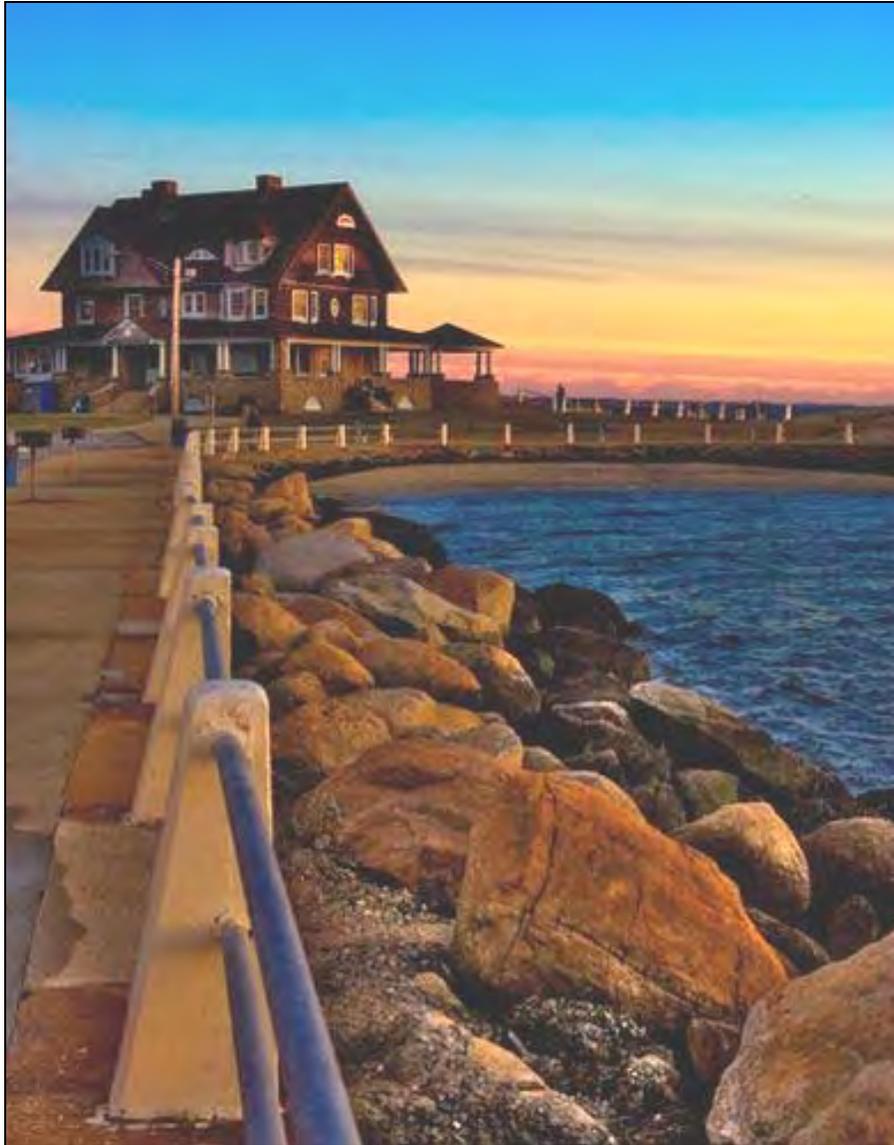


CITY OF GROTON

2019 Plan of Conservation and Development



Planning and Zoning Commission

Effective – February 4, 2019

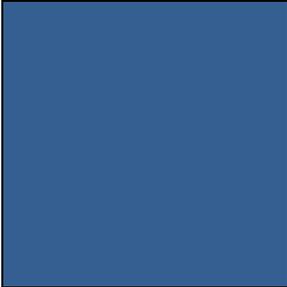


TABLE OF CONTENTS

1	CONTEXT	2
2	ENHANCE “SENSE OF PLACE”	8
2.1	Strengthen and Enhance Thames Street.....	10
2.2	Strengthen and Enhance Five Corners	14
2.3	Improve Place-Making	18
3	ENCOURAGE AND PROMOTE ECONOMIC DEVELOPMENT	22
3.1	Continue To Promote Economic Development.....	23
3.2	Promote Tourism	24
4	CAPITALIZE ON OPPORTUNITIES	26
4.1	Enhance Pedestrian / Bicycle Transportation	27
4.2	Diversify Our Housing Portfolio.....	30
5	MAINTAIN COMMUNITY ASSETS.....	32
5.1	Maintain And Enhance Residential Areas	33
5.2	Preserve Open Space	36
5.3	Manage Activities In Coastal Areas	40
5.4	Enhance Community Character	44
5.5	Protect Natural Resources	48
5.6	Maintain An Efficient Transportation System	52
5.7	Manage Utility Services.....	56
6	ADDRESS COMMUNITY ISSUES.....	60
6.1	Prepare For Climate Change And Sea Level Rise.....	61
6.2	Address Community Facility Issues	64
6.3	Promote Sustainability / Resiliency.....	68
7	IMPLEMENTATION.....	70
7.1	Implementation Tools / Strategies.....	70
7.2	Priorities For POCD Strategies.....	72
7.3	Future Land Use Plan	74
8	CONCLUSION	78
9	ACKNOWLEDGEMENTS	80

NOTE - The “priority” numbers in the strategy tables in the POCD are intended for general guidance only.



City of Groton

295 Meridian Street Groton, CT 06340

Planning & Zoning Commission

February 4, 2019

Dear Residents of the City of Groton,

Greetings!

This document is the adopted 2019 Plan of Conservation and Development (POCD) for the City of Groton. Following a public hearing on January 15, 2019, the POCD was adopted with an effective date of February 4, 2019.

The strategies outlined in the POCD are intended to guide the future conservation and development of the City of Groton. The recommendations reflect careful deliberations by the members of the Planning and Zoning Commission based on input from City residents. Our overall goal has been to maintain and enhance the quality of life in the City and make our community an even better place in the future.

With your help, we look forward to implementing the Plan!

Sincerely,

City of Groton Planning & Zoning Commission

Paul Kunkemoeller, Chairman

Girard Keeler, Secretary

David Rose

Susan Bergeron

Aundre Bumgardner

Irma Streeter

James L. Streeter

1

CONTEXT

From its earliest habitation by Native Americans about 10,000 years ago, the area we now know as the City of Groton has supported many generations of people physiologically and otherwise. Due to frontage on Long Island Sound and the Thames River, much of the history revolves around the sea. From fishing and shipbuilding to Revolutionary War battles to the emergence of Eastern Point as a popular seaside resort to becoming the “submarine capital of the world”, Groton has always had an important relationship with the sea.

The decision by the Electric Boat Company to build submarines in Groton began an important economic relationship which continues to this day. Originally a modest enterprise, production at Electric Boat expanded dramatically in during times of war and today for keeping peace.

Establishment of a Navy base just upstream of the City on the Thames River around World War I strengthened this relationship with the sea.

And when this burgeoning area desired public services in the early 1900s to serve its residents and businesses, it created a separate borough to meet these needs since outlying residents in Groton were not interested in participating. The borough became incorporated as the City of Groton in 1964.

The City is also home to some high technology operations as well. After World War II, the Pfizer Pharmaceutical Company purchased land that had been used by Electric Boat to establish a manufacturing plant. In 1960, Pfizer moved their global research headquarters to Groton. While manufacturing operations are located elsewhere, research activities continue.

Native American Settlement



Battle At Fort Griswold



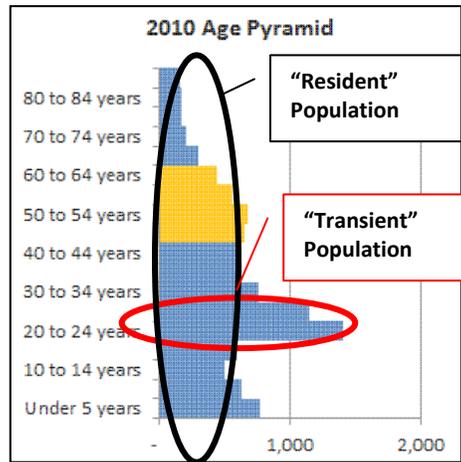
Seaside Resort



Census data reports that the City had over 9,000 residents in 2016. This is a slight decline from the peak of about 10,000 residents in 1980 although population has remained fairly stable over the years.

Since 1960, population data shows two overall trends:

- The continuing influence of the Navy base on attracting a younger (ages 20 to 30) “transient” population as shown by the pronounced peak on an age pyramid corresponding to those age groups, and
- A gentler transition as the “baby boom” (orange cohorts) moves through the City population (the “resident” population).



While Groton will continue to be a community where the largest demographic groups will be young adults if the trends of the past 20 years continue, the City is expected to experience an increase in the number of people in the over 55 age groups as “baby boomers” get older and age in place.

The City has a very diverse housing stock. According to Census data, about one-third of the total units in Groton are single-family detached houses (36%), about one-third are in two to four family buildings (36%) and the remainder (28%) are part of larger multi-family structures (more than 5 units). About 58 percent of the units are renter-occupied and about 42 percent are owner-occupied.

Employment data indicates there are over 20,000 workers employed in local businesses and organizations. The major employers in Groton continue to be Electric Boat, Pfizer Pharmaceuticals, and UConn Avery Point. Significantly, Electric Boat is in the process of significantly increasing employment to design and build the next generation of submarines.



Digital mapping indicates that the City has about 2,000 acres of land area. In terms of how the land area is **zoned**:

- 60 percent of this area is zoned for residential development (evenly split between single-family versus two-family / multi-family).
- 25 percent is zoned for business / industrial development.
- 15 percent is zoned for recreation and open space (Washington Park, Shennecossett Golf Course, Fort Griswold, etc.).

The map on the facing page shows how land in the City was zoned in 2019.

In terms of how the land area is **used**:

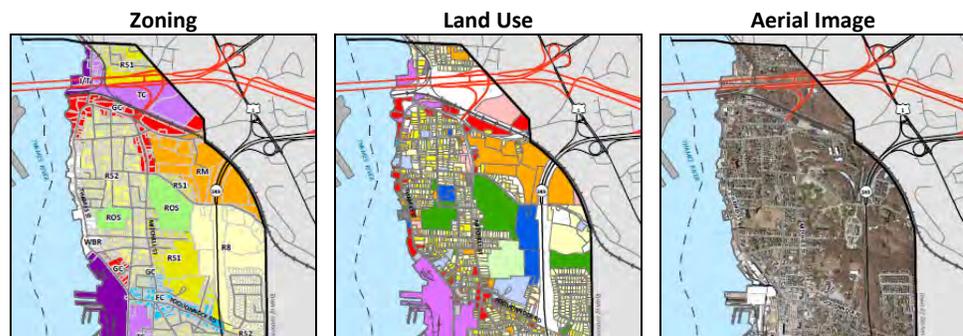
- 35% is used for residential purposes
- 18% is used for business / industrial purposes
- 16% is considered open space
- 17% is used for community / institutional uses
- 10% of the land area is used for other purposes
- 4% of the land area is vacant and potentially available for future uses

The map on page 6 shows how land in the City was used in 2019.

An aerial image of the City is presented on page 7.

In order to understand community issues and concerns, an on-line survey was conducted. The survey results showed that respondents were focused on several key issues and so the Plan of Conservation and Development (POCD) was organized accordingly in order to focus community efforts on these key initiatives as part of their planning for the future of the community:

1. Enhance “Sense of Place”
2. Encourage And Promote Economic Development
3. Capitalize On Opportunities
4. Maintain Community Assets
5. Address Community Issues



Existing Zoning Map

City of Groton

Legend

City of Groton Zoning

Residential Zones

-  R-12 - Residence Zone
-  R-8 - Residence Zone
-  R-5.2 - Residence Zone
-  R-5.1 - Residence Zone
-  RM - Multi-Family Residence Zone

Business / Technology Zones

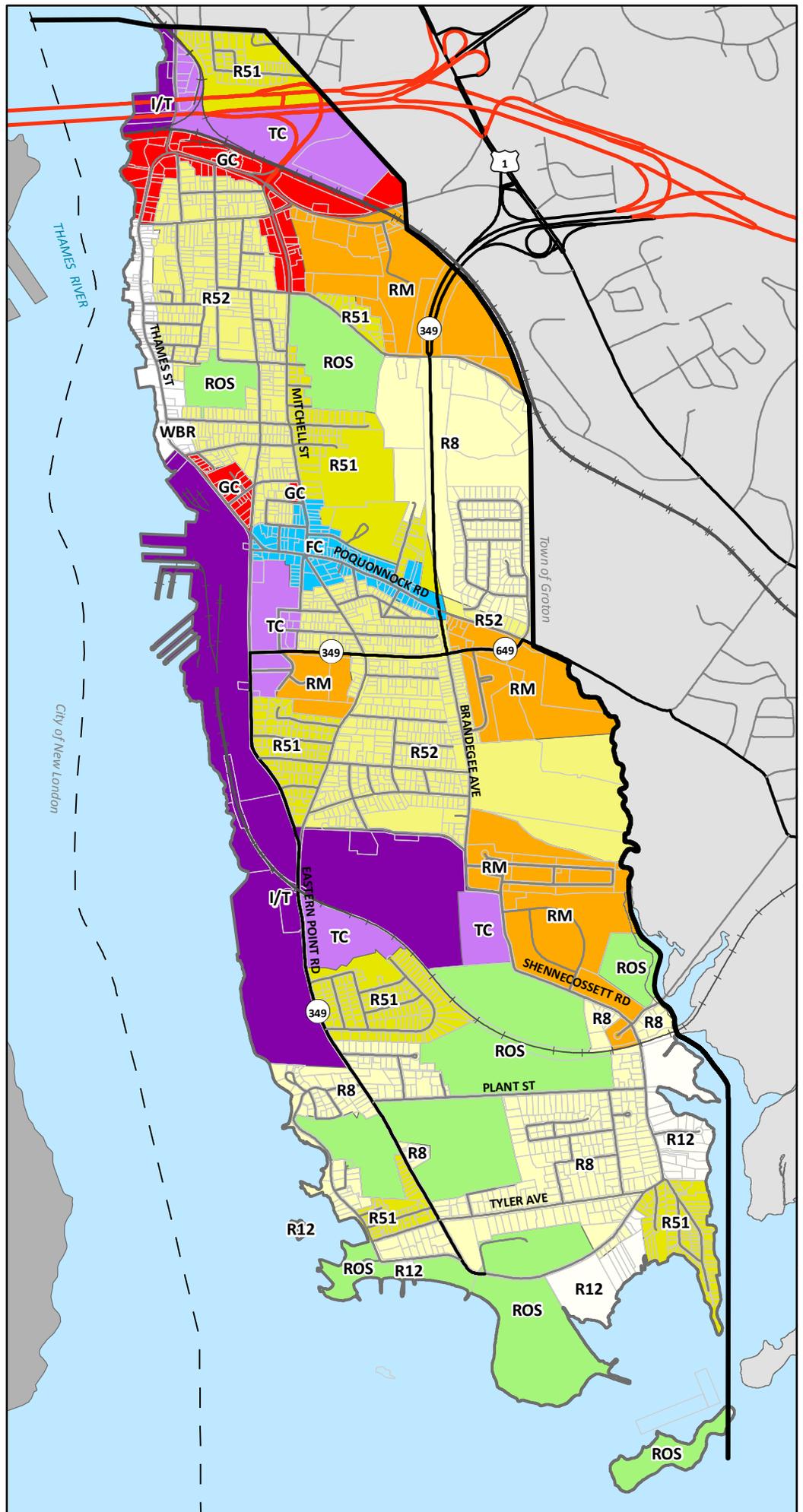
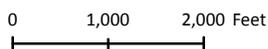
-  WBR - Waterfront Business/Residence Zone
-  FC - Five Corners
-  GC - General Commercial Zone
-  I/T - Industrial / Technology
-  TC - Technology Campus

Other Zones

-  ROS - Recreation Open Space Zone



1 inch = 2,000 feet



Existing Land Use Map

City of Groton

Legend

Residential Uses

-  Single Family Development
-  2-3 Family Development
-  Multi-Family Development
-  Mixed Use

Business / Technology Uses

-  Commercial
-  Marine Commercial
-  Industrial

Open Space

-  Dedicated Open Space
-  Managed Open Space

Community / Institutional

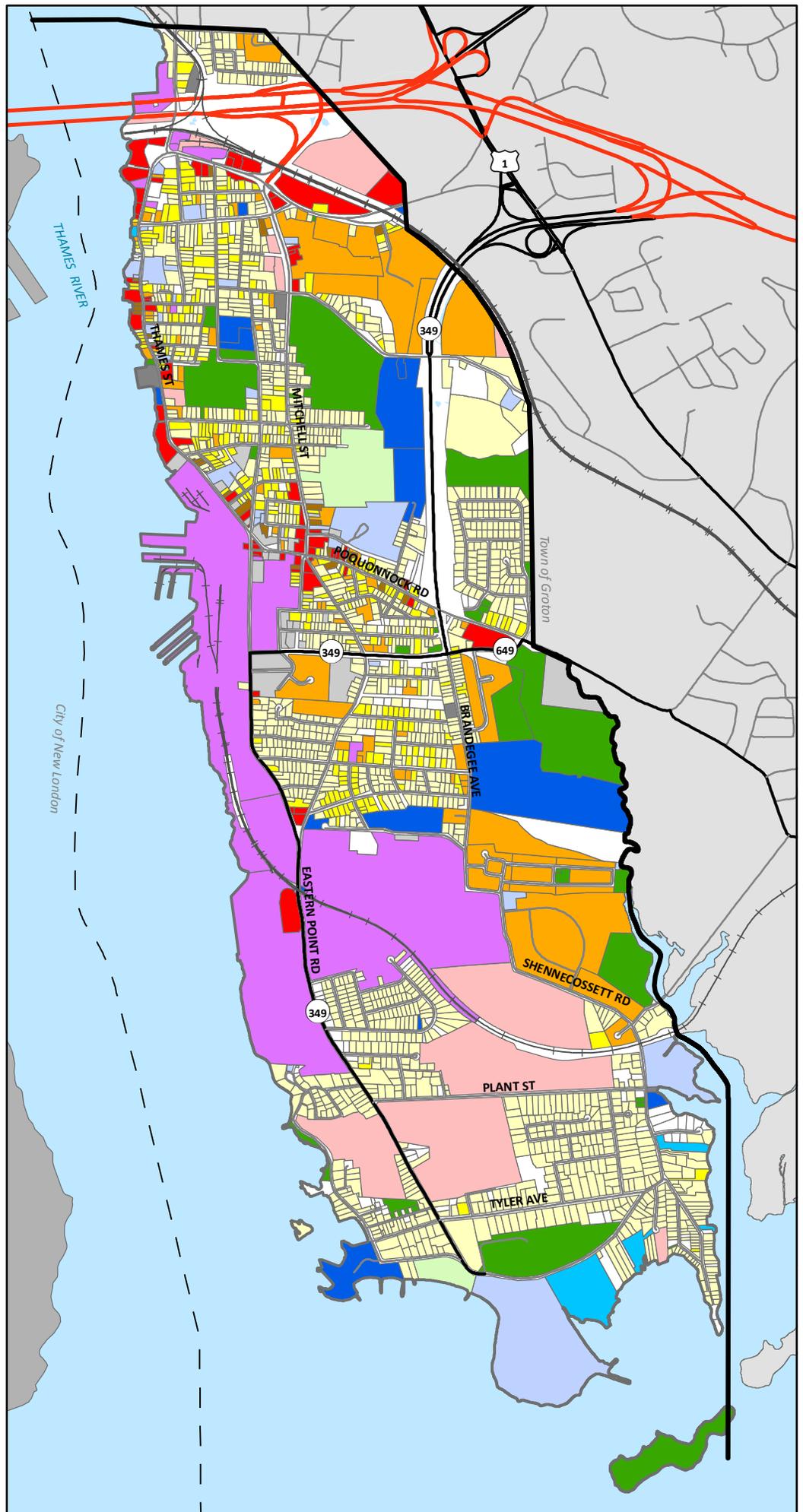
-  Community Facility
-  Institutional
-  Other Public Land

