing the flood risk management regulations; amend existing regulations and develop new ordinances.

- Amend Existing Local Regulations – Amendments to existing regulations provide incremental steps toward addressing stormwater management and flooding issues. The amendments build on the foundation of current regulations and provide for improvements to the environmental conditions by addressing identified, but limited gaps in regulatory control over floodplain development. The amendments proposed include changes to *Chapter 54, Natural Resources, Article II Floodplain Ordinance; Chapter 38, Environment; and the Planning Board Development Standards.*
- Adopt Enhanced Flood Hazard Management Ordinance – This method addresses the management issues that contribute to flooding events in the Marlboro Street planning area. There are several models for ordinances that can be utilized to manage floodplain development. The model that is chosen for the development of an ordinance will be dependent on the desired outcomes and the willingness of the public to accept and participate in flood risk management within the City.

Stormwater Management Strategy

State law found at RSA 674:21 and 674:56 provides the ability for local government to protect environmental characteristics and include stormwater management and performance standards to meet stormwater management objectives. There are two principal methods for implementing the stormwater management regulations; amend existing regulations and develop new ordinances.

- Amend existing local regulations – Amendments create incremental steps toward addressing stormwater management and flooding issues in the Marlboro Street planning area. The proposed amendments build on the foundation of current regulations and provides for improvements to the environmental condition by addressing identified gaps in regulatory control over stormwater control siting, design, installation, and maintenance. The amendments proposed include changes to *Chapter 70, Public Improvement Standards; Chapter 38, Environment; and the Planning Board Development Standards.*
- Adopt new stormwater management ordinance – This alternative directly addresses the stormwater management issues that contribute to flooding events in the Marlboro Street planning area. There are several models for stormwater ordinances that can be utilized to affect stormwater quantity and quality. The model that is chosen for the development of a Stormwa-

ter Management Ordinance will be dependent on the desired outcomes and the willingness of the public to accept and participate in stormwater management within the City.

Transportation Strategy

Changes to the roadways involving construction will need to pass through the Capital Improvement Program process with funding from a combination of City funds and possible State and Federal grants.

- Parcel access – Reconfigure parking lots to provide shared and limited access points for employees, customers, and residences, often with the bonus of increasing parking supply.
- Vehicle/truck access – Consider an in-depth turning movement analysis on Grove Street and Marlboro Street when reconfiguring that intersection. Ultimately, with future redevelopment in the core of the Marlboro Street corridor, the creation of a new Victoria Street extension to Marlboro Street can provide a better option for trucks destined for Water Street businesses, allowing direct access off of Marlboro.
- Cheshire Rail Trail – Increase access points to the multi-use path when redeveloping sites in the district and make improvements along the Trail, including at the Water Street and Cheshire Rail Trail intersection with new, pedestrian scale lighting. A recommended intersection treatment has a slightly raised crosswalk, which can be also colored or patterned to stand out more.
- Future street network – During redevelopment of the Kingsbury property, the City can acquire the right-of-way easements required for the construction of the proposed Myrtle Street extension through to Optical Avenue and Victoria Street connection to provide additional network connectivity. The creation of new crossing streets allows for better access and permeability between local neighborhoods within the proposed district. New crossing streets will also improve connections between Marlboro Street and the Cheshire Rail Trail.
- Complete streets – Proposed recommendations for both the short and long term enhancements can provide enhanced bicycle and pedestrian facilities along the Marlboro Street corridor. As requested by the City of Keene’s Public Works Department, short-term enhancements are designed to involve limited construction with a focus on re-striping and temporary landscaping barrels. Long-term enhancements will require funding for reconstruction of the roadway shoulders for bicycle lanes and new street trees as designated through the three proposed distinct sections of Marlboro Street.
- Parking management – Formalize a parking program through adoption into the City’s General Ordinances, including a number of features:
 - * Reduced minimum parking requirements;



Marlboro Street between Main and Grove Streets



Marlboro Street between Grove and Prescott Streets

- * In-lieu parking system for developments seeking to avoid sharing parking;
- * Municipal parking leases; and
- * Parking policy standards to protect the residential neighborhoods, which may include time-limited parking and, in the future, parking permitted only for employees and or residents.

Related Actions and Strategies

The following methods can be employed by the City to advance the list of related actions and strategies that that were not within the specific scope of the study, but that were prioritized as part of the community workshop process.

- Property deterioration and neglect – The City can conduct a focused program of building code enforcement on a district-wide basis. Other methods include façade improvement programs funded through City mechanisms, or through low-cost loans sponsored by area banks and financial institutions.
- Community/College relationships – The City, community organizations, area owners and Keene State College can continue and expand the range of forums, coordination programs and other activities associated with exchanging information and ideas. The College can continue planning and development activities that reduce the demand for rental student housing in the area and provide incentives to reduce on-campus parking demand for its students, faculty and staff. The City will remain responsible for enforcing its ordinance in the district.
- Circulation infrastructure and flood prone areas – The scope of engineering and design studies for vehicular and utility infrastructure improvements in the flood prone areas could specifically include evaluations of potential approaches that could reduce risks and impacts, and provide cost/benefit analyses for measures that could be included in funding and construction.
- Extension of public open space and access networks – The City can include consideration of green open space and access acquisitions and improvements in association with relevant municipal infrastructure or other improvements in the areas, and consider allocating funds for acquisition, improvement and maintenance as part of its standing procedures.
- Stormwater management and flood prevention outside of the Marlboro Street area – The City can continue to pursue and allocate funding and resources to conduct engineering evaluations of larger scale, long-term green infrastructure changes both upstream and downstream of the Marlboro Street area and pursue funding to implement prioritized improvements over time. The City can also consider expanding and extending its regulatory framework outside of the Marlboro Street area to require best management practices to control and reduce stormwater run-off that contributes to flooding. These can be accompanied by enhanced management methods associated with City-owned land and infrastructure, and



Marlboro Street approaching Main Street

an enforcement program relative to regulated properties and approvals in other areas of the City.

- City Property and a civic campus – The City can conduct a master planning process for its own “municipal campus” in the Marlboro Street area, and implement the recommendations that may be appropriate to enhance the City’s own role and contribution to the quality of life and of the environment in this area of Keene.
- Supporting redevelopment of former industrial properties – The City can continue its initiatives to support economically viable redevelopment of the industrial properties using a wide range of tools at its disposal. This could include collaborative efforts to establish environmental mitigation plans, stormwater management improvements and infrastructure investments that are consistent with the recommendations of this Report.

Keene



Marlboro Street

ZONING AND LAND USE REGULATIONS PROJECT



APPENDIX A | **DRAFT ZONING**

Marlboro Street Zoning and Land Use Regulations Project

Draft Zoning

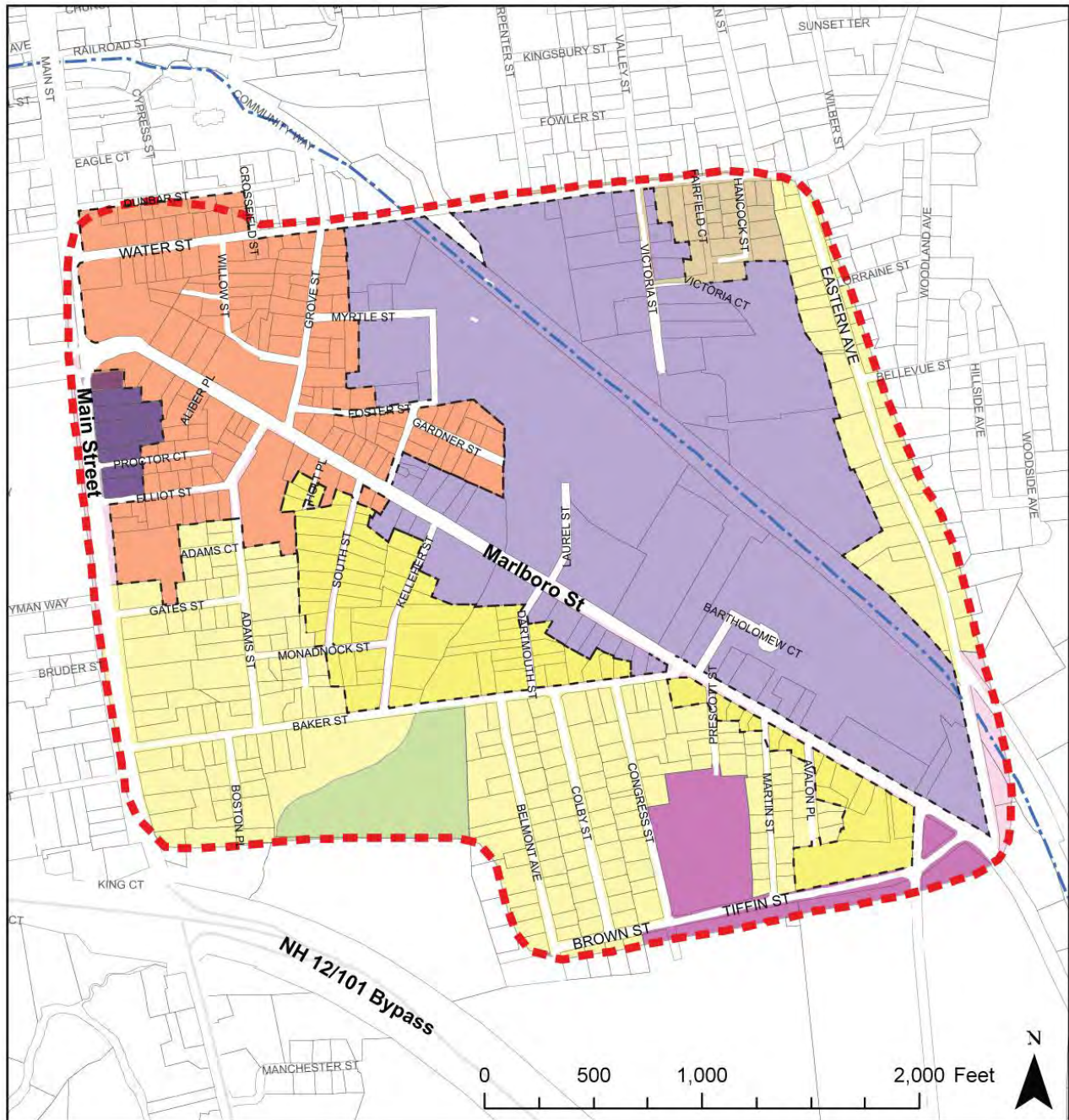
Official Zoning Map Boundary Changes

Two new zoning districts are proposed; Downtown Edge (DE) and Innovative Development (ID). These districts require new sections within the City Zoning Regulations, as well as the amendment of district boundaries to replace previous district designations with the new districts.

The Downtown Edge (DE) district replaces a mix of Commerce (C) and High Density (HD) Residential district designations as shown in the figures. This district covers the upper section of Marlboro Street and is designated by the study area boundary and the existing boundaries between the Low Density (LD) Residential, Office (O) and Industrial (I) districts. In accordance with the New Hampshire Building Code, a Minimum Living Area Per Unit standard is recommended to be added in the Basic Zone Dimensional Requirements for application in the Downtown Edge zone.

The Innovative Development (ID) district replaces the Industrial (I) districts and expands the previous district to border both sides of Victoria Street, thereby replacing a small area of the Medium Density (MD) Residential district fronting Victoria Street. The ID district is also proposed to replace the HD and Commerce districts adjacent to the current (I) fronting Marlboro Street.

In addition, a Zoning Map amendment is recommended for rezoning selected parcels from the current zoning designation as High Density (HD) Residential to Low Density (LD) Residential. All of the HD districts are proposed to be replaced with ID, DE or LD districts within the Study Area.



Proposed Zoning

New Zones

- Downtown Edge
- Innovative Development

Existing Zoning and Re-Zoning

- Low Density
- Low Density (Re-Zoned)
- Medium Density
- Industrial Park
- Office
- Conservation

Draft Zoning Language

The following sections are additions and amendments proposed to be incorporated within Chapter 102 Zoning of the City's Code of Ordinances. The draft annotated language below was developed to implement the land use and development recommendations for the proposed zones.

Keene, New Hampshire, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 102 - ZONING >> ARTICLE IV. - DISTRICTS>> DOWNTOWN EDGE (DE) >>

DIVISION 21. DOWNTOWN EDGE (DE)

Purpose.

The intent of the Downtown Edge (DE) district is to add commercial uses to the high-density residential uses permitted in the district. This district is to act as a transition between downtown Keene, the commercial and the residential areas, as well as between downtown Keene and the Innovative Development (ID) districts. The DE is intended to create a mixed use neighborhood that provides for a harmonious mix of residential, commercial, civic and recreational uses, which are linked to the adjacent districts. This district recognizes the need for, and allows for, uses and site redevelopment which:

- 1) Extend the socio-economic assets of the downtown into adjacent, compatible areas;
- 2) Create a sense of place different from the downtown;
- 3) Create an environment where buildings are arranged, sized, and scaled according to the needs and comfort of pedestrians;
- 4) Preserve public access and provide landscaping amenities with proper lighting, and thereby provides an aesthetically-pleasing streetscape;
- 5) Provide walk-friendly and bicycle-friendly environments along and into the connecting streets and district;
- 6) Provide location-sensitive transitions between adjacent neighborhoods and mixed uses in the district; and,
- 7) Reduce the visual impacts of parking by avoiding large expanses of parking lots facing the streets.

Authority.

This ordinance is enacted by the City of Keene pursuant to NH RSA 674:21, I (h) and (i), Innovative Land Use Controls. This land use control ordinance provides all approvals, including the granting of conditional or special use permits, will be by the Planning Board. Any decision made by the Planning Board under this land use control ordinance may be appealed directly to Superior Court in the same manner provided by statute for appeals from the Planning Board, as set forth in RSA 676:5, III and RSA 677:15. A waiver from particular requirements set forth in

Section 212 may be employed by the Planning Board where the applicant demonstrates substantial compliance with the standards set forth in this ordinance.

Design Criteria and Guidelines.

- 1) All projects will be reviewed according to the Design Criteria and Guidelines found at _____. (*Note: the Design Guidelines may be adopted as zoning regulations or administrative regulations.*)

Dimensional standards.

- 1) All dimensional standards shall be in accordance with the Basic Zone Dimensional Requirements of these regulations.

Building regulations.

- 1) All new buildings shall be flood-proofed according to the regulations found at Sec. 54-100. (*Note: These regulations are recommended for certain amendments as discussed elsewhere.*)
- 2) Buildings must be oriented with the primary building façade facing the primary street frontage of the site. Building entrances, storefronts, and windows shall reinforce this orientation. Active uses must face the primary street on the ground floor with the primary entry accessible at this location to reinforce a relationship to the street.
- 3) Principal and secondary street-frontage façades shall not be permitted to be greater than 40 feet in length unless there is articulation in the form of windows, doors, fully functioning pedestrian entrances, recesses, niches, ornamental projections and/or other articulations of the façade.
- 4) Façades visible from the public right-of-way or abutting neighborhoods shall not be used for service functions (i.e. delivery, loading docks, maintenance areas, utility equipment, storage, etc.) unless fully screened with any combination of vegetation and fencing, or the building.
- 5) Ground-level mechanical ventilation units are not permitted unless completely screened from view from public right-of-way. Air intakes must be located and screened on roofs or more than 30 feet above grade.

Site regulations.

- 1) Pedestrian and bicycle facilities as well as accommodations shall be included for all new site alterations requiring a permit under Building Regulations Section 18-27 Permits.
- 2) Pedestrian and bicycle access rights-of-way of not less than 8 feet in width are required to provide linkages to existing development and/or access to primary

building entrances. Where such pedestrian and bicycle access routes are included, the developer and/or owner shall:

- a. Clear the right-of-way area of obstructing rocks, trees, branches and undergrowth;
 - b. Bring the right-of-way to a suitable grade of less than 5 percent; and
 - c. Construct a path for pedestrians and bicycles of at least 5 feet in width within the right-of-way, in accordance with the sidewalk design guidelines.
- 3) Service alleys shall be no more than 15 feet wide, except for turning areas.
 - 4) Parking lots for more than 5 vehicles shall not be permitted at points visible from the public rights-of-way unless screened with any combination of the following: landscaping, earthworks, fencing, existing buildings or new buildings.
 - 5) All properties for uses other than a single family home shall be landscaped within the buffer areas. Invasive species listed by the federal and state environmental agencies shall not be used in the landscaping.

Parking regulations.

- 1) Shared parking to reduce the total number of parking spaces required for properties within this zone will be allowed as permitted under *Chapter 102 Zoning: Article XIV. Shared Parking within the Sustainable Energy Efficient Development Overlay*. Parking shall otherwise be in conformance with Section 102-793 of these regulations, and the Design Guidelines.

Permitted uses.

This district allows multiple uses, by special exception or by right, on a single lot according to the permitted use table. This district permits non-residential uses and multifamily dwelling units to co-exist on a single lot.

Principal uses Permitted (P) or permitted by Special Exception (SE) in the Downtown Edge (DE) district are as follows:

Uses	Downtown Edge (DE)
Bed and breakfast with meeting/dining facilities	SE
Bed and breakfast inn/tourist home	SE
Boardinghouse/lodging house	SE
Dwelling, single-family	P
Dwelling, duplex	P
Dwelling, multifamily	P
Group Home	P
Historic site open to the public	P
Home occupation	P
Institutional use	SE
Neighborhood grocery store	P
Nursery or child care facility	SE
Office	P
Publishing/printing	P
Research and development	P
Restaurants	SE
Retail sales/services	P
Senior Center	P
Live/work unit	P

Keene, New Hampshire, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 102 - ZONING >> ARTICLE IV. - DISTRICTS>> INNOVATIVE DEVELOPMENT (ID) >>

DIVISION 21. INNOVATIVE DEVELOPMENT

Purpose.

The intent of the Innovative Development (ID) district is to provide for a mix of business, research, retail, residences, and live/work units within buildings providing attractive amenities, while reducing the losses associated with flooding. This district recognizes the need for, and allows for, uses which:

- 1) Create conditions suitable for businesses and small-scale industries to co-exist with residential units;
- 2) Create a sense of place through preserving public access, providing landscaping amenities, ensuring proper lighting, and promoting an aesthetically pleasing streetscape;
- 3) Create a pedestrian-scale environment within the built environment with buildings that are arranged, sized, and scaled according to the needs of a pedestrian;
- 4) Provide for pedestrians and bicyclists to ensure that Keene's walkable and bicycle-friendly environment is extended along Marlboro Street and into the connecting streets and neighborhoods;
- 5) Connect uses and buildings while prioritizing pedestrian and bicycle access above vehicular access;
- 6) Provide location-sensitive transitions between neighborhoods and uses along Marlboro Street;
- 7) Reduce the impacts of parking through avoidance of large parking lots along the streets; and,
- 8) Providing open space and landscaping to provide shade and public spaces for social interaction as well as to enhance the visual appearance of the individual properties, Marlboro Street, and connecting streets.

Dimensional standards.

- 1) All dimensional standards shall be in accordance with the Basic Zone Dimensional Requirements of these regulations.

Building regulations.

- 1) All new buildings shall be flood-proofed according to these regulations.

- 2) Buildings within 150 feet of Marlboro Street must be oriented with the primary building façade facing the street frontage of the site. Building entrances, storefronts, and windows shall reinforce this orientation.
- 3) Ground-level mechanical ventilation units are not permitted, unless completely screened from view from the public rights-of-way. Air intakes must be located on roofs or more than 30 feet above grade.

Site regulations.

