



TOWN OF FARMINGTON
2018 Addendum to the
Plan of Conservation and Development

Approved November 15, 2017

Town of Farmington

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INTRODUCTION

INTRODUCTION

Legal Basis for a Plan of Conservation and Development

The legal basis for municipal planning is found in Connecticut General Statutes – Title 8 Chapter 126 Section 8-18 through 8-30f. Section 8-19 allows for the creation of a local planning commission and Section 8-23 requires the preparation, amendment and adoption of a Plan of Conservation and Development (POCD) every ten (10) years.

Consistency with State and Regional Plans and Growth Management Principles.

The Commission has reviewed the 2013-2018 State Plan of Conservation and Development and the Capital Region Council of Governments 2014-2024 Plan, entitled Capitol Region Plan of Conservation and Development : Vibrant. Green. Connected. Competitive. The Commission has concluded that this plan is completely consistent with the state and regional plans of conservation and development.

Public Act 2009-230 defined smart growth and required that smart growth provisions of state, local and regional plans of conservation and development be consistent.

CGS Section 8-23 requires all future POCD's to note any inconsistencies with the growth management principles articulated in the statute. These principals are as follows:

- ***Redevelopment and revitalization of commercial centers and areas of mixed land uses with existing or planned physical infrastructure;***

The town is fortunate to have two town centers, Farmington Center and Unionville Center. All infrastructure is in place and the plan discusses the development and revitalization of these centers. The areas are already zoned as village districts pursuant to State Statute and extensive planning and public participation has already taken place.

- ***Expansion of housing opportunities and design choices to accommodate a variety of household types and needs.***

The plan includes an entire section of housing and housing affordability. The town has existing and allows for housing of varying densities. The town has affordable housing zones that allow increased density in exchange for affordable restrictions.

The town is currently close to 9 % of its housing stock being affordable as defined by CGS 8-30g. The town fully intends to achieve the states 10% goal and continue to address affordability issues as a way to retain and attract young professionals.

- ***Concentration of development around transportation nodes and along major transportation corridors to support the viability of transportation options and land reuse;***

This plan focuses on the development of Unionville and Farmington Center, and the development of the UCONN Medical Campus area. These areas are along major transportation corridors with access to Interstate 84, CT State RT 9, CT Transit bus service and the CT Fast Track. There is also a tremendous opportunity to plan for a new form of development around the Farmington River Canal Multi-Use Trail which, when complete, will run from New Haven to North Hampton MA.

- ***Conservation and restoration of the natural environment, cultural and historical resources and existing farmlands;***

Farmington has placed a great deal of emphasis on the preservation of open space and its historic resources. Farmington has spent millions of dollars preserving open space, has a scenic road ordinance and has established two local historic districts. Today some of its greatest assets are its rural character, its history, its open spaces, its forests, its farmland, its historic homes, and attractive tree lined streets. This plan recognizes this and strongly recommends the preservation of these assets.

- ***Protection of environmental assets critical to public health and safety;***

The plan strongly recommends the preservation of areas of inland wetlands, rivers and streams, groundwater and aquifer recharge areas and large unprotected forest blocks.

- ***Integration of planning across all levels of government to address issues on a local, regional and state-wide basis.***

The Commission has completed a detailed review of the State and Regional Plan's of Conservation and Development and the recommendations contained herein are completely consistent with these plans.

SECTION 1 – Existing Conditions

SECTION 1

Chapter 1- Statement of Issues and Opportunities

Farmington is recognized as an affluent, inner ring suburb of the City of Hartford. But there is so much more. Farmington is rich in history. Farmington has an excellent reputation as an attractive and fiscally responsible community with one of the best school systems in Connecticut. It is highly desired as a place to live and operate a business.

The town is interested in promoting a compact, mixed use and walk-able type of development in its town centers while maintaining the high quality residential neighborhoods for which it is known. All new development will be sustainable, environmentally friendly and accessible to all through the use of universal design principals.

With proper planning, Farmington can promote the type of growth it desires and at the same time protect its quality of life and its natural and historic resources.

Farmington's last Plan of Conservation and Development (POCD) was adopted in 2008. That plan has served the town well and many, if not all, of the recommendations remain relevant today.

The 2008 plan set good policy for the community and the vast majority of its sections remain relevant today and will continue to be into the future. For the most part there is very little need to amend many of these chapters and they will remain in effect. In areas of conflict, the 2018 addendum will prevail.

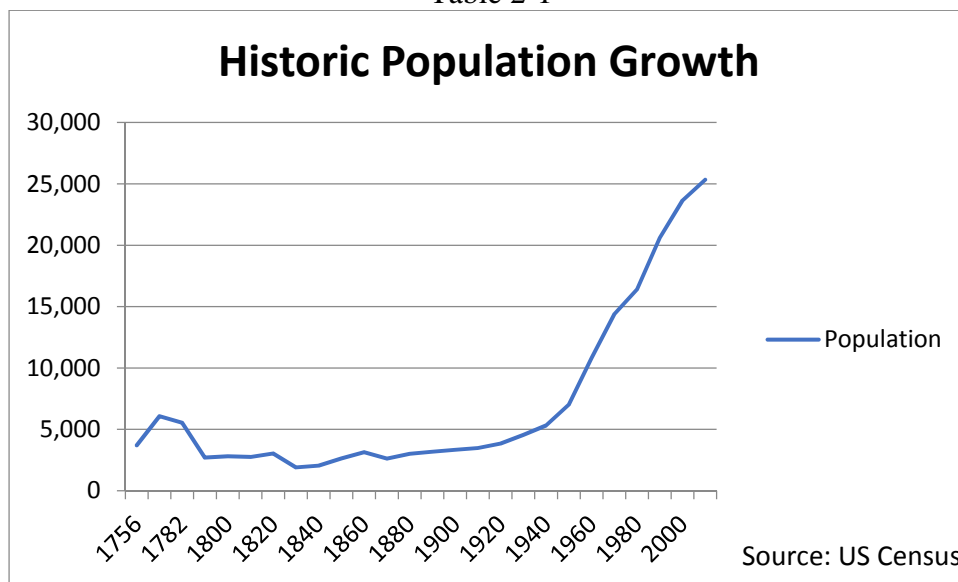
Section 8-23 of the Connecticut General Statutes requires municipalities to amend and adopt a POCD for the municipality at least every 10 years.

This 2018 Addendum to the POCD is intended to be a re-statement of the 2008 POCD with updates, where necessary, and an introduction of new ideas and specific actions, which Farmington must take now to maintain its high quality of life and favorable tax environment that its residents and businesses have come to expect and deserve.

Chapter 2- Population Growth

A very important indication of the health of a community is population growth. Farmington's population remained fairly steady from 1750-1920. Then growth began after 1920. As a result of the Post World War II baby boom, the proliferation of the automobile and suburbanization, Farmington's population exploded with 30-50% increases per decade between 1940 and 1980.

Table 2-1



Note: pre-1800 declines were result of towns breaking away from Farmington.

Table 2-2
Historic Population Growth

YEAR	POPULATION	% GROWTH
1756	3,707	—
1774	6,069	63.70%
1782	5,542	-8.7%
1790	2,696	-51.4%
1800	2,809	4.20%
1810	2,748	-2.2%
1820	3,042	10.70%
1830	1,901	-37.5%
1840	2,041	7.40%
1850	2,630	28.90%
1860	3,144	19.50%
1870	2,616	-16.8%
1880	3,017	15.30%
1890	3,179	5.40%
1900	3,331	4.80%
1910	3,478	4.40%
1920	3,844	10.50%
1930	4,548	18.30%
1940	5,313	16.80%
1950	7,026	32.20%
1960	10,813	53.90%
1970	14,390	33.10%
1980	16,407	14.00%
1990	20,608	25.60%
2000	23,641	14.70%
2010	25,340	7.20%
2014	25,515	

Source: US Census

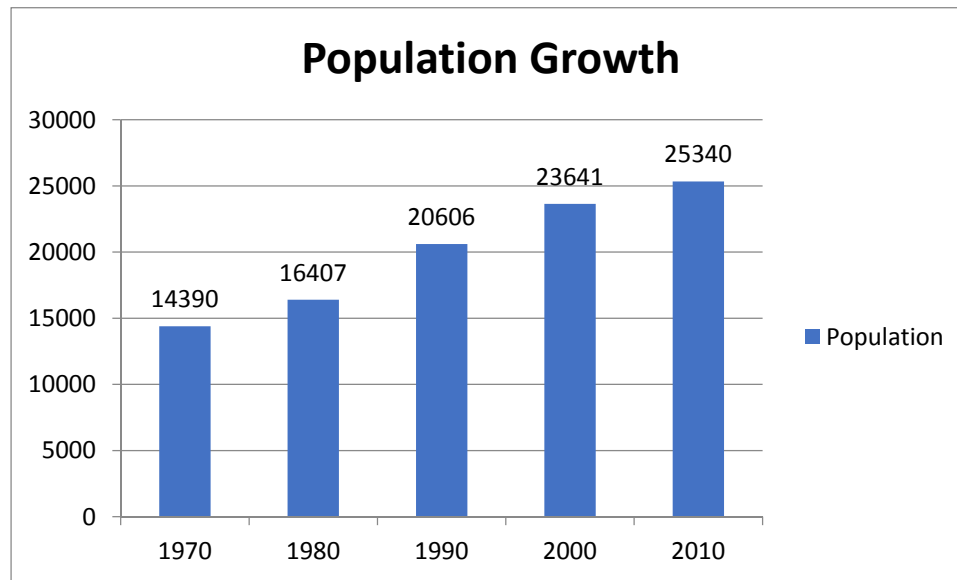


Table 2-3

Year	% growth
1980-1990	25.6 %
1990-2000	14.7 %
2000-2010	7.2%

Source: US Census

As shown in the table and chart above Farmington’s population growth has been slowing down in each decade since 1980. This is clearly an indication of less and less easily developable land, a recession in 2002 and the severe economic downturn which began in 2008.

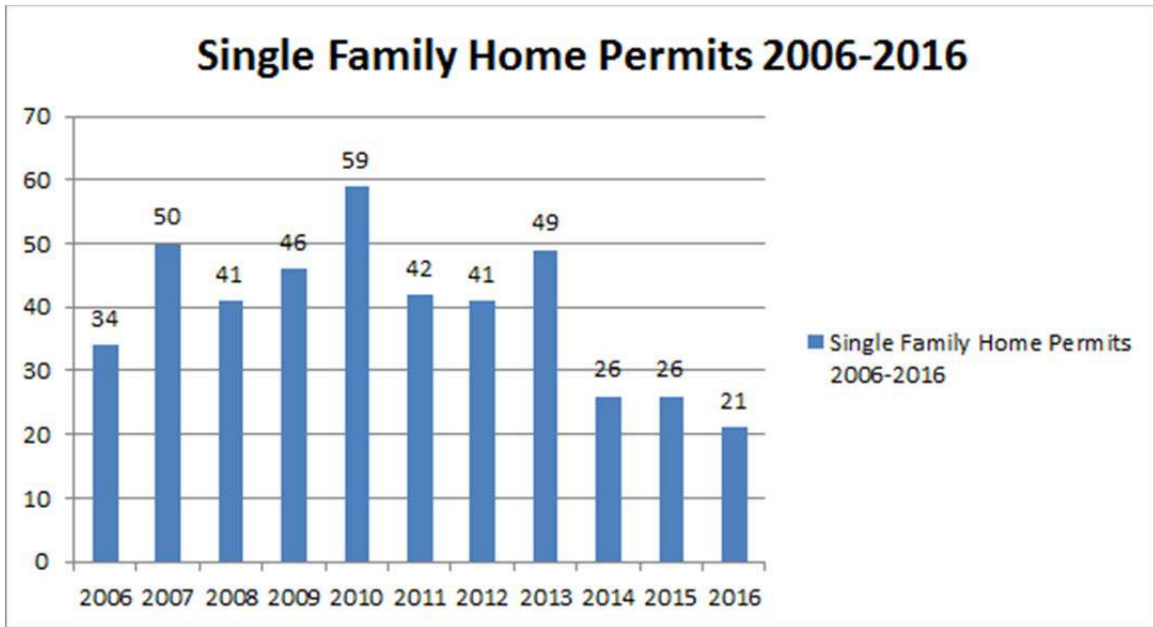
2.1 Single Family Home Construction

"In Connecticut, permits, starts, and completions on single-family homes, however, continue to fall short of their pre-recession average from FY's 2004 to 2007, with permits 43.6% below, starts 54.7% short, and completions 54.1% below their pre-recession average." (Source - FY 2016 – FY 2017 Biennium Economic Report of the Governor CT OPM)

With regard to building permits issued in Farmington for single family homes, the strength of the Farmington market is clearly evident. The chart below displays permits for single family homes issued in Farmington between 2006-2016. Most

notable is the fact that there was no decline in permits after the start of the 2008/2009 economic recession. Connecticut and most other communities have still not recovered from the last recession. The decline in permits from 2014-2016 is clearly an indication of the lack of buildable land.

Table 2-4



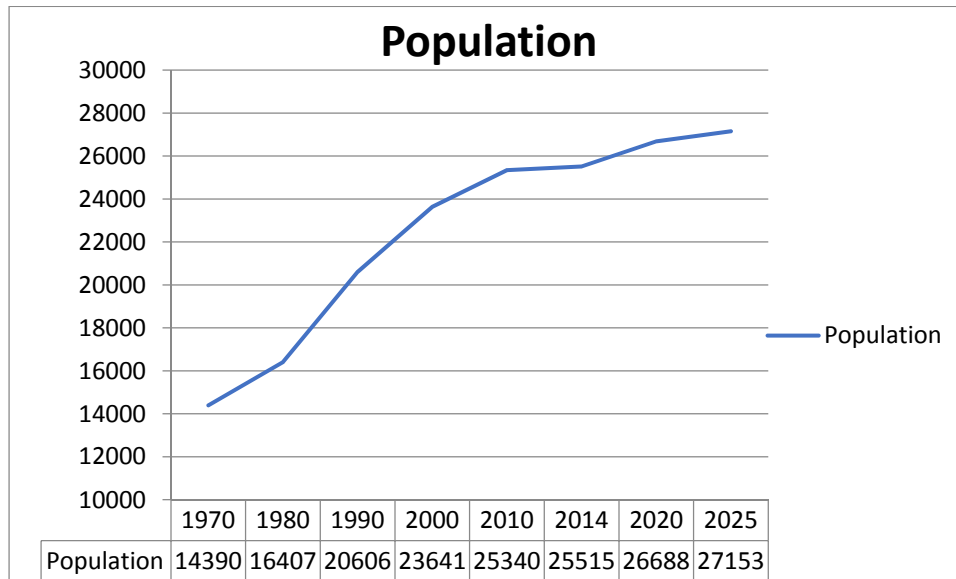
Source: Town of Farmington

2.2 Population Projections

The State predicts very little population growth for Farmington in the next 10 years. The CT Data Center projects that the population will increase to 26,888 by 2020. This would be a modest 5.3% increase from 2010.

Another projection indicates that the town will grow by only 1,683 residents between 2015-2025. Based on the lack of developable land, declining single family housing starts, declining household size and the aging population it is difficult to dispute these projections.

Table 2-5

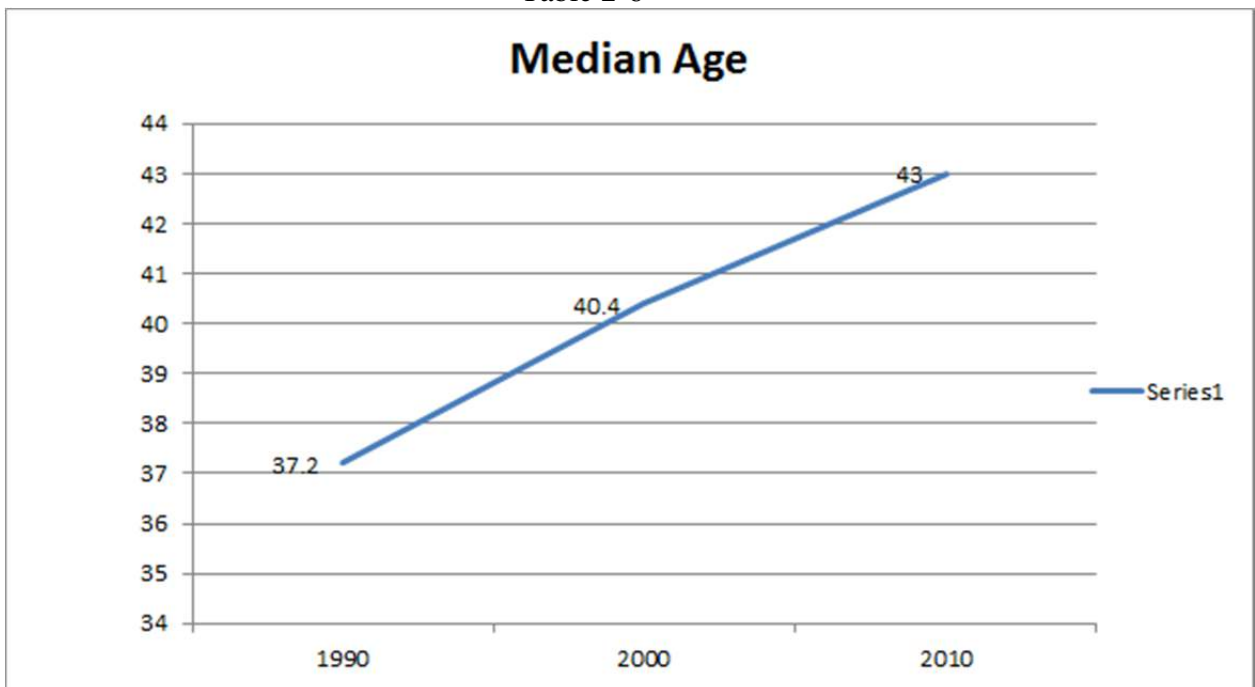


Source: US Census

2.3 Household Composition

The median age in a town is another indicator of what is occurring with the overall population. In 2000 the median age was 40.4 years old, in 2010 this figure rose to 43 years old and will continue to increase into 2025.

Table 2-6

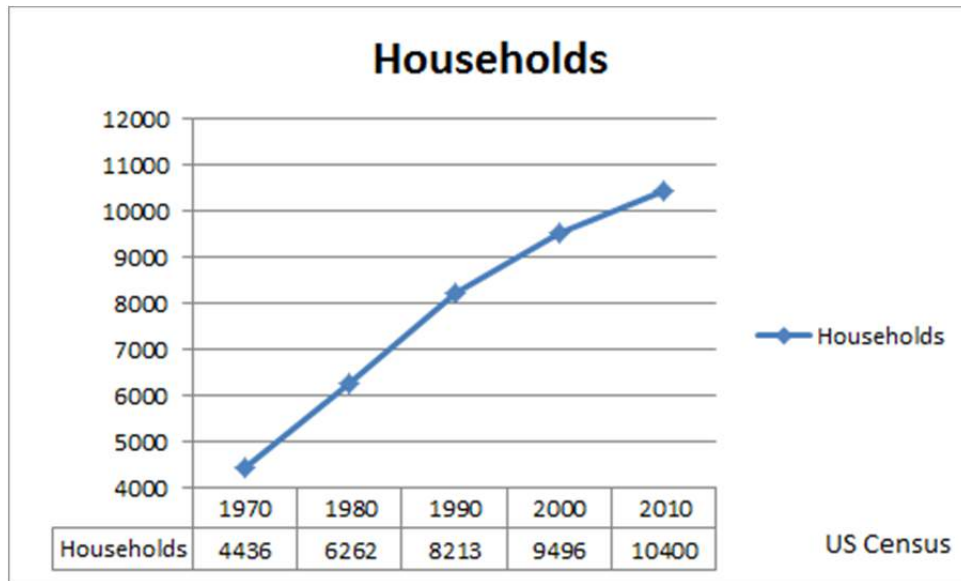


Source: US Census

2.4 Households

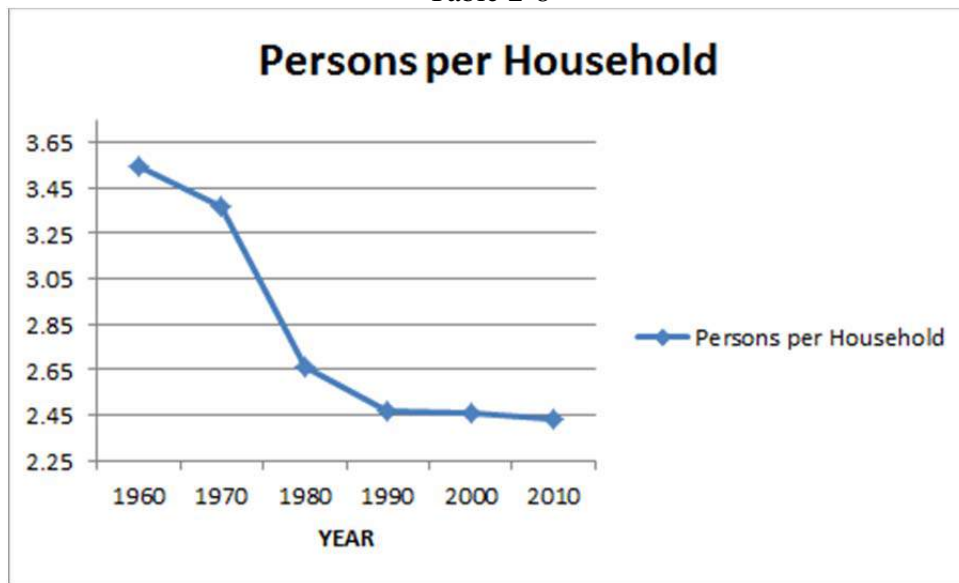
As the chart below indicates the number of households has increased steadily since 1970. The number of households increased from 9,496 units in 2000 to 10,400 units in the year 2010. This is a 9.5 % growth rate as compared to a 15.6 % growth rate between 1990-2000.

Table 2-7



The average number of people living in each household, household size, is having a significant impact on Farmington's population. If this figure did not change from its 1960 level of 3.55 the 2010 population in Farmington would have been 36,920 as opposed to the actual 2010 figure of 25,340. As the chart below indicates there are fewer and fewer people living in each household in Farmington. This is a result of the aging population and life style decisions to put off or not have children.

Table 2-8



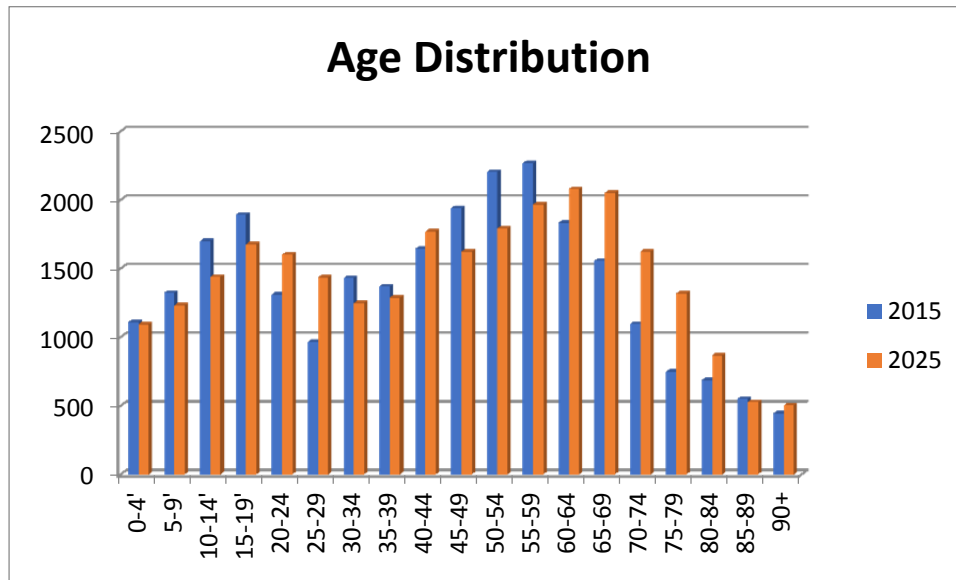
Source: US Census

2.5 Age Distribution 2015-2025

The most significant changes between 2015 and 2025 will be changes in Farmington's age distribution. The most significant change will be the decline in the working age cohort (25-44) and the dramatic increase in the 60 plus age cohorts.

This is the aging of the baby boomers. The aging of this population, the fact that many in this group will be on fixed incomes and the need to provide services to this group will have significant planning consequences on Farmington.

Table 2-9



Source: CT Data Center

To simplify the analysis and understand the changes there are 3 basic ages groups in any community. These age groups will have differing needs and concerns. The groups include;

- Children (ages 0-19)
- Adults (ages 20-59)
- Mature Residents (ages 60 and up)

The table below indicates the projected changes in the next 10 years.

Table 2-10

Age Group	2015	2025	% change
Children	6,028	5,444	-9.7% decline
Adults	13,139	12,732	-3% decline
Mature Residents	6,925	8,977	+30% increase

This information will help decision makers understand who they are planning for and what will be the demands on the government and the local economy in 2025.

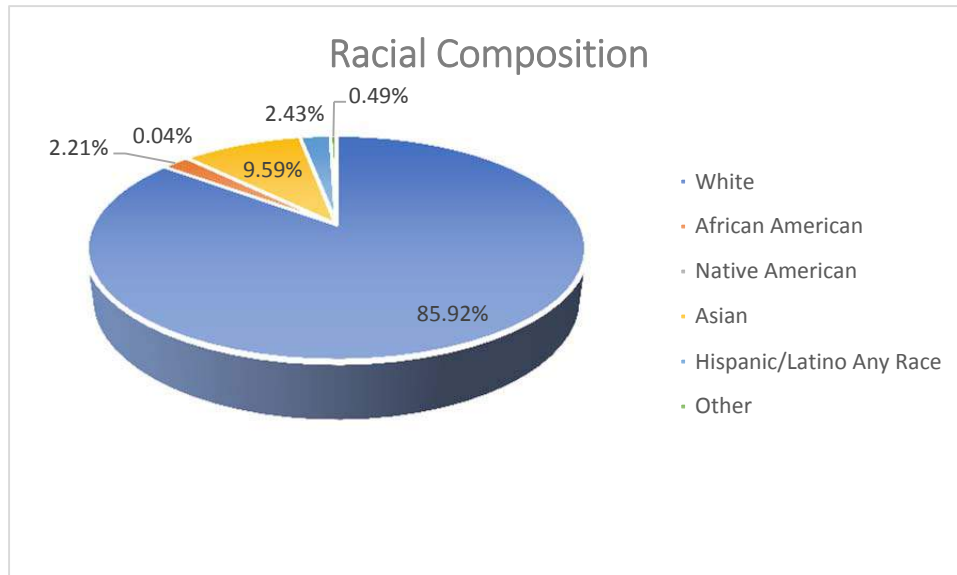
Table 2-11

Age Group	Needs / Wants
Children (ages 0-19)	Child care, pre-school programs, schools, recreation programs, busing
Adults (ages 20-59)	20-34 – Starter homes, rental units, entertainment venues, 35-54 –Starter / trade up units, family programs 54-60 –Smaller homes, second homes, rental units, lower maintenance homes
Mature Residents (ages 60 and up)	Smaller homes, second homes, rental units, lower maintenance homes, assisted housing, elderly housing, elderly programs (recreation, transportation, meals on wheels), universal design, tax relief.

2.6 Racial Composition

As indicated below there has been very little change in the racial make-up of the town. Farmington remains 86% white. Farmington’s Asian population has grown significantly over the last few decades. Close to 10% of the population can trace their origins back to Asia.

Table 2-12



Source: US Census

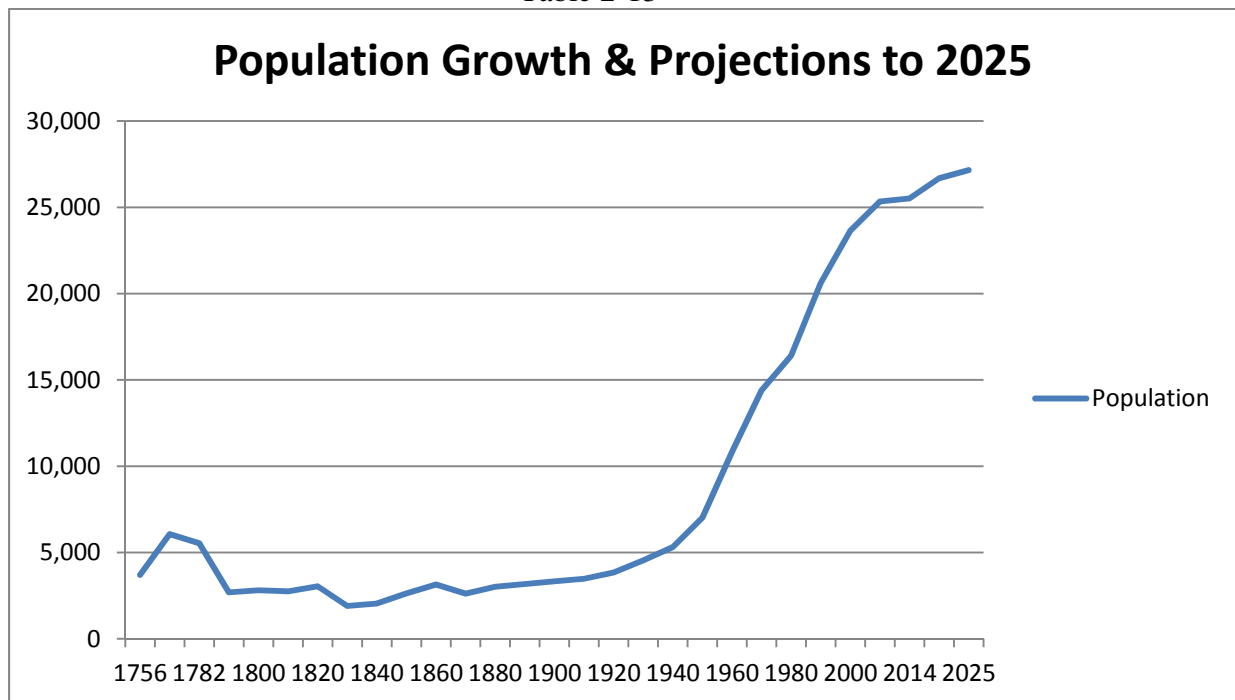
2.7 Conclusion- Population Growth

Farmington has seen its growth period and in reaction to that growth has spent millions of dollars preserving open space. Farmington has become a mature community whose land is almost fully developed or preserved as open space.

Farmington's population growth has now leveled off and it is projected to remain fairly constant, with very little if any growth into the future.

There will be fewer and fewer single family homes constructed as the amount of developable land declines. The household size will continue to decline and Farmington's population will be much older in 2025 with a 30% increase in the over 60 age groups.

Table 2-13



Source: US Census and CT Data Center

Chapter 3- Land Use and Zoning

The Town of Farmington is comprised of 18,377 acres or 28.7 square miles.

3.1 Current Zoning

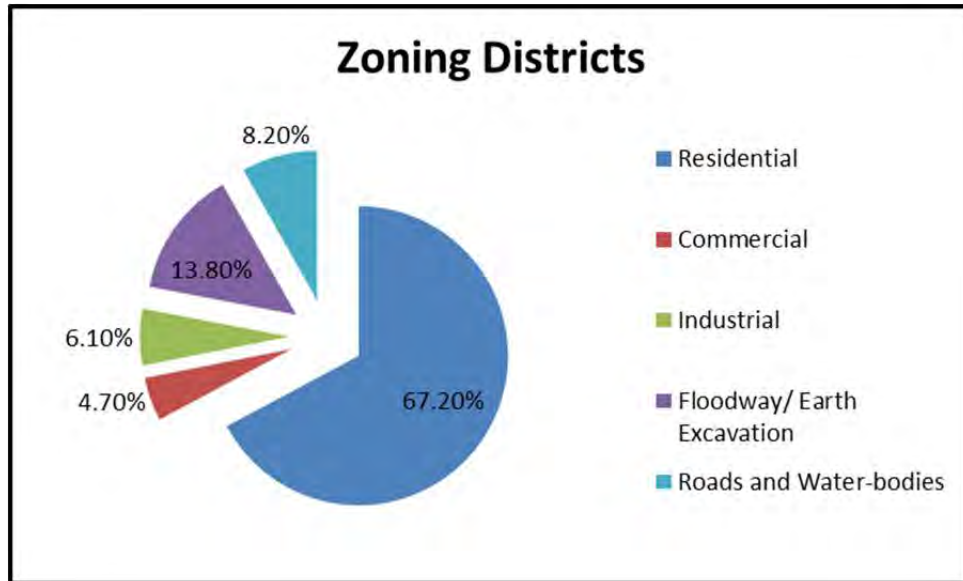
The town is divided into residential, commercial, industrial, floodway and earth excavation zones. Zoning is the most important consideration when evaluating the suitability of the land for future development. The table below shows that 67% of the town is zoned for residential development. The majority of the residential land is zoned R40 and R80 requiring lots of approximately one and two acres, respectively.

The table below displays these designations and the amount of land in each zoning designation.

