



Southbury Training School Future Use Study Public Workshop June 13, 2017



Agenda

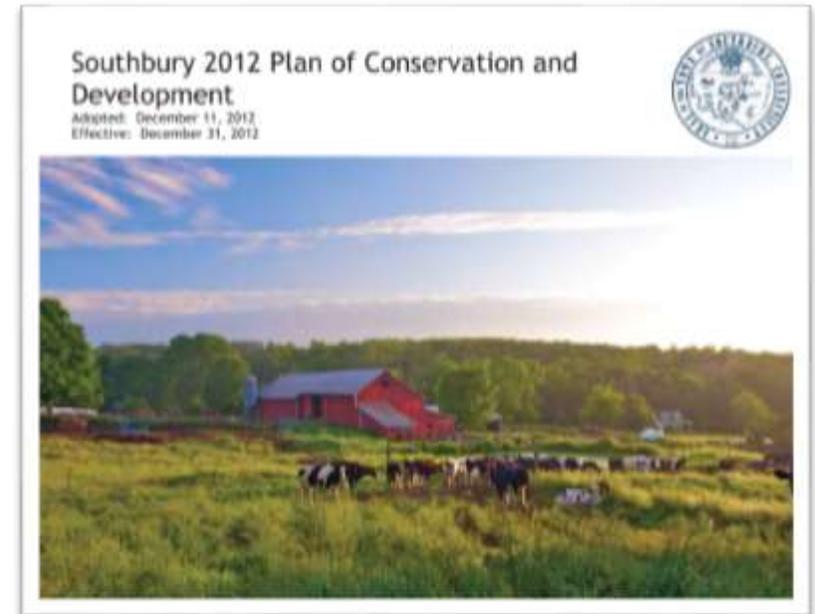
- 1.) Recap of Previous Studies and Existing Conditions**
- 2.) Market Snapshot**
- 3.) Case Studies**
- 4.) Opportunities and Constraints**
- 5.) Menu of Future Uses**
- 6.) Breakout Session**



Southbury 2012 POCD

Specific Goals for Southbury Training School:

- Encourage and support all proposals and efforts to preserve historic sites and structures, especially in historic districts, including the Southbury Training School
- Take a pro-active approach in working with the State and residents so that the future use of the Southbury Training School is in the best interest of the Town
- Ensure that the future use of the land and buildings at the Southbury Training School will reflect the Town's character, help meet community needs, provide community amenities and preserve the site's agricultural and natural and historic resources





Southbury 2012 POCD

Conservation	Development	Infrastructure
<p>Preserve 25% of Southbury's land as permanent open space by the year 2025</p>	<p>Maintain the current pattern of development with core villages and outlying rural neighborhoods</p>	<p>Minimize impacts associated with transportation, such as congestion, pollution and loss of community character</p>
<p>Continue to create a cohesive open space network made up of open space, greenbelts, trails, and natural areas</p>	<p>Maintain commercial and industrial zone patterns "as is." Do not change boundaries for the foreseeable future</p>	<p>Encourage alternative transportation such as walking and biking to provide more transportation choices and promote a healthful lifestyle</p>
<p>Conserve buildings, landscapes, and historic resources to preserve the character of Southbury</p>	<p>Encourage the use of commercial sites that are near the highway system and that avoid adverse impacts elsewhere in the community</p>	<p>Increase access to and use of renewable and alternative energy sources</p>
	<p>Assure continuation of Southbury as a "country" residential town characterized by low density single-family houses on individual lots</p>	<p>Allow for the expansion of natural gas service to allow residents a choice of fuel energy sources</p>



Southbury 2012 POCD

Socioeconomic Trends

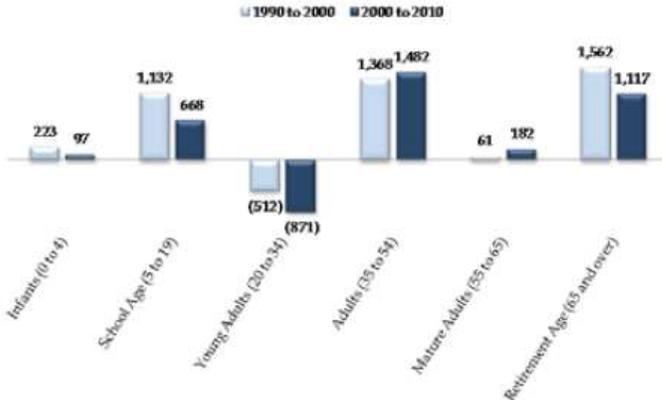
- Population growth is slowing (7% growth from 2000 to 2010 Census slowest since 1930)
- Since 1970s, Southbury’s population increases are due to migration, not births – population growth tied to new home construction
- Higher proportion of residents aged 65+ due to Heritage Village

Components of Population Change

	1960s	1970s	1980s	1990s	2000s
TOTAL CHANGE	+2,666	+6,304	+1,662	+2,749	+1,337
Change Due to Natural Increase (Births minus Deaths)	351	(256)	(604)	(1,085)	(1,337)
Births	782	882	1,323	1,447	1,369
Deaths	431	1,138	1,927	2,532	2,706
Change Due to Migration (Total Change minus Change due to Natural Increase)	2,315	6,560	2,266	3,834	2,674

US Census and CT Department of Public Health. 2009 data on births and deaths not available, 2008 data substituted.

Migration by Age Group, Southbury

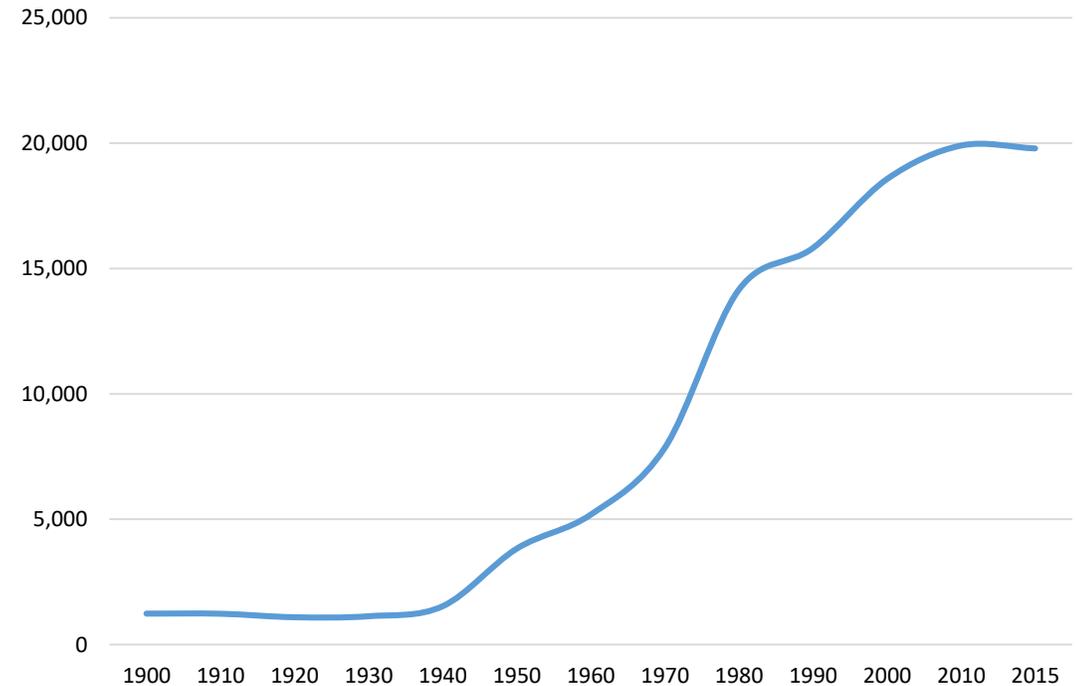




Socioeconomic Trends

- Southbury experienced a post-WWII population boom, aided by I-84 (1963), the development of Heritage Village (1960s), and the establishment of IBM regional headquarters (1980s).
- Population growth is slowing in Southbury, although growth rates are still higher than CT as a whole

Southbury Population, 1900 - 2015



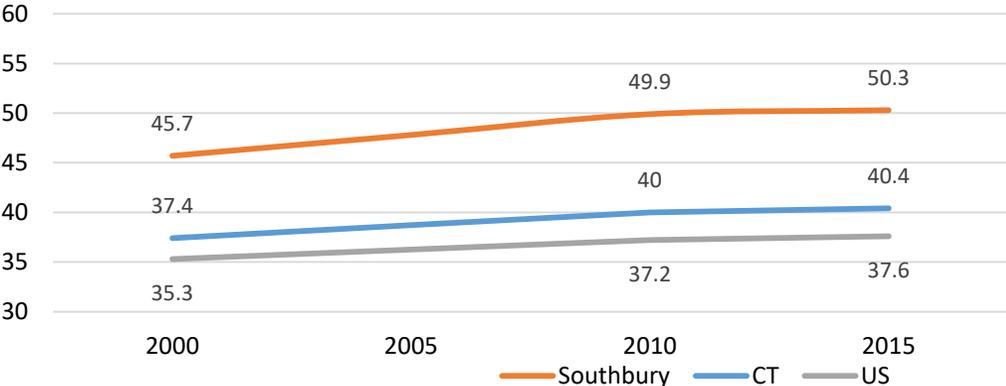
Source: Census 1900 - 2010; ACS Estimates 2015