- 1) Pedestrian and bicycle facilities and accommodations shall be included for all new site alterations requiring a permit under Building Regulations Section 18-27 Permits.
- 2) Pedestrian and bicycle access rights-of-way of not less than 8 feet in width may be required to provide linkages to existing development and/or access to primary building entrances. Where such pedestrian and bicycle access routes are required, the developer and/or owner shall
 - a. Clear the right-of-way area of obstructing rocks, trees, branches and undergrowth;
 - b. Bring the right-of-way to a suitable grade of less than 5 percent or otherwise suitable for ADA accessibility; and
 - c. Construct a sidewalk for pedestrians and bicycles of at least 5 feet in width within the right-of-way, in accordance with the sidewalk design specifications in this section.
- 3) Service alleys shall be no more than 15 feet wide.
- 4) Parking lots shall be located at the rear of building(s) where possible, and shall not be permitted at points visible from the public rights-of-way unless screened with any combination of the following: landscaping, earthworks, fencing, existing buildings, or new buildings.
- 5) All properties for uses other than a single family home shall be landscaped within the buffer areas. Invasive species listed by the federal and state environmental agencies shall not be used in the landscaping.

Open space regulations.

- 1) Side and rear yard setbacks shall be landscaped under the following criteria:
 - a. Design, dimensions and materials shall be spaced to permit a walking path linking the frontage street with the interior of the lot, whether such path is constructed or not.
 - b. When wooded areas, wetlands and waterways exist within the property the landscaped way shall be located at the edge of those areas or setback as required by applicable regulations.
- 2) The required minimum open space for the lot shall be provided in one or more open space areas with minimum dimensions of no less than 15 feet in the

smallest measurement from edge to edge and shall be contiguous to and linked to the other landscaped areas of the lot.

Parking regulations.

- 1) Shared parking to reduce the total number of parking spaces required for properties within this zone will be allowed as permitted under *Chapter 102 Zoning: Article XIV. Shared Parking within the Sustainable Energy Efficient Development Overlay*. Parking shall otherwise be in conformance with Section 102-793 of these regulations.

Permitted uses.

This district allows multiple principal uses on a single lot, by special exception or as by right, according to the permitted use table. This provision permits non-residential uses and multifamily dwelling units to co-exist on a single lot.

Principal uses Permitted (P), permitted by Special Exception (SE) in the Innovative Development (ID) district are as follows:

Uses	Innovative Development (ID)
Assembly	P
Bed and breakfast with meeting/dining facilities	SE
Bed and breakfast inn/tourist home	SE
Boardinghouse/lodging house	SE
Bulk storage and distribution, including flammable materials	SE
Bulk storage and distribution, including flammable materials, accessory to main manufacturing use	P
Child care facilities for employees only	P
Clinic	P
College: undergraduate, graduate and industrial training programs	P
Dwelling, single-family	P
Dwelling, duplex	P

Uses	Innovative Development (ID)
Dwelling, multifamily	P
Garage, business	P
Greenhouse, nursery	SE
Group Home	P
Health and fitness center	P
Historic site open to the public	P
Home occupation	P
Home offices of insurance companies, publishing companies, manufacturing firms	P
Hotel	P
Institutional use	SE
Manufacturing	P (a)
Motel, apartment	P
Neighborhood grocery store	SE
Noncommercial outdoor recreational activity	P
Nursery or child care facility	SE
Office	P
Offices for corporate	SE
Offices for corporate, business or professional purposes (single office min. 10,000 sf)	SE
Offices, including warehousing, wholesaling or retailing	P
Processing	P
Publishing/printing	P
Recreational activity as a business	P
Recycling	P
Research and development	P

Uses	Innovative Development (ID)
Restaurants	P
Retail sales/services	P
Senior Center	P
Wholesaling	P
Live/work unit	P

Notes:

(a) Environmentally sound, without smoke or noise or other pollutants

(b) Warehousing is permitted as an accessory use to other permitted uses.

Basic Zone Dimensional Requirements.

The following table states the basic zone dimensional requirements

Dimensional Requirement	Proposed Zones	
	DE	ID
Maximum building height (in stories above grade not including habitable attics)	3 (a)	4
Maximum building height (in feet)	40	50 (b)
Maximum Floor Area Ratio (<i>OPTION</i>)	1.25	1.50
Minimum lot area	6,000 sf	8,000 sf
Minimum lot area per dwelling unit	2,000 sf (c) (d)	2,000 sf (c)
Minimum lot width at building line (in feet)	50 ft	50 ft
Minimum living area per unit (in net square feet)	600 net sf	N/A
Minimum front setback (in feet)	15 ft (e)	15 ft (e)
Minimum side setback (in feet)	15 ft	15 ft
Minimum rear setback (in feet)	15 ft	15 ft
Maximum percentage of lot occupied by structures	80%	75%
Maximum percentage of lot covered by impermeable material (includes structures)	85%	75%
Minimum percentage of green/open space	15%	25%
Required frontage (in feet)	50 ft	n/a

Notes:

(a) Can be increased to up to 4 stories or 50 feet by Special Exception.

(b) Unless within 150 feet of Marlboro Street, then, 35 foot maximum building height.

(c) Applies only to the second and succeeding dwelling units.

(d) A total dwelling unit density of 1,500 sf per unit is allowed when the lot area is greater than 20,000 SF and there is only one building on the lot.

(e) Except with fronting on Marlboro Street where the minimum setback is 0 ft

Summary of Allowable Uses

Summary of allowable uses for zones in the study area.

Uses	Commerce (COM)	Office (O)	Low Density (LD)	Medium Density (MD)	High Density (HD)	Industrial (I)	Industrial (IP)	Downtown Edge (DE)	Innovative Development (ID)
Accessory dwelling unit			CUP						
Asphalt plant, smelter, forge, tannery, brewery, rendering plant, explosives manufacturing						SE			
Assembly						P	P		P
Banking or lending institution	P								
Bed and breakfast with meeting/dining facilities					SE			SE	SE
Bed and breakfast inn/tourist home		P			SE			SE	SE
Boardinghouse/lodging house					SE			SE	SE
Bulk storage and distribution, including flammable materials						P			SE
Bulk storage and distribution, including flammable materials, accessory to main manufacturing use						P	P		P
Child care facilities for employees only							P		P
Clinic	P								P
College: undergraduate, graduate and industrial training programs						P			P
Drive-in use	P								
Dwelling, single-family		P	P	P	P			P	P
Dwelling, duplex		P		P	P			P	P
Dwelling, multifamily		P		P (3 max)	P			P	P
Fraternity/sorority					SE				
Funeral parlor	P	P							
Garage, business	P					P			P
Greenhouse, nursery	SE								SE
Group Home			SE	SE	P			P	P

Uses	Commerce (COM)	Office (O)	Low Density (LD)	Medium Density (MD)	High Density (HD)	Industrial (I)	Industrial (IP)	Downtown Edge (DE)	Innovative Development (ID)
Harvesting of forestry products			SE						
Health and fitness center	P (SE for outdoor activ.)					P (SE for outdoor activ.)			P
Historic site open to the public	P	P	P	P	P	P		P	P
Home occupation		P	P	P	P			P	P
Home offices of insurance companies, publishing companies, manufacturing firms						P	P		P
Hotel	P								P
Institutional use	P	SE	SE	SE	SE	SE	SE	SE	SE
Manufacturing						P	P		P ¹
Motel	P								
Motel, apartment	P								P
Motor vehicle dealership	P								
Motor vehicle repair garage, paint shop	P					P			
Motor vehicle service station/filling station	P								
Neighborhood grocery store					SE			P	SE
Noncommercial outdoor recreational activity						P			P
Noncommercial raising of farm animals			P	P					
Nursery or child care facility		SE				SE		SE	SE
Office		P						P	P
Offices for corporate							SE		SE
Offices for corporate, business or professional purposes (single office min. 10,000 sf)						SE			SE
Offices, including warehousing, wholesaling or retailing	P								P
Parking area (lot)	P	SE							
Private club, lodge or fraternal activity	P	SE							

¹ Environmentally sound, without smoke or noise or other pollutants

Keene



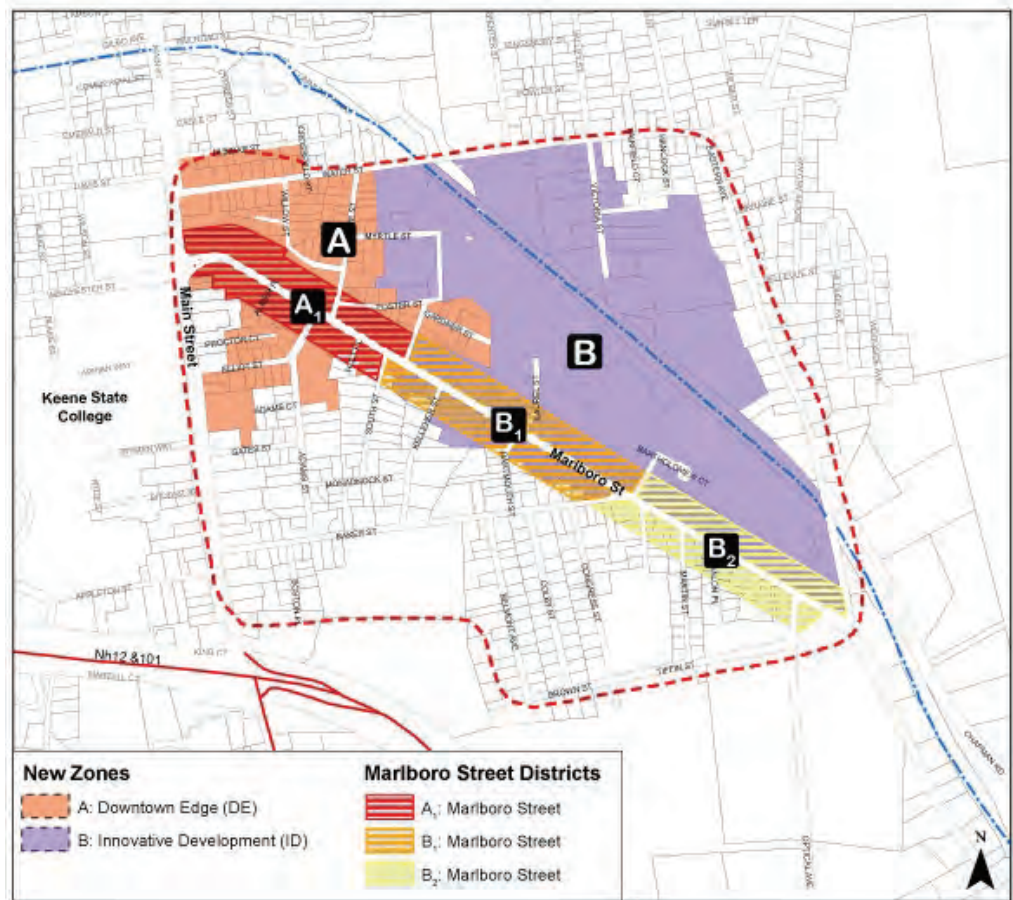
Marlboro Street

ZONING AND LAND USE REGULATIONS PROJECT



APPENDIX B | **DRAFT DESIGN GUIDELINES**

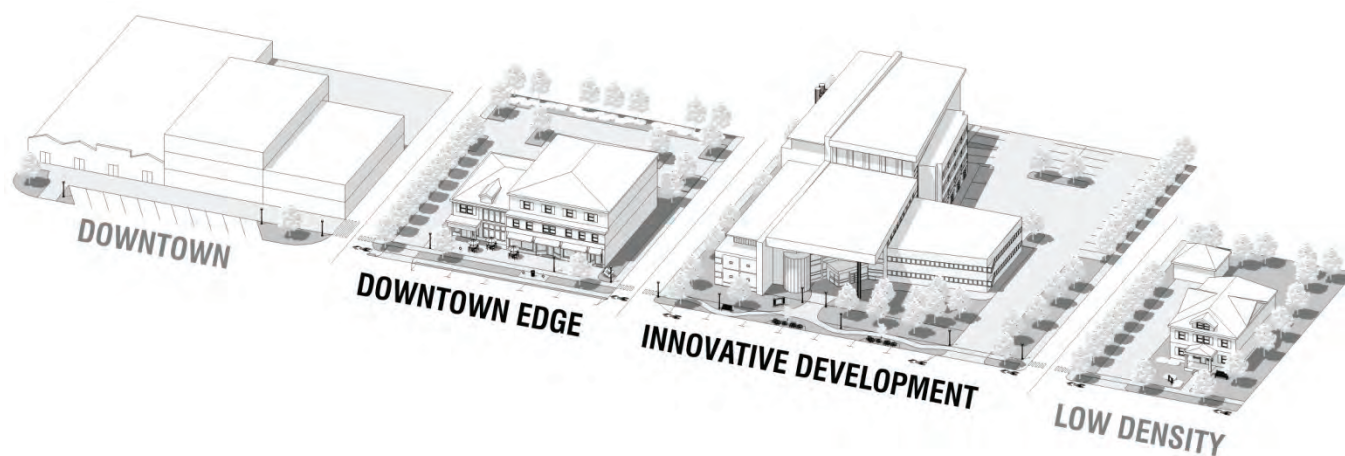
Marlboro Street Zoning and Land Use Regulations Project
Draft Design Guidelines



The *Draft Design Guidelines* are intended to accompany the *Draft Zoning* for the proposed Downtown Edge (DE) and Innovative Development (ID) zones. The design guidelines may require additional review, comment and refinement with the community of Keene and would require a process of approval and implementation. The guidelines for the two zones are included in separate sections below. Each can be implemented in a number of ways, the recommendations of the consultant team for applicability and the content of the design guidelines follows.

Section 1: Applicability of Design Guidelines

- 1.01 **Applicability** – All proposals for new development, modifications, redevelopment or expansions of existing development and or subdivision of land within the Zoning Districts *Downtown Edge (DE)* and *Innovative Development (ID)* and the Design Guideline Districts as defined in Section 1.02 *Design Guideline Districts*.
- 1.02 **Design Guideline Districts**
 - 1. *District A* – Downtown Edge District

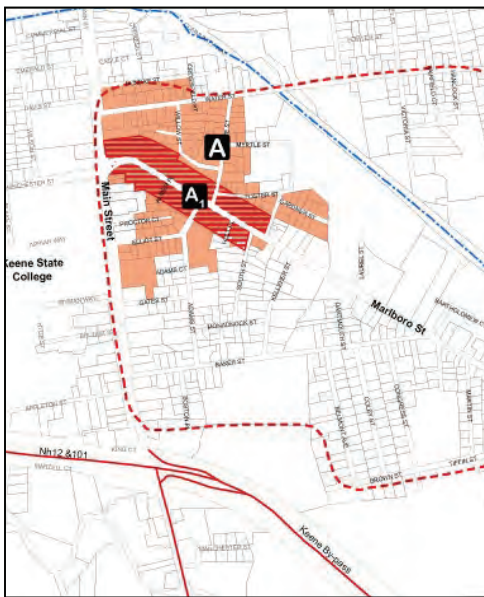


The diagram above, a Design Guidelines Transect, illustrates general characteristics of the existing downtown and the proposed Design Guideline Districts: District A Downtown Edge, District B Innovative Development District and Sub-District B₂ Innovative Development Subdistrict with low density frontage at Marlboro Street

- 1.03 **Inclusion in City Ordinances** – The Design Criteria and Guidelines may be included into existing regulatory frameworks in the City’s Code of Ordinances and the Planning Board’s Development Standards as deemed appropriate or by reference in newly established zones.
- 1.04 **Use of Design Criteria** – Design Criteria are the overarching principles describing the intentions of the Design Guidelines to establish particular patterns of development unique to each District and Sub-District. The Design Guidelines provide specific guidance to comply with the Design Criteria. If a specific guideline is not appropriate or presents undue hardship due to a specific site or building constraint, an alternative may be proposed that is consistent with the intentions outlined in the Design Criteria.
- 1.05 **Use of Design Guidelines** – The Design Guidelines provide specific guidance to comply with the Design Criteria.
- 1.06 **Compliance Alternatives** – If a specific guideline is not appropriate or presents undue hardship due to a specific site

or building constraint, an alternative may be proposed that is consistent with the intentions outlined in the Design Criteria. A Compliance Alternative is a design solution that must be shown to comply with the Design Criteria through different but equal measures than those identified in the Design Guidelines. Compliance Alternatives are to be proposed and supported with appropriate documentation to communicate compliance with Design Criteria by the applicant. Compliance Alternatives are approved by the regulating body for design review on a case-by-case basis.

Section 2: District A/A₁ – Downtown Edge

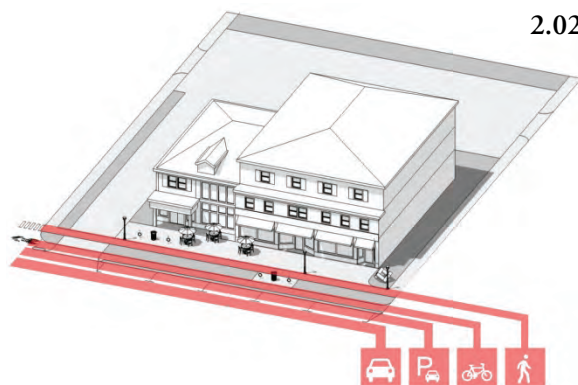


The diagram above shows the boundary of Design Guideline District A Downtown Edge and Sub-District A₁.

2.01 Design Criteria

1. **Streetscape and Sidewalk** – Streetscape and sidewalks should be designed to extend the character, quality and amenity of the walkable core of the downtown environment. Street and sidewalk design should enhance circulation, accessibility, and comfort for multiple modes of travel and provide pedestrian and bicycle connections between mixed-use development, downtown, and adjacent residential areas.
2. **Site and Block** – Sites should be designed to physically define and focus activity at primary street edges. Passive uses, service and parking functions should be screened and configured at the interior of blocks away from the street.
3. **Architectural Guidelines**– Buildings should be designed with the primary façade oriented to the street. Building massing should be articulated to define base and top with an active and transparent ground floor. Buildings should contribute to the downtown environment and sense of place with sensitivity to the downtown context and design vocabulary to reinforce continuity in the district.
4. **Lighting** – All building and site lighting should extend the character of the downtown environment and reinforce the continuity of a downtown district with ornamental fixtures for building, street and pedestrian lighting.
5. **Parking and Landscape** – Parking and service areas should be placed to the rear of buildings and integrated into an overall site plan to balance landscape and hardscape areas. Parking or access at the edge of a parcel should be screened with a landscape buffer.
6. **Sustainability and Design** – Low impact site design and stormwater management features should be incorporated into the streetscape, parking and site design.