Other Categories

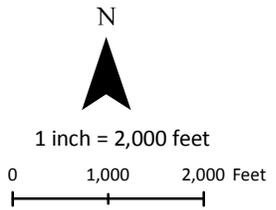
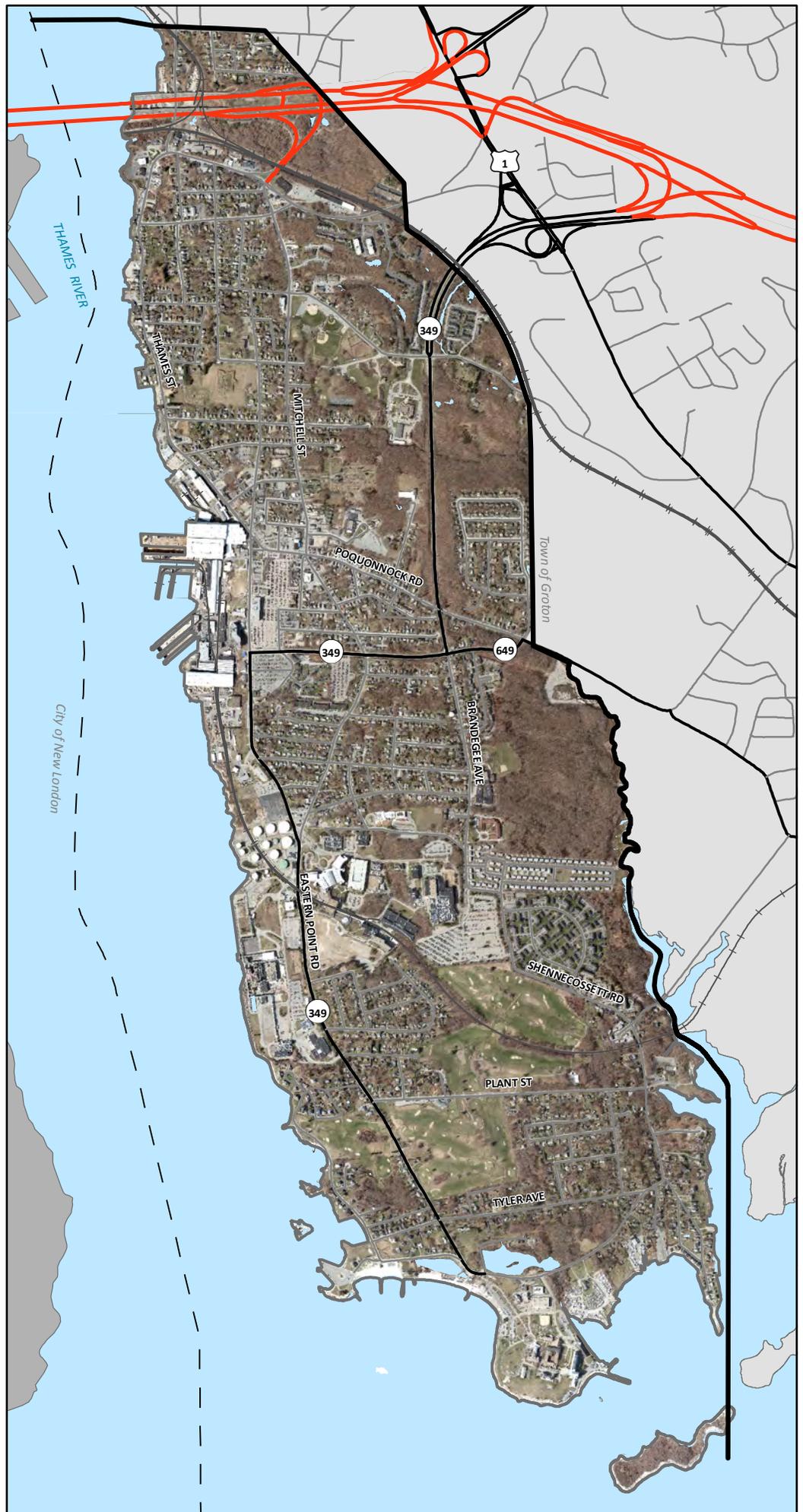
-  Vacant
-  Parking Lot
-  Utility
-  Water



1 inch = 2,000 feet



2015 Aerial Map City of Groton



2

ENHANCE “SENSE OF PLACE”

Strengthening and enhancing a “sense of place” in the City is an important consideration in this Plan of Conservation and Development. In an on-line survey conducted as part of the planning process, respondents indicated that strengthening and enhancing a “sense of place” in certain areas (Thames Street, Five Corners, gateways, etc.) was their highest priority for the future of the City.

And, according to the *Economic and Market Trends Analysis* prepared for the Town of Groton in 2016, quality of place has become one of the most important aspects of economic development today. Enhancing the quality of place in the City (and the Town) will ultimately help attract new residents, workers, businesses, and investment.

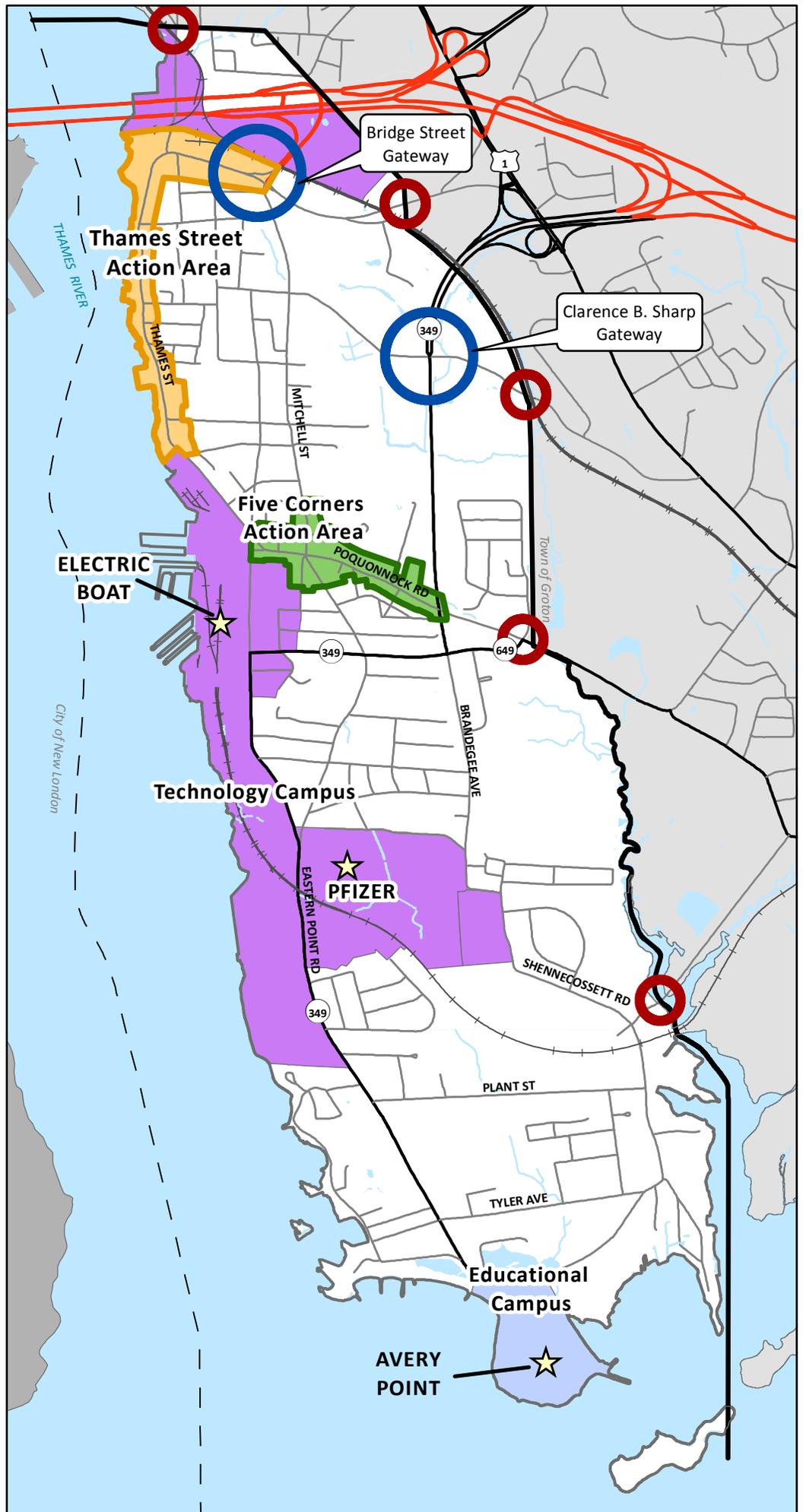
The term “sense of place” refers to locations which exhibit characteristics that make a place special or unique and/or foster a sense of fondness or attraction. Places said to have a strong “sense of place” have a strong identity whereas “placeless” locations are those that have no special relationship to the places in which they are located—they could be anywhere; roadside strip shopping malls, gas stations and convenience stores, fast food chains, and chain stores.

It is a goal of this Plan to establish, maintain, and enhance areas in order to strengthen the overall “sense of place.” Using the physical configuration of the City to strengthen the identity of the City of Groton and reinforce the activities occurring in the City has the potential to pay dividends in the long run. Studies have found that strengthening “sense of place” also enhances economic returns, community character, and quality of life.

To enhance “sense of place”, the City intends to encourage vibrant, mixed use nodes with a pedestrian-friendly atmosphere which will be attractive to residents, employees, and visitors.

***Strengthen and enhance “sense of place”
at key places within the City.***

Community Form Plan City of Groton



Legend

Action Areas

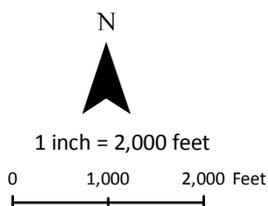
-  Thames Street Action Area
-  Five Corners Action Area

Key Form Elements

-  Technology Campus
-  Educational Campus

Gateways

-  Major
-  Secondary



Policies and Action Steps

Many sections of the POCD contain strategy recommendations. Some of these are “policies” which are *on-going activities* which do not generally have an end date.

Others are “action steps” which are *specific tasks* that can be tracked. In this POCD, “action steps” are presented as red text.

Leaders And Partners

Each “policy” or “action step” has an identified leader and partners. The “leader” is the entity considered most likely to bear responsibility for implementing the policy or completing the action step. Partners are other entities likely to be involved in implementation.

A legend for “leaders” and “partners” may be found on the inside back cover.

Priority

As part of preparing the POCD, participants reviewed the recommendations and scored them at one of four different priority levels.

Results were tabulated and the average score was converted to a 10-point scale.

The “priority” numbers in the strategy tables in the POCD are intended for general guidance only.

2.1 Strengthen and Enhance Thames Street

Thames Street was the main area identified by City residents as the area they would like to see strengthened and enhanced.

Thames Street, between Bridge Street and Fort Street, is the historic “heart” of Groton. It was the business core of the City many years ago and the area still contains many 18th and 19th century structures used as residences or for commercial purposes.

For many years, efforts have been applied to upgrading the physical environment of Thames Street (sidewalks, cobble crosswalks, street lights, etc.). The goal was to take advantage of the area's historic resources and waterfront location to attract more visitors and thereby support the improvement of existing buildings and the creation of new businesses.

To help implement the overall strategy, the City modified the Zoning Regulations to establish the Waterfront Business Residence (WBR) zone and to establish a “village district” for this area. A village district is a special type of zoning district in Connecticut which allows a Planning and Zoning Commission to review the aesthetics of new development to ensure it enhances the character of the area.

While the development of Thames Street has not evolved as fast as desired or in the ways it was anticipated, the goal remains a priority for residents and for City officials. Survey respondents recognized what a special place Thames Street is (and can be in the future) and want to revitalize it to bring people to this area overlooking the Thames River. People want to make Thames Street a destination for residents and visitors alike. Strengthening and enhancing the Thames Street area will contribute to promoting compact, transit accessible, pedestrian-oriented, mixed-use development.

As this POCD was being formulated, the Thames River Innovation Partnership (TRIP) was doing additional planning to find ways to promote and enhance the Thames Street area including strategies to:

- establish a critical mass of activities which will make Thames Street a vibrant hub of shops, restaurants, and other appropriate uses oriented to the river (and accessible by water taxi from New London).
- help establish shared parking areas.
- simplify traffic circulation and deter truck traffic (except local deliveries).
- continue improving the sidewalks and streetscape along Thames Street to improve the pedestrian environment and overall aesthetics of the area.
- promote the maintenance and expansion of buildings (including loans, grants, and other incentives).

Strategies To Strengthen and Enhance Thames Street

	Priority	Leader	Partners
Overall			
1. Continue to strengthen the vibrant mixed-use nature of the Thames Street area.	7.22	PZC	Staff
2. Continue to maintain and enhance the “sense of place” along Thames Street including use of the “village district” provisions in the Zoning Regulations and design guidelines (as recommended in Section 5.4 of the POCD on page 46).	7.78	PZC	Staff
3. Continue planning for the Thames Street area (including regionally supported redevelopment) in order to promote the desired outcomes.	3.89	PZC	EDC TRIP Staff
Private Investment / Development			
4. Continue to promote development which contributes to the overall vision for the Thames Street area and is consistent with the historic character and scale.	6.11	PZC	EDC Staff
5. Encourage or require private development to interconnect parking areas behind buildings and underneath buildings on the downhill side of Thames Street.	7.78	PZC	Staff
Public Investment / Actions			
6. Continue to upgrade the physical environment of Thames Street (paving, sidewalks and streetscape).	7.78	Council	EDC PZC TOG
7. Consider using “tax increment financing” as a way to pay for public investments on Thames Street which will spur appropriate private development.	6.11	Council	TOG PZC Staff
8. Address future parking needs in the Thames Street area by: <ul style="list-style-type: none"> • Providing on-street and off-street parking facilities to meet current and future needs. • Investigating other ways to maximize parking opportunities in the Thames Street area including investigating one-way traffic flow. 	5.56	PZC	Council EDC Staff
9. Consider acquiring strategic parcels in the Thames Street area for public waterfront access and parking.	3.33	Council	
10. Seek opportunities to create a public boardwalk along the Thames River, north of Electric Boat.	7.78	PZC	Council Staff
11. Seek ways to simplify traffic circulation on Thames Street and deter truck traffic (except local deliveries).	5.00	Council	Staff

See inside back cover for legend

Relevant Resources

Resources related to Thames Street include:

- Historic District Study Report (1977)
- Thames Street Study (1982)
- Thames Street Revitalization Advisory Committee (1989)
- Thames Street Beautification Program (1990)

Possible Boardwalk Images



Thames Street Concepts – Northern Segment



Bing Maps

Thames Street Concepts – Southern Segment



Encourage inter-connected parking on the downhill side of Thames Street

Seek opportunities to provide a boardwalk or water access along the Thames River

Possible site for shared public parking in off-peak hours (City-owned Costa property)

Bing Maps

2.2 Strengthen and Enhance Five Corners

Another area that City residents want to strengthen and enhance is the Five Corners area around the intersection of Poquonnock Road, Mitchell Street, Benham Road, and Chicago Avenue.

At the present time, this area contains a concentration of commercial land uses, parking lots, and small offices. This area does not exude much in terms of “sense of place” at the present time since it has no special relationship to where it is located. Some may say it feels “place-less.”

However, the potential for this area is significant. It is centrally located within the City and offers an opportunity to create a mixed-use, pedestrian-friendly village type area that would help meet the needs of the community. The location is also very close to the “front door” of Electric Boat Corporation and housing, retail, restaurants, services, and other amenities in this area could also enhance the working environment for EB workers.

The overall vision for this area is to convert what now appears and feels like an automobile-oriented area to an area that looks and feels like a pedestrian-oriented village. To help make this happen, the Planning and Zoning Commission established a new zoning district for the Five Corners area. Strengthening and enhancing the Five Corners area will contribute to promoting compact, transit accessible, pedestrian-oriented, mixed use development.

Five Corners Area (looking west)



Google Earth

The purpose statement for the Five Corners District states:

The purpose of the Five Corners District as delineated on the Zoning Map is to reinforce and enhance the Five Corners area as a mixed-use and pedestrian-friendly focal point within the City of Groton, to establish opportunities for new development at an appropriate scale and intensity, and to provide for appropriate transitions to adjacent uses and neighborhoods.

The uses permitted in the district include:

1. Mixed use building(s) containing housing units and businesses / service uses in the same building.
2. Eating and/or drinking establishments.
3. Retail businesses.
4. Business and professional offices.
5. Business service and personal service establishments.
6. Multi-family buildings (subject to certain limitations).

The Five Corners District was also set up as a “village district” so that the Planning and Zoning Commission can guide the appropriate development of this area in order to protect and promote a distinctive character and landscape within the district.

The zoning standards encourage the provision of a pedestrian-friendly environment with generous sidewalks and shared parking areas located to the side or rear of buildings (rather than having parking lots in front of buildings). Greater building coverage and building height is permitted in order to create the desired ambience and intensity.

This area could support:

- uses to serve City residents and workers at Electric Boat (food, banks, personal services, medical / dental offices, etc.).
- incubator businesses associated with the on-going research and development activities at Electric Boat.
- housing developments to serve an aging population, children of City residents, workers at Electric Boat, Naval personnel, and others.

**Looking North On Benham
Towards Five Corners**



**Looking South On Mitchell
Towards Five Corners**

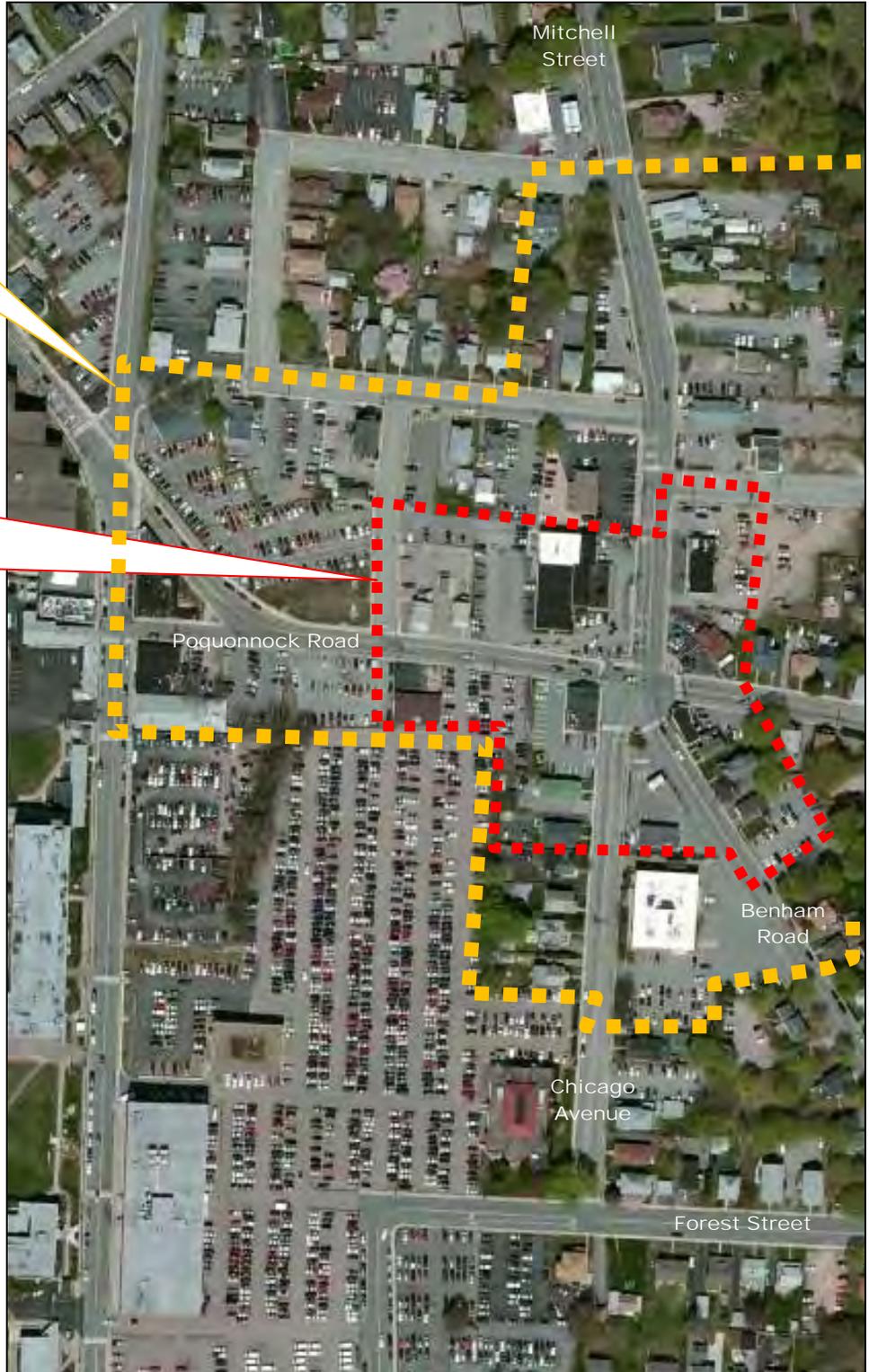


Five Corners Concept

**Orange Line = Area Where
Redevelopment As A
Mixed-Use And Pedestrian-Friendly Focal Point Is
Desired.**

**Red Line = Area Desired To
Be The Central Focus Of
Development Intensity**

Consider regulation changes within this area to help accomplish the overall vision for Five Corners.