Socioeconomic Trends

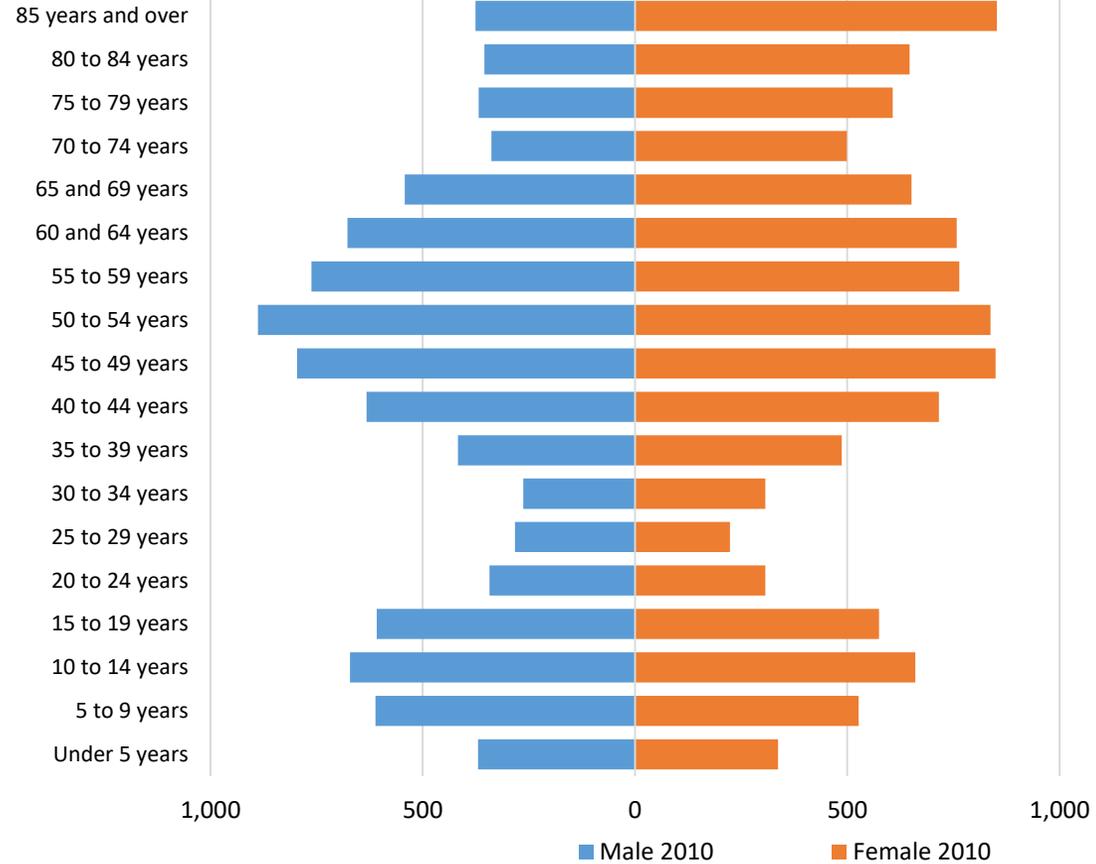
- Southbury has a median age of 50.3, about 10 years older than the median age in CT and 13 years older than the US median age

Southbury Median Age, 2000-2015 compared to CT and US



Source: U.S. census 2010 & ACS Estimates 2011-2015, 04/2017.

Southbury Population Distribution, 2010



Source: U.S. Census 2010



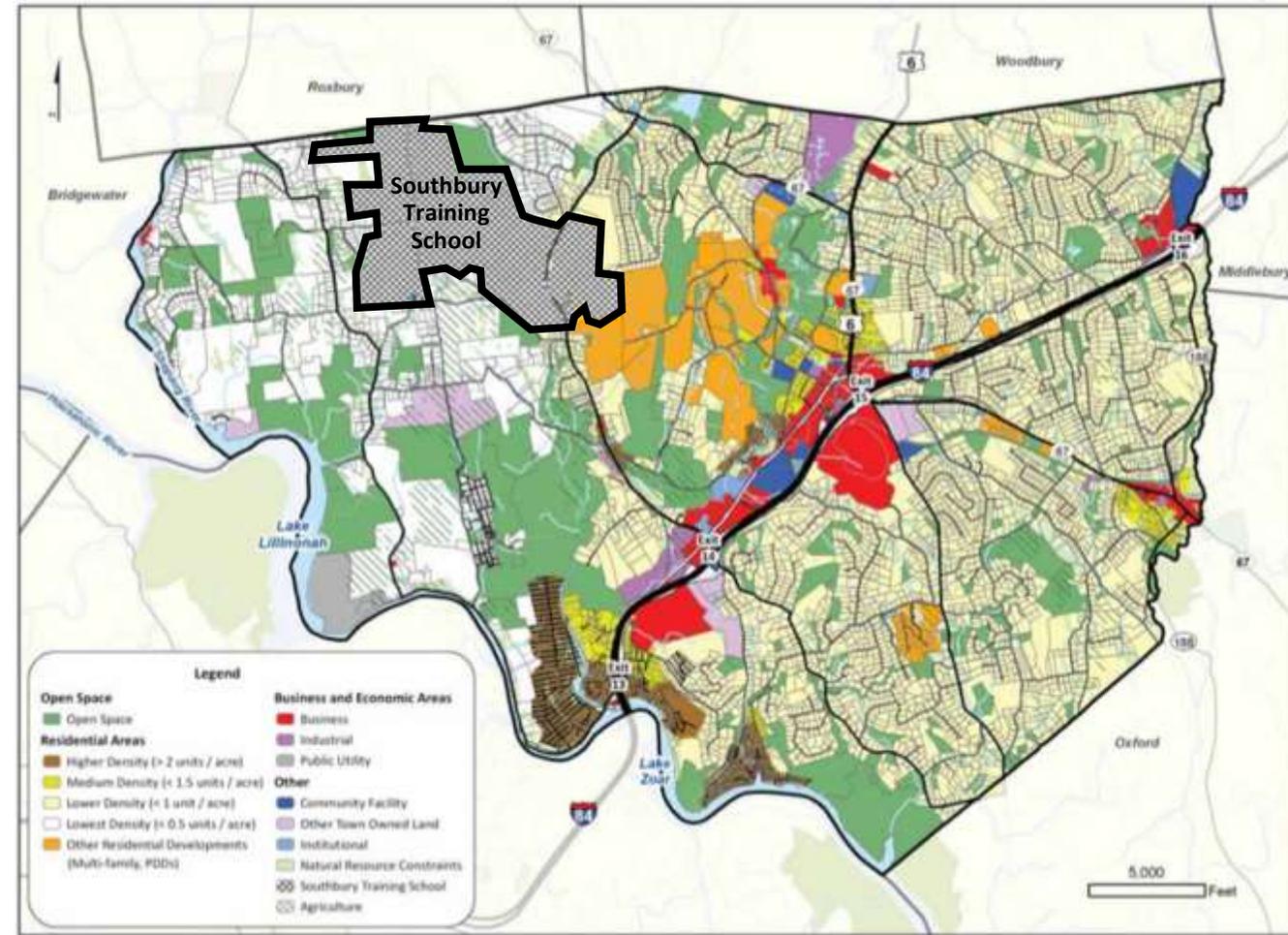
Southbury 2012 POCD

Future Land Use Plan

- Entire STS is coded as “special area that requires additional planning to determine future land uses.”

Surrounding uses are:

- Lowest Density Residential (<0.5 unit/acre)
- Open Space
- Agriculture
- Lower Density Residential (<1 unit/acre)
- Other Residential Developments (Multi-family, PDDs)





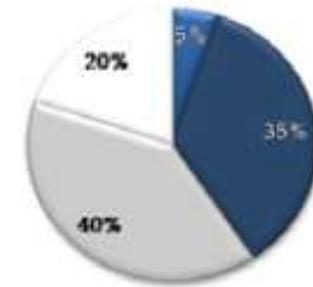
2012 Town-Wide Survey

Takeaways

- Desire to maintain Southbury's rural, historic character
- About 80% of residents support preservation of open space, but just less than half support such efforts if it will increase taxes
- Too few options for empty nester housing and apartments compared to other housing types
- Too few entertainment and cultural facilities in Southbury
- Limit commercial and industrial development to areas where those uses are currently allowed
- Existing community and recreational facilities are adequate

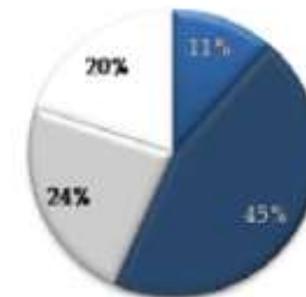
EMPTY NESTER HOUSING

■ Too Many ■ About Right □ Too Few □ No Opinion



APARTMENTS

■ Too Many ■ About Right □ Too Few □ No Opinion





2014 Comprehensive Campus Study

Natural Resources

- Varied topography, views
- High-value agricultural land

Infrastructure

- Connected to Heritage Village Wastewater Treatment Plant (WTP)
- Permitted to send up to 180,000 gallons of wastewater per day to Heritage Village WTP (average person produces 60-70 gallons of wastewater per day)

Structures

- Building age = lead and asbestos concerns
- National Register of Historic Places

Baseline Conditions

- “No existing conditions that represent major obstacles to a range of future use options for the campus.”