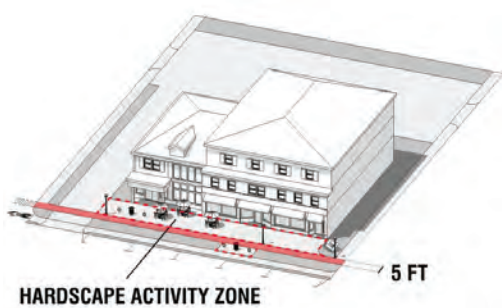
2.02



Use types in the public realm in the Downtown Edge district



Example of the desired landscaping and street trees



Sidewalk minimum clear width and widening to accommodate public amenities



Building placement defining site edges

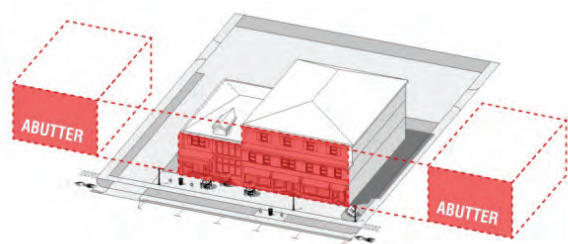
Design Guidelines

2.02.1 Streetscape and Sidewalk

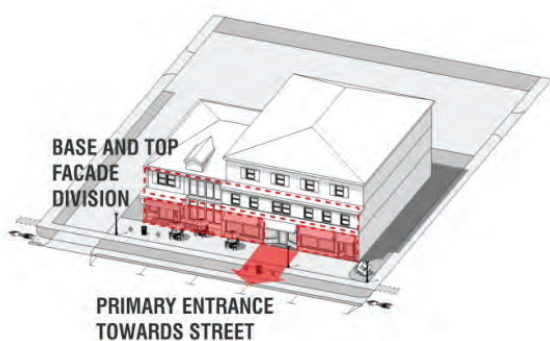
1. **Complete Streets** – The public realm of streets and sidewalks shall be considered as a public space for all users including buses, vehicles, bicycles and pedestrians. Convenient, safe and identifiable paths of travel for each user should be clearly delineated. The public realm should also function as a welcoming and attractive public space that connects primary building entries to a network of circulation integrated with site amenities and landscaping.
2. **Sidewalk Requirements** – Sidewalks should extend the character of the downtown environment with scored concrete walks with granite curbs. Sidewalks should be widened to accommodate amenities such as street trees, benches, bike racks, trash receptacles, or other features. This may require the sidewalk to extend into private property.
3. **Accessibility and Connections** – Lighted walkways should be provided to link buildings with public spaces, parking areas, recreation facilities and the public right-of-way. Where pedestrian connections cross vehicle and bicycle ways, a crosswalk or change in paving should delineate the pedestrian path. All sidewalks should be accessible in accordance with the Americans with Disabilities Act and the State access requirements.
4. **Landscape and Streetscape** – Landscape on private property should be coordinated to supplement and enhance public street trees and streetscape plantings. Landscaping should be used to define the street edge. Landscape materials shall be native, drought and salt resistant species.
5. **Sub-District A1 Only: Bicycle Circulation** – Bicycle accommodations should include cycle tracks that are raised to the level of the sidewalk, contain a two-foot buffer from parking and a one-foot buffer from a landscaped sidewalk space.
6. **Sub-District A, Only: Outdoor Seating/Displays** – Outdoor seating is encouraged for compatible uses such as a restaurant. All outdoor seating for private uses should be coordinated and approved by the City of Keene. Hardscape activity zones should be provided to accommodate outdoor uses for seating or displays with an hardscape extension that is integrated with the sidewalk appropriately sized to accommodate the intended outdoor use.

2.02.2 Site and Block

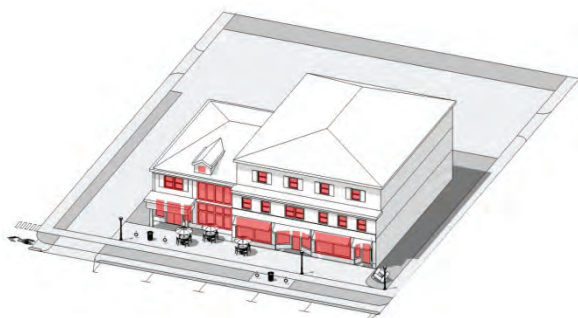
1. **Building Placement** – Buildings should be placed on the site to define the edges of primary streets and public spaces with inviting facades, active uses and



Streetwall continuity shown across abutting properties



Facade articulation and primary entrance orientation



Sub-district A₁ building fenestration and transparency

building entries. Passive uses, service functions and parking should be concealed and configured at the interior of blocks not visible from streets.

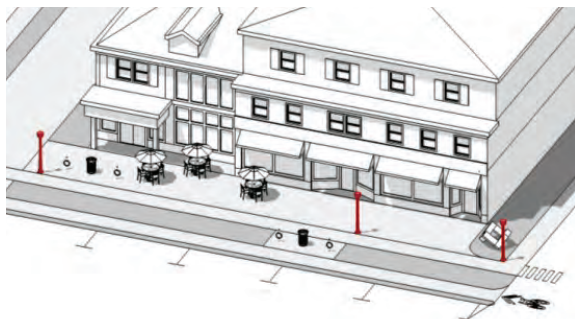
2. **Landscape and Screening** – Landscaping should be used to define the street edge and to provide buffers at site edges to adjacent properties. Landscape buffers at service and parking areas shall conceal negative views from abutting properties. Screening with a fence should be accomplished with an ornamental design of iron or wood, not chain-link fencing. Screening should be no higher than three feet unless used as screening for trash collection areas (no higher than six feet).
3. **Sub-District A₁ Only: Streetwall Continuity** – Building placement should respect existing building, site and block patterns and reinforce continuity in these patterns with consistent setbacks to create a regular rhythm of building facades along the street edge. The streetwall may be interrupted by access drives, setbacks between buildings, or landscape.
4. **Sub-District A₁ Only: Street Corners and Gateways** – Corner and gateway sites are of particular importance in defining a sense of place. Site and building design should be configured to define all street edges that form the corner and to recognize the corner in the design of building or as part of a park or public space. The building design should visually anchor the intersection with building massing or architectural features that respond to the geometry of the site.

2.02.3 Architectural Guidelines

1. **Building Entrances** – Primary building entries should be oriented to the primary street. The building should integrate separate entrances for multiple tenants and uses into a coordinated facade design. If a facade is directly adjacent to the sidewalk, entries should be recessed to provide a minimum depth equal to the width of the door to avoid obstruction of the sidewalk.
2. **Architectural Styles and Materials** – Architectural style, roof form, facade materials and colors should be complementary to the surrounding context. Traditional and high quality building materials should be used for appearance and durability. Traditional materials should be used, rather than imitations such a brick veneer, to reinforce a high quality district.
3. **Sub-District A₁ Only: Building Fenestration and Transparency** – Facades facing Marlboro Street should use transparent glazing. Ground level facades with entrances and storefront displays should include a high proportion of transparent glazing and active uses. The base of a building should include a higher

proportion of glazing than upper levels creating a clear façade distinction between base and top.

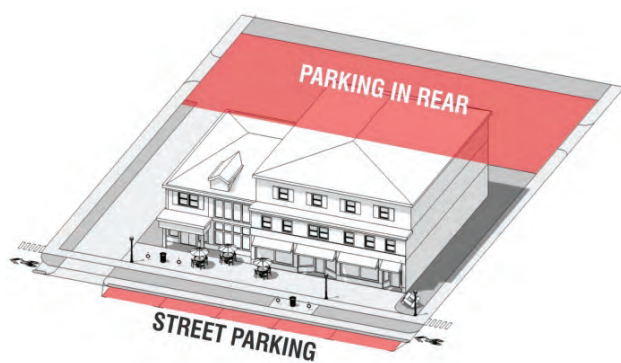
4. ***Sub-District A₁ Only: Building Scale*** – The perceived scale of buildings and facades should reinforce the continuity and pedestrian scale of the downtown district. This sense of scale should be achieved through the articulation of a façade base through a change in building materials, the placement and pattern of fenestration, or the articulation of building entries with canopies, porches or awnings. The façade should also be articulated with bays, recesses, dormers or building height stepbacks to create visual interest and to subdivide large facades.
5. ***Sub-District A₁ Only: Façade Treatments*** – The primary building façade should be articulated with a base and a top extending the character of downtown building façades. This division of the building façade should be accomplished through a change in materials, change in color, articulation of architectural detail or building massing.



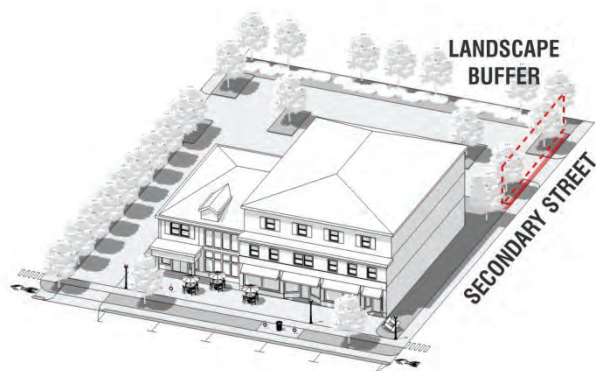
Site lighting continuing the downtown fixtures program

2.02.4 **Lighting**

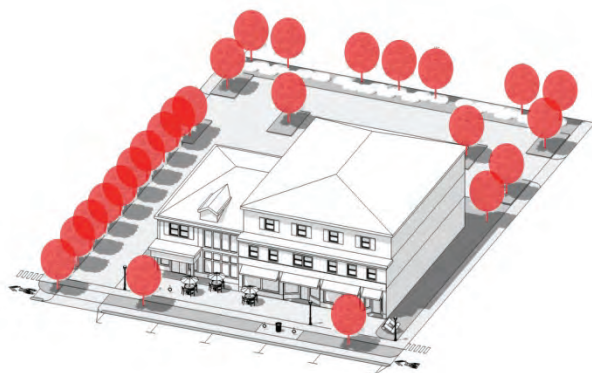
1. **Site Lighting** – Site lighting should be provided to illuminate all pedestrian connections, parking areas and site features. Lighting should render colors correctly with the preferred lighting in the white spectrum. Sodium light sources should be avoided. Light trespass onto abutting properties should be eliminated.
2. **Building Lighting** – Building lighting should provide an even illumination of building entries and façade features. Lighting should also be provided for building and tenant signage. Dynamic lighting with flashing, pulsating or similar lighting effects should not be used for building or signage lights. Lighting should not cast glare onto streets, public ways, or onto adjacent properties.
3. **Light Pollution** – All exterior light fixtures should be fully shielded and be focused such that direct illumination is confined to the property boundaries of the source. Fully shielded means a light fixture constructed and mounted such that all light emitted, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the light fixture, is projected below the horizontal.
4. ***Sub-District A₁ Only: Fixture Character*** – Light fixtures should be ornamental and extend the lighting environment in the downtown. Light fixtures adjacent to the street should maintain similar spacing, height and character of fixtures that currently exist in the downtown.



Location of parking area in the rear of the site



Landscape buffer between parking areas and secondary streets



Tree plantings distributed on the site to enhance streetscape, conceal parking and soften site edges

2.02.5 Parking and Landscape

1. **Location of Parking Areas** – Parking should be placed at the interior of blocks and to the rear of buildings. Parking exposed to a secondary street frontage should have a landscape buffer planted with trees and shrubs that will visually conceal parked vehicles.
2. **Shared Parking** – Parking should be configured to allow shared access and parking between adjoining parking lots between abutting properties. Parking lot design should provide safe and convenient routes for pedestrians. Walkways should be attractive and well-defined by pavement treatment, landscaping and lighting.
3. **Street Parking** – On-street parking is an acceptable option to reduce on-site parking requirements. On-street parking should reduce requirements by one space for every one space provided. On-street parking must be coordinated and approved by the City of Keene.
4. **Curb Cuts** – Access drives and curb cuts should be minimized and consolidated. Every curb cut should provide a continuous and uninterrupted pedestrian walkway. Curb cuts should be limited to two vehicle access lanes with appropriate turning radii and clearances. Curb cuts should be placed offset from existing curb cuts on the opposite side of the street.
5. **Landscape Buffers and Screens** – Landscape should be used to screen parking, loading and service areas visible from public streets, open spaces or adjacent parcels. Parking areas containing more than 10 spaces should include landscape islands at ends of parking aisles and at corners of parking lot. Landscape islands should be a minimum of eight feet wide. Other forms of screening may include architectural walls, fences or other visual barriers.
6. **Landscape within Pre-existing Parking Lots** – Upon (1) expansion of an existing parking lot containing twenty or more spaces, (2) alteration of a structure or (3) change in uses, the entire existing parking lot should be brought into compliance with the landscape guidelines including screening portions of parking areas visible from the street and adding landscape islands at ends of parking aisles and at corners of parking lot.

2.02.6 Private Open Spaces

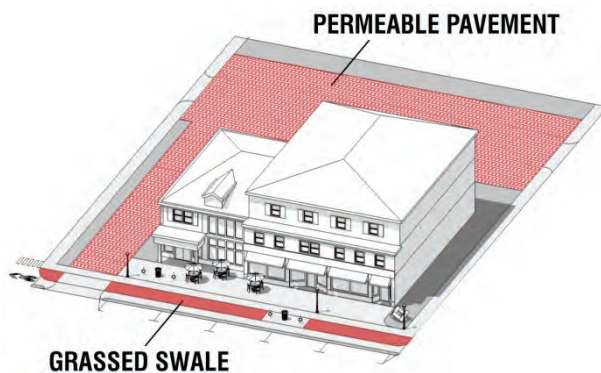
1. **Sub-District A₁ Only: Expanded Public Realm** – In locations of an active building frontage, a larger activity zone adjacent to the sidewalk should be provided. This type of expanded public realm is a private open space and should be considered publicly accessible. Private open spaces of this type should be

designed to provide opportunities for public gathering with seating or other amenities and additional landscaping. The addition of small park spaces, called “parklets” along the Marlboro Street frontage should also be considered.

2. ***Sub-District A₁ Only: Public Art*** – If provided, public art should be integrated into the design of an open space and be located to provide adequate clearances for circulation and accessibility. Community art space should be provided along the Marlboro Street frontage, integrated with a widened sidewalk.

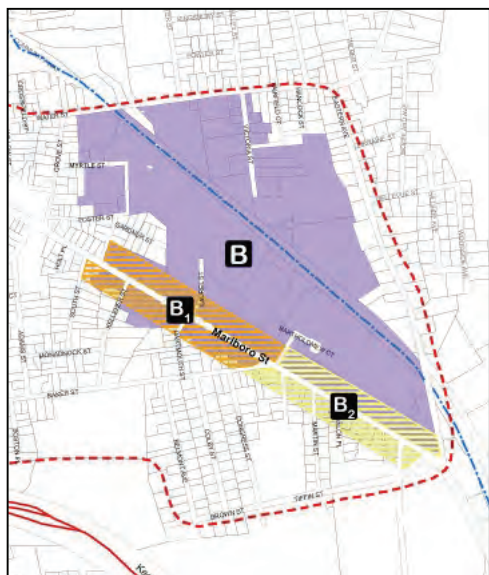
2.02.7 Sustainability and Design

1. **Trees and Plantings** – Trees, shrubs, and groundcover should be selected to be appropriate to the conditions of a particular site and the climate of the City of Keene. Street tree species selection should ensure compatibility with neighboring conditions so as to reinforce continuity of the street edge and public realm identity.
2. **Species Selection** – Landscape should include the use of native species. Do not use any of the invasive species listed by the Federal and State environmental agencies. The choices of landscape materials should also consider their value in improving the habitat. Existing large and specimen trees should be preserved whenever possible and will require a plan to preserve the trees in a healthy state.
3. **Protection of Inland Wetlands** – The design of the landscape treatments should include provisions for the protection of inland wetlands, such as native species and drainage controls that maintain the ecology of water bodies. Analysis of the wetlands is recommended to improve the landscape plan. Use of low, mown grasses within areas adjacent to quality habitat is not recommended.
4. **Low Impact Development(LID)** – The application of Low Impact Development standards will include, at a minimum, consideration for the use of small, dispersed surface detention areas “rain gardens”, dispersed under-grade detention structures, separation of roof runoff from pavement runoff, and use of paving materials that reduce the rate of stormwater runoff. All future development in the area should be required to discharge stormwater at rates not to exceed historic runoff rates and volumes.
5. **Material and Energy Sources** – Buildings should be supplied with materials from local and renewable sources and use energy from renewable energy sources to the maximum extent possible.



Examples of low impact design surfaces

Section 3: District B/B₁/B₂ – Innovative Development Zone



The diagram above shows the boundary of Design Guideline District B Innovative Development Zone with Sub-District B₁ and Sub-District B₂

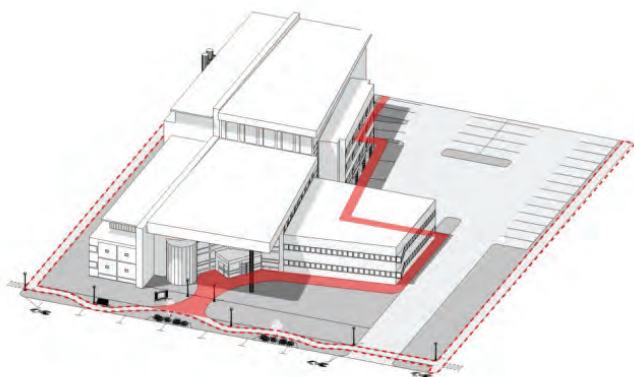
3.01 Design Criteria

1. **Streetscape and Sidewalk** – Streetscape and sidewalks should be designed to create and reinforce a campus-like setting with connected pedestrian and bicycle access systems between public right-of-ways, private developments and abutters.
2. **Site and Block** – All site layouts, access roads, block configurations, and open spaces should be coordinated across abutting properties to form a campus-like setting with a continuity of open space, a network of shared paths and shared parking.
3. **Architectural Guidelines** – Freedom of architectural expression and innovative design should be celebrated in the design of new buildings. Architectural expression should not be constrained by the character of existing abutters or context.
4. **Lighting** – Lighting fixtures should reinforce the continuity of the innovative development zone and provide lighting for vehicle and pedestrian circulation. Lighting of building and site features is encouraged. All building and site lighting should be fully shielded fixtures to reduce light pollution.
5. **Parking and Landscape** – Parking and landscape features that reconsider standard layouts to contribute to sustainable sites are encouraged. Parking near the edge of a parcel should be screened with a landscape buffer and configured to encourage shared parking connections with adjacent properties. Landscape design should reduce site impact and enhance sustainability.
6. **Private Open Spaces** – Open space should be designed to create a network of connected parks and plazas throughout the district. Open space should be designed to connect to pedestrian and bicycle paths, and to be integrated with building entrances and features, parking, access, and service functions. Open spaces should be combined across parcels where possible to create larger, shared, open spaces.
7. **Sustainability and Design** – Innovative designs should aspire to leading practices of sustainability. Building and site design should pioneer low impact environmental features that reduce energy use, enhance resource management and sustain healthy buildings and sites.

3.02 Design Guidelines

3.02.1 Streetscape and Sidewalk

1. **Complete Streets** – New and existing streets and access roads should provide an interconnected network of streets that improve connectivity within the district in order to make destinations more



Public sidewalks (dotted line) and pedestrian accessibility across private space (solid line)



Example of innovative architectural expression and mixed use building



Example of continuous planters to enhance tree health and stormwater management incorporated into the streetscape

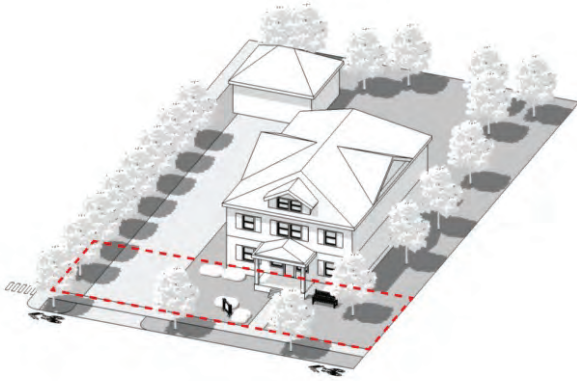
accessible and safe for all modes of travel. Streets should be designed to promote pedestrian-oriented place-making with safe and clearly defined crossings with landscaped center refuge islands at key intersection points.

2. **Sidewalk Requirements** – Sidewalks should have a minimum clear width of five feet. Sidewalks should be widened to accommodate public amenities, street trees, benches, bike racks, trash receptacles, and other features. Sidewalks should also be widened if also used to accommodate bicycles as a shared path. A shared path should have a minimum clear width of eight feet. This may require the sidewalk to encroach upon the private property. At curb cuts for access drives, sidewalk treatments should be continuous.
3. **Accessibility and Connection** – In order to reinforce a campus setting, a network of interconnecting paths is encouraged to provide circulation across development sites. Publicly accessible connections should be made between public realm sidewalks and building entries. The Cheshire Rail Trail, parking areas or other pedestrian destinations should be connected with a publicly accessible path. Where pedestrian connections cross vehicle and bicycle ways, a crosswalk or change in paving should delineate the pedestrian connection. All pedestrian connections should be accessible in accordance with the Americans with Disabilities Act and the State access requirements.
4. **Bicycle Corridors** – Multi-modal uses on the street and on separated pedestrian and bicycle paths throughout the district should connect buildings, streets, and the Cheshire Rail Trail. Connections to the rail trail should include pedestrian scale lighting, appropriate crossings at intersections and signage.
5. **Outdoor Seating and Amenities** – Outdoor seating areas for private uses, such as outdoor cafes should be encouraged and coordinated and approved by the City of Keene. Locations to gather, sit and to park a bicycle should be provided at all major activity areas and building entries.
6. **Landscape, Street Trees and Plantings** – Tree pits should be designed as appropriate to tree species for tree health and longevity. Multiple trees and shrubs should be installed in a continuous planter to create an optimum growing environment for trees and additional opportunity for stormwater management.
7. **Wayfinding and Signage** – Wayfinding and signage for destinations, owners and tenants should be integrated with the site and landscape design for minimal visual impact and balance with other site features.