Bing Maps

Strategies To Strengthen and Enhance Five Corners

	Priority	Leader	Partners
Overall			
1. Continue to encourage establishment of a vibrant mixed-use node in the Five Corners area.	7.22	PZC	EDC Staff
2. Use the “village district” provisions in the Zoning Regulations to establish and enhance the desired village character and scale of the Five Corners area.	5.56	PZC	Staff
3. Continue planning for the Five Corners area in order to promote the desired outcomes.	3.33	PZC	EDC Staff
4. Encourage or require shared parking and ample sidewalks	3.89	PZC	Staff
5. Encourage the concentration of appropriate development around the Five Corners intersection to create a "City Center" which will serve the residents of the City and local employees.	6.67	PZC	Council EDC Staff
6. Discourage the establishment of automobile-oriented establishments and/or drive-through type establishments in the Five Corners area.	5.56	PZC	Staff
Private Investment / Development			
7. Continue to promote development which contributes to the overall vision for the Five Corners area as a pedestrian-friendly mixed use area.	6.67	PZC	Council EDC Staff
8. Work with property owners (including Electric Boat) to enhance the Five Corners area.	6.11	PZC	Council EDC Staff
Public Investment / Actions			
9. Consider using “tax increment financing” as a way to pay for public investments in the Five Corners area which will spur appropriate private development.	5.00	PZC	Council EDC TOG Staff

See inside back cover for legend

2.3 Improve Place-Making

Where a “sense of place” does not exist intrinsically, *place-making* is required to fertilize and sustain a sense of place.

Place-making focuses on recognizing that places are for people and that appealing to the needs and desires of people will foster a “sense of place” which will attract even more people. Squares, plazas, parks, streets and waterfronts that attract people because they are pleasurable or interesting are good examples of areas that can have a strong “sense of place.” Events that attract people to these places are also an important part of place-making.

Importantly though, enhancing a “sense of place” can include smaller elements, such as gateways, wayfinding, and streetscapes as well as larger elements, such as inviting public spaces and lively neighborhoods. When people feel oriented and connected to a place, they will begin to develop a feeling about the “sense of place.”

To enhance community character and “sense of place,” the City of Groton intends to focus on several efforts:

- promoting activities and events that attract people to the City of Groton so they can experience it for themselves,
- improving *community* “gateways” (such as at Bridge Street and Clarence B. Sharp Highway) to promote a sense of City identity and arrival and *place* “gateways” (such as at Thames Street and Five Corners) to promote specific places within the City,
- using consistent elements to promote “way-finding” to destinations (such as Pfizer, Electric Boat, Avery Point, and Fort Griswold), and
- enhancing streetscapes so that the journey through the City to various destinations is a pleasurable one.

Great Street



Great Public Space



Community Events And Activities

Places become memorable to people because of the events and activities that occur there. Whether such events and activities are passive (such as a scenic view) or active (such as a concert or festival), they contribute to the overall experience that makes places memorable.

The City intends to encourage events and activities in the City to help promote the overall “sense of place.”

Improving Community and Place Gateways

Community character and “sense of place” in the City will also be enhanced by improving gateway areas that people use to enter the City.

Community character and “sense of place” in the City can be furthered by identifying specific places within the City (such as Thames Street and Five Corners). Simple gateway features enhance the sense of arrival and belonging that contribute to “sense of place.”

Such improvements can be simple (such as signage and landscaping) or more elaborate. In any case, the concept is to reinforce the feeling among residents, employees, and visitors that they have entered a special place. As part of this program, the City could strive to identify a “memorable icon” which will reinforce the overall image of the community.

Improve Way Finding

While residents and employees know where they are going, visitors to the City do not. Using signage or other wayfinding aids will help guide people to activity centers in the City and will be an important part of enhancing community character and sense of place.

The City intends to establish a program of consistent signage as part of a comprehensive signage program. The program should consider the needs of visitors and trucks (such as designating best truck routes) and should be applied to both State and local roads.

In addition to signage for major land uses (such as Pfizer, Electric Boat, Avery Point, and Fort Griswold), these major uses could also be allowed to have additional identification provided it is consistent with the overall “gateway” and “wayfinding” themes established by the City. This would help enhance community character and sense of place. It may also encourage people visiting the City to consider visiting other destinations.

“Tactical Urbanism”

Tactical urbanism is a concept or approach to “place-making” that uses flexible and short-term projects to advance long-term goals related to street safety, public space, and more.

Tactical urbanism can be “a city, organizational, and/or citizen-led approach ... using short-term, low-cost, and scalable interventions to catalyze long-term change.”

The overall concept is to use low-cost materials to experiment with and gather input on:

- potential street design changes.
- pedestrian plazas.
- parklets.
- pop-up bike lanes.

More information can be found at:

tacticalurbanismguide.com

Wider Walk / Narrower Road



Wider Walk / Narrower Road



Enhance Streetscapes

While roads only occupy about 15 percent of the City of Groton’s land area, they have a disproportionate impact on the overall impression of the City since roads are the ways that people get around. The following streetscape elements can affect the perception of a community or an area:

Streetscape Elements

	Description
Sidewalks	Sidewalks should be provided everywhere with sidewalks of generous width encouraged in pedestrian oriented areas such as mixed use nodes
Street Lighting	Pedestrian scale and pedestrian oriented lighting should be promoted in areas intended for pedestrian use since it improves pedestrian safety and adds to the ambience of the area
Street Trees	Street trees should be encouraged since they add to the ambience of an area, provide shade, reduce runoff, soften the urban environment, and provide a sense of protection from the automobile
Street Furniture	Street furniture (benches, fountains, clocks, and similar items) contribute to the interest and identity of pedestrian areas and should be provided if they do not obstruct the sidewalk
Awnings	Awnings can shelter pedestrians, reduce glare, and conserve energy and should be encouraged in pedestrian-oriented areas
Utilities	Underground utilities should be encouraged or required.
Fences And Walls	Fences and walls can detract from the streetscape and ambience of an area if they are opaque or of incompatible materials (chain link) in a pedestrian oriented area.
Property Maintenance	Property maintenance (or lack thereof) can affect community character and quality of life and should be encouraged or required.

Street Trees



Street Furniture



Strategies To Improve Place-Making

	Priority	Leader	Partners
Overall			
1. Use place-making strategies as a way to project a memorable image of the City to others and help attract new residents, businesses, customers, and visitors.	9.44	PZC	Council EDC Staff
Community Events And Activities			
2. Promote community events and activities (concerts / festivals / recreation / music / food events) that contribute to the overall “sense of place” in the City.	7.22	Staff	BPC
Gateways			
3. Enhance the “sense of place” in the City by improving gateway areas and associated roadways.	7.22	EDC	Council DOT Staff
Wayfinding			
4. Extend the “gateway” concept to consistent, coordinated signage that guides people to activity centers in the City.	4.44	EDC	Staff
5. Consider allowing major land uses (such as Pfizer, Electric Boat, Avery Point, and Fort Griswold) to have additional identification signage provided it is consistent with the overall “gateway” and “wayfinding” themes established by the City.	3.33	EDC	PZC Staff
Streetscapes			
6. Undertake a street tree planting program focusing on main thoroughfares and pedestrian oriented areas.	6.67	Council	CWC Staff
7. Modify zoning regulations to provide for temporary planters, street trees, and other landscaping as appropriate..	2.78	PZC	Staff
8. Consider the adoption of a property maintenance ordinance.	3.89	Council	Staff
9. Continue to require the underground installation of utilities for all new development.	4.44	PZC	Staff
10. When opportunities arise, put existing overhead utilities underground.	5.56	UC	Council PZC Staff

See inside back cover for legend

3

ENCOURAGE AND PROMOTE ECONOMIC DEVELOPMENT

Economic development is typically sought after by communities because:

- it provides employment to residents,
- it offers goods and services, and
- it provides tax revenue to fund local services.

Even though the City enjoys a relatively strong economy based on those three considerations, the City of Groton continues to seek ways to strengthen its economy even further. In a survey conducted during this planning process, residents identified attracting economic development and managing fiscal pressures as two key issues for the City in the future.

Since certain non-business uses can provide employment, goods and services, and more in tax revenue than required in service costs, such uses are also considered to be economic development. This can include age-restricted housing and other types of housing.

Promote business and economic development which will create a diversified economy, a variety of employment opportunities, and enhance the City.

Electric Boat



Pfizer



3.1 Continue To Promote Economic Development

Business and economic development will continue to be a priority for the City. While Electric Boat and Pfizer Pharmaceuticals are the most visible and recognizable entities, there are numerous other businesses and within the City that provide employment, offer goods or services, and contribute to the overall tax base. The availability of municipal sewer and an ample supply of water makes the City of Groton an excellent location for business and industrial development.

The City intends to continue to work with employers (including Pfizer, Electric Boat, and the University of Connecticut campus at Avery Point) to anticipate their changing needs and to see how those needs can be met in ways which will enhance the overall character and quality of life in the City.

The City, in conjunction with the region, intends to continue to support economic development and the continued use of existing business-zoned lands for appropriate uses. This will help to maintain the economic strength of the City and the region and provide for additional economic diversity. This includes making full use of the Enterprise Zone designation within the City whereby economic incentives are made available by the State to eligible manufacturing and service sector businesses to stimulate investment in new plant and equipment and to expand or create new jobs.

The City also intends to participate with the Town of Groton, the Southeastern Connecticut Enterprise Region (SECTER), the Connecticut Department of Economic and Community Development, the Thames River Innovation Partnership (TRIP), the Chamber of Commerce, and other agencies in economic development. This approach is consistent with the recommendations in the 2017 Comprehensive Economic Development Strategy for Southeastern Connecticut.

Strategies To Promote Economic Development

	Priority	Leader	Partners
1. Continue to promote and support economic development by:	9.44	EDC	Mayor
a. Supporting existing businesses			Council
b. Encouraging expansion of existing businesses			SECTER
c. Attracting complementary business establishments			PZC
d. Promoting the Enterprise Zone designation.			Staff
2. Continue to work with major employers, the Town, the region, and other agencies in coordinated economic development efforts.	8.33	EDC	Mayor Council SECTER TOG TRIP

See inside back cover for legend

3.2 Promote Tourism

Attracting tourists and other visitors to the City will also promote economic development of the community. Tourists and visitors will support local businesses and spread positive information about things to do in the City.

The concept of tourism covers physical places such as:

- Fort Griswold State Park,
- National Submarine Memorial,
- Ebenezer Avery House and Museum,
- Avery-Copp House,
- Anna Warner Bailey House,
- Exhibits at the UConn campus at Avery Point, and
- Boating excursions based out of the City.

But tourism should also include attracting people from within the region (and outside the region) to:

- Shops and restaurants along Thames Street and at Five Corners,
- Fireworks celebration on the Thames River,
- Music concerts and events at Washington Park and other locations, and
- Other events and activities which could and should be scheduled in the City (such as food events, festivals, etc.).

This includes projects such as the “Heritage Park” along the Thames River where different attractions in the region (such as downtown New London, Nautilus Museum, Thames Street, Fort Griswold) would be interconnected with shuttles, water transport, and pedestrian connections to promote the tourism “cluster” that exists in the City and surrounding areas (see Section 5.6 of the POCD on page 55).

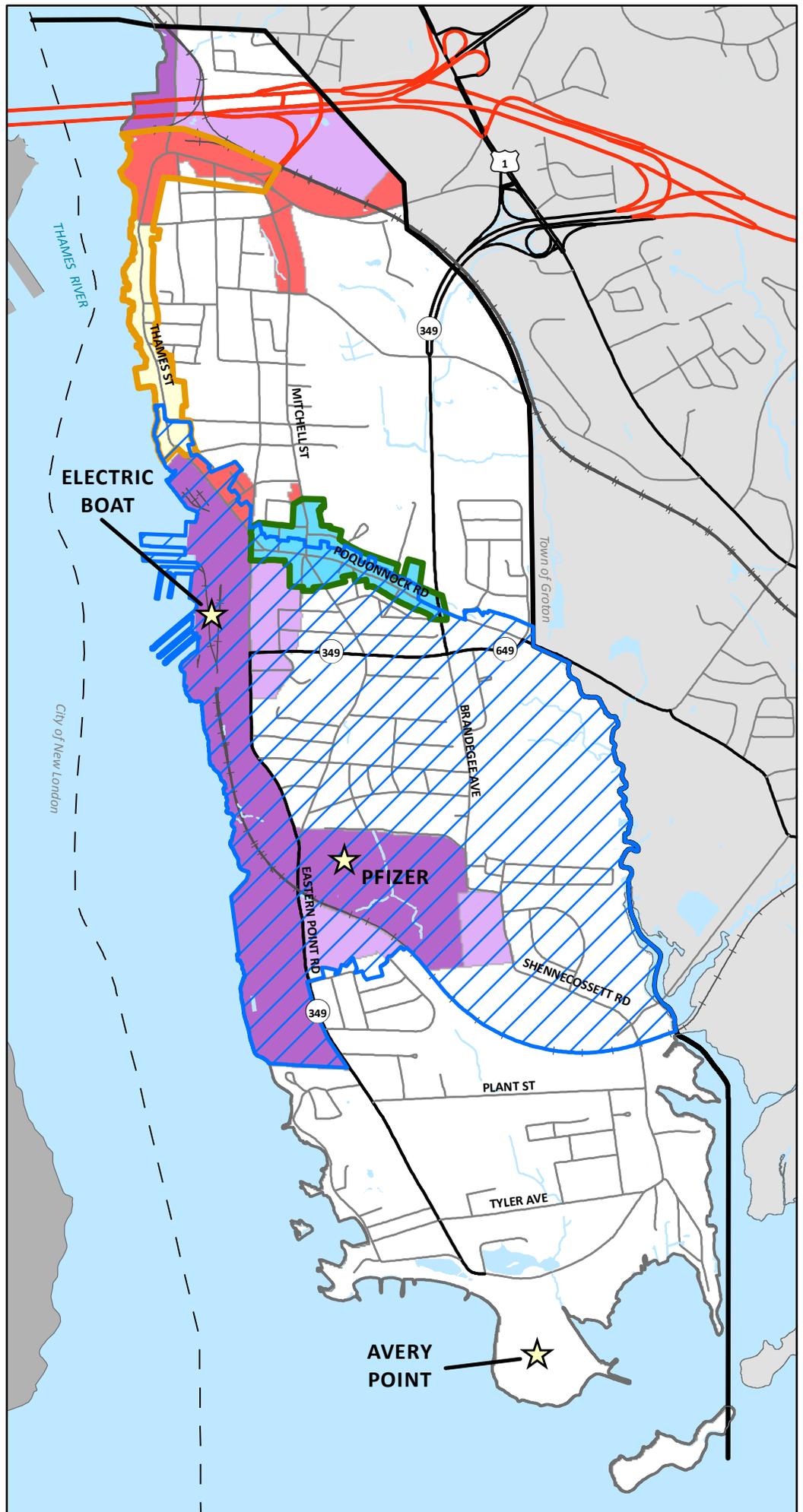
Strategies To Promote Tourism

	Priority	Leader	Partners
1. Continue to promote tourism and other events and activities and key tourism assets (such as Fort Griswold, National Submarine Memorial, Avery-Copp House, Ebenezer Avery House and Museum, etc.) which bring people to the City of Groton.	7.22	EDC	Council BPC TRIP
2. Continue to promote the “Thames River Heritage Park” concept and inclusion of the City attractions (Thames Street and Fort Griswold).	8.89	TRHP	Council EDC TRIP

See inside back cover for legend

Economic Development Plan

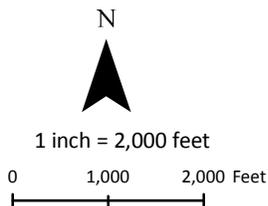
City of Groton



Legend

Existing Business / Technology Zones

-  WBR - Waterfront Business/Residence Zone
-  FC - Five Corners
-  GC - General Commercial Zone
-  I/T - Industrial / Technology
-  TC - Technology Campus
-  Enterprise Zone
-  Thames Street Action Area
-  Five Corners Action Area



4

CAPITALIZE ON OPPORTUNITIES

The City of Groton has some unique opportunities due to its:

- location within the region
- coastal amenities,
- excellent road access,
- available utility infrastructure,
- array of community facilities, and
- overall quality of life.

While two of these opportunities have already been mentioned (enhancing sense of place in the City, and encouraging and promoting economic development), there are others which will attract residents, businesses, and visitors and enhance the quality of life in the City:

- enhance pedestrian / bicycle transportation, and
- diversify our housing portfolio.

Capitalize on opportunities to enhance key attributes of the City in order to attract residents, businesses, and visitors and enhance the quality of life in the City.

Bicycle Lanes



Waterview Housing



4.1 Enhance Pedestrian / Bicycle Transportation

Due to the scenic character of the City and its adjacency of the City to Long Island Sound and the Thames River, the City has significant potential to be a magnet for walkers, runners, bikers, and others.

People are seeking ways to be more active in terms of walking, running, biking and the City is in a great position to take advantage of this. The City already has a good pedestrian and bicycle network in place and can supplement this to have a superb overall system. Plus, with the shoreline location and local amenities and destinations (Thames Street, Five Corners, Fort Griswold, UConn Avery Point, Outer Light Brewery, Paul's Pasta) and regional amenities and destinations (New London, multi-use path over the Gold Star Bridge, water taxi, Nautilus Museum, Bluff Point, etc.), people will know Groton because of the amenities it has. This type of system (built on attributes the City already has) will enhance the quality of life for residents and attract residents, businesses, and visitors in the future.

The City intends to establish, maintain and enhance an overall pedestrian / bicycle network in the City. The eventual goal is to interconnect all of elements (sidewalks, paths, trails, bikeways, etc.) into a cohesive overall system. This includes the establishment of a boardwalk or other pedestrian access along the Thames River, where feasible.

In 2005, the Town of Groton completed a Bicycle, Pedestrian, and Trails Master Plan which included an inventory of existing trails, sidewalks, and bike paths and recommendations for proposed. The City Planning and Zoning Commission endorsed the Plan. The City should continue to refer to this Plan and act on opportunities to implement its recommendations.

The City intends to consider adopting a “complete streets” philosophy where ***existing streets***, as feasible and appropriate, will be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for walkers, runners, cyclists, and other users of all ages and abilities in addition to the traditional focus on people driving automobiles.

In addition, the City intends to look at ways to develop a better network of pedestrian and bicycle trails in open space and greenbelt areas.

The key issues associated with improving “pedestrianism” in the City include:

- closing gaps in the current sidewalk system,
- adding sidewalks and connections in key areas,
- extending sidewalks to serve key destinations,
- replacing existing sidewalks that have deteriorated.

Sidewalk



Multi-Use Path



Shared Road / Bikeway



Travel Lane Widths

The Connecticut Department of Transportation has adopted a statewide policy to restripe roadways with eleven-foot travel lanes when opportunities arise (such as paving or line painting projects).

This policy change will expand the space available for non-motorized transportation users on a number of State highways and will be almost imperceptible to the motorist (and may slow traffic speeds).

The City of Groton may consider adopting a 10-foot or 11-foot travel lane width, where appropriate, in order to create more space on road shoulders for walkers, runners, and bikers.