“With the exception of one staff house, no major structural deficiencies were found. Clearly, many of the interior systems are dated due to the age of the structures. It should be noted that the condition of structures is much superior to other large state facilities such as Fairfield Hills Hospital and Norwich State Hospital.” (pg. iii)



2014 Comprehensive Campus Study

Visioning

Most Desireable Uses	Desireable Uses	Least Desirable Uses
Agriculture	Vocational Training /Disabled Veteran Training	Retail
Agriculture/Agri-Business Education and Facilities	Commerce or Corporate Park	Manufacturing
Education (General)	Residential	
Open Space & Recreation		



Environmental Assessments

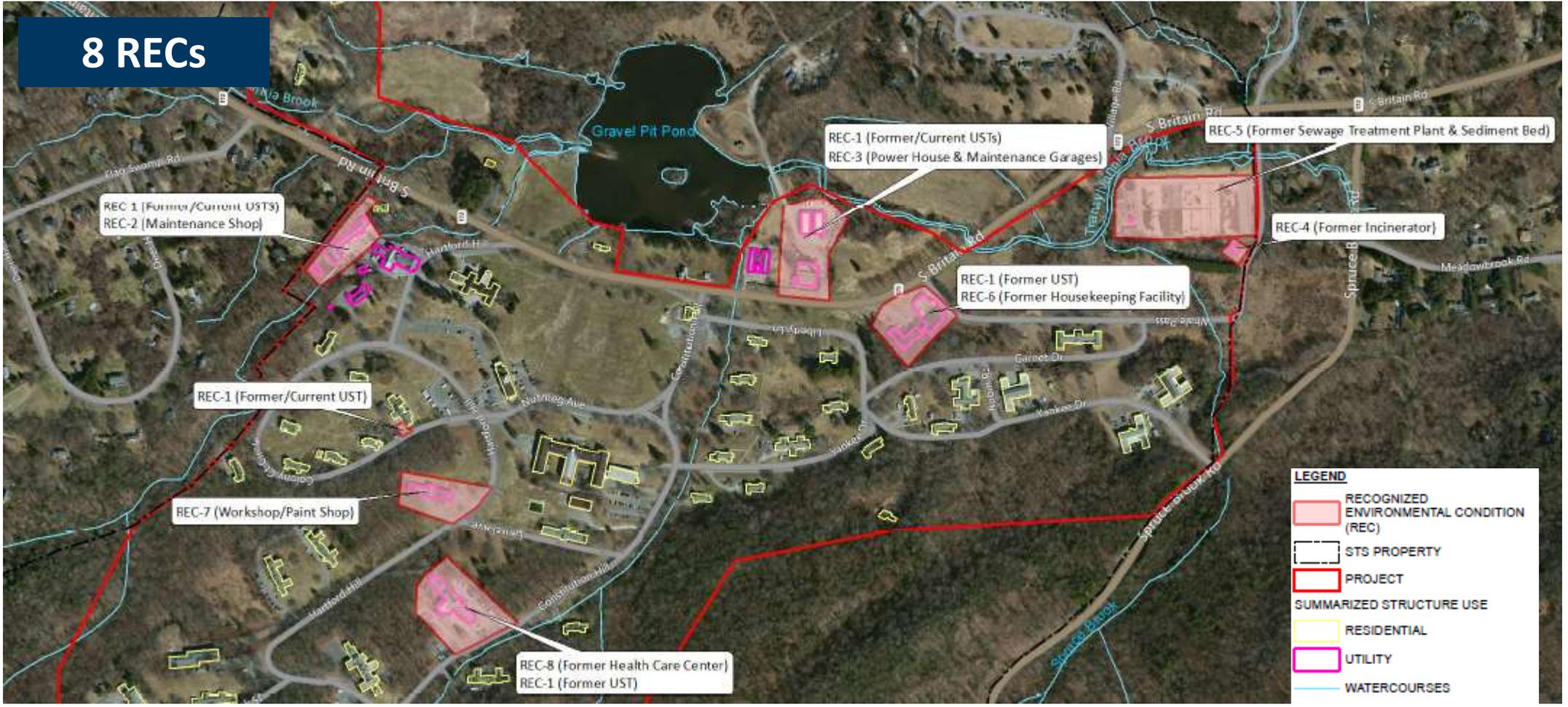
Phase I Environmental Site Assessment: 2015

- Charged with evaluating if there are any large-scale, significant environmental impacts that could have the potential to affect the redevelopment of the property
- Identified eight (8) Recognized Environmental Conditions (RECs) for further investigation
- Current and historic use of underground storage tanks (USTs)
 - Petroleum-impacted soil observed near the USTs at the Maintenance Facility
- Buildings and facilities with current or historic use of chemicals, petroleum products, or other hazardous materials
- Evidence of pesticide use
- *** Buildings and areas within 25 feet of buildings were not part of the environmental assessments**

REC	Description
REC-1 – USTs	Former USTs listed in Phase I ESA at Cottage 20, Power House, and Maintenance Shop. Former UST was confirmed at former Housekeeping/Thrift Shop.
REC-2 – Maintenance Shop	Maintenance activities including storage of chemicals, use of active fueling station, and associated USTs
REC-3 – Power House Area	Possible temporary storage of drums containing PCB oil, PCB-containing transformers, and current and historical USTs
REC-4 – Former Incinerator Area	Former USTs and burning of materials generated at Site
REC-5 - Former Sewage Treatment Area	Leach field and subsurface sediment bed that received liquid, sludge, and sewage
REC-6 – Former Housekeeping Facility	Potential dry-cleaning operation and historical UST
REC-7 – Workshop/Print Shop	Storage of printing materials and chemicals for use in operations
REC-8 – Former Health Care Center	Historical UST and cesspool for disposal of laboratory chemicals
Pesticides^	Potential historical use of pesticides for landscaping practices on acreage of lawn between structures



Environmental Assessments





Environmental Assessments

Limited Phase II Environmental Site Investigation: 2016

- More detailed investigation of the eight RECs identified in Phase I
- Soil and groundwater samples indicate that environmental contamination does not exceed thresholds that require remediation
- No significant or widespread environmental releases within the study area
- Additional sampling for potential petroleum release in the Maintenance Facility is recommended
- Additional information will be necessary to determine if potential releases to soil occurred within 25 feet of structures or at current and former underground storage tanks at the Power House, and the maintenance garages



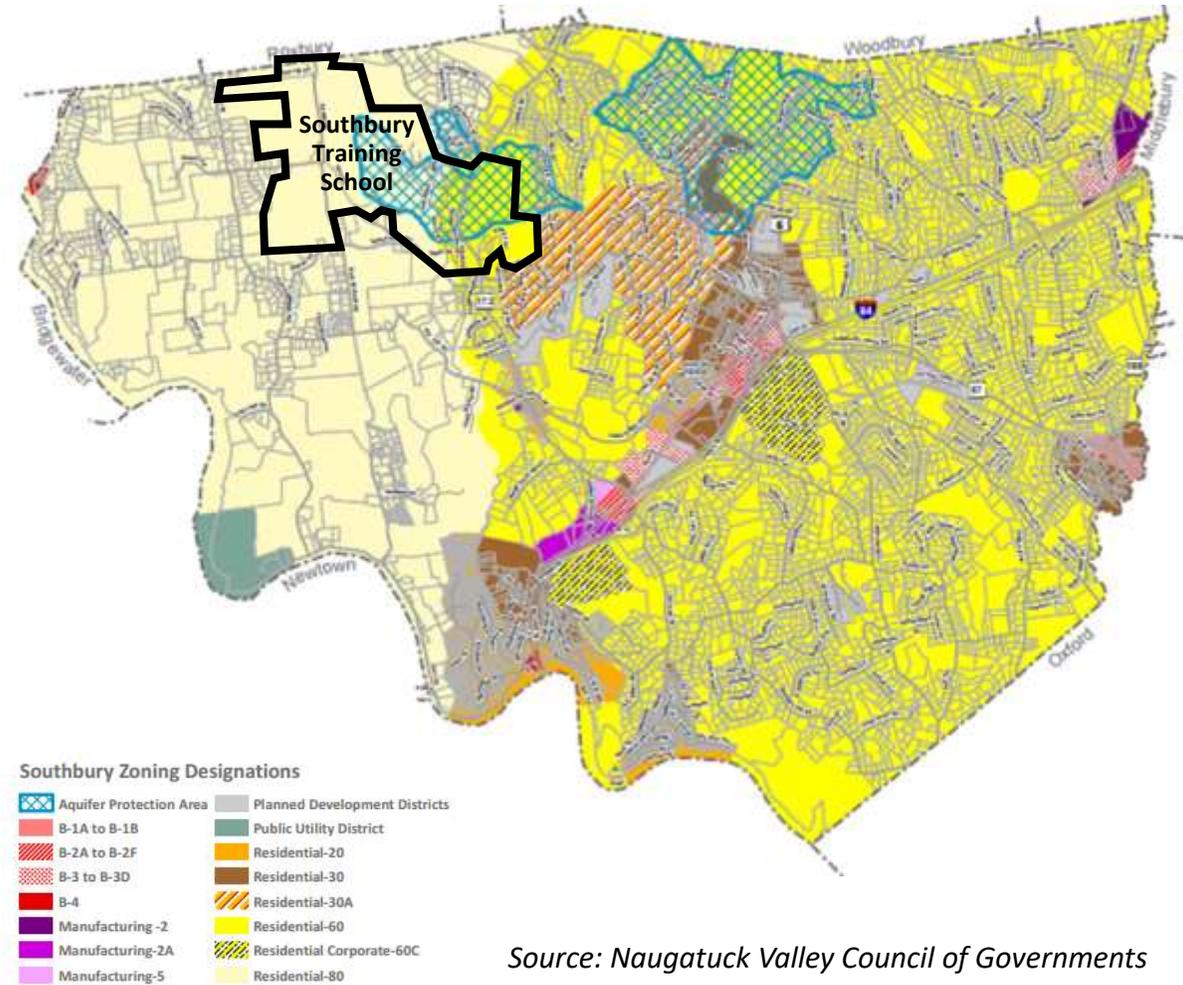
The Phase II ESI recommends additional sampling to test for petroleum release from the underground fuel storage tanks at the maintenance facility building

*** Buildings and areas within 25 feet of buildings were not part of the environmental assessments**



Zoning

- STS site is in the **R-60 (1.5 acre lots)** and **R-80 (2 acre lots)**
- A portion of the site is within an **Aquifer Protection Area**
 - Waste disposal (landfills,) and toxic or hazardous waste are prohibited
 - Additional requirements for change in occupancy disclosures, fuel storage, and runoff and grading plans