8. **Sub-District B₁ Only: Streets and Amenities** – Dedicated bicycle lanes should be provided. On-street parking should periodically alternate between sides of the street to serve as traffic calming chicanes.
9. **Sub-District B₂ Only: Streets and Amenities** – Shared-use paths should accommodate pedestrians and bicycles.

3.02.2 Site and Block

1. **Building Placement** – Each property should reinforce a campus environment by locating buildings on the site to engage the street while enclosing shared open spaces, relating to abutting buildings, and concealing parking at the rear or interior of the site.
2. **Parcel Edges** – The edges of a parcel should be enhanced by a landscape buffer that is publicly accessible and that includes a shared path forming links with adjacent connections that is a minimum of five feet wide. *Not applicable to Sub-District B₁ or Sub-District B₂*
3. **Landscape at Open Space and Street Edges** – Landscape should be used to reinforce a campus environment by supplementing and enhancing public street trees and streetscape plantings. Landscaping should be used to define the street edge, to provide buffers at site edges to adjacent properties, and to define the edges of open spaces.
4. **Sub-District B₂ Only: Street Frontage** – The character of a low density and landscaped neighborhood should be preserved. The character of the front yard setbacks should be reinforced to create a substantially green environment with buildings setback behind a green space, garden, or rain garden.



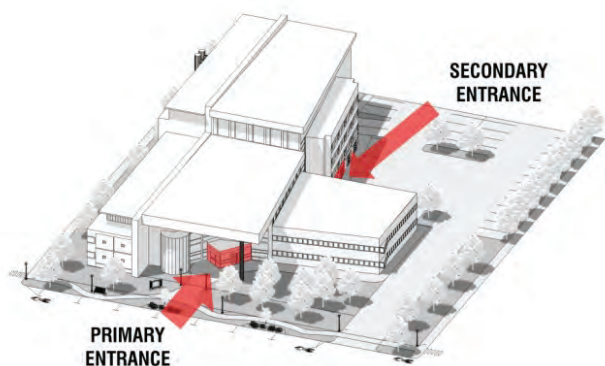
Low Density building in District B2 with a substantially green front yard



Integration of building massing, façade, site layout and amenities

3.02.3 Architectural Guidelines

1. **Building Massing** – Building massing should reinforce the characteristics of a campus by giving architectural definition to the district open spaces and relating to adjacent buildings, site features and view sheds. Building massing, façade, site layout and amenities should be integrated to reinforce a sense of place. *Not applicable to Sub-District B₁ or Sub-District B₂*
2. **Sub-District B₁ and B₂: Building Massing** – Buildings should be oriented to Marlboro Street with setbacks adequate for landscaping and amenities and primary entries at the Marlboro Street Frontage. Parking and service functions should be located to the rear of the building.
3. **Sub-District B₁ and B₂: Building Scale** – The perceived scale of buildings and facades should reinforce the human scale of the district through the use of articulated building bases or through a change



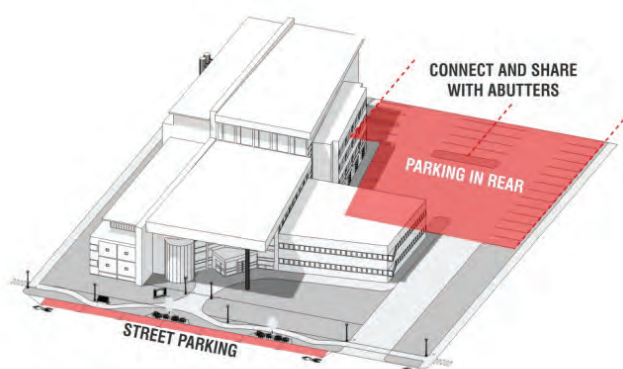
Orientation of the primary building entrance towards the street

in building materials, the placement of windows in a regular pattern, use of storefront window systems on the ground floor, and the articulation of building entries.

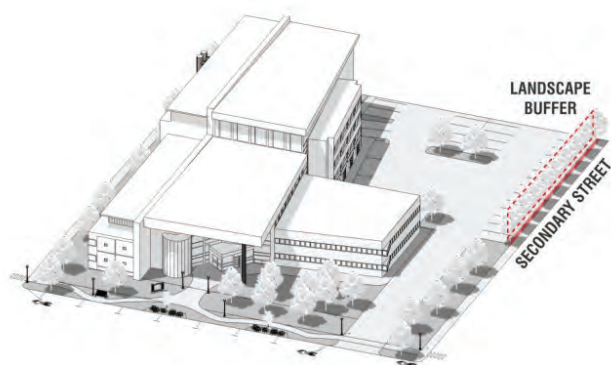
4. **Building Entrances** – Primary building entries should be on the primary façade of the building oriented to the street, adjacent open space, or shared pedestrian and bike path. Secondary building entries should be oriented to parking or service areas.
5. **Sub-District B_1 and B_2 : Building Entrances** – Primary building entries should be oriented to Marlboro Street on the primary façade of the building.
6. **Sub-District B_1 and B_2 : Building Windows** – Building facades facing Marlboro Street should use transparent glazing in windows.
7. **Architectural Styles and Detail** – Innovative designs; architectural style, expression and use of materials should be explored and celebrated. High quality materials should be used. Architecture and building design should be integrated with an innovative site and landscape design.
8. **Sub-District B_1 and B_2 : Architectural Styles and Detail** – Architectural style should be complementary to the surrounding abutters and context considering the style and materials of the buildings adjacent to it. Blank walls without architectural articulation and visual content or interest should be avoided.

3.02.4 **Lighting**

1. **Site Lighting** – Site lighting should be provided to illuminate all pedestrian connections, parking areas and site features. Innovative lighting designs are encouraged for lighting of site features, parking and paths. Lighting should render colors correctly with the preferred lighting in the white spectrum. Sodium light sources should be avoided. Light trespass onto abutting properties should be eliminated.
2. **Building Lighting** – Innovative lighting designs that highlight building features are encouraged. Building lighting should provide an even illumination level while operating. Flashing, pulsating or similar dynamic lighting should not be used. Lighting should not cast glare onto streets, public ways, or onto adjacent properties.
3. **Light Pollution** – All exterior light fixtures should be fully shielded and be focused such that direct illumination is confined to the property boundaries of the source. Fully shielded means a light fixture constructed and mounted such that all light emitted, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the light fixture, is projected below the horizontal.



Parking resources integrated into the site plan at the street and to the rear of the property. Connecting and sharing parking resources across property lines is encouraged.



Landscape buffer between parking areas and secondary streets

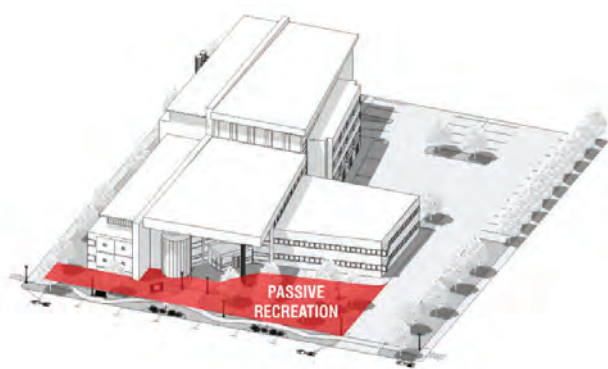
3.02.5 Parking and Landscape

1. **Location of Parking Areas** – Parking should be placed opposite of the primary façade. Parking should be configured to allow and encourage shared parking between adjoining parking lots between abutting properties. Where parking may be exposed to a secondary street frontage, the parking area should have a screen or landscape buffer that is planted with trees and shrubs that will visually conceal parked vehicles. Parking lot design should provide safe and convenient through-routes for pedestrians with well-defined pavement treatment, landscaping and lighting.
2. **Street Parking** – On-street parking is an acceptable option to reduce on-site parking requirements. On-street parking should reduce requirements by one space for every one space provided. On-street parking must be coordinated and approved by the City of Keene.
3. **Structured Parking** – Where proposed, structured parking should be configured on the site to the rear of primary buildings. The primary building with active façade should be oriented to the primary street and conceal the parking structure. Structured parking that creates a segment of secondary street frontage should be articulated with an architectural façade similar to the primary façade of the building to blend with the surrounding context. *Not applicable to Sub-District B₁ or Sub-District B₂*
4. **Curb Cuts** – Access drives and curb cuts should be minimized and consolidated. Site access and curb cuts should be shared between adjacent properties whenever possible. Every curb cut should provide a continuous and uninterrupted pedestrian walkway. Curb cuts should be limited to two vehicle access lanes with appropriate turning radii and clearances. Curb cuts should be placed offset from existing curb cuts on the opposite side of the street.
5. **Landscape Buffers and Screens** – Landscape should be used to screen parking, loading and service areas visible from public streets, open spaces or adjacent parcels. Parking areas containing more than 10 spaces should include landscape islands at ends of parking aisles and at corners of parking lot. Landscape islands should be a minimum of eight feet wide. Landscape islands and features should integrate stormwater management techniques like bioswales and rain gardens. Landscape buffers should include an upper canopy of trees, a midstory of shrubs and diversity of groundcover.

6. **Landscape within Pre-existing Parking Lots** – Upon expansion of an existing parking lot containing twenty or more spaces, alteration of a structure or change in uses, the entire existing parking lot should be brought into compliance with the landscape guidelines including screening portions of parking areas visible from the street, adding landscape islands at ends of parking aisles and at corners of parking lot, and adding stormwater management techniques to the landscape.

3.02.6 Private Open Spaces

1. **Open Space Characteristics** – Open space is a focus of campus environments and should be a primary feature of the Innovative Development District. Open spaces should be provided as per minimum percentage of site as described in Zoning. Open space should be integrated with the overall site plan and can be provided as a primary open space or dispersed network of spaces. If a primary open space it should be located near building entries and connect to a shared use path with a minimum dimension that is equal to or greater than 75% of the building height. If a dispersed open space, it should connect to a shared use path with a minimum dimension of 15 feet. Wherever possible, open spaces should be connected across properties to form shared open spaces framed by buildings on adjacent properties. Open space, parks, greens and plazas should be given a sense of enclosure by buildings and landscape at its edges.
2. **Open Space Use and Amenity** - Open space should provide opportunities for gathering, such as multi-purpose lawn areas, informal picnic areas, amphitheaters, gazebos, larger hardscape areas, and seating areas. Shared pedestrian and bicycle paths should support direct connections from neighborhoods and surrounding commercial areas into parks and open space.
3. **Public Art** – Public art should be used to define and punctuate open spaces. Public art features should be integrated into the layout of an open space complementing paths of travel, places of activity, buildings and structures and enhancing view sheds.



Passive recreation area in parcel setback

3.02.7 Sustainability and Design

1. **Trees and Plantings** – Trees, shrubs, and groundcover should be selected to be appropriate to the conditions of a particular site and the climate of the City of Keene. Street tree species selection should ensure compatibility with neighboring conditions so as to reinforce continuity of the street edge and public realm identity.



Low Impact Development features

2. **Species Selection** – Landscape should include the use of native species. Do not use any of the invasive species listed by the Federal and State environmental agencies. The choices of landscape materials should also consider their value in improving the habitat. Existing large and specimen trees should be preserved whenever possible and will require a plan to preserve the trees in a healthy state.
3. **Protection of Inland Wetlands** – The design of the landscape treatments should include provisions for the protection of inland wetlands, such as native species and drainage controls that maintain the ecology of water bodies. Analysis of the wetlands is recommended to improve the landscape plan. Use of low, mown grasses within areas adjacent to quality habitat is not recommended.
4. **Low Impact Development (LID)** – The application of Low Impact Development standards will include, at a minimum, consideration for the use of small, dispersed surface detention areas “rain gardens”, dispersed under-grade detention structures, separation of roof runoff from pavement runoff, and use of paving materials that reduce the rate of stormwater runoff. All future development in the area should be required to discharge stormwater at rates not to exceed historic runoff rates and volumes. The application of Low Impact Development standards should also include intensive Bioswales integrated with the site design and landscape and rain barrels or rain gardens that capture and infiltrate roof run-off. The Innovative Development District should be a showcase of progressive and best practices for reducing site and environmental impacts.
5. **Material and Energy Sources** – Buildings should be supplied with materials from local and renewable sources and use energy from renewable energy sources to the maximum extent possible. The Innovative Development District should be a showcase of progressive and best practices for sustainable and renewable materials and energy practices for sites and buildings.
6. **Permeable Surfaces** – Parking for on-street parking and off-street parking lots should consider the stormwater benefits of permeable surfaces, vegetated buffer strips and rain gardens in proposed ditches to promote stormwater infiltration to reduce peak flow and improve stormwater quality.

Section 4: Bonus Provisions

The *Draft* Bonus Provisions below could be included as part of the zoning language or included as part of the Design Guidelines. The intention of the provision is to provide an incentive to develop the properties in a manner consistent with the campus environment of the innovative zone. If the bonus provisions are deemed unnecessary or overly cumbersome they do not have to be integrated into either zoning or design guideline language. The zoning language and design guidelines function well as they are written this provision would offer an incentive to comply with an addition level of specificity.

4.01 Innovative Development (ID) Zone

1. **Impervious Surface Increase** – If two adjacent properties form a joint site plan that includes shared use of connected parking and open space facilities, then the percentage of allowed impervious surface may increase. Specifically, if parking and vehicular circulation between the two properties is connected, made more efficient through this connection, and combined with a shared use and access agreement and if open space is combined across parcels to create an open space that is shared between the two properties and combined with a shared use and access agreement, then the maximum impervious surface shall be increased to 80%.
2. **Building Height Increase** – Additionally, if two adjacent properties form a joint site plan that includes shared use of connected parking and open space facilities, then the allowed building height may increase by one-story on both properties.

Keene



Marlboro Street

ZONING AND LAND USE REGULATIONS PROJECT



APPENDIX C | **FLOOD RISK MANAGEMENT STRATEGY**

Marlboro Street Zoning and Land Use Regulations Project

Keene Flood Risk Management Strategy

Based on recent events, the City is clearly being impacted by significant flood hazards and associated property damage. The need is to manage the risk associated with flood events. The suggested approach is a risk management strategy that includes definition of the flood hazards through mapping of the flood events, education about the hazards and the means to prepare for events, and regulatory standards that provide an appropriate level of protection. By approaching these actions through the FEMA Community Rating System program, the City in turn can reduce the costs of the flood insurance premiums that are applied within the City.

1. Floodplain Mapping**a. Creation of database to supplement the FEMA FIRM sources:**

FEMA Flood Insurance Rate Maps (FIRMs) are calculated from information available in previously generated reports of rainfall and runoff. In the methodology historic data is considered in the confirmation of calculated flood elevations. However, historic trends indicate flood events may be increasing in size and intensity. Information is to be collected so it may be incorporated into revised calculations of the flood elevations and hazards.

b. Remapping of the Flood Hazard Areas:

With additional and more detailed information, the City may update the flood hazard areas and re-map the regulatory flood plain boundaries using the FEMA amendment procedures.

2. Flood Preparedness and Education**a. Preparing all sectors of the City for a major flood event:**

This includes the distribution of information to residents, businesses, and institutions for coordinated responses to flood events. This also includes review of flood event preparedness plans, equipment and facilities, and the updating and posting of plans for post-event actions.

3. Regulations and Performance Standards**a. For Flood Zone A (any of the A, AE, A1-30, AO, or AH) designated areas:****i. The requirements for new construction:**

1. Lowest floor elevation above Base Flood Elevation [BFE] by a freeboard that is dimensioned according to the use:

- a. One-foot freeboard for all non-residential uses.
- b. Two-foot freeboard for all residential uses.

2. Compensatory storage shall be provided on-site at a 1:1 building volume: compensatory storage ratio, and at a 1:2 for off-site compensation.

3. Soils testing and engineer certification of foundation systems to withstand the predicted flood event at the property.

ii. The requirements for modification of existing buildings:

1. In a residential or mixed use project there will be no habitable spaces below the BFE plus 2 feet.

2. All utilities shall be flood-proofed above the BFE plus 1 foot.

b. For areas designated as Floodways:**i. No new construction is permitted**

- ii. When modifications or rehabilitation of existing buildings exceeds 30% of the value of the building, then the existing buildings or portions of those buildings within the designated Floodway shall be removed.
- iii. The requirements of this section may be waived with the submittal and approval of technical analyses that show how the construction will not cause a rise in the BFE or increase the hazards to life and property.

c. Districts:

- i. These requirements shall apply within all Mixed Use, Commercial, and Industrial districts within or adjacent to the Flood Zone A or AE areas shown on the latest FIRMs.
- ii. To request a waiver of these requirements, project proponents must provide all of the following:
 - 1. Plans showing the project site is outside FIRM designated flood zones.
 - 2. Plans showing the project is outside of what is shown in the historical record of flood events.
 - 3. Information sufficient to show that the project site is outside the BFE and is not hydraulically connected to the flood area shown on the FIRMs.

d. Greenway and blueway creation:

Protection of the waterways in the City through setbacks, easements, and fee-simple acquisitions will provide areas associated with the waterways that meet multiple functions of environmental benefit, flood hazard reduction, and recreational opportunity. This is accomplished with:

- i. Adoption of a Natural Resource Overlay district, based on the City's Sustainable Energy Efficient Development (SEED) Overlay District that covers the designated FIRM Floodway area, within which no development is recommended and,
- ii. A natural buffer, flood bench and public access setback with a minimum of 15 feet from the upper limit of the banks (first topographic break) of all named waterways.

4. **Community-wide Planning**

a. Risk reduction coupled with cost reduction:

The City will determine whether to continue to advance the recent participation in the FEMA Community Rating System that improves the distribution of information on ways to take action for protection of people and property, and reduces the flood impacts and hazards to property and infrastructure. This in turn reduces the flood hazards to insurable property, reduces claims and the cost of claims, and therefore allows lower flood insurance premiums. Discounts on insurance premiums range from 5% to 45% depending on the class rating obtained by the community. The City of Keene enlisted in the program in 2002 and is currently at a Class 8 (with 10 being the lowest and 1 the highest), which provides a 10% flood insurance premium reduction within Special Flood Hazard Areas and a 5% reduction outside of these areas.

Keene



Marlboro Street

ZONING AND LAND USE REGULATIONS PROJECT



APPENDIX D | **STORMWATER MANAGEMENT STRATEGY**



Regulatory Alternatives to Address Stormwater Management and Flooding in the Marlboro Street Study Area

Alternative 1: Amend Existing Local Regulations

This proposed alternative provides an incremental step toward addressing stormwater management and flooding issues in the Marlboro Street Study Area. The proposed amendments below build on the foundation of current regulations and provides for improvements to the environmental condition by addressing identified gaps in regulatory control over stormwater control siting, design, installation, and maintenance. In addition, some of the proposed amendments encourage the use of Low Impact Development (LID) technologies and natural vegetated buffers to promote stormwater infiltration to reduce peak flow and overall quantity of overland flow and improve stormwater quality.