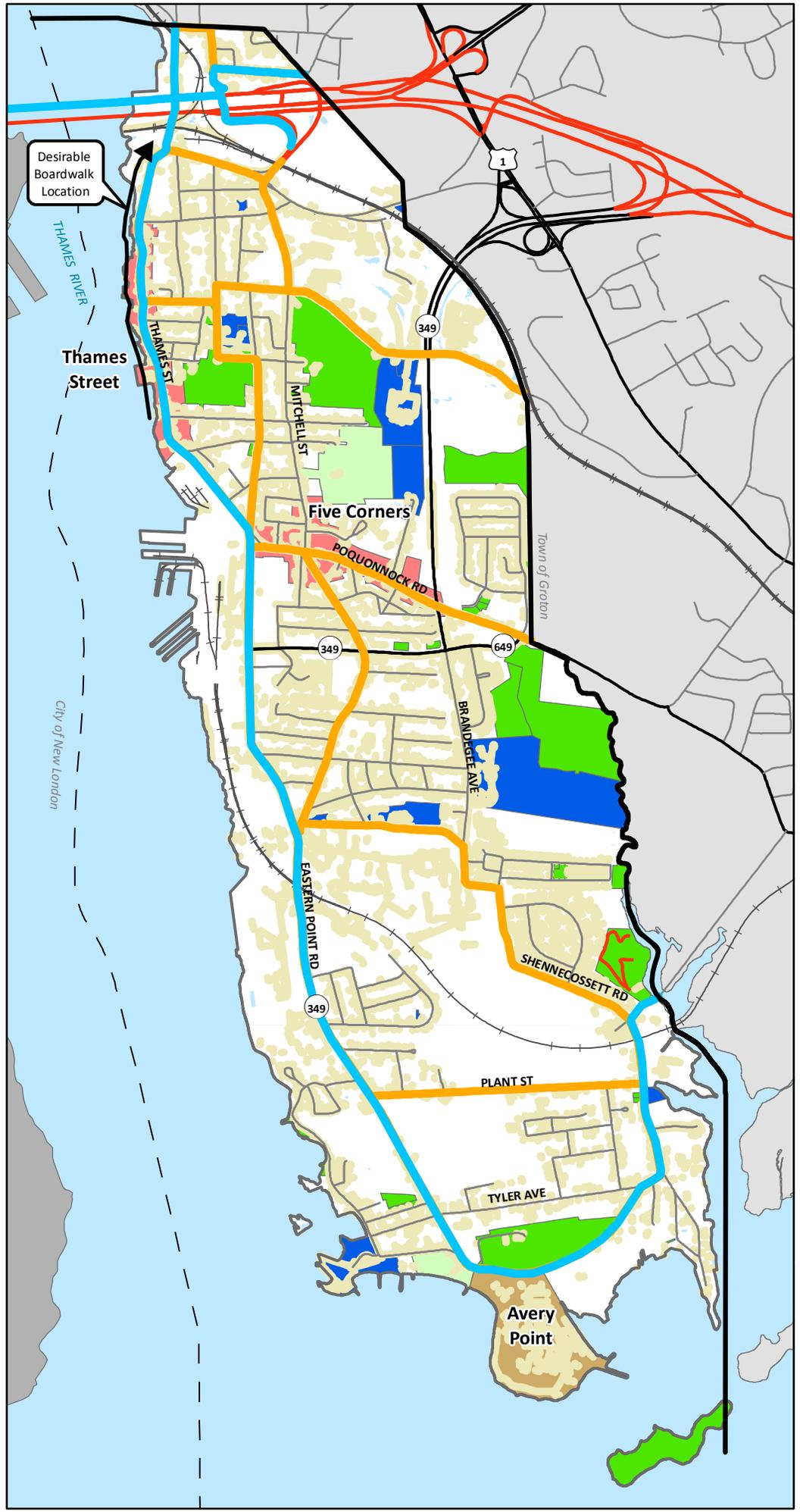
Strategies To Enhance Pedestrian / Bicycle Transportation

	Priority	Leader	Partners
Overall			
1. Seek to provide for an overall pedestrian and bicycle network in the City (on-road and off-road).	5.56	Council	EDC BPC Staff
2. Work closely with SECCOG to be a leader in pedestrian / bicycle planning and improvements in the region.	4.44	PZC	SECCOG Staff
3. Undertake campaigns to educate walkers, cyclists, and motorists about appropriate road use and etiquette.	3.89	SECCOG	Staff Police
Complete Streets			
4. Adopt a "complete streets" policy in the City of Groton.	3.33	Council	PW Police Staff
5. Evaluate opportunities to create "complete streets" in the City and retrofit existing situations to create "more complete streets."	3.89	PW	Council Staff
6. Consider establishing 10-foot travel lanes on local roadways and encouraging DOT to implement 11-foot travel lanes on State highways when restriping as a way to promote traffic calming and make space available for other users. .	4.44	Council	PZC Police PW Staff
Walkers / Runners			
7. Continue to appropriate municipal funds to extend, connect, and repair sidewalks throughout the community.	6.11	Council	PW
8. Continue to seek opportunities to extend, connect, and maintain off-road trails throughout the community.	4.44	BPC	BPC Staff TOG
Bicycles			
9. Work with local bicycle groups, bicycle shops, and others to establish and nurture a system of bicycle routes in the City.	3.33	Staff	BPC TOG SECCOG
10. Create and publish a map of appropriate bicycle routes in the City.	3.89	Staff	BPC TOG SECCOG
11. Investigate ways to create a system of signs / pavement markings to identify appropriate bicycle routes in the City.	3.33	Staff	PW Police TOG SECCOG
12. Seek to be officially recognized as a "bicycle-friendly" community.	4.44	Staff	Council PZC

See inside back cover for legend

Bicycle / Pedestrian Plan

City of Groton



Legend

Sidewalks / Boardwalks

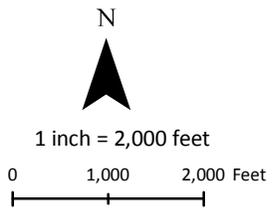
- Existing
- Proposed

Bicycle Routes

- Existing
- Desirable
- Recreation Trails

Destinations Of Interest

- Thames Street / Five Corners
- Avery Point
- Dedicated Open Space
- Managed Open Space
- Community Facility



Statutory Reference

“The Plan shall make provision for the development of housing opportunities, including opportunities for multifamily dwellings consistent with soil types, terrain and infrastructure capacity, for all residents of the municipality and the planning region.”

“The Plan shall promote housing choice and economic diversity in housing, including housing for both low and moderate income households, and encourage the development of housing which will meet the housing needs.”

CGS 8-23

Housing Affordability

The City of Groton has a number of housing units which are either:

- Naturally priced at affordable levels,
- Financed or deed-restricted to sell or rent at affordable levels.

As a result, the City is in conformance with the statutory provisions cited above.

4.2 Diversify Our Housing Portfolio

As stated previously, the City of Groton already has a diverse and balanced housing mix and this “housing portfolio” helps meet the housing needs of people from a wide variety of social and economic situations. This is one of the strengths of the City.

And, as housing needs change in the future due to the changing age composition of the region and the state, the City can continue to help address these needs. Groton can provide for a wide diversity of housing densities and types (due to the availability of water, sewer, and transportation infrastructure and other amenities).

As people live longer, there will be more people seeking alternatives to the single-family home in a suburban setting for lifestyle, health, or economic reasons. While some people will continue to live in that type of residence, other people may wish to relocate to smaller units in pedestrian-oriented locations with an array of activities nearby.

The City has housing units to help meet this need and locations with coastal views and nearby amenities where more could be built. This type of development will also support some of the other recommendations of the Plan (promoting compact, transit accessible, pedestrian-oriented, mixed use development). Such units could also meet the housing desires of younger persons and families.

**Stonington Commons
Stonington Borough, CT**



**Town Center
Storrs, CT**



To help older residents of the City “age in place” with financial or other assistance, the City intends to consider allowing for accessory apartments or live-in help. Such arrangements can also provide housing opportunities for younger persons and families.

Strategies To Diversify Our Housing Portfolio

	Priority	Leaders	Partners
1. Continue to seek ways to support new and different housing opportunities to meet the needs of diverse population segments.	5.56	PZC	Staff
2. Support the establishment of new housing developments (with coastal views and lifestyle amenities) to meet changing housing needs and promote compact, transit accessible, pedestrian-oriented, mixed use development	6.67	PZC	Staff
3. Consider allowing for accessory apartments or live-in help in existing single-family housing units to help meet the housing needs of residents aging in place.	5.00	PZC	Staff

See inside back cover for legend

**Metro View Apartments
Milford, CT**



**Grove Street
Darien, CT**



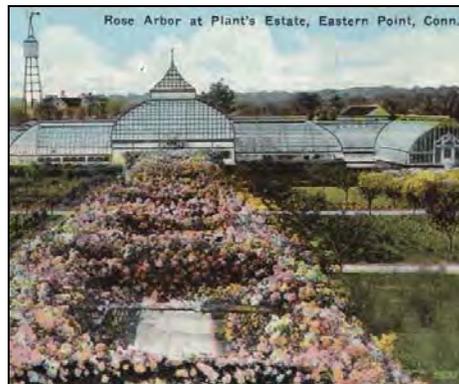
5

MAINTAIN COMMUNITY ASSETS

City residents know that the City has some incredible neighborhoods and community amenities. Maintaining and enhancing these assets will help to sustain the overall quality of life within the City. This includes

- Maintain And Enhance Residential Areas
- Preserve Open Space
- Manage Activities In Coastal Areas
- Enhance Community Character
- Protect Natural Resources
- Maintain An Efficient Transportation System
- Manage Utility Services

Continue to maintain and enhance community assets in order to sustain the overall quality of life in the City.



5.1 Maintain And Enhance Residential Areas

About one-third of the land area in the City is devoted to residential use. Within its borders, the City has a variety of housing types ranging from single-family and two-family dwellings to larger multi-family complexes.

Within these residential areas, the City intends to:

- maintain and improve the integrity of residential neighborhoods in order to preserve and enhance the overall quality of life for residents,
- continue to discourage the establishment of social service uses (such as halfway houses and community residential counseling facilities), and
- promote a variety of housing types to help address the housing needs of the community and the region. (see Section 4.2 of the POCD on page 30)

The following neighborhood compatibility policies are established for single-family neighborhoods:

- Continue efforts to maintain the integrity and visual qualities of single-family neighborhoods,
- Encourage maintenance and continued renovation / improvement of single-family housing.
- Pursue funding which will provide for housing rehabilitation and continue to implement rehabilitation programs/projects that retain the viability of single-family neighborhoods,
- Discourage the intrusion of commercial, industrial, or parking uses into single-family neighborhoods,
- Strive to ensure appropriate transitions between commercial, industrial, and parking uses to residential neighborhoods, and
- When possible, encourage or require elimination of commercial parking lots in single-family residential areas.

The following neighborhood compatibility policies are established for multi-family neighborhoods:

- Encourage continued renovation / adaptation of multi-family housing to meet current and future housing needs,
- In the event of a request to rezone property to multi-family use, such rezoning should address an identified housing need in the City and be located in an appropriate location (such as a transitional use from major roads or business uses to a single-family neighborhood).

Strategies To Maintain And Enhance Residential Areas

	Priority	Leader	Partners
Overall			
1. Continue to maintain and improve the integrity of residential neighborhoods in order to preserve and enhance the overall quality of life for residents.	8.33	PZC	Staff
2. Continue to discourage the establishment of new social service uses (such as halfway houses and community residential counseling facilities) in residential areas.	5.56	PZC	Council Staff
Single-Family Neighborhoods			
3. Continue efforts to maintain the integrity and visual qualities of single-family neighborhoods and discourage the intrusion of commercial, industrial, or commercial parking uses.	6.67	PZC	Staff
4. Continue to pursue funding which will provide for housing rehabilitation.	5.00	Staff	
5. Continue to implement rehabilitation programs/projects that retain the viability of single-family neighborhoods.	6.11	Staff	
6. Strive to ensure appropriate transitions between commercial, industrial, and parking uses to residential neighborhoods, and	3.89	PZC	Staff
7. When possible, encourage or require elimination of commercial parking lots in single-family residential areas.	6.67	PZC	Staff
Multi-Family Neighborhoods			
8. Encourage continued renovation / adaptation of multi-family housing to meet current and future housing needs,	7.78	PZC	Staff

See inside back cover for legend

Shorefront Single-Family House

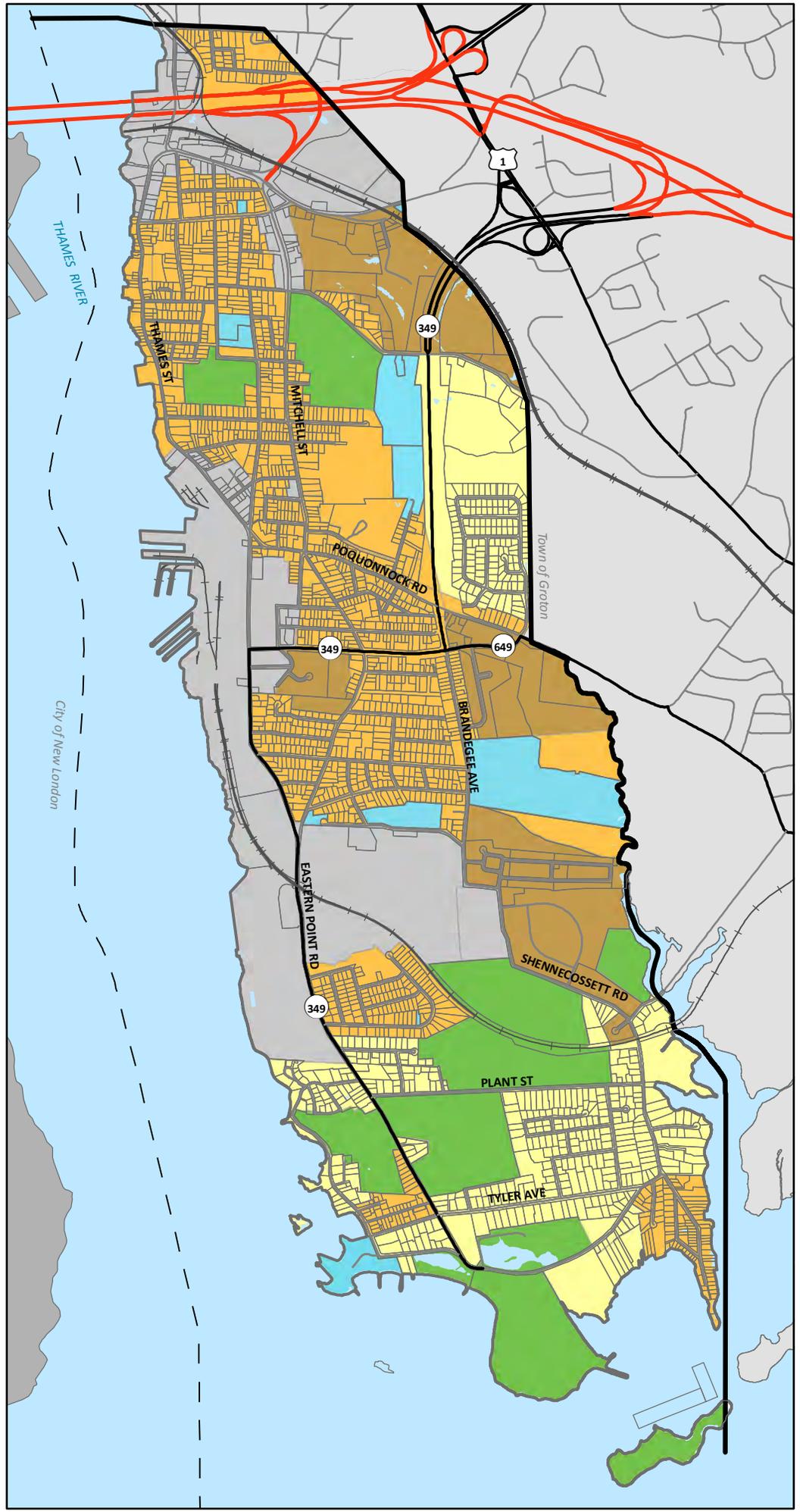


Multi-Family Building



Residential Densities Plan

City of Groton



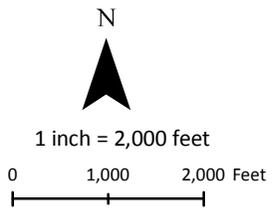
Legend

Residential Densities

- Highest Densities
- Medium Densities
- Lower Densities

Non-Residential Areas

- Business / Technology Zones
- Open Space Areas
- Community Facility



5.2 Preserve Open Space

The preservation of open space is a significant element of the Plan because of the City's desire to preserve important resources, enhance community character, and augment the quality of life in the City.

For the Plan, "open space" is defined as land permanently preserved from development and committed in perpetuity for conservation, passive recreation (such as trails), or preservation of community character. Note that active recreation fields and areas are addressed in the Section 6.2 of the POCD (page 64).

The Open Space Plan identifies the following areas:

- Existing Open Space includes state, municipal, and private lands that are currently preserved as open space (dedicated open space) or used for open space-type purposes (managed open space) or are community facility uses that are complementary to open spaces.
- Desirable Open Space includes areas along Birch Plain Creek and other areas that are desirable to preserve as open space due to their overall scenic and/or resource value to the community and/or their proximity to existing open space areas in the City or the Town.

George Washington Park

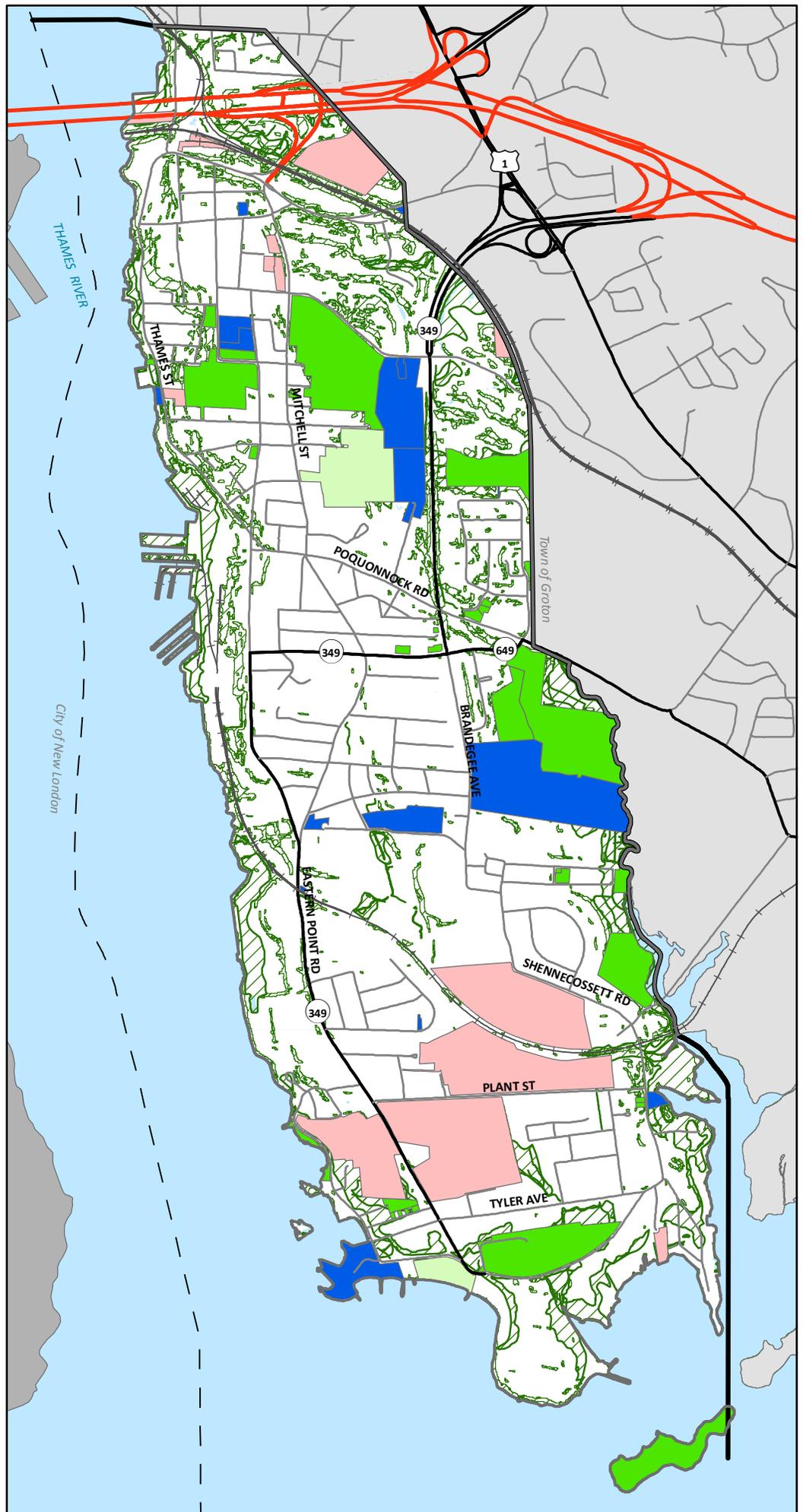


Shennecossett Golf Course



Open Space Plan

City of Groton



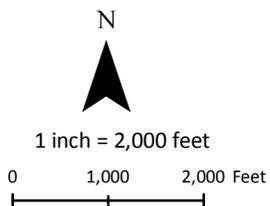
Legend

Existing Open Space

- Dedicated Open Space
- Managed Open Space
- Natural Resource Areas

Complementary Uses

- Community Facility
- Other Public Land



Birch Plain Creek

For several decades, the Town of Groton and the City of Groton have been seeking to establish a “greenbreak” along Birch Plain Creek.

From both perspectives, the Birch Plain Creek corridor provides an important opportunity to interconnect pathways in both communities and regionally.

Funds have been programmed into the 2019-2024 Capital Improvements Program to extend the Birch Plain Creek Greenway.

With regard to open space, the City of Groton intends to:

- increase the amount of permanently dedicated open space in order to protect the environment and enhance the character and quality of life in the City.
- interconnect open space areas so that it will become possible to travel among them by a pathway system.
- establish multi-use paths and sidewalks that link different areas of the City together.
- Seek opportunities to create a boardwalk along the Thames River.

Boardwalk Pathway



Boardwalk Pathway



The preferred method of preserving open space in the City is through ownership by a public entity (such as the City of Groton, the Town of Groton, or the State of Connecticut) or a conservation organization (such as the Avalonia Land Conservancy or The Nature Conservancy). This method will also ensure that public access is provided, when and where appropriate. Conservation easements and ownership by homeowner associations are not encouraged for preserving open space (since they typically do not allow for public access) but can be used for protection of sensitive natural resources or scenic views.