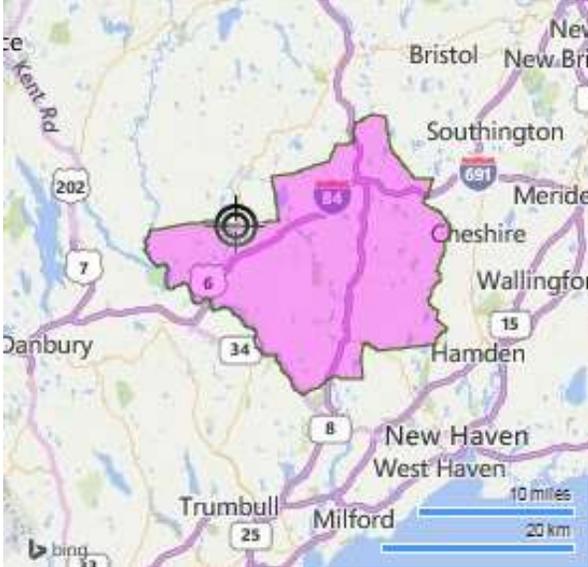


Market Snapshot: Office

	Vacancy Rates						
	Quarterly			Annualized			
	1Q17	4Q16	YTD Avg	1 Year	3 Year	5 Year	5 Yr Forecast
Northwest	24.7%	24.7%	24.7%	24.7%	24.0%	24.3%	21.8%
New Haven	17.0%	16.9%	17.0%	16.9%	17.1%	17.4%	16.3%
Northeast	13.2%	13.2%	13.2%	13.5%	13.8%	14.1%	13.4%
United States	15.8%	15.8%	15.8%	16.0%	16.4%	16.7%	15.8%
Period Ending:	03/31/17	12/31/16	03/31/17	12/31/16	12/31/16	12/31/16	12/31/21

Source: REIS Office Submarket Area Report

- Northwest New Haven Submarket area has an **office vacancy rate of about 25%**, much higher than region and nation as a whole
- Office vacancy rate expected to decline over the next 5 years, but will remain over 20% - does not include underutilized corporate campuses such as IBM & Chemtura
- Nationwide shift away from suburban office parks towards Central Business Districts and amenity-rich, transit accessible suburban locations
- **Private/corporate office not likely to be a viable use for the Southbury Training School site over the next five years**

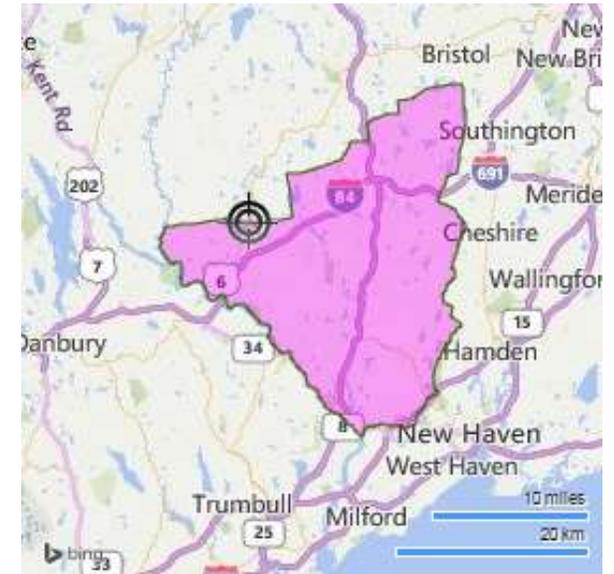


Southbury is in the **Northwest New Haven Office Submarket Area**



Market Snapshot: Retail

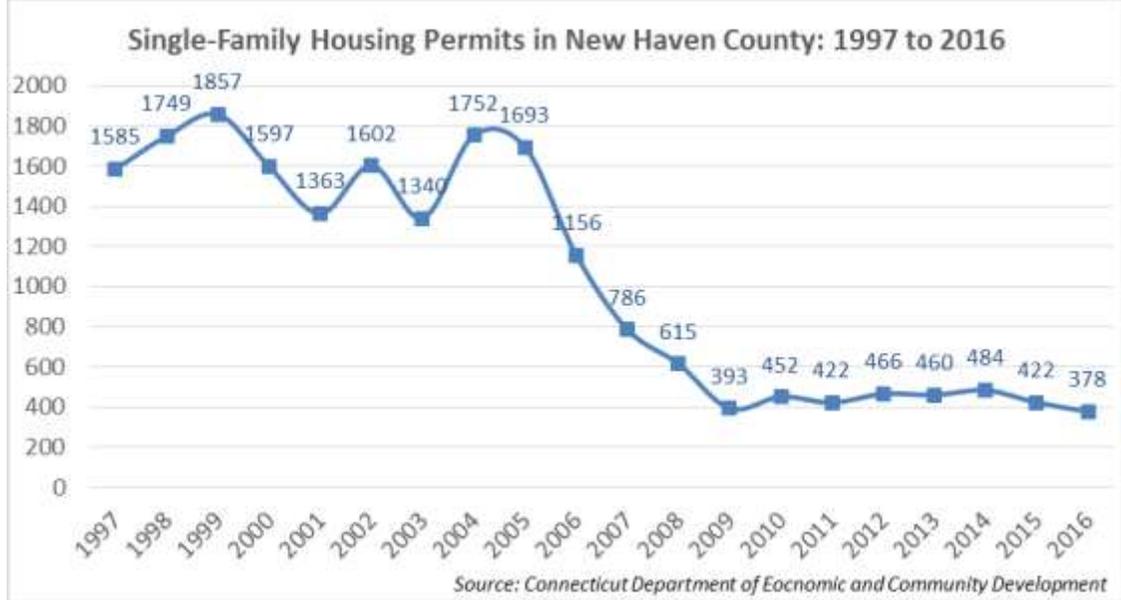
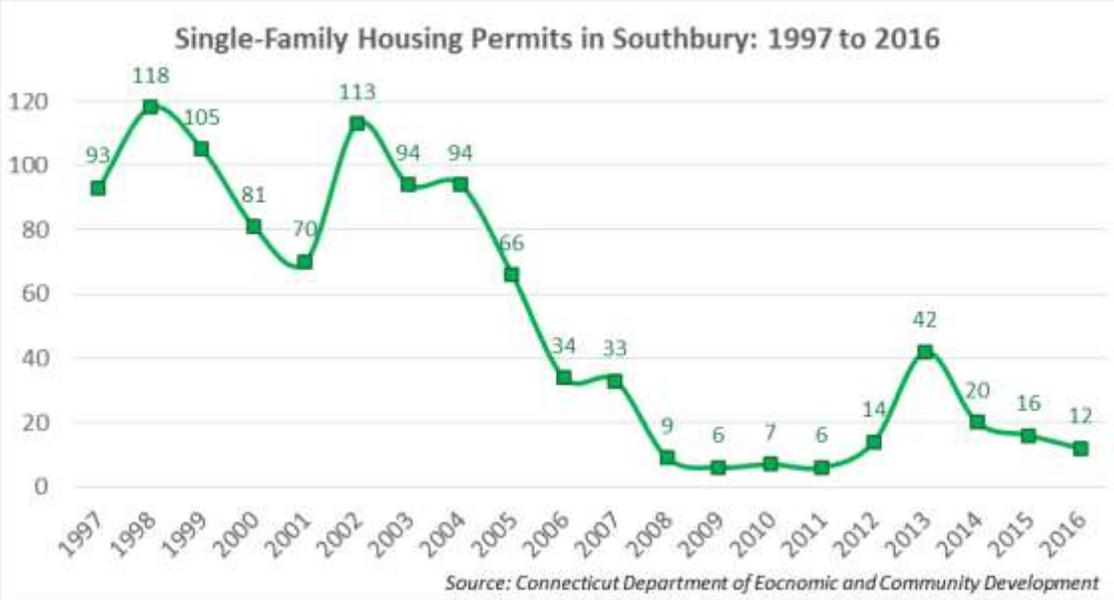
- High vacancy rate and declining retail rents in submarket area indicative of weak retail demand
 - Slow population growth limits opportunities for retail expansion
- Location of Southbury Training School is not conducive to retail - **low traffic volumes** and **disconnect from highway system and population centers**
- Significant inventory of vacant commercial space along Main Street in Southbury
 - Increasing competition from Quarry Walk development in Oxford
- Retail opportunities on the Southbury Training School site limited to those supporting another primary use (such as residential)
- **Town POCD and Campus Study do not indicate community support for retail on the Southbury Training School site.**



