Branford Station
Transit Oriented Development (TOD) Plan

November 2017

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Branford Station
Transit Oriented Development (TOD) Plan

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EXECUTIVE SUMMARY

The Branford Station Transit Oriented Development (TOD) Plan is a project sponsored by the Town of Branford to guide policy and land use decisions for the areas within close proximity (0.5 miles) to the Branford Train Station. The Plan was funded through a grant from the State of Connecticut Office of Policy and Management's "Responsible Growth and Transit-Oriented Development Grant Program."

The overarching goal for the Plan was to determine the community-wide vision on how to promote long term transformation of the outdated industrial and commercial legacy uses in the area with growth and redevelopment that is more transit oriented, will increase the tax base, and will provide uses better suited to the current local and regional economy. This Plan informs future planning by the Town, which may include decisions related to land use and zoning, capital expenditures and the establishment of other policies.

Public outreach was a critical component of the Plan to gain an understanding of the community's goals and objectives for the TOD area, including their current usage of Branford's transit resources and waterfront, and their preferences for streetscape improvements, access and parking and the mix of uses they want to see around the train station. The planning process provided a host of opportunities for public input including two public workshops, an online survey, a telephone survey, stakeholder interviews, and focus groups. This outreach helped to define a set of realistic and publicly supported development goals and objectives for the area.

The public outreach process reinforced the notion that the TOD area is an underutilized asset for the Town, considering its unique location along the Branford River waterfront, access to transit and proximity to the Town Center. Improving the TOD the area will help to draw new residents, enhance the livability of the neighborhood and provide improved connections.

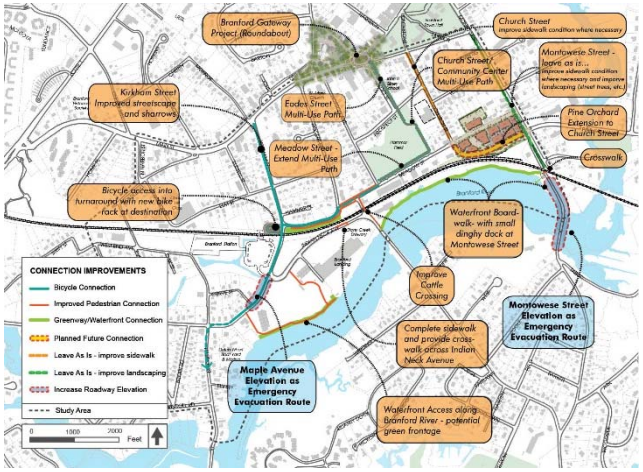
Public meeting #1 (top) and #2 (bottom)

Streetscape and Connectivity

A consistent theme expressed by residents was the need to create more attractive, pedestrian friendly streets that encourage residents, workers and visitors to arrive by all modes of transportation (i.e. rail, bus, car, walking and bicycle). Recommendations include improving roads and sidewalks where needed, providing bicycle lanes on key connecting roads, improved lighting, improving landscaping along street frontages, providing improved signage and wayfinding, enhanced bus and potentially shuttle service, and improved access to the waterfront. "Traffic calming" measures are recommended at specific locations to reduce speeding and make the area safer and feel more comfortable for pedestrians.

Recommendations:

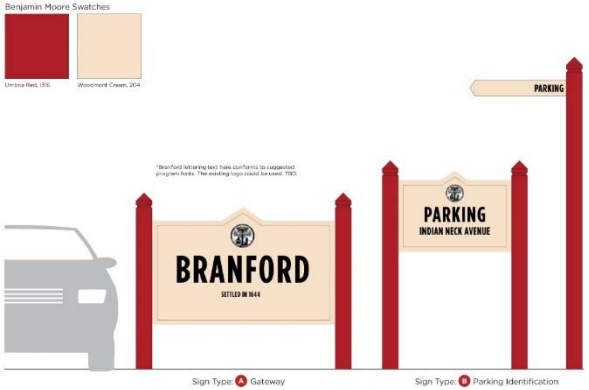
1. Pedestrian and bicycle network improvements focus on key corridors that connect Main Street, the waterfront and the train station. If these elements were completed, there would be a continuous bicycle and pedestrian link between these locations.
    a. Meadow Street between Church Street and Rogers Street: Multi-use path along park that connects to planned path at Hammer Field adjacent to the Community Center.
    b. Meadow Street between Rogers Street and Kirkham Street: New sidewalk and green area alongside a reconfigured parking area (ConnDOT owned).
    c. Eades Street and Hammer Field: Multi-use path connecting Hammer Field to Main Street at the Branford Main Street Gateway project proposed by ConnDOT.
    d. Kirkham Street: Streetscape improvements and sharrows



Proposed Road, Pedestrian and Bicycle Connection Improvements (see Figure 18, page 102)

Path along Meadow Street at ConnDOT property (see Figure 21, page 102)

2. Improve gaps in the sidewalk network and other areas in need of attention such as the "Cattle Crossing."
3. Create a shuttle route during the summer to service major destinations in the area such as the Town Center, the train station and Stony Creek Brewery and marinas along the Branford River to the south. A potential route is proposed.
4. Link the Town of Branford with other Connecticut shoreline towns through completion of proposed 8.9-mile Branford section of the Shoreline Greenway Trail. In the TOD area, this will require streetscape improvements along its route at Meadow Street, the Cattle Crossing, and Indian Neck Ave. The ultimate completion of the Trail is a wider goal for the Town but is beyond the scope of this Plan.
5. Improve wayfinding signage to the station, waterfront and other destinations in the area.

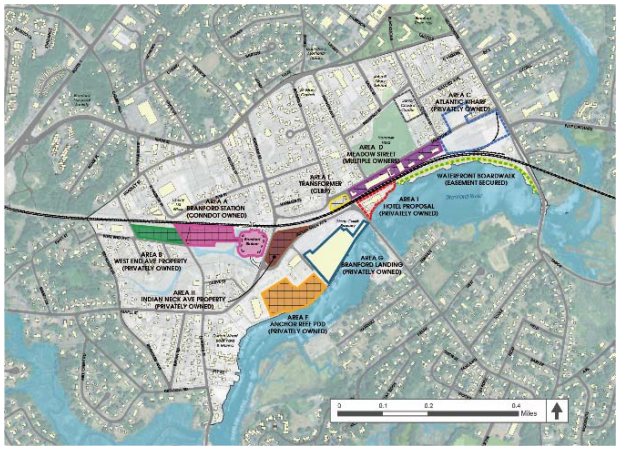


Wayfinding Signage Concept
(see Figure 23, page 114)

Land Use and Zoning

There are some target vacant and underutilized areas within the area that would benefit from revitalization. These sites present opportunities for redevelopment, adaptive reuse and creation of streetscape connectivity and/or additional open space. Permitting a modest amount of residential development could help transform the area into a unique waterfront neighborhood, which will be an amenity for Branford residents and will also encourage people to visit from out-of-town.

The core of the TOD area is zoned IG-1 (industrial), which does not allow for residential development, thus preventing property owners from repositioning their properties without a applying for zoning change or variance. In the last 15 years, many of the properties have been rezoned in a piecemeal way through the creation of Planned Development Districts (PDDs). Instead of looking at each area as an individual development project (e.g. Atlantic Wharf or Anchor Reef), the Town may consider zoning changes that give guidance about desired uses, building heights, site layouts, etc., so that proposed developments are harmonious

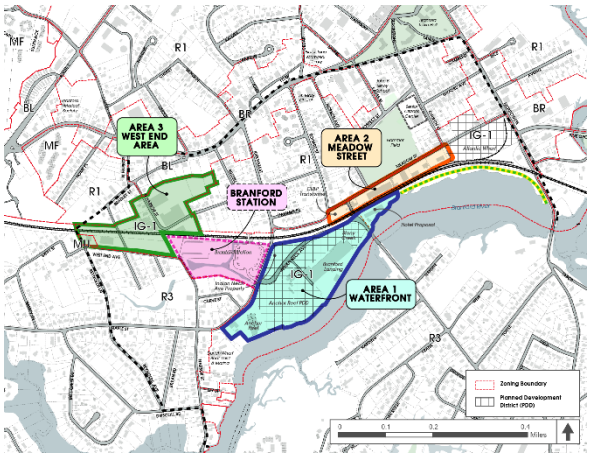


Branford TOD Opportunity Areas
(see Figure 12, page 109)

with the vision articulated in this plan; the existing streetscape; and future development that may occur.