Table 3-1

Zoning Classification	Land Area	% of town
Residential	12,343 acres	67.2%
Commercial	855 acres	4.7%
Industrial	1,112 acres	6.1%
Floodway/ Earth Excavation	2,536 acres	13.8%
Roads and Water-bodies	1,531 acres	8.2%
TOTAL	18,377	100%

Table 3-2



3.2 Existing Land Use

The 2008 POCD provides an exhaustive analysis of land use change over the years. Most important to this 2018 update is remaining land available for development.

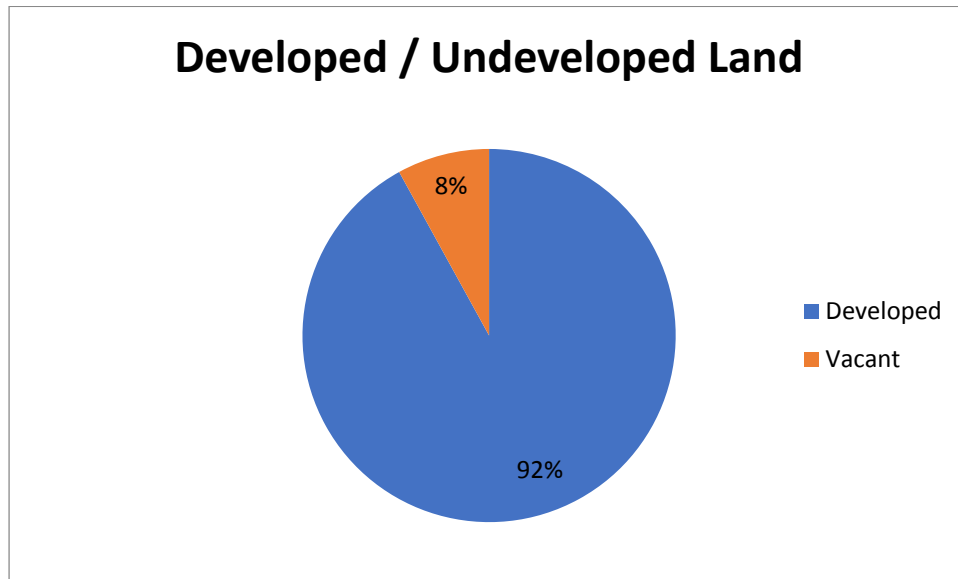
In order to determine the remaining land, the 2008 vacant land map was used to determine which parcels had been developed and which parcels had been purchased as open space between 2008 and the present.

There was a significant amount of new development between 2008 and today. As displayed in the next Figure, there is now very little land left for new development.

In 2008 there was only 14.1 % of the town which was vacant and undeveloped. Today there is only 8.1 % of the town that is vacant and undeveloped. This includes 1,308 acres of vacant residential land and 196 acres of vacant non-residential land.

As noted the 75 acres of land reserved as fall zone for the transmission towers on RT 6 and 195 acres of land owned by the City of Hartford in the area of Deadwood Swamp are included as vacant residential land. It is highly unlikely this land will be developed. If these parcels were excluded the vacant residential land would drop to 1,039 acres and the total vacant land would fall to only 5.6 % of the entire town. The Town is effectively built out.

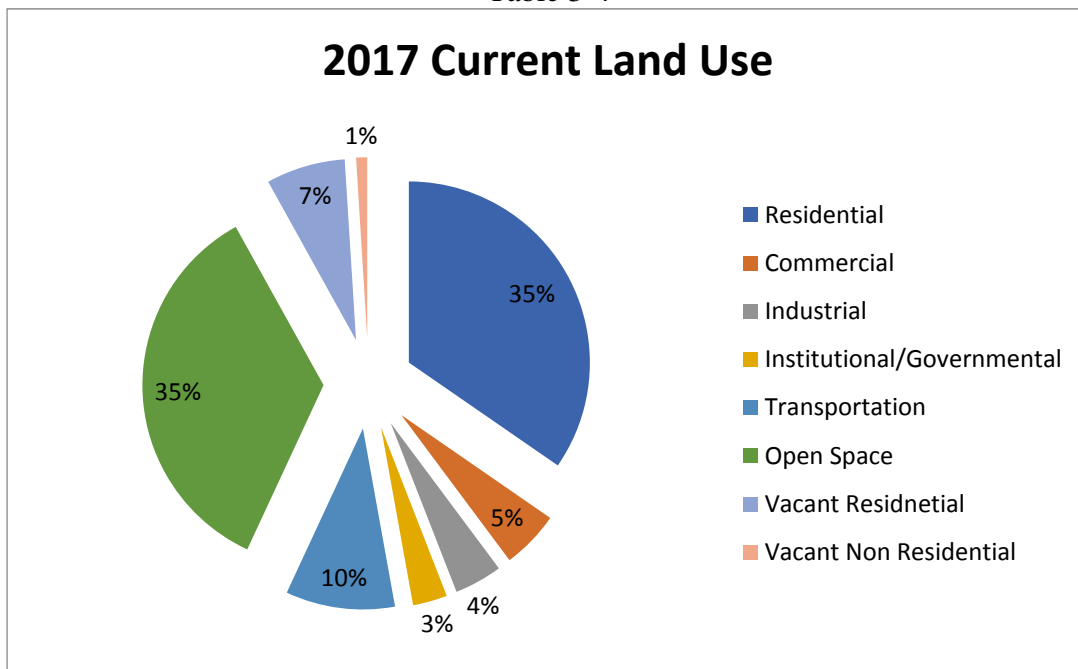
Table 3-3



The neighborhood analysis section of this update will discuss the remaining vacant parcels in detail.

The next figure and table display the breakdown of existing land use in 2017.

Table 3-4



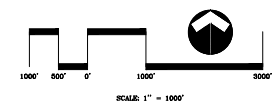
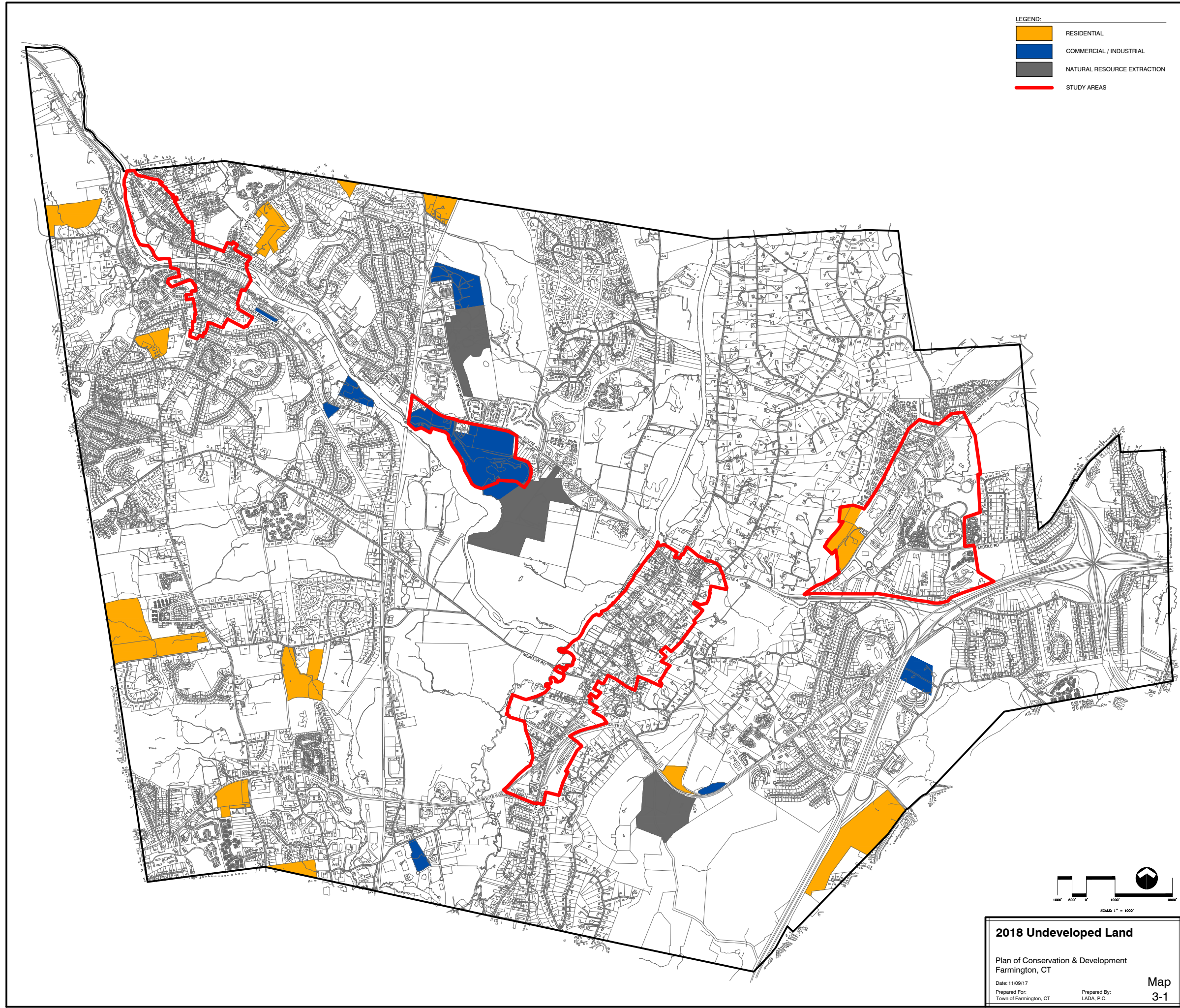
2018 Town of Farmington Plan of Conservation and Development
SECTION 1

Table 3-5
2017 Existing Land Use Summary

	LAND USE	ACRES	% OF TOWN
RESIDENTIAL:	SINGLE FAMILY	5,594	30.4%
	2-4 FAMILY	62	0.3%
	MULTIFAMILY	747	4.1%
	SUBTOTAL	6,396	34.8%
COMMERCIAL:	PROFESSIONAL OFFICE	451	2.6%
	GENERAL COMMERCIAL	493	2.6%
	SUBTOTAL	959	5.2%
INDUSTRIAL:	GENERAL INDUSTRIAL	545	2.9%
	EXCAVATION	251	1.4%
	SUBTOTAL	610	4.3%
INSTITUTIONAL:	GOVERNMENT/INSTITUTIONAL	566	3.1%
	SUBTOTAL	566	3.1%
TRANSPORTATION:	UTILITY/R-O-W	128	0.7%
	STREETS	1,610	8.6%
	SUBTOTAL	1,738	9.3%
OPEN SPACE:	RECREATION/OPEN SPACE	5,900	32.1%
	MAJOR WATER BODIES	373	2.0%
	PUBLIC SCHOOLS	187	1.0%
	CEMETERIES	19	0.1%
	SUBTOTAL	6,234	35.2%
VACANT LAND **:	VACANT RESIDENTIAL	1,308	7.1%
	VACANT NONRESIDENTIAL	196	1%
	SUBTOTAL	1,854	8.1%
Total		18,377	100.0%

** NOTE : The 75 acres of land reserved as fall zone for the transmission towers on RT 6 and the 194 acres of land owned by the City of Hartford in the area of Deadwood Swamp is counted as vacant residential. It is highly unlikely this land will be developed.

- LEGEND:
- RESIDENTIAL
 - COMMERCIAL / INDUSTRIAL
 - NATURAL RESOURCE EXTRACTION
 - STUDY AREAS



2018 Undeveloped Land

Plan of Conservation & Development
Farmington, CT
Date: 11/09/17
Prepared For:
Town of Farmington, CT

Prepared By:
LADA, P.C.

Map
3-1

Chapter 4 - Section I Conclusions

Upon review of the first three chapters very significant issues become apparent. These are issues that Farmington needs to address now in order to be prepared for the future. The issues are:

Demographics

- The population has grown much slower than previous decades. Projections indicate continued slow growth out to 2025.
- Farmington's population will be an increasingly older population.
- The baby boom generation - the percentage of the population in the 60 plus age cohorts will increase dramatically in the next 10 years. This trend will continue and that group will represent over 30% of Farmington's population in 2025.
- In 2025 the last of the baby boom generation will be turning 60. It is estimated that close to 9,000 residents will be over 60 years of age in 2025.
- Household Composition – the 5 and under age cohort is down significantly and those in the most productive age cohorts, ages 20 to 59, has and will continue to decline.
- It is a well-recognized fact that younger residents are fleeing the State for better jobs and more exciting lifestyles in walkable urban centers. Farmington is no exception. The lack of a higher density, walkable and mixed use town center will hurt the town's efforts to retain this younger population.

Land Use

- There has been a significant amount of development and open space acquisition between 2008 and the present.
- Farmington is built out. Only 8.1 % of the town is vacant and available for development. That number is reduced further by development constraints such as ownership, wetlands and steep slopes.
- The strength of the Farmington market is evident. Single family housing starts remained strong throughout the great recession of 2009-2011.

- The decline in permits from 2014-2016 is an indication of the lack of buildable land. This trend will continue and intensify as existing approved subdivisions are built out.
- Over 72% of Farmington's housing stock is single family homes on large lots. Communities with a higher percentage of owner occupied homes have historically done better. However, this may be changing as young people decide not to make the long term commitment of homeownership or can not qualify for a mortgage due to poor credit, lack of a down payment or student loan debt.
- Only 11% of the housing units in Farmington are studio or one (1) bedroom and 60% of the units are 3+ bedrooms. It is predicted that the millennial generation will create a strong demand for smaller units which Farmington does not currently have.
- The lack of smaller, modern and high quality rental units in Farmington will exasperate the disproportionately high percentage of persons over 65 when compared to the rest of the state.
- This aging population coupled with a lack of attractive rental options will become a very significant issue in Farmington. This will transpire as younger residents move to more urban areas with more rental options. This will cause the demand for large lot single family homes to decline. At the same time baby boomer homes will be coming on the market. This will happen as boomers pass away or as they are looking to downsize to rental units in more urban areas or to move to warmer climates. They will be unable to sell and will be forced to keep lowering their asking price, thus affecting the grand list.
- Farmington's dependence on the local property tax will become a much more significant issue. Due to the lack of vacant commercial and industrial land (196 acres) and declining housing starts annual growth in Farmington's grand list will continue to decline, property values may decline and the fixed costs of government will continue to increase. All this will occur as the state continues to cut aide to municipalities.
- Farmington will have to focus its efforts on higher density development in Unionville and Farmington Center and more effective utilization of the area around UCONN Medical and its industrial zones.
- Creating gateways into the town and a stronger sense of place will be crucial to future economic development efforts. It will also help foster a sense of pride for the community.

- The town's strong reputation and school system, the tremendous investment in the medical corridor, the Farmington River, the fact that over 30% of the town is preserved open space, the Farmington River Canal Rail Trail, the two local historic districts and the potential to create two compact, mixed use town centers will define the future of Farmington. These features are uniquely Farmington and will be key to shaping a prosperous future.

SECTION 2- Discussion and Recommendations

SECTION 2

Chapter 5- Natural Resources

5.1 Agricultural Resources

Agriculture has played a prominent role in the history of Farmington, not to mention serving as the basis for the Town's name itself. In the latter part of the 18th century and into the 19th century agriculture was the predominant occupation and land use in Town. Farms located along the valley floor produced hay and food crops while the hillsides were set aside for orchards and pasture land. Although the growth of manufacturing in Unionville provided substantial demand for farm products, by the mid 1800's agricultural production had begun to decline and persons employed in farming had dropped to less than 15 percent of Farmington's population. During the late 1800's local farmers began to phase out many crops, limiting farm production to primarily dairy products, vegetables, poultry and fruit.

This trend continued into the 20th century and today there are a total of 761 acres of land within the Town of Farmington used in agricultural operations or preserved for future use. This figure represents a reduction of 195 acres from the total reported in the 1995 Plan of Development. This change since 1995 is primarily due the loss of approximately 143 acres of farmland to development, as well as a conversion of 139 acres of farmland to non-agricultural open space.

Additionally, through the use of aerial photography, we have further refined the agricultural land total to identify the acres of land that are actively being farmed. This analysis reveals that currently 639 acres of the 761 acres of total farmland are actively being farmed. Of these 639 acres, 119 acres comprise 17 privately owned farms, while 503 acres are leased from the Town of Farmington, and 17 acres are leased from the State of Connecticut. There has been very little change since 2009. The current agricultural land is shown on Map #5-1. Most of the Town's farmland is concentrated in the Floodway and Southwest neighborhoods. With the exception of the one dairy farm located on Town Farm Road and two tree farms, agricultural products produced in the Town are generally limited to hay and vegetables.

The local agricultural economy has historically benefited from an abundant supply of favorable soils. In 1980 the Soils Conservation Service produced a list of soil types recognized as prime agricultural soils. These are soils that are permeable to water and air, nearly level in grade and not highly erosive. They are neither too acid nor alkaline, wet enough for crops but not subject to frequent flooding during the season of use and are not so stony that it interferes with cultivation by machinery.

According to the Hartford County Soil Survey of 1962 approximately 22 percent of the land area within Farmington formerly contained prime agricultural soils. These soils are illustrated on Map 5-1. Development over the years has reduced the acreage of prime agricultural soils available for agricultural activities. Five hundred and five (505) acres, or 79%, of the active farmland in Farmington is on prime agricultural soils.

FARMLAND PRESERVATION INITIATIVES

For the last twenty or more years there have been significant efforts made at the state, regional and local levels of government to assist in the preservation of farmland soils and farming activities. The Plan of Development for the Capitol Region of Connecticut contains a policy statement encouraging the conservation of food and non-food agricultural lands while the State's Plan for Conservation and Development sets forth as a goal the maintenance of in- state food producing capacity through the conservation and preservation of prime agricultural lands.

In 1981 the State of Connecticut enacted the Right to Farm Law which establishes certain protections for existing farms from nuisance complaints made by neighboring landowners. The State of Connecticut since 1983 has also required State agencies to assess the impacts of their sponsored projects on areas of farmland 25 or more acres in area.

As a complement to its purchase of development rights program the State adopted in 1984 Public Act 84-184, enabling municipalities to establish an agricultural land preservation fund. This fund may accept gifts or loans from private individuals or the municipality for the preservation or acquisition of farmland in fee or by the purchase of development rights.

Many communities in recognizing the contribution that farmland has made to their aesthetic character and quality of life have initiated a host of strategies to aid in the preservation of both active and inactive farmland. Recent studies have also concluded that this policy makes good fiscal sense since farms have been found to produce a net tax benefit due to the minimal amount of services they require.

In the 1960's and 70's, Farmington began an initiative to purchase the floodplain land along the curve of the Farmington River; this land was then leased to farmers. More recently, Farmington has continued this effort to continue active farming in town by purchasing two local farms: the Fisher Farm on Town Farm Road and the Hein Farm on Meadow Road. It is expected that these sites will continue to be farmed well into the future. Additionally, in order to preserve one of the last privately owned areas of actively farmed land in the floodplain; the Town completed a swap of land with Miss Porter's school. This will permit the school to develop an athletic field complex on a portion of property adjacent to the sewer treatment plant while the Town preserves prime farmland.

Farmington continues to identify farmland as an important natural resource within its Zoning and Subdivision Regulations. These regulations permit the protection and preservation of such resources by authorizing the use of mandatory cluster development on a given parcel of land. This regulation may reduce the development of a site by 50 to 75 percent. Farmington can also use this technique to augment the current Right to Farm Law described earlier. Clustering development on adjoining parcels of land could produce sizable buffers between new housing and existing farming activities thus ensuring greater compatibility between agricultural and non-agricultural land uses. In 1999 Farmington used the zoning regulations to direct clustered residential development away from an eight acre area of prime agricultural land along Farmington Avenue. This site was then encumbered with an agricultural easement to support the long-term use of this site for farming purposes.

PLANNING OBJECTIVES

1. Incorporate farmland, both active and non-active, into the Town's open space plan and land acquisition program.
2. Establish densities of population and development compatible with farming for those areas either dedicated to or adjoining such use and selected for preservation.
3. Monitor the vitality of farming operations within the Town.
4. Support existing and potential farming operations through the application of planning and zoning regulations.
5. Continue to lease Town owned agricultural land for active farming use and Community Supported Agriculture.
6. Support State and Regional efforts that encourage both the preservation of agricultural land and the economic viability for farms and farmers.
7. Continue to use the Farmland Viability Grants, Open Space and Watershed Grant Program and other programs that may be developed out of Public Act 228: Community Investment Act to continue the preservation of local agriculture.

5.2 Natural Drainage Systems and Floodprone Areas

Farmington's network of brooks, ponds and streams not only serves to drain the land surface but also provides sustenance for plant, fish and wildlife and recharges wetland areas and groundwater supplies. The transformation of fields and woodlands to impervious surfaces and lawns increases and accelerates the amount and velocity of runoff from a given site. This alteration of an area's natural hydrology may result in downstream flooding, increased channel erosion and sedimentation from greater peak flows and a substantial reduction in stream flow in periods of drought. Studies have also indicated that drainage from impervious surfaces may modify the temperature of receiving streams, thereby altering the habitat for aquatic life.

It is therefore important that we acquire an understanding of the hydrologic characteristics and function of the Town's natural drainage systems and their principal waterways and the individual and cumulative impacts exerted upon these systems from the development of land.

DRAINAGE BASIN DESCRIPTIONS

The Town of Farmington is composed of three major drainage basins; the Farmington River, Connecticut River and Quinnipiac River. For the purposes of this report these basins were further broken down for analysis into ten watersheds, the boundaries of which all extend into adjacent municipalities. These ten drainage basins are illustrated on Map 5-2.

UNIONVILLE BROOK

The Unionville Brook watershed contains approximately 1,000 acres of land within the Town of Farmington. Unionville Brook receives water from Lake Garda as well as an unnamed watercourse originating from the area of Coppermine and West District Roads, before discharging into the Farmington River. More than three-quarters of this basin is developed. There have been no recent incidences of flooding noted along the brook or its tributaries. Portions of the Unionville Brook system have been identified in a report prepared by the firm of Milone and MacBroom as a cold-water fishery.

ROARING BROOK

The smallest of the drainage basins profiled, Roaring Brook, drains an estimated 200 acres of land within Farmington. This watershed is almost completely developed with the exception of open land lying to the rear of several single family homes located along the east side of West Avon Road. Although this portion of the brook lies at the lower end of the drainage basin the brook does not regularly flood. Impacts to water quality and quantity will be most strongly influenced by activities occurring in Avon, where most of this watercourse's drainage basin is located.

SCOTT SWAMP BROOK

The Scott Swamp drainage basin, consisting of 2,350 acres, includes most of the land area comprising the southwest corner of Farmington. An extensive network of wetlands located north of Morea Road along the Farmington/Bristol border forms the headwaters of Scott Swamp Brook. Prior to discharging into the Pequabuck River the flow of water within the brook is augmented by several smaller unnamed brooks, which run in a north and south direction and are situated between Plainville Avenue and New Britain Avenue. Approximately one-third of this watershed is undeveloped, potentially leading to greater peak flows of water within this watercourse in the future. Flooding along the boundaries of this brook is infrequent.

PEQUABUCK RIVER

The 2,250 acres of land within this drainage basin contribute a flow of water, which enters the lower reaches of the Pequabuck River. The watershed is predominantly developed with much of its open areas found in the Farmington Flood Zone and the Shade Swamp Sanctuary. Flooding does occur along the flatter sections of the river, however this tends to be along undeveloped areas regulated by the local and federal flood protection laws and to a lesser degree within existing conservation areas.

FARMINGTON RIVER

As the last of the drainage basins herein discussed which discharges into the Farmington River, this designation was applied to the remaining land area, which does not drain into one of the four previous brooks or rivers. These lands drain overland or via an extensive number of minor or intermittent watercourses leading to the Farmington River. Included in this watershed is almost the entire land area designated as Flood Zone located north of Meadow Road. Over two-thirds of the property in this basin exclusive of this zone designation is presently developed. The Farmington River has flooded on a frequent basis along Meadow Road and Town Farm Road.

BATTERSON PARK POND

The Batterson Park Pond drainage basin is one of four subwatersheds of the Connecticut River described in this chapter. This basin is also one of three watersheds discussed which drains into a body of water as opposed to a brook or river. The 2,600 acres comprising the Batterson Park Pond drainage basin in Farmington account for more than three-quarters of the pond's entire watershed. Approximately three-fourths of the basin area is either developed or included within the boundaries of the Dead Wood Swamp. A network of wetlands and minor streams feed the pond from the southwest and north. This natural drainage system has been modified to some extent by the construction of I-84. There are no regular occurrences of flooding along these waterways which discharge into the pond.

WOODRIDGE LAKE

This drainage basin is partially bounded by I-84 and the University of Connecticut Health Center, and covers 600 acres. Over three-quarters of this acreage are currently developed. Significant flooding has occurred in recent years along one of several unnamed watercourses, which traverse this basin, specifically in the area of Ridgeview Drive.

METROPOLITAN DISTRICT COMMISSION RESERVOIR SYSTEM

The 1,100 acres of the Metropolitan District Commission (MDC) drainage basin lays out in a pattern, which generally follows the Route 4 corridor north of the I-84 interchange. Several large parcels of land within this watershed are owned by the City of Hartford, State of Connecticut and the MDC. Exclusive of these plots of land the basin is more than three-quarters developed. Over the last several years there has been no incidence of flooding along the minor watercourses, which enter the reservoir system from the south and west.

ROCKLEDGE BROOK

This drainage basin may be divided into that area which directly drains into Rockledge Brook and another subarea, which indirectly contributes runoff into this brook via Piper Brook. Of its 510 acres, over two-thirds are developed. While flooding has not historically been a problem in Farmington, it has been a constant occurrence in West Hartford where the brook is better defined. Several years ago the drainage pattern above this area of flooding was altered in an attempt to reduce its severity and frequency by redirecting much of the upstream water flow through Westfarms Mall's detention system.

QUINNIPIAC RIVER

The third major drainage basin in Town consists of 240 acres of land located on the eastern edge of Farmington's border with the Town of Plainville. This area of rugged terrain is primarily undeveloped and contains a large area of wetlands. There are no well-defined watercourses within this basin, which eventually drains into a tributary of the Quinnipiac River. Flooding is not a concern.

REGULATORY PROGRAMS

For the past 34 years Farmington has participated in the Federal Government's National Flood Insurance Program. Administered by the Federal Emergency Management Agency (FEMA), the program makes low cost flood insurance available within a member community in exchange for the Town's adoption of regulations intended to reduce potential damage from a flood event. In 1986 FEMA completed its detailed study of Farmington, producing floodway dimensions as well as elevations of the 100-year flood for seven rivers and brooks including the Farmington and Pequabuck Rivers, Roaring Brook, Unionville Brook, Scott Swamp Brook, Poplar Swamp Brook and the Woodridge Lake Inlet. The most recent mapping of the flood areas occurred in 200 While this information has been incorporated into Farmington's regulatory program, the Town has chosen to

maintain more stringent requirements for development along the Farmington River between the railroad overpass and the Pequabuck River.

Thus far Farmington's experience with this program has been very positive. According to figures last released by FEMA there are 131 properties carrying flood insurance policies in Town. Over the duration of the Town's membership in this program only one property has submitted a claim in connection with more than one flooding incident.

The State of Connecticut implemented three regulatory programs during the 1980's aimed at reducing the incidence of flooding as well as preserving minimum water volumes within waterways.

In 1985 the State mandated the use of erosion and sedimentation controls in conjunction with developments which disturb a minimum of one-half acre of land. This law has helped preserve the capacity of a watercourse by substantially reducing sediment carried off nearby lands by storm water runoff.

Connecticut's dam inspection program provides for the inspection of both large and small, public and private dam structures. Inspectors employed by the Department of Environmental Protection have distributed inspection reports to municipalities and private individuals alike and mandate repairs if required in order to prevent possible downstream flooding.

The Connecticut Water Diversion Act regulates the withdrawal and diversion of both groundwater and surface waters in an attempt to protect the supply of water available within a given drainage basin for other uses. While this statute goes a long way to ensuring the minimum flow of water within a watershed this program should be coupled with a complementary land use plan at the local level to ensure the achievement of this objective.

As previously mentioned, Farmington's Flood Zone Regulations have satisfactorily complemented the minimum standards established by FEMA. The configuration of the existing Flood Protection Zone and Flood Perimeter Overlay Zone was developed from data earlier compiled by the Army Corps of Engineers. These boundaries which encompass areas along both the Farmington and Pequabuck Rivers are of greater size than that presented in FEMA's 1986 and 200 study. This system has provided the Town with an extra level of protection.

The federal government has promulgated regulations concerning non-point source runoff. The storm water program initiated in 2004 requires towns such as Farmington to begin to monitor the quality of storm water discharges into rivers and streams, subsequent Phases require the implementation of best management practices.

The Town Plan and Zoning Commission's decision in 1987 to legislate the maximum site coverage within nonresidential zones at 40 percent has had a profound impact upon the Town's drainage system. Compared to a site completely covered by impervious surfaces a site which has its coverage restricted to only 40 percent will generate slightly less than 50 percent as much water runoff. Furthermore research in the 1990's has determined that the water quality in a stream has a direct correlation to the percentage a drainage basin is covered with

impervious surfaces. Degradation of water quality has been associated with impervious coverage percentages of just over ten percent. The Zoning Regulations allow for coverages up to 50% with a 5/6 majority vote. Such requests should include detailed stormwater reports discussing best management practices to insure no adverse impacts. This plan also recognizes the value of walkable mixed use higher density development in the towns urban centers. As such the Zoning Regulations in Farmington and Unionville Centers allows up to 85% lot coverage. As developable land becomes more and more scarce the Commission should consider greater impervious coverage coupled with best stormwater management practices in its industrial zones. The Farmington River Watershed Association completed an impervious surface study of Farmington several years ago and concluded that a number of the Town's watersheds were at or just above the ten percent threshold. This study was complemented by the recent inventory of natural resources done by Milone and MacBroom, where actual water quality sampling was performed. These results would seem to point to the need for stricter erosion and sedimentation policies coupled with a greater need to control the quality of non-point storm water runoff.

Many communities during the 1980's as part of their storm water management program have adopted a zero net increase runoff policy. This program requires the detention of storm water on a parcel undergoing development to a point where the post development peak runoff would not exceed the peak volume generated from the site in its prior natural state. While this approach may initially sound attractive, studies have shown that detaining water and releasing it over a longer period of time on sites located in the lower reaches of a watershed may have the effect of increasing peak flows and the incidence of flooding in the receiving watercourse. Therefore it has been recommended that this policy be applied only on a site-by-site basis after assessing the hydrology of the subject watershed and the receiving watercourse. In an effort to acquire this information the Town of Farmington recently included a proposed Town wide Drainage Study as part of its Capital Program. More recent studies have concluded that a policy of stressing the infiltration of storm water runoff from developed sites will have a very positive effect on stream quality and volume.

PLANNING OBJECTIVES

1. Initiate a Town-wide Drainage Study to assist in the reduction and prevention of flooding and the maintenance of adequate volumes of water within Farmington's brooks and streams. Invoke a net zero runoff policy for those areas of Town as recommended by the abovementioned study. Incorporate the recommendations of the new DEP storm water quality manual into the review process of subdivision and site plans.
2. Ensure that the development of Town owned property within the floodplain preserves the existing flood storage capacity.
3. Maintain flood protection standards along the Farmington River that are in excess of those prescribed by FEMA.
4. Aggressively enforce erosion and sedimentation regulations to prevent the filling of waterways and potential flooding.

5. Work with landowners during the redevelopment process to encourage the flood proofing of existing structures situated below the 100-year flood elevation.
6. Vigorously protect areas of wetlands in order to reduce the incidence of downstream flooding. Provide the Inland Wetlands and Watercourses Agency with greater technical expertise at the staff level.
7. Monitor changes and trends in rainfall amounts and frequency of flooding events including intensity and duration. Adjust regulatory standards and parameter as necessary.
8. To ensure efficient use of valuable industrial land consider greater impervious coverage coupled with best stormwater management practices in its industrial zones.

5.3 Groundwater

Farmington's groundwater system represents the greatest source of the Town's potable water supply. It is also a major component of the natural hydrologic cycle. In addition to being withdrawn from the ground into the water system, groundwater contributes to the supply of water within wetland areas and watercourses. Groundwater may, in many instances, provide the only source of water to a perennial stream in times of drought.

WATER SUPPLY

With the 1985 merger of the Farmington Water Company with the Unionville Water Company and the subsequent disconnection of the Metropolitan District Commission's water supply from the Unionville Water Company's distribution system in 1995 it was estimated that 90 percent of Farmington's population depend on groundwater sources for their water supply. This figure was up from 75 percent just 10 years prior.

In 2004 a connection was reestablished with the water system owned by the Metropolitan District Commission. This will stabilize the withdrawal rates of groundwater from the Town's system of aquifers and permit the system to function without disruption during peak summer times. Most recently the Unionville Water Company was acquired by the Connecticut Water Company.