Part II – Code of Ordinances – Proposed amendments	
Chapter 70 - Public Improvement Standards	Include maintenance inspections of stormwater controls by Department of Public Works (DPW) staff to ensure stormwater controls are properly functioning supported by an inspection fee. A provision could be included to exempt properties that supply annual inspection reports to the DPW. (Article II – Engineering Inspection Fees)
	Specify that storm drains and conveyance systems must be designed using the most updated precipitation data to a larger storm event (e.g. 50-year storm event) for all areas (Article III – Design and Construction of Streets and Utilities)
	Specify a requirement for permeable surface parking for any proposed on-street parking, vegetated buffer strips along new or redeveloped streets, and rain gardens in proposed drainage ditches (Article III – Design and Construction of Streets and Utilities)
	Specify tax incentives or other zoning considerations for the installation of Best Management Practices (BMPs) that capture and infiltrate roof run-off (e.g. rain barrels or rain gardens) rather than directing run-off to the stormwater system. (Article III – Design and Construction of Streets and Utilities)
Chapter 38 - Environment	Specify that illicit discharges to storm drains are prohibited (Article II – Pollution of Air and Water)
	Specify that unstabilized (unpaved compacted



	dirt) driveways and denuded areas are considered public nuisances and must be stabilized to prevent erosion and sedimentation into stormwater conveyance systems (Article III – Nuisances)
Chapter 54 – Natural Resources, Article II Floodplain Ordinance	Require wetland delineation in accordance with the most current wetland delineation methodology
	Encourage flood hazard mitigation in a manner that would allow a reduction in insurance rates and make mitigation money available to the Marlboro Street neighborhood through a FEMA program such as “Know Your Line: High Water Mark Initiative”
	Identify parcels in the Beaver Brook upper watershed, outside of the Marlboro Street neighborhood, that have significant opportunity to reduce stormwater inputs and/or mitigate flood waters to reduce peak flow discharge. Provide tax or zoning incentives to conduct mitigating projects.
Development Standards	
Planning Board Development Standards	Specify a setback requirement to surface waters and requirements for vegetated riparian and wetland buffers (16 Wetlands & 17 Surface Waters)
	Specify a wetland functions and values assessment method and criteria to evaluate whether flood storage and water quality functions are lost as a result of a proposed project (16 Wetlands & 17 Surface Waters)
	Require stormwater management controls to consider water quality in addition to water quantity (1 Drainage)
	Specify a storm event standard for stormwater controls that is based on the most current precipitation data and future climate change (1 Drainage)
	Establish impervious surface limits on lots (5 Flooding)
	Specify the requirements for a Drainage Analysis and use of a Site-Specific Soil Survey for soils evaluation (1 Drainage)
	Provide tax or zoning incentives to encourage the on-site infiltration of stormwater and/or flood



	<p>water storage on proposed projects located on parcels in the upper portions of the Beaver Brook watershed that would reduce existing stormwater inputs and peak flows. (1 Drainage & 5 Flooding)</p>
	<p>Impose a restriction against any increase in stormwater peak flow rate and/or quantity on parcels in the upper portions of the Beaver Brook watershed to prevent any increase in stormwater discharge to Beaver Brook. (1 Drainage & 5 Flooding)</p>

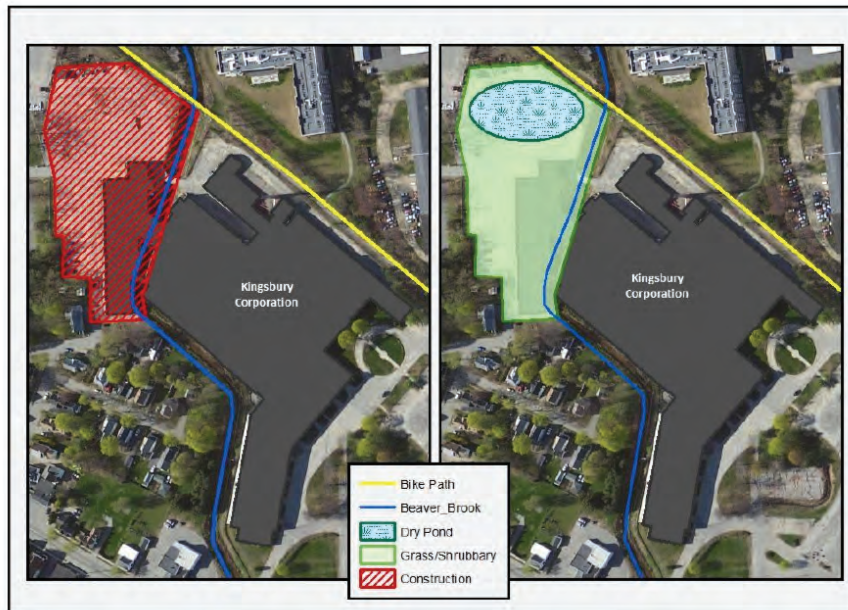
Alternative 2: Rezone Marlboro Street Study Area to include a Conservation District

This proposed alternative would designate land within the Marlboro Street Study Area as conservation land, Conservation (C) District, that could only be used for recreational uses, nature study areas, harvesting of forestry products, day camps, and trails. All of these uses encourage permeable surfaces, infiltration, and green space. This land would need to be acquired as municipal land or as conservation easements and be protected from development by conservation easement, deed restriction, or other means. This alternative reflects the priorities of the public participants that attended the first public workshop held on March 26, 2013. The priority identified at the public workshop, second only to addressing the flooding issue, was to “develop and preserve green space”. Conservation land could serve the dual purpose of creating flood storage and developing a green space within the Marlboro Street Neighborhood.

Designated Conservation District land along Beaver Brook could be managed to improve a variety of environmental aspects in the area including restoring segments of the brook to a more natural condition, creating flood benches, planting riparian buffers, and establishing wetlands and other flood storage areas. Conservation land also promotes stewardship of the natural environment, increased pedestrian and bicycle traffic to and from the green space through the Marlboro Street neighborhood, and an increase in the value and aesthetic of the surrounding development.

The two prominent parcel choices are the Kingsbury site and Baker Field south of Baker Street. These parcels could be acquired in their entirety or subdivided to accommodate conservation and development. The developed or redeveloped portion of the property could implement Low Impact Development (LID) or other BMPs to address stormwater. Some options for these two properties have already been considered by local groups and are summarized below:

Geography Students at Keene State College presented two alternatives for the partial and full use of the Kingsbury site as conservation land in their report, “Extreme Makeover Marlboro Street Edition: Problems and Prospects of Marlboro Street in Keene, New Hampshire”. These uses are presented below.

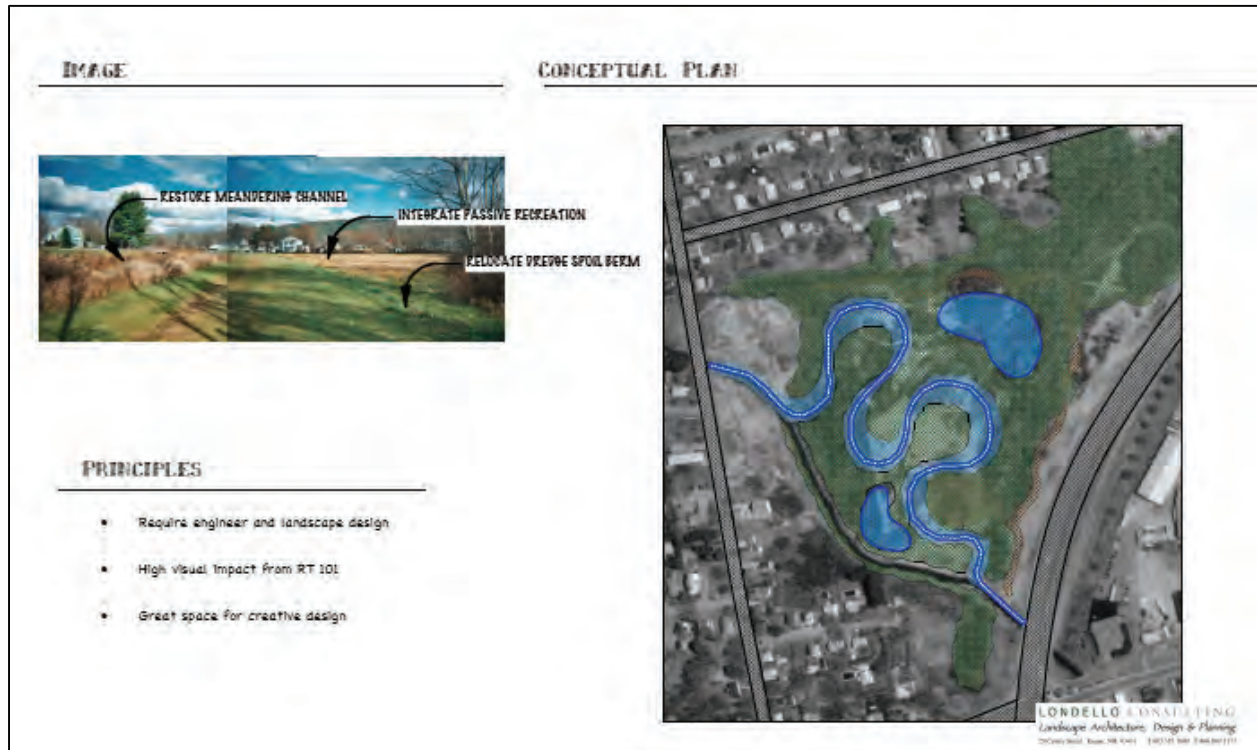




Moosewood Ecological LLC, and affiliates, presented two plans for stream enhancement and restoration in Baker Field in the Beaver Brook Restoration Plan, dated May 2009. These concepts are presented below.

**BAKER FIELD
CONCEPTUAL PLANTING PLAN**





Alternative 3: Develop and Adopt Stormwater Management Ordinances

This alternative directly addresses the stormwater management issues that contribute to flooding events in the Marlboro Street Study Area. There are several models for stormwater ordinances that can be utilized to affect stormwater quantity and quality. The model that is chosen for the development of a Stormwater Management Ordinance will be dependent on the desired outcomes and the willingness of the public to accept and participate in stormwater management within the municipality. Three case examples of ordinances from three separate municipalities are summarized below to provide options for discussion.

Establishment of a Stormwater Utility

In New Hampshire the development of a stormwater utility is permitted under RSA 491-I:6-b. This relatively new statute, passed in 2008, has only been used by two communities in New Hampshire to date, the Cities of Manchester and Nashua. A stormwater utility is defined as a special assessment district established to generate funding specifically for stormwater management. In accordance with RSA 149-I:6-c, a stormwater utility shall address flood and erosion control, water quality management, ecological preservation, and annual pollutant load contained in stormwater discharge. Both Manchester and Nashua are still in the early stages of developing the goals and structure for their stormwater utility, therefore, in order to review exiting utilities and benefit from lessons learned, it is necessary to look outside of New Hampshire.



The City of Lewiston, Maine has an established stormwater utility under Chapter 74 Utilities of the Code of Ordinances. Lewiston is regulated as an urbanized area under National Pollution Discharge Elimination System permit (NPDES) and applicable regulations, 40 CFR 122.26 for storm water discharges. This means that the City of Lewiston must meet water quality standards for its direct discharges to surface waters from its municipal separate storm sewer system (MS4). In order to maintain compliance with the applicable regulations, Lewiston needed to adopt ordinances that provided it the authority to control stormwater discharges. The City of Keene has a MS4; but it is not considered an urbanized area. Keene is, however, considered an urbanized cluster and may be regulated in the next phase of NPDES regulations. Therefore, it is important to consider the development of a stormwater utility.

The Stormwater Ordinance in Lewiston enables the City to:

1. determine the necessary level of municipal stormwater management services required;
2. maintain and improve the drainage facilities to ensure that they perform to design capacity;
3. mitigate the damaging effects of uncontrolled and unmanaged stormwater runoff;
4. support and promote sound stormwater management practices that mitigate nonpoint source pollution, reduce flooding, and enhance area drainage within the city and;
5. support the goals and objectives of the city ordinances addressing stormwater management in other sections of this Code of Ordinances.

More specifically, the City can adopt and enforce regulation over stormwater controls, establish stormwater standards, assess fees, and expend funds to maintain and improve stormwater controls. The stormwater utility may collect fees that are directly related to the cost of providing stormwater management services and offers credits for on-site management of water stormwater that goes beyond state and local regulations. Fees are based on the forecast of the annual cost of each component in the district's stormwater management program. The fee units are assessed as follows:

- Residential (single family): flat fee \$40.00 annually
- Residential (duplex): flat fee \$60.00 annually
- All Other Properties: base rate of \$40.00 for the first 2,900 square feet of impervious cover plus \$0.045 per square foot for each additional square foot over 2,900, annually.

Some examples of the services that the utility may provide in exchange for collecting the service fee are:

- Administer the stormwater management program for the city;



- Perform necessary studies and analysis of the service area or potential service area(s);
- Acquire, construct, operate, maintain, manage, protect, and enhance the stormwater infrastructure, including betterments and connections to the public drainage system; mapping of natural and man-made features affecting stormwater management;
- Perform inspections of stormwater management structures and facilities to detect and eliminate illicit discharges to the stormwater management system;
- Periodically inspect properties to determine contribution to municipal stormwater load;
- Maintain an up-to-date database of residential and non-residential properties in the service area, billing class codes for each parcel, runoff contributions of each property to the stormwater system for non-residential properties, and charges and payments for each account;
- Perform master planning and engineering for watershed management and capital improvements;
- Make recommendations regarding acquisition of property, easements and rights-of-way in critical areas serving as buffers, retention or infiltrating areas, or providing means to gain access to properties to perform utility duties; and
- Educate and inform the public about the impacts of stormwater runoff and the components of a stormwater management plan.

Establishment of a Stormwater Control Ordinance

Fayetteville, North Carolina established a Stormwater Control Ordinance that is administered through the Engineering and Infrastructure Department. The purpose of the ordinance is similar to that of the stormwater utility to:

- protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse effects of the increase in stormwater quantity and the stormwater runoff quality from development,
- manage the quantity and quality of stormwater runoff to minimize damage to public and private property,
- ensure a functional drainage system to reduce the effects of development on land and stream channel erosion,
- promote the attainment and maintenance of water quality standards,
- enhance the local environment associated with the drainage system,
- reduce local flooding,



- maintain as nearly as possible the predeveloped runoff characteristics of the area, and,
- facilitate economic development while mitigating associated flooding and drainage impacts.

However, this ordinance controls stormwater management by establishing a requirement for a stormwater permit for all development and redevelopment unless exempt pursuant to the ordinance. In Fayetteville, exemptions include single-family residences, new developments with less than 20,000 square feet of impervious surface, new construction to existing development that does not require more than 2,000 square feet of impervious surface and other agricultural and forestry uses. As part of the permit process, a stormwater design plan (as part of the construction plans) for each development activity shall be submitted for review by the city engineer for the entire development activity. The ordinance establishes the standards for stormwater quantity and quality that must be adhered to in development of the stormwater design plan. In addition, the ordinance requires a maintenance agreement, inspection rights, a performance guarantee for installation, and enforcement actions. The ordinance allows for fees to be assessed to pay for the stormwater management program. In the case where a permit is required, an application fee may be set to fund the program.

Establishment of a Low Impact Development Ordinance

Although Los Angeles is on the opposite side of the country and significantly different in most facets to the City of Keene, it is considered the “best” (most comprehensive, effective and well established) example of LID Ordinance in the United States. In addition, the specific concepts used in their Ordinance are intended for small scale, community efforts, which fit the size of Keene. Therefore, there is value in reviewing this example.

Los Angeles, California established a LID Ordinance administered by the Bureau of Sanitation. LID is a leading stormwater management strategy that seeks to mitigate the impacts of runoff and stormwater pollution as close to its source. LID consists of site design approaches and BMPs that can effectively remove nutrients, bacteria, and metals while reducing the volume and intensity of stormwater flows. The purpose of the ordinance is to integrate LID practices and standards for stormwater pollution mitigation into construction activities and facility operations of development and redevelopment projects to comply with local stormwater regulations and maximize open, green and pervious space.

The LID ordinance requires rainwater from a three-quarter inch rainstorm to be captured, infiltrated and/or used onsite at most developments and redevelopments where more than 500 square feet of hardscape is added. Single family residences can comply in simpler ways by installing adequate BMPs such as rain barrels, permeable pavement, rainwater storage tanks, or infiltration swales to contain the water. Los Angeles has established a tier system for compliance that minimizes the burden for residential projects, establishes incremental compliance for partial redevelopment, and full compliance for projects impacting greater than 50% of the existing site. Projects must comply with the standards established in the ordinance and utilize BMPs presented in the *Development Best Management Practices Handbook*. Each development must submit a



LID plan to the Bureau of Sanitation for review and approval. A fee is assessed for the review of the plan based on the size and scope of the proposed project.

The following is an excerpt from the Residential LID Handbook, published on the LA Stormwater website.

SMALL SCALE RESIDENTIAL RAIN BARREL FACT SHEET



Rain barrels capture runoff from roof downspouts during storms and temporarily store that runoff for later use. They are low-cost, effective, and easily maintained devices that can be sized for a specific volume of water. Retained water may be used for garden watering, and other outdoor non-potable uses. Rain barrel storage can reduce the amount of stormwater pollutants that are picked up and conveyed to local streams and the ocean. In addition, harvested water conserves precious City-supplied potable water and, if directed to unpaved surfaces, can recharge groundwater. Rain barrels are typically made of heavy duty plastic and can range in size from the standard 55 gallons to more than 80 gallons.

How many rain barrels do I need?

The number of rain barrels required to capture runoff from a given roof or impervious area is shown in the following table.

Are Rain Barrels Feasible at My Residence?

Rain barrels are appropriate where the following site characteristics are present:

- Roof areas with downspouts are required.
- A level, firm surface for support of the rain barrel(s) is required. Rain barrels should only be elevated with solid construction materials and kept away from retaining walls as a full 55-gallon rain barrel will weigh over 400 lbs.
- An area where the captured water can be used is required to be present within a reasonable distance from the rain barrel(s).
- Design of an appropriate area for overflow from the barrel is necessary. For sites within, immediately adjacent to, or discharging to an environmentally sensitive area, see the LID Manual for applicable criteria

Roof or Impervious Area (sq.ft.)	Number of 55 Gallon Rain Barrels*
500 – 1,000	4
1,001 – 1,500	8
1,501 – 2,000	10
2,001 – 2,500**	14

* Or equivalent capture using larger rain barrels.

** Projects adding roof or impervious areas in excess of 2,500 sq. ft. shall add 3 rain barrels per every 500 sq. ft. of additional area.

The following is an excerpt from the Developers LID Handbook, published on the LA Stormwater website.

Bioinfiltration Sizing Example

Given: 100,000 ft² commercial development, 100% impervious (negligible landscaping). Design a bioinfiltration BMP to treat runoff from the entire development ($K_{sat,media} = 5$ in/hr; Factor of Safety = 2.).



1) Determine V_{design}
 $Catchment Area = (100,000ft^2 \times 0.9) = 90,000ft^2$
 $V_{design} = 1.5 \times 0.0625ft \times 90,000ft^2 = 8,500 ft^3$

2) Determine $K_{sat,design}$
 $K_{sat,design} = (5 \text{ in/hr}) / 2 = 2.5 \text{ in/hr}$

3) Determine d_p
 $d_p = (2.5 \text{ in/hr} \times 48 \text{ hrs}) / 12 = 10.0 \text{ ft}$

Adhering to the max ponding depth requirements of Table 4.5, $d_p = 1.50 \text{ ft}$

4) Calculate the infiltrating surface area, A_{min}

$$A_{min} = \frac{8,500 \text{ cuft}}{[(3hr \times 2.5 \text{ in/hr} / 12) + 1.5 \text{ ft}]} = 4,000 \text{ ft}^2$$

For a full capture system, bioinfiltration units must be designed with a combined surface area of 4,000 ft².