Recommendations:

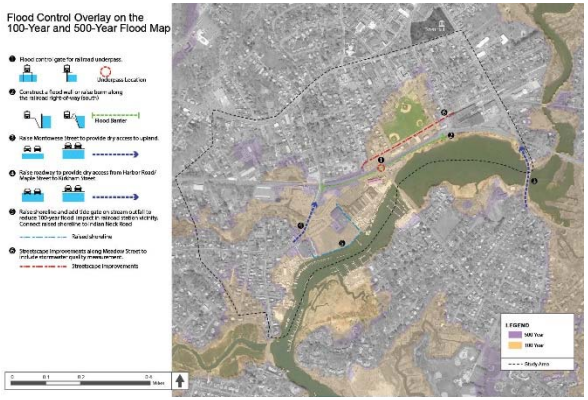
1. Create an overlay zone for the IG-1 (industrial) area which would provide increased regulatory guidance tailored for the TOD Area. Property in an overlay zone may continue to be subject to all of the regulations, responsibilities, and controls associated with the underlying zone (in this case the IG-1 zoning district) unless the property owner applies for a special permit, or "opts in" to the overlay zoning, which would allow additional uses of the property not normally allowed in the underlying zone (i.e. residential).
2. Guidelines are provided for four sub-areas for the TOD Area IG-1 zone, including:
    a. The waterfront area,
    b. Meadow Street,
    c. the West End Avenue area, and
    d. the Branford train station area itself.



Branford TOD Overlay Sub-areas
(see Figure 13, page 90)

Flood Resilience and Sea Level Rise

A portion of the TOD Area was once marshland and tidal wetland, filled to accommodate development. These low-lying areas are vulnerable to flooding, as was seen during Superstorm Sandy. Anticipated sea level rise makes it even more important to reduce the vulnerability of properties within the 100-year floodplain. The proposed recommendations include a wide range of interventions to improve Branford's flood resiliency, both from weather events and sea level rise. These build upon previous work commissioned by the Town, including the Town of Branford Coastal Resiliency Plan (2016).



Flood Control Measures
(see Figure 25, page 121)

Recommendations:

1. Raise street elevations along key stretches of existing roadways, including Montowese Street and Maple Avenue, to ensure safe evacuation during weather events.
2. Provide zoning incentives to encourage property owners to make their buildings more flood-resilient (i.e. by raising their buildings).
3. Implement floodgate at Cattle Crossing and associated water pump infrastructure to reduce the flood risk in the Meadow Street/Hammer Field area.

Train Station

The Branford Train Station is served by Shore Line East Commuter Rail with approximately 20 departing trains per day during the week and 13 on weekends. The station was recently upgraded with a second platform on the north side of the tracks, a pedestrian overpass, and a "kiss and ride" drop-off area.

According to ConnDOT, 2016 average ridership during weekdays is 179. Ridership is down 16 percent from 2010. Residents expressed that the station area is relatively underutilized and is not well connected to the rest of the Town. A parking survey conducted as part of the Plan found that less than a quarter of the 417 spaces were utilized on a typical weekday.

Branford Train Station

Recommendations:

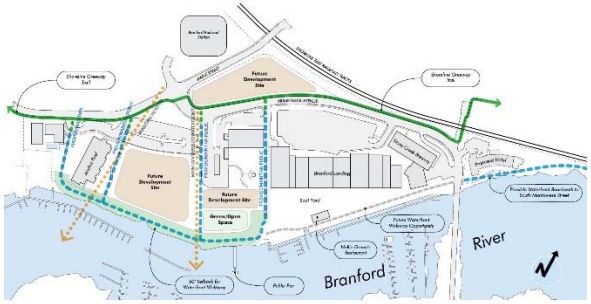
1. Advocate to the Connecticut Department of Transportation (ConnDOT) for more frequent rail service and improved service to support recreational uses in the TOD study area such as the Stony Creek Brewery.
2. Advocate to CTTransit to provide better bus service inter-connections.
3. Improve streetscape connections and wayfinding signage to the station.

Waterfront Uses and Opportunities

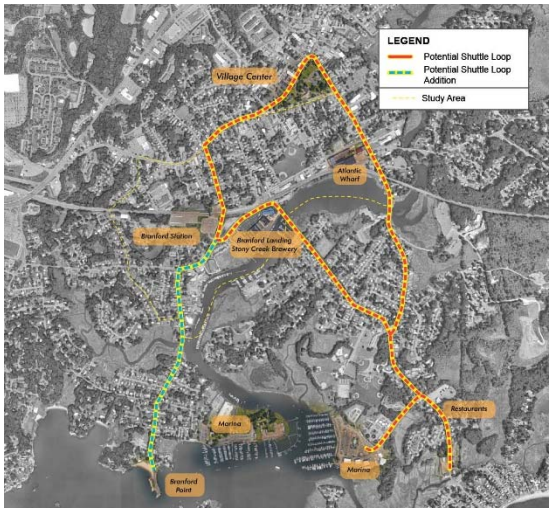
The Branford River is a popular destination, especially on weekends when people tend to visit the brewery or Nellie Greens, go kayaking, and dock in the local marinas. While the area is a local attraction, residents expressed the need to expand access and make the area a major attraction for the Town.

Recommendations:

1. Complete and extend the shoreline walkway/boardwalk from Maple Street to South Montowese.
2. Any future development on the Branford River waterfront in the proposed overlay zone should provide a high-quality publicly accessible walkway and should be encouraged to provide additional nodes of public space along the water.
3. Provide facilities to support the increased use of the Branford River for personal watercraft.
4. Create of a "Blue Trail" on the River, which is a designated water trail for small boats and kayaks.



Potential development along Branford River in Overlay Zone (see Figure 14Figure 25, page 9290)



Potential Branford Shuttle Loop (see Figure 20, page 11190)

SECTION 1: INTRODUCTION

Purpose and Background

The Branford Station Transit Oriented Development (TOD) Plan is a Town initiated effort to develop a shared community vision for the future development of the areas within close proximity (0.5 miles) to the train station and the Branford River waterfront. The Branford Station TOD Plan is an integral part of a Town and regional initiative to promote the long term transformation of the outdated industrial and commercial legacy uses in the area with growth and redevelopment that is more transit oriented, will increase the tax base, and will provide uses better suited to the current local and regional economy.

Implementing TOD strategies within the region is consistent with the State and regional goals as outlined in Connecticut's 2015 Transportation Vision Plan, *Let's Go CT! and t*he South Central Region Council of Governments (SCRCOG)'s report, *Transit Oriented Development Opportunities for the South Central Region.*

This Plan informs future planning by the Town, which may include decisions related to land use and zoning, capital expenditures and the establishment of other policies. It is recognized that the Town has also begun to update its Plan of Conservation of Development (POCD) which, when finished, will provide a vision for the entire Town. It is anticipated that recommendations included in this document will be incorporated into the POCD.

Community outreach was a critical component of the Plan to ensure the vision for future development meets local needs. The planning process provided a host of opportunities for public input including two public workshops, an online survey, and stakeholder interviews and focus groups. This outreach helped to define a set of realistic and publicly supported development goals and objectives for the area. Feedback from the community was generally focused on desired land uses for the area, addressing coastal resiliency, improving pedestrian and bicycle access and walkability and improving linkages between the Town Center, Branford Station and the waterfront.