The Town's groundwater resources have been investigated in several reports since 1950. The most definitive works dealing with potential well yield and groundwater quality were undertaken in 1976 and 1980. These reports indicated that approximately 14 square miles of Farmington was underlain by a stratified drift aquifer. The most favorable locations within the aquifer for the future withdrawal of groundwater were identified in the 1980 study. These areas, which were described as potentially yielding over 250 gallons of water a minute, are shown on Map 5-3. Since 1982 the Unionville Water Company has developed a new well in one of these areas. The Connecticut Sand and Stone well, located south of Farmington Avenue approximately 1,700 feet east of the New York, New Haven, Hartford

railroad trestle, yields over 600 gallons of water per minute. With the connection to the MDC system it is doubtful that additional underground supplies will be identified and developed.

WATER QUALITY, CONTAMINATION AND PROTECTION

The quality of the groundwater which supplies the Unionville Water Company system is generally very good with only minimal treatment required at each groundwater well site. However the utility does not own the land surrounding these well sites and for the most part depends upon the establishment of a 200-foot easement to ensure their protection. In the 1990's the company had to develop a special filtration unit for water produced at the Charles House well field. This was the result of a moth-proofing agent discovered in that water supply. There have been extensive studies of that source of contamination, including a remedial action plan, which have involved state DEEP and DPH.

Threats to the quality of the groundwater supply prompted the initiation of several regulatory and monitoring programs at both the state and local levels of government.

The State of Connecticut began its effort with the institution of a groundwater classification system. Modeled after the system used for surface waters, the groundwater system not only describes the existing quality of groundwater sources within the State but also establishes future goals for water quality and is used by the Department of Environmental Protection in the regulation of groundwater discharges from nonresidential land uses. Today all areas of Farmington are designated either GAA or GA, with the exception of those locations which were subject to the contamination previously described as well as the abandoned Town landfill on Farmington Avenue, all classified as GB/GA, and the current sanitary landfill designated as GB/GB/GC. GAA and GA classifications apply to areas of a community underlain by groundwater which is either suitable for future water supply or is located within the area of influence of an existing public water supply well. Groundwater designated GB/GA while acknowledging the past or present contamination of a given area is regulated in such a manner as to permit the affected groundwater to potentially return to a GA class. The GB/GB/GC classification is given to locations used for waste disposal. It is the goal of the State to not permit the irreversible contamination of the underlying groundwater system. Any additional wastewater discharge into this area would require a re-designation to class GC.

The State of Connecticut's initial attempt to control potential sources of groundwater pollution focused on the regulation of nonresidential underground storage tanks. The program requires the inspection and replacement of underground tanks containing petroleum products. However heating oil tanks less than 2,100 gallons in size are exempt from these requirements. While a number of Connecticut municipalities have attempted to expand this program at the local level, the experience in Farmington indicates that these tanks are being removed voluntarily by the private homeowners and are being well monitored by real estate lenders.

In 1987 the Town of Farmington implemented its first comprehensive aquifer protection regulation. As opposed to restricting specific land uses from a particular area of Town the primary focus of this zoning amendment involved the regulation of hazardous materials used by commercial and industrial facilities. While achieving some success, the program's effectiveness has suffered from the following shortcomings: an inability to apply its provisions to existing operations in Town, and a difficulty in enforcing the regulation due to the absence of any reporting or inspection system.

The most far-reaching action taken at the state level to date has been the adoption of Public Act 89-305. This legislation requires municipalities to establish overlay protection zones around existing and proposed water supply wells within stratified drift aquifers. The overlay protection zones will be developed from the geologic and hydrologic characteristics of the particular well. The Department of Environmental Protection completed and adopted regulations controlling the location and operation of particular land uses within these protection zones. The regulations are administered by the Town Plan and Zoning Commission (Aquifer Protection Commission) in Farmington. The local regulations and zoning map revision became effective once the level A mapping has been completed and accepted for each particular well site. As of 2018 all three level A areas have been mapped and designated on the Zoning Map. These are the FIP Aquifer area, CT Sand and Gravel Aquifer Area and the Charles House Aquifer Area. The town regulates land uses in those areas in accordance with the DEEP model regulation.

PLANNING OBJECTIVES

1. Protect existing and proposed groundwater supplies located in stratified drift by regulating or prohibiting various land uses located within the recharge areas designated by the new aquifer protection regulations.
2. Update the existing aquifer protection regulation from its current form and use it to augment the new aquifer protection regulation when it becomes effective.
3. Coordinate with the Connecticut Water Company and assist it in procuring monitoring well sites on properties for which development approvals are sought from the Town Plan and Zoning Commission.
4. Prevent a reduction in the existing groundwater tables by the following means:
 - a. Maintain the site coverage requirements currently found in the Zoning Regulations and/or implement state of the art/best management practices for stormwater.
 - b. Require the development of storm water collection systems designed to recharge the groundwater supply on sites which overlay Farmington's stratified drift aquifer.
5. Foster and encourage through initiatives such as public outreach programs the inspection and removal of older residential underground oil tanks.

5.4 Hillsides and Ridgelines

The Town of Farmington is underlain by three bedrock types which define the general topography of the Town the largest being erodible sedimentary rock. The level and gently sloping land west of the Metacomet Ridge is underlain by New Haven Arkose, a reddish-brown sandstone commonly called Brownstone, while the land east of the ridge is underlain predominantly by shale. The primary hills of Farmington are underlain by harder, less erodible metamorphic rock in the northwestern corner, and igneous rock or traprock creating the Metacomet Ridge.

The slopes of northwestern Farmington form a portion of the western wall of the Connecticut Central Valley. The Central Valley is formed by underlying soft sedimentary rock, while the wall of the valley is formed by the harder, less erodible metamorphic rock of the western uplands. Metamorphic rock has undergone physical changes caused by intense heat and pressure from the Earth's interior. This heat and pressure caused the original rock to recrystallize, resulting in fused and tightly interwoven crystals. The fusing of the crystals forms a rock much more resistant to erosion than the sedimentary rocks of the adjacent central valley.

The second conspicuous hillside in Farmington is the Metacomet Ridge. This ridge rises very steeply on the western slope to elevations between 760 feet at the peak of Rattlesnake Mountain to 520 feet elsewhere along the ridge. The Metacomet Ridge was formed by a series of geologic activities, including volcanism, tilting of the Earth's crust and erosion. The Central Valley region of Connecticut was originally overlain by alternating sedimentation and volcanic lava flows. Faulting caused the layers to be tilted; while the subsequent erosion formed valleys or shallower slopes from the erodible sedimentary rock, and ridges from the less erodible volcanic traprock.

Although traprock erodes slowly, weathering by frost action greatly reduces the stability of these ridges. Traprock is formed with natural veins that give a columnar appearance to the exposed rock along the ridge. Water seeping into cracks weakens the rock along the veins by freezing and thawing. Eventually, these weakened columns succumb to gravity. The scree, or blocks of fallen traprock, at the base of sections of the Metacomet Ridge are the result of this weathering.

A third hillside type is the glacial formations such as eskers and drumlins. While these formations are not as conspicuous as the metamorphic and traprock hills, they may form locally significant hillsides, and are noteworthy for their geologic value. Eskers are sinuous ridges that were formed by glacial meltwater flowing through tunnels or crevasses in the ice. With the glacier's retreat, the water found a lower path, leaving a narrow, often steep-sided ridge composed of river deposits.

Drumlins are relatively small, elongated, egg-shaped hills composed entirely, or almost entirely of glacial till. Drumlins were formed during the retreat of the last glacier by a mechanism that smeared thick layers of usually clay laden till. Drumlins usually occur in clusters.

A small cluster of drumlins, including Burnt Hill, occurs in northeastern Farmington. Bedrock contour maps indicate that these hills have layers of till 100 to 150 feet in thickness. The shale bedrock in this area probably provided the clay for the formation of these drumlins.

Farmington has long recognized the aesthetic and environmental values of hillside areas. The low-density residential development, which characterizes most of these areas, has maintained the visual character of hillsides in addition to limiting erosion and reducing flood hazards in adjacent low-lying areas.

Hillside development requires careful planning for the following reasons:

- Substantial destruction of vegetation can result in increased runoff and sedimentation requiring increased public expenditures for flood control and storm water management.
- Certain hillsides contribute to the natural beauty of the surrounding area. This beauty depends, to a large extent, on the existence of significant amounts of open space and on development, which is in keeping with the surroundings, and natural constraints of the land.

Low-density zoning, the land's natural constraints and the lack of public sewers have all helped to maintain the aesthetic values and natural functions of these areas. Conditions attached to subdivision approvals have also been used to control erosion and to preserve vegetation on hillsides.

The 1991 revisions to the Subdivision Regulations included a new section that states that subdivisions shall be designed to minimize adverse impacts upon the listed natural and man-made resources which are on or contiguous to the subject premises. This list includes slopes in excess of 15 percent grade, and land along ridgelines. These regulations enable the Town Plan and Zoning Commission to preserve these valuable resources through redesign of the subdivision, use of the cluster subdivision regulations, establishment of conservation easements, regulation of the grading, building location, etc., or a reduction in the total number of building lots. In 1999 the Town Plan and Zoning Commission adopted a ridgeline protection zone in accordance with enabling act 95-239. This law will allow the Commission to regulate activities on the Metacomet Ridge, which are exclusive of subdivision activity such as tree cutting.

PLANNING OBJECTIVES

1. Continue to encourage low-density residential use of hillside areas (over 15 percent slopes).
 - a. Prohibit disturbance, including but not limited to structures, vegetation, deposition or removal of materials, clearing, grubbing etc. on slopes of more than 24 percent.

2. Encourage residential development which minimizes the disruption of ground cover and vegetation, and which preserves expanses of open space in order to preserve the aesthetic and natural functions of hillsides and ridgelines.
 - a. Use Zoning and Subdivision Regulations to minimize the impact from development to ridgelines and hillsides.
 - b. Encourage the preservation of glacial formations such as eskers and drumlins to preserve the glacial history of the Town of Farmington.
3. The provisions of the Town's existing ridgeline protection regulations must be aggressively enforced. Improvements should be made to notify existing and new property owners of the restrictions governing the development and maintenance of areas regulated under this program.
4. Support the efforts of the CT Forest and Park Association related to their stewardship of the recently created New England National Scenic Trail. (formally Mattabasset / Blue Trail)

5.5 The Farmington River

Geologic History

Prior to the last period of glaciation, most of what is now Farmington was drained by a river that flowed southward, closely following the present beds of the Quinnipiac River, and the north-flowing section of the Farmington River. The present Pequabuck River and the southeast-flowing section of the Farmington were tributaries to this river.

The present course of the Farmington River was established by the interaction between glacial ice and meltwater deposits. A dam established by material dropped by the meltwater from the receding glacier created a lake between the "dam" and the glacial ice situated over what is today the bend in the Farmington River. Round Hill near Route 4 is a remnant of a delta that formed by debris dropped from streams or glacial meltwater entering this lake. The present course of the Farmington River was ultimately established when the glacier melted sufficiently to expose the gorge through the Talcott Ridge near Tariffville allowing the impounded water to escape.

Physical Character

The Farmington River is a unique natural resource which has played a major role in Farmington's development, and which contributes significantly to the Town's character. In its entirety, the Farmington River is approximately 81 miles in length beginning in southwestern Massachusetts, and includes a watershed of approximately 600 square miles. Within the boundaries of the Town of Farmington, the river flows approximately 9 linear miles, and drains a watershed of

approximately 20.6 square miles, or 72 percent of the Town. Approximately two-thirds of this area drains directly into the Farmington River, while the remaining area drains into the Pequabuck River first.

The character of the Farmington River changes as it passes through Farmington. From the river's origins to the northwest corner of the Town of Farmington the Farmington River flows with a definite pitch first through the Berkshire Mountains in Massachusetts, and then through the Western Highlands of Connecticut. Table 5-1 shows the change in the slope of the riverbed as it passes through the Town, from the Western Highlands to the Central Valley described in the Hillside Section. The river completes its transition to a flat water river above the Route 4 bridge in Farmington Village. The river maintains a shallow grade north to Tariffville Gorge in Simsbury, where it breaks through the Metacomet Ridge to flow east to the Connecticut River.

Table 5-1

THE FARMINGTON RIVER IN FARMINGTON
Changes in Streambed Elevation

LOCATION	STREAMBED ELEVATION	FEET FROM AVON LINE	VERTICAL CHANGE (FT.)	HORIZONTAL CHANGE (FT.)	% CHANGE
Town Line/Burlington	244	48,000	--		
Rt. 4 Bridge/Union	193	41,500	51	6,500	0.78%
S. Main St. Bridge	181	36,400	12	5,100	0.24%
R.R. Bridge	164	26,600	17	9,800	0.17%
Rt. 4 Bridge/Farm.	149	11,000	15	15,600	0.10%
Town Line/Avon	146	0	3	11,000	0.03%

European Settlement

The Farmington River provided many of the resources needed for the settlement of the Town of Farmington. For centuries before the first English settlers came to this area, the Tunxis Indians had taken advantage of the fertile soils, fish and wildlife the Farmington River provided. Around 1640, the first English settlers arrived. They too were attracted by the river's abundant fishing and agricultural potential. The settlers also saw the river and its tributaries as a source of power. The "Grist Mill," which still remains at the end of Mill Lane, and its dam were constructed as early as the 1660's.

While early dams were constructed to power saw and grist mills, by the 1800's the Farmington River was providing the power for the development of Unionville as a manufacturing center. In 1828, a dam was constructed in Unionville to feed water into the Farmington Canal. The Farmington Canal was an 87-mile series of canals and aqueducts that ran from New Haven to Northampton, Massachusetts, through 60 locks and over eight rivers. The canal transported people and goods for only 20 years before the railroads took its place.

A half mile upstream from the "feeder" dam, a second dam was constructed in Unionville. The impounded water from this dam fed a canal that powered several small factories. The proximity to the Farmington Canal through the feeder canal gave Unionville factories early access to more distant markets.

The Farmington River made possible the industrial prosperity of Unionville and other towns along its banks. In return, however, the discharge of untreated sewage and industrial waste took a heavy toll on the river. As early as 1860, the river was too polluted for swimming and few trout could be found. While mill closings along the river in the late 19th and early 20th centuries brought some water quality improvement, population growth along the Farmington River and its tributaries during the 20th century substituted municipal sewage as the river's principal pollutant.

Water Quality

In 1967, the Connecticut Legislature passed a Clean Water Act, which was followed in 1972 by the Federal Clean Water Act. These statutes set criteria for the attainment of clean waters by setting contaminant limits, and requiring permits for all industrial or municipal discharges into a watercourse.

As a result of these statutes and other efforts to revitalize Connecticut's watercourses, the entire length of the Farmington River within Farmington meets Class B water quality criteria. The section of the river from its confluence with the Pequabuck River to the Farmington/Avon town line, however, has been designated as unsuitable for swimming, because of pollution from the Pequabuck River, and the zone of influence from the Farmington Sewage Treatment Plant. This designation, however, may be removed with the next revisions to the State water quality designations due to the improved water quality of the Pequabuck River. Table 2 in the 2008 Plan of Conservation and Development illustrates the improved water quality in the Farmington River, primarily as a result of improvements to the Pequabuck River.

The treatment plant, remains as the lone permitted discharge into the Farmington River within Farmington. With improved water quality, the Farmington River now supports one of the largest trout fisheries in the State, and is an important river in the State's Atlantic salmon restoration program. In 2015 the Town of Farmington began a major upgrade to the sewage plant which will greatly improve the quality of the water discharged into the river.

Use of Stratified Drift Deposits

The lower Farmington River flows through an extensive stratified drift deposit that was laid down by glacial melt water during the last retreat of the glaciers. In Farmington, approximately 14 square miles are underlain by this material to depths, in some places, in excess of 450 feet. The fine-grained nature of some of this material, however, is incapable of yielding significant quantities of water. Map 3 identifies the areas within this deposit which are coarse-grained (sand and gravel), saturated, and have potential water yields in excess of 250 gallons per minute (gpm).

As noted in the groundwater section, the Connecticut Water Company withdrew more than 651 millions gallons of water from this stratified drift aquifer in 1990. The company's highest yielding wells are located along the Farmington River. They currently have six wells along the river including the Connecticut Sand and Stone well with yields ranging from 150 - 600 gpm. Map 3 shows the locations of these wells.

The proximity of the wells to the Farmington River does potentially impact the flow of the river. Although the wells do not draw water directly from the Farmington River, drawdown of the aquifer from pumping at the well location can result in recharge to the aquifer from the river, therefore reducing the river's flow. Although State laws prohibit the direct use of class B water for drinking water, wells drawing water from aquifers recharged by river water as a result of well drawdown need only meet State Health Code criteria to be considered potable.

The stratified drift deposits along the banks of the Farmington River also provide a resource for sand and gravel excavation. Connecticut Sand and Stone several years ago terminated its excavation operation along the river immediately downstream of the railroad overpass. The operation included approximately 183 acres. During the nineteen sixties, this operation included the removal of an approximately 12-acre island in the Farmington River, and excavation of the riverbed. A flood insurance study done in 1986 by the Federal Emergency Management Agency indicates that the riverbed in this area is up to 30 feet lower than the estimated original elevation.

Although State regulations no longer allow excavation within the river itself, stratified drift deposits along the riverbank should provide several more years of excavation potential. The life of the operation has been further extended by a pond owned by Dunning Sand and Gravel, which was dredged along the banks of the river several years ago. The pond is so close to the river that during high water periods, the river will flow through the pond. The pond then has the potential to capture sand and gravel from the floodwaters, as this material may drop out of suspension as the water slows within the pond. Although the pond

does divert the river during high water, the pond predated the Connecticut water diversion statute, and is, therefore, exempt.

Recreation

The water quality improvements and the aesthetic qualities of the Farmington River have made it a popular source of recreation. The river is used extensively for fishing, canoeing and, to a lesser extent, swimming. Open space along the river is additionally used by hikers, birdwatchers and picnickers. Portions of the river's banks are also prime hunting spots, although hunting upon Town-owned land is restricted to only certain locations. Public access to the river suitable for launching canoes is available at Yodkins-Morin Memorial Park on Route 4, River Glen Park off of Woewassa and Wanowmassa Lanes and the Route 4 bridge in Farmington Village. Public pedestrian access is also available off Meadow Road and at Tunxis Mead Park.

During the last ten years the Town has acquired over 2,200 linear feet of river frontage through the purchase of open space land and the site of the police station and community center complex. While none of these areas have been developed for recreation, a trail has been designed through properties lying adjacent to Waterville Road. The acquisition of additional riverfront land continues to be one of the highest priorities of the Town's Land Acquisition Committee. Final plans have been approved for another riverfront trail through a site proposed for mix use development at the corner of Mill Street and South Main Street in Unionville. The Farmington River was a main focal point in the recently adopted design plan for Unionville.

River Flow and Riparian Rights

Both the attenuation of pollutants in the Farmington River and the preservation of the river's aesthetic, recreational and ecological values are dependent upon the quantity of the river's flow. Since the Farmington River is dammed along both its western and eastern branch, the flow of the river is controlled by a series of regulations and agreements to assure adequate flow for downstream users. Six key factors control the flow of the Farmington:

From Goodwin Dam:

- 1) a minimum release of 50 cubic feet per second (cfs) is required at all times;
- 2) all natural inflow to reservoirs up to 150 cfs must be released;
- 3) release of all flows released from Otis Reservoir in Massachusetts;
- 4) releases upon request of the Farmington River Power Company in volumes from 0 to 300 cfs, up to 400 million gallons per day and 21.7 billion gallons per year;

From Colebrook Dam:

- 5) releases from Colebrook Reservoir when water elevation is above 708 feet; and
- 6) releases up to 3.26 billion gallons per year as needed by DEP for fisheries.

The "upon request" releases to the Farmington River Power Company are perhaps the most valuable for maintaining the multiple use characteristics of the Farmington River. The release agreement was established to preserve the riparian rights of the Farmington River Power Company, which operates a hydroelectric facility at Rainbow Dam in Windsor. Through this agreement, release requests have averaged approximately 190 cfs through the peak recreation period of May 15-October 31. This agreement has enabled the river to flow at levels higher than would tend to occur naturally during the summer months.

It should be noted that the cfs figures are measured at the point of release. The flow in cfs in the Town of Farmington and other downstream locations will naturally be greater in volumes dependent upon the flows from other tributaries.

Water Diversions

The Metropolitan District Commission (MDC) uses the Farmington River to supply 100 percent of the water for Greater Hartford. The first diversion of water from the Farmington River watershed for water supply to the Hartford area began in 1911 with the signing of an agreement to construct Nepaug Reservoir. In 1931, MDC began construction of the 30 billion gallon Barkhamsted Reservoir on the Farmington River's east branch to meet the growing water supply needs of the Hartford area. Finally, in 1949, the MDC, by Special Act, was granted authority to construct a reservoir on the west branch of the Farmington River, with the right to construct a tunnel to divert this water to its distribution system. The tunnel, however, was never completed, and the reservoir has been used only to meet riparian obligations.

In 1981, MDC sought to complete the tunnel and divert approximately 19 billion gallons from the Farmington's west branch. Citizen concern for the diversion's impact on the river's quantity of flow, and therefore its impact on the many values of the river, resulted in the proposal ultimately being rejected at a referendum.

As a result of the 1981 diversion controversy, the State Legislature passed the Water Diversion Policy Act in 1982 to protect Connecticut rivers from being dammed or diverted of more than 50,000 gallons per day of water without a permit. In Farmington, most permits are for well water withdrawals. The Town of Farmington has received a permit for withdrawing water from the Farmington River for irrigation at Tunxis Mead Park.

Federal Wild and Scenic River Designation

To provide further protection to the Farmington River, the federal government added a large section of the Farmington River to the Federal Wild and Scenic Rivers System. Two distinct sections were included in this program. One section is in Massachusetts, while the other is a 14 mile stretch in Connecticut from below the Goodwin Dam in Hartland to the southern extent of the New Hartford/Canton town line. The Farmington River was the third river system in New England to be included into the program following the Allagash in northern Maine, and the Wildcat in New Hampshire. Congress has recently approved the authorization of a study to include additional downstream sections of the river into the program including Farmington.

The purpose of the Wild, Scenic and Recreational Rivers Act was to establish a system through which America's outstanding free-flowing rivers could be preserved in order to balance against the existing federal policy of river development. Designation in the Wild and Scenic Rivers System provides permanent protection from new dams, diversions and other water resource projects that would have a negative impact on the river's resources. The Farmington River has been protected by the Act since 1986, when Congress authorized the study of the two river sections.

The Wild and Scenic designation for the Farmington River did not include federal land acquisition. Instead, the planning process required each town, through which the designated segment flows, to demonstrate how it planned to provide long-term protection for the various qualities of the river. To meet this requirement, Barkhamsted, with the assistance of the FRWA and the National Parks Service, adopted a River Protection Overlay District regulation that has become the model river protection regulation for the Farmington River Valley.

River Protection Regulations

Barkhamsted's River Protection Overlay District is defined as the land within one hundred feet of the river's normal high water level. This regulation prohibits activities within the Overlay District without first receiving a special exception and meeting particular criteria and standards found in the regulation. Regulated activities include the impoundment of the river, new construction or additions to existing buildings, new septic or other waste disposal systems, dredging or sand and gravel excavation and cutting or removal of vegetation. Special exceptions can only be considered if a parcel and/or existing structure meets specified conditions.

In Farmington, development of much of the land abutting the Farmington River is regulated by a Flood Protection Zone designation. The Flood Protection Zone includes all land that is reasonably required to carry and discharge a regulatory flood. The boundary of this zone was established using an earlier study produced by the U.S. Army Corps of Engineers.

The purpose of the Flood Protection Zone is to preserve the river's ability to convey the regulatory flood. As such, uses within the Flood Protection Zone are restricted to those, which have low flood damage potential and will not obstruct or modify flood flows. The zone prohibits the construction of most structures and parking areas; and further regulates sand and gravel excavation, municipal uses, accessory structures and fill.

The purpose of the River Protection Overlay District is, more broadly, to preserve the multiple qualities of a river and the land adjacent to it. By prohibiting or regulating most alterations, including the removal of vegetation within an established buffer area, the river's ecosystem can be preserved along with the river itself.

While the Flood Protection Zone and River Protection Overlay District regulations do overlap, the zones tend to complement rather than duplicate each other. Where the land flattens out and a wider floodplain is established, such as occurs at the convergence of the Farmington and the Pequabuck Rivers, the Flood

Protection Zone will provide greater protection to the rivers. Conversely, where steep banks exist and the floodway is relatively narrow, such as occurs along much the Farmington River from the northwestern town line to the railroad overpass, a River Protection District will tend to provide greater protection.

Additionally, by regulating the removal of vegetation, the River Protection District can protect a river and its characteristics in ways that the Flood Protection Zone cannot. Vegetation along rivers has important functions including slowing floodwaters, filtering pollutants such as from erosion and sedimentation, increasing bank stability, providing important fish and wildlife habitat, and preserving a river's aesthetic and recreational qualities.

Adjacent Land Uses

The land uses along the Farmington River are in general more intensive to the west and less intensive to the east. The land along the river as it enters the Town remains vacant due to its topography and the extent of the floodway. As the river passes under the Route 4 bridge in Unionville, pockets of industrial and commercial uses appear along the right bank, with residential uses along the left bank. Due to the floodway, however, the residences are setback at least 100 feet from the river.

As the river passes through Unionville Center, the adjacent uses are a mixture of commercial and former industrial sites with a small pocket of residential along the right bank below the Route 177 bridge. Between the confluence of Roaring Brook in Unionville and the railroad overpass, the land use along the left bank is primarily open space and residential, while the uses along the right bank are nearly evenly split between residential and light industrial, with some areas of vacant land.

Due to the expanse of the river's floodway from the railroad overpass to the Avon town line, the primary uses adjacent to the river are open space, agriculture and recreation. The exception includes the former Connecticut Sand & Gravel operation below the railroad overpass, which encompasses nearly one linear mile of river frontage; the mixed uses in Farmington Village and the low-density residential development along Waterville Road.

The largest development constructed along the river in the last ten years was the municipal complex housing the Town's police station and community center. Both buildings were situated with generous setbacks from the river in respect of the site's alluvial flood plain system. The Town completed reconstruction of the former railroad bridge as a trail for pedestrians and non-motorized vehicles as a segment of the Farmington Valley Greenway.

PLANNING OBJECTIVES

1. Use the Subdivision, Zoning and Wetlands Regulations to control erosion of riverbanks, and to preserve the aesthetic, recreational and ecological values of the river. Give special attention to areas where the banks are steep and the designated floodway is narrow.

- a. Evaluate the inclusion of river setback standards as part of a proposal for the development of upland review areas within the Town's wetland regulations to control development and vegetation removal.
 - b. Encourage the further acquisition of open space by the Town, or the establishment of conservation or public access easements over land immediately adjacent to the river.
2. Coordinate with the Farmington River Watershed Association and other public and private organizations to protect the Farmington River and enhance its aesthetic and recreational values.
 - a. Support the inclusion of additional segments of the Farmington River into the National Wild and Scenic Rivers program.
3. Encourage recreational use of the Farmington River in appropriate locations through improvements to existing public access areas, and the establishment of new access areas or walkways, which do not adversely affect the river or its floodplain.
4. Revise Zoning Regulations and development policies for land partially encumbered by the floodway to permit only a portion of the floodway land area to be used in meeting density and coverage requirements. This would better reflect the natural constraints on development and discourage the concentration of development on one portion of the site.
5. Restrict or prohibit land uses which have the potential to pollute the Farmington River, so as to maintain the existing high water quality.
6. Encourage continued efforts by the Conn. DEEP to upgrade sewage treatment facilities on the Pequabuck River, a Farmington River tributary, so as to restore downstream water quality to a level consistent with its use for recreation and the propagation of fish and wildlife.
7. Monitor surface water quality of discharges into the Farmington River as part of the federal government's Phase II storm water program.
8. Support the restoration of the Atlantic Salmon into the Farmington River.
9. As a compliment to an upland review regulation, Farmington should consider the adoption of an overlay zoning district along some or all segments of the Farmington River, similar to a number of communities where the River has received the Wild and Scenic designation.

5.6 Inland Wetlands and Watercourses

In 1972, the Connecticut Legislature, recognizing wetlands as "indispensable and irreplaceable natural resources," passed the Inland Wetlands and Watercourses Act. As a result of this statute wetlands in Connecticut are defined by drainage type, and include all land, including submerged land, which consists of any of the

soils types designated as poorly drained, very poorly drained, alluvial and floodplain by the National Cooperative Soil Survey of the U.S. Soil Conservation Service. The statute further defines a watercourse as a river, stream, brook, waterway, lake, pond, marsh, swamp, bog and all other bodies of water, natural or artificial, public or private, vernal or intermittent which are contained within, flow through or border upon the State of Connecticut.

Wetlands Soils

The wetlands soils drainage classifications have the following general characteristics.

Poorly drained soils occur on primarily level or gently sloping land where the water table is at or near the surface from late fall to early spring.

Very poorly drained soils occur in level or depressed land areas, where the water table is at or above the surface during most of the growing season.

Alluvial and floodplain soils occur along level areas along watercourses that are subject to periodic flooding. These soils include all drainage classifications from well drained to very poorly drained.

Table 5-2 identifies the wetlands soils types found in Farmington, and lists them by their drainage classification.

While the legal definition of wetlands categorizes wetlands soils by drainage classifications, these soils can also be categorized by their location on the landscape. Know Your Land; Natural Soils Groups for Connecticut published by the Soil Conservation Service, USDA; and the Connecticut Cooperative Extension Service, groups soils by both their drainage classification and their location on the landscape.

Four general groups of wetlands soils types occur in Farmington: terrace soils, upland soils, floodplain soils, and marsh and swamp soils. Terrace soils occur above the floodplains of rivers and streams, and are underlain by water-deposited sands, and sands and gravel. Uplands soils occur in upland depressions or along hillside seeps. In Farmington, most upland wetland soils are associated with an underlying layer of compact glacial till (hardpan) that restricts the further infiltration of water. Floodplain soils occur along nearly level land adjacent to rivers and streams that are subject to periodic flooding. Finally, marsh and swamp soils include deep peats and mucks which have a high water table throughout most of the year. Table 5-3 lists the wetland soils in Farmington by their soils group.

Table 5-2

WETLANDS SOILS IN THE TOWN OF FARMINGTON
BY DRAINAGE TYPE

DRAINAGE CLASSIFICATION	SOILS TYPE	SOIL NAME
Well Drained:	HaA	Hadley silt loam
	StA	Suncook loamy sand
	OnA	Ondawa sandy loam
Mod. Well Drained:	PoA	Podunk sandy loam
	WwA	Winooski Silt loam
Poorly Drained:	WcA	Walpole loam
	WsA	Wilbraham stony silt loam
	WrA	Wilbraham silt loam
	RuA	Rumney sandy loam
	LmA	Limerick silt loam
Very Poorly Drained:	PmA	Peats and Mucks, shallow
	SeA	Scarboro loam
	LdA	Leicester, Whitman and very stony silt loam
	MoA	Menlo silt loam
	WtA	Wilbraham and Menlo very stony silt loam
	MpA	Menlo stony silt loam
	SaA	Saco sandy loam
	Re	Riverwash
	SbA	Saco silt loam
	PkA	Peats and Mucks

Table 5-3

WETLANDS SOILS IN THE TOWN OF FARMINGTON
BY SOILS GROUPS

	SOILS GROUP	SOILS GROUP
Terrace Soils	A-3a	WcA
	A-3b	PmA
	A-3b	SeA
Upland Soils (friable/firm)	B-3b	LdA
Upland Soils (hardpan)	C-3a	WrA
	C-3a	WsA
	C-3b	WtA
	C-3b	MoA
	C-3b	MpA
Floodplain Soils	E-1	StA
	E-1	OnA
	E-1	HaA
	E-2	PoA
	E-2	WwA
	E-3a	LmA
	E-3a	RuA
	E-3a	SbA
	E-3b	SaA
	E-3b	Re
Peats and Mucks	F-1	PkA

Source: Know Your Land: Natural Resource Groups for Connecticut
Soil Conservation Service, USDA; and the Connecticut
Cooperative Extension Service

In 2005 an inventory and assessment of all of Farmington's wetland areas over five acres in size was completed as part of the Town's first comprehensive environmental planning study. This report will be a companion to this plan and improve land use planning as well as permitting the various land use commissions to function on more of a proactive basis.

Wetlands Applications

At the time an application is submitted, it is determined whether the proposed activity is significant or not. In most cases, applications are considered significant except for the smallest activities such as driveway crossings, minor filling and stream or pond cleanings.

Applications to fill actual wetlands or watercourses are discouraged are very rare and it is very difficult to secure such an approval.

Wetland Jurisdiction

The science and the law have progressed to establish and recognize the vital link between activities undertaken within the drainage area of a particular wetland and the potential pollution or destruction of such wetland resource. Our understanding of the function of whole wetland systems involves the dependence of wetland and watercourse resources and their adjacent upland areas.

Watercourses

Surface water covers 515 acres or approximately three percent of Farmington's total area. Major water bodies include the Farmington and Pequabuck Rivers, Roaring Brook, Scott Swamp Brook, Wood Pond, Lake Garda, Batterson Park Pond, Walton Pond, Dunning Lake and the former Farmington Reservoir. These water bodies are important assets to the Town providing recreational opportunities and aesthetic appeal, in addition to receiving storm water runoff, and discharges from sewage treatment facilities and industry.