Alternative 4: Establishment of a Natural Resources Overlay District

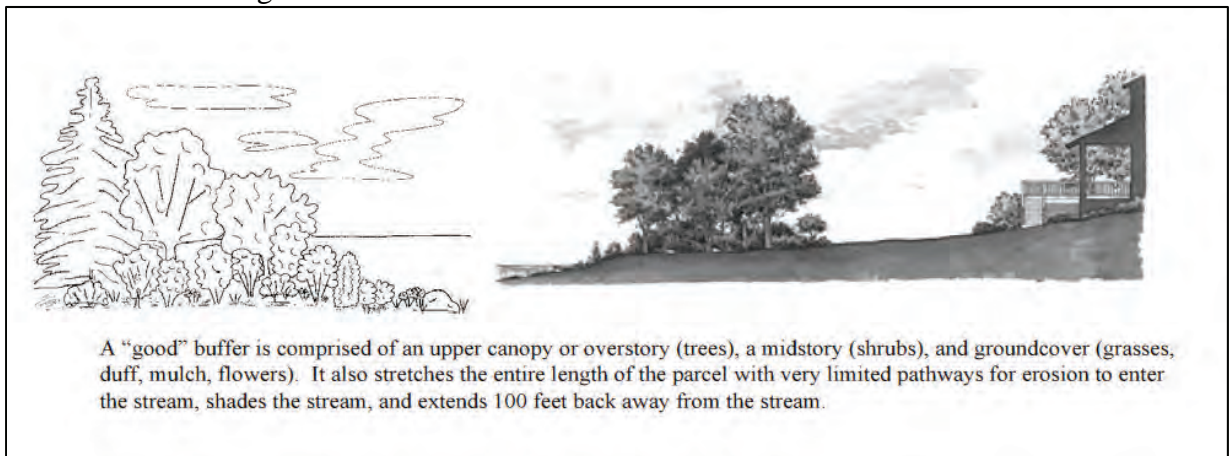
This alternative will create an overlay district that can provide flexibility and apply to specific districts or natural resources depending on the desired outcome and the desired extent of regulatory control. The overlay district would be established under Chapter 102 Zoning. The established overlay district could include several different elements that were previously discussed under Alternative 1, but could include incentives similar to the Keene Sustainable Energy Efficient Development (SEED) Overlay District.

The purpose of the Natural Resource Overlay (NRO) District would be to encourage environmental stewardship of wetlands and surface waters by creating an overlay district within which property owners will have the option of implementing BMPs, flood mitigation, stream restoration, vegetated buffers, and LID in exchange for zoning incentives. The NRO would revitalize the Marlboro Street neighborhood through the provision of zoning incentives that will make it attractive for property owners within the overlay to expand upon Keene's existing mixed-use, urban environment while improving the natural environment and increasing the aesthetic appeal of the neighborhood. The same density, height, dimensional, and parking incentives established for SEED could be applied to the NRO.

The NRO would have specific requirements for the establishment of riparian buffers and wetland buffers, limits on impervious surfaces and/or flood storage requirements. If the project occurred along Beaver Brook the NRO could require the establishment of vegetated flood benches as flood mitigation.

Moosewood Ecological LLC, and affiliates, outlined many of the above mentioned concepts in the Beaver Brook Restoration Plan, dated May 2009. Below are excerpts of the plan that illustrate some of these concepts.

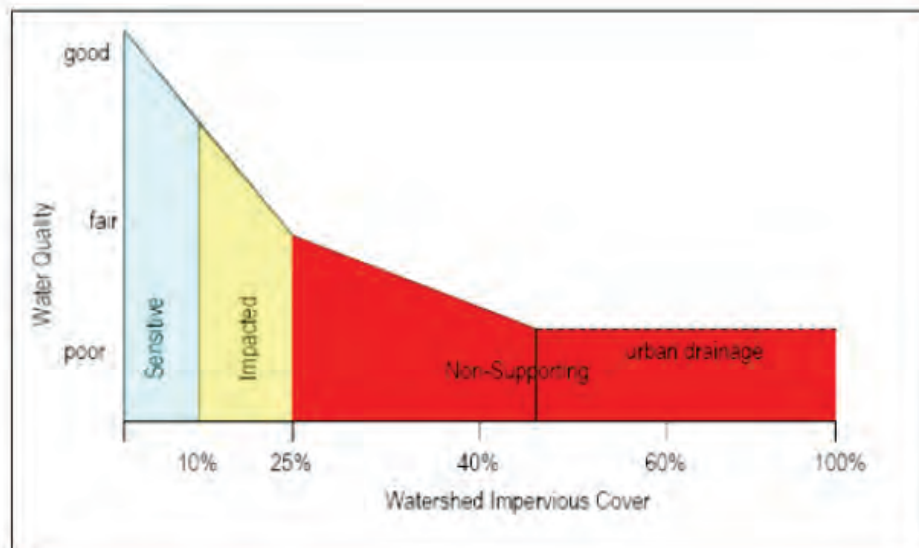
Establishment of vegetated buffers:



Stream restoration projects:

IMAGE	CONCEPTUAL PLAN
	<div style="display: flex; justify-content: space-around;"> <div data-bbox="779 546 1120 787"> <p>NATIVE PLANT HERBS</p> </div> <div data-bbox="1153 546 1429 787"> <p>RESTORATION IN PROGRESS</p> </div> </div>
<p>PRINCIPLES</p> <ul style="list-style-type: none"> • Develop planting palette for restoration projects • Contract nursery to grow and sell plant material • Make it easy for property owners to concur with restoration objectives 	

Establishment of effective impervious surface limit:



Implementation of LID and vegetative stabilization:

IMAGE

PRINCIPLES

- Provide incentives/regulations for new development
- Engineered rainwater collection on large scale projects

CONCEPTUAL PLAN

SAMPLE SITE PLAN

BIORETENTION STRIPS

IMAGE

PRINCIPLES

- Maintain water quality through bioretention systems
- Provide incentives for property owners to participate
- Bank stabilization and flow deflection to support channel integrity

CONCEPTUAL PLAN

TYPICAL INTEGRATED SYSTEM
USING LARGE WOODY DEBRIS AND VEGETATED MOORING

Bioretention System for use in Parking Lots

The diagram on the left shows a typical design of a bioretention system for use adjacent to a parking lot. In the application shown, the slope is 10% grade. The system is designed to be used in conjunction with a parking lot. The bioretention system has a depth of 18 inches.

Keene



Marlboro Street

ZONING AND LAND USE REGULATIONS PROJECT



APPENDIX E | **TRANSPORTATION STRATEGY**



MEMORANDUM

To: The Cecil Group

From: Nelson\Nygaard

Date: December 12, 2013

Subject: Marlboro Street Zoning and Land Use Regulations Project - Transportation Final Report

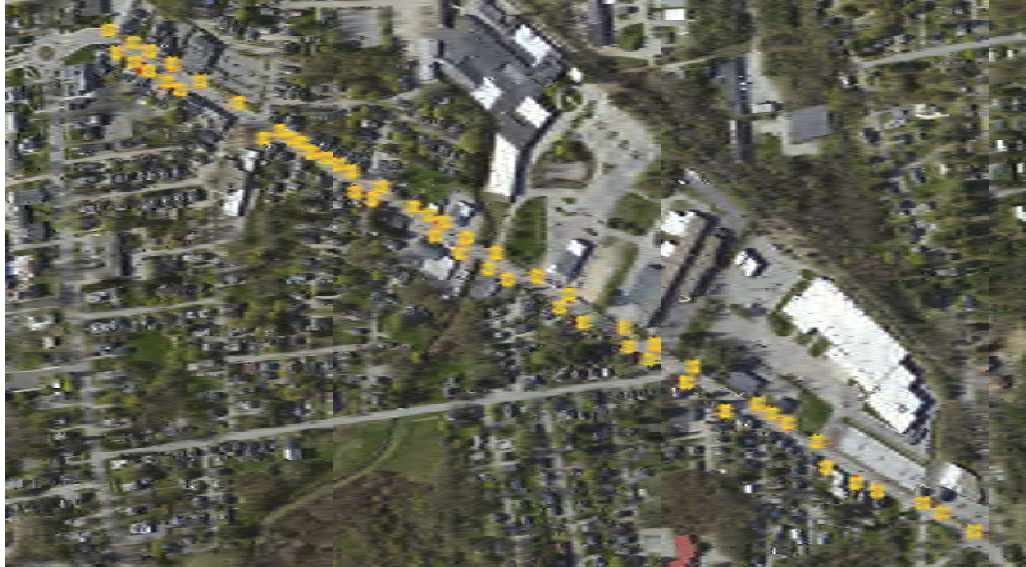
TRAFFIC/CIRCULATION

The following summarizes the key findings and recommendations to improve traffic and non-motorized circulation along the Marlboro Street corridor.

A) Parcel Access

Existing conditions along Marlboro Street currently favor vehicular travel and traffic, with modest considerations and facilities that support pedestrian and bicyclists. Throughout the corridor there exist a disproportionate number of driveway curb cuts that are a result of the various retail businesses, residence driveways, as well as former industrial uses. As shown in Figure 1, there are approximately 40 curb cut locations that directly impact the corridor. The majority of these serve non-residential uses, which typically provide much wider and higher capacity curb cuts than residential uses. These conditions represent two significant negative conditions for the corridor. First of all, the high density of larger curb cuts is a direct threat to pedestrian comfort and safety, especially on Marlboro Street where the pedestrian space is not well-defined or raised across the curb cut. The length of these curb cuts can run up to 60 feet, making the sidewalk an inconsistent and unpleasant place for pedestrians to walk, especially at the southeastern half of the corridor. Secondly, the frequent curb cuts contribute to safety and accessibility deficiencies for those trying to access residences and destinations around the district because they introduce potentially conflicting turning movements in unpredictable and patterns for infrequent travelers (see Figure 2), significantly increasing the risk of angle-type crashes. This threat could increase notably if new higher-volume customer destinations are developed on the corridor.

Figure 1 Curb Cut Locations throughout Marlboro Street



Recommendations

An access management program is recommended for the corridor to both improve vehicle circulation to minimize conflicts as well as to improve pedestrian and bicycle comfort and safety. Future curb cuts and parcel redevelopments should be planned with an eye towards consolidating curb cuts and placing them either well-offset from opposite-side curb cuts or directly across from them in order to reduce vehicular and pedestrian conflict points. Opportunities to limit the number of curb cuts can be realized through shared access easements – ideally coupled with shared parking agreements – between various neighboring businesses that have proximate off-street parking supplies. These parking lots can be reconfigured to provide shared and limited access points for employees, customers, and residences to find parking with, often with the bonus of increasing parking supply. By consolidating curb cut locations, the closure of excessive cuts and their associated access lanes allows parking lots to be reconfigured more efficiently to maximize parking supply as well as to improve internal pedestrian improvements. For example, as shown in Figure 2, there are numerous driveway curb cuts along the midsection of the corridor that have caused conflicting circulation and access points for motorists, pedestrians, and bicyclists. Figure 3 proposes consolidating the excessive number of access points, limiting access to one main location along Marlboro Street.

Figure 2 Existing Driveway Curb Cuts along Marlboro Street



Figure 3 Potential Driveway Consolidation along Marlboro Street



B) Vehicle/Truck Access

Existing truck routes and patterns do not provide the most safe and accessible means of accessing industrial businesses and warehouses in and near the northwestern most part of the district. Currently, trucks accessing Victoria Street businesses, as well as many north of Water Street on the east side of downtown, utilize Water Street off of Main Street as a route for travel. However, the design of the Main and Water Street intersection is insufficient for handling the turning radii of large trucks and cannot be expanded. Furthermore, any trucks exiting Water Street to head south can only turn right and must enter the core of downtown vehicular and pedestrian traffic to turn around.

Figure 4 Main & Water Streets



Recommendations

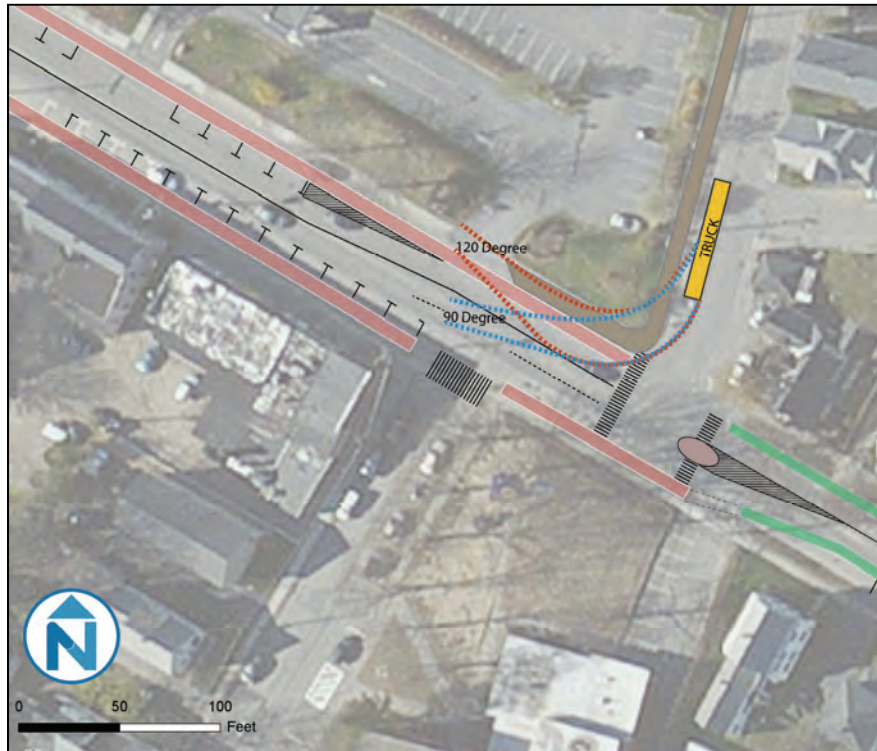
With the recent reconstruction of Grove Street and proposed redesign of Marlboro Street, an alternative truck route is recommended to alleviate these conflicts. Entering truck traffic would be signed from Main Street to access Water Street and eastern downtown businesses via Marlboro Street and a turn left onto Grove Street. The existing curb to curb width of the northwestern segment of Marlboro Street as well as that of Grove Street is wide enough to accommodate truck activity, and their intersection provides enough width to accommodate large truck turns, including a left-turn lane from Marlboro to Grove. Trucks turning from Grove Street to Water Street are negotiating an intersection that is not significantly bigger than Main at Water, but because Water Street traffic is not stop controlled, there will be no stopped vehicles in conflict with right-turning trucks, which backs up traffic on Main Street today. Furthermore, the return truck movement is on the same streets, with lefts onto Grove from Water easily accommodated on the existing geometry.

However, trucks returning back to Marlboro Street from Grove Street would not be able to take a right turn with the existing curb line at the northwestern corner of the intersection as shown in

the figure below. The City would need to reconstruct the curb line to help aid trucks taking a right turn at this intersection and need to widen Grove and Marlboro Street to accommodate this truck turning movement in the interim. This will require a more in-depth turning movement analysis before reconstruction.

With future redevelopment in the core of the Marlboro Street corridor, the creation of a new Victoria Street extension to Marlboro Street will provide a better option for trucks destined for Water Street businesses, allowing direct access off of Marlboro and avoiding the use of Water Street all-together.

Figure 5 Truck Turning Movement on Marlboro and Grove Street (on proposed Marlboro Streetscape)



C) Cheshire Rail Trail

The City of Keene is blessed with the availability of a highly developed system of recreational trails that bisect the city and region. The Cheshire Rail Trail is one of the most important regional and local connectors not only for the city, but for the future success of the Marlboro Street corridor in particular. The availability and proximity of this multimodal connector provides opportunities to enhance and encourage travel by foot and bicycle between the corridor, the downtown, and beyond, serving to better link activity areas in the city and providing a direct amenity for future development in the corridor. This rail trail should serve as a parallel but complimentary connection to Marlboro Street itself, potentially providing sidewalk-like activity on the northern edge of redeveloped parcels as well as multiple access points for the neighborhood and businesses in the district.

Recommendations

Recommendations include enhancing existing and creating new access points to encourage mobility between residential neighborhoods looking to connect to and from downtown as well as within the district. Important access points include intersections with proposed streets such as the proposed Victoria Street extension, the Baker Street bike connector, and the Greenway connector. Other access points from local neighborhood streets should also be considered to provide more direct access to the trail from residential neighborhoods directly north of the rail trail. Improved access points to the multi-use path should be enhanced to encourage fluidity between intersecting streets that supports a higher level of connectivity throughout the district.

Figure 6 Existing and Proposed Trail Access Points



Another recommendation includes providing better treatment at the Water Street and Cheshire Rail Trail intersection to accommodate pedestrians and bicyclists who are utilizing the path. Figure 7 and Figure 8 depict existing conditions at this intersection. There is little to no signage leading up to the trail, no pedestrian scale lighting, and the crosswalk linking the multi-use path across Water Street is deteriorating.

Figure 7 Cheshire Rail Trail



Figure 8 Cheshire Rail Trail and Water Street Intersection



Improving conditions at this intersection will caution motorists to slow down, providing better opportunities to draw pedestrians and cyclist into the district from downtown and vice versa. A recommended intersection treatment includes enhanced shoulder striping, high-visual cross walk lines and a slightly raised crosswalk as shown in Figure 9, which can be also colored or patterned to stand out more. Another recommendation for creating better visibility for those on the trail include the installation of a solar powered rectangular rapid flashing beacon (RRFB), that flashes and warns motorists when the system detects approaching pedestrians and bicyclists.

Providing lighting along the length of the trail will help to provide better visibility and safety for those on the trail during the evening hours. With a cross section of about 13 feet, the existing width of the multi-use path should be extended and paved, where possible, to allow for greater usage space for pedestrians and bicyclists, as shown in Figure 10. The trail should be widened to accommodate a minimum of 10 feet throughout the trail for consistency. Overall, continued improvements to the trail will enhance the opportunity for this off-street corridor to increase connectivity as well as the attractiveness of the Marlboro Street corridor to new development.

Figure 9 Example of a Raised Crosswalk



Figure 10 Example of Multi-Use Path



Source: Raised crosswalk, Richard Drdul, Creative Commons

Attribution License 2.0

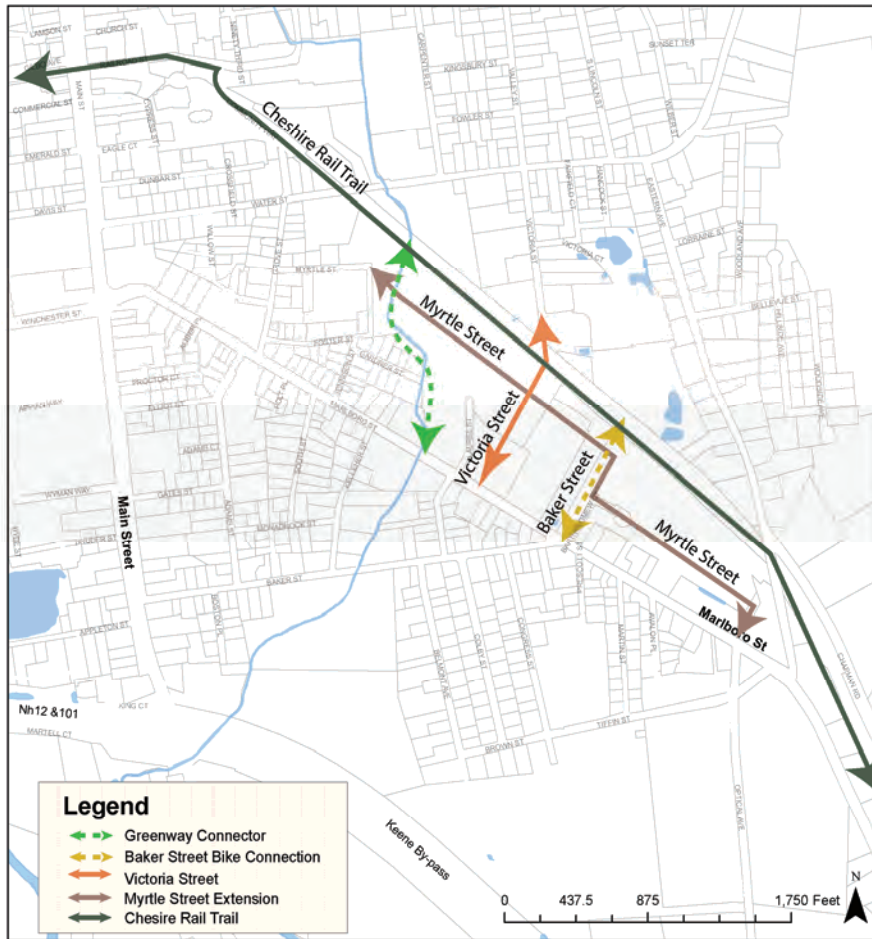
D) Future Street Network

Mobility throughout the Marlboro Street district is and will continue to be intimately related to its land uses, demographics, and available transportation infrastructure. The vision set out for the future of this district hinges on the concept of providing an innovative mix of uses that supports a wide range of businesses and industrial uses, supported by shops, restaurants, and new housing, while simultaneously working to better preserve the existing traditional neighborhood-scaled housing within and surrounding the district. In order to bring this vision to fruition, it is essential to provide an interconnected network of streets that improves connectivity within the district in order to make destinations more accessible and safe for all modes of transportation while avoiding creation of single pinch points for traffic. As proposed redevelopment plans occur overtime, the importance of a connected and viable street network that supports the mobility needs of all users is necessary to sustain both corridor and neighborhood vitality.