Amtrak right-of-way and Kirkham Road

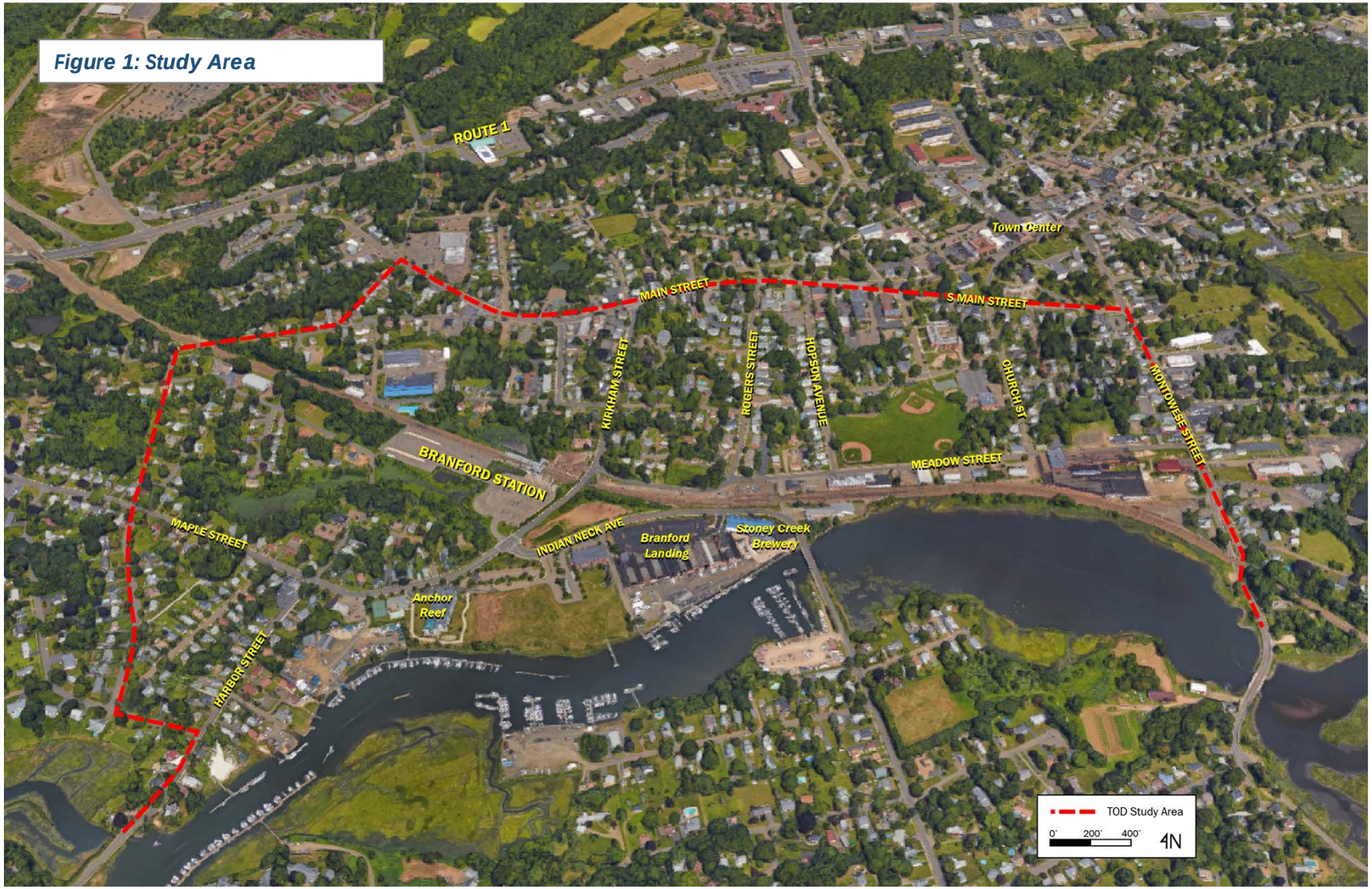
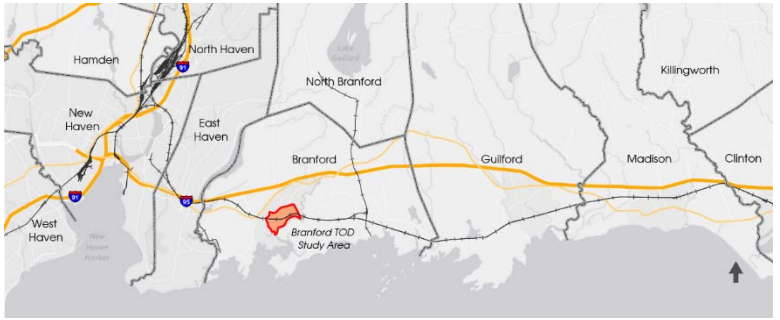


Figure 1: Study Area

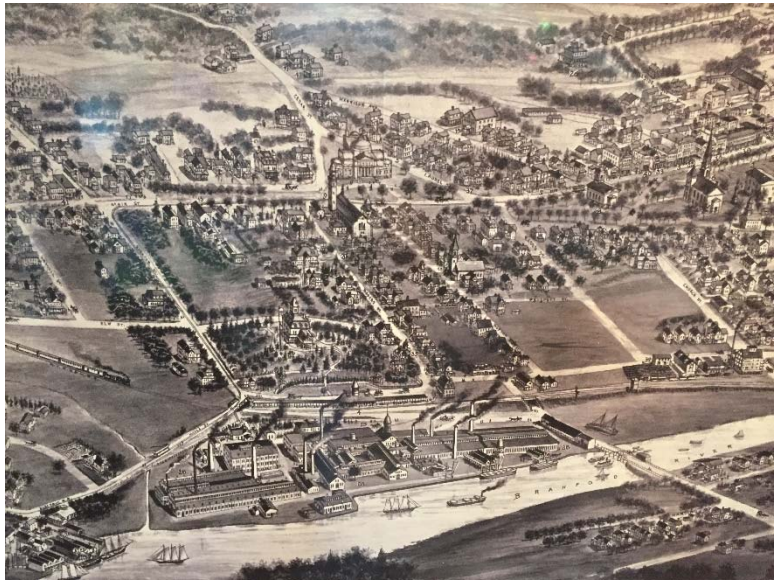
Branford Station TOD Study Area

The Branford Station TOD Study Area (TOD Area) is located in the Town of Branford on the southeastern coast of Connecticut. The TOD study area is generally bounded by the Branford River, Reynolds Avenue to the west, Main Street to the North, and Montowese Street to the east. The station is just over a half mile walk (10 minutes) to Branford's Town Center, which is home to shops, restaurants, and personal and professional services along Main Street, with the Town Green at the center. The Branford Train Station is served by Shore Line East Commuter Rail with approximately 20 departing trains per day during the week and 13 on weekends. New Haven Station is a 15 minute trip and has connecting service to Stamford, New York City and Boston via Amtrak. The Station and adjacent parking lot are managed by the Connecticut Department of Transportation (ConnDOT).

The Branford Station TOD study area ("TOD Area") has a mix of industrial, commercial and residential uses. The area between the railroad and Branford River was historically home to Branford's industrial and manufacturing district, however many of the industrial buildings have either been redeveloped or adaptively reused. The upland areas further from the waterfront are largely residential as is the neighborhood along the southwestern corner of the TOD Area. While the area on the opposite side of the Branford River is not in the TOD Area, it is predominantly residential, with two marinas along the river. The land use chapter provides a more detailed description of sites in the TOD Area.



Regional location



Historic Map of Branford, CT (1905)