Pollution to surface waters can be divided into two broad categories: point source, and non-point source. Point source pollution includes distinct discharges from wastewater outfalls from factories and sewage treatment facilities. State and federal laws currently regulate these pollution sources. Non-point source pollution includes a broad range of diffuse, small, intermittent or mobile discharges such as acid rain, leaky septic systems, storm water runoff, erosion and sedimentation, and agricultural and lawn chemicals.

The Connecticut Department of Environmental Protection adopted statewide "Water Quality Standards and Criteria" in 1980, which were most recently revised in 1997, and has delineated on maps the classification of all surface waters. These standards are used to regulate point source pollution discharges. The State water quality classes include Class AA, A, B, C, and D waters; with Class AA waters being the most pristine, and Class D waters being the most degraded. Table 5-4 summarizes the Connecticut surface water classifications. It is State

policy to restore all surface waters, where possible, to at least Class B quality, and to maintain waters of higher quality in their present state.

Most rivers and streams in Farmington are Class B quality or better. Both Scott Swamp Brook and Roaring Brook are classified as having B/A water quality. This classification indicates that while the stream currently meets Class B criteria, DEP has set a goal of achieving Class A water quality. While the discharges resulting in the B classification for Roaring Brook are beyond the boundaries of Farmington, most of the discharges into Scott Swamp Brook occur in Farmington. According to DEP officials the current B classification for Scott Swamp Brook is a result of past improper spills, discharges or storage of industrial chemicals in the vicinity. DEP's goal therefore is to clean up these contaminated areas.

The Farmington River is designated Class B water quality for its entire length through the Town of Farmington, with an additional "b" subscript for the section of the river from just west of its confluence with the Pequabuck River to the Avon town line. The "b" subscript designates the zone of influence in the immediate vicinity of treated sewage outfalls. Swimming is not advisable in these areas. The "b" subscript for the Farmington River is influenced not only by the Farmington sewage treatment plant, but also the Pequabuck River.

The Pequabuck River is currently class C/B. The Pequabuck River has historically been heavily impacted by industrial and municipal discharge resulting in high turbidity, coliform bacteria and low dissolved oxygen levels. However, controls on industrial discharges and improvements to sewage treatment facilities in Plainville and Bristol over the last decade have, according to DEP, greatly improved the water quality of the Pequabuck River.

According to the State 1997 Water Quality Standards, surface waters which are not otherwise designated are considered Class A. Therefore, all lakes and ponds within Farmington are classified as having Class A quality. Batterson Park Pond, however, was given a lake trophic classification of eutrophic by the State. As a eutrophic lake, Batterson Park Pond is highly enriched with plant nutrients, and is characterized by frequent nuisance blooms of algae. Batterson Park Pond, along with Lake Garda and Dunning Lake are currently managed with annual applications of chemicals to control the algal blooms, and maximize their recreational value. In addition the City of Hartford recently received a grant from the DEP for the installation of storm water structures designed to reduce sediment load into the lake. Sediment has been found to carry nutrients, which further contribute to the lake's algae problems.

TABLE 5-4
SURFACE WATER CLASSIFICATION, USES, AND DISCHARGES ALLOWED*

Class	Resources Use	Compatible Discharges
AA	Existing or proposed public drinking water supply impoundments and tributary surface water.	<ul style="list-style-type: none"> a. Treated backwash from drinking water treatment facilities. b. Minor cooling or clean water.
A or SA	May be suitable for drinking water supply (Class A); may be suitable for all other water uses including bathing; shellfish resource; character uniformly excellent, may be subject to absolute restrictions on the discharge of pollutants.	<ul style="list-style-type: none"> a. Treated backwash from drinking water treatment facilities. b. Minor Cooling or clean water.
B or SB	Suitable for bathing, other recreational purposes, agricultural uses, certain industrial processes and cooling; excellent fish and wildlife habitat; good aesthetic value.	<ul style="list-style-type: none"> a. Those allowed in AA, and A. b. Major and minor discharges from municipal and industrial waste water treatment.
C or Sc	May have limited suitability for certain fish and wildlife recreational boating, certain industrial processes and cooling, good aesthetic value, not suitable for bathing, water quality unacceptable. Water quality goal is Class B or SB.	<ul style="list-style-type: none"> a. Same as Class B
D	May be suitable for bathing or other recreational purposes, certain fish and wildlife habitat, certain industrial processes and cooling; may have good aesthetic value. Present conditions, however, severely inhibit or preclude one or more of the above resource values; water quality unacceptable. Water quality goal is Class B.	<ul style="list-style-type: none"> a. Same as Class B.

While chemical use is approved by the State, the Water Quality Standards for the State indicate that lakes, ponds and impoundments with AA or A class waters should be managed through the "implementation of best management practices, and other reasonable controls of non-point sources of nutrients and sediments." This method of management is preferred over the use of biocides for the control of eutrophic conditions.

Non-point source pollutants are a major contaminant to lakes and ponds, due to the nature of non-point source pollution, however, it is not currently regulated through a State managed permit process like point source pollution. A new federally mandated storm water program may have positive effects on this situation in a number of years.

One form of non-point source pollution that has been regulated locally since 1985 is erosion and sedimentation from construction sites. Map 4 identifies the location of soils in the Town that are identified as highly erodible on slopes three percent or greater, and moderately erodible soils on slopes 15 percent or greater.

PLANNING OBJECTIVES

1. Enforce existing Inland Wetlands and Watercourses Regulations, and utilize cluster zoning regulations (Section 19.) and protection of valuable site resources Subdivision Regulations (Section 4.17) to maximize the preservation and protection of wetlands and watercourses within the Town of Farmington.
2. All erosion controls should be set and inspected for all activities in and near wetlands prior to the start of construction. These controls should be designed in accordance with the specifications found in the 2002 as amended Erosion and Sediment Control Manual.
3. Watercourses which have been identified with viable fish populations should have any proposed crossings over these streams designed to assure the free passage of fish.
4. The Inland Wetlands and Watercourses Agency should adopt and implement the definition of mitigation adopted by the Council of Environmental Quality in 1978 as follows and in the order it is presented (a..e) for all proposed wetlands activities:
"Mitigation includes:
 - a. Avoiding the impact altogether by not taking certain action or parts of an action.
 - b. Minimizing impacts by limiting the degree or magnitude of the action.
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
 - e. Compensating for the impact by replacing or providing substitute resources or environments."

5. Continue using the Farmington Inland Wetlands and Watercourse Map as a guide only. All applications involving land with wetlands or suspected wetlands should include accurately mapped wetlands based on field investigation.
6. In order to maximize the protection of wetlands and watercourses a regulated upland review area of 150 feet was established and incorporated into the Inland Wetlands and Watercourses Regulations.
7. Untreated stormwater should not be directly discharged into a wetlands or watercourse. Treatment systems should be employed consistent with the recommendations of the recently published stormwater manual by the DEEP.
8. The evaluation of wetlands provided in the Town's Environmental Resource Inventory and Plan should be used as a guide by the Town's land use commissions when making land use recommendations and deciding upon applications involving inland wetlands and watercourses.
9. Particular care should be given in the design, implementation and enforcement of erosion and sedimentation controls on sites which include or which are adjacent to wetlands or watercourses or which are identified on the High Erosion Potential Map.
10. Cooperate with State and Federal efforts to reduce impacts to surface water bodies from non-point source pollution.

5.7 Flora and Fauna

In 1976, a Department of Environmental Protection study entitled "Rare and Endangered Species of Connecticut and Their Habitats" divided the State into 14 ecoregions. Ecoregions are areas that have similar landscapes, climate and vegetative patterns, and which are marked by the presence or absence of indicator species or species groups. According to this study, the Town of Farmington is located almost entirely in the North-Central Lowlands ecoregion. The only exception being the northwestern corner of the town, which is located in the Northwestern Hills ecoregion.

The North-Central Lowlands ecoregion is characterized by extensive floodplains and lowland areas adjacent to major rivers, interspersed with prominent north/south oriented ridge systems. The typical forest vegetation for the region is Central Hardwoods, Hemlock and White Pines. This vegetation includes Red, Black and White Oaks (Quercus rubra, Q. velutina and Q. alba), and Shagbark, Pignut and Bitternut Hickories (Carya ovata, C. glabra, and C. cordiformis). Hemlock (Tsuga canadensis) and White Pine (Pinus strobus) are noted as frequent and locally abundant or dominant.

In addition to identifying the typical forest types of each ecoregion, it emphasized the importance of "critical" or rare habitats in the preservation of rare and

endangered plant and animal species. Many species are rare or endangered because suitable habitats for their survival exist in only a few areas. Since these isolated habitats are critical to the survival of many of Connecticut's rare and endangered species, they are termed critical habitats.

The study identifies five critical habitats that can be found within the North-Central Lowlands ecoregion. Four of these habitats can be found in Farmington: traprock ridges, sand plains, grasslands and floodplain forests.

A traprock ridge runs in a north/south orientation in the eastern portion of the Town. Traprock ridges are typically gradually sloping on their eastern side, with predominantly oak and hickory forests. Conversely, the western slopes of traprock ridges tend to be extremely steep with an upper cliff face and a lower talus slope. The cliff face has little soil or stored water, resulting in extremely harsh conditions for vegetation growth. The lower talus slope, on the other hand, tends to support lush forests of typically Sugar Maple, Ash and Basswood. Wetlands are also commonly present. Spring wildflowers are abundant in these forests, with many rare species being unique to this area.

Due to the steep slopes and wetlands, development on the western slope is very sparse providing habitat and migration corridors for a variety of wildlife species. Some traprock areas attract concentrations of butterflies with some species, such as the Falcate Orange Tip, being unique to traprock ridges.

Floodplain forests are a second critical habitat found in Farmington. In most cases, as in Farmington, the remaining floodplain forests are fragmented due primarily to agricultural activity. Remaining significant stands of floodplain forests in Farmington exist along the Farmington River north of the Unionville-Route 4 bridge and near the bend of the River and along the Pequabuck Rivers in Shade Swamp. The periodic flooding of these forests creates very fertile conditions that support a high diversity of plant and animal species. Songbirds can be particularly abundant. The dominant trees tend to be Black Willow (Salix nigra), Cottonwood (Populus deltoides), Sycamore (Platanus occidentalis), and Silver Maple (Acer saccharium).

A third critical habitat found in Farmington is grassland. Several of Connecticut's rare breeding birds are dependent upon grassland habitats. In order for grasslands to provide suitable habitat they must be managed so that mowing does not occur during peak breeding and nesting periods. Farmington is fortunate to have several pockets of varying forms of grassland. The long-term preservation and/or management of many of these pockets, however, are not assured.

Since the natural progression of most grasslands in Connecticut is towards the development of woodlands, most existing grasslands are maintained by pasturing or mowing. Three apparently naturally occurring grasslands in Farmington are all wet meadows, which are maintained by frequent fluctuations of the water table. One is a small wet meadow located off of South Road that is preserved by a conservation easement. The second is the grassland that grows in the alluvial soils along the Pequabuck River. The third is a wet meadow on the State property at the end of Deborah Lane and adjacent to I-84.

The final critical habitat found in Farmington is sand plains. The north central portion of Farmington is comprised of sand plain habitat. Sand plains are a rich sources of sand and gravel. Farmington's sand plains currently support two separate sand and gravel operations. While much of Farmington's sand plains have been developed, a large section has been preserved as Winding Trails Recreation Area. The low, scrubby woodlands of sand plains tend to be predominantly vegetated by Black Oaks (Quercus velutina) and Pitch Pine (Pinus rigida). Additionally, although most soils in Farmington's sand plain range from well drained to excessively drained, they are also interspersed with wetlands providing even greater diversity of wildlife habitat.

In 2003, the Wildlife Conservation Society Metropolitan Conservation Alliance and the Farmington River Watershed Association in cooperation with the towns of Avon, Canton, East Granby, Farmington, Granby, Simsbury, and Suffield initiated a regional study known as the Farmington Valley Biodiversity Project. This effort has built upon the earlier work undertaken in 1976 and involved the collection and mapping of comprehensive data on the biodiversity of the Farmington River Watershed. This information would be made available to the Towns within the watershed to be used by local planning and zoning authorities and incorporated into their land use plans and regulatory system. Without this type of effort, existing development patterns would continue to fragment larger expanses of forested and non-forested habitats, endangering both plant and animal communities. The protection of landscapes which contain significant size and quality are critical to achieving a healthy balance between development and preservation. The preservation of diverse ecosystems sustain and support important natural processes such as soil creation, pollination, decomposition of organic matter and filtration of water. To maintain this ecological diversity it is critical that remaining habitats are large enough and are of such quality to support viable wildlife populations and that they are arranged in such a way that allows dispersal of plants and animals across the landscape. Core wildlife habitat areas and the corridors that connect them must be identified and integrated into development and conservation initiatives which will preserve them to the highest degree. In this paradigm corridors are not presented or defined as narrow linear links connecting habitats, but should be established as broad swaths of habitat that bridge habitat core areas, providing secondary habitat.

The Farmington Valley Biodiversity Project sought to identify the existing location of species and natural communities in an effort to locate such core areas. Such species not only include State listed species (that are endangered or threatened) but also species that have been proven to respond poorly to urbanization. The natural communities referred to in the study include sandplain grasslands, floodplain forests, red maple swamps and traprock ridge talus slopes.

The Study's authors using satellite images mapped three land cover types (grassland, shrub/scrub, forest) within the region. They then superimposed the existing road network to determine the level of habitat fragmentation. Unfragmented areas were selected as potential core habitat areas for further field study based upon size criterion. To be considered a possible candidate for a core area, forests had to exceed 125 acres in area while the minimum size of grassland or shrub/scrub plats were 25 and 5 acres respectively. Using available natural resource data, these potential core habitat areas were refined into a lesser number suitable for field study. Following the compilation of information from both existing

studies and field analysis a total of 48 primary and 23 secondary (connecting) core habitat areas were identified in the region. The study found 8 primary and 3 secondary core habitat areas within the Town of Farmington. Three of the primary areas were found along the Farmington river corridor as part of the alluvial floodplain ecoregion. A majority of acreage in these sites are already protected as open space including the Winding Trails Recreation Area, Shade Swamp Sanctuary, and a combination of State and municipally owned land situated on the north and south side of Meadow Road. An additional 3 primary areas are associated with the traprock ridge extending from the Town of Plainville to Avon and West Hartford. Substantial areas are protected as part of the Deadwood Swamp and the privately held Hillstead Museum.

The last 2 primary core sites appear in the western section of the Town and consist of Scott Swamp and the Town Forest.

The 3 secondary core sites are the Burnt Hill area, Batterson Park Pond area and the Taine Mountain area. Recent acquisitions by the Town have now assured the permanent protection of property in the Burnt Hill and Taine Mountain area while approximately 60 acres of open space have been set aside as part of the Bradford Walk development in the Batterson Park Pond area.

Map 5-5 illustrates the location of all the primary and secondary core areas and Figure 5-1 lists the species of conservation concern documented by the Study in the Town of Farmington.

A component of the biodiversity study was an inventory and mapping of active vernal pools located within the Town.

The information contained in the Farmington Valley Biodiversity Project should be integrated into Farmington's land use regulations and used to guide the preservation priorities of the Town's open space acquisition program.

While the Farmington River is not specifically listed as a critical habitat, it is an important part of the Atlantic Salmon Restoration program in Connecticut. The Atlantic Salmon is an anadromous fish, which means that it migrates from the ocean into freshwater to spawn. At present, all adult salmon that return to the Farmington River and enter the fishway at the Rainbow Dam in Windsor, Connecticut are captured to add to the hatchery stock.

Atlantic Salmon are released along the Farmington River at three stages of their development: fry, parr and smolt. Fry are newly hatched salmon. Although most fry are released further upstream, some are released in Farmington from the Route 177 bridge in Unionville, north to the Town line. In 1989-90, 225,607 fry were released in the Farmington River.

FIGURE 5-1

Listing of Species of Conservation Concern

Birds

Chestnut –sided warbler
Louisiana waterthrush
Black-throated blue warbler
Bobolink
Worm-eating warbler
Black-throated green warbler
American woodcock
Yellow-throated vireo
Olive-sided flycatcher
Cooper’s hawk
Blackburnian warbler
Wood thrush
Rufous-sided towhee
Blue-winged warbler
Canada warbler
Eastern meadowlark
Prairie warbler
Savannah sparrow

Amphibians and Reptiles

Spotted Salamander
Blue-spotted salamander
Red-spotted newt
Four-toed salamander
Northern Dusky salamander
Jefferson’s salamander
Wood frog
Leopard frog
Spotted turtle
Wood turtle
Eastern box turtle
Hognose snake

Fish

Brook trout

Insects

Big sand tiger beetle
Horsefly, Hybomitra typhus

Freshwater Mussels

Eastern pond mussel

Plants

New England Grape
Puttyroot
Sandplain gerardia
Purple milkweed

Farmington serves as a primary parr release location. When fry reach about two inches in length, they develop distinctive body markings, and are referred to as parr. Parr will remain in the river for another year or two. DEP has indicated that a fairly abundant population of parrs has established in the bend of the Farmington River. In 1989-90, 86,887 parrs were released in the Farmington River.

Salmon that reach about six inches in length between April and mid-June undergo physiological changes that allow them to enter salt water. These fish are referred to as smolts. Although all stocking of smolts is done in Windsor, Connecticut near the mouth of the Farmington River, DEP estimates that 10,000 - 20,000 smolts migrate through the Town of Farmington on their way to the ocean.

A successful restoration program could be a valuable aesthetic and economic factor for Farmington. Although there are few suitable spawning locations in Farmington, most returning salmon will pass through the Town on their way to spawning sites upstream. The potential abundance of salmon, combined with the aesthetic qualities of the Farmington River could establish this area as regionally significant for salmon fishing.

PLANNING OBJECTIVES

1. Establish guidelines for open space acquisition/ preservation to maximize wildlife value for food, shelter, nesting and/or migration.
2. Identify potential wildlife corridors to preserve connections between separate parcels of existing open space.
3. Conduct wildlife management studies on Town owned open space that recommends habitat management techniques to improve the wildlife values of suitable open space, and future open space needs to encourage wildlife preservation and diversity.
4. Obtain regular updates from the Natural Diversity Data Base in order to monitor any changes regarding endangered or threatened plant or animal species in Town.
5. Consider adopting stream buffer regulations.
6. Encourage the planting and preservation of vegetation as part of the site plan review process to provide natural screening between unlike uses, natural soil erosion control, noise control, air purification, glare reductions and energy preservation.
7. Support the Connecticut Atlantic Salmon Restoration Program.
8. Encourage the preservation of remaining critical habitats in Farmington as identified in the regional biodiversity study.
9. Encourage the mowing of grasslands to be timed so as to minimize its impact upon the animal species that use this habitat.

10. Develop to the extent legally feasible regulations that will preserve the upland areas associated with vernal pools.
11. The Town should promote the awareness and knowledge of invasive species as well as programs for their control and elimination.
12. The Town should disseminate information concerning sensitive ecological areas on its website.
13. The Town should seek to facilitate the creation of inter-municipal agreements to preserve priority conservation areas which cross political boundaries.
14. The Town Plan and Zoning Commission should initiate the creation of an overlay zoning district to protect and conserve critical habitats identified in the regional biodiversity study. This would include the establishment and adoption of standards for the collection of natural resource data.

5.8 Historic Resources

The protection and preservation of Farmington's historical, architectural and archaeological resources are a prominent element of the Town's quality of life.

The Farmington Village Historic District has existed for over 35 years, preserving those sites and structures located within its boundary. In the last two years the district has been expanded by fifteen properties as shown on Map 5-6. The Unionville Historic District / Commission was recently created for the Unionville Center section of town. Both Historic District Commissions have the Historic Properties Commission designation. This permits the Commissions to designate historic properties, which lie outside of boundaries of the historic district and place them under the Board's control. In 2004 the Town Plan and Zoning Commission adopted a Village District regulation for Unionville center and then did the same for Farmington Center. This regulation was enabled by a change in State law, which permits communities to preserve or enhance their town centers. The Village District designation permits the Town to regulate construction in this area in a manner consistent with Unionville's and Farmington's historic past, including design guidelines and mandatory review of all applications by the Architectural / Design Review Committee.

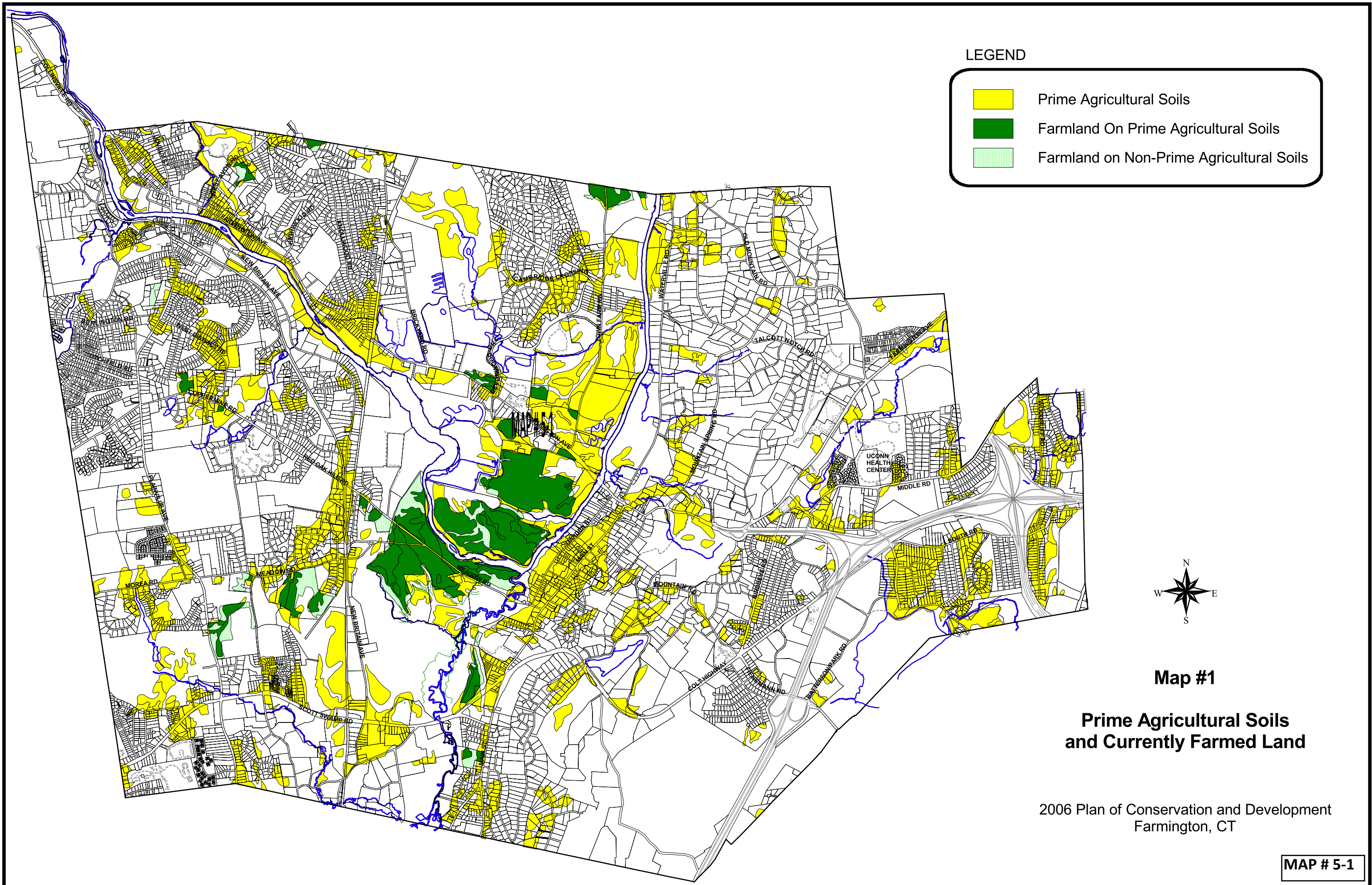
For more than ten years Farmington has had provisions in its land use regulations to further protect the community's historic elements. These regulations contained in the zoning and subdivision laws protect historic and archaeologically significant sites when a parcel of land is developed. The State of Connecticut Museum of Natural History has made a map indicating possible archaeologically significant sites available to the Planning Office.

Another mechanism used to protect architecturally significant structures which may be employed in conjunction with zoning actions is the facade preservation easement. This restrictive covenant, typically established between government authorities or preservation organizations and private property owners, prevents structures from being razed and ensures that any physical change to a structure's outside appearance is done in accordance with accepted preservation standards. A number of homes located on Cottage Street had been preserved by this method as the result of an agreement between the property owners and the Hartford Architectural Conservancy. Unfortunately the Conservancy has now dissolved but the Unionville Historic District Commission will try to protect these structures by designating them as local historic properties. To date four (4) of the homes have been designated as historic properties. The Town Plan and Zoning Commission was responsible for establishment of a façade easement on property located at 340 Main Street.

Over the last several years there have been a number of improvements made to historically notable properties including the Hill-Stead Museum, the Stanley Whitman House and the offices of the Farmington Historical Society located on Main Street.

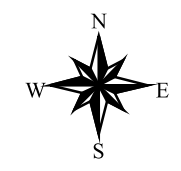
PLANNING OBJECTIVES

1. Continue to expand the Unionville and Farmington Village Historic Districts in order to incorporate all historically or architecturally significant buildings and properties within the areas.
2. Expand the designation of individual historic or architecturally significant properties or structures not included within any existing or proposed historic districts in accordance with Section 7-147p. of the Connecticut General Statutes.
3. Protect the historic or archaeological elements of a parcel of land involved in a development proposal by use of the planning and zoning regulations.
4. Promote where possible the use of preservation easements as part of the development review process.
5. Develop and redevelop properties within Unionville Center in a manner consistent with the historic architecture of Unionville.



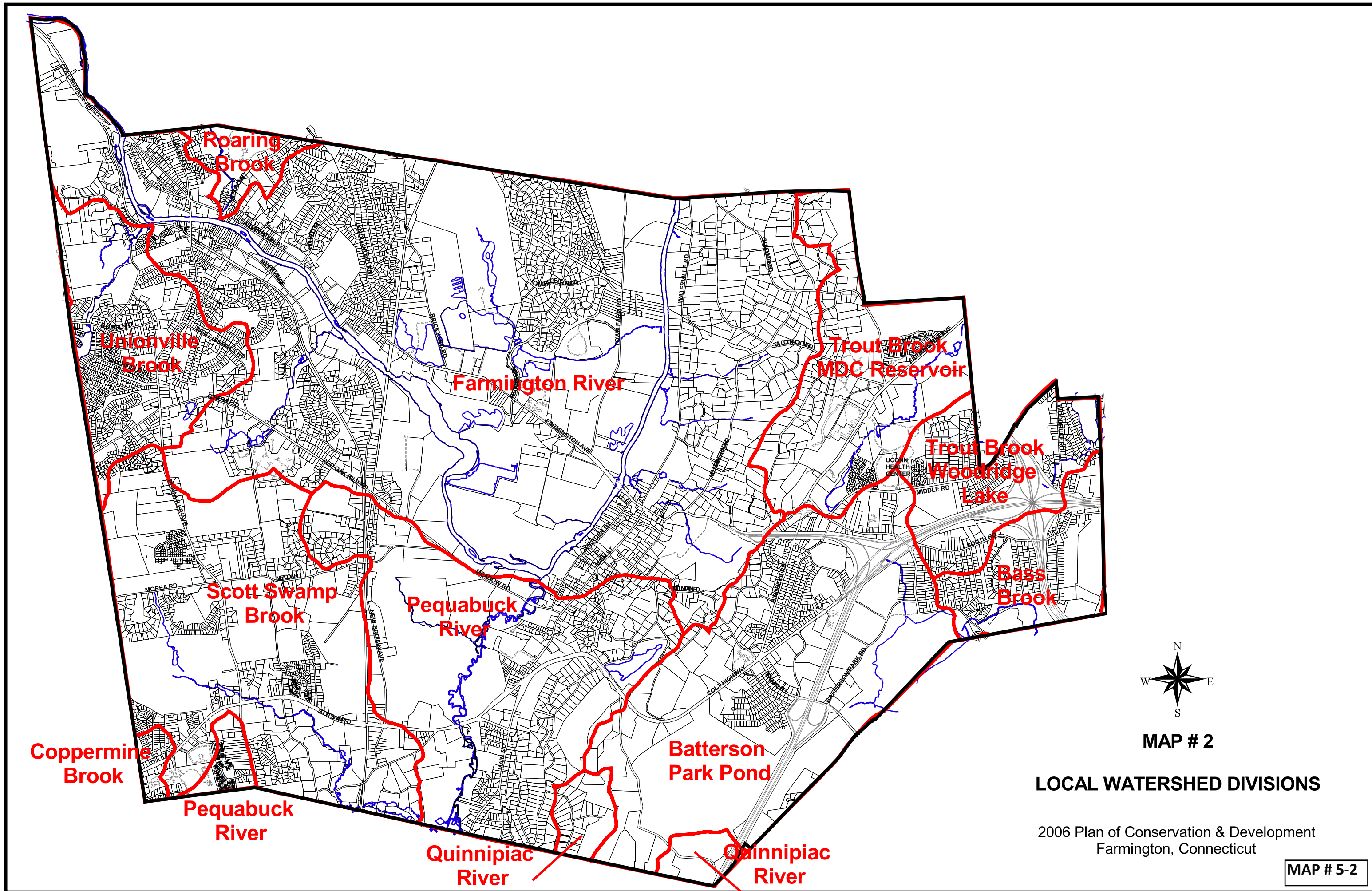
LEGEND

- Prime Agricultural Soils
- Farmland On Prime Agricultural Soils
- Farmland on Non-Prime Agricultural Soils







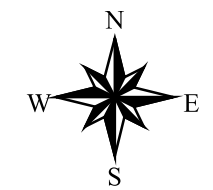
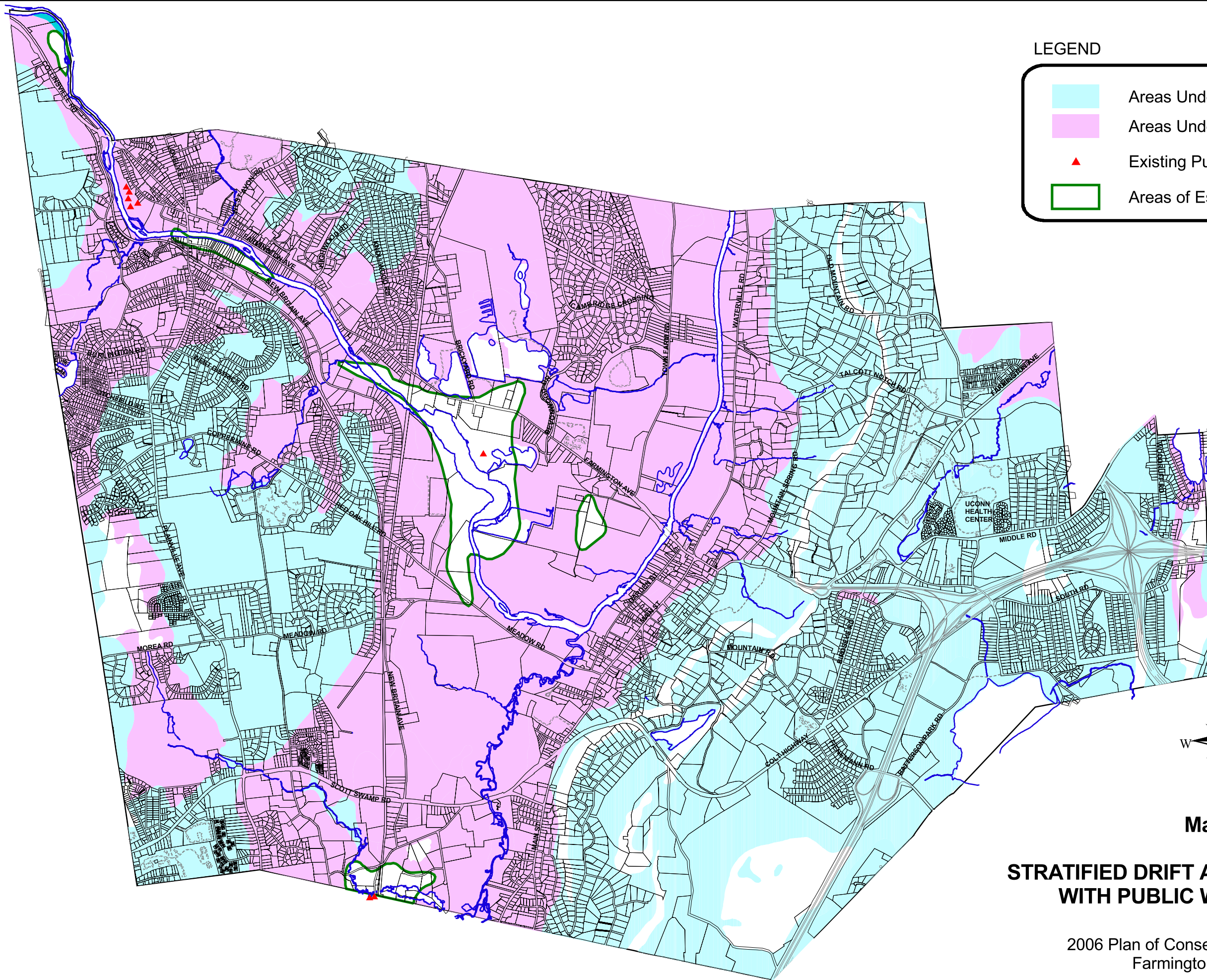
Map #1
Prime Agricultural Soils
and Currently Farmed Land