To help preserve open space, the City should seek to enhance the existing Open Space Fund in order to provide the resources to acquire important open space parcels when they become available.

Since open space can be difficult to come by in a community which is about 97 percent developed/committed, the City should strive to ensure that any open space which is acquired be preserved as open space in perpetuity.

Strategies To Preserve Open Space

	Priority	Leader	Partners
1. Seek to increase the amount of permanently dedicated open space in order to protect the environment and enhance the character and quality of life in the City.	5.00	PZC	BPC Staff
2. Seek to interconnect open space areas so that it will become possible to travel among them by a pathway system	5.00	CWC	PZC BPC Staff
3. Seek to establish multi-use paths and sidewalks that link different areas of the City together.	5.56	PZC	BPC PW Staff
4. Seek opportunities to create a boardwalk along the Thames River, north of Electric Boat.	6.11	PZC	Council Staff
5. Continue to work with the Town of Groton to create an open space corridor along Birch Plain Creek.	3.33	PZC	Staff TOG BPC CWC
6. Strive to ensure that any open space which is acquired be preserved as open space in perpetuity.	2.78	PZC	Staff
7. Seek to enhance the existing Open Space Fund in order to provide the resources to acquire important open space parcels when they become available.	2.78	Council	PZC CWC

See inside back cover for legend

Birch Plain Creek



Birch Plain Creek



5.3 Manage Activities In Coastal Areas

Groton has always had a strong relationship with the sea and coastal areas are where the land and sea interface. Finding the right balance between “conservation” and “development” in coastal area is important. Issues to be considered include:

- Protecting coastal resources,
- Providing for coastal access, and
- Managing water-dependent uses.

Issues related to sea level rise and coastal flooding are addressed in Section 6.1 of the POCD (page 61).

Protect Coastal Resources

The following map shows what is considered to be the “coastal area” in the City. Section 22a-93 of the Connecticut General Statutes defines coastal resources as:

- coastal bluffs and escarpments
- rocky shorefronts
- beaches and dunes
- intertidal flats
- tidal wetlands
- freshwater wetlands and water-courses
- estuarine embayments
- coastal hazard areas
- developed shorefront
- islands
- nearshore waters
- offshore waters
- shorelands
- shellfish concentration areas

Coastal resources also include the plants and animals that inhabit the shoreline area.

The City intends to protect these coastal resources as they exist today and as they evolve in the future (such as salt marsh advancement) in response to sea level rise and climate change.



Provide For Coastal Access

Coastal access of all kinds (visual access, public access, boating access, etc.) is important to coastal communities like the City of Groton. The City is fortunate to offer a variety of public access attractions ranging from the urban waterfront along Thames Street, with sweeping views of the lower Thames River, to swimming at Eastern Point Beach, to harbor and wetland viewing at Bakers Cove and Birch Plain Creek. An up-to-date listing of coastal access points in the City (and elsewhere in the state) is available on-line.

Preserving, maintaining and enhancing coastal access is a key element of the coastal management program. In Groton, this includes:

- **Scenic Views** – Due to the importance of coastal views to community character, the City will consider ways to protect, preserve and enhance visual access to (and from) Long Island Sound, the Thames River, and coastal resources in general.
- **Public Access For People** – The City will seek to improve physical access for people to the waters of Long Island Sound, the Thames River, and coastal resources in general. This may include:
 - requiring public access (such as boardwalks or walkways along the water and/or pathways to the water) as part of development proposals, and
 - acquiring waterfront property, if it becomes available, in order to provide a waterfront park or other community amenity.
- **Public Access For Boating** - Groton will continue to encourage water access and associated facilities for recreational boating such as the State Boat Launch under the Gold Star Memorial Bridge.

The City intends to seek public access to the coastal areas whenever possible and appropriate.

Visual Access



Public Access



Coastal Access

One way the City has been enhancing coastal access is illustrated by the acquisition of the Costa property on Thames Street (see map on page 13).

The City intends on improving this property as a passive waterfront park and possibly, in the future, with a dock and pier for boating and/or fishing.

Efforts such as these will continue in the future as opportunities become available.

Manage Water-Dependent Uses

Water-dependent uses are uses which require access to the water as a functional component of the use. Groton has a tradition of maritime operations that continues to the present day and this includes uses such as:

- Electric Boat Corporation (ship building)
- Buckeye Oil Terminal (delivery by ship)
- Shennecossett Yacht Club, Pine Island Marina, and other dock and/or marina facilities, and
- commercial excursion boats (commercial and/or recreational fishing).

It is a goal of the State of Connecticut to preserve waterfront locations for such water-dependent uses. A use which is not strictly water-dependent (such as a restaurant or a residential development), can be rendered water-dependent by providing for physical access to the water for the general public.

In recognition of its industrial waterfront, the City wants to promote balanced development of the coastal area to ensure full utilization of that area while increasing and enhancing water access, recreational opportunities, and water-dependent uses. Maritime operations should be protected and improvements and expansions should be encouraged provided that any negative impacts on local residents and businesses (such as land-side impacts of water-side uses) are minimized.

The City's Harbor Management Plan (and Harbor Management Commission) help manage issues related to water-dependent uses.

UConn – Avery Point Campus



Oil Terminal



Strategies To Manage Coastal Areas

	Priority	Leader	Partners
Protect Coastal Resources			
1. Continue to protect coastal resources.	10.00	PZC	DEEP CWC Staff
Provide For Coastal Access			
2. Seek ways to protect, preserve, and enhance <u>visual access</u> to and from coastal areas and resources.	6.11	PZC	Staff
3. Continue efforts to enhance <u>physical access</u> for the general public to and from coastal areas and resources including: <ul style="list-style-type: none"> a. linear pathways along the waterfront, and/or b. lateral connections to the waterfront with linear pathway along the street (e.g. – the Thames Street area) where a linear pathway is not feasible or practical. 	7.78	PZC	CWC DEEP Council Staff
4. Consider purchasing strategically located waterfront parcels when they become available in order to provide for coastal access.	2.22	Council	DEEP
5. Continue to promote <u>boating access</u> to and from coastal waters.	3.33	BPC	DEEP Staff
6. Continue to maintain / improve public boat ramps and launch areas for kayaks.	2.78	BPC	Staff
Manage Water-Dependent Uses			
7. Continue to manage water-dependent industries / uses.	5.56	PZC	Staff
8. Manage recreational marina facilities.	1.11	PZC	Staff
9. Support improvements by maritime operations provided that negative impacts to local residents and businesses are minimized.	1.67	PZC	Staff
10. Maintain the 2006 Harbor Management Plan and update as necessary.	5.56	HMC	Staff

See inside back cover for legend

5.4 Enhance Community Character

In the survey conducted as part of the process of preparing the POCD, respondents identified community character as being important to them. This included the many things about the City that made it feel special to them and it also included some things that respondents felt the City needed to do a better job on.

Protect Scenic Resources And Scenic Character

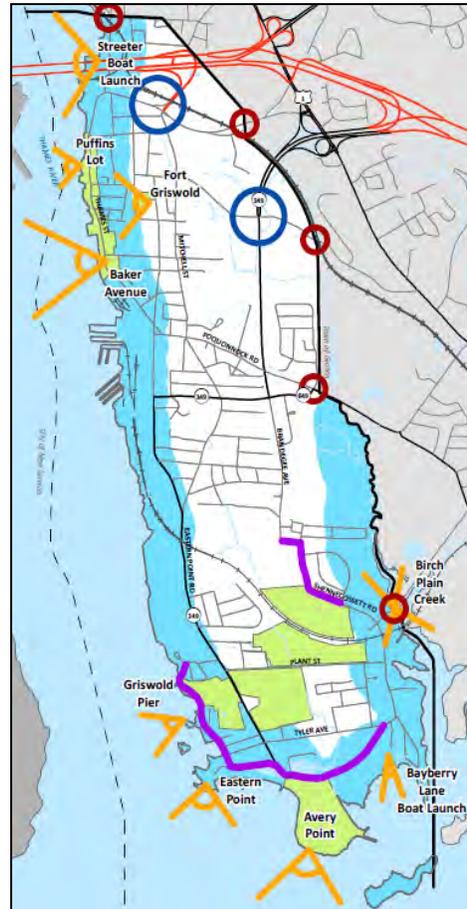
The City is fortunate to contain many significant scenic resources which contribute to community character. The City intends to preserve and protect scenic resources such as:

- scenic natural areas (such as coastal areas),
- scenic built areas (such as Thames Street),
- locations providing scenic vistas (such as from Fort Griswold), and
- scenic roads (such as Shore Avenue).

Scenic View From Fort Griswold



Scenic Resources



Legend

-  Roads With Scenic Value
-  Locations With Scenic Views
-  Scenic Coastal Areas
-  Scenic Locations
-  Major Gateway
-  Secondary Gateway

Protect Historic Resources

Historic resources contribute to the overall character and quality of life in the City. The City intends to continue efforts to protect historic resources.

Regulatory Programs - Within the Eastern Point Local Historic District, construction or demolition of buildings or structures or the alteration of external architectural features requires a “certificate of appropriateness.” from the City’s Historic District Commission. This can provide significant protection to historic resources and character within the district.

Additional protection can come from adopting a demolition delay ordinance which allows time for exploring alternatives to demolition of historic buildings.

Recognition Programs – While recognition programs are largely ceremonial and basically only affect state-funded and federally-funded projects, they help increase awareness of historic resources. Resources listed on the National Register of Historic Places are recognized for their significance in American history. Listings on the State Register of Historic Places are recognized for their significance in Connecticut history. Entries on the National Register are also on the State Register.

In the future, it may make sense to:

- Expand the Eastern Point National Register Historic District to include the Shennecossett Golf Course and related areas,
- Establish a National Register Historic District at the UConn – Avery Point Campus,
- Establish a National Register Historic District (and/or seek National Historic Landmark status) at Fort Griswold, and
- Establish a National Register Historic District (and/or seek National Historic Landmark status) at the Electric Boat Shipyard.

Education Programs – Protection of historic resources can also be promoted through education of property owners and other Groton residents about the importance of these resources to community character and overall quality of life.

Avery-Copp House



Branford House At UConn – Avery Point



Groton Bank

The Groton Bank area was studied for the establishment of a local historic district but this proposal did not receive the 2/3rds majority vote to establish as required by the Connecticut General Statutes.

The establishment of a local historic district in all or a part of the Groton Bank area could be revisited in the future and put to a vote of the affected property owners.

Enhance Overall Character

Other strategies to maintain and enhance community character include:

- Maintaining design review in the Thames Street and Five Corners areas which have been designated as “village districts,”
- Extending design review principles to development in other areas of the City (except for single-family residential uses),
- Seeking opportunities to enhance streetscapes by litter reduction, pavement narrowing and/or traffic calming (where appropriate), and promoting planting of street trees,
- Placing wired utilities underground in key areas when opportunities present themselves
- Reducing the expanse of parking lots in highly visible areas
- Encouraging (or requiring) the maintenance of residential and other properties,
- Minimizing “nuisances” such as unreasonable noise, illumination, etc.

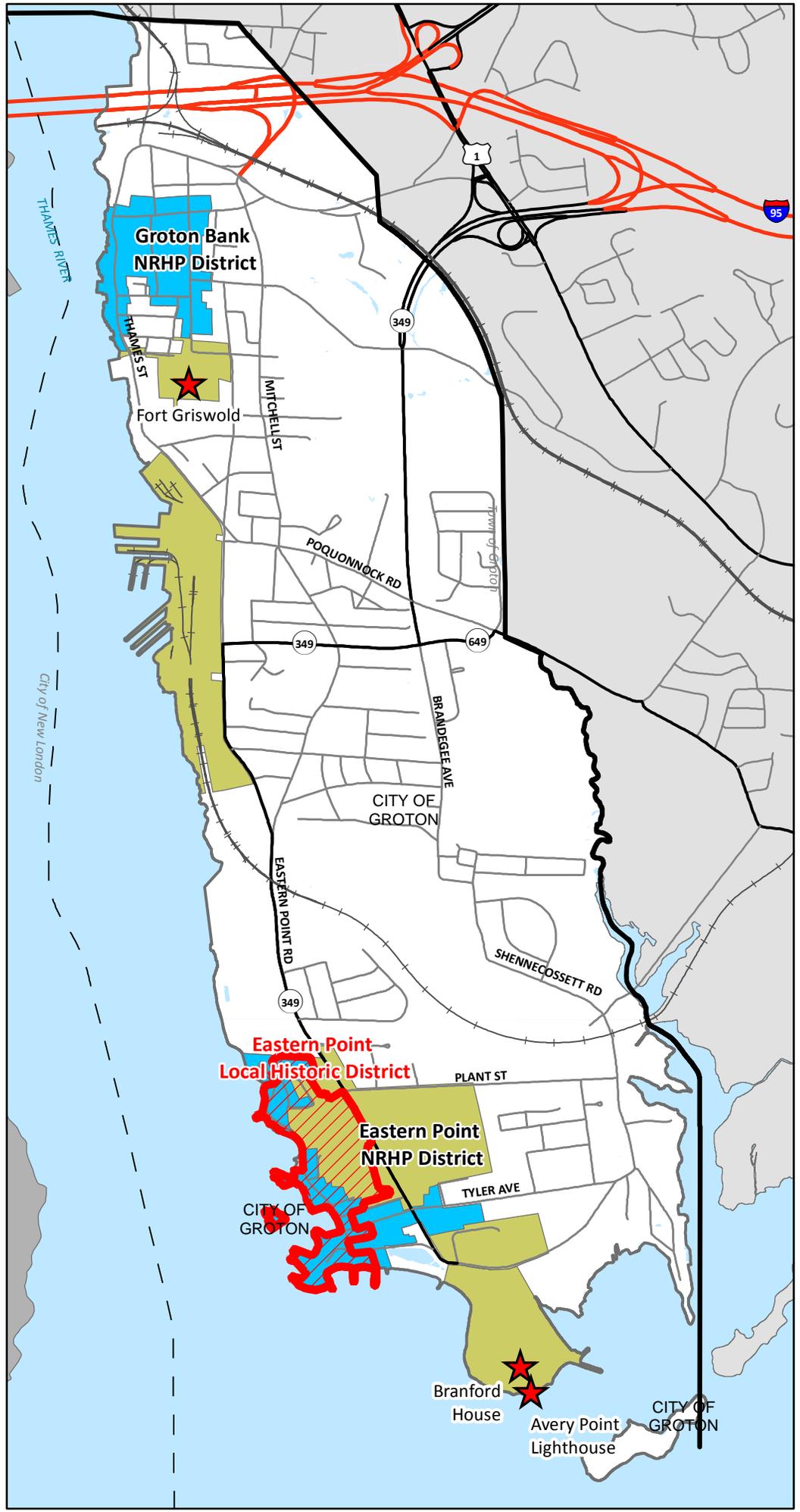
Strategies To Enhance Community Character

	Priority	Leader	Partners
Protect Scenic Resources			
1. Continue to encourage the preservation and protection of scenic resources.	8.33	PZC	Staff
Protect Historic Resources			
2. Continue to encourage preservation of historic resources in the City.	5.00	EPHD	Staff
3. Encourage efforts by local organizations to seek recognition for historic resources.	5.00	Staff	
Enhance Overall Character			
4. Encourage development that contributes to “sense of place” in the City.	7.22	PZC	Staff
5. Establish design guidelines for commercial development within the community (such as Thames Street and Five Corners) and for multi-family and institutional development.	1.67	PZC	Staff
6. Consider expanding street tree planting programs.	4.44	CWC	Staff
7. Discourage tall-growing street trees under overhead wires and discourage flowering / fruit trees if not appropriate in certain locations).	2.78	CWC	PW Staff
8. Encourage maintenance of street-side areas.	3.336	Council	PW
9. When opportunities arise, pursue placing wired utilities underground in key areas in order to enhance scenic character.	6.11	UC	Council PZC Staff

See inside back cover for legend

Historic Resources Plan

City of Groton



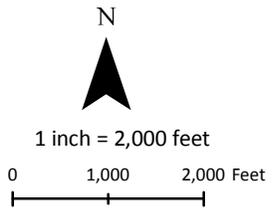
Legend

National Register of Historic Places

-  Existing NRHP Place
-  Existing NRHP District
-  Potential National Historic Districts

Local Historic District (Regulatory)

-  Local Historic District



Water Quality

Protection and improvement of water quality in the City and adjacent waters can involve a variety of activities:

- Reduction of fertilizer / pesticide use
- Marine boat pump-outs
- Stamping of catch basins that discharge to coastal waters

The City encourages participation in the “Clean Marinas” program which is a voluntary program that encourages marina operators to minimize pollution.

As a companion to the Clean Marina Program, the Clean Boater Program encourages the state’s boaters to learn about and use clean boating techniques when operating and maintaining their boats.

5.5 Protect Natural Resources

Natural resources perform a variety of important environmental functions and contribute to environmental health and overall community character in the City. The City intends to continue to protect natural resources in the City for current and future generations.

Protect Water Quality

Protection of water quality is, and will continue to be, the most important natural resource priority in the City.

The New London-Groton area has been identified as a priority area for water quality management and the fact that shellfish beds in and around the City are occasionally closed due to pollution from runoff is an indication that more can and should be done to protect water quality.

The City is addressing state and federal stormwater requirements (known as the “MS4 Permit”) and this will help reduce pollution from a variety of sources.

In addition, the City adopted zoning regulations related to implementing “low impact development” (LID) approaches to stormwater runoff as part of any new development in the City. While retrofitting of existing drainage systems will take time, this will also pay dividends in terms of water quality. In the meantime, regular street sweeping and drainage maintenance (including trapping, removing, and suitably disposing of sediment from storm drains) will help.

The LID approaches to stormwater runoff also help address issues related to the *quantity* of runoff. While several areas of the City have bedrock close to the surface and may not be able to do much in terms of stormwater capture and infiltration, other areas will be able to reduce flooding and promote infiltration to support a more natural water cycle in terms of groundwater flows.

Storm Drain Marker



Water Quality Monitoring



Natural Resources Plan

City of Groton

Legend

Water-Related Resources

-  Watercourses
-  Wetlands

Flood-Related Resources

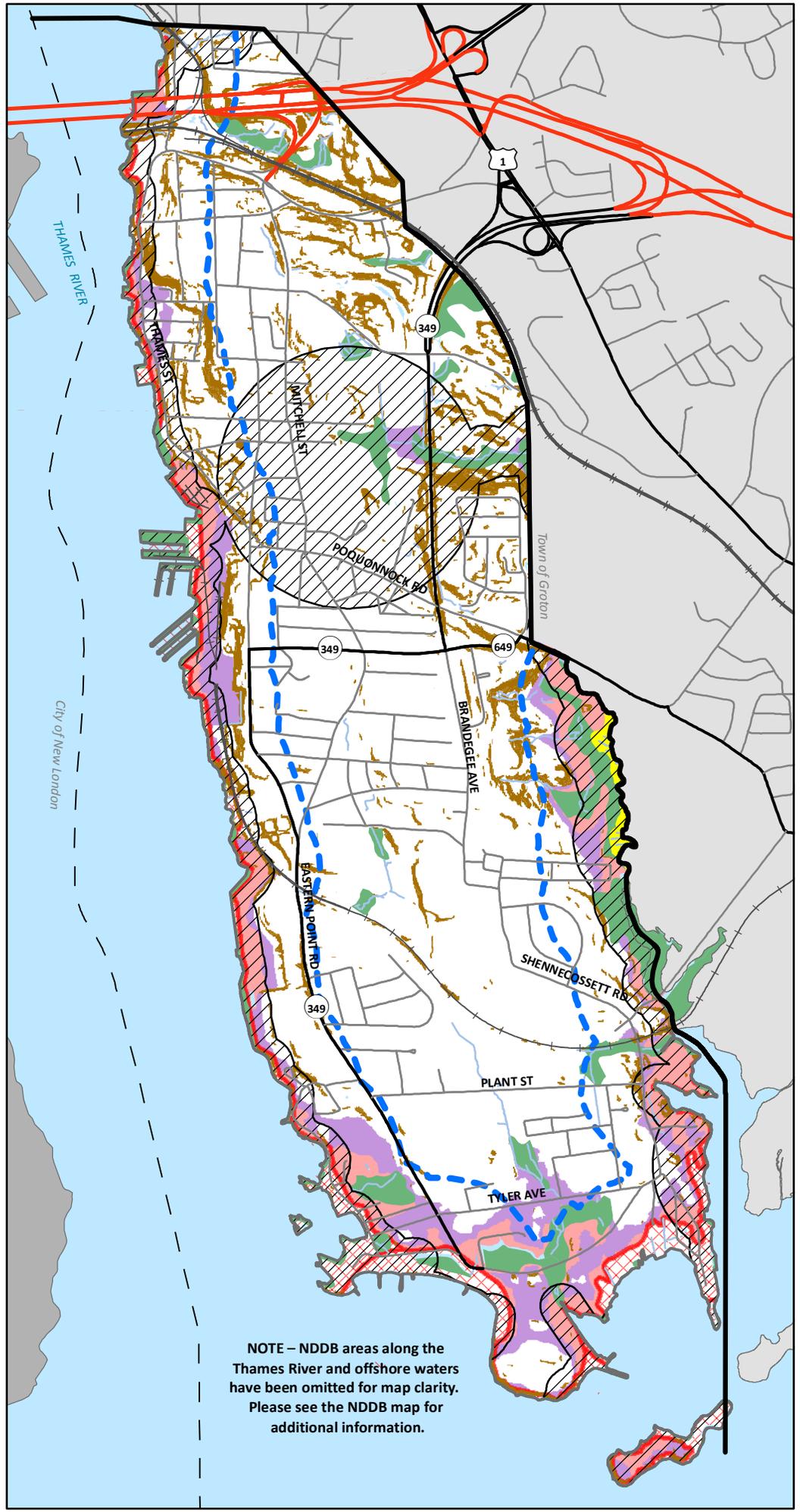
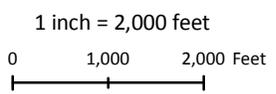
-  100-Year Floodzone (AE)
-  500-Year Floodzone
-  Wave Action Floodzone (VE)

Habitat-Related Resources

-  Natural Diversity Database Area (DEEP, 6/2017)
-  Critical Habitats (DEEP, 7/1/2009)

Other Resources

-  Coastal Boundary
-  Slopes > 15%



Protect Key Natural Resources

In addition to protecting water quality, the City intends to protect the following natural resources as well:

- watercourses (drainage, water quality, etc.),
- wetlands (water quality, habitat, flood control, etc.), and
- steep slopes (erosion potential, etc.).