Southbury is in the
**Northwest New Haven Retail
Submarket Area**



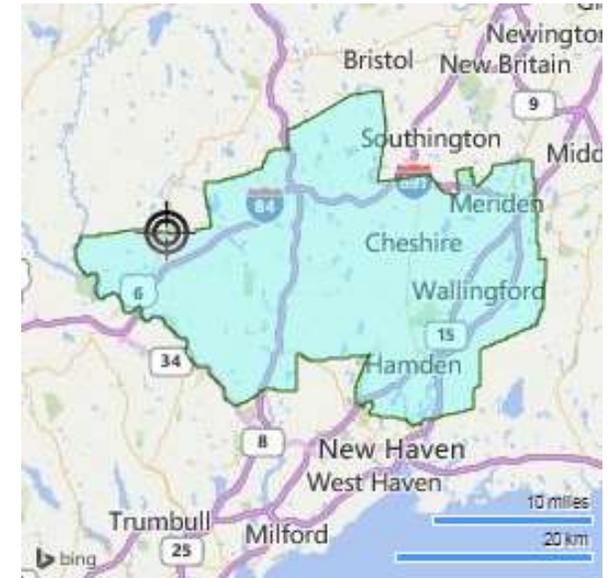
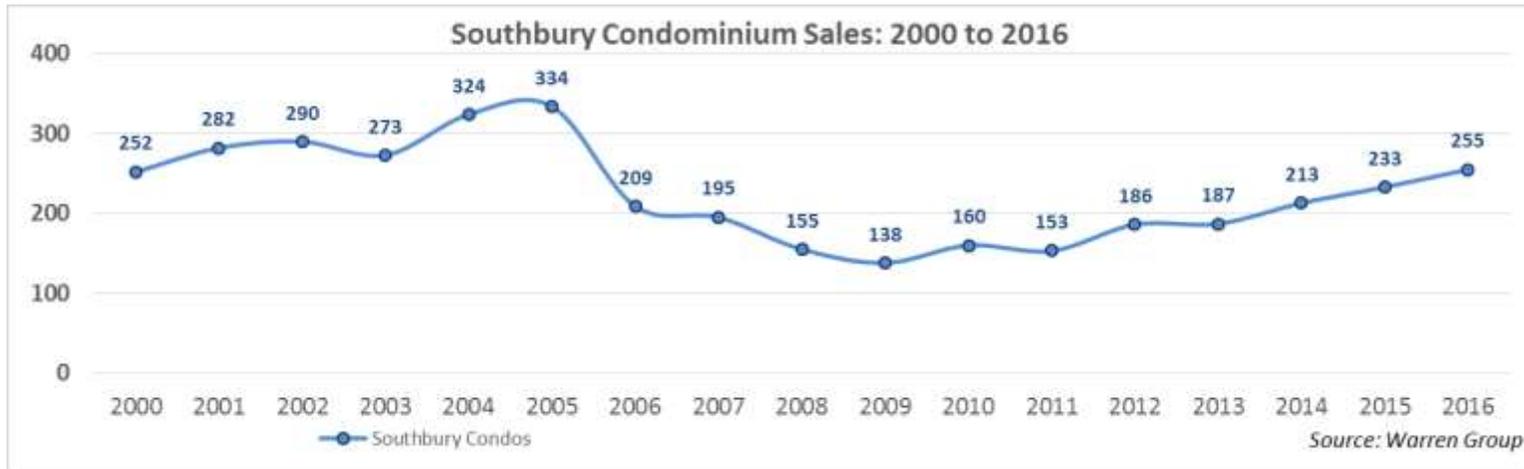
Market Snapshot: Single-Family Housing



- Single-family housing permitted as-of-right in underlying zoning districts (R-60 and R-80)
- New Haven County single-family permit activity stagnant since 2009 at less than 500 permits annually
- No major housing developments in Southbury since the mid-2000s
 - Recent activity limited to small subdivisions and infill developments



Market Snapshot: Senior Housing



Southbury is in the **North County Senior Housing Submarket Area**

- Vacancy rate comparable to state, regional, and national trends
- Strong market for assisted living facilities
- Condominium sales beginning to rebound. However, median sale prices yet to recover to pre-recession levels
- **Does Southbury desire additional senior housing developments?**



Market Snapshot: Recreation

Adult Recreation, by Participation Rate

Rank	Activity	Participation Rate
1	Walking	33.2%
2	Swimming	19.2%
3	Golf	13.3%
4	Hiking	13.2%
5	Weight Lifting	13.0%
6	Bicycling (Road)	12.7%
7	Fishing	11.5%

Based on population within 20 minute drive of Southbury Training School

Source: ESRI Sports & Leisure Market Report

Adult Recreation, by Market Potential Index

Rank	Activity	Market Potential Index
1	Golf	146
2	Downhill Skiing	145
3	Mountain Biking	142
4	Hiking	133
5	Weight Lifting	131
6	Ice Skating	131
7	Yoga	130

Based on population within 20 minute drive of Southbury Training School

Market Potential Index measures the likelihood of adults to participate in a given activity. **An MPI of 100 represents the national average participation rate.**

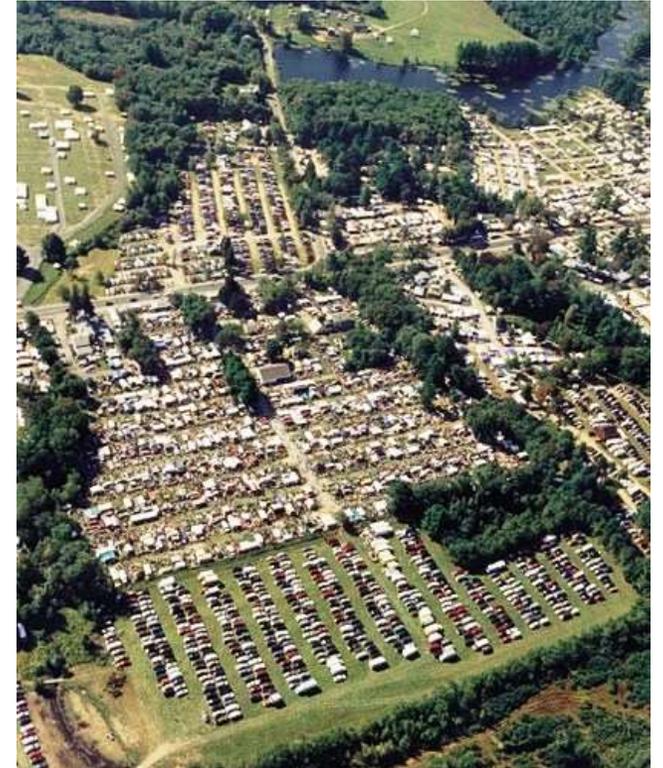
Source: ESRI Sports & Leisure Market Report

- Aging population – growing market for recreational activities for older adults
- Declining school-aged population in Southbury and surrounding towns limits opportunities for local-oriented private recreational facility – however a larger “**tournament facility**” drawing from much larger area (NY Metro Area, Boston Metro Area, etc.) may be more viable



Market Snapshot: Niche or Institutional Uses

- Difficult to quantify the market for niche or institutional uses, as the desirability of the Southbury Training School site is dependent on the unique needs of each potential user
- Potential niche or institutional uses include:
 - **Educational** – Private School, International School, Vocational Training
 - **Agricultural** - Agricultural Education
 - **Seasonal Fairgrounds** – Fairs, Antiques Shows, Seasonal Festivals
 - **Others?**



Seasonal fairs, markets, or festivals can bolster tourism in Southbury and surrounding communities while keeping the site passive for much of the year. Above is a photo of Brimfield, Massachusetts, which hosts an Antique Show three weeks per year



Case Studies: Other CT State Facilities





CT Case Studies: Fairfield Hills Hospital

Fairfield Hills Hospital – Newtown, CT

- Facility closed in 1995, acquired by Town of Newtown in 2004
- Recreation uses and municipal facilities; further redevelopment ongoing
- Led by Town and municipal development agency



Facility Name	Year		Time to Develop	Lead Agency	Uses	Land Use Setting
	Closed	Next Steps				
Fairfield Hills Hospital	1995	Acquired by Town 2004	Ongoing	Town of Newtown, municipal development agency	Municipal facilities, public open space, recreation. Further redevelopment ongoing.	Suburban



CT Case Studies: Undercliff State Hospital

Undercliff State Hospital – Meriden, CT

- Still in use as a respite center and transitional housing, though largest buildings have been demolished.
- Also houses other state agencies
- State is contemplating whether a portion of the property can be utilized for economic development



BEFORE



AFTER

The state has begun to demolish some of the buildings at Undercliff State Hospital. The photo on the left shows the property before demolition, while the photo on the right shows the property after demolition

Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Undercliff State Hospital	n/a, some buildings demolished – others still used for mental health services	Still in state ownership	n/a	State of CT	Mental health services, other state agencies. State is considering further economic development.	Adjacent to state park, big box retail off of I-691



CT Case Studies: Norwich State Hospital

Norwich State Hospital – Norwich/Preston , CT

- Facility closed in 1996. Purchased by Town of Preston in 2009. Sold to Mohegan Tribal Gaming Authority in 2017.
- Site remediation completed (Preston portion)
- Current plans include:
 - Indoor water park
 - Senior living center
 - Sports complex
 - Performance venue



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Norwich State Hospital	1996	Town bought land in 2009. 10 years of remediation, with several development proposals over the years that have fallen through. Purchased in 2017 by Mohegan Gaming Authority	Starting soon	Mohegan Tribal Gaming Authority	Currently vacant; proposed development includes water park, sports complex, performance venue, retail, time share units	Near major casino, tourism draw



CT Case Studies: Cedarcrest Hospital

Cedarcrest Hospital– Newington, CT

- Closed in 2010
- State is trying to sell property, currently vacant



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Cedarcrest Hospital	2010	Went to bid in 2012; no bidders.	n/a	State of CT	Currently vacant.	Open space and urban residential



CT Case Studies: Mansfield Training School

Mansfield Training School – Mansfield, CT

- Facility closed in 1993
- Some buildings now part of UConn as its Depot Campus, some buildings annexed by Bergin Correction Center
- Some buildings demolished; others still vacant



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Mansfield Training School and Hospital	1993	After closure some buildings were demolished, others split between UConn and Bergin Correction Center	n/a	UConn	Some buildings were acquired by UConn, some by Bergin Correction Center. UConn has no current plans for vacant buildings.	Rural - adjacent to two large state campuses



CT Case Studies: Seaside Sanitarium

Seaside Sanitarium – Waterford, CT

- Facility closed in 1996
- Buildings vacant
- Extensive master plan effort in 2016
- Grounds are planned to become a state park



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Seaside Sanitarium	1996	Still in state ownership	n/a	State of CT	Currently vacant; proposed to turn grounds into state park.	Suburban residential, on the shore



CT Case Studies: Connecticut Valley Hospital

Connecticut Valley Hospital – Middletown, CT

- Still used as a psychiatric care facility operated by the Department of Mental Health and Addiction Services
- State has indicated that it wants to demolish up to 24 buildings on the campus



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Connecticut Valley State Hospital	n/a, still used for mental health services	Still in state ownership	n/a	State of CT	Mental health services. State is considering demolishing 24 buildings.	Urban area, on river