2006 Plan of Conservation and Development
Farmington, CT



LEGEND

-  Areas Underlain by Glacial Till
-  Areas Underlain by Stratified Drift
-  Existing Public Well Locations
-  Areas of Estimated Well Yield > 250 gpm

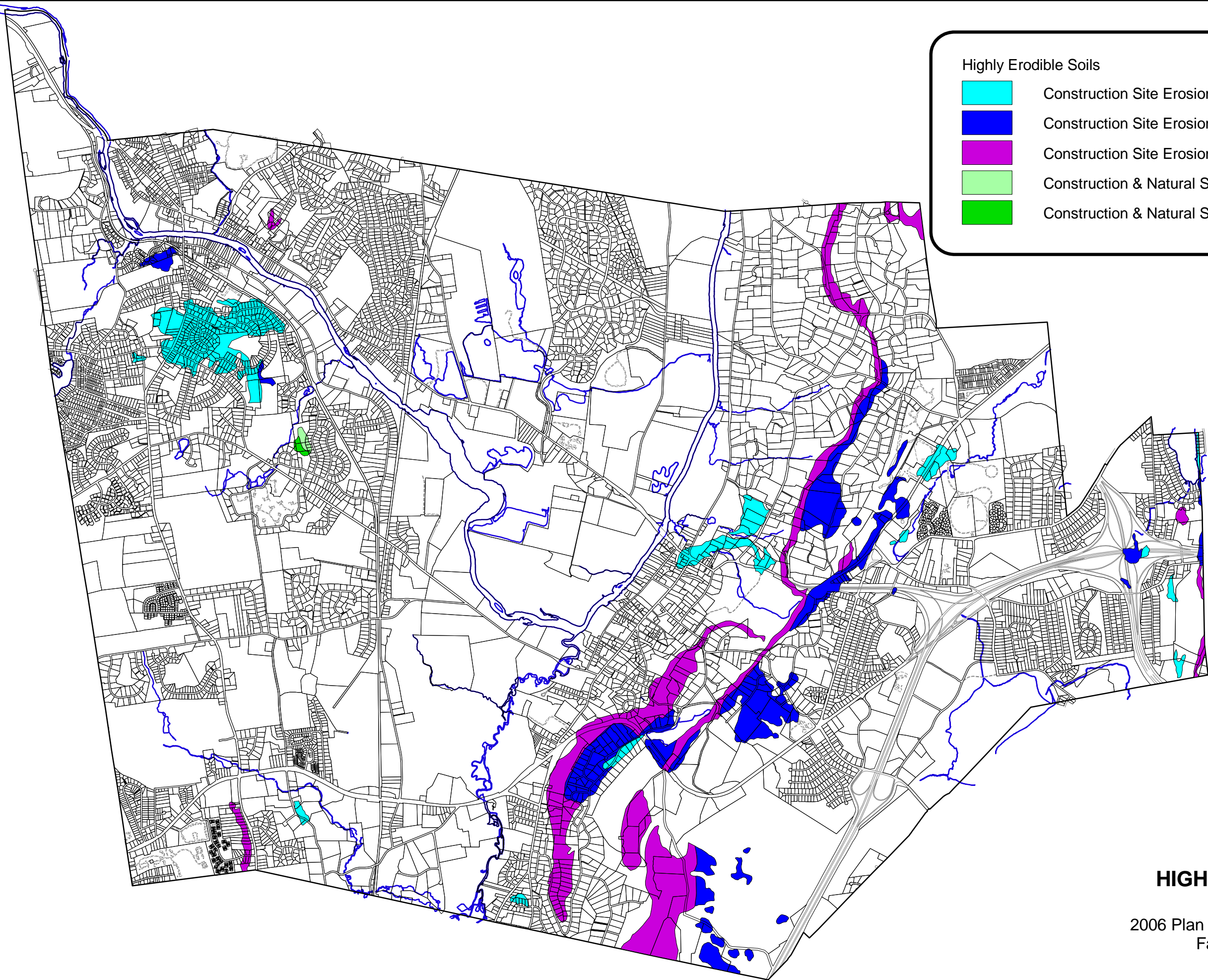


Map # 3

**STRATIFIED DRIFT AQUIFER/GLACIAL TILL
WITH PUBLIC WELL LOCATIONS**

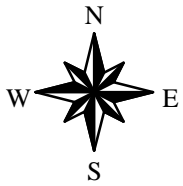
2006 Plan of Conservation & Development
Farmington, Connecticut

MAP # 5-3



Highly Erodible Soils

- Construction Site Erosion Hazard; 3-8% Slope
- Construction Site Erosion Hazard; 8-15% Slope
- Construction Site Erosion Hazard; >15% Slope
- Construction & Natural Site Erosion Hazard; 3-8% Slope
- Construction & Natural Site Erosion Hazard; >8% Slope



Map #4

HIGHLY ERODIBLE SOILS

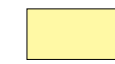
2006 Plan of Conservation & Development
Farmington, Connecticut

LEGEND

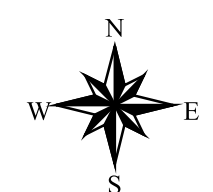
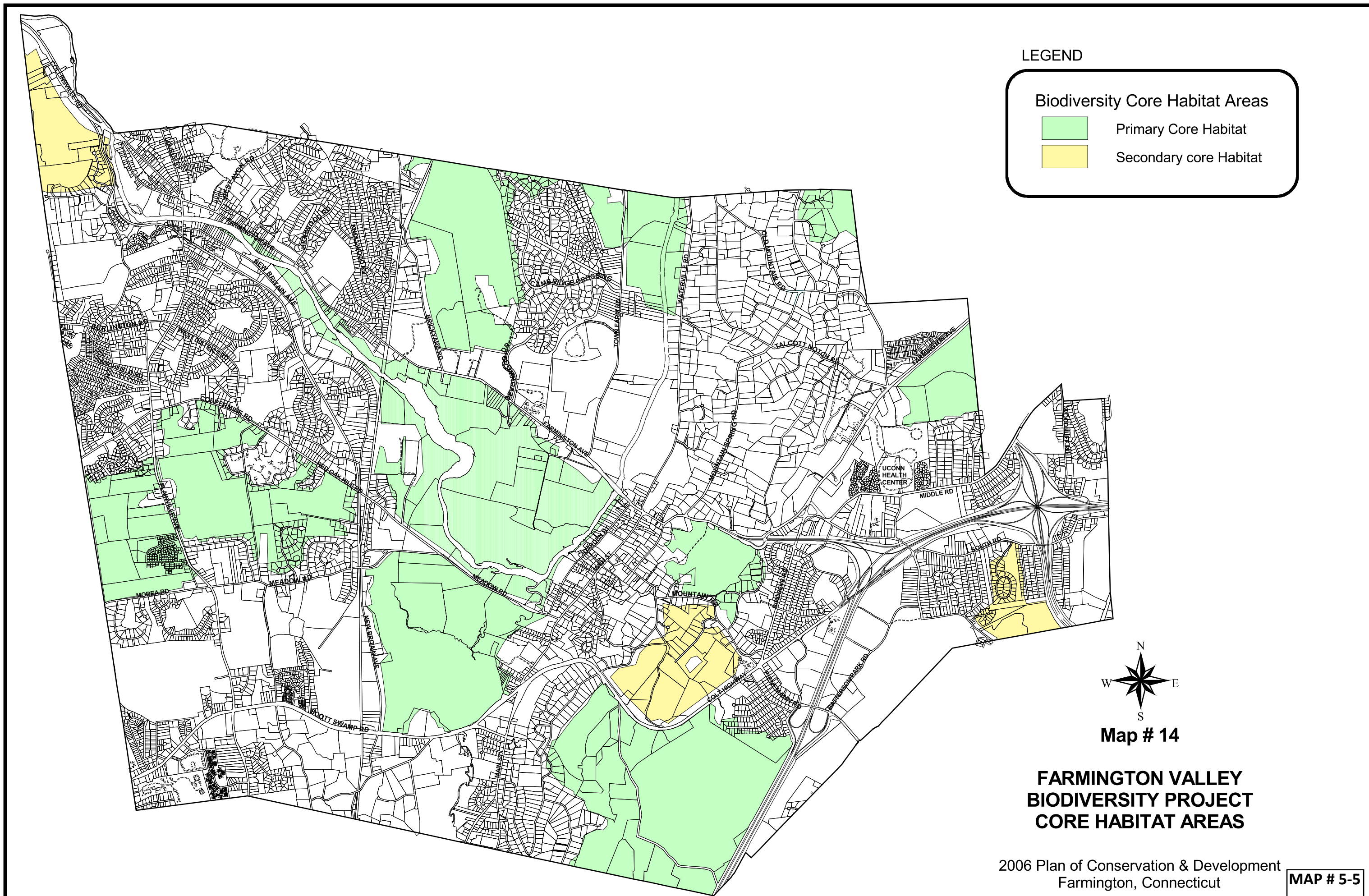
Biodiversity Core Habitat Areas



Primary Core Habitat

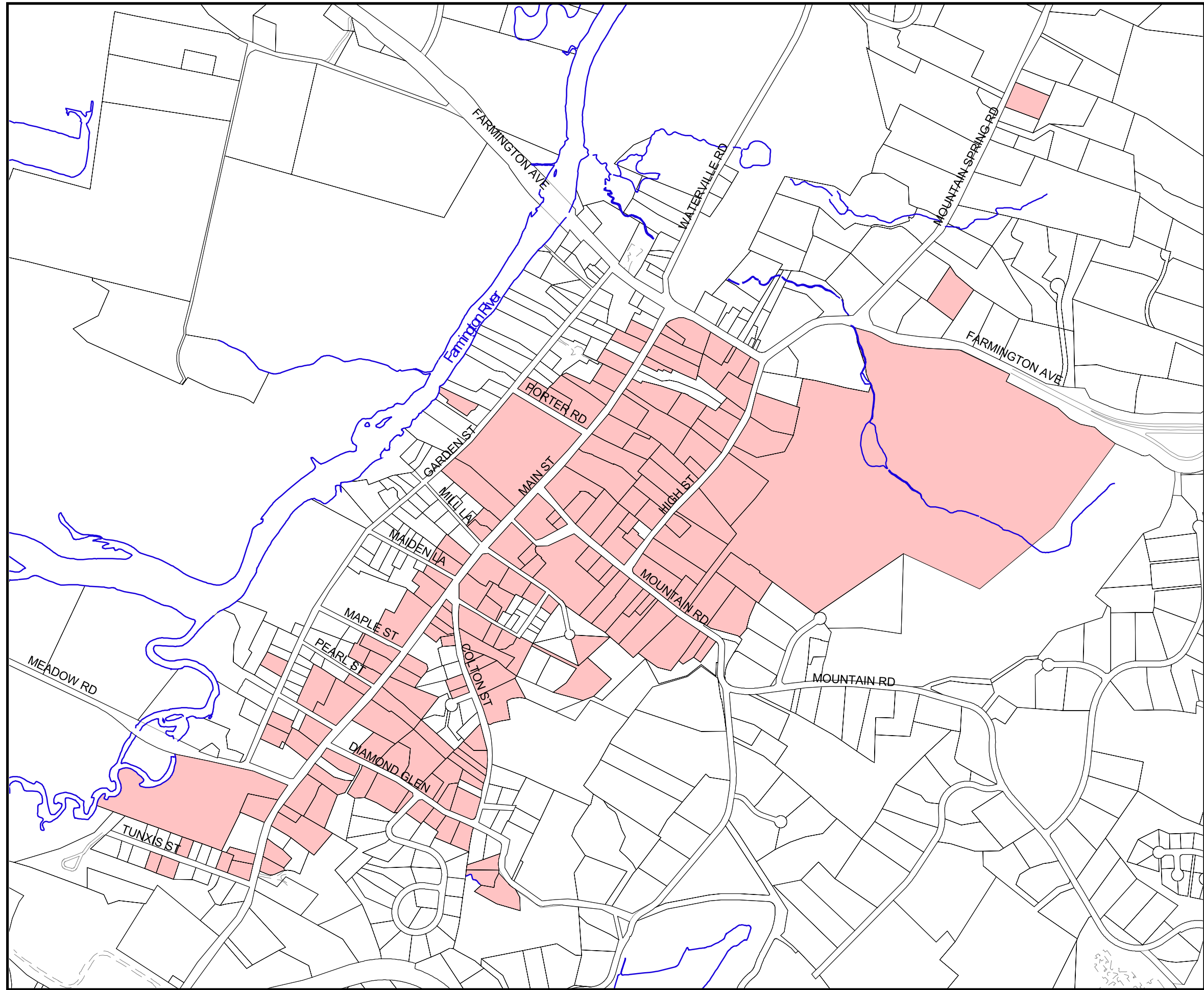


Secondary core Habitat

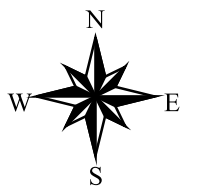


Map # 14

**FARMINGTON VALLEY
BIODIVERSITY PROJECT
CORE HABITAT AREAS**



 Historic District Properties



Map # 10

Farmington Historic District

2006 Plan of Conservation & Development
Farmington, Connecticut

1" = 800'

MAP # 5-6

SECTION 3 – Area Studies

SECTION 3
Chapter 6- Introduction

In preparing a Plan of Conservation and Development the Connecticut General Statutes Section 8-23 requires that the plan include discussion regarding the “*Redevelopment and revitalization of commercial centers and areas of mixed land uses with existing or planned physical infrastructure*”.

In order to determine which areas to focus on the Commission undertook a process in which they reviewed each neighborhood within Farmington to ascertain which areas were susceptible to change and subject to further development and redevelopment.

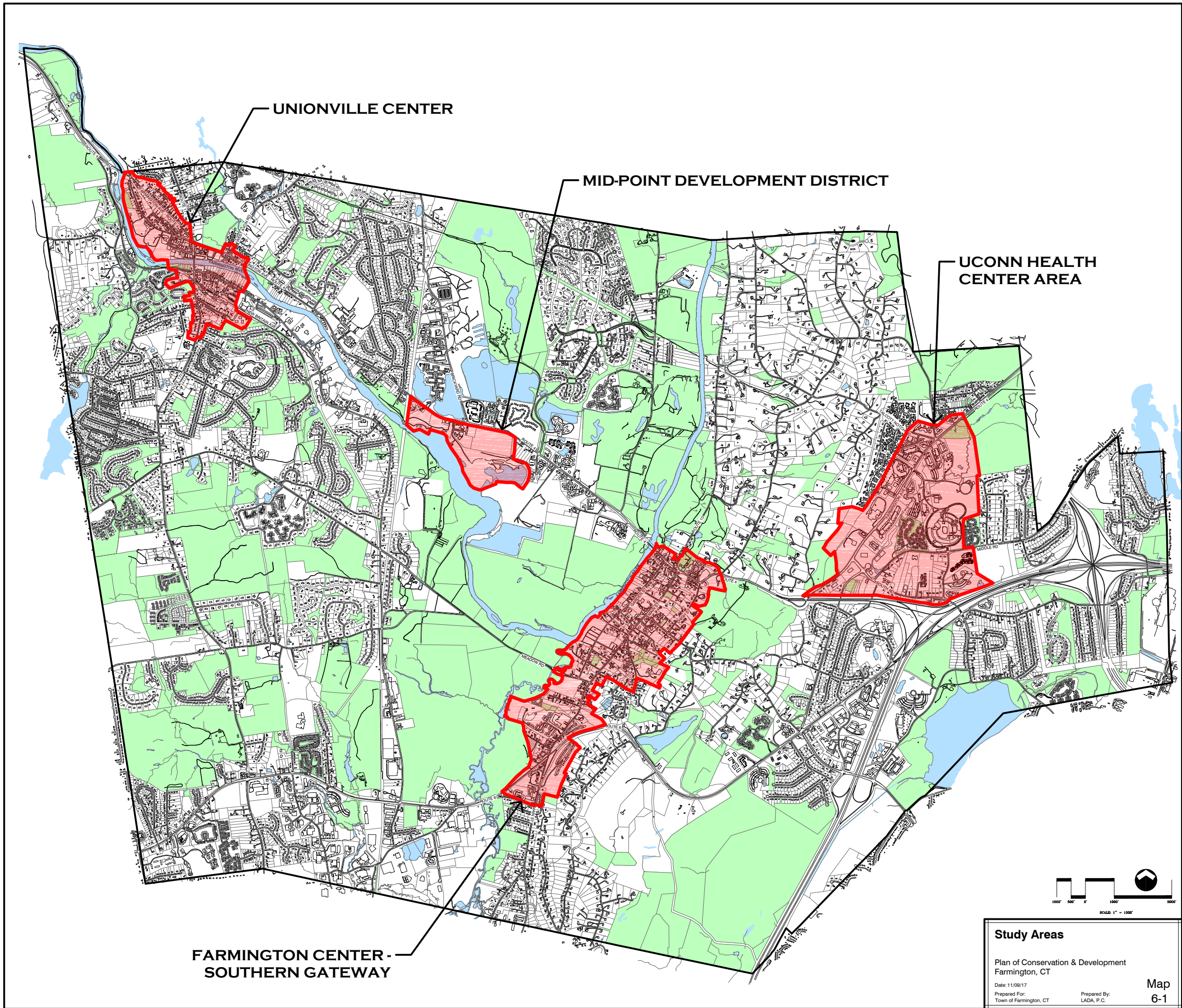
As discussed in the land use section, the majority of Farmington is fully built and composed of attractive residential neighborhoods. In this 10 year planning window, little change is anticipated.

Based on the discussion in the land use section of this document and understanding the development potential and market forces within Farmington, four areas stand out as being worthy of more detailed discussion. As noted on Maps 6-1 and 6-2, these areas are:

- UCONN Health Center area
- Farmington Center
- Unionville Center
- Mid-point Development District

This plan will now present four area studies. These special area studies will establish general land use policy for these areas and make recommendations for future zoning. The overall goal is to direct land use in a manner which is most beneficial to the community. Equally important is ensuring that all of these areas are accessible and well-connected internally and with each other. Connected via the automobile is no longer sufficient. The areas must be connected for the pedestrian and the bicyclist and easily accessible to area bus routes.

The next map (Map 6-3) is a conceptual vision of connectedness. The vision connects all four (4) areas to one another, to surrounding neighborhoods and to the Farmington Industrial Park and to its many employees. The spine of the connection is envisioned to be a ten (10) foot wide multi-use trail tying directly into the existing Farmington River Canal Trail.

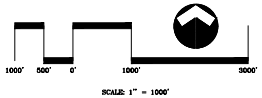


UNIONVILLE CENTER

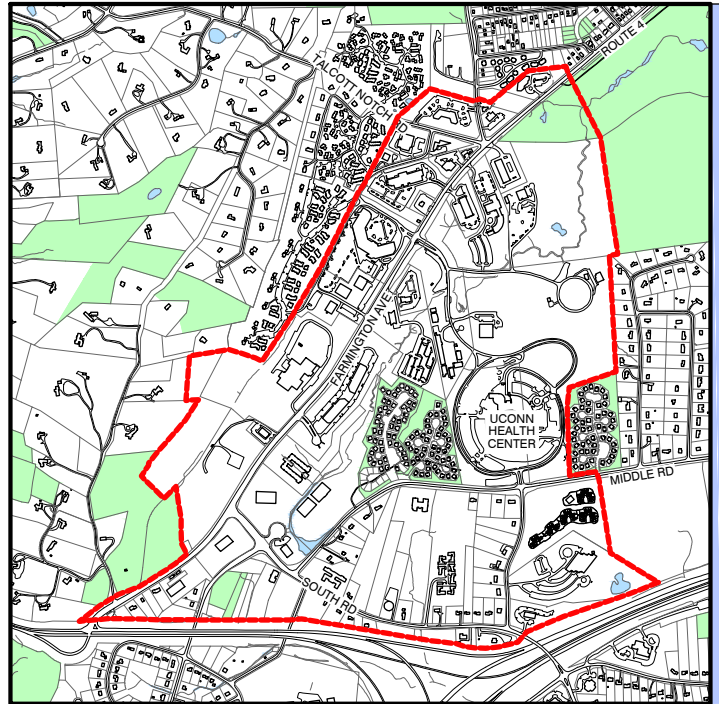
MID-POINT DEVELOPMENT DISTRICT

UConn HEALTH CENTER AREA

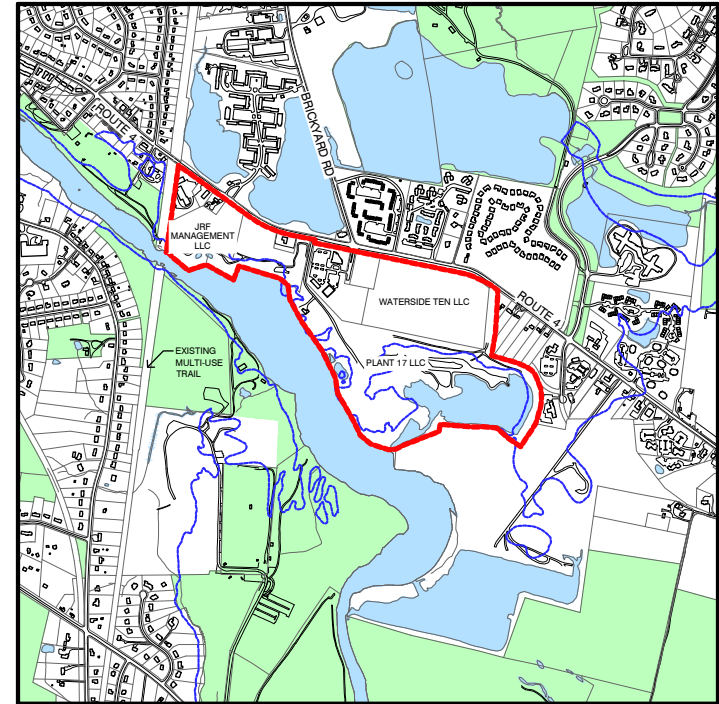
FARMINGTON CENTER - SOUTHERN GATEWAY



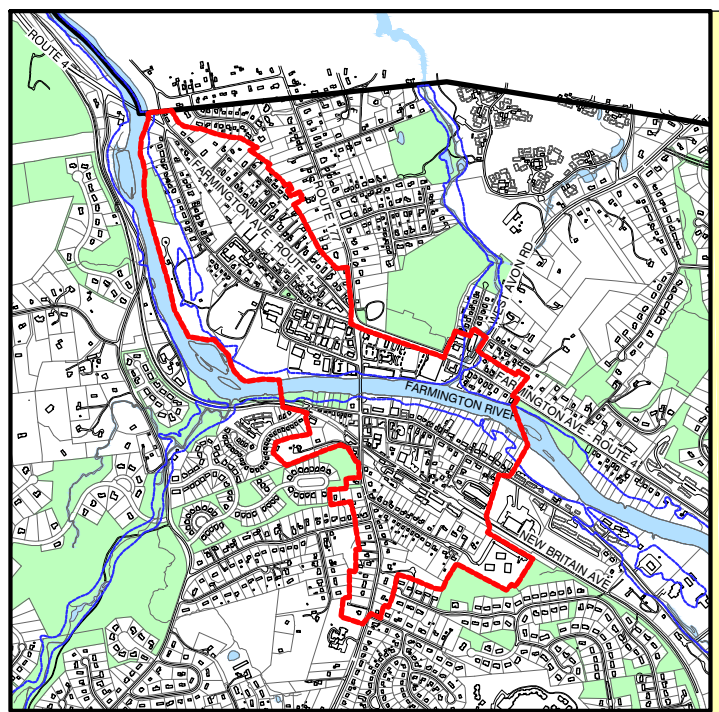
Study Areas
Plan of Conservation & Development
Farmington, CT
Date: 11/09/17
Prepared For: Town of Farmington, CT
Prepared By: LADA, P.C.
Map 6-1



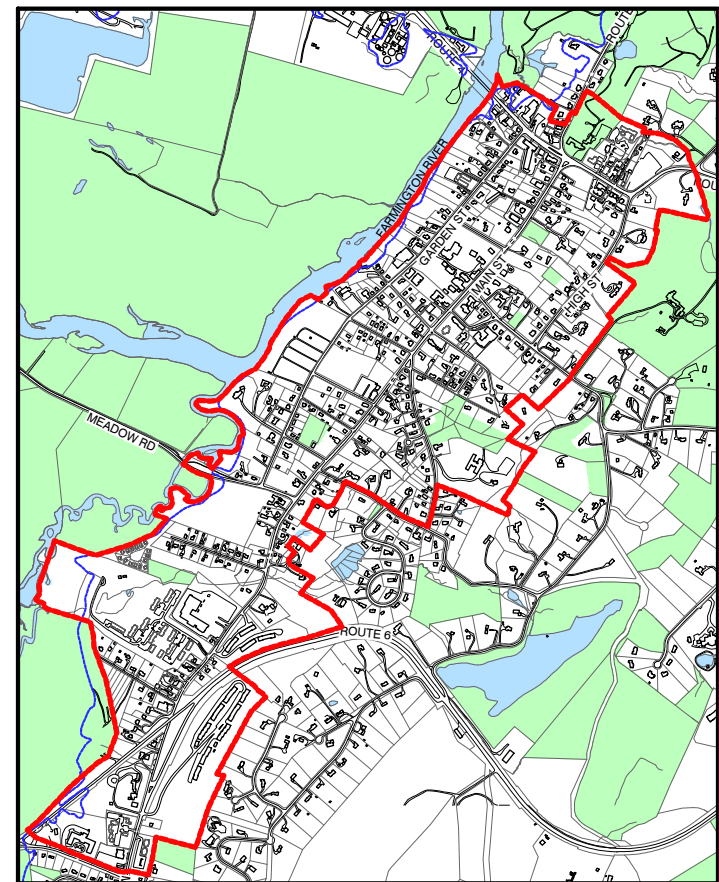
UCONN Health Center Area



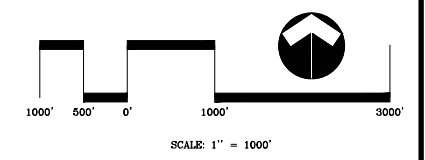
Mid-Point Development District



Unionville Center



Farmington Center - Southern Gateway



Study Areas

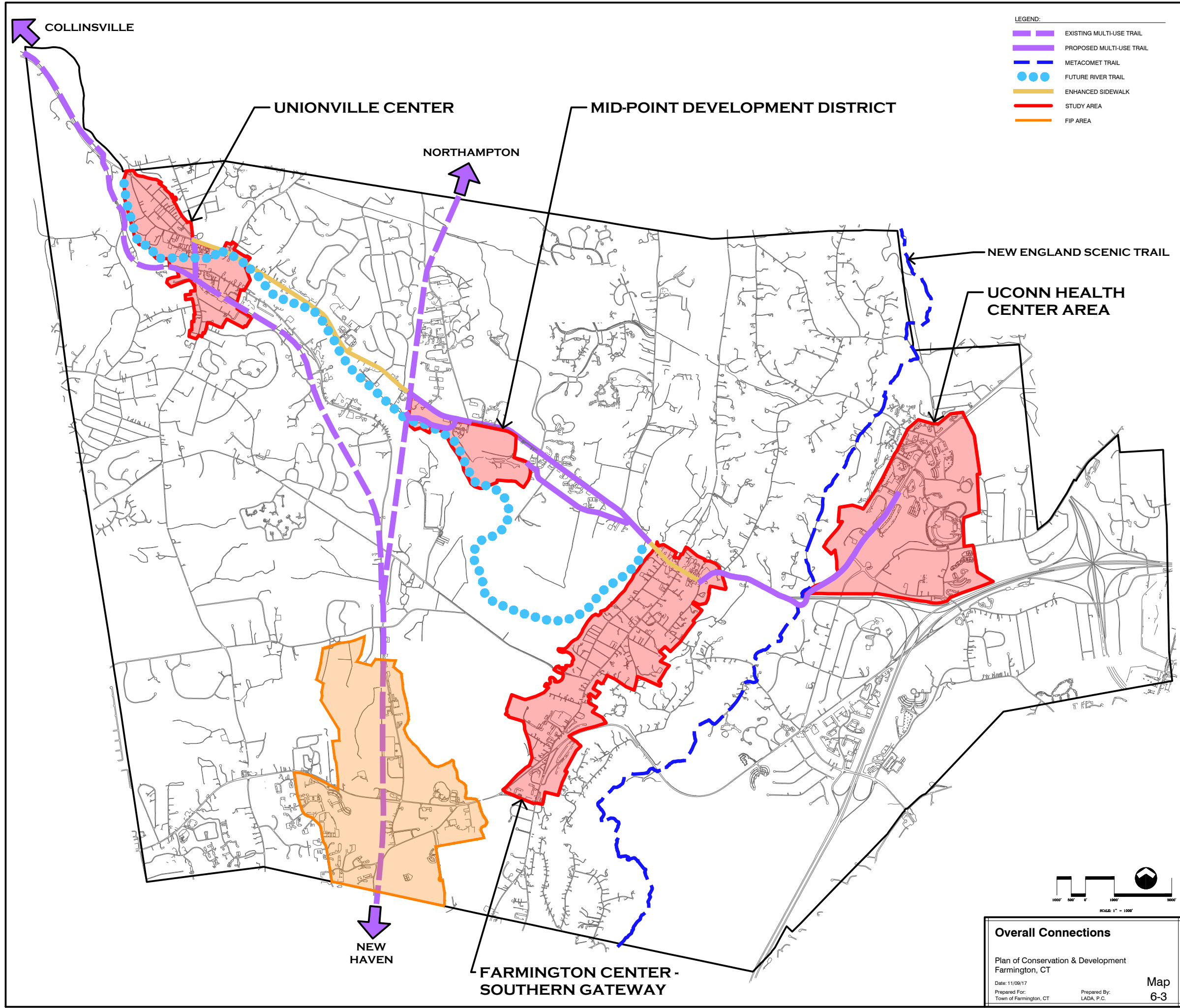
Plan of Conservation & Development
Farmington, CT

Date: 11/09/17
Prepared For:
Town of Farmington, CT

Prepared By:
LADA, P.C.



View of Multi-Use Trail in Farmington



- LEGEND:**
- EXISTING MULTI-USE TRAIL
 - - - PROPOSED MULTI-USE TRAIL
 - METACOMET TRAIL
 - · · FUTURE RIVER TRAIL
 - ENHANCED SIDEWALK
 - STUDY AREA
 - FIP AREA

NEW ENGLAND SCENIC TRAIL

UCONN HEALTH CENTER AREA

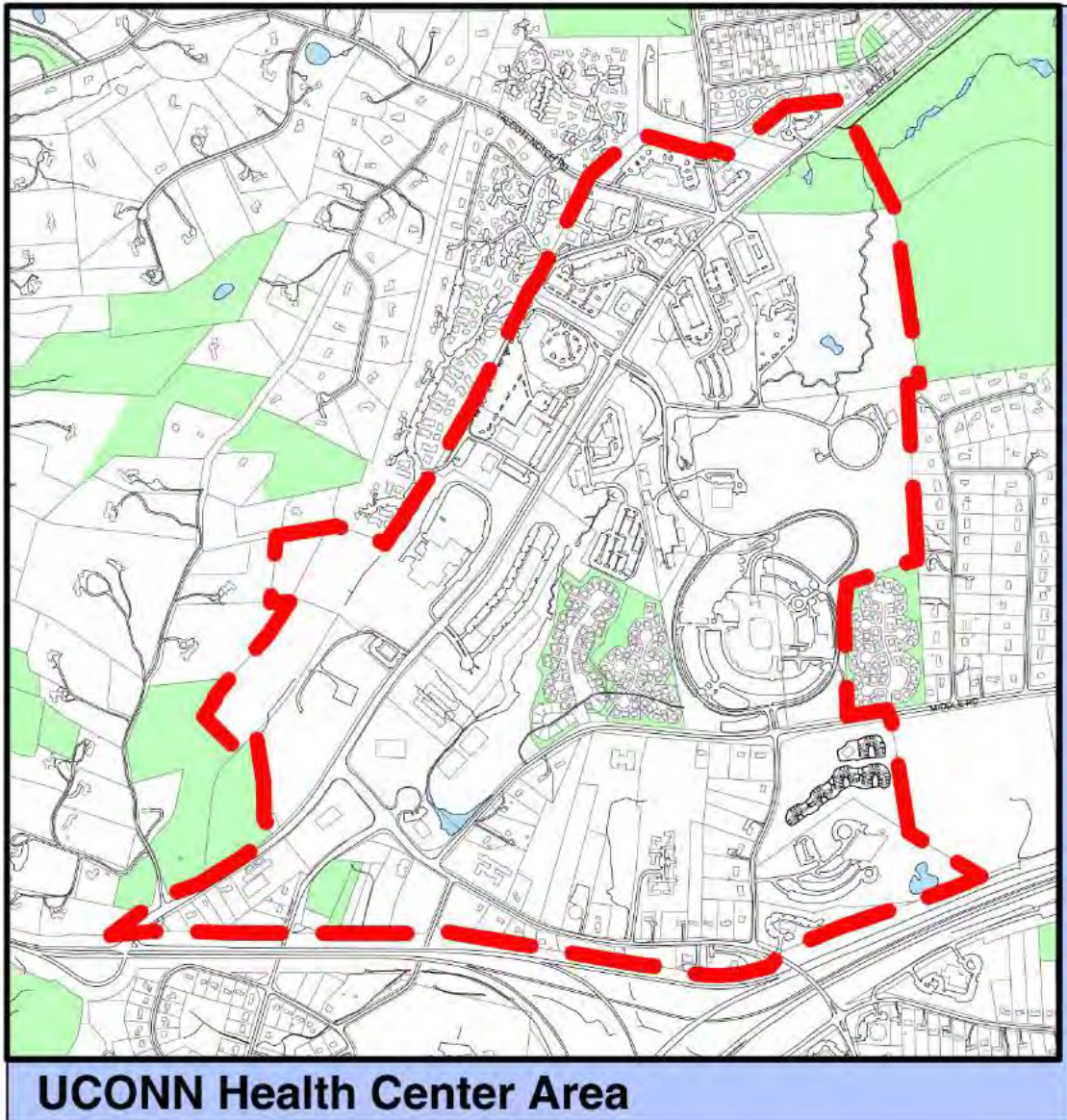
Overall Connections

Plan of Conservation & Development
Farmington, CT

Date: 11/09/17
Prepared For: Town of Farmington, CT
Prepared By: LADA, P.C.