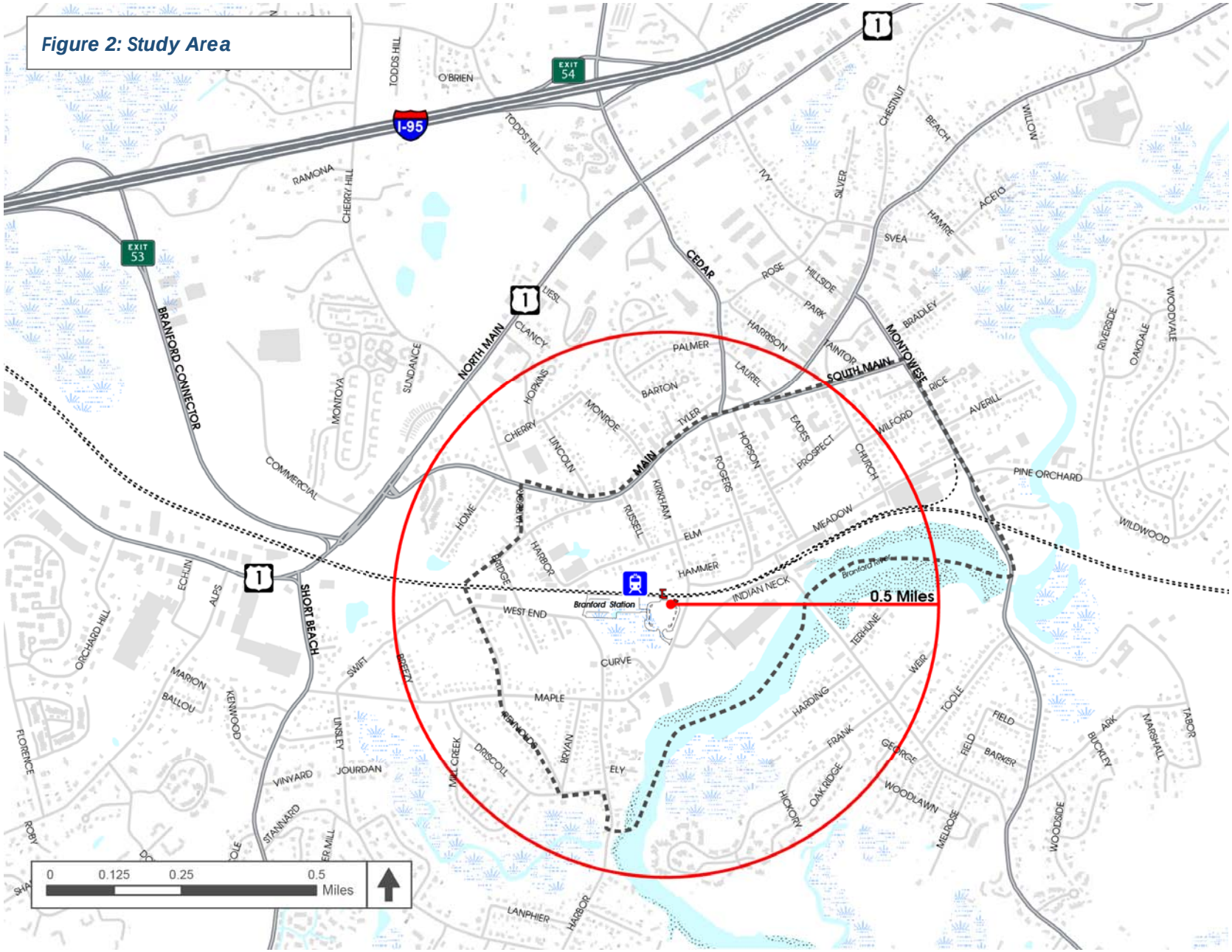


Figure 2: Study Area
I-95
EXIT 54
EXIT 53
1
TODDS HILL
O'BRIEN
RAMONA
CHERRY HILL
BRANFORD CONNECTOR
NORTH MAIN
SOUTH MAIN
MAIN
CEDAR
MONTOWESE
COMMERCIAL
SHORT BEACH
SUNDANCE
MONTOYA
CLANCY
LIESL
HOPKINS
PALMER
BARTON
LAUREL
TYLER
MONROE
CHERRY
LINCOLN
HOPSON
EADES
PROSPECT
CHURCH
WILFORD
RICE
AVERILL
PINE ORCHARD
WILDWOOD
MEADOW
ELM
HAMMER
INDIAN NECK
RUSSELL
KIRKHAM
ROGERS
HOME
HARBOR
BRIDGE
WEST END
Branford Station
0.5 Miles
CURVE
MAPLE
SWIFT
BREEZY
REMINGTON
BRYAN
ELY
DRISCOLL
MILL CREEK
TERHUNE
WEIR
HARDING
TOOLE
FIELD
BARKER
FRANK
GEORGE
OAKRIDGE
HICKORY
WOODLAWN
MELROSE
WOODSIDE
ARK
BUCKLEY
MARSHALL
TABOR
ORCHARD HILL
ECHUN
ALPS
MARION
BALLOU
KENWOOD
FLORENCE
UNSLEY
VINYARD
JOURDAN
STANNARD
ROBY
LANPHIER
HARBOR
IVY
SILVER
CHESTNUT
BEACH
WILLOW
ACEIO
HAMPE
SVEA
ROSE
HILLSIDE
PARK
HARRISON
TAINTOR
BRADLEY
RIVERSIDE
OAKDALE
WOODVALE
0
0.125
0.25
0.5
Miles

Local and Regional Plans

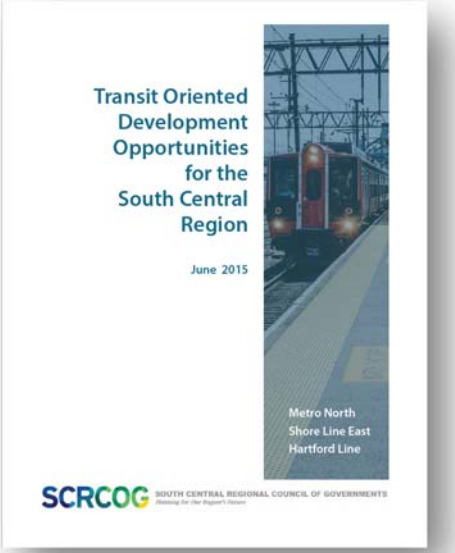
There are a number of plans, studies, and resources that address the existing conditions, regulatory frameworks, Town and regional goals, and economic development opportunities for the Branford Station TOD Area.

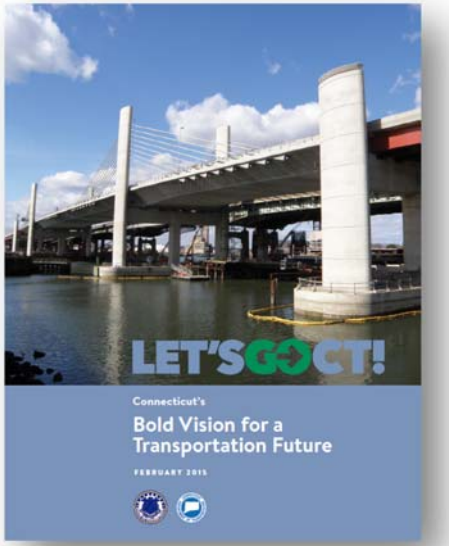
Implementing Transit Oriented Development (TOD) strategies within the region is consistent with 2015 Vision Plan, *Let's Go CT!* The Plan outlines an ambitious vision for the expansion of transit and investment in transportation infrastructure. A component of this strategy is supporting TOD programs that "create vibrant, mixed-use developments that improve mobility and increase access to jobs and education."

The Branford Station TOD Plan was informed by The South Central Regional Council of Governments (SCRCOG)'s study *Transit Oriented Development Opportunities for the South Central Region* (2015), which looked at opportunities for TOD in proximity to 11 station areas in the region. The SCRCOG report provides an analysis of the Branford Station area and identifies TOD sites that have potential for development or redevelopment. This prior effort was a key resource for recommendations made in this Plan.

The Town of Branford is currently in the process of updating its existing Plan of Conservation and Development (POCD), which was developed in 2008. The updated POCD will articulate a vision, goals, and objectives for future land use and overall development town-wide. It is anticipated that recommendations made within will be incorporated into the POCD planning process.

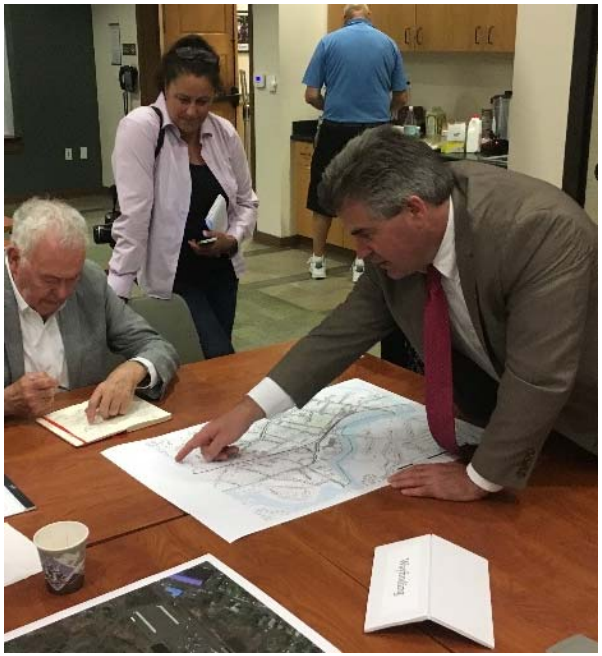
The Town's Coastal Resilience Plan, developed in 2016 was also influential in the development of this plan as a significant portion of the TOD Area is within the 100-year floodplain. The plan presents a series of town-wide and location-specific options that are available to adapt to changing conditions and prepare for future storm events. The document presented two examples for building resilience at the neighborhood scale, one of which is in the TOD Area (Meadow Street).