Out of State Case Studies

Traverse City State Hospital – Traverse City, MI

- Facility closed in 1989, was transferred from the state to a redevelopment corporation in 1993
- Redevelopment did not take place until 2000
 - Gradual preservation and reuse into The Village at Grand Traverse Commons
 - Upscale mixed-use development
 - 63 acres developed, 480 acres of preserved parkland



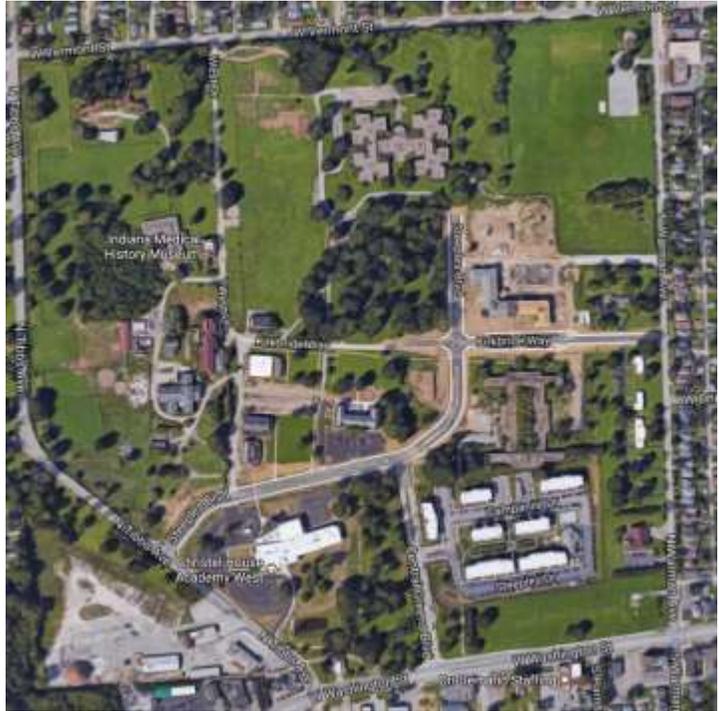
Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Traverse City State Hospital (Traverse City, MI)	1989	1993 transferred from state to redevelopment corporation; 2000 sold to private developer.	Ongoing -Redevelopment continues building by building	Private developer	Upscale mixed-use development: retail, dining, and professional services	Separated from urban area by open space



Out of State Case Studies

Central State Hospital – Indianapolis, IN

- Facility closed in 1994, sold to the city in 2004
- 2007 began master development planning process for mixed-use development
 - Charter school
 - Track and field
 - Multifamily housing
 - Senior living facility



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Central State Hospital	1994	Acquired by City 2003; 2006 public-private partnership	Ongoing - 50 of 150 acres have been redeveloped	Public-private partnership	Mixed-use development: charter school, recreation, multifamily housing, senior living facility	Urban



Out of State Case Studies

Mendota Mental Health Center - Madison, WI

- 31 acres of land abutting Mendota Mental Health Center placed on State’s surplus land list
- First leased as community garden land, then bought by Madison Area Community Land Trust in 2001
- CSA farms, community gardens, mixed-income co-housing



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Mendota Mental Health Center (Madison, WI)	Main campus still in use; surplus land was sold in 1995	31 acres of abutting surplus land leased as community gardens 1995, sold to community land trust in 2001	Housing component completed 2007	Community land trust	5 acres of community CSA farm, community gardens, prairie/natural area, mixed-income co-housing	Urban residential



Out of State Case Studies

Mid-Orange Correctional Facility – Warwick, NY

- Facility closed in 2011, 2014 bought by private developer
- Sports complex “The Yard” opened in 2015, renovations ongoing on remaining buildings
- Part of property retained by Town as Public Park
- 10 pad sites reserved for corporate office development – no development to date



Facility Name	Year Closed	Next Steps	Time to Develop	Lead Agency	Uses	Land Use Setting
Mid-Orange Correctional Facility (Warwick, NY)	2011	2014 bought by private developer, opened in 2015	Sports facility opened in 2015, renovations ongoing	Private developer, Town	Sports Complex, Public Park, Proposed Corporate Office	Rural



Redevelopment Challenges

Redevelopment Challenges for State Institutions and Hospitals:

- Deterioration of long-vacant buildings
- Historical status and protections – cost to renovate historic structures often exceeds the cost of new construction
- Some state hospitals have unmarked burial sites
- Marketing challenges – “spooky”
- Redevelopment can be a long, ongoing process
- Viability of future uses dependent on location and regional market characteristics – challenges for rural sites that are disconnected from transportation system



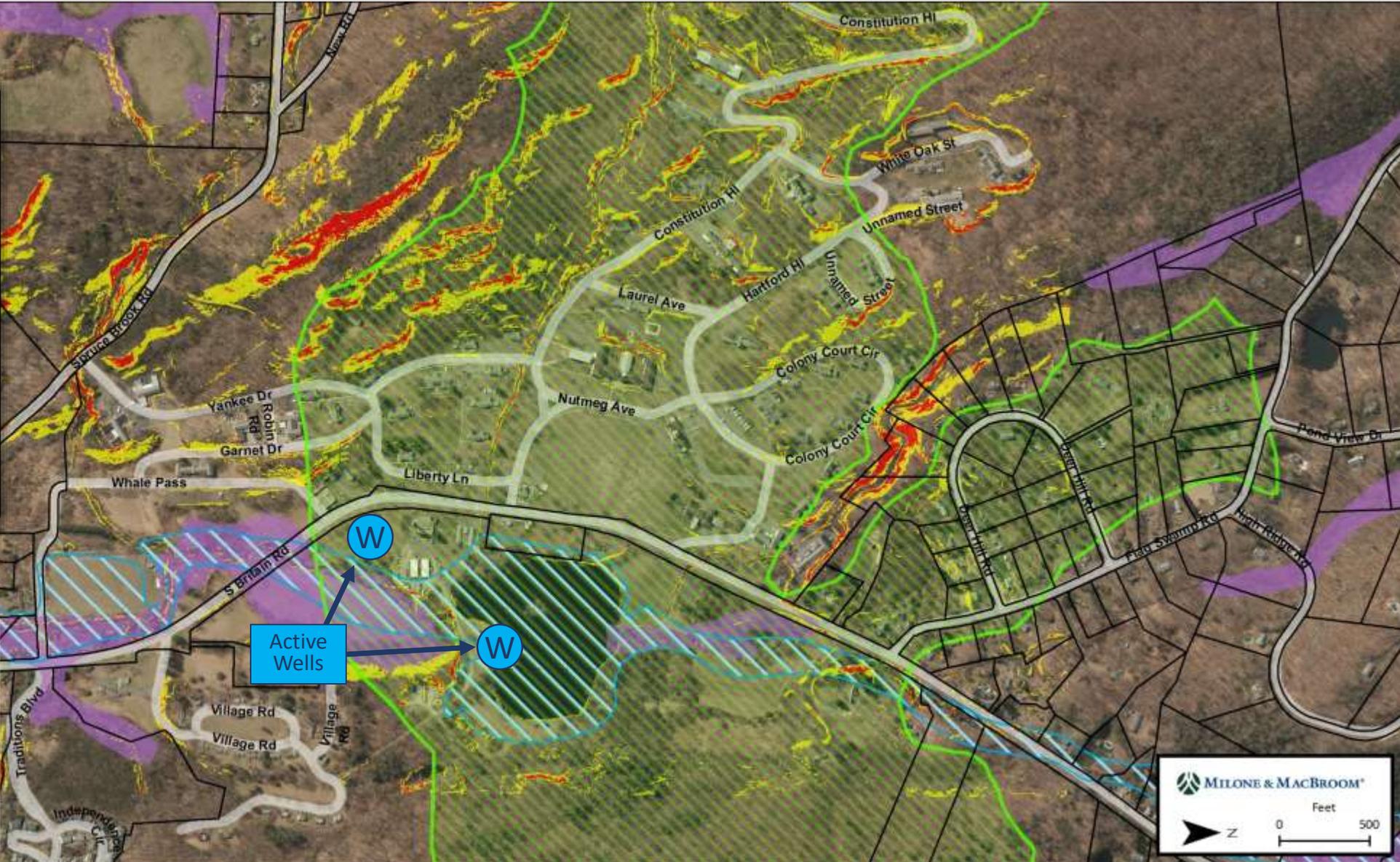
Regional Context





Site Constraints

- Constraints**
- Aquifer protection area – active well field next to Gravel Pond
 - Wetlands and floodplains along Route 172
 - Steep slopes on western portion of site



Southbury Training School Site Constraints

	Moderate Slopes (15% to 25%)		100-yr Flood Zone
	Steep Slopes (25% or Higher)		Hydic Soils
	Aquifer Protection Area		

Map is for planning purposes only. Dimensions may not be exact.