Map 6-3

Chapter 7- UCONN Health Center Area



7.1. UCONN Health Center Study Area

During 2016 the Farmington Plan and Zoning Commission conducted public hearings addressing the area bounded by Middle, South and Munson Roads. The result of those hearings was an amendment to the Plan of Conservation and Development adopting the Southern Health Center Neighborhood Planning Study (adopted into this plan by reference) and amending the Zoning Regulations to create the Medical Office / Research Floating Zone.

Growth in the area continues in 2017. Three (3) new medical office buildings are under construction, including one in the new Medical Office Research floating zone. This building would not have been developed if the Commission did not take a proactive stance for the area and create new zoning. While the Southern Health Center Study only impacted a small area within the overall Health Center area it did identify very significant market forces and trends that cannot be ignored.

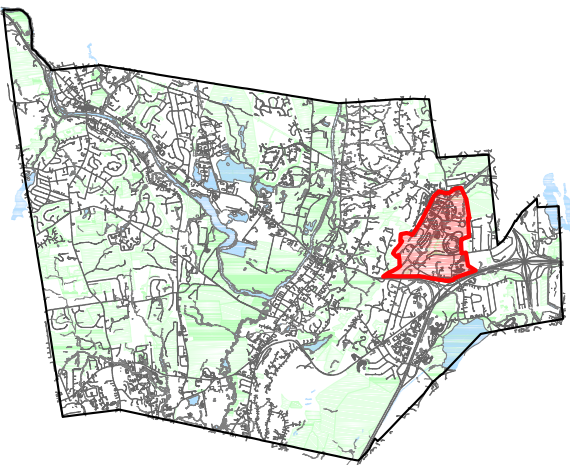
This area is a significant portion of the town's grand list and represents thousands of jobs. It is also one of the most commonly recognized sections of Farmington for those visiting and passing through. It is important to create a positive impression of the area.

7.2 Live / Work / Play

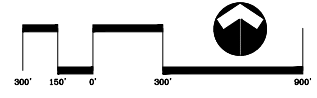
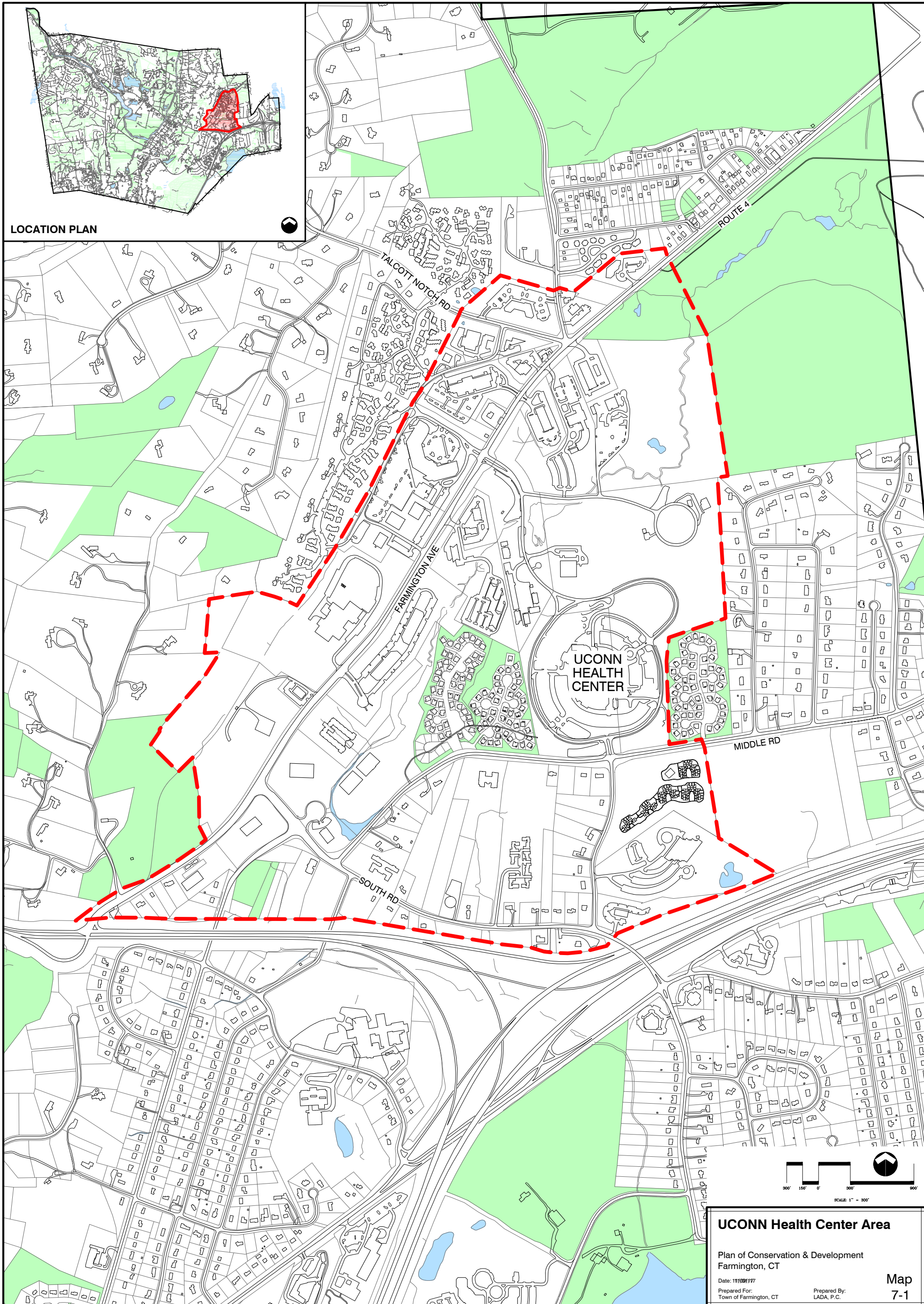
With the speed of technological advances, the states investment in biotech, the presence of UCONN and YALE bioscience programs, the highly educated pool of researchers and employees and the aging of the baby boom generation there is little doubt that medical office / research clusters will continue to thrive in Connecticut.

Attracting educated professionals to work in these clusters in Connecticut will be challenging. The most attractive clusters will be those that are in close proximity to a hospital, transportation corridors and that provide for a live / work / play environment. The highly educated and skilled, among the two largest demographic segments, will be in a position to demand these amenities when making employment decisions. With enhanced technology they will be able to work from anywhere they choose.

Until recently, these science/research clusters functioned during the workday for 8-10 hours with housing, restaurants, and retail in other surrounding areas. Science Park in New Haven is one of the most recognized bio-science clusters. Developers at Science Park have embarked on projects to add residential and retail spaces designed to reshape Science Park into a 24-hour community. The goal is to further entrepreneurship at Yale and to encourage students to stay in New Haven and to start businesses after graduation. (Source: Yale News)



LOCATION PLAN



SCALE: 1" = 300'

UCONN Health Center Area

Plan of Conservation & Development
Farmington, CT

Date: 11/09/17

Prepared For:
Town of Farmington, CT

Prepared By:
LADA, P.C.

Map
7-1

The Farmington Health Center cluster would benefit from investment similar to what is occurring at Science Park in New Haven. Making these investments will allow entrepreneurs and researchers, who often work late into the night, to live, work and play at venues within walking distance of each other. Farmington's safe and relatively crime free environment is also a significant advantage.

What has made Farmington's Health Center neighborhood attractive is the state's \$1 billion investment in bioscience, a very low mill rate compared to other central Connecticut communities, its location in the center of the state, its proximity to UCONN Medical / Research Complex, Jackson Laboratories and Interstate 84.

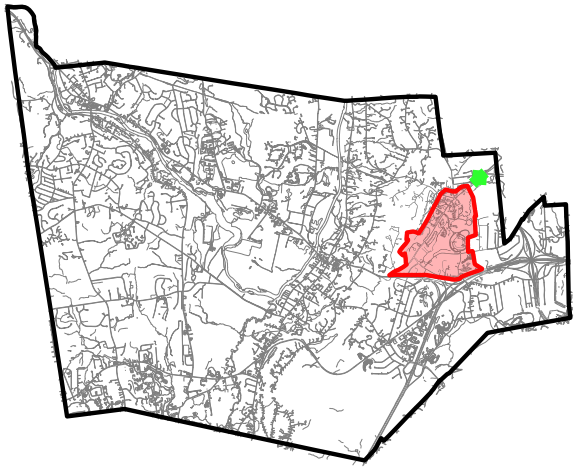
The corporate offices along I-84, including United Technologies World Headquarters (work), the MDC Reservoirs (play), the West Farms Mall retail area (play) and West Hartford Center / Blue Back Square (play) are all within 3 miles of the Farmington Health Center Neighborhood. As discussed in another section of this plan, the emerging Farmington Center (live/play) will also benefit greatly from the success of the Farmington Health Center neighborhood.

These live/work/play amenities present a tremendous opportunity to create a community that is attractive to the millennial's who will represent the labor pool for the work component of live/work/play.

7.3 Recommendation

Create a 24 hour community. A community where people can live, work and play without the need for a car. This includes creating a walk-able and bike-able environment and allowing higher density living. The growth of UBER type transportation options, autonomous vehicles, Pea-Pod and Amazon grocery shopping will make this goal more and more achievable and affordable. What is clearly lacking is a supply of modern, high tech, highly efficient small rental apartments. Opportunities exist and the Commission will act proactively to address the need.

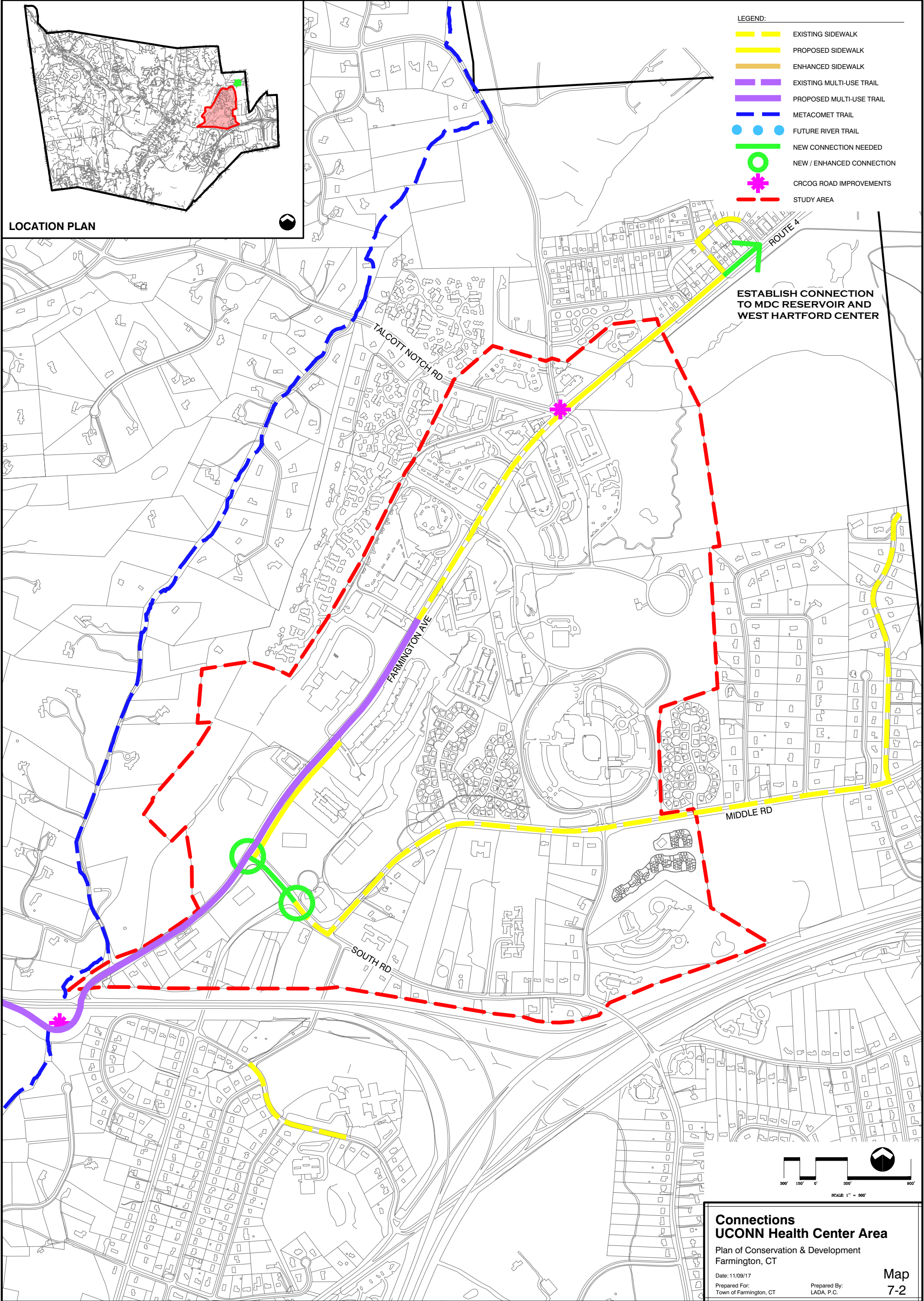
Connecting the live/work to amenities which allow for meaningful social interaction is also critical. The attached connections map displays existing and proposed connections within the area.



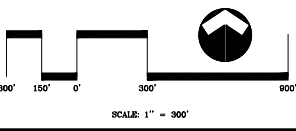
LOCATION PLAN

LEGEND:

- EXISTING SIDEWALK
- PROPOSED SIDEWALK
- ENHANCED SIDEWALK
- EXISTING MULTI-USE TRAIL
- PROPOSED MULTI-USE TRAIL
- METACOMET TRAIL
- FUTURE RIVER TRAIL
- NEW CONNECTION NEEDED
- NEW / ENHANCED CONNECTION
- CRCOG ROAD IMPROVEMENTS
- STUDY AREA



ESTABLISH CONNECTION TO MDC RESERVOIR AND WEST HARTFORD CENTER



Connections
UCONN Health Center Area
 Plan of Conservation & Development
 Farmington, CT

Date: 11/09/17
 Prepared For: Town of Farmington, CT
 Prepared By: LADA, P.C.

Map
 7-2



Proposed Bike Path Location at Route 4 Intersection



Proposed Road and Sidewalk Improvements at Route 4 and Talcott Notch Road

7.4. Development Opportunities

Map 7-3 displays those areas that are considered development/redevelopment opportunities. These areas can support significant development which would help establish a 24-hour community and be extremely beneficial to the economic well-being of Farmington.

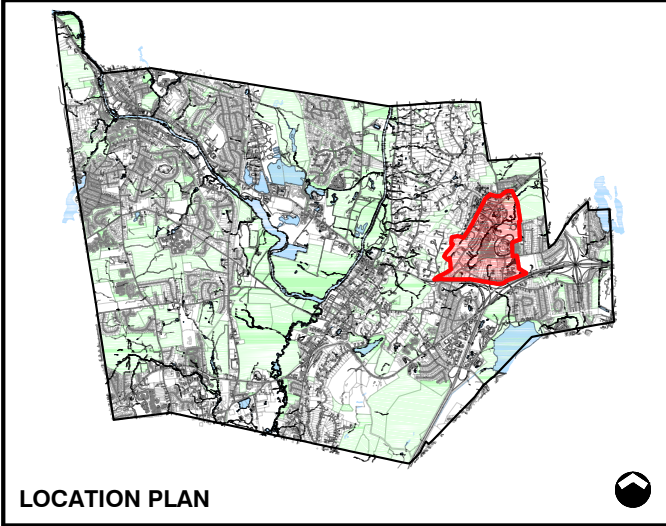
7.5 Area 1 – Quarry Road (approximately 36 acres of undeveloped land)

This area is composed of 2 parcels of land. A 17 acres parcel owned by the Town of Farmington and an 18.5 acre parcel of land owned by the Farmington Ave. Baptist Church.

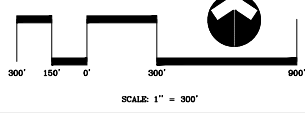
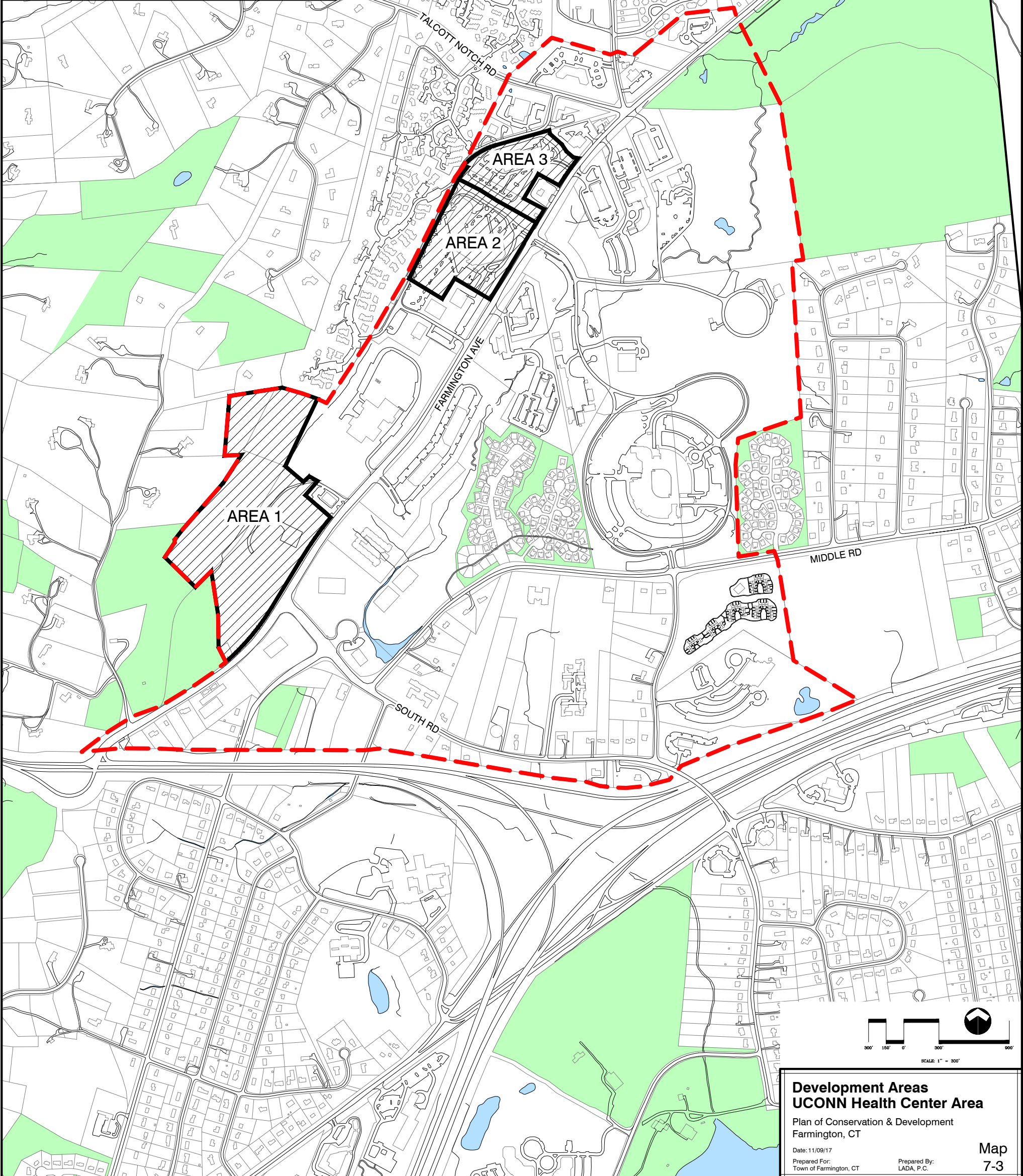
The town parcel is currently zone R80 residential and has over 1,400 feet of frontage on RT 4. It has direct access to Quarry Road and a signalized intersection. It has an inland wetland corridor along its rear property line and is environmentally challenged. The site was a former trap rock quarry. The quarry was approximately 60 feet deep. The Town acquired the quarry in and used it from the 1930's to 1970 as a municipal waste landfill. The town closed the 9 acre landfill in 1972 and subsequently capped the landfill with an engineered cap. The town currently uses the site as a, DEEP approved, leaf composting operation. Any development of the site would either have to relocate this operation to another acceptable location or within the existing 36 acre area.

There are very limited environmental investigations available for this site. The science behind the remediation and redevelopment of environmentally challenged sites has advanced greatly in the last decade. The strength of the location and the market may allow a developer to overcome the environmental challenges of the site. As the responsible party the town should seek to mitigate its potential exposure by working with the development community to permanently secure and transfer the site. Based on aerial photos and historic topographic mapping there is an area of approximately seven (7) acres which was not quarried and land filled. Increasing the density in that area and on the adjacent Baptist Church parcel and using the cap as parking may be the most feasible option.

The original Farmington Baptist Church parcel is zoned R80. It is an undeveloped parcel of 14.5 acres. The church subsequently acquired a 4.5 acre parcel from the adjacent State property. The same wetland corridor at the rear of the town parcel runs along the front of this parcel. This parcel has more topographic challenges but has the same access to Quarry Road and the signalized intersection. This parcel was designed for a 41,420 sq.ft. church/school complex and 160 parking spaces and a full size soccer field. The parcel



LOCATION PLAN



Development Areas
UCONN Health Center Area
Plan of Conservation & Development
Farmington, CT
Date: 11/09/17
Prepared For:
Town of Farmington, CT
Prepared By:
LADA, P.C.

Map
7-3

acquired from the state property has less topographic challenges and is zoned Business Restricted (BR) and is quite developable.

7.6 Area 2 – The Exchange (14 acres)

This parcel is zoned Business Restricted (BR) and was developed in 1970 as a 260,000 sq.ft. post and beam office/retail/ restaurant complex. The parcel has direct access to RT 4 via a signalized intersection and is directly across the street from the entrance to UCONN / JAX Labs. The 14-acre parcel is flat and completely free of wetlands. It abuts higher density residential condominiums. Currently the configuration of this building and it's reliance on traditional office space leases is a model that is not in high demand. The property has tremendous live/work/play redevelopment opportunities, if properly zoned.

7.7 Area 3 – Lohman's Plaza (9 acres)

This 9 acre parcel is zoned Business Restricted (BR), it is flat, free of inland wetlands and has direct access to a signalized intersection on RT 4. It also has access to a town road at the rear of the property.

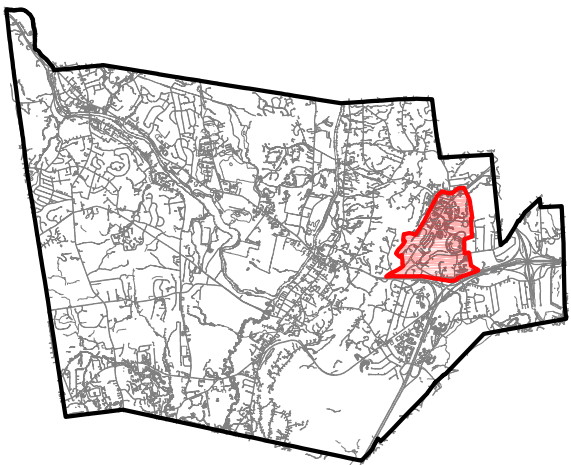
The parcel was developed in 1979 as a 43,000 sq.ft. retail plaza. As with Area 2, the market and demand for the retail spaces is weak as evidenced by retail spaces converting to non-retail uses such as dialysis center/day care/ fitness uses.

The parcel was recently auctioned and was acquired by a developer interested in redeveloping the site in accordance with market demand. This parcel and the abutting parcels have tremendous live/work /play redevelopment opportunities if proper zoning were in place.

7.8 Zoning

As shown on Map 7-4, there are nine different zoning designations within the study area. These zones range from Farmington's lowest density zone (R80) to active adult zones, affordable housing zone, business zones, professional office zones, an industrial zone and a medical office floating zone.

This amalgamation of zones does not provide clear direction to landowners and developers on the most desirable future land uses for the area. The current residential zoning promotes additional single family homes on large lots. The B1 and BR zones allow uses such as fast food restaurants, gas stations, car washes and convenience stores. The Professional Offices and the Medical Office Campus zones appropriately allow professional and medical offices but does not



LOCATION PLAN

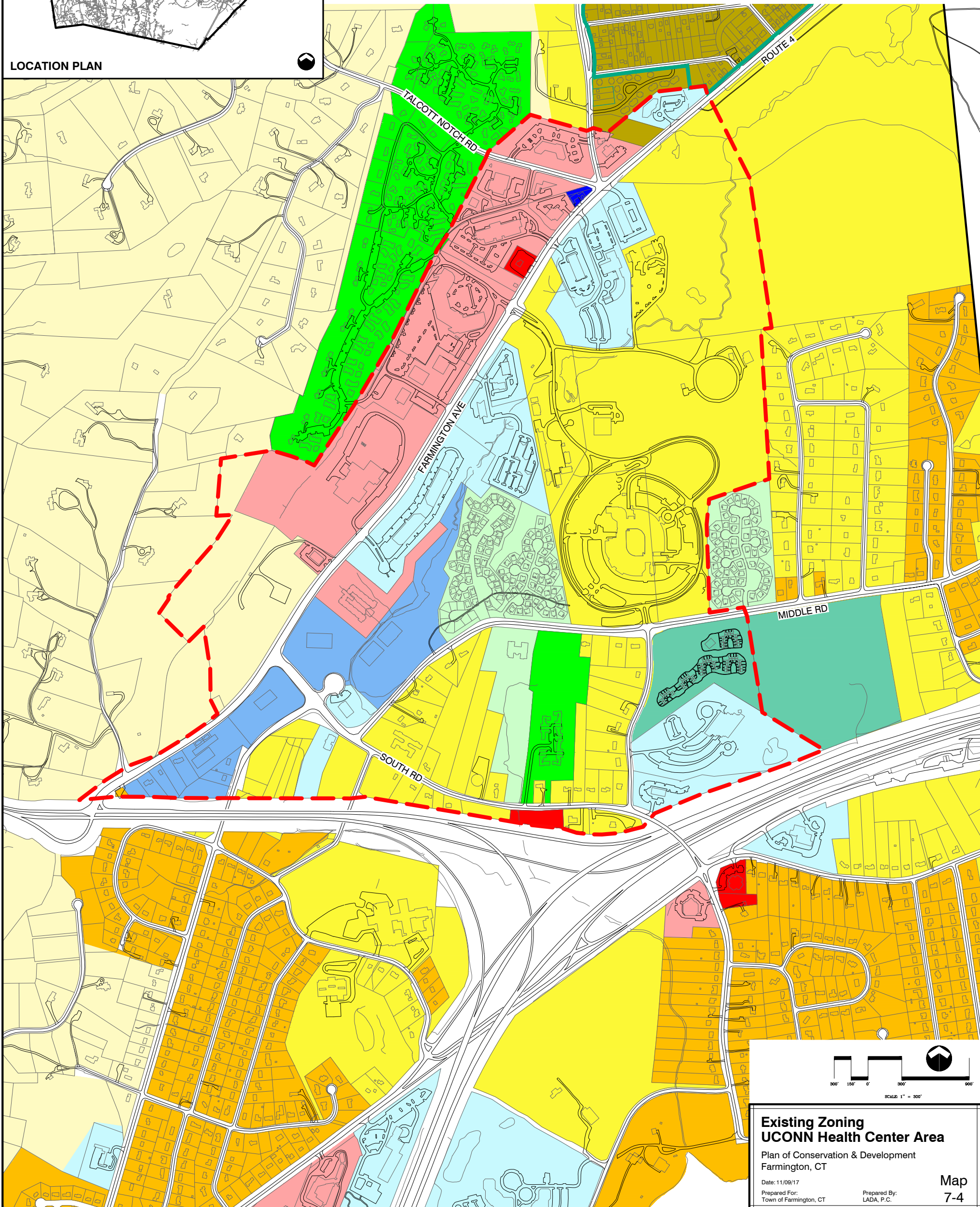
CURRENT ZONES

- R80 - RESIDENTIAL R80
- R40 - RESIDENTIAL R40
- R30 - RESIDENTIAL R30
- R20 - RESIDENTIAL R20
- R12 - RESIDENTIAL R12
- R9 - RESIDENTIAL R9
- AH - AFFORDABLE HOUSING ZONE

- SA - SENIOR/ACTIVE ADULT HOUSING ZONE
- RDM - RESIDENTIAL DESIGN MULTIPLE ZONE
- RA - RESIDENTIAL MULTI-FAMILY ZONE, INACTIVE
- PR - PROFESSIONAL OFFICE ZONE
- BR - BUSINESS RESTRICTED ZONE
- B1 - BUSINESS B1 ZONE
- CR - INDUSTRIAL CR ZONE
- OG - OAKLAND GARDENS
- LG - LAKE GARDA

- C1 - INDUSTRIAL C1 ZONE
- EE - EARTH EXCAVATION ZONE
- HOD - HOUSING OPPORTUNITY
- FP - FLOOD PROTECTION ZONE*
- UC/UV - UNIONVILLE CENTER/VILLAGE DISTRICT ZONE
- MOC - MEDICAL OFFICE CAMPUS ZONE
- FC-FV - FARMINGTON CENTER/VILLAGE DISTRICT ZONE
- FLOOD PERIMETER OVERLAY ZONE

*FLOOD PROTECTION ZONE IS APPROXIMATE ONLY.



Existing Zoning
UCONN Health Center Area
 Plan of Conservation & Development
 Farmington, CT
 Date: 11/09/17
 Prepared For: Town of Farmington, CT
 Prepared By: LADA, P.C.

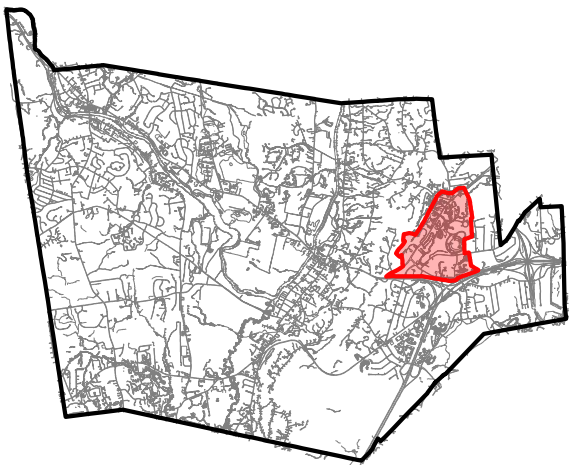
Map
7-4

allow multi-family residential and supportive uses such as small eating establishments, coffee shops and personal services.

7.8 Recommendation - It is recommended that a new floating zone be established to allow and encourage variety and flexibility in development that will be in harmony with this Plan of Conservation and Development. The floating zone will allow higher density office development than the underlying zone and mixed use development by permitting multi-family development and retail/commercial development on the same parcel within the UCONN Health Center neighborhood, as displayed on Map 7-5.

For consistency and to be prepared in case the state divests itself of some of its assets, the floating zone also encompasses the State of Connecticut land associated with the hospital.

This new “Innovation Floating Zone” should also be applied to the I-84 Corporate office area, including the UTC Campus. The zone is designed to provide flexibility and relief from rigid standards. This flexibility will show these corporations that Farmington is doing everything possible to allow and encourage these corporations to grow and prosper in Farmington.