Public Outreach

One of the Town's objectives for the Plan was to maximize community participation. Citizen participation was an important component of the planning process to gain input on issues and opportunities that should be addressed and to develop and test ideas. The visioning process featured two public workshops, a public survey, interviews, and focus group meetings. These efforts were guided by a Steering Committee, a diverse group of community members, elected officials, organization representatives and business owners. The Steering Committee met monthly to plan public events and provide feedback to Town officials on the development of the TOD Plan. A short summary of some of these efforts is below.



Participants at public workshop #1 (top) and workshop #2 (bottom)

Public Workshop #1

This event was held at the Canoe Brook Senior Center on Monday, May 22nd. Approximately 60 participants were in attendance and the meeting was also recorded for Branford Community Television. After an opening presentation, participants were invited to participate in a town hall meeting where the floor was open for the public to voice concerns, recommendations, and feedback about the approach to the TOD Plan. Following the discussion, participants were encouraged to participate in a "Dot Point Exercise." Each participant was given stickers to place next to the topics raised that they agree with or disagree with the most. While this was not a scientific survey, it was helpful to understand the general level of interest in certain ideas/themes. A summary of the discussion topics is provided in the Appendix of this Plan.

Public Meeting #2

The second public workshop was held on Thursday, June 22nd from 7-9 PM at the Branford Fire Department. There were approximately 70 participants in attendance. The meeting was also recorded by Branford Community TV. Following a presentation and a brief coffee break, participants were invited to join one of

five roundtables, each with a central topic area, including: Land Use and Zoning; Development Possibilities; Roadway Connections & Transportation; Environment and Waterfront; and Wayfinding. At each table, participants discussed concerns, comments, and recommendations related to the improving the TOD Area. Key themes and ideas were documented and were reported back by a volunteer from the group. A summary of the discussion topics is provided in the Appendix of this Plan.

Participants at public workshop #2

Online Survey

A short electronic survey was created to understand how people use the TOD Area and what preferences people have if any redevelopment were to occur. There were 18 questions, some of which were open ended. The survey was publicized by e-blasts from the Town, flyers and through social media venues; 282 responses were received, the results can be found in the appendix. 30 percent of the respondents live in the TOD Area and the remainder predominantly live elsewhere in the Town of Branford. The most frequent locations for work were Branford (32 percent) followed by New Haven (23 percent) and elsewhere in CT (18 percent).

Telephone Survey

A 25 question telephone survey was conducted by the Town in a joint effort with the Plan of Conservation and Development (POCD) planning process. The survey, conducted by Great Blue Research was structured to test public support of recommendations within this Plan such as land use changes residents might like to see around the Branford Train Station and waterfront area. Participants in the survey were selected randomly. The random sample provides more confidence that survey results are representative of the wider community in Branford. Telephone survey results are summarized in Appendix D.

Vision for Branford TOD Area

Based on input from the public at the public events, the survey and other stakeholder events, the Steering Committee developed the following key principles to guide development and redevelopment in the Branford TOD Area.

Meadow Street

Encourage contextual development of key opportunity sites

- Target vacant and underutilized areas within the study area present opportunities for redevelopment, adaptive reuse and or creation of additional open space. Improving these areas will help to draw new residents, enhance the livability of the neighborhood and provide improved connections to the train station and waterfront.
- New development should be compatible with the character, density and settlement patterns of established residential neighborhoods.
- Historically and culturally significant buildings should be preserved where feasible.

Incorporate land uses that are complimentary and do not compete with Branford's Town Center

- New development should provide the best and most attractive mix for housing, commercial and cultural uses which respects the character of the neighborhood and urban fabric.
- Housing should include a variety of choices to accommodate a wide range of ages and incomes.
- Non-residential uses should provide a unique urban experience along the waterfront that supports and does not compete with Branford's Town Center.

Improve connections to Town Center, the waterfront and surrounding neighborhoods.

- New development should create attractive, pedestrian friendly environments that encourage residents, workers and visitors to arrive by all modes of transportation (i.e. rail, bus, car, walking and bicycle).
- Connect gaps in the sidewalk and crosswalk network; prioritize key linkages to the train station, Town Center and the waterfront.
- Leverage development on the waterfront to extend the Shoreline Greenway trail and create high quality public spaces, such as small green areas or plazas, as organizing features and gathering places for the neighborhood.

Waterfront walkway, Newburyport, MA

Encourage Sustainable and resilient development

- Ensure development is sustainable and resilient to flooding from stormwater and sea-level rise.
- Maintain and improve the ecological quality of the Branford River.
- Encourage high environmental standards for development, landscaping and infrastructure.

Branford River

SECTION 2: BRANFORD STATION TOD AREA TODAY

Population Overview

The Town of Branford has approximately 28,074 residents living within 22.0 square miles of land. As seen in Table 1, Branford's population has increased slightly since 2010 but has declined from its population of 28,683 in 2000. In contrast, New Haven County's population has steadily increased in the last 15 years.

While there is projected state-wide growth in age groups over 55, Branford has outpaced New Haven County in growth in the population of adults 65 and over (1.3 percent and 0.4 percent respectively), and both areas have seen a decrease in the percent of the population under 18. Branford's youth population decreased from 20.7 percent in 2000 to 18.6 percent in 2010 while New Haven County's went down by less than 2 percent from 24.5 percent to 22.9 percent. This suggests Branford's population is following trends predicted state-wide and aging at a faster rate than the County.

While Branford's population decreased slightly between 2000 and 2010, the number of households increased 1.56 percent. Average household size also decreased from 2.26 in 2000 to 2.18 in 2010 in the Town. New Haven County's population growth was matched by a growth in average household size (2.50 to 2.55). Together with age composition, household characteristics demonstrate that Branford is experiencing an aging population with fewer persons per household and fewer young people overall. These demographic shifts could impact on demand for housing and employment, including higher demand for apartments as Boomers retire and look to downsize, whereas Millennials wait longer to have children.

Branford Point

Table 1: Population Overview

	BRANFORD	NEW HAVEN COUNTY
Population		
2015 Estimate	28,074	862,224
2010 Census	28,026	856,688
2000 Census	28,683	824,008
Growth 2000-2010	-2.3%	3.96%
Age Composition		
Percent under age 18 (2000)	20.7%	24.5%
Percent under age 18 (2010)	18.6%	22.9%
Percent age 65+ (2000)	16.9%	14.5%
Percent age 65+ (2010)	18.2%	14.1%
Households		
2015 Estimate	12,395	362,351
2010 Census	12,739	334,502
2000 Census	12,543	340,732
Growth 2000-2010	1.56%	-1.82%
Average household size (2015)	2.25	2.57
Average household size (2010)	2.18	2.55
Average household size (2000)	2.26	2.50

Source: U.S. Census 2010, American Community Survey 2015 5-year estimate

Single family homes in TOD area

The majority (56 percent) of New Haven County's housing units were single-family detached homes in 2010. The number of owner occupied housing units in the County grew from 201,317 in 2000 to 216,131 in 2010. Branford's housing stock grew from 8,601 owner occupied units in 2000 to 8,942 units in 2010. In 2010 51.7 percent of housing units were single-family detached homes, showing a slightly higher diversity of housing types than at the County level. The median value of owner-occupied units increased in both the Town and the County from 2000 to 2010. In Branford, median home value increased approximately 20 percent over 10 years

from $261,848[1] to $315,900. In New Haven County, the increase was nearly 27 percent, though the home values were lower than in Branford; in 2000 median value of owner-occupied units was $215,698 and in 2010 it reached $273,300.

Median household income in the County decreased from $69,344 in 2000 to $68,329 in 2010 (-1.46 percent). Branford's median household income was higher in both years, but decreased at a higher rate (-3.83 percent) from $82,372 to $79,214 during the same period. Decrease in income could be reflective of changes in employment in the region. As the population of people 65 and older increases as a proportion of the whole, a greater portion of the population may be living on fixed income due to retirement. This shift toward a higher portion of the population outside of working age could expand the tax burden on working-age residents.