Source: SWAP Parcel Data, SWAP Floodlines (2013), M&M spatial data, SWAP LiDAR derived DT Contours

MILONE & MACBROOM

1 inch = 200 feet

0 100 200 400 600 Feet

MILONE & MACBROOM

Feet

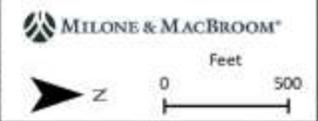
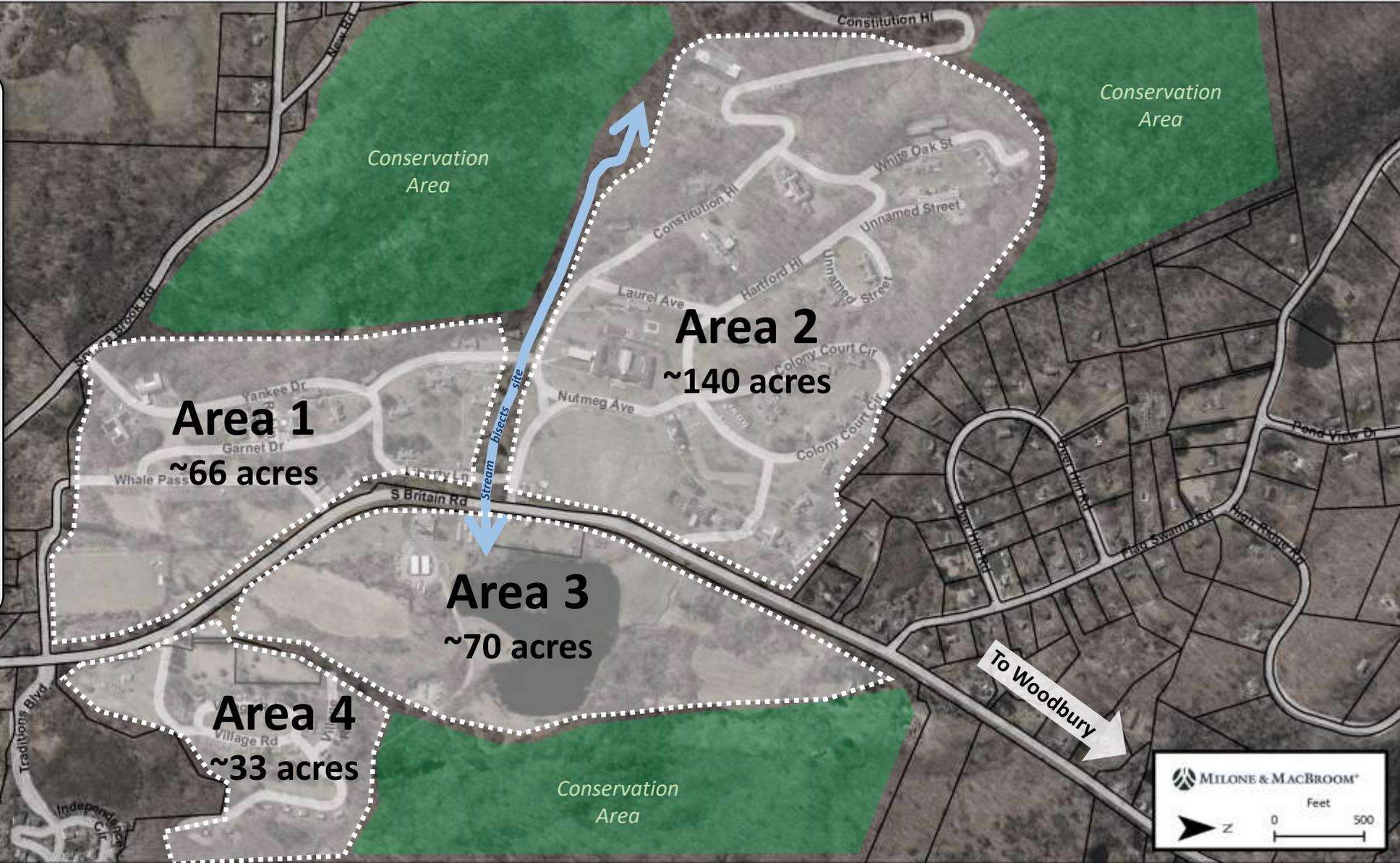
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Site Opportunities

Opportunities

- Existing roadway network throughout site
- Existing water and sewer infrastructure – ample capacity
- Large and distinct developable areas – site can be divided into one or more uses





Potential Future Uses: Recreation

COMMUNITY RECREATION FACILITY

A 10 athletic fields built on flat areas of site. **Requires building demolition in some locations**

Community fields to supplement commercial recreation facility for major tournaments

COMMERCIAL RECREATION FACILITY

- A** 6 athletic fields or indoor facilities built on flat areas of site. **Requires building demolition**
- O** Outdoor activities (Frisbee golf, ropes course, etc.) built on upper site and sloped areas
- C** Hotel built to support sports tournaments

SENIOR RENTAL HOUSING

Proposed Pierce Hollow Village Project
180 units of affordable elderly housing
Project currently **on hold** due to state requirements

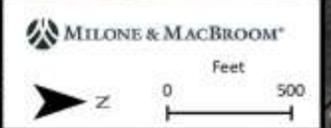
SENIOR RENTAL HOUSING

180

TOWN PARK

TOWN PARK (PASSIVE)

Area around Gravel Pit Pond preserved as Town Park and used for passive recreation (hiking, picnicking, fishing, etc.)





Potential Future Uses: Mixed Residential

DETACHED SENIOR HOUSING (PDD)

±290 detached units of age-restricted housing

High density "cluster" development single-family units and on-site amenities

Planned Development District

SENIOR HOUSING PDD

82

145

62

SENIOR RENTAL HOUSING

Proposed Pierce Hollow Village Project

180 units of affordable elderly housing

Project currently **on hold** due to state requirements

SENIOR RENTAL HOUSING

180

PASSIVE USE

Gravel Pit Pond

Conservation Area

SINGLE-FAMILY RESIDENTIAL

16

12

10

6

5

SINGLE FAMILY RESIDENTIAL

±70 single-family units

Single-family homes on 2 acre lots would be **permitted as of right** in underlying R-80 zone

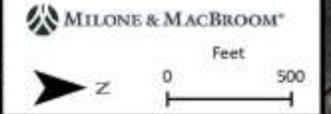
Site subdivided based on existing roadway network

PASSIVE USE

Environmental constraints limit development opportunities

Area preserved for passive use such as park or agriculture

Conservation Area





Potential Future Uses: Single-Family Residential

SINGLE FAMILY RESIDENTIAL

±55 Single-family Units

Single-family homes on 2 acre lots would be permitted as of right in underlying R-80 zone

SINGLE FAMILY RESIDENTIAL

±105 single-family units

Single-family homes on 2 acre lots would be **permitted as of right** in underlying R-80 zone

SENIOR RENTAL HOUSING

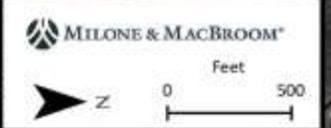
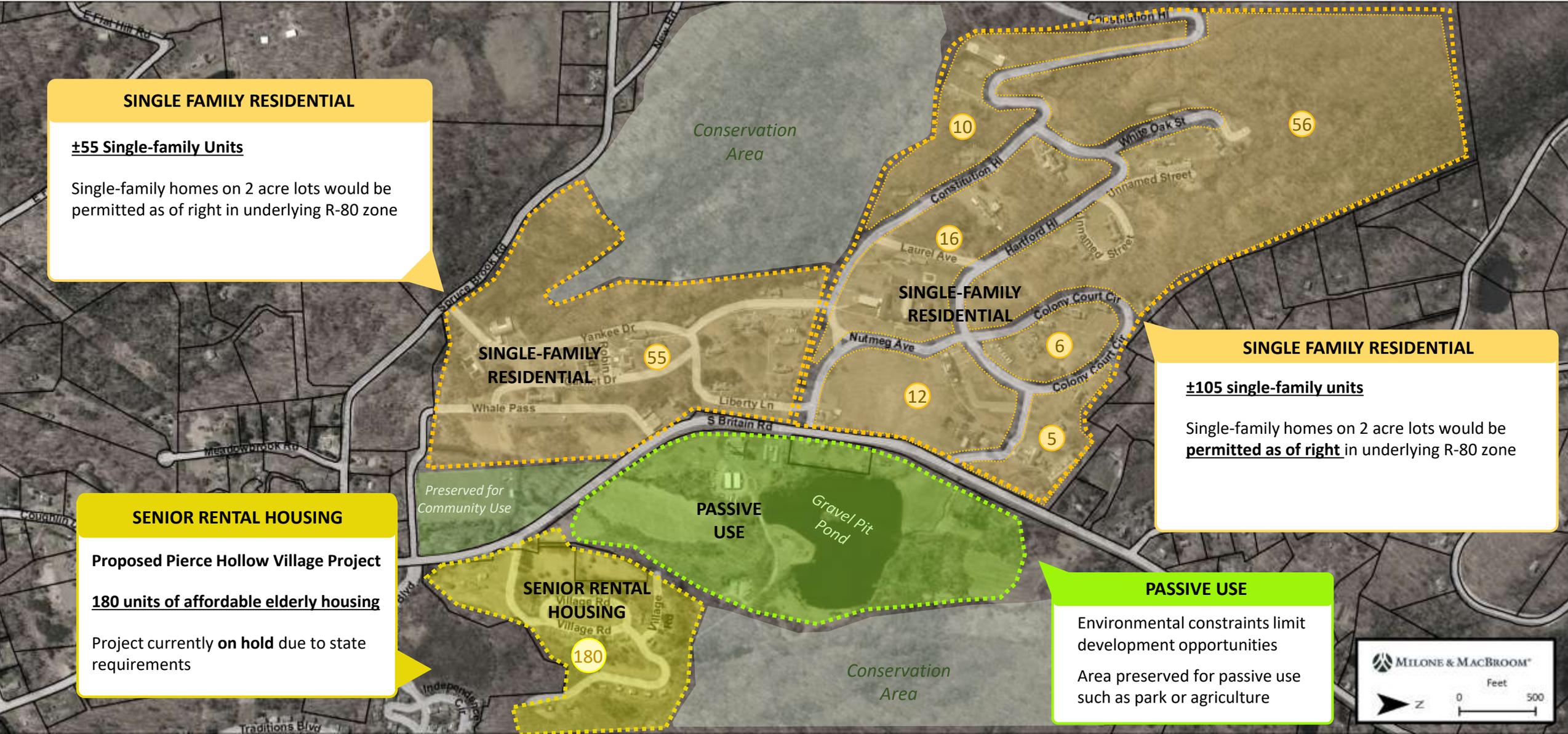
Proposed Pierce Hollow Village Project

180 units of affordable elderly housing

Project currently **on hold** due to state requirements

PASSIVE USE

Environmental constraints limit development opportunities
Area preserved for passive use such as park or agriculture





Potential Future Uses: Institutional

It is unlikely that a future institutional use will be large enough to need the entire STS site

The remaining portions of the STS site could be used for residential, recreation, or passive uses



SENIOR RENTAL HOUSING

Proposed Pierce Hollow Village Project

180 units of affordable elderly housing

Project currently **on hold** due to state requirements

INSTITUTIONAL HUB

Institutional uses likely to center around the Roselle School building – largest on campus.