The City intends to continue requiring setbacks and buffers to separate development activities from water resources. While large setbacks will not always be possible, even small setbacks would be of benefit in areas with little or no protection currently.

Manage Floodplain Activities

The City also intends to effectively manage floodplain activities and minimize new development in these areas. This is especially relevant in coastal “V” flood zones (areas in which structures are subject to potential wave damage during coastal storms). With increasing concern over sea level rise and coastal storms, discouraging development in such areas and promoting a gradual retreat from vulnerable low lying waterfront is good public policy.

Protect Natural Diversity Resources

The City also intends to protect “natural diversity” resources (such as endangered species, unique habitats, and/or scenic resources). The zoning regulations require any site identified on the Natural Diversity Database or map maintained by the Connecticut Department of Environmental Protection (DEEP) to obtain a report indicating that the resource on the site will be protected as part of any development proposal.

The City also intends to prevent the introduction of non-native species and diminish the presence of invasive species in the City, especially as part of new development applications.

Natural Diversity



Floodplain Management



Strategies To Protect Natural Resources

	Priority	Leader	Partners
Protect Water Quality			
1. Continue programs and efforts to protect and improve water quality in the City.	8.33	CWC	PZC DEEP EPHD HMC Staff
2. Continue to require the use of “best management practices” to treat stormwater in new development.	2.78	PZC	DEEP Staff
Protect Key Natural Resources			
3. Continue to protect watercourses and wetlands.	5.56	CWC	PZC Staff
4. Continue to protect steep slopes (>15 percent).	2.22	PZC	Staff
Manage Floodplain Activities			
5. Continue to manage floodplain activities.	5.00	PZC	Staff
6. Minimize new development in floodplain areas.	6.11	PZC	Staff
Protect Natural Diversity Resources			
7. Continue to protect natural diversity resources, including those identified on the Natural Diversity Database or map.	2.78	PZC	DEEP Staff
8. Seek to prevent the introduction of non-native species and diminish the presence of invasive species.	2.22	PZC	CWC Staff

See inside back cover for legend

5.6 Maintain An Efficient Transportation System

The City is fortunate to be well served by a roadway network for vehicular circulation and by a bus transit system. The City intends to support, maintain and enhance this transportation system for the benefit of residents, businesses, employees, customers, and visitors.

Roadway System

The overall road system in the City is essentially established and is well configured to meet the community's needs. However, the City intends to maintain an efficient (and cost effective) transportation system by:

- continuing to maintain pavement condition as cost effectively as possible (pavement management),
- managing activities along existing roadways in order to preserve the roadway capacity (access management), and
- implementing approaches on selected roadways, as necessary, to reduce cut-through traffic on residential streets, truck traffic on local streets, and speeding on some thoroughfares (traffic calming).

Road Classifications

Limited Access Highways - Roads that serve regional traffic and have limited access.

- Interstate 95
- Route 349 from I-95 to Rainville Avenue

Arterials - Highways which carry both regional and local traffic from the collectors.

- Route 349 (Rainville Avenue and Eastern Point Road to Shennecossett Road)
- Brandegee Avenue (City)

Collectors - Take traffic from local streets and direct it to arterial highways system.

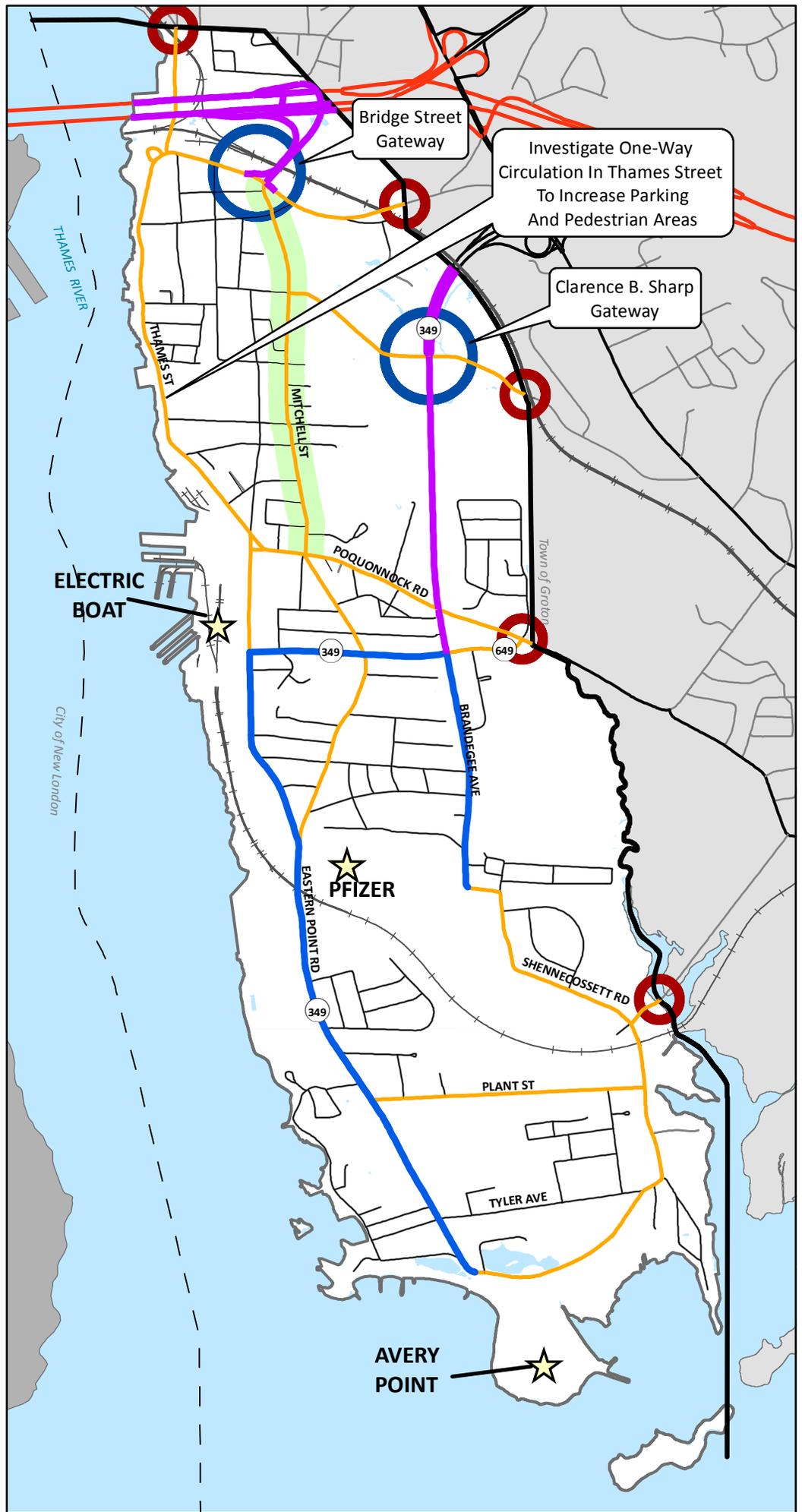
- Benham Road (City)
- Bridge Street Extension (City and Town)
- Eastern Point Road from Poquonnock Road to Rainville Avenue (City)
- Fairview Avenue (City)
- John Street (City)
- Meridian Street (City)
- Mitchell Street (City)
- North Street (City)
- Plant Street (City)
- Poquonnock Road from Thames Street to Rainville Avenue (City)
- Shennecossett Road (part)
- Thames Street (City)
- Thomas Road (Town and City)

Local - Roads providing access to neighborhoods and individual properties

- Other roads and streets in the City of Groton.

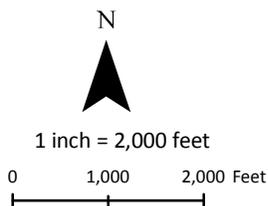
Vehicular Circulation Plan

City of Groton



Legend

- Limited Access Highway
- Arterial
- Collector
- Local
- Reduce Pavement Width
- Major Gateway
- Secondary Gateway



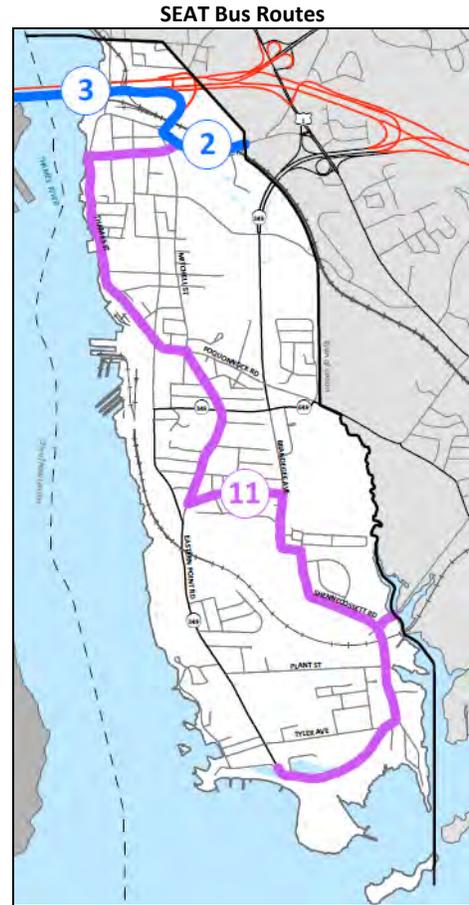
Bus Services

Several types of transit services are available in the City and the City intends to support the availability of such services to meet the needs of residents, employers, employees, and visitors.

Public transit service available in the City includes buses operated by the Southeast Area Transit (SEAT) system. SEAT offers several fixed bus routes that serve a number of employers and neighborhoods in the City.

In addition, there is a “dial-a-ride” service for the elderly and disabled operated by the Town of Groton.

The City intends to continue encouraging major employers to promote carpooling, vanpooling, employer shuttles, and other techniques to alleviate traffic congestion at peak hours, reduce the size of parking lots, and reduce air pollution.



Rail Services / Air Services

The City contains two rail lines but has limited rail service. The main Amtrak northeast rail corridor runs through the City but the nearest stations are in New London and Stonington. Another line operated by the Providence and Worcester (P&W) provides occasional rail freight to Buckeye Oil and Electric Boat Corporation.

The Groton - New London Airport (located within the Town of Groton) is the fourth largest airport in the state. The 2017 Groton-New London Airport Master Plan anticipates continuing operations as has been recent practice. Due to the regional economic benefits from this facility, airport service improvements should be encouraged provided that negative impacts to local residents and businesses are minimized (since many operations involve flight paths over residential areas).

Water Taxi

During the summer, a water taxi on the Thames River connects:

- Fort Trumbull State Park in New London,
- City Pier in New London, and
- Thames River Landing in the City of Groton.

The City intends to promote this service and seeks to strengthen pedestrian and bicycle linkages to restaurants, shopping and other attractions on Thames Street and other areas.



Strategies To Maintain An Efficient Transportation System

	Priority	Leader	Partners
Roadway System			
1. Continue to maintain pavement condition as cost effectively as possible (pavement management),	6.11	PW	Council DOT
2. Manage activities along existing roadways in order to preserve the roadway capacity (access management).	2.22	PZC	Police DOT Staff
3. Implement traffic calming approaches on selected roadways, as necessary, to address traffic issues.	6.11	Police	PW DOT
Bus Services			
4. Support the maintenance and expansion of local and regional public transit services (such as SEAT) to help meet the needs of City residents and businesses.	5.56	Council	DOT Staff
Rail Services / Air Services			
5. Support rail service improvements provided that negative impacts to local residents and businesses are minimized.	7.78	Staff	
6. Support air service improvements provided that negative impacts to local residents and businesses are minimized.	5.56	Staff	
Water Taxi			
7. Promote the water taxi service and strengthen pedestrian and bicycle linkages to restaurants, shopping and other attractions on Thames Street and other areas.	7.78	TRHP	PZC EDC Staff

See inside back cover for legend

5.7 Manage Utility Services

In the Plan of Conservation and Development, utility infrastructure refers to utility services such as:

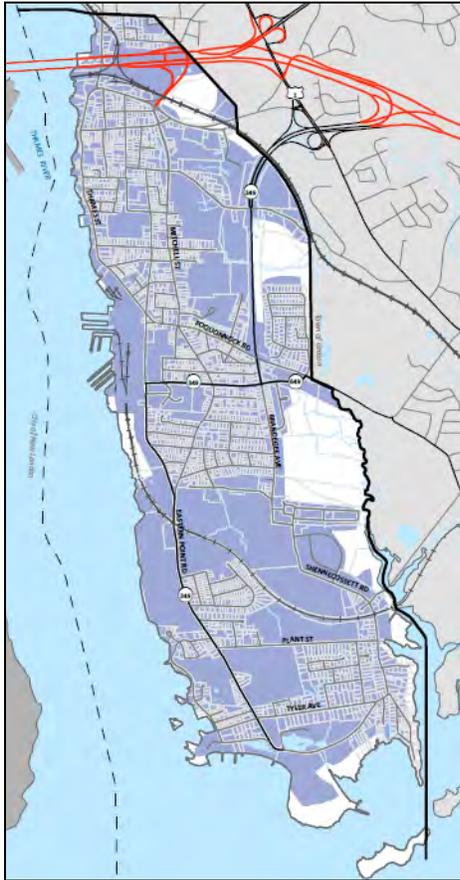
- piped utilities (public water, sewer, storm drainage, and natural gas)
- wired utilities (electric, telephone, and cable)
- wireless communications

The City of Groton is somewhat unique in that it operates a utility company which provides utility services (water, sewer, and electric) within the City and to other areas within the region.

Piped Utility Services

Utility Service	Findings
Public Water Adequate for community needs	<ul style="list-style-type: none"> • Water service for domestic, industrial, and fire-fighting purposes is provided throughout the City (and to other areas in the region) by Groton Utilities. • Groton Utilities reports that they have an adequate supply of water to meet anticipated needs during the planning period and beyond.
Public Sewer Adequate for community needs	<ul style="list-style-type: none"> • Sewage service is provided by the City of Groton using a sewage treatment facility on the Thames River. • There is adequate sewage treatment capacity to meet community needs during the planning period and beyond.
Natural Gas Adequate for community needs Could be extended to more areas	<ul style="list-style-type: none"> • Eversource provides natural gas service to Pfizer, Electric Boat Corporation, Avery Point, and areas along Rainville Avenue and Eastern Point Road. • Service capacity and pressure are reported to be good to excellent and the system is expected to have the capability to support substantial expansion.
Stormwater Drainage Adequate for community needs System being upgraded to address new water quality standards	<ul style="list-style-type: none"> • The stormwater drainage system is managed by the City's Department of Public Works. • The City is in the process of complying with state and federal requirements (contained in the MS4" permit") to improve water quality at storm drainage outfalls. • As discussed in Section 5.5 of the POCD (page 48), water quality is a key consideration moving forward so managing stormwater runoff is a key component of this.

Water Service Area



Legend

- Water Service
- Parcels

Sewer Service Area



Legend

- Sewer Service
- Parcels

Historic Picture



Water Pollution Control Facility



Wired Utility Services

Utility Service	Findings
Electricity Adequate for community needs	<ul style="list-style-type: none"> • Electric service is provided by Groton Utilities. • Power is purchased on a wholesale basis from generators and distributed over the local electrical network. • Electrical capacity / reliability are reported to be adequate for service demands during the planning period.
Street Lights Adequate for community needs	<ul style="list-style-type: none"> • Street lights are operated by Groton Utilities. • New streetlights are installed as part of new development “in quantity, location, and type sufficient to assure public safety.” • Street lights have been converted over to LED bulbs.
Communication Adequate for community needs	<ul style="list-style-type: none"> • Adequate wired communication services (telephone, cable television, internet) are available to City residents and businesses.

Wireless Services

Utility Service	Findings
Wireless Communications Adequate for community needs	<ul style="list-style-type: none"> • Adequate wireless communication services (voice, data) are generally available to City residents and businesses. • The City may want to participate in the creation of wireless “hot spots” to support residents, visitors, and businesses.

Overhead Electrical Wires



Telecommunications Tower



Strategies To Manage Utility Services

	Priority	Leader	Partners
Piped Utility Services			
1. Continue to maintain adequate public water service for domestic, industrial, and fire-fighting needs.	8.33	UC	Staff
2. Continue to maintain adequate public sewer service for domestic and industrial needs and for public health purposes.	6.11	WPCA	Staff
3. Encourage the extension of natural gas services to other locations within the City.	5.00	EDC	Staff
4. Continue to manage the stormwater system to meet community needs, comply with state and federal requirements, and improve water quality at storm drainage outfalls.	3.89	PW	PZC Staff
Wired Utility Services			
5. Continue to maintain adequate electrical service for domestic and industrial needs.	6.67	UC	Staff
6. Continue to maintain adequate street lighting for community needs.	3.33	PW	Staff
7. Continue to encourage the provision of adequate wired communication services (telephone, cable television, internet) to meet the needs of City residents and businesses.	1.67	UC	EDC Staff
Wireless Services			
8. Continue to encourage the provision of adequate wireless communication services (voice, data) to meet the needs of City residents and businesses while minimizing visibility of towers and antennae.	3.33	UC	EDC Staff
9. Consider whether to participate in the creation of wireless "hot spots" to support residents, visitors, and businesses.	2.78	UC	EDC Staff

See inside back cover for legend

6

ADDRESS COMMUNITY ISSUES

While the City is doing a good job in most policy areas related to the physical conservation and development of the community, there are some areas where it intends to devote more time and attention in the future:

- Prepare For Climate Change And Sea Level Rise
- Address Community Facility Issues
- Promote Sustainability / Resiliency

Continue to address community issues make the City an even better place in the future.

Being a Coastal Community



Being a Coastal Community



6.1 Prepare For Climate Change And Sea Level Rise

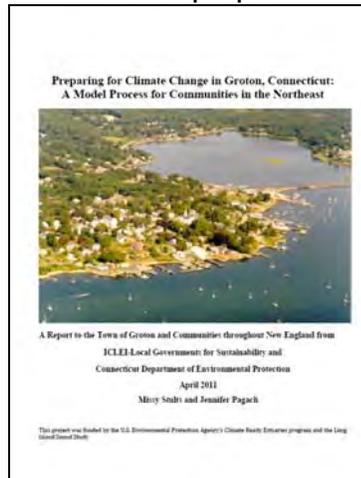
A key issue for the City to address going forward is how to prepare for sea level rise and how to address local impacts. As indicated in the sidebar, it is recommended that Connecticut municipalities plan for sea level rise of 20 inches (0.5 meters) between 2017 and 2050.

In 2010, a series of workshops were conducted in the Town of Groton to talk about how to prepare for climate change and sea level rise. These workshops were coordinated by ICLEI-Local Governments for Sustainability and the Connecticut Department of Energy and Environmental Protection.

Since the workshops used the Town of Groton as a case study, the results of the workshops are available for reference and use.

Some of the potential actions identified to help address climate change included:

Workshop Report



Sea Level Rise

In October 2017, the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) released a recommendation that Connecticut municipalities **plan** for sea level rise of 20 inches (0.5 meters) between 2017 and 2050. This is not a prediction but it is a scenario that Groton should prepare for.