Branford Train Station

Table 2: Income and Housing

	BRANFORD	NEW HAVEN COUNTY
Incomes (in 2017 dollars)		
Median household income (2015)	$80,670	$63,404
Median household income (2010)	$79,214	$68,329
Median household income (2000)	$82,372	$69,344
Growth 2010-2010 (in real terms)	-3.83%	-1.46%
Housing Units		
Owner occupied (2010)	8,942	216,131
Owner occupied (2000)	8,601	201,317
Percent housing units in single-family detached homes (2010)	51.7%	56%
Median value of owner-occupied units (2010)	315,900	273,300
Median value of owner-occupied units (2000)	261,848	215,698

Source: U.S. Census 2010, American Community Survey 2015 5-year estimate

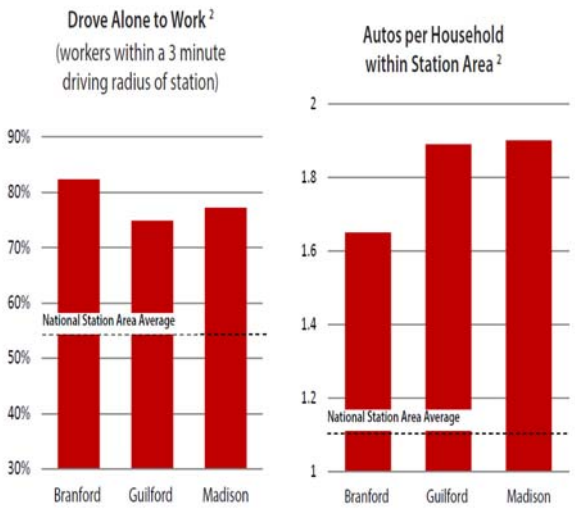
[1] All dollar amounts represented in 2017 dollars.

Branford was more auto-oriented than the County, with an average 1.73 vehicles per household compared to the County's 1.51 average (see Chart 1). This is largely accounted for by the City of New Haven and the significant presence of Yale University. All of the suburbs of New Haven are more auto oriented than the city itself.

In Branford 84.4 percent of commuters drove alone to work and 6.4 percent car pooled (see Table 3). The next largest group of commuters were those who did not commute but worked from home (3.6 percent) followed closely by commuters taking public transportation (3.4 percent). Approximately 1.8 percent of people walked or biked to work, while the remaining 0.4 percent traveled to work by other means. New Haven County had higher percentages of people carpooling (8.3 percent), taking public transportation (4.2 percent) and walking or bicycling to work (4.3 percent). The same percentage of people worked at home in the County as in the Town. As a result, the percentage of the County that drove alone to work was lower (78.7 percent).

Looking now at where people work, the majority of people living in Branford commute outside of the Town to work (83.8 percent). The majority (56.9 percent) of those that leave the Town for work travel less than 10 miles, which includes the greater New Haven area. Those traveling 10-24 miles are the next largest group (27.9 percent), followed by 25-50 miles (11.3 percent) and only 3.9 percent of people living in Branford travel greater than 50 miles to work. The majority of jobs held by Branford residents are located in New Haven County (72.5 percent), followed by Middlesex County (7.4 percent), Fairlfield County (6.5 percent), Hartford County (5.8 percent), New London County (2.1 percent).

Chart 1: Autos per Household in Station Area



Source: Transit Oriented Development Opportunities for the South Central Region (SCRCOG, 2015)

Table 3: Commutation to Work

Transportation: Getting to Work (2015)	Branford	New Haven County
Drove alone	84.4%	78.7%
Car pooled	6.4%	8.3%
Public transportation	3.4%	4.2%
Walked or bicycled	1.8%	4.3%
Other means	0.4%	0.6%
Worked at home	3.6%	3.6%
Average vehicles per household	1.73	1.51

Source: U.S. Census 2010, American Community Survey 2015 5-year estimate

Train Station and Shoreline East Ridership

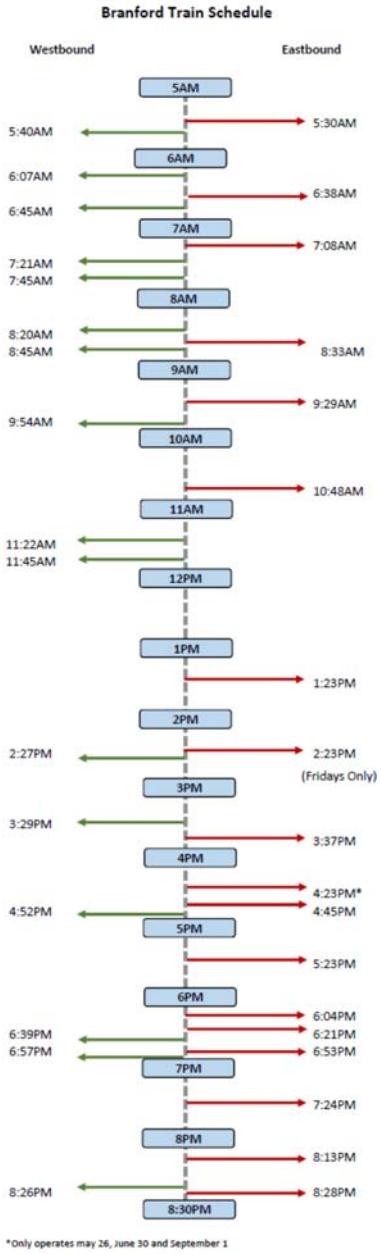
The Branford Train Station is served by Shore Line East Commuter Rail with approximately 20 departing trains per day during the week and 13 on weekends. The station was recently upgraded in 2016 with a second platform on the north side of the tracks, a pedestrian overpass that spans both platforms, and a "kiss and ride" drop-off area on the northern side.

The parking lot has a total of 417 spaces, with 145 in the lot in front of the station and 272 spaces in the parking lot expansion to the west which was built in 2011. There is additional parking (52 spaces) to the east of the station on Meadow Street on the site of the former Branford Station. Parking at the station is free and is managed by the Connecticut Department of Transportation (ConnDOT).

According to ConnDOT, 2016 average ridership during weekdays is 179. Ridership is down 16 percent from 2010 which had 214 daily riders during the week. Average weekend ridership is significantly less with 18 passengers boarding and 26 disembarking.

Above: Adjacent Shoreline East Stations (Red). Source: SCRCOG

Right: Branford Station train schedule



As part of this study, a parking occupancy count was taken during a weekday in May 2017.[2] Approximately one quarter of the spaces were observed to be occupied during the day. While approximately half of the east lot was occupied, only 10 percent of the west lot expansion was utilized. None of the spaces to the east of the station on Meadow Street were utilized.

The survey also counted how and when riders accessed the station. The survey found that the peak morning commute period was between 6AM and 8:30AM with the 7:21AM and 7:45AM trains having the highest ridership. Of the 139 people observed in the morning, approximately 70 percent parked, 20 percent were dropped off (predominantly at the southern station entrance), and 10 percent either walked or biked.[3] These percentages were comparable for the evening commute period. 114 cars were parked at the station during the day.

Utilization of the northern "kiss & ride" drop off area was found to be relatively low during the morning and evening peak periods. This could be due to two main factors. First, while there is a platform on the northern side of the tracks, most trains continue to stop on the southern side of the tracks, thus making the southern drop-off area more convenient for the time being. It is expected that southbound trains will stop at the northern platform in the future. Secondly, station users may not have adjusted to the new drop-off point as the area was constructed relatively recently.

Chart 2: Train Station Occupancy Count

	East Lot		West Lot (Expansion)		Total	
Capacity	**185**		**272**		***465***	
	Cars	**%**	**Cars**	**%**	**Cars**	**%**
6AM	32	*17%*	8	*3%*	40	*9%*
7AM	66	*36%*	11	*4%*	77	*17%*
8AM	78	*42%*	26	*10%*	104	*22%*
9AM	84	*45%*	26	*10%*	110	*24%*
10AM	86	*46%*	28	*10%*	114	*25%*
4PM	90	*49%*	24	*9%*	114	*25%*
5PM	69	*37%*	17	*6%*	86	*18%*
6PM	58	*31%*	12	*4%*	65	*14%*
7PM	26	*14%*	10	*4%*	36	*8%*

Source: In person surveys conducted on 5/10/17

[2] Survey conducted on Wednesday, May 10th, 2017.

[3] Wednesday morning, May 10 was a chilly morning with temperatures in the mid-fifties. Many of the passengers being dropped off at the southern Kiss + Ride sat in the car waiting for the train to arrive in order to stay warm.

Existing Land Use

Existing land uses in the 230 acre TOD Area are shown in Figure 3. Residential uses comprise 45 percent of the area. The second largest use is commercial use (including maritime commercial), followed by open space and industrial uses.