Within the district, Marlboro Street will continue to serve as the main thoroughfare for vehicular traffic, with added enhancements for pedestrians and bicyclists throughout the corridor. The street will continue to channel traffic through to major destinations both northwest and southeast of the district, and new development will be served by Marlboro and several new streets within the innovation district, such as Victoria Street, the extension of Baker Street as well as the proposed continuation of Myrtle Street through to Bartholomew Ct. to Optical Avenue, as seen in Figure 11.

Marlboro Street will provide a level of neighborhood protection, allowing development and through movement to be concentrated along the corridor, preserving the character of abutting traditional neighborhoods. The proposed Myrtle Street extension through to Optical Avenue will provide additional network connectivity for more localized access to proposed developments north of Marlboro Street. The creation of this roadway and new crossing streets allows for better access and permeability between local neighborhoods within the proposed district, as well as to and from the key through connections of Marlboro Street and the Cheshire Rail Trail.

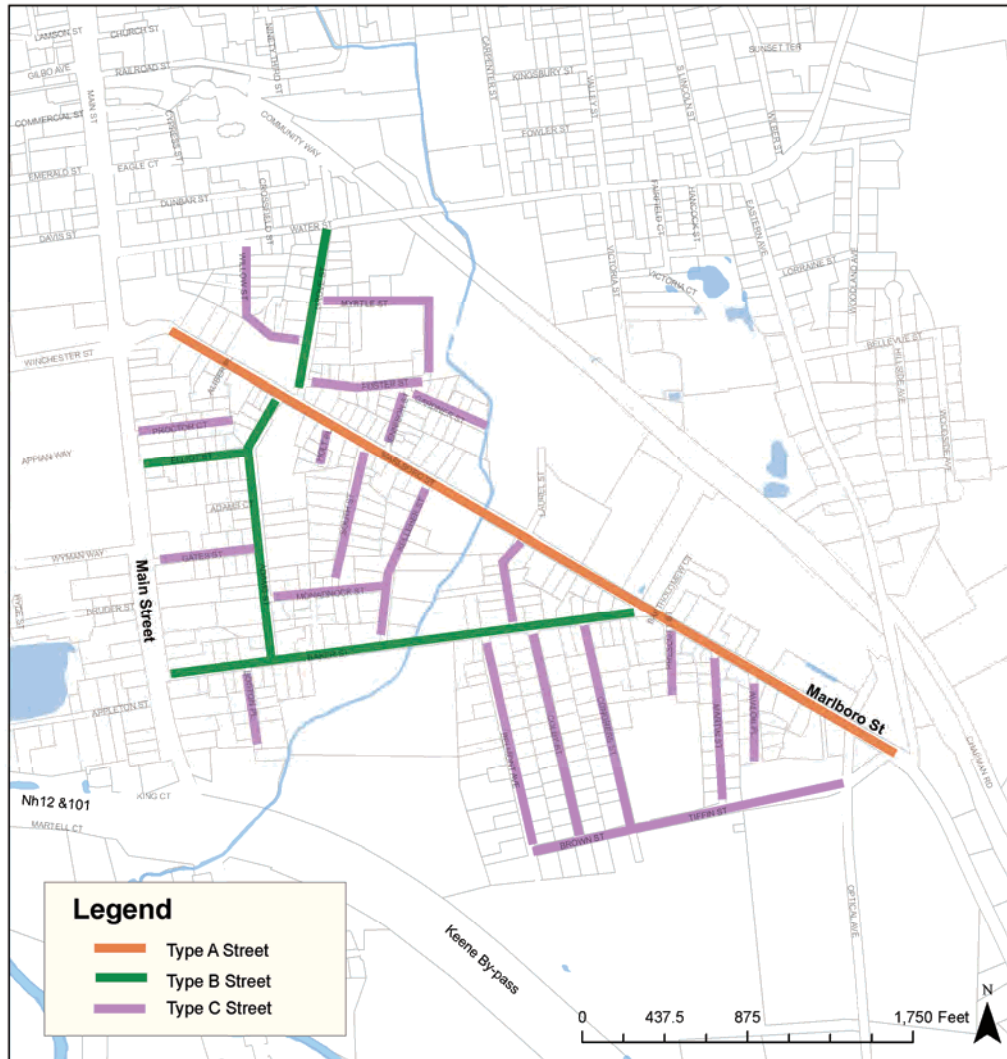
Figure 11 Proposed Street and Bike Connections



Recommendation: Complete Streets

The design of a complete transportation system that promotes pedestrian-oriented place-making begins with the understanding of street contexts. Different streets have different conditions and should merit design considerations that are specific to their particular environment. Design improvements on connecting roadways within the Marlboro Street corridor will be addressed in a manner that both facilitates multimodal access and connections throughout the corridor, while providing uninhibited circulation patterns for all users of the road. As shown in Figure 12, street typologies have been created to signify the hierarchical difference in proposed roadway cross-segments within the district. Street typologies are mainly categorized to distinguish the differences between the various residential neighborhoods streets, as proposed designs should consider the connections and accessibility within the residential neighborhoods and between the neighborhood and Marlboro Street.

Figure 12 Street Typologies



Recommended Street Typologies

Street Type A - (Marlboro Street)

The physical and aesthetic landscape of Marlboro Street reflects the various land uses throughout the corridor. With the future redevelopment of the street, recommendations build off of three distinct segment characteristics, which include: the “Traditional Commercial Street,” along the north-westernmost third of Marlboro, from Main Street to Grove Street; the “Innovation Street,” from Grove Street to Baker Street; and the “Green Connector,” spanning from Baker Street to Optical Avenue. Proposed recommendations for both the short and long term enhancements will provide enhanced bicycle and pedestrian facilities along the Marlboro Street corridor.

Northern Marlboro Street (Main to Grove- Traditional Commercial Street)

Between Main and Grove Street, Marlboro Street is at its widest with 53 feet curb to curb width, carrying one lane of traffic in each direction and parallel parking on both sides of the street.

Sidewalks are present on both sides, as well as shared lane bicycle markings (sharrows). However, there is a vast amount of width dedicated to each vehicle travel lane, encouraging higher vehicle speeds than desired, providing insufficient protection for bicyclists, and minimizing the potential pedestrian space (See Figure 12).

Short-term recommendations for this segment of the street include preserving parallel parking along both sides of the roadway and narrowing travel lanes to about 11 feet each. The remaining roadway space would then be separated with a line of landscaping barrels to buffer a 7.5 foot wide space on each side of the street between parked cars and the sidewalk that can be used as a community art space and potentially sidewalk cafes or “parklets.” When not occupied with active uses, this space can also serve as an informal cycle track. With sharrows for bicyclists the only viable facility approaching and leaving Main Street, sharrows would continue through this stretch, ultimately connecting to a dedicated bike lane east of Grove, though the buffered space would serve as an ideal cycle track when available. In winter months, the landscaping barrels can be removed and snow stored in the buffers, helping to preserve the full-width of the adjacent sidewalks.

The long-term recommendation proposes a more formalized cycle track facility, running the span of this street segment. The cycle track would be raised to the level of the sidewalk and contain a two-foot buffer from the parked cars and one-foot buffer from the landscaped sidewalk space, helping to separate pedestrian and bicyclist zones. Travel lanes and parking widths would remain consistent.

In both the short- and long-term, parking on the northern curblane would drop to accommodate a left-turn lane onto Grove Street. This is shadowed by a pedestrian crossing island that serves both as a safe pedestrian crossing as well as a neighborhood protection element, marking a clear gateway to the next, less-commercial segment of Marlboro Street. The island may even carry a low-mounted gateway sign and/or landscaping.

Figure 13 Example: Cycle Track, Vassar Street, Cambridge, MA



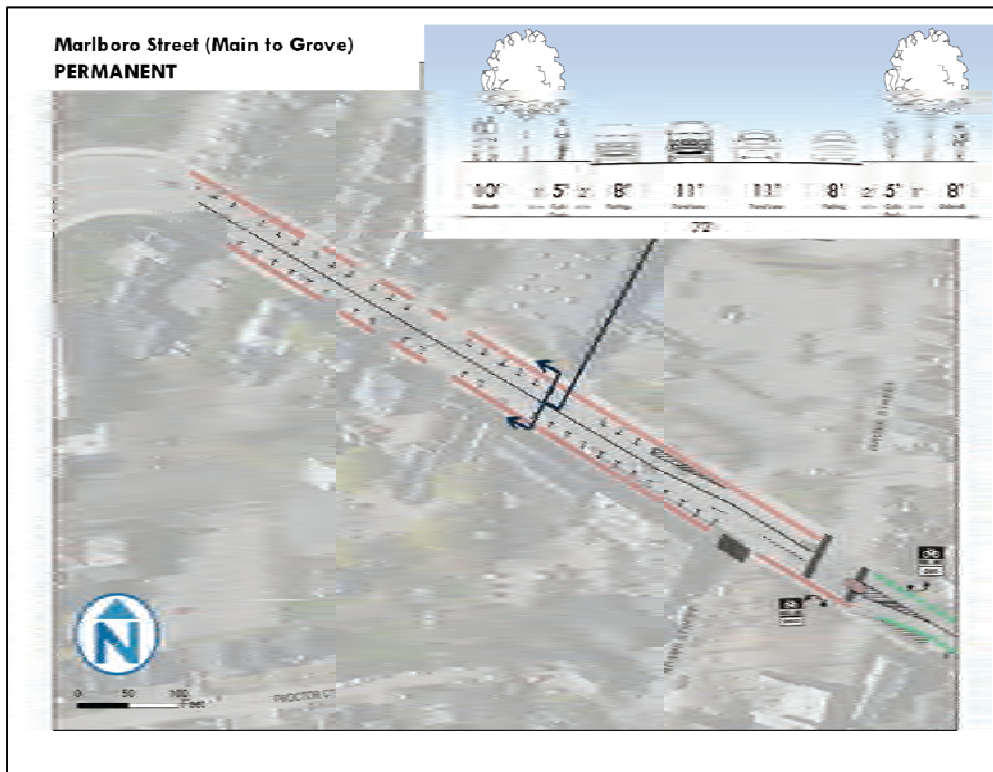
Figure 14 Marlboro Street (Main to Grove) Existing



Figure 15 Marlboro Street (Main to Grove) Proposed Interim



Figure 16 Marlboro Street (Main to Grove) Proposed Permanent



Middle Marlboro Street (Grove to Baker- Innovation Street)

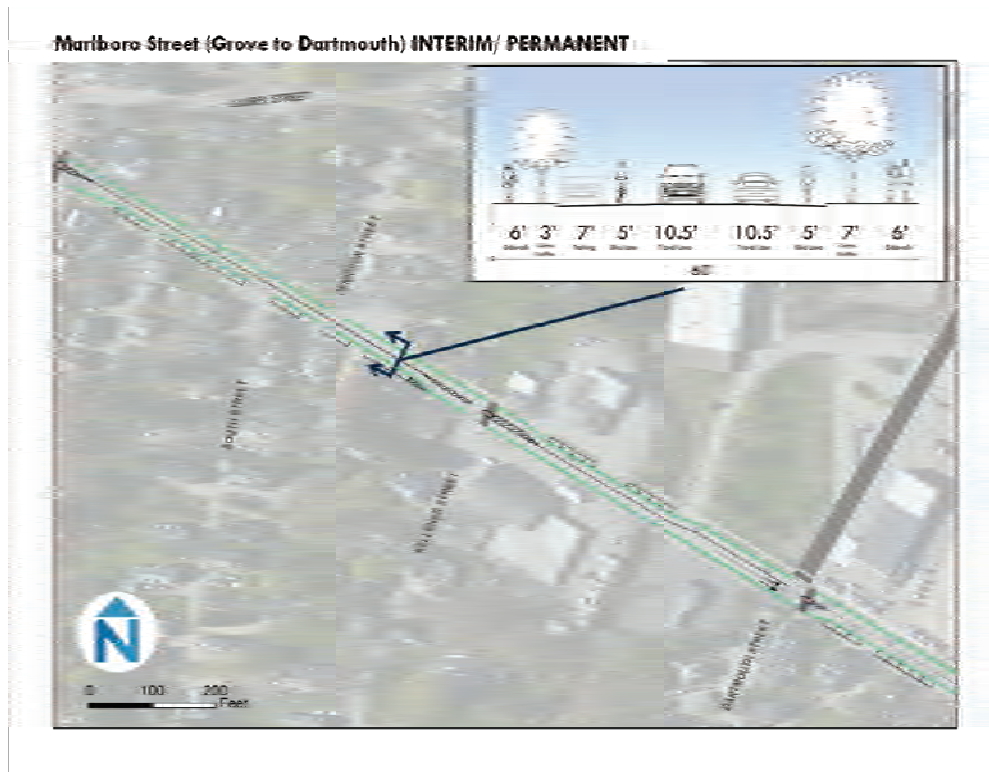
The existing cross-section of Marlboro Street spanning from Grove Street to Baker Street has a smaller curb to curb measurement as compared to the previous. It still retains parking on both sides of the roadway but has 11' travel lanes. Sidewalks are present along both sides of the road, but they are narrower and somewhat deteriorated. The future vision for this segment of the corridor is to provide traffic calming elements that help to improve bicycle and pedestrian enhancements.

Both the short- and long-term recommendation for this street segment include providing southbound dedicated left hand turning lanes and crossing islands at key intersection points, including Grove Street and the proposed Victoria Street, as well as crosswalks located at Kelleher and Marlboro Street. These facilities will help to create better opportunities for pedestrians to cross Marlboro Street, as opposed to existing conditions, where crosswalks are scarce. Dedicated on-street bicycle lanes will run the entirety of this street segment, and one-sided on-street parking will serve as chicanes, periodically altering between the north and south sides of the street at the crosswalk locations.

Figure 17 Marlboro Street (Grove to Dartmouth) Existing



Figure 18 Marlboro Street (Grove to Dartmouth) Proposed Interim/Permanent



Southern Marlboro Street (Baker to Optical- Green Connector)

Marlboro Street, from Baker to Optical Avenue, has the most dissimilar characteristics compared to the previous two segments. Travel lanes narrow to approximately 11' against a two-foot shoulder. The curb to curb width does not allow for parking on either side of the street. Sidewalk facilities are in poor condition, and there is little to no landscaping to protect or shade pedestrians. This segment of the roadway has become a hostile and uninviting pedestrian environment, exacerbated by the number of large curb cuts.

The short-term recommendation for this segment of the street does not drastically change from existing conditions. Because of the constrained width of the roadway, the recommendation is to maintain existing sharrows on the roadways, however providing the option for bicyclists to utilize the sidewalk as a means of travel in the interim. The recommendation of utilizing the sidewalk as in the short term scenario acknowledges that the constrained roadway conditions do not allow for a dedicated bicycle facility. Providing the option for bicyclist to utilize the sidewalk as well as the roadway provides a protected facility in the interim, and the lack of on-street parking along this segment of Marlboro allows bicyclists to be visible to motorists. In addition, because of the available width in the grass buffer new grass or trees should be planted to provide a shaded environment for pedestrians and bicyclists.

Long-term recommendations for this street segment include providing a formal cycle track facility for bicyclists. This would include removing the two foot roadway buffer and converting the existing landscape buffer to a wider sidewalk with street tree pits. The bicycle facility would be at the sidewalk level, separated from roadway traffic.

Figure 19 Marlboro Street (Dartmouth to Optical) Existing



Figure 20 Marlboro Street (Dartmouth to Optical) Proposed Interim

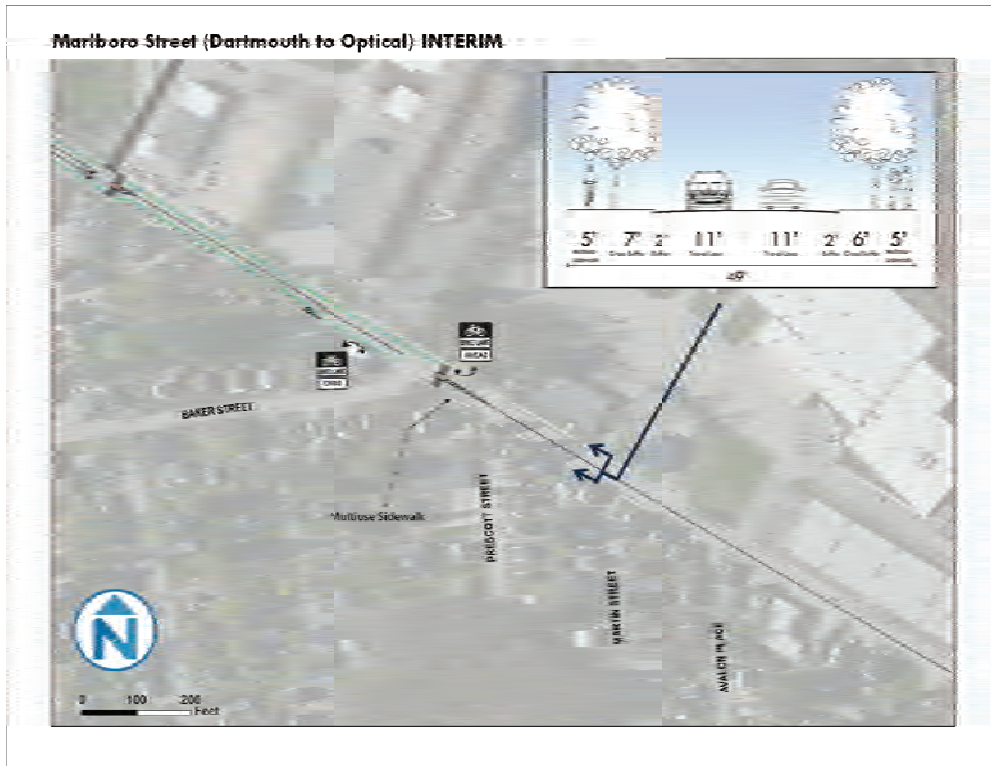
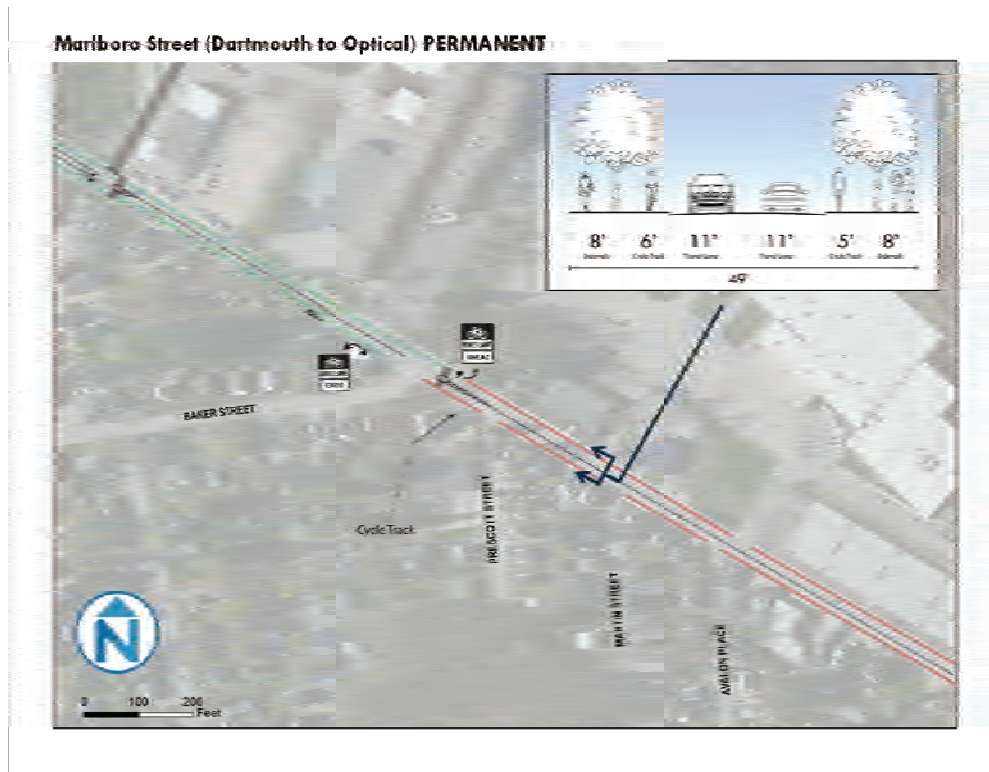


Figure 21 Marlboro Street (Dartmouth to Optical) Proposed Permanent



Street Type B – (Connecting Streets)

Streets categorized as Type B generally have higher traffic volumes compared to local streets within the district, helping to connect vehicles from local residential streets to Main Street and Marlboro Street. Streets such as Adams, Elliot, Grove, and Baker Street should be traffic-calmed connector streets with facilities that not only accommodate vehicular travel but safer pedestrian travel. These streets are two-way streets (with the exception of Elliot which remains one-way) that accommodate one or two sides of parking, functioning as slow community connectors or as “yield” streets when both sides have parking (yield streets are described further below in Type C streets). There is a lack of street curbing on a majority of these streets should be modified to have a formalized curb and sidewalk to help separate vehicle and pedestrian zones. Landscaped curbside islands should be added at staggered locations to buffer and protect on-street parking while improving the character of these community streets and allowing additional trees to be planted. Crosswalks and ADA compliant curb ramps should be provided at all intersections, and parking should be accommodated on at least one side of the roadway.