Plan For

20"

Of Sea Level Rise By 2050

Types of Actions	
Protection – Protect the land from the sea so that existing land uses can continue.	<ol style="list-style-type: none"> 1. Install flood/tide gates 2. Relocate/elevate roads and infrastructure 3. Flood-proof existing buildings 4. Beach nourishment 5. Purchase land to act as a buffer
Accommodation – Continue to use the land at risk but do not attempt to prevent the land from being flooded.	<ol style="list-style-type: none"> 6. Prevent new building in vulnerable locations 7. Strengthen building / engineering standards 8. Make cost-effective road / infrastructure improvements 9. Bolster emergency response capability
Retreat – Abandon the coastal zone over time	<ol style="list-style-type: none"> 10. Allow land to convert to wetlands 11. Create incentives to retreat
Other -	<ol style="list-style-type: none"> 12. Educate residents about vulnerability 13. Identify funding sources 14. Integrate climate preparedness into local plans, regulations, and processes

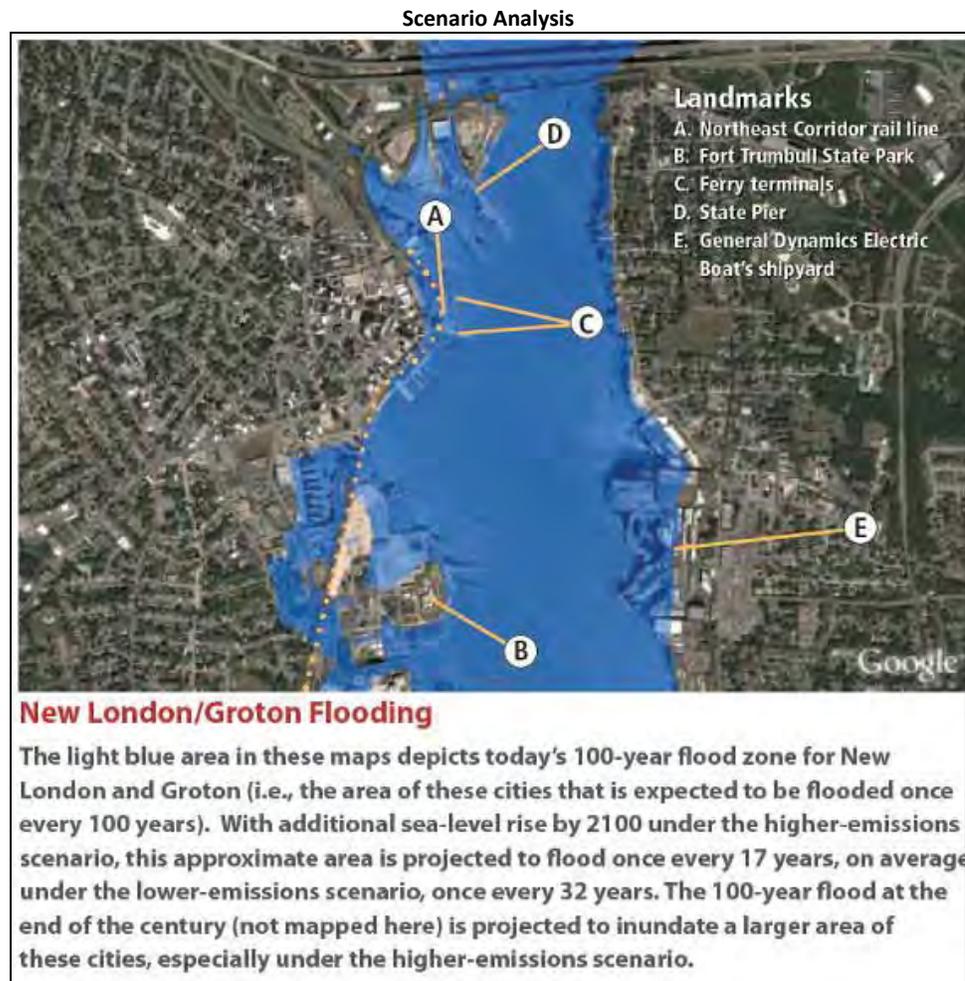
In 2017, Moody's Investor Service advised communities that they will begin incorporating climate risk and potential exposure into their community evaluation and bond rating system.

Other Recommendations

1. Identify a person and/or agency to lead adaptation coordination.
2. Continue to develop the capacity to analyze sea level rise and storm surge impacts.
3. Pursue funding sources to increase municipal capacity.
4. Work with others to alter criteria for funding of infrastructure grants to incorporate adaptation criteria.
5. Integrate climate change considerations into all Town-wide planning.
6. Prepare and refine an outreach strategy regarding climate preparedness.
7. Continue researching what others are doing and share information regionally.

The key recommendations from the report included:

1. Conduct a thorough vulnerability assessment, using stakeholder input and engagement techniques.
2. Establish a working climate preparedness committee, including municipal department heads and other key technical personnel, to evaluate community vulnerabilities, establish preparedness targets, and prioritize actions.
3. Create a community-wide action plan to reduce greenhouse gas emissions and prepare for climate change impacts with strategies that are robust, adjustable, align with existing community priorities, and provide co-benefits.



Preparing for Climate Change in Groton, Connecticut

Strategies To Prepare For Climate Change And Sea Level Rise

	Priority	Leader	Partners
1. Address issues associated with climate change and sea level rise.	6.11	Council	CWC Staff
2. Establish a working committee to evaluate community vulnerabilities associated with climate change and sea level rise.	1.67	Council	CWC Staff
3. Conduct a thorough assessment of vulnerability to climate change and sea level rise including: <ol style="list-style-type: none"> a database of “repetitive loss” properties detailed maps showing areas subject to potential inundation in the future 	2.22	CVWG	Staff
4. Create an action plan to prioritize actions relative to climate change and sea level rise including a conceptual capital improvement program to balance fiscal capacity with coastal issues / needs	2.78	CVWG	Council Staff
5. Continue to work with regional, state, and federal agencies and other organizations to address issues related to coastal vulnerability.	4.44	CVWG	TOG DEEP SECCOG Staff
6. Consider increasing regulatory standards relative to construction in vulnerable areas: <ol style="list-style-type: none"> Limiting construction of habitable structures Increasing “freeboard” requirements Applying coastal “V” zone flood standards to areas which may be subject to such flooding in the future Update regulations to encourage or allow for increased structural integrity to the extent consistent with FEMA standards. 	3.89	PZC	Staff

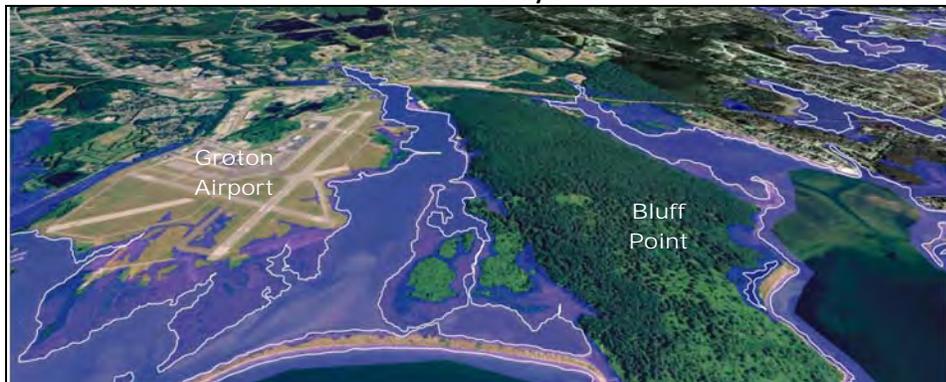
See inside back cover for legend

Relevant Resources

Resources related to climate change and sea level rise that are relevant to the City of Groton include:

- Preparing for Climate Change in Groton, Connecticut (Town)
- Critical Facilities Assessment (SECCOG)
- SECCOG Regional Resilience Guidebook
- SECCOG Regional Resilience Vision & Summary of Findings
- Municipal Issues & Needs for Addressing Climate Adaptation in Connecticut (UConn – CLEAR)
- Adapt CT (UConn – CLEAR)
- Connecticut Institute for Resilience and Climate Adaptation (UConn - Avery Point)
- Coastal Resilience for Long Island Sound (The Nature Conservancy)

Scenario Analysis



Preparing for Climate Change in Groton, Connecticut

School Facilities

School facilities are operated by the Town of Groton. Over the past 10 years or so, enrollments have been declining and the Town has closed some school facilities (including two elementary schools within the City limits) and converted another school to a magnet school. A number of school buildings have deferred maintenance.

While the City had been looking at leasing Colonel Ledyard School for some City functions, budget constraints forced and timing caused the City to halt plans for renovations and return the property to the Town.

6.2 Address Community Facility Issues

Community facilities and services contribute significantly to Groton’s quality of life and character. Groton is different from many communities because City residents receive public services from:

- the City (fire, police, public works, building, zoning, planning, solid waste),
- the Town (education, social services, assessment, vital records, tax collection), or
- both (parks and recreation).

The Plan reviews these facilities to ensure they are appropriately located and sized to meet community needs during the planning period and beyond.

Facility	Findings
<p>Municipal Complex</p> <p>Space needs study recommended</p>	<ul style="list-style-type: none"> • The site and buildings are intensively used for City Hall, Police Station, Public Works, Thames Valley Communications, and other activities. • The current improvements do not adequately address all the needs of the functions located there. • A space needs study should be done to determine the best way to address the space needs (office space, meeting rooms, parking, equipment bays, interior storage, exterior storage) and protect sensitive uses from flooding. • Adequate land appears available on site to meet the needs.

Municipal Complex



Facility	Findings
<p>Recreation</p> <p>Improvements desired</p>	<ul style="list-style-type: none"> • The City has several key park and recreation facilities: <ul style="list-style-type: none"> ○ George Washington Park ○ Eastern Point Beach ○ Birch Plain Creek ○ boat launches • Some recreation space is also located at existing and former school sites • Recreational desires identified by the City Parks and Recreation Department include: <ul style="list-style-type: none"> ○ A community center ○ Additional recreation fields / facilities ○ Enhancement of the City Beach. ○ Multi-purpose trails, greenbelts, etc.. ○ Additional public access to the Thames River. • The Department is responsible for maintenance of the grounds at City facilities.
<p>Fire Stations</p> <p>Space needs study recommended</p>	<ul style="list-style-type: none"> • The City Fire Department provides fire / emergency medical response in the City of Groton and the West Pleasant Valley District to the north from two stations: <ul style="list-style-type: none"> ○ Main station on Broad Street ○ Eastern Point Station on Shennecossett Road • The Department is staffed “around the clock” with paid staff supplemented by volunteers. • The Department collaborates with fire departments operated by both Electric Boat and Pfizer. • Fire hydrants are available throughout the City. • The Department reports that more storage space is needed to meet current and future needs.

Bill Library

The Bill Memorial Library is an independent library located in the City. The library is part of the overall library system in the Town of Groton (the other libraries are the Groton Public Library on Route 117 and the Mystic and Noank Library in Mystic).

While privately funded, the City does assist the library in a number of ways. The City should continue to support this library to help meet community needs.

Waste Disposal

The City collects municipal solid waste, recyclable materials, and bulky waste within the City. Additional space for these activities is desired.

The City has a long term disposal agreement with a resource recovery facility which should meet City needs for the foreseeable future.

Concert At Washington Park



Eastern Point Beach



Strategies To Address Community Facility Issues

	Priority	Leader	Partner
Municipal Complex			
1. Undertake a comprehensive space needs study to determine the best way to address the space needs at the Municipal Complex.	4.44	Council	PW Police Staff
Recreation			
2. Over the longer term, seek to address identified park and recreation desires: <ul style="list-style-type: none"> a. A community center. b. Additional recreation fields c. Expansion and enhancement of the City Beach. d. A small playground in the south-central area of the City. e. Multi-purpose trails, greenbelts, etc.). f. Additional public access to the Thames River. 	6.11	BPC	Council Staff
Fire Stations			
3. Look at ways to address the space needs (storage) of the fire department.	1.11	Fire	Council Staff
Other Facilities And Services			
4. Continue to support the Bill Memorial Library.	5.00	Council	TOG Staff
5. Continue to provide adequate collection and disposition of solid waste, recyclable materials, and bulky waste.	5.56	PW	Council Staff

See inside back cover for legend

**Main Fire Station
Broad Street**



**Eastern Point Fire Station
Benham Road**



Community Facilities Plan

City of Groton

Legend

City Facilities

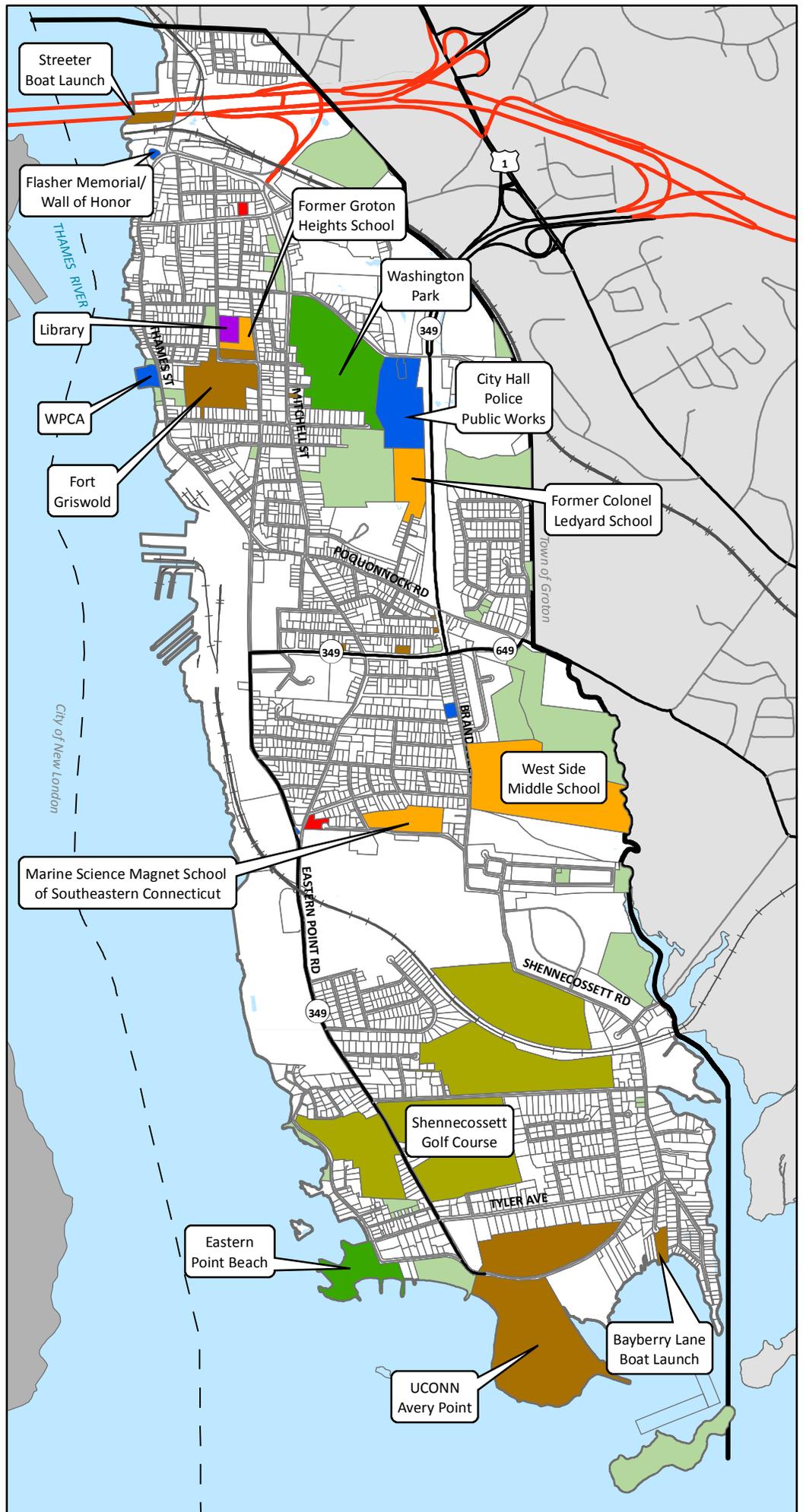
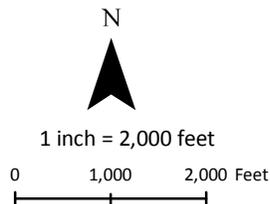
- City Hall / Police / Public Works
- Fire Stations
- City Park

Town Facilities

- Schools (active / retired)
- Library
- Shennecossett Golf Course

Other Facilities

- State Facilities
- Open Space



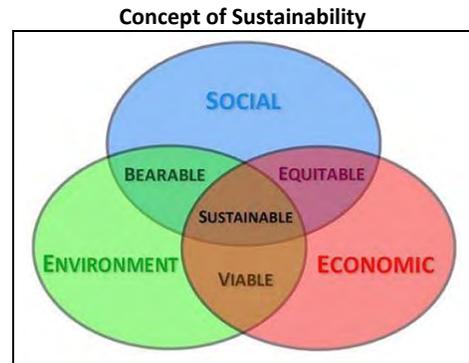
6.3 Promote Sustainability / Resiliency

Promote Sustainability

For the purposes of the POCD, “sustainability” refers to the philosophy of encouraging activities that allow present generations to meet their needs without compromising the ability of future generations to meet their needs.

Sustainability relates to being efficient and economical in use of resources using approaches that are economically viable, of social benefit, and environmentally responsible.

Rather than an adversarial situation between economic and environmental interests, sustainability is meant to be a more cooperative approach.



Sustainability is about finding a balance between what we as a society want and demand from natural resources, our need to use natural resources to provide jobs and income for our families and communities, and the natural resources that are available to provide what we need.

Some of the items to be considered as part of a ***municipality's*** overall approach to sustainability could include:

Energy-Related	<ul style="list-style-type: none"> • Reducing energy use / becoming more energy efficient • Reducing reliance on fossil fuels • Encouraging use of renewable energy (solar, wind, etc.) • Promoting “greener” buildings / vehicles • Providing for alternative energy approaches (fuel cell, micro-grids, etc.) • Providing for electric car charging stations • Encourage multi-modal transportation options • Reduce greenhouse gas emissions
Water-Related	<ul style="list-style-type: none"> • Reducing water use • Reducing water waste / recycling water
Waste-Related	<ul style="list-style-type: none"> • Reducing waste (including food waste) • Reducing use of plastic bags • Increasing recycling

Promote Resiliency

The term “resiliency” refers to the community’s ability to withstand, respond to, and readily recover from sudden changes or adversity. For the POCD, resiliency relates to being able to absorb and/or recover from impactful events (such as hurricanes, flooding and winter storms) in an efficient and timely way. The elements of being a resilient community can include:

Avoidance-Related	<ul style="list-style-type: none"> • Identification / avoidance / risk reduction
Mitigation-Related	<ul style="list-style-type: none"> • Evaluating probability / risk scenarios • Evaluating approaches (protection / adaptation) • Balancing of cost / benefit
Response-Related	<ul style="list-style-type: none"> • Pre-event education / training • Pre-event response plans

The 2012 SECCOG Regional Hazard Mitigation Plan is a key resource for the City to consider as it evaluates approaches to identify / reduce / eliminate risk to human life and property (resilience). Recent hurricanes and major storm events have highlighted the value of such approaches.

Strategies To Promote Sustainability / Resiliency

	Priorities	Leader	Partner
Promote Sustainability			
1. Continue to educate residents about sustainability concepts.	5.00	CWC	UC PW LLHD DEEP Staff
2. Consider participating in the “SustainableCT” program and similar programs.	0.56	Council	Staff
Promote Resiliency			
3. Continue efforts to identify, avoid, reduce, mitigate, and recover from impactful events.	5.56	Council	PW Police Fire Staff
4. Continue to participate in updating the regional Hazard Mitigation Plan in order to address risks and obtain funding.	0.56	Staff	PW Police Fire
5. Implement the Hazard Mitigation Plan, as amended.	1.67	Staff	PW Police Fire

See inside back cover for legend

7

IMPLEMENTATION

Implementation of the strategies and recommendations of the Plan of Conservation and Development is the main purpose of the planning process. Implementation of a Plan typically occurs in two main phases:

- some of the recommendations can and should be given high priority since they are critical to the implementation of the Plan;
- other recommendations will be implemented over time because they may require additional study, coordination with or implementation by others, or involve the commitment of significant financial resources.

The Planning and Zoning Commission has the primary responsibility of promoting the implementation of the Plan's recommendations. The Commission can also implement some of the recommendations of the Plan of Conservation and Development through amendments to the Zoning Regulations, Zoning Map, Subdivision Regulations, application reviews, and other means. Other recommendations may require cooperation with and action by other local boards and commissions such as the City Council, Conservation Commission, and similar agencies.