The land between the railroad tracks and the river, has a mix of industrial, commercial and residential uses. This area was historically home to Branford's industrial and manufacturing district. The building at Branford Landing marina is a remnant of this history however the building is now utilized for boat storage. Many of the manufacturing buildings have already been either redeveloped or adaptively reused. The remaining light industrial uses are mostly found along Meadow Street.

The upland areas further from the waterfront are largely comprised of single family homes. Single family residences and 2-3 family homes are also found along the southwestern corner of the TOD Area. This area also includes the Dutch Wharf Boat Yard & Marina. There are some nearby commercial activities on Elm Street, notably, the Cherry Hill Glass Company industrial site.

While the area on the opposite side of the Branford River is not in the TOD Area, it is predominantly single-family residential and has two marinas along the banks of the Branford River. The river, with wetlands along portions of both sides, is a population destination for waterfront recreation. There is a boat launch for kayaks, canoes and small waterboats at Branford Landing.

Table 4: Land Use in TOD Area

Land Use	Acres	Percentage
Single Family	53.9	24%
2-3 Family	39.36	17%
4+ Family	10.5	5%
Commercial	31.21	14%
Maritime Commercial	7.32	3%
Industrial	22.46	10%
Institutional	16.67	7%
Mixed Use	0.47	0%
Open Space	29.98	13%
Other	11.47	5%
Vacant	5.76	3%
Total	**229.1**	**100%**

Source: Town of Branford GIS

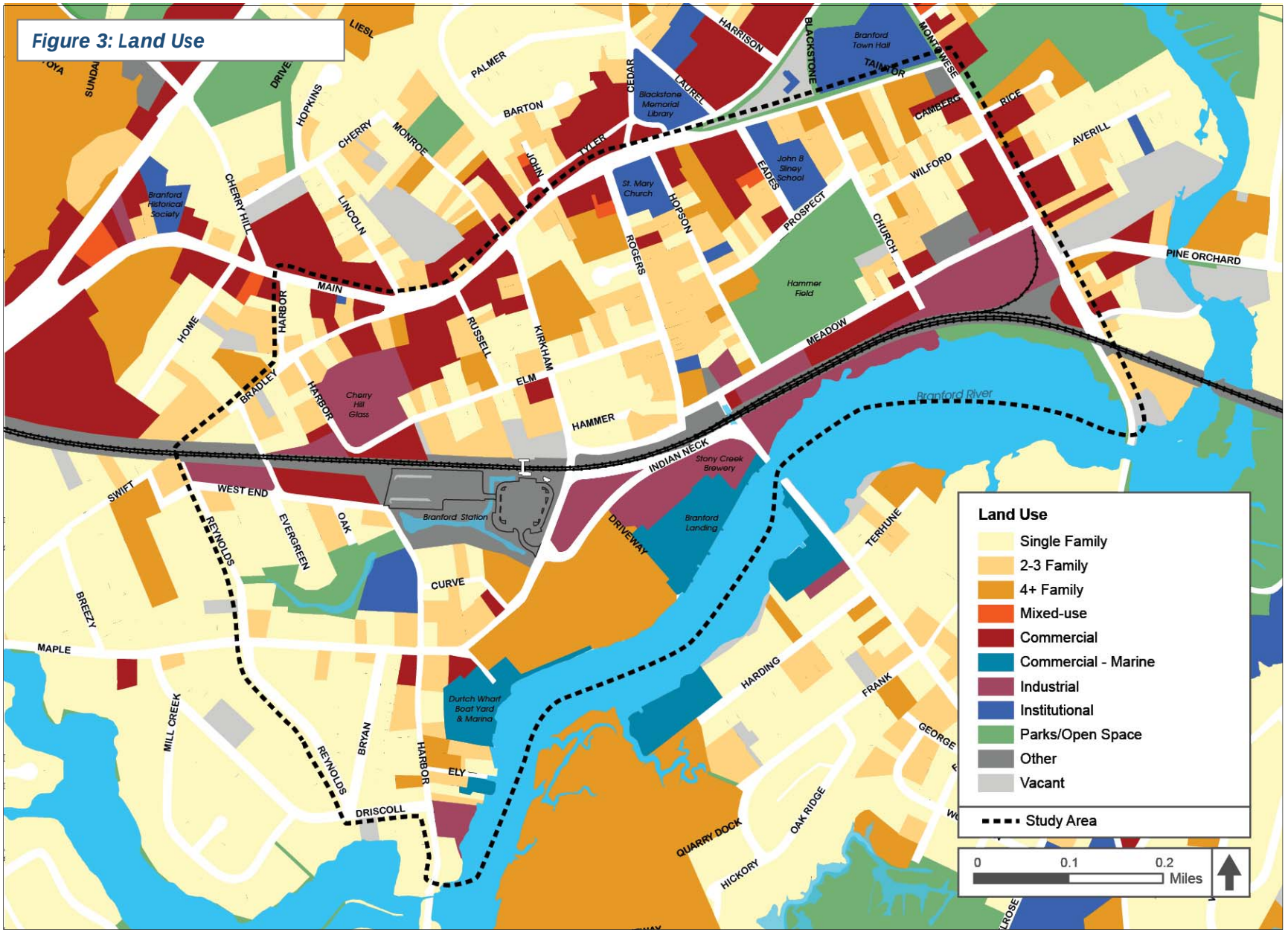


Figure 3: Land Use
Land Use
Single Family
2-3 Family
4+ Family
Mixed-use
Commercial
Commercial - Marine
Industrial
Institutional
Parks/Open Space
Other
Vacant
Study Area
0
0.1
0.2
Miles
Branford River
Branford Station
Branford Landing
Stony Creek Brewery
Durtch Wharf Boat Yard & Marina
Cherry Hill Glass
Branford Historical Society
Blackstone Memorial Library
Branford Town Hall
St. Mary Church
John B Sliney School
Hammer Field
MAIN
HAMMER
MEADOW
INDIAN NECK
WEST END
DRIVEWAY
CURVE
MAPLE
DRISCOLL
QUARRY DOCK
HARDING
TERHUNE
PINE ORCHARD
AVERILL
WILFORD
PROSPECT
CHURCH
ROGERS
HOPSON
EADES
RUSSELL
KIRKHAM
ELM
HARBOR
BRADLEY
HOME
CHERRY HILL
LINCOLN
CHERRY
MONROE
HOPKINS
PALMER
BARTON
CEDAR
LAUREL
HARRISON
BLACKSTONE
TAYLOR
RICE
CAMBERG
SWIFT
REYNOLDS
EVERGREEN
OAK
BREEZY
MILL CREEK
BRYAN
ELY
FRANK
GEORGE
OAK RIDGE
HICKORY

Meadow Street

Meadow Street consists largely of commercial, industrial and open space use with some single, 2-3 and 4+ family homes. The closed Atlantic Wire site, which manufactured carbon and alloy steel wires and rods, is planned to be redeveloped as Atlantic Wharf, a mixed-use project. Small offices in Colonial-style buildings border the development to the west. Warehouses, auto body shops and other light industrial uses occupy the remainder of the southern side of Meadow Street.

The north side of Meadow Street has residential homes, Hammer Field, and a vacant lot that will be incorporated into the Atlantic Wire development. Hammer Field is the largest park within the TOD Area at 10.2 acres. The park has a playground, three baseball fields, a skate park, community center, which will soon be renovated to include the Town's Community Center. The only school in the TOD Area is the John B. Sliney Elementary School on Eades Street, located within walking distance to Hammer Field.

Meadow Street

Indian Neck Avenue

There is a mix of uses along Indian Neck Avenue which was the former site of the Malleable Iron Fittings (MIF) factory. Most of the site is currently used by the Branford Landing Marina. The site is the furthest marina on the navigable dredged channel and provides boat storage and docking as well as launching for small watercrafts. The repurposed factory buildings provide covered boat storage, facilities and work sheds. On the same property is an independent restaurant, Nellie Green's. The restaurant has been open for ten years and provides a place for people to dine along the waterfront.

Just north of the marina is the Stony Creek Brewery which opened in 2015. The Brewery is an active destination for local residents and draws people from surrounding towns and states. Retail visitation averaged over 5,000 persons per week during the months it was open in 2015 according to the brewery. The facility is looking to expand its production capacity in response to high wholesale customer demand.

Uses along Indian Neck Avenue

The brewery owns the vacant property across the street which is utilized for overflow parking and stormwater retention. The owner of the brewery also has preliminary plans to build a 34-room boutique hotel across the street from the brewery, on property incorporating Paul's Wire Rope & Sling and adjoining land on Indian Neck Avenue.