Potential Institutional Uses:

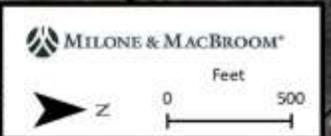
- Educational Facility (Private or Public)
- Municipal Complex (like Fairfield Hills)

Seasonal event space could host fairs/festivals

PASSIVE USE

Environmental constraints limit development opportunities

Area preserved for passive use such as park or agriculture





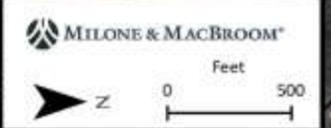
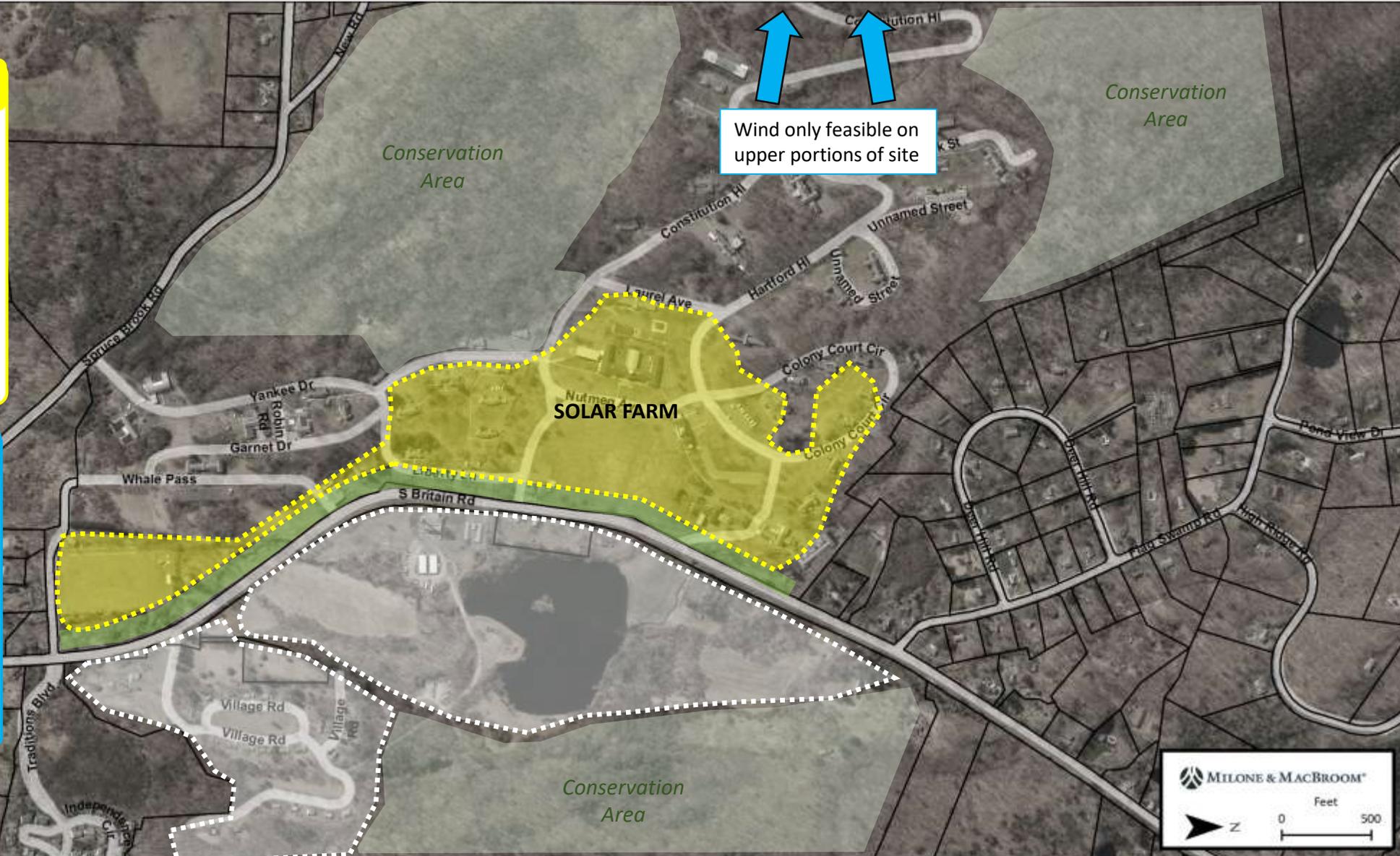
Potential Future Uses: Renewable Energy

SOLAR SITING REQUIREMENTS

- Must be 150 feet back from the "shadow line", including forested areas
- Cannot be placed in areas with slopes greater than 10%
- Cannot be placed in areas with shallow bedrock
- Vegetated buffer along road limits visual impacts

WIND SITING REQUIREMENTS

- Property line setback of 2.5 times the turbine height required for >65MW facility or 1.5 times the turbine height for <65MW facility
- Colebrook, CT wind turbines are ~500 feet tall with setback of ~750 feet
- Wind speeds are "poor to marginal" for wind power





Potential Future Uses: Renewable Energy

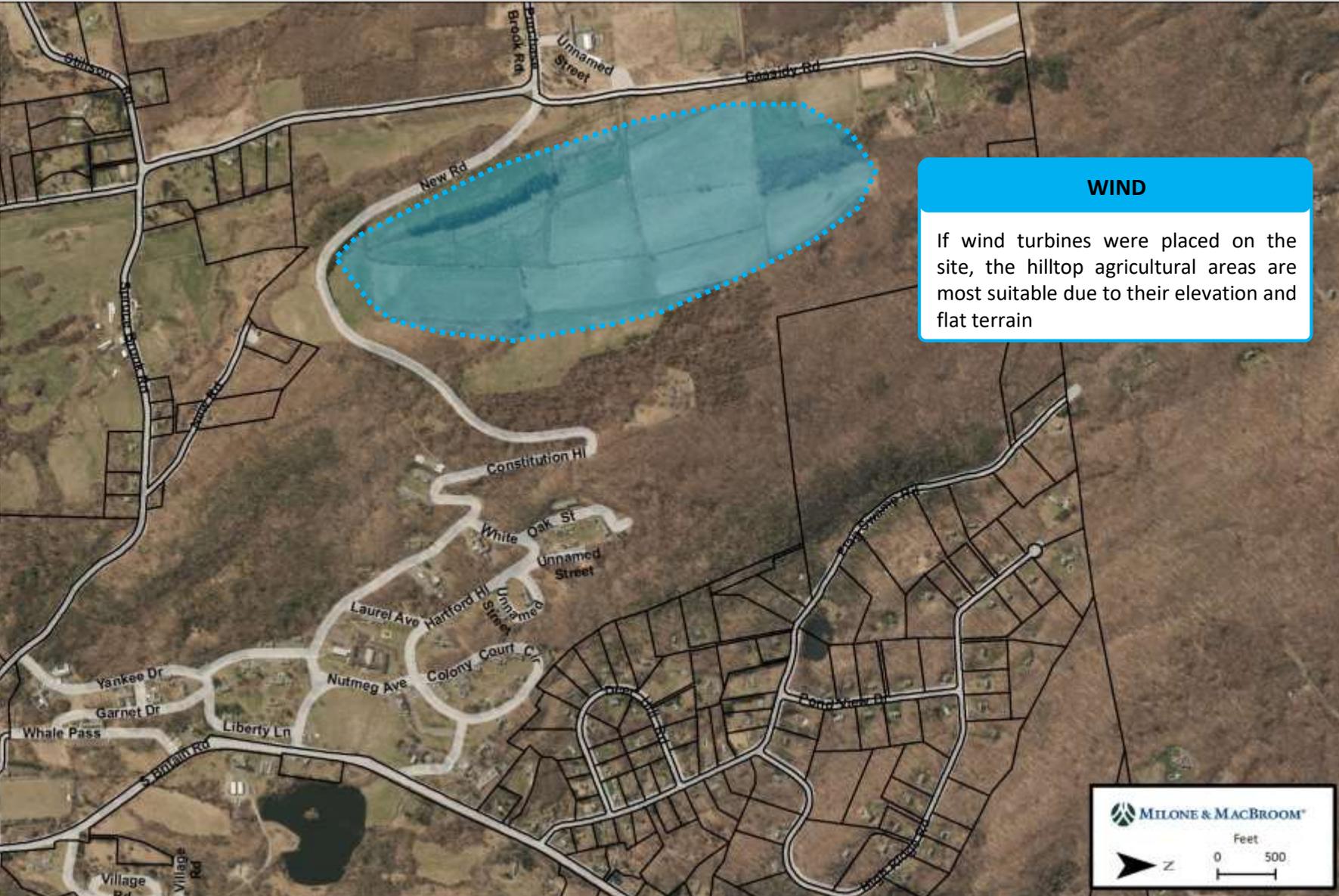


Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m ²	Wind Speed ^a at 50 m m/s	Wind Speed ^a at 50 m mph
1	Poor	0 - 200	0.0 - 5.6	0.0 - 12.5
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	> 800	> 8.8	> 19.7

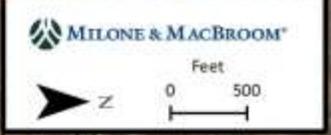
^a Wind speeds are based on a Weibull k value of 2.0

Southbury Training School site has **“poor to marginal”** feasibility for wind power



WIND

If wind turbines were placed on the site, the hilltop agricultural areas are most suitable due to their elevation and flat terrain





Breakout Session