However, if the Plan is to be realized, it must serve as a guide to all residents, businesses, developers, applicants, owners, agencies, and individuals interested in the orderly conservation and development of the City of Groton.

7.1 Implementation Tools / Strategies

Implementation Tables

The policy chapters of the POCD contain implementation tables which identify leaders and partners responsible for implementing POCD recommendations.

The implementation tables outline two types of recommendations – policies and tasks. Policies tend to be continuing activities that may never be fully implemented. Policies are difficult to monitor in terms of implementation and do not lend themselves to target completion dates.

On the other hand, tasks are activities which can be clearly defined and can be monitored in terms of implementation. Tasks (colored red in the implementation tables) lend themselves to priorities in terms of implementation.

Application Reviews

Using the Plan of Conservation and Development as a basis for decisions by the Planning and Zoning Commission will help accomplish the goals and objectives of the POCD. Zoning map changes, text changes, and special permits should be measured and evaluated in terms of the Plan and its various elements.

Operating Budget / Capital Budget

The annual budget is the blueprint for spending in the City and it is an effective way to assist with implementation of POCD recommendations. The Planning and Zoning Commission should consider ways to complement the work done each year by the Mayor and City Council in establishing budget priorities.

Capital budgeting is used to coordinate the sequencing and financing of major public improvements and other long-term capital investments in a community. Since Section 8-24 of the Connecticut General Statutes requires that municipal improvements (as defined in the statute) be referred to the Planning and Zoning Commission for a report before any local action is taken, the Commission should strive to guide spending on capital projects also reflects the priorities and recommendations of the Plan.

Strategies To Implement The POCD

	Priority	Leader	Partners
1. Use the implementation tables in the policy chapters of the POCD to guide implementation of POCD recommendations.	6.11	PZC	Council Staff
2. Use the POCD as a basis for PZC decisions on zoning map changes, text changes, and special permits.	4.44	PZC	Staff
3. Use the POCD as guide for preparing and implementing the annual operating budget.	2.78	Council	Mayor Staff
4. Use the POCD as guide for preparing and implementing the capital budget.	2.22	Council	Mayor Staff
5. Use the POCD as a guide when conducting a CGS Section 8-24 review of "municipal improvements."	4.44	PZC	Council Staff

See inside back cover for legend

Inter-Municipal Cooperation

In the future, there may be greater desire to share service delivery in order to realize cost savings.

The "Shared Services Opportunity Study" prepared by SECCOG in conjunction with the municipalities in the region may provide some guidance on how this could be undertaken.

7.2 Priorities For POCD Strategies

There are a number of recommendations in the POCD and it is understood that it will be challenging to implement them all within a 10-year timeframe. However, all the recommendations are important and can make the City of Groton a better place.

In order to provide some guidance, the members Planning and Zoning Commission decided to individually and anonymously prioritize the recommendations in the POCD. Each person gave a priority rating of 1 (highest priority) to 4 (lowest priority). These responses were then collated and the average ratings were converted to a 10-point scale with 10 being the highest rated strategy.

The highest rated strategies are presented below and on the facing page. Based on the results of this exercise, the Planning and Zoning Commission felt that the POCD would be a success if it could accomplish as many of the “top rated” items as possible.

Highest Rated Individual Recommendations (8 to 10 points)

Section	Chapter	Recommendation	Priority
5.3	Maintain Community Assets	1. Continue to protect coastal resources.	10.00
3.1	Encourage / Promote Economic Development	1. Continue to promote and support economic development by	9.44
2.3	Enhance “Sense of Place”	1. Use place-making strategies as a way to project a memorable image of the City to others and help attract new residents, businesses, customers, and visitors.	9.44
3.2	Encourage / Promote Economic Development	2. Continue to promote the “Thames River Heritage Park” concept and inclusion of the City attractions (Thames Street and Fort Griswold).	8.89
5.4	Maintain Community Assets	1. Continue to encourage the preservation and protection of scenic resources.	8.33
3.1	Encourage / Promote Economic Development	2. Continue to work with major employers, the Town, the region, and other agencies in coordinated economic development efforts.	8.33
5.7	Maintain Community Assets	1. Continue to maintain adequate public water service for domestic, industrial, and fire-fighting needs.	8.33
5.7	Maintain Community Assets	1. Continue programs and efforts to protect and improve water quality in the City.	8.33
5.1	Maintain Community Assets	1. Continue to maintain and improve the integrity of residential neighborhoods in order to preserve and enhance the overall quality of life for residents.	8.33

Ratings of Strategies

For comparison purposes, the average rating of strategies was computed. While this allows a comparison between strategies, is not particularly meaningful since some higher-rated strategies may be masked by a greater number of lower-rated strategies.

Section	Chapter	Strategy	Average Priority
3.1	Encourage / Promote Economic Development	Continue To Promote Economic Development	8.89
3.2	Encourage / Promote Economic Development	Promote Tourism	8.06
5.1	Maintain Community Assets	Maintain And Enhance Residential Areas	6.25
2.1	Enhance "Sense Of Place"	Strengthen and Enhance Thames Street	6.21
5.6	Maintain Community Assets	Maintain An Efficient Transportation System	5.87
4.2	Capitalize On Opportunities	Diversify Our Housing Portfolio	5.74
2.2	Enhance "Sense Of Place"	Strengthen and Enhance Five Corners	5.56
2.3	Enhance "Sense Of Place"	Improve Place-Making	5.50
5.4	Maintain Community Assets	Enhance Community Character	4.88
5.3	Maintain Community Assets	Manage Activities In Coastal Areas	4.61
5.7	Maintain Community Assets	Manage Utility Services	4.56
6.2	Address Community Issues	Address Community Facility Issues	4.44
5.5	Maintain Community Assets	Protect Natural Resources	4.38
5.2	Maintain Community Assets	Preserve Open Space	4.37
4.1	Capitalize On Opportunities	Enhance Pedestrian / Bicycle Transportation	4.26
7.1	Implementation	Implementation	4.00
6.1	Address Community Issues	Prepare For Climate Change And Sea Level Rise	3.52
6.3	Address Community Issues	Promote Sustainability / Resiliency	2.67

7.3 Future Land Use Plan

As the Plan is implemented, the map on a following page illustrates the location and intensity of *future* land uses that are desired. Since this map illustrates the stated goals, policies, objectives, and recommendations of each of the Plan sections when combined together, it is called the Future Land Use Plan for the City of Groton.

Future Land Use Plan

The Future Land Use Plan presented on the facing page contains the following categories:

Village Centers	Community focal points and pedestrian-friendly village-type areas
Business / Industrial Areas	Areas used or intended for development of business and/or industrial uses
Residential Areas	Areas used or intended for low, moderate, or higher density residential uses
Community / Institutional	Existing or desired uses which will help meet community needs
Open Space / Trails	Areas with existing or desirable open space and pathways and trails
Natural Resources	Areas where natural resource protection is a priority of the Plan

Future Land Use Plan

City of Groton

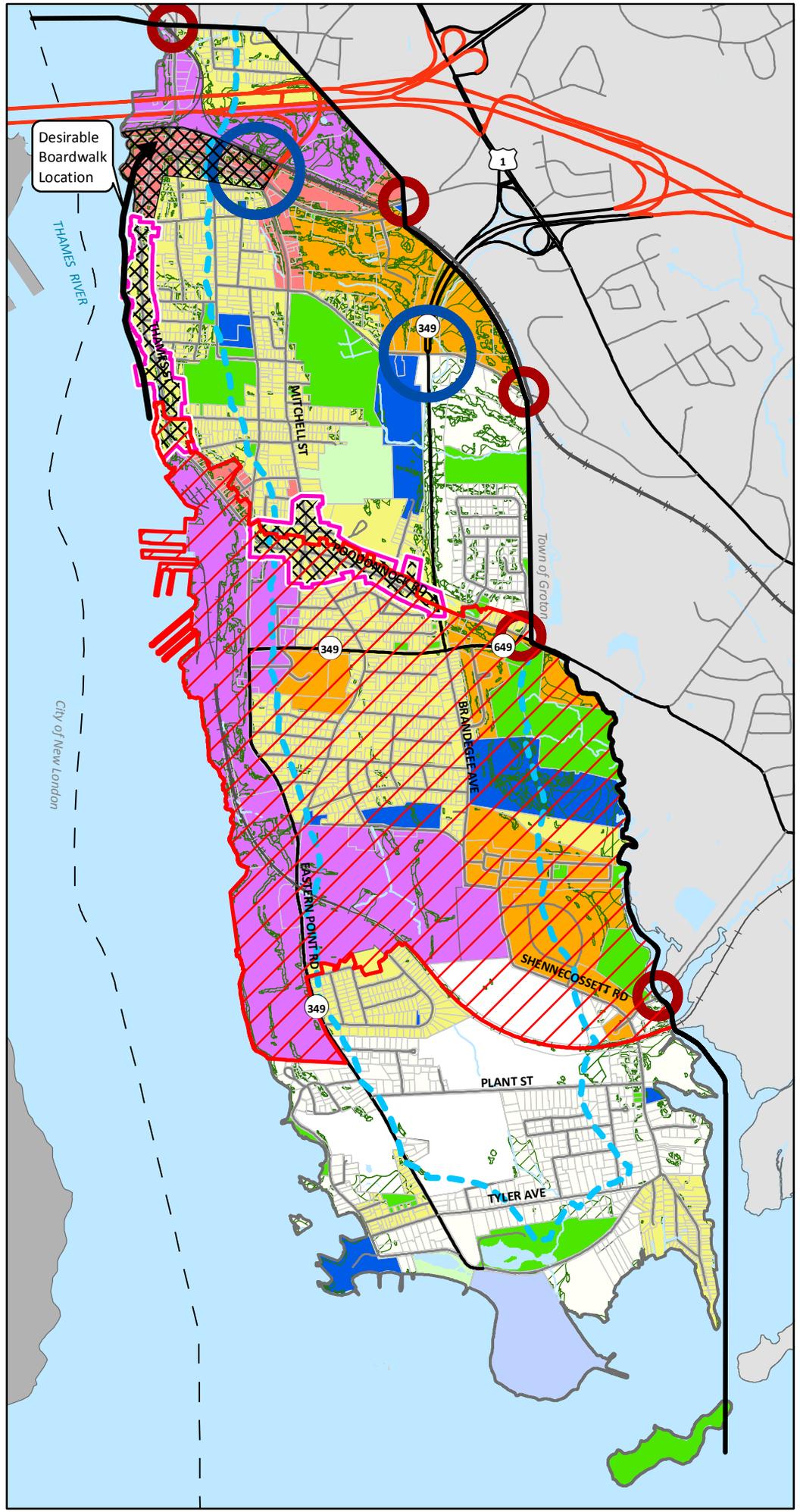
Legend

- Coastal Boundary
- Enterprise Zone
- Gateways**
 - Major Gateway
 - Secondary Gateway
- Areas To Enhance "Sense Of Place"**
 - Village District
 - Action Areas
- Open Space / Natural Resources**
 - Dedicated Open Space
 - Managed Open Space
 - Natural Resource Constraints
- Facilities / Institutional Uses**
 - Community Facility
 - Institutional Use
- Residential Areas**
 - Highest Densities
 - Medium Densities
 - Lower Densities
- Economic Development Areas**
 - Commercial Districts
 - Technology Districts



1 inch = 2,000 feet

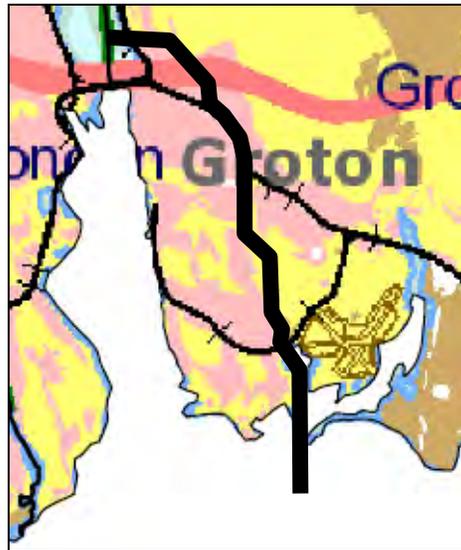
0 1,000 2,000 Feet



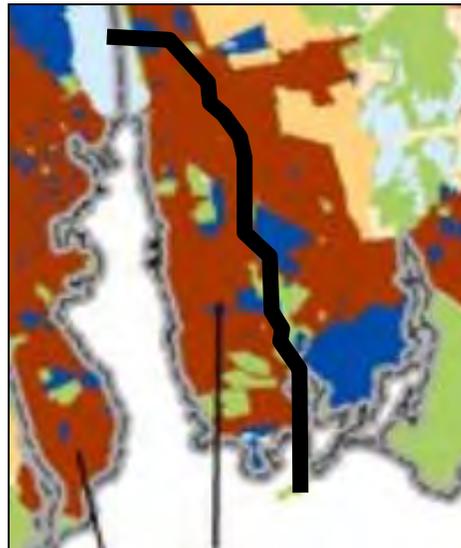
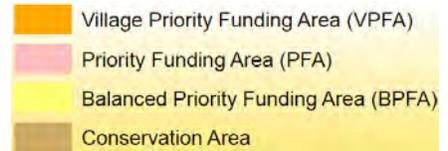
Consistency With State and Regional Plans

In accordance with Section 8-23 of the Connecticut General Statutes, the Future Land Use Plan has been evaluated for consistency with the State Conservation and Development Policies Plan (2019-2023) and the SECCOG Regional Plan of Conservation and Development (2017).

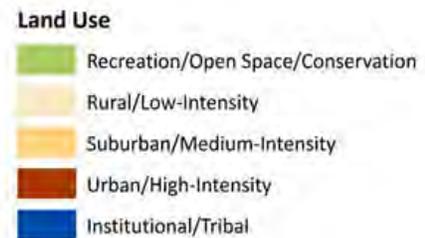
As part of this review, the Future Land Use Plan was found to be generally consistent with the Locational Guide Map in the State Plan and the Future Land Use Map in the Regional Plan of Conservation and Development.



**Locational Guide Map In The
2019-23 State of Connecticut
Conservation and Development Policies Plan**



**Future Land Use Map In The
2017 Southeast Connecticut COG Regional
Plan of Conservation and Development**



Consistency With Growth Principles

In accordance with Section 8-23 of the Connecticut General Statutes, the Plan of Conservation and Development has been evaluated for consistency with statewide growth management principles.

Principle	Findings
<p>1. Redevelop and revitalize regional centers and areas of mixed-land uses with existing or planned physical infrastructure.</p> <p style="text-align: center;">CONSISTENT</p>	<p>The City of Groton has historically been designated as a “regional center” in prior State Plans. This POCD recommends a number of strategies to redevelop and revitalize parts of the City and create mixed-use areas where physical infrastructure (water and sewer service) exists.</p>
<p>2. Expand housing opportunities and design choices to accommodate a variety of household types and needs.</p> <p style="text-align: center;">CONSISTENT</p>	<p>The City of Groton has a diverse housing stock and offers a variety of housing choices. In addition, the Plan promotes strategies to help address the housing needs of an aging population and for housing options that are more affordable.</p>
<p>3. Concentrate development around transportation nodes and along major transportation corridors to support the viability of transportation options and land reuse.</p> <p style="text-align: center;">CONSISTENT</p>	<p>The POCD recommends pedestrian-friendly mixed-use development in “centers” (nodes) and along transportation corridors where bus service is available.</p>
<p>4. Conserve and restore the natural environment, cultural and historical resources, and traditional rural lands.</p> <p style="text-align: center;">CONSISTENT</p>	<p>The POCD contains specific strategies to:</p> <ul style="list-style-type: none"> • protect natural resources, • preserve open space, • protect historic and scenic resources, and • address climate change and sea level rise.
<p>5. Protect environmental assets critical to public health and safety.</p> <p style="text-align: center;">CONSISTENT</p>	<p>The POCD also contains recommendations to protect water quality (both surface and ground), preserve floodplain areas, minimize runoff, and other similar strategies.</p>
<p>6. Integrate planning across all levels of government to address issues on a local, regional, and statewide basis.</p> <p style="text-align: center;">CONSISTENT</p>	<p>The POCD has been used, and will be used, to coordinate efforts with:</p> <ul style="list-style-type: none"> • adjacent communities, • regional organizations, and • state agencies.

9

CONCLUSION

The Plan of Conservation & Development has been developed to prepare the City of Groton for the challenges that it will face during the next decade and beyond.

Throughout the preparation of this Plan, a great deal of information was collected, analyzed, presented and discussed during many interviews, meetings and workshops. Through this process, an overall vision, general goals and policies were developed, resulting in the specific strategies summarized throughout this Plan.

The City of Groton is growing and changing. New residents are moving into the City, land uses are being changed, and large local businesses (Electric Boat and Pfizer) are adapting to changed opportunities. The social and fiscal issues which affect the City are also changing.

As change occurs, there is also a desire for things to remain the same. For example, City residents want to protect important resources and preserve the attributes that make the City of Groton special to them.

Balancing growth and change with the special attributes of the City is part of what this Plan of Conservation and Development is all about. The Plan is intended to guide future growth and change to preserve the best of Groton while accommodating the needs of the community.

The Plan is built upon the previous plans prepared by the City and incorporates input from residents, City officials, and the Planning and Zoning Commission. The Plan is intended to help guide and shape City actions over the next decade or so.

While the Plan is an advisory document, the policies and recommendations in the Plan identify actions and strategies which are felt to be in the best interests of the community.

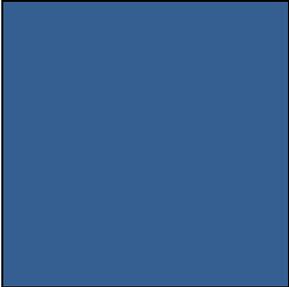
In summary, Groton residents have prepared this Plan to guide the future conservation and development of the community and preserve and maintain the overall quality of life in the community.

Still, the most important part of the planning process remains to be done. Once adopted, the Plan must be implemented in order for its strategies to be put into action and its vision fulfilled.

The Plan is intended as a guide to be followed in order to enhance the quality of life and the community character of the City of Groton. It is intended to be flexible in order to allow adjustments in the manner that specific goals and objectives are achieved while maintaining stability in the long-term goals of the community.

During implementation, some goals may be achieved quickly, some goals will be achieved incrementally as time and money allow and the premise behind others will undoubtedly change, calling recommendations into question. Such situations are to be welcomed since they will mean that the Plan is being used.

The Plan of Conservation and Development is not static but a living document that is meant to be referenced, challenged and if changing circumstances warrant, amended to keep in tune with the goals and vision of the community. If the City of Groton is successful in implementing this Plan, the character of the community will be preserved and enhanced, making it an attractive place to work, shop, play, and live.



ACKNOWLEDGEMENTS

Planning and Zoning Commission

Paul Kunkemoeller Chair
Irma Streeter Vice-Chair
Girard Keeler Secretary
David Rose
Susan Bergeron
Aundre Bumgardner

William Robarge Alternate

City of Groton

Keith Hedrick Mayor

Dennis Goderre, AICP City Planner (from 07/18)
Barbara Goodrich City Planner (to 06/18)
Carlton Smith Zoning and Building Official

Technical Assistance



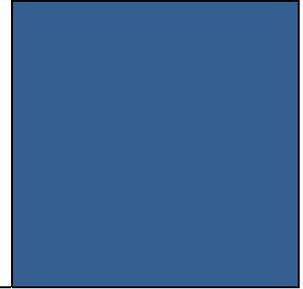
Planimetrics

Glenn Chalder, AICP.
Planimetrics, Inc.

Jenna Gosselin GIS Coordinator, Town of Groton

Special thanks to the Town of Groton for the GIS mapping used in the Plan of Conservation and development.

RESPONSIBILITY LEGEND



Acronyms For Leaders And Partners

BPC	Beach and Parks Committee
Council	City Council
CWC	Conservation / Wetlands Comm.
CVWG	Coastal Vulnerability Working Group (NEW)
DEEP	Connecticut Department of Energy and Environmental Protection
DOT	Connecticut Department of Transportation
EDC	Economic Development Commission
EPHD	Eastern Point Historic District Commission
Fire	City of Groton Fire
HMC	Harbor Management Commission
LLHD	Ledge Light Health District
Mayor	Mayor
Police	City of Groton Police / Traffic Authority
PZC	Planning and Zoning Commission
PW	Public Works
SECCOG	Southeastern Connecticut Council of Governments
SECTER	Southeastern Connecticut Enterprise Region
Staff	City of Groton Staff
TRHP	Thames River Heritage Park
TRIP	Thames River Innovation Partnership
TOG	Town of Groton
UC	Utilities Commission
WPCA	Water Pollution Control Authority

NOTE - The “priority” numbers in the strategy tables in the POCD are intended for general guidance only.