Figure 22 Elliot Street (Existing)

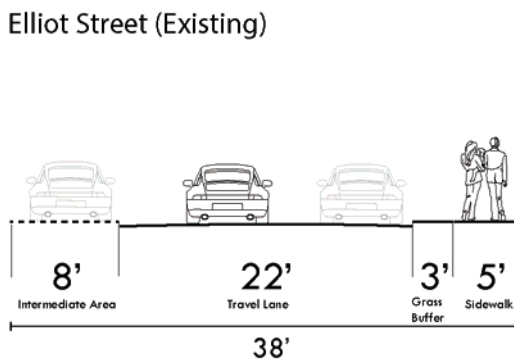
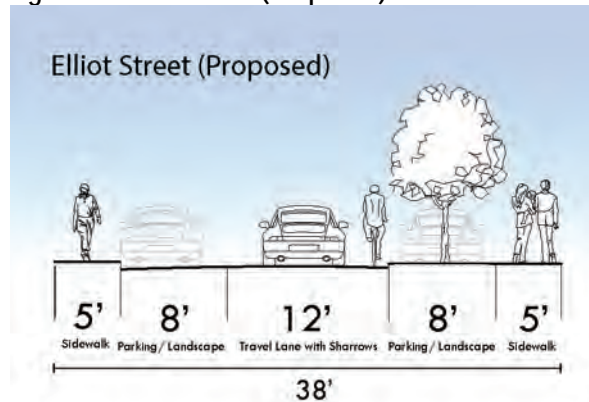


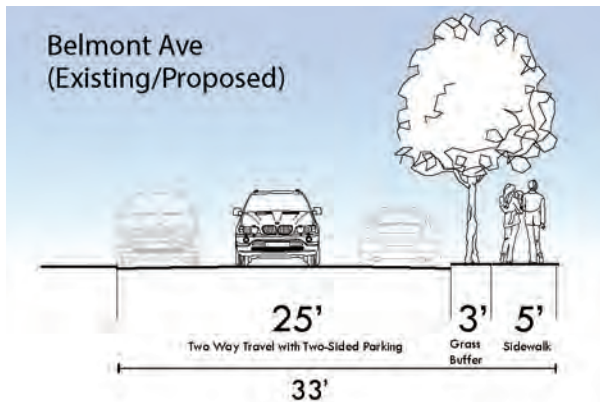
Figure 23 Elliot Street (Proposed)



Street Type C - (Residential Streets)

This street typology applies to all the other streets within the residential neighborhoods. These streets typically are used more frequently by residents and carry low volumes of traffic. With this in mind, Type C streets should be designed as “yield” streets and provide amenities that support residents rather than bypass and through traffic. Many of these residential streets lack continuous sidewalk networks and often lack defined curb lines. To provide a more connected sidewalk network, these facilities should be installed over time, with adequate curb ramps and crosswalks where the right-of-way width allows. Trees should be planted where possible to create a more comfortable and shaded pedestrian environment, while adding to the aesthetic nature of the residential neighborhood. Many of these streets already contain unregulated parking on both sides of the road and act as “yield” streets where the infrequent passing of on-coming traffic must yield and proceed slowly around parked cars. This yield condition should remain until the parking utilization of these streets approaches 50-percent of the available curb space along each side of the road. Only with such heavier parking utilization should a more formalized parking system be put in place with one-sided parking, which will be elaborated in the Parking Management section of this report.

Figure 24 Belmont Avenue (Existing/ Proposed)



E) Parking Management

At some point in the future development of the Marlboro Street corridor, there will certainly be demand for more parking than is currently supplied. However, in the short-term, improved management practices can better utilize existing spare capacity, helping to improve front-door access along the corridor and protecting the needs of abutting neighborhoods, while putting remote underutilized parking resources to better use. With a good management plan in place in the future, the City will also be able to better manage the supply of surface lots, while potentially reducing the quantity of new spaces that are perceived to be needed when development occurs. Below are some recommended parking management programs and strategies that maximize the availability of existing parking supply while fairly balancing the demand of various users. The City should establish firm guidelines on how parking should function. These should also evolve with the corridor as development and parking demands change.

Shared Parking

The Marlboro Street corridor contains an abundant amount of off-street parking, a majority of which is categorized as dedicated accessory parking for local businesses, as well as private parking for employees. A sample peak utilization count has revealed that during the weekday midday peak period of parking demand, generally both on- and off-street parking directly along the corridor is underutilized, especially the off-street parking lots north of Marlboro Street. The low utilization and abundant supply of off-street parking within this district can potentially help to offset the need to build and accommodate new development by formalizing a shared parking program.

Mixed-use environments offer the opportunity to share parking spaces between various uses, thereby reducing the total number of spaces required compared to the same uses in stand-alone developments. This is a primary benefit in mixed-use contexts with moderate to high density. As the vision for this district evolves to support the development of innovative mixes of uses to support entrepreneurial businesses, services, and residential choices, there are opportunities to capitalize on existing parking infrastructure to accommodate the potential demand generated from these redevelopments. For example, the ample supply of parking surrounding the future Civic Campus currently used by the Keene Police Department could be used to supplement the potential parking generated from nearby housing and retail.

This opportunity provides many localized benefits to the surrounding community, including a more efficient use of land resources, with the potential for redevelopment at infill locations that might otherwise be dedicated for parking. The City should consider creating a shared parking program between public and private parking spaces along the corridor to create additional parking opportunities for visitors, employees, and customers. This program would include a number of features:

- **Reduced minimum parking requirements.** With full sharing allowed and encouraged, the total amount of parking required can halve, allowing new development the ability to free up space for more productive uses or for additional open space in the district that can act as stormwater retention.
- **In-lieu parking system.** For developments seeking to avoid sharing parking, an “in-lieu of sharing” fee can be charged for any spaces provided above the minimum to off-set the impact of wasted land resources by contributing to a fund that can provide more public shared parking at a future point. Similarly, for those seeking to build less parking

than the minimum yet willing to participate in sharing, a lower in-lieu fee can be assessed to allow more efficient use of a parcel while funding future shared parking.

- **Municipal parking leases.** If the City needs to expand the pool of shared parking, the in-lieu fund can be used to lease private parking that may not already be shared. Typically, these private resources can be merged with other facilities to increase overall parking supply with better efficiencies through improved access management. Lease payments benefit the private landowner while being entirely off-set not only by the in-lieu fund but by increased tax base due to denser occupied building development.

The City of Keene has existing Shared Parking language embedded in City's Zoning Code, Article XIV, as part of the Sustainable Energy Efficient Development Overlay. With goals of creating a sustainable and innovative development district, we recommend utilizing this code as part of the parking management program with some minor edits and additions to the language.

- **Section 102-1453. F, General Provisions,** requires that a signalized intersection is necessary for pedestrians to cross an arterial street to access shared parking area(s). We recommend rewording the text to convey that, rather, a safe pedestrian crossing on the most direct desire line is necessary to provide direct access to shared parking locations. Providing a protected and direct pathway for pedestrians to and from parking locations will improve the likelihood of parking once and visiting local destinations within the district by foot. This type of improvement may be in the form of a formalized pedestrian signalize, however it may not be necessary for all contexts within the district.
- **Section 102-1453. G, General Provisions,** requires that that once a shared parking agreement between parties is no longer in effect, minimum parking requirements shall be provided for those sites. This is in accordance to Section 102.793 Minimum Parking Requirements, which outlines the minimum amount of parking spaces required for various types of uses within the City. The City of Keene has outlined a progressive shared parking code that would potentially allow developers to build less than a minimum amount of required parking if they make their spaces fully shared. We recommend that the code be reworded to remove the clause of reverting back to minimum parking requirements once shared arrangements are null. Reverting back to minimum parking requirements may result in creating more parking supply than needed in the district and that than be accommodated by potential demand. This may both compromise the district's vision and goals, and could stagger potential development that could be built in place of additional parking.
- **Section 102-1454, B, Calculating Parking Requirements for Shared Parking,** This clause in the zoning code refers to methodology in determining the number of parking spaces required by the shared parking applicant. As part of the methodology, the zoning code recommends utilizing the Institute of Transportation Engineers Parking General Manual, or the results of field surveys to garner parking generation rates for shared parking. However, we recommend that the zoning code should calculate the peak average daily demand for a weekday or weekend per the latest shared parking methodologies per the Urban Land Institute's Shared Parking Manual or other best practice for all properties and uses on-site.

Figure 25 Shared Parking Opportunity along Marlboro Street



Parking Permits and Parking Benefit Program

A primary goal of the future development of the district includes protecting the traditional character of neighborhoods that directly abut Marlboro Street, while supporting parking interests for existing and future commercial and retail businesses along the corridor. A Parking Benefit Program would help to formalize parking throughout the district through the creation of both a residential and employee permit for on-street parking. Customer parking will be available along as the northwestern third of Marlboro Street directly northeast of Grove Street. Parking along the remainder of Marlboro Street – and optionally on residential side streets – will be time-limited and/or subject to permit parking for long-term residential or employee parking. This permit system would help generate revenue for neighborhood improvements, while responding to the potential demand generated from both residents and employees in the near future.

The City of Keene should invest in a formal permit program that would allow money generated from the permit program to be invested in street infrastructure along the corridor and district. Generally, if parking revenues seem to disappear into a general fund and not appear to produce any direct benefit for the corridor, there will be little support for parking policies that may otherwise benefit the district. When the residents, employees, and merchants can clearly see that the monies collected are being spent for local improvements, such as cycle tracks on Marlboro Street, they are more likely to support parking policies that generate revenue for the City.

Figure 26 Proposed Parking Benefit Areas



Parking Policy Guidelines

Currently, a large majority of on-street parking within the study area is classified as unregulated parking located on smaller residential streets. Many of these streets such as Kelleher, Belmont Ave, and Foster Street serve as yield streets, where front yard parking is generally underutilized and conditions often do not pose parking issues. However, streets that directly abut Main Street, such as Gates, Elliot, and Adams Street can pose as challenging locations because they are unregulated and serve as ideal locations for long-term parking for those heading to nearby Keene State, the local elementary school, and nearby retail businesses.

It is in the best interest of the City to create a strategic plan for formalizing a parking program with regulations and benchmarks that create parking policy standards that help to protect the residential neighborhoods. Using existing conditions as a baseline, there should be a consistent plan for these streets that provides a progression from unregulated yield streets to streets with a more formalized parking plan. This may include time-limited parking and eventually permitted parking only for employees and or residents. This plan will help to standardize the process of creating on-street parking that will both supplement the demands of residents as well as employees within the district, as well as create shared neighborhood streets that preserve their existing traditional neighborhood character. Furthermore, creating this system will generate funds for greater investment in neighborhood and street infrastructure that will benefit the needs of those who live, work, and play in the district.

Keene



Marlboro Street

ZONING AND LAND USE REGULATIONS PROJECT



APPENDIX F | **PROCESS AND PARTICIPANTS**

Marlboro Street Zoning and Land Use Regulations Project

Process and Participants

Process Summary

An extensive program for public participation, stakeholder coordination and information was undertaken during the course of this study. Many of the documents associated with this process, including the results of public meetings and working sessions have been made available through the City's website at <http://www.ci.keene.nh.us/departments/planning/marlboro-st-re-zoning-initiative>.

Precedent Plans and Studies

This study is related to other plans, policies and studies that help establish the context for the specific topics and goals. Among the prominent preceding plans and studies are the following:

- City of Keene 2010 Comprehensive Master Plan (CMP)
<http://www.ci.keene.nh.us/departments/planning/keene-comprehensive-master-plan>
- CMP Economic Development Strategies
<http://www.ci.keene.nh.us/sites/default/files/CMPprint-final-1103-nomaps-stdres.pdf>
- New Hampshire Livability Principles
<http://www.nashuarpc.org/gsf/documents/StatewidePartnerPresentation.pdf>
- Industrial Heritage Trail
<http://www.ci.keene.nh.us/sites/default/files/CMPprint-final-1103-nomaps-stdres.pdf>
- Planning Board Development Standards
http://www.ci.keene.nh.us/sites/default/files/2013_11_25_Planning_Board_Standards_Adopted_FINAL.pdf
- City of Keene Municipal Code
link through <http://www.municode.com/>
- City of Keene Surface Water Protection Ordinance
http://www.ci.keene.nh.us/sites/default/files/Surface%20Water%20Protection_2.pdf

Resources

The funding for this project has been assembled from two sources:

- New Hampshire Community Planning Grant through New Hampshire Housing
- City of Keene 2012 Capital Improvement Program

Consultant Selection

A Request for Proposal was issued in August, 2012 for consultant assistance. The City selected the following team to provide professional services:

- The Cecil Group (urban planning, urban design, environmental sustainability)
 - Nelson\Nygaard Consulting Associates Inc. (transportation, circulation and parking)
-

- GZA (stormwater management, flood prevention strategies)
- Alta Planning and Design (bicycle circulation)

Steering Committee Meetings

A special Steering Committee was assembled to provide guidance and advice during the course of the study. Steering Committee meetings were held to discuss key topics and findings, prior to assembling the specific recommendations contained in this report. Steering Committee Meetings were held on the first Tuesday of each month which included the following dates and general topics:

- February 5 – Study initiation, site tour and process
- April 2 – Project goals and objectives
- May 23 – Progress report and discussion of community meetings; methods for zoning
- August 6 – Draft strategies for land use, zoning and design guidelines

Public Meetings and Workshops

Three open public meetings and workshops were held during the course of the study to provide community input, prior to assembling the final report and specific recommendations.

- March 25 – Workshop on existing conditions, issues for the future and community goals and objectives
- April 23 – Workshop on case studies of other communities, visual and design preferences, and themes to shape the neighborhood
- June 4 – Workshop on alternative land use and planning choices for the area
- October 29 – Draft planning and regulatory concepts

Stakeholder Interviews and Informational Meetings

As part of the process, the consultant team undertook a series of site visits and stakeholder discussions to augment the public meetings and workshops. These included information and outreach meetings with representatives of Keene State College, the area's business community and the Greater Keene Chamber of Commerce and residents, including senior citizens.

Report on Existing Conditions

As part of the process, the consultant team prepared a summary of existing conditions that are useful in planning for the future of the Marlboro Street study area. This report was issued on May 23, 2013 and can be found at http://www.ci.keene.nh.us/sites/default/files/Existing_Conditions_rev%201.pdf.

Additional Public Outreach and Information Resources

As part of the outreach effort, the Planning Department prepared two public exhibits of 11 x 17 projects exhibits as well as summarized handouts (one-two pages) and topic oriented, self-addressed postcards to solicit public comments on the initial land use and zoning concepts for four weeks through November and December 2013. These exhibits, handouts and postcards were organized into four topic areas: Stormwater

Management and Flooding Recommendations, Zoning, Proposed Street Improvements to Marlboro Street and Proposed Priority Land Use Re-Development Concepts. Each topic area's exhibits, handouts and postcards were on display for a week within this public comment period. In addition, summary handouts with attached postcards were delivered to the elementary school within the project area to go home in each student's backpack to parents. All of the summary handouts as well as the postcards made reference to the online website containing dated and sequential blogs and hotlinks to the entire project's process. These handouts with postcards were also delivered to the local aid agency, Southwest Community Services to be distributed to several adjacent housing complexes for the elderly and workforce citizens. These handouts have also been made available within the planning department, on coffeehouse and restaurant pegboards, and in other locations. The collected public comments will also be documented online and distributed for consideration to City staff and council members as the City advances the proposed zoning regulations. These public comments have not been incorporated into the *Marlboro Street Zoning and Land Use Regulations Final Report*.

Zoning Amendment Process

The City will conduct a formalized process for advancing specific zoning recommendations for potential adoption into the zoning ordinance. These procedures are intended, in part, for additional public and property owner input, as well as policy and coordination reviews within the City's administrative and legislative structure. The various procedural steps are likely to result in refinements to the zoning proposal details before final consideration and approvals by various City committees and City Council members. Below is an approximate sequence:

- Internal staff review
- Ad Hoc Committee reviews and meetings
- Additional Steering Committee meetings and input
- Public meeting and hearing
- Planning Board reviews and recommendations
- City Council reviews and decisions

Other Actions or Regulatory Changes

Other actions or regulatory changes described within this report will be considered and advanced using established procedures and requirements, as appropriate. No specific commitments have been made regarding the schedule for considering and advancing other aspects of this Report, other than the zoning considerations and reviews described above.

For Further Information

Additional information and ongoing updates on this initiative can be found at the City's website for this project, <http://www.ci.keene.nh.us/departments/planning/marlboro-st-re-zoning-initiative>.

Internal and External Study Participants

City Staff

John A. MacLean, City Manager

W. Rhett Lamb, Planning Director

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Medard K. Kopczynski CBO, Assistant City Manager/Health Director

Kürt Blomquist, Keene Public Work Director

Leon Goodwin, Assistant City Attorney

Thomas P. Mullins, City Attorney

Ad hoc Steering Committee

Chuck Redfern, Chair, Southeast Keene Resident

Kathy Harper, Vice Chair, Southeast Keene Resident

Richard (Dick) Berry, Southwest Region Planning Commission

Councilor Jan Manwaring, Southeast Keene Neighborhood Association

Councilor Dale Pregent, Southeast Keene Resident

Robert (Bob) Pratt, PC Connection

Dr. Andy Robinson, Vice President of Student Affairs, Keene State College

Susan Thielen, Executive Director, Heading for Home

Dr. Michael Welsh, Keene Planning Board

Martha Curtis, Savings Bank of Walpole