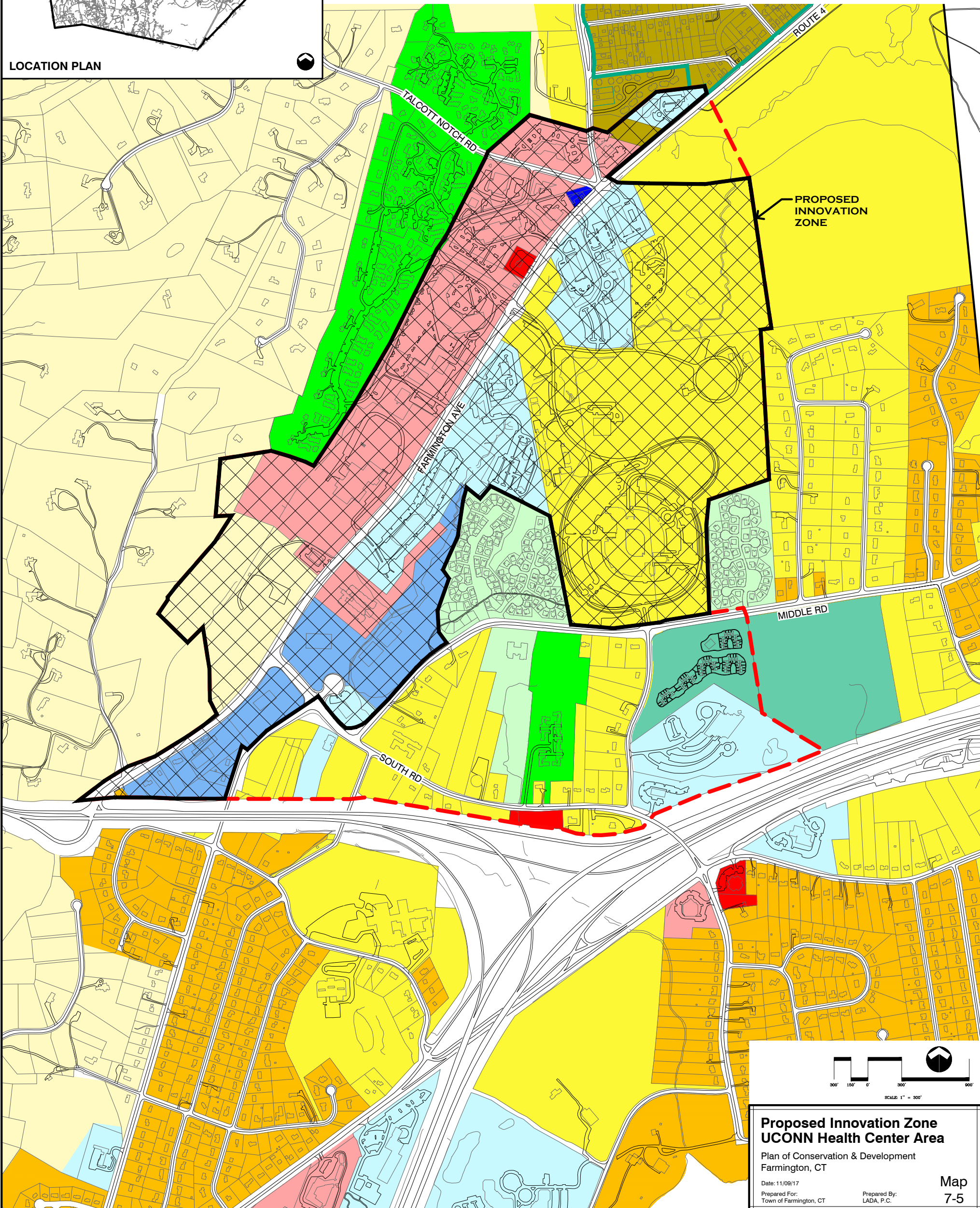


LOCATION PLAN

CURRENT ZONES

- | | | |
|------------------------------|--|---|
| R80 - RESIDENTIAL R80 | SA - SENIOR/ACTIVE ADULT HOUSING ZONE | C1 - INDUSTRIAL C1 ZONE |
| R40 - RESIDENTIAL R40 | RDM - RESIDENTIAL DESIGN MULTIPLE ZONE | EE - EARTH EXCAVATION ZONE |
| R30 - RESIDENTIAL R30 | RA - RESIDENTIAL MULTI-FAMILY ZONE, INACTIVE | HOD - HOUSING OPPORTUNITY |
| R20 - RESIDENTIAL R20 | PR - PROFESSIONAL OFFICE ZONE | FP - FLOOD PROTECTION ZONE* |
| R12 - RESIDENTIAL R12 | BR - BUSINESS RESTRICTED ZONE | UC/UV - UNIONVILLE CENTER/VILLAGE DISTRICT ZONE |
| R9 - RESIDENTIAL R9 | B1 - BUSINESS B1 ZONE | MOC - MEDICAL OFFICE CAMPUS ZONE |
| AH - AFFORDABLE HOUSING ZONE | CR - INDUSTRIAL CR ZONE | FC-FV - FARMINGTON CENTER/VILLAGE DISTRICT ZONE |
| | OG - OAKLAND GARDENS | FLOOD PERIMETER OVERLAY ZONE |
| | LG - LAKE GARDA | |

*FLOOD PROTECTION ZONE IS APPROXIMATE ONLY.

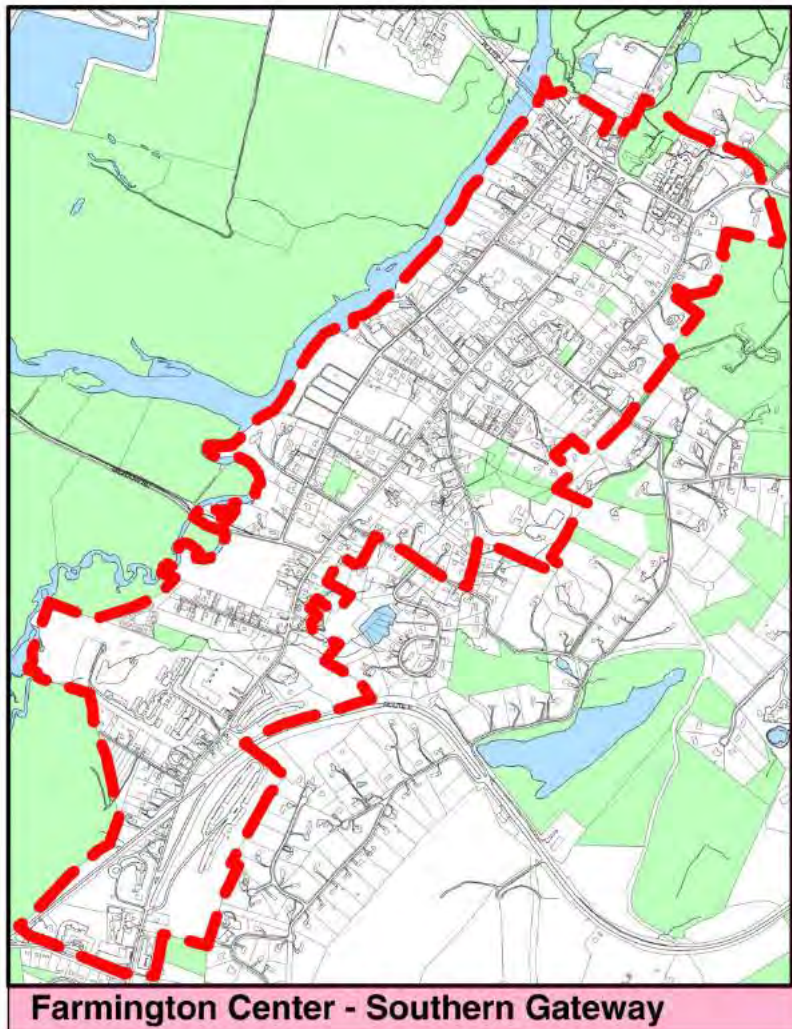


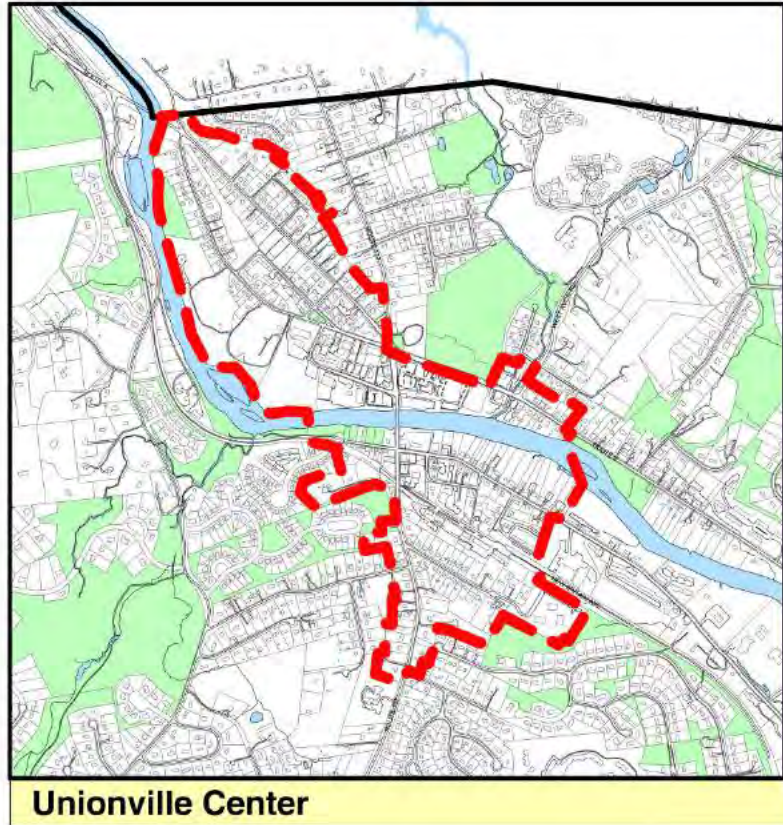
**Proposed Innovation Zone
UCONN Health Center Area**
 Plan of Conservation & Development
 Farmington, CT
 Date: 11/09/17
 Prepared For: Town of Farmington, CT
 Prepared By: LADA, P.C.
 Map 7-5

Chapter 8- Farmington and Unionville Centers

As discussed in the Current Conditions section of this plan the two largest population groups in Connecticut, the baby boom and millennial generation, are interested in mixed use, walk-able and higher density environments. If done carefully town centers are predicted to be the most viable areas within communities.

Farmington is fortunate to have two (2) town centers, Unionville and Farmington Center. Both have been studied and been the subject of extensive public workshops.





The Planning and Zoning Commission recognized the future desirability of these more urban centers and created the Unionville Center / Village District Zone and the Farmington Center / Village District Zone. These existing zones allow higher density mixed use development subject to very careful review by an Architectural Review Board and the Planning and Zoning Commission. The Village District designation gives the Commission complete control of the building design and material selection.

The existing zoning allows a desirable pattern of development for the two town centers.

8.1 Farmington Center Study

The State of Connecticut Department of Transportation, in an effort to improve safety and traffic flow along the Route 4 Corridor, was embarking on a comprehensive reconstruction of the roadway in the town center that currently has 28,000 vehicles per day. As a result of this project, the Town was concerned that the physical character of its center will suffer, pedestrian movements will become difficult and unsafe and that there may be disinvestment. With these

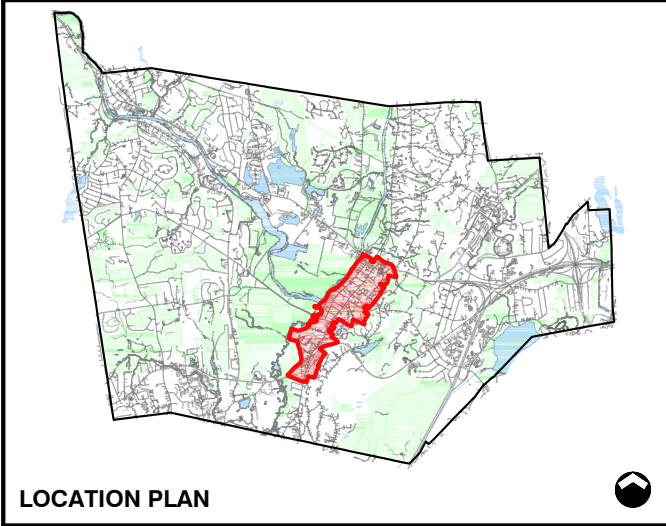
points in mind, local officials determined that a comprehensive long-term process would be required to insure that the corridor would be both protected and enhanced.

Over a period of three days in 2015 (March 26th, 27th and 28th) close to 500 Farmington residents participated in workshops to develop strategies and goals for addressing this challenge. Building on excellent work previously produced by the Town, Dodson & Flinker, Mullin Associates and Town staff set the stage for residents and Town leaders to explore a range of options for guiding and leading the future evolution of the Farmington Center study area.

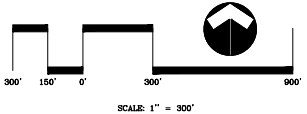
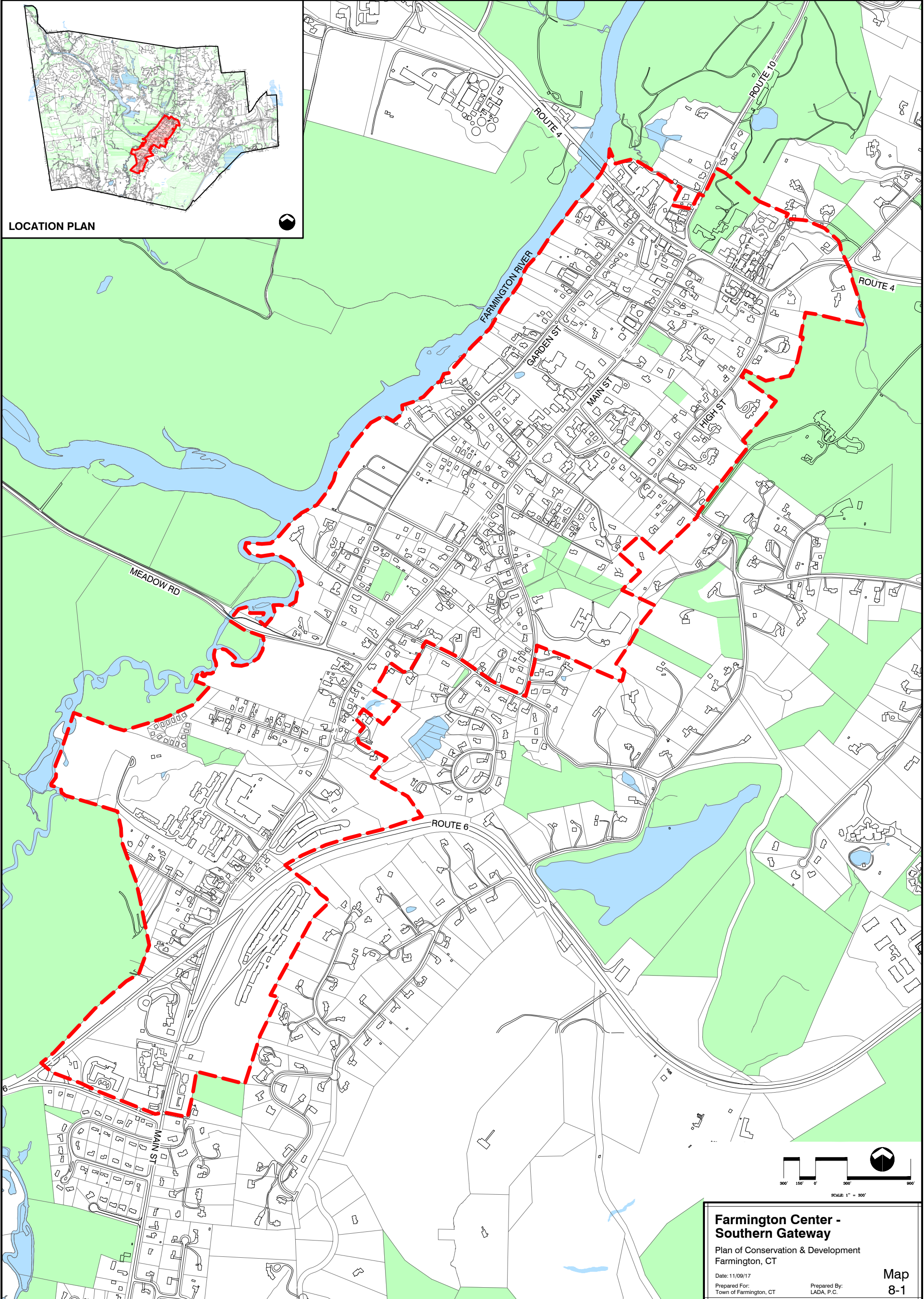
The workshops included a lively Strengths, Weaknesses and Opportunities and Threats (SWOT) Analysis with over 250 participants. A walking tour of the study area with over 60 participants and a Saturday morning model building workshop with over 200 participants. The results are included in a report entitled - **Farmington Center Study – June 15, 2015.** The report is an excellent summary of what was discussed in the workshops. This study is incorporated by reference as a part of the 2018-2028 Plan of Conservation and Development.

Study Recommendations - Some of the recommendations specific to the Plan and Zoning Commission include:

1. The town should work to expand the Farmington Center historic district so as to include all of the inventoried CT Register historic structures.
2. All street improvements associated within the corridor should be uniquely designed to match its character.
3. The town should rezone the entire study area to Farmington Center/Village District zone. That zone includes an advisory review by the Architectural and Design Review Committee and architectural guidelines. Other areas within the study area are zoned Business Restricted (BR) and Business (B1). These zones are more geared towards the creation of strip commercial development. The allowed uses, the setback areas, the lot coverage and parking requirements will not result in a development pattern conducive to the pedestrian Farmington Center. The entire study area, from Parsons to the Farmington River, should be zoned Farmington Center/Farmington Village District zone.
4. Encourage Mixed Uses and Zoning
The corridor should function as a mixed-use district. First floor retail and restaurants and upper-story residential, and office uses should be encouraged. The residential will create a captive population to support the retail. Public spaces (green, band shell, fountains, seating etc.) and public parking should be discreetly created on the Parsons property.
5. The majority of the study area is zoned Farmington Center/Farmington Village District zone. This zone was created specifically for this area. The purpose of this zone is as follows:



LOCATION PLAN



Farmington Center - Southern Gateway
 Plan of Conservation & Development
 Farmington, CT
 Date: 11/09/17
 Prepared For: Town of Farmington, CT
 Prepared By: LADA, P.C.

Map
8-1

“To preserve and protect the existing historic landscape and structures within the zone as well as considering potential infill and redevelopment that will complement the same. The following design regulations shall guide mixed-use development; historic development patterns, view and vistas; a village streetscape; and pedestrian access and safety in concert with the objectives found in the Farmington Plan of Conservation and Development.”

Zoning should be amended to require that all parking shall be located behind buildings, there be no additional curb cuts on RT 4, there be a maximum parking requirement in addition to a minimum, there be a maximum front setback of five (5) feet for buildings fronting on RT 4, a specific allowance and encouragement of underground parking and parking structures to the rear of the Parsons property, a mandatory residential component and a requirement that all first floor uses in buildings be restricted to retail and personal service shops, restaurants, coffee shop, gallery, shop, entertainment and restaurant's. Banks, real estate offices and similar uses should not be allowed on the first floor. These uses are more typical 9-5 uses and when closed they create gaps in the streetscape and discourage pedestrian activity, comparative shopping and impulse buying.

With these revisions the Farmington Center zoning is ideal zoning to encourage a mixed use and pedestrian friendly development. The setbacks, lot coverage, parking requirements and uses will encourage appropriate development within that zone.

8.2 Main Street and the Farmington Historic District

This area adds tremendous value and strength to the entire village and to the Town of Farmington. It is one of the largest local historic districts in Connecticut. The Historic District Commission protects those buildings within the district but the ones not in the district are unprotected from potentially inappropriate modifications. The highest profile area in the district is Main Street. Over 80% of the lots on Main Street are within the district and protected. Twelve (12) lots are not. The Historic District Commission should work to expand the district and show property owners the value of being in a local historic district.

The current R20 residential zoning allows single family homes as a permitted as of right use. Other options allowed by special permit in the residential zones are churches, schools, home offices, day cares, charitable and philanthropic institution and bed and breakfast.

The vitality of the district exists because of its 24/7 resident population. The town must strive to maintain the critical mass of owner occupied single family homes in the district.

Recommendation - Applications for non-residential uses are discouraged and improvements which embrace the historic character of the area and advance quality of life and walk-ability in the district should be implemented. A tax incentive program for homeowners making improvements to historic homes should be considered.

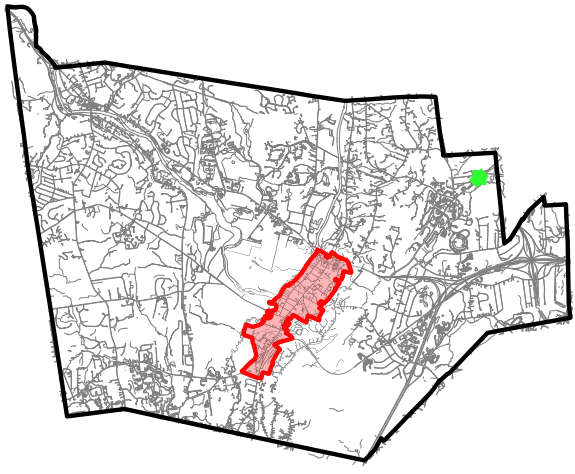
8.3 Main Street South

This is the area from Tunxis Street south to the intersection of Main Street and Scott Swamp. The area is a mix of fairly intensive retail, multi-family residential and professional offices. The CVS Pharmacy and the Highland Park plaza provide important grocery and convenience goods/services to the residents of the area. There are currently sidewalks in the historic district on Main Street. These sidewalks terminate at Highland Park Plaza.

The Commission recognized the desirability of creating a more pedestrian friendly environment in this area. The Commission has required sidewalks along the CVS frontage on Main Street, sidewalks in front of 240 Main Street and approximately 500 feet of sidewalk in front of 304 Main.












The goal for this area is to create a continuous sidewalk system as shown on Map 8-2 from the Scott Swamp intersection to the sidewalk that terminates at the Highland Park Plaza. This includes a safe pedestrian walkway under the RT 6 overpass.

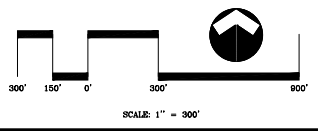
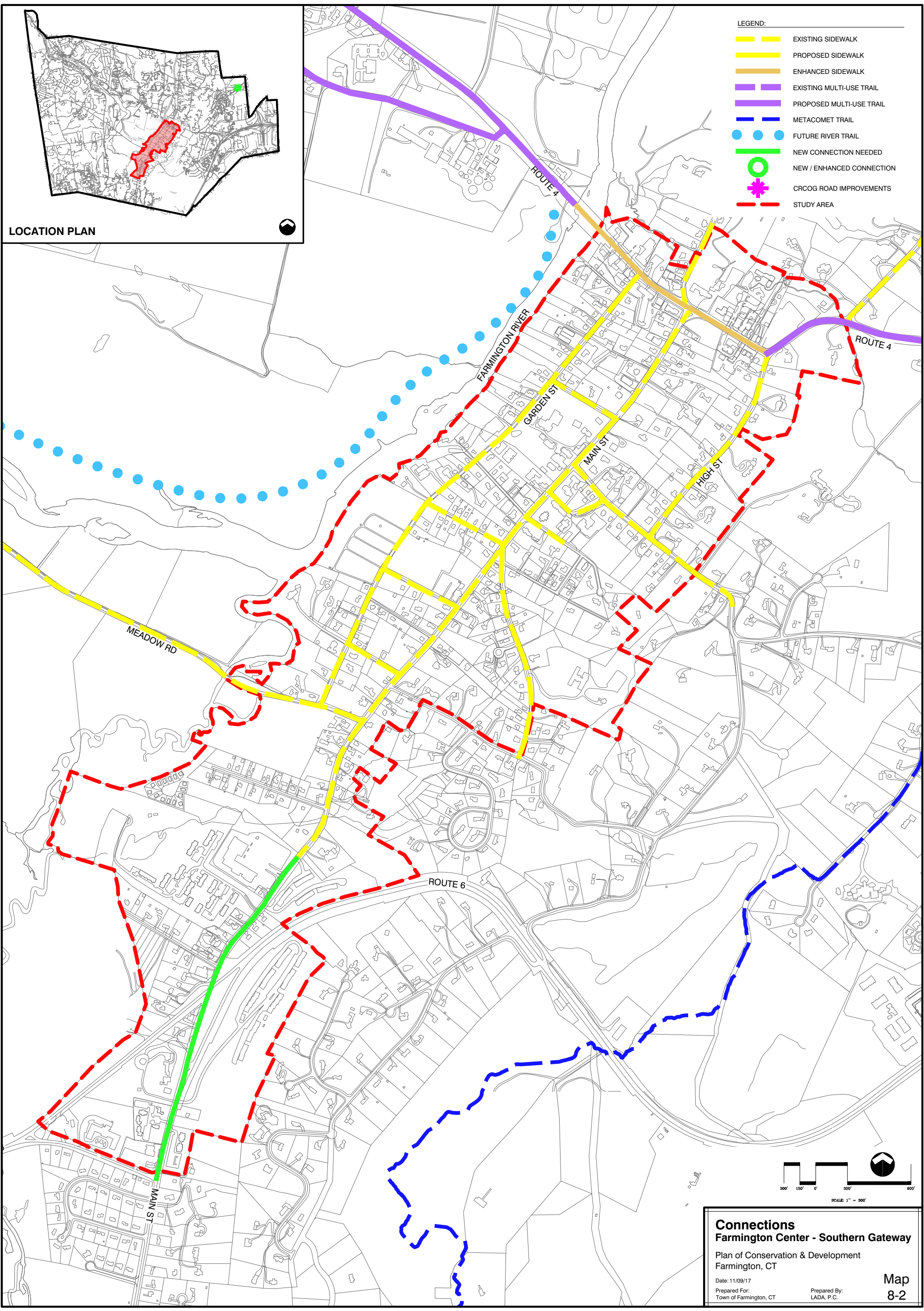
Recommendation - As development and redevelopment proceeds sidewalks must be required. For those areas which will not be redeveloped in the near future, the Commission should communicate this goal to the Town Council for inclusion of design/permitting and construction funds in the annual Capital Budget.



LOCATION PLAN

LEGEND:

-  EXISTING SIDEWALK
-  PROPOSED SIDEWALK
-  ENHANCED SIDEWALK
-  EXISTING MULTI-USE TRAIL
-  PROPOSED MULTI-USE TRAIL
-  METACOMET TRAIL
-  FUTURE RIVER TRAIL
-  NEW CONNECTION NEEDED
-  NEW / ENHANCED CONNECTION
-  CRCOG ROAD IMPROVEMENTS
-  STUDY AREA



Connections
Farmington Center - Southern Gateway
Plan of Conservation & Development
Farmington, CT

Date: 11/09/17
Prepared For: Town of Farmington, CT
Prepared By: LADA, P.C.

Map
8-2

8.4 Unionville Center

Unionville Center is an area which holds tremendous potential for a “24 hour live/work/ play town center”. The area is rich in history, is surrounded by residential neighborhoods and has all of the elements in place to thrive as a pedestrian friendly town center. There is a grocery store, a gym, a post office, churches, medical facilities, offices, restaurants, an elementary school, the Farmington River and the Farmington River Canal Trail running from New Haven, CT to North Hampton MA.

Unionville Center was the subject of intensive design workshops in 2002. The final report was prepared by the Yale / UConn Collaboration and is entitled “Unionville Study 2002 Past, Present and Future”.

The workshops were designed to establish a future vision for the town center in response to the redevelopment of the Stop and Shop plaza.

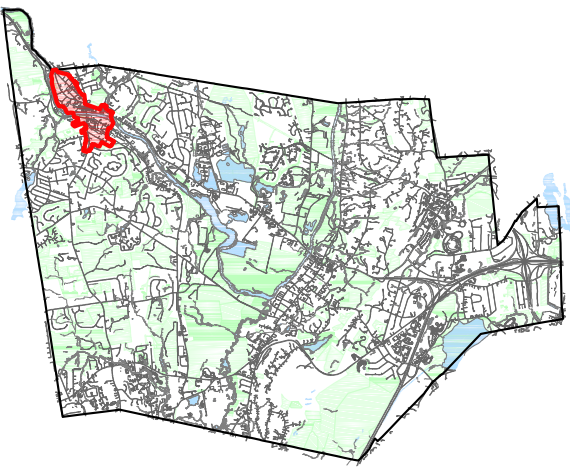
The stated goal was:

“Create a pedestrian friendly, mixed use and historically based Downtown for Unionville.”

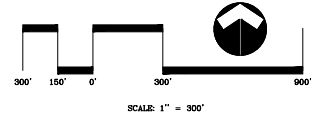
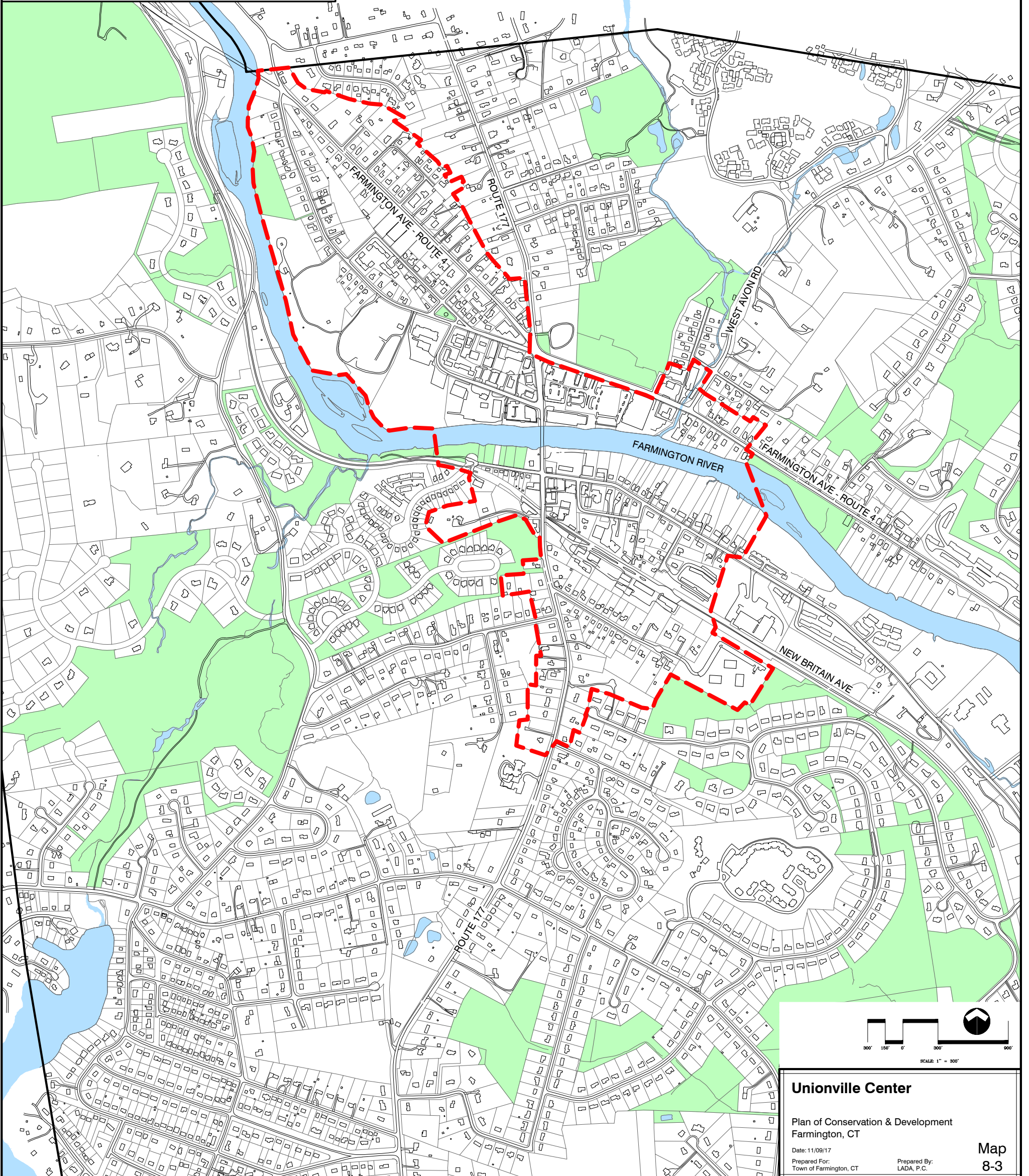
The workshops lead to a much greater appreciation for the area and the:

- Unionville Village Improvement Association;
- Unionville Center / Village District Zoning;
- Unionville Architectural / Design Review Committee;
- New zoning which authorized the clean-up and re-development of the Charles House brownfield site into high quality multi-family housing;
- Much higher quality new development (Stop and Shop, McDonalds, Walgreens)
- Enhanced streetscapes including decorative light poles, hanging plants and banners, improved sidewalks and decorative crosswalks;
- Reconstruction of the RT. 177 and New Britain Ave. intersection with all the streetscape amenities that have been installed on the north side of the river.

The report was a true grass roots effort and contained many excellent recommendations which remain relevant today. However, fifteen (15) years have past and the market has changed. As baby boomers age and millennia’s mature, there is even more interest in living in pedestrian friendly, walk-able and mixed use neighborhoods. Continued enhancement of Unionville Center will lead to a much stronger sense of place for the entire Unionville area.



LOCATION PLAN



SCALE 1" = 300'

Unionville Center

Plan of Conservation & Development
Farmington, CT

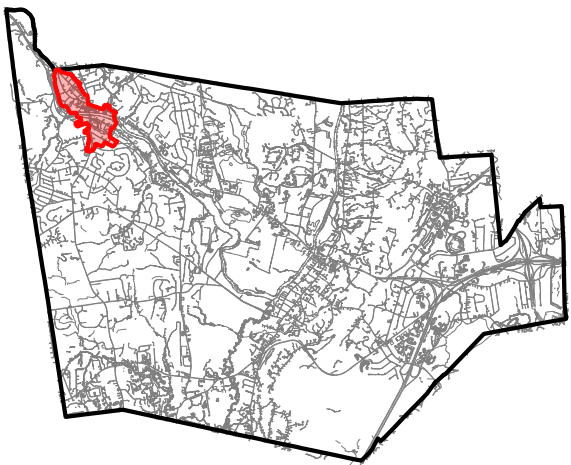
Date: 11/09/17
Prepared For:
Town of Farmington, CT

Prepared By:
LADA, P.C.

Map
8-3

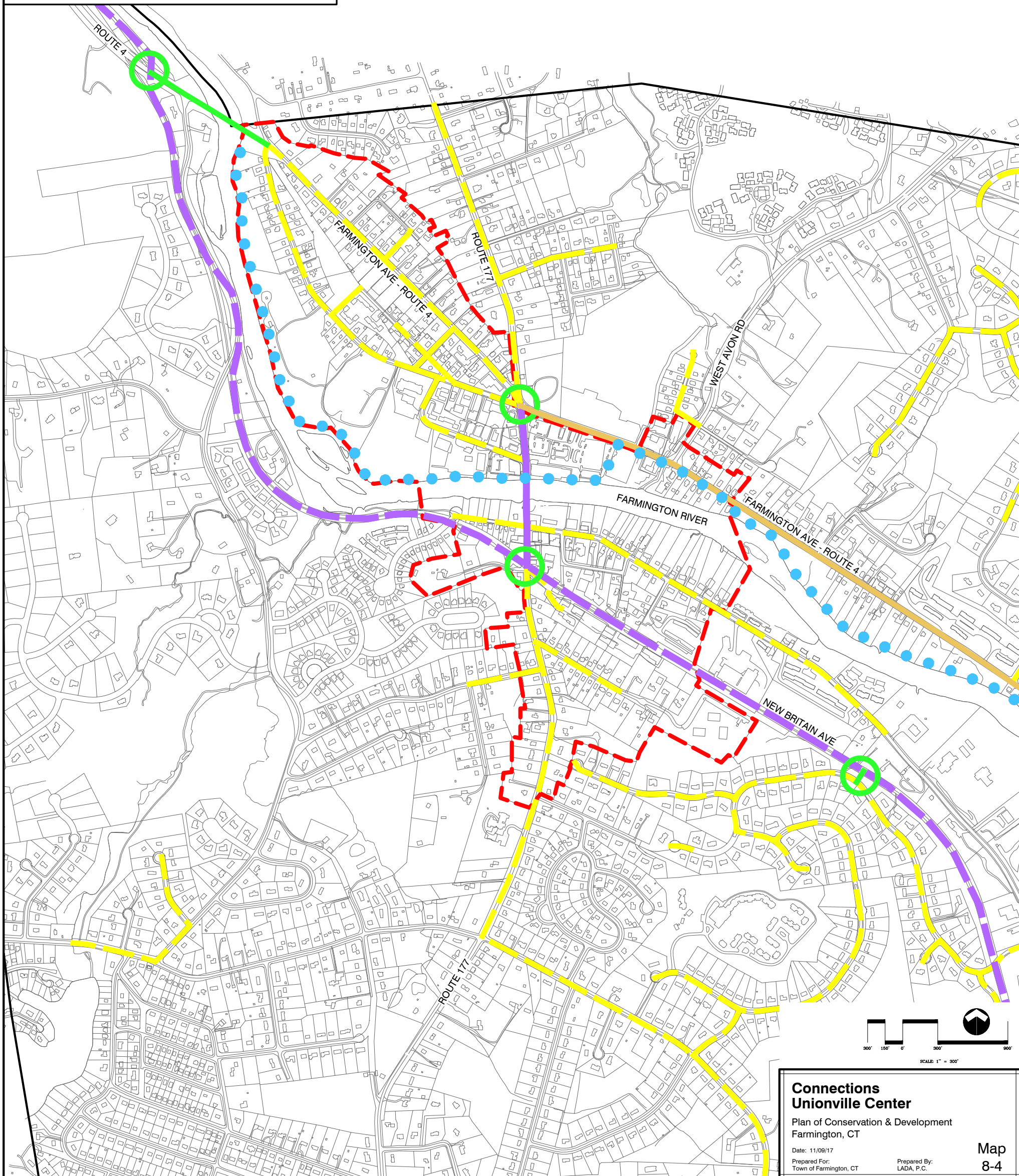
Recommendation - It is recommended that a series of workshops, similar to those conducted in Farmington Center, be held to evaluate:

- Infill development at the Farmington Bank / former Friendly's block including the creation of linear buildings along the RT 4 and RT 177 frontages;
- Infill development of the Post Office / Fire Station block;
- Development potential of the area south of the river, including the properties surrounding the re-constructed RT 177 / New Britain Ave. intersection and Depot Place;
- Potential expansion of the Unionville Center / Village District zone;
- Continued enhancement of the Farmington River Canal trail and improved river access. The trail will eventually connect New Haven, CT and North Hampton MA. New development should take advantage of this tremendous amenity.
- Recommended streetscape and other improvements to connect the eventual development of the Charles House property and Union School with the Center;
- Continued evaluation and implementation of traffic improvements which will help move traffic through the Center while not detracting from the goal of a pedestrian friendly center.



LOCATION PLAN

- LEGEND:
- EXISTING SIDEWALK
 - PROPOSED SIDEWALK
 - ENHANCED SIDEWALK
 - EXISTING MULTI-USE TRAIL
 - PROPOSED MULTI-USE TRAIL
 - METACOMET TRAIL
 - FUTURE RIVER TRAIL
 - NEW CONNECTION NEEDED
 - NEW / ENHANCED CONNECTION
 - CRCOG ROAD IMPROVEMENTS
 - STUDY AREA



**Connections
Unionville Center**
Plan of Conservation & Development
Farmington, CT
Date: 11/09/17
Prepared For: Town of Farmington, CT
Prepared By: LADA, P.C.

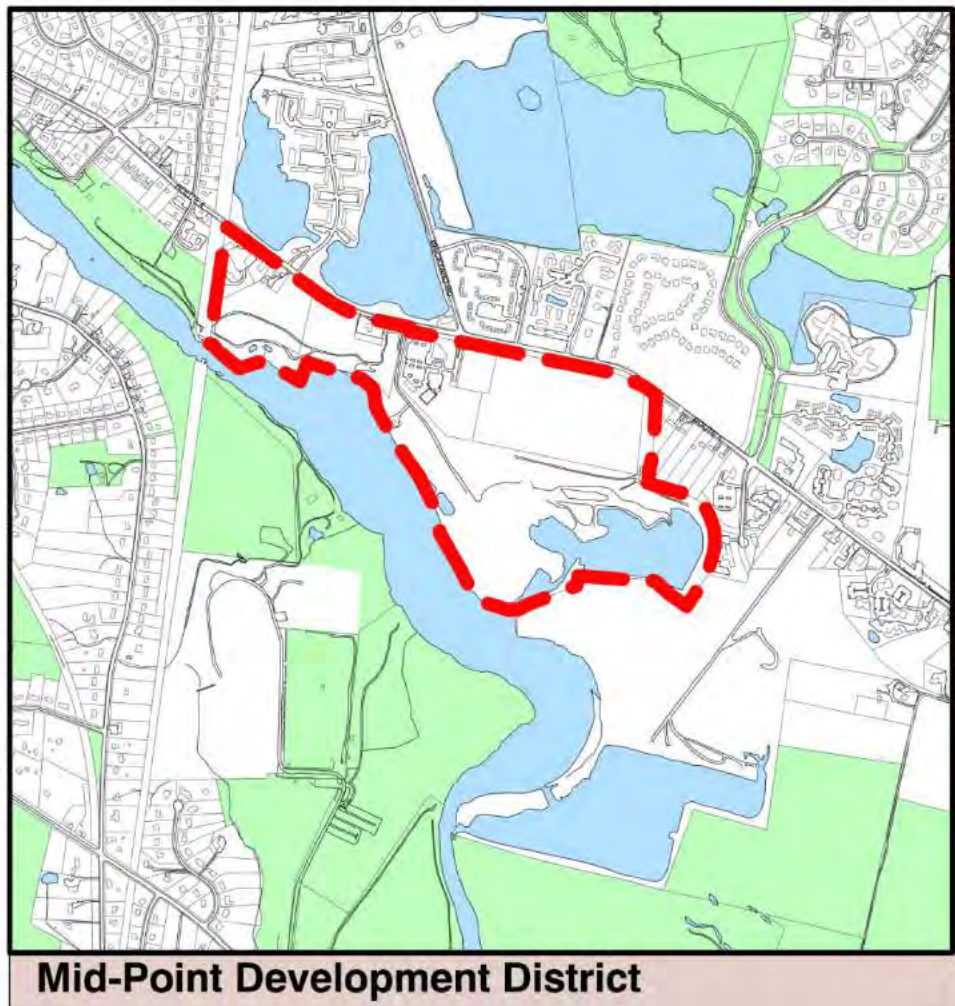
Map
8-4

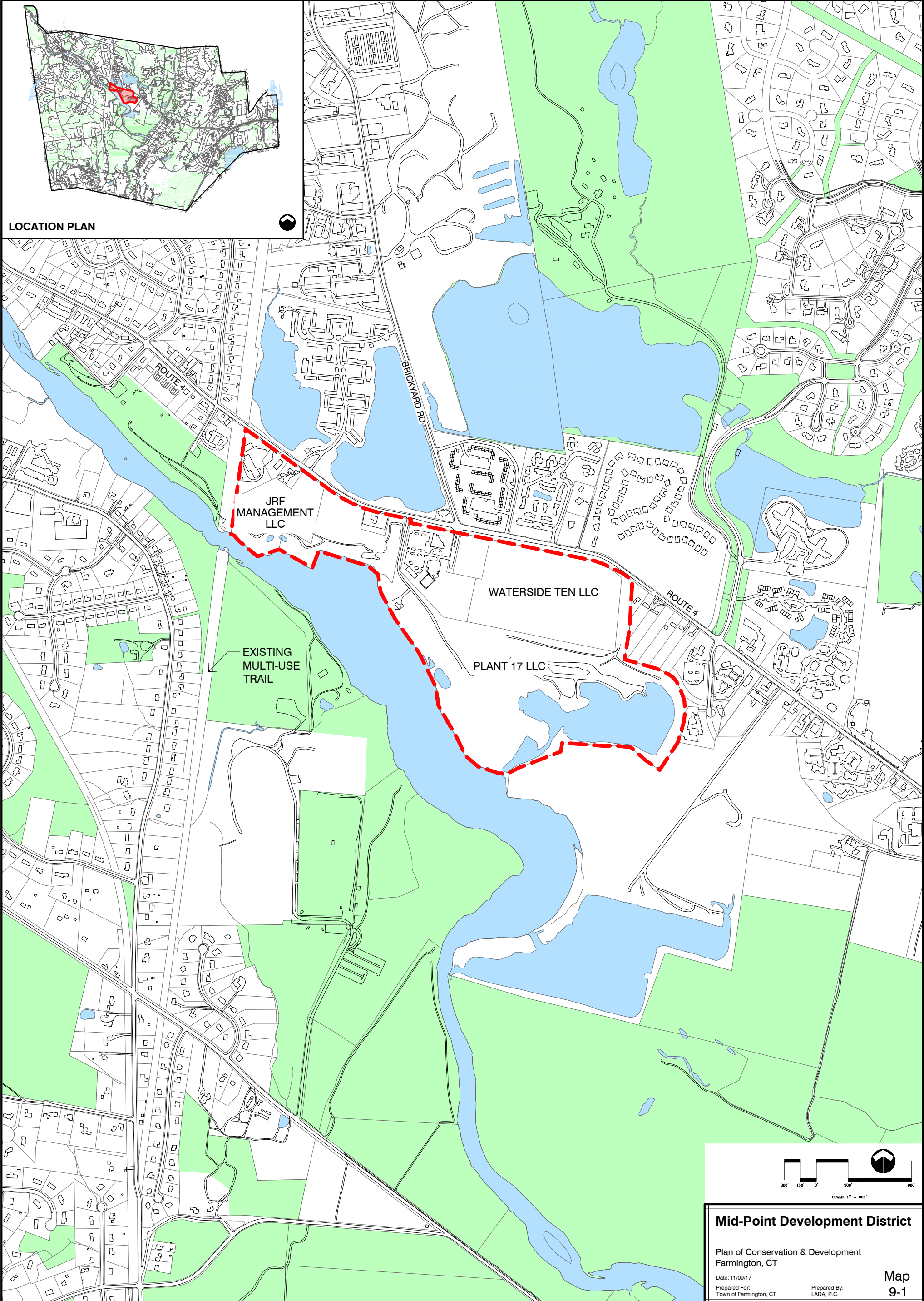
Chapter 9- Mid-Point Development District

This is an extremely unique grouping of undeveloped/underdeveloped parcels in Farmington. It is the largest undeveloped commercially zoned area in town. It is a total of 134 acres with approximately 50 acres within the FEMA 100 year flood plain and only 12 acres are fully developed. The area has approximately 4,000 feet of frontage on the Farmington River and approximately 4,000 feet of frontage on CT State Route 4 (Farmington Ave.). RT 4 has an ADT of approximately 25,000 cars. The parcels have access to signalized intersections at RT 4/Bridgewater and RT 4/Melrose.

Ownership is displayed on Map 9-1 and includes

- JRF Management LLC - 26 acres
- Waterside Ten LLC – 25 acres
- Plant 17 LLC – 60 acres with 40 within the 100 -year flood plain





LOCATION PLAN

JRF
MANAGEMENT
LLC

WATERSIDE TEN LLC

PLANT 17 LLC

EXISTING
MULTI-USE
TRAIL

Mid-Point Development District

Plan of Conservation & Development
Farmington, CT

Date: 11/09/17

Prepared For:
Town of Farmington, CT

Prepared By:
LADA, P.C.

Map
9-1

9.1 JRF Management LLC - 26 acres

These parcels were acquired in 2015-2016 by JRF Management LLC. This 26 acre assemblage of parcels includes significant frontage on both RT 4 and the deep water section of the Farmington River. The parcel also has approximately 1,000 feet of frontage on the increasingly popular Farmington River Canal Trail. When complete the trail will run from New Haven CT to North Hampton MA.

Perhaps the most unique attribute is the former McCallum grain storage building. This There are two (2) buildings totaling 40,000 sq.ft. One building is four (4)stories With impressive views. The buildings are almost completely vacant and ripe for redevelopment. The adjacent Farmington River Canal trail was a former rail line and there is a former rail spur from the trail into the 3rd floor of the building.

The undeveloped land certainly contains sections of inland wetlands and 100 year flood plain. However, based on recent soil testing it appears that there are significant blocks of developable land.

The current zoning for theses parcels is B1 Commercial and C1 Industrial. While this zoning allows many different uses based on the zoning and the market the most likely future development would be strip retail development taking advantage of the RT 4 frontage. This would not be the ideal development of the parcel.

Recommendation - The Commission needs to promote better development on these parcels by creating a mixed use design district which would allow the redevelopment of the existing industrial building and the ideal development of the vacant land. As part of the development approval process it is recommended that the town secure public access along the river to connect the existing public open spaces up-river and down-river of this site. Require multi-use trail along entire RT 4 frontage and within the properties to connect to the Farmington River Canal Trail.

9.2 Waterside Ten LLC – 28 acres

This acreage includes 2 parcels. The larger parcel (25 acres) is fully approved for a 120-bed assisted living/memory care facility. Plans are being prepared for a residential rental development behind the assisted living complex. These smaller units are reacting to the market's demand for smaller high-quality rental options. This development will include a road which will connect the two signalized intersections on RT 4. The smaller parcel is designed for 38 units of elderly housing. This entire development is the result of the aging population in Farmington. It is envisioned that the three (3) housing types will support each other and allow many Farmington residents to age in place.

Recommendation – Amend zoning to the Senior Active Adult (SA) designation to allow these developments to proceed. Require multi-use trail connecting along entire RT 4 frontage and with the development.

9.3 Plant 17 LLC – 60 acres with 40 within the 100 -year flood plain

This property is in the Earth Excavation Zone. There are no longer excavation activities occurring on the property. Currently a construction company utilizes the property for storage and processing of construction materials. The property includes a fourteen (14) acre pond in addition to over 2,000 feet of frontage on the Farmington River. The area fronts a very unique deep water section of the river. This is the area of the river that has been excavated for sand and stone for close to 100 years. The river is wide and open and reaches depths of 60 feet. On the opposite side of the river is Tunxis Mead Park, the town boat house and several hundred acres of town open space.

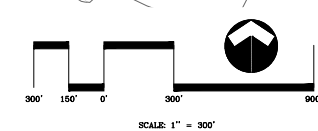
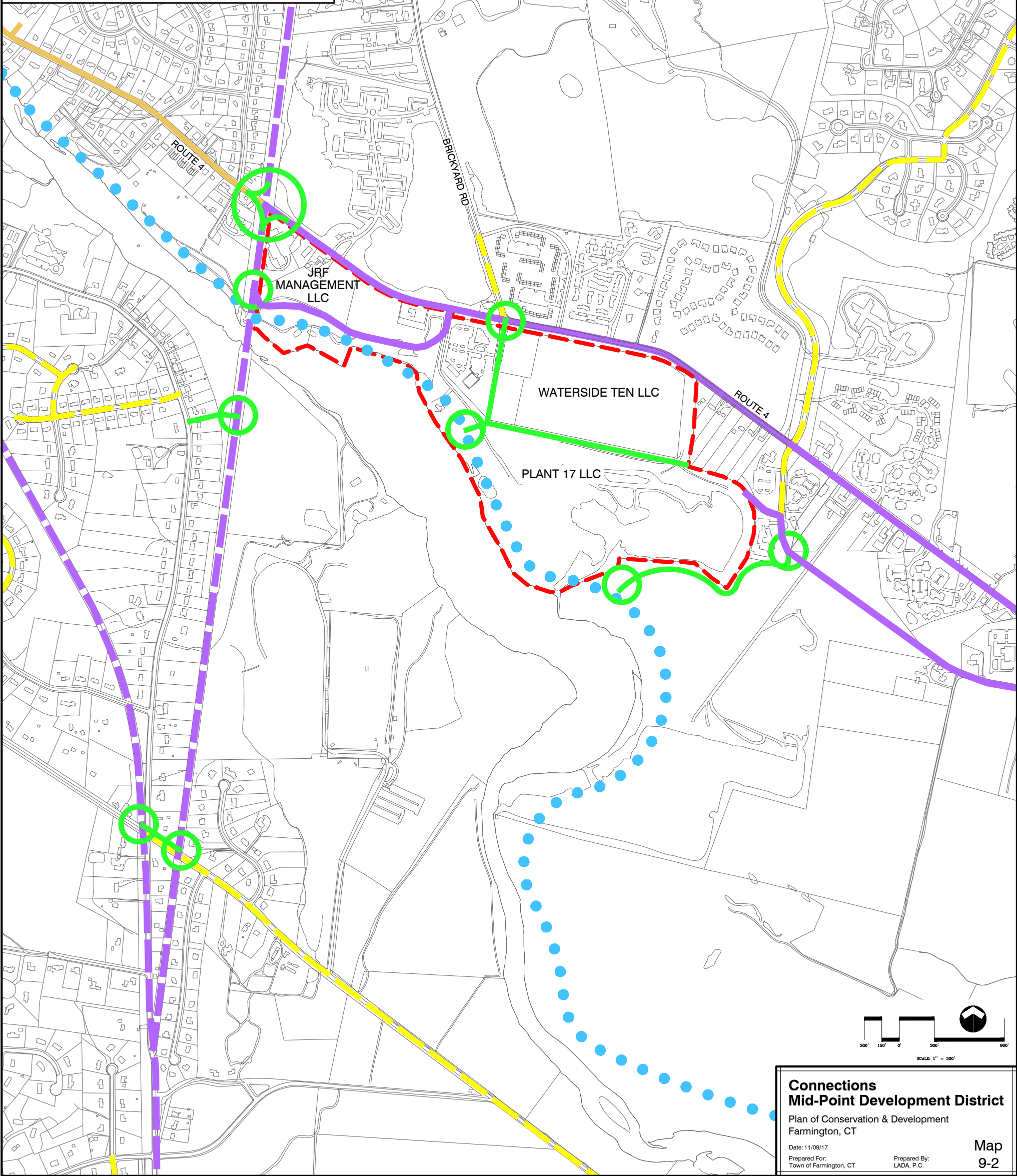
The area does not have the visibility on RT 4 to support commercial development and the pond and flood plain are significant constrains to future development. Decades of construction storage and disposal of construction debris and excavation activity will also pose significant challenges to future development.

Recommendation - Some areas could support high end residential development with river access and views. The majority of the land should be acquired by the town as permanent open space. This is completely consistent with the town's riverfront acquisition policy.



LOCATION PLAN

- LEGEND:
- EXISTING SIDEWALK
 - PROPOSED SIDEWALK
 - ENHANCED SIDEWALK
 - EXISTING MULTI-USE TRAIL
 - PROPOSED MULTI-USE TRAIL
 - METACOMET TRAIL
 - FUTURE RIVER TRAIL
 - NEW CONNECTION NEEDED
 - NEW / ENHANCED CONNECTION
 - CROG ROAD IMPROVEMENTS
 - STUDY AREA



**Connections
Mid-Point Development District**
 Plan of Conservation & Development
 Farmington, CT
 Date: 11/09/17
 Prepared For: Town of Farmington, CT
 Prepared By: LADA, P.C.
 Map 9-2

Chapter 10- Affordable Housing

A standard definition of affordable housing is - housing that is available to families making no more than 80% of median family income.

Because of Farmington's older housing stock and the higher densities neighborhoods in the Unionville section of town there is no lack of affordable housing in Farmington.

A survey of Realtor.Com found that there were 180 condominiums and single family homes on the market in Farmington on October 2nd, 2017. There were 65 single family homes and condominiums under \$300,000.

The median income for a family of four is \$89,700. Eighty percent (80%) of the median income is \$71,760 annually.

A standard mortgage underwriting criteria is that no more than 30% of that income should be devoted to a mortgage payment including principal, interest, taxes and homeowners insurance.

Therefore a family of four making 80% of the median income could afford a monthly mortgage payment of \$1,794. That would be sufficient to purchase a \$300,000 home with a 4%, 30 year mortgage and 20% down. There are also several hundred rental units which are affordable to those making 80% of the median family income.

Farmington and its low taxes, excellent school system and high quality of life is open to those making 80 % of the median income.

10.1 CGS 8-30g, the Affordable Housing Land Use Appeals Act

While well over 10% of Farmington's housing stock is available to those making less than 80% of median income, CGS 8-30g, **the Affordable Housing Land Use Appeals Act**, has a much more specific definition of an affordable unit. The definition requires units to be government subsidized or deed restricted for a period of 40 years. Farmington is subject to the provisions of CGS Section 8-30g. When that definition is applied, only 7.66% of the housing units in Farmington are affordable.

Connecticut General Statutes 8-30g mandates that 10% of each municipalities housing stock be deemed affordable or they are subject to 8-30g.

The significance of this act is that it allows developers to disregard local zoning rules while also shifting the burden of proof to the town to justify a denial. In order to deny an application the town is required to find documented and proven public health or safety concerns. It is very difficult for a town to deny an application which **does not** meet current zoning but does meet the minimum standards found in the act. The 8-30g process is almost always controversial, ignores local zoning, eliminates local decision making and is not good for a neighborhood.

10.2 Affordable Housing in Farmington

Farmington's percentage of "affordable housing" as defined by the act is 7.66%.

The percentage of affordable units in similarly affluent towns are as follows:

Avon - 3.76 %
Simsbury - 3.5%
Burlington - 1.8%

Farmington's percentage is impressive and it shows Farmington has been willing to allow its fair share of the regions affordable housing needs.

Farmington has also created two (2) zones which allow higher density in exchange for the creation of affordable units.

Existing affordable developments are as follows:

Heritage Glen – Heritage Glen is a development of 68 apartment units located on Colt Highway in Farmington. This project was approved by the Farmington Town Plan and Zoning Commission in January of 1993. While the zoning approval stipulated that a minimum of 27 units were to be set aside for rent as affordable housing this number was increased to 31 when the developer chose to finance the project with CHFA. These units are reserved for families earning 60% or less than the median income for a family in the Hartford Region based upon household size. The affordable restrictions and covenants are in effect for a minimum of thirty years.

Westwoods II – Westwoods II is a development of 34 housing units located on Scott Swamp Road. It is identical in nature to the Heritage Glen project with the exception that all of the units are set aside for eligible low and moderate income families. This project was approved by the Farmington Town Plan and Zoning Commission in March of 1993 and reaffirmed by the Commission in January of 1994.

Cornerstone Village – Cornerstone Village is a planned unit community of single family homes and duplex condominium units located on Scott Swamp Road. Of the 114 housing units, 46 have been set aside as affordable. A majority of the affordable units sold far under the maximum sales price set for this project,

\$141,000 (A figure which was calculated to represent a sales price affordable by a family earning 80% of the median income for the Hartford Region factoring in interest rates, taxes etc.). The resale prices for these units are governed by a formula found in the contract set between the developer and the Town of Farmington and referenced in the deeds of all the affordable homes. This covenant will govern the sale of these units forever. The initial sale of these units were limited to individuals and families which earned no more than 100 % of the median family income for the Hartford Region based upon household size. Those seeking to resell these units must sell to a person or family which complies with the same income limits. The sale and resale of all the affordable units have been monitored by the Town's Planning Department.

Hunters Ridge – Hunters Ridge is a common interest community consisting of 35 detached units located off of Railroad Avenue in the Unionville section of Farmington. Twenty of these units have been reserved for sale to families earning at or less than 100% of the median family income for the Hartford Region adjusted for household size. The maximum initial sales price for the affordable units was \$147,500. All of the other aspects of the Cornerstone Village development apply to this project as well.

The Village at Hunters Ridge – this project is a 51 unit elderly housing apartment complex.

Maple Village – is a subsidized community for senior and disabled citizens managed by the Farmington Housing Authority. It contains 40 units of rental housing.

Yorkshire Apartments- is a 68 unit senior living community restricted to people over 62 years of the age. All units are restricted to people making less than 60% of median income.

Snowberry Cobble – Is a common interest community made up of 159 single family homes and 94 duplex dwelling units. The single family homes are unregulated and will be sold for market rate prices. 89 of the duplex units are regulated and will be sold as affordable units. The income and price restrictions for these units are governed by a formula found in the contract set between the developer and the Town of Farmington and referenced in the deeds of all the affordable homes. This covenant will govern the sale of these units forever. Units were initially purchased by buyers meeting income qualifications. The Town of Farmington reviews income information in determining conformance with standards. The maximum income which may be earned for the purchase of a unit is 80% of the median income. The resale restriction which governs the maximum sales price of the home is defined as the original price plus a percentage increase which is equal to the lesser of the following: the cumulative percentage change in the CPI or the cumulative percentage change in the median family income for the Hartford region.

10.3 Affordable Housing Moratorium

The statute allows for a four (4) year moratorium on CGS 8-30g applications. The process is tedious and only three municipalities have been granted moratoriums since inception in 1990.

Farmington applied for and was awarded a four (4) year moratorium on CGS 8-30g application in June of 2016.

The table below displays the number of units that must be created to reach the states goal of 10% of all housing units defined as affordable. The state uses the 2010 housing unit count and as new market rate homes are built the percentage of affordable units will decline.

2010 Housing Units-	11,106
2010-2017 Housing units –	221
2017 Total units –	11,327
10% of units-	1,133
<u>2016 State approved Affordable-</u>	<u>851 (7.5%)</u>
Required to meet 10% mandate-	282 units

With the anticipated growth in market rate housing units it is projected that the town will need to add 320 additional affordable units by 2020 to meet the 10% mandate.

The moratorium gives Farmington the opportunity to study its regulations and develop a strategy to reach the state mandated 10% goal. Some options are discussed below.

10.4 Build new units

The moratorium on CGS 8-30g applications means the town will not be forced to accept new affordable housing developments which provides at least 30% of its units as affordable.

This does not prevent the town from reviewing and approving “friendly 8-30g” applications which are at a higher density than zoning allows or mandating that new developments include a percentage of the units as affordable.

In 2017 the State Department of Housing proposed legislation which would require municipalities to implement regulations with inclusionary zoning leading to the growth of affordable housing.

The legislation was not successful but 29 towns have voluntarily implemented inclusionary zoning.

A future zoning regulation might include the following:

- "Inclusionary zoning" means any zoning regulation which promotes the development of housing affordable to persons and families with incomes at or below 80% of the area median income, including the setting aside of a reasonable number of housing units for not less than forty years as affordable housing restricted through deeds, covenants or other means and allowing density bonuses.
- Thirty per cent of the development consists of affordable housing units restricted to persons and families whose income does not exceed eighty per cent of the area median income.
- Affordable housing units are situated within a development approved so as not to be located in less desirable locations or less accessible to public amenities than non-restricted housing units in such development;
- Affordable housing units are integrated within a development and are comparable in design, appearance, construction and quality of materials to non-restricted housing units in such development;
- The interior features and mechanical systems of affordable housing units in a development conform to the same specifications as are applied to non-restricted housing units in such development.

New multi-family development in Unionville Center, Farmington Center, the Bridgewater area and the UCONN Health Center area with an inclusionary zoning clause will help to increase the town's inventory of affordable units that meet the States definition.

There is very little land remaining in other parts of the town to accommodate a development, of sufficient size, to increase the town's inventory.

An 18 acre parcel on the south west corner of Plainville Ave. and Scott Swamp Road directly across from Tunxis Community College is ideally located for a multi family development. The parcel could comfortably accommodate approximately 150 units with 90 market rate units and 60 affordable units, assuming a 40% affordability requirement.

The only other area of undeveloped land that could accommodate sufficiently large multi-family developments, with an affordable component, is the Batterson Park property owned by the City of Hartford. The Farmington land use plan designates this land as professional office and open space. The land is zoned R-40 residential.

The City of Hartford has been working with the Town of Farmington for many years to develop portions of this land for professional office. To date there has been no success.

Allowing multi-family prior to the expiration of the moratorium would attract additional interest from developers and allow Farmington to control the size and look of the development. After the moratorium, CGS 8-30g applications could

completely ignore local zoning and the wishes of Farmington regarding design and density.

Multi-family would contribute significantly to the Farmington grand list. Requiring that the majority of the units be one (1) bedroom would greatly reduce the impact on Farmington schools. After considering access, wetlands, flood plain and topography, the map below displays areas that could accommodate multi-family development.



Map 10-1 Possible locations for new multi-family projects

10.5 Restricting deeds of Existing Rental Units

There are currently hundreds of rental units which are renting below the 80% of median income rent level. Because rent increases are not restricted to maintain affordability these units do not count as “affordable” per the states definition. The units are over 50 years old and rents will not increase significantly. At the same time the median income will increase which will result in rising 80% median income rent levels.

The State Department of Housing has indicated an existing unit which becomes affordable by filing a 40 year affordable deed restriction on the land records would qualify as new affordable housing. It is possible that the property owners may see an infusion of capital in exchange for an affordable deed restriction as desirable.

The town could offer tax abatements in accordance with State Statute or a one time or annual cash payment in exchange for affordable deed restrictions.

10.6 Do Nothing

The town could do nothing and allow the moratorium to expire in 2020. Every year bills are introduced into the legislature seeking to repeal and/or reduce the scope of CGS 8-30g.

Absent repeal or significant modifications the do nothing approach will result in new CGS 8-30g applications. With very little land remaining for residential development the impact would be multiple high density and controversial applications. Affordable developments would seek densities higher than allowed by current zoning. These developments would be inconsistent with the existing neighborhood. This would result in legal challenges. Significant legal costs could be incurred from defending Planning and Zoning Commission approvals or denials. While a well done affordable development could blend nicely into a neighborhood, a poorly designed affordable development could have very significant negative impacts on the surrounding neighborhood.