The Anchor Reef residential complex along the waterfront west of Branford Landing includes two buildings, one that adaptively reused a historic industrial building and another that was constructed in 2006. While two more residential buildings were planned for the site, the project stalled during the 2008 recession.

Stony Creek Brewery

Montowese Street / South Main Street

Montowese Street and South Main Street, both have a mix of residential, commercial and institutional uses. These streets form the eastern and northern boundary of the TOD Area. The architecture in the area is generally Colonial-style, helping to maintain a quintessential New England character around the Town Center. Both streets have consistent tree plantings and sidewalks. Land uses along South Main Street primarily consist of large architecturally significant residences now mostly in multi-family use with some commercial on its western end. Montowese Street provides the most direct connection to the Town Center from areas to the south. Many residents expressed that the intersection of Main Street and Montowese Street is a prominent gateway/welcoming point into Branford.

Montowese Street

Existing Zoning

The Town's zoning regulations are a major influence on development patterns. As seen in Table 5, the Branford Station TOD Area has 6 different zoning districts, including 2 residential zones (R-1 and R-3), 1 commercial zone (BR), 1 mixed use zone (MU), and 1 industrial zone (IG-1). It also falls within the Town Center Overlay District. These districts are summarized below is below. The complete zoning regulations can be found on the Town's website (Branford-ct.gov)[4]

Table 5: Zoning Districts in TOD Area

Zoning District	R-1	R-3	MU	BR	IG-1	PDD
Minimum Lot Area (sq ft)	6,000	15,000	15,000	6,000	20,000	60,000
Lot Area Per Unit	4,000	15,000	5,000	4,000	N/A	N/A
Frontage	50	90	100	50	50	N/A
Front Setback (feet)	15	30	15	15	30	N/A
Side Setback (feet)	10	15	10	10	No Min.	N/A
Rear Setback (feet)	20	30	20	20	30	N/A
Height (feet)	35	35	40	40	40	40
Floor Area Ratio	0.50	0.50	1.5	0.3	0.40	N/A
Lot Coverage	0.25	0.25	0.8	0.25	0.30	N/A
Impervious Surface Area Ratio	N/A	N/A	0.8	0.6	0.60	N/A

Source: Town of Branford

[4] Branford Zoning Regulations: https://branford-ct.gov/filestorage/285/287/466/BRANFORDZR.pdf

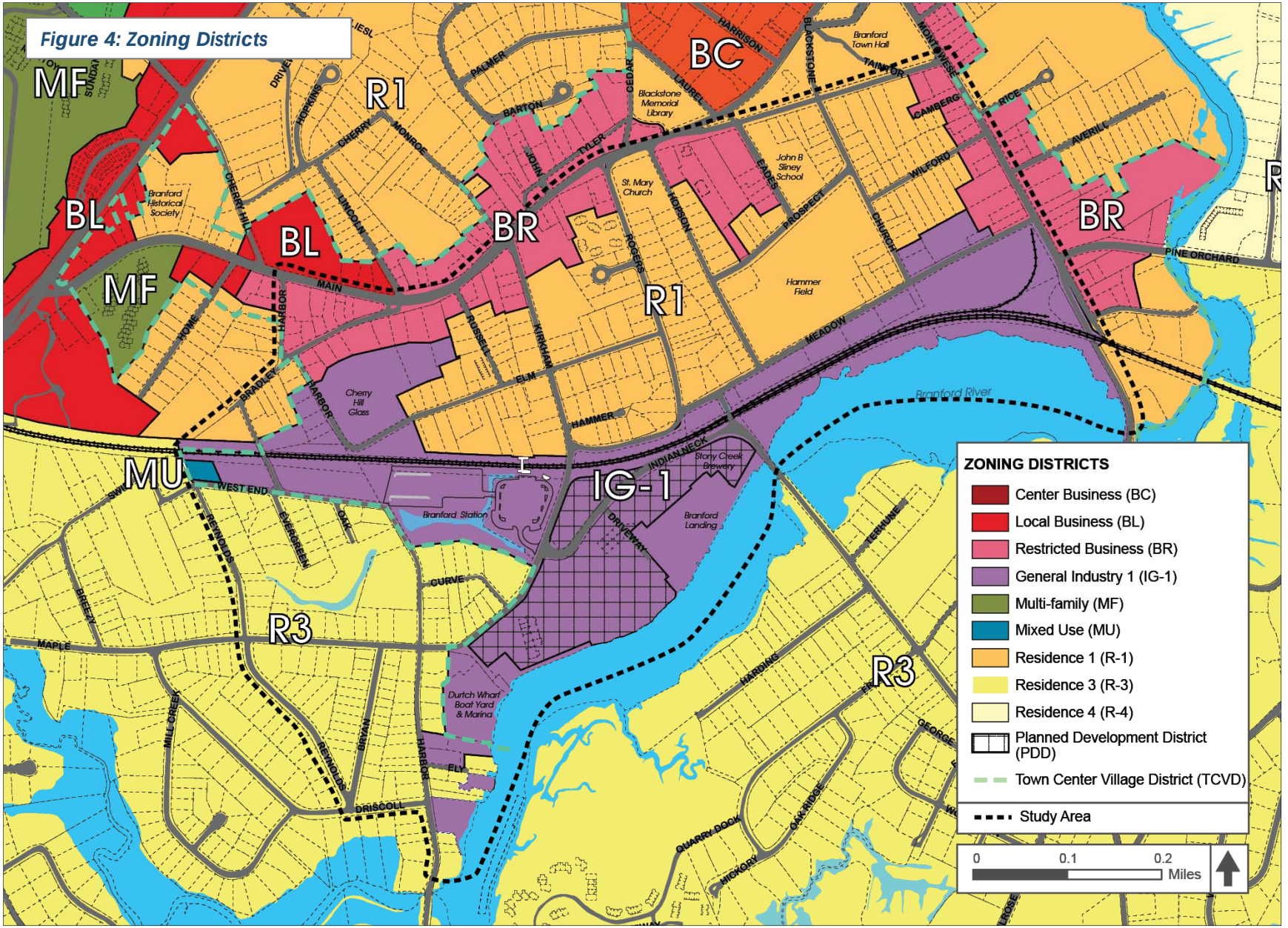


Figure 4: Zoning Districts
MF
R1
BC
BL
BR
MF
BL
BR
R1
MU
IG-1
R3
R3
Branford Historical Society
Blackstone Memorial Library
Branford Town Hall
St. Mary Church
John B Sliney School
Hammer Field
Cherry Hill Glass
Stony Creek Brewery
Branford Station
Branford Landing
Durtch Wharf Boat Yard & Marina
Branford River
ZONING DISTRICTS
Center Business (BC)
Local Business (BL)
Restricted Business (BR)
General Industry 1 (IG-1)
Multi-family (MF)
Mixed Use (MU)
Residence 1 (R-1)
Residence 3 (R-3)
Residence 4 (R-4)
Planned Development District (PDD)
Town Center Village District (TCVD)
Study Area
0
0.1
0.2
Miles

As seen in Figure 4, the area along the waterfront is zoned General Industry 1 (IG-1), which reflects the manufacturing district that was historically located in this area. Retail and residential uses are not permitted in the industrial zone. However, it is notable that a number of former factory sites in the IG-3 district were rezoned to a Planned Development District (PDD) which allows for adaptive reuse under a master site plan for mixed-uses. The PDD is established on the zoning map only when a master plan for a proposed development is approved. The intent of the PDD district is to permit development on tracts of sufficient size "to accommodate harmonious design of buildings, structures and facilities in connection with the use and when another zoning district could not be appropriately established to accomplish such purposes."

The "Anchor Reef PDD" along Indian Neck Avenue allowed for the development of multi-family housing at that site. According to Branford's zoning code, the PDD is "not encouraged solely for the purpose of achieving higher densities of residential development but rather to allow greater flexibility in planning and design, free from the rigid constraints of uniform locational standards, at densities consistent with the immediately adjacent neighborhood and capable of being supported by the available water supply and sewage disposal facilities."

The existing residential areas in TOD Area largely conform to the existing zoning districts. The R-1 District, which allows single-family, two family and multifamily structures is located closer to Branford's Center. The R-3 district located in areas south of the tracks is characterized mainly as single-family.

The TOD Area has one parcel on West End Ave in the Mixed-Use (MU) District. The purpose of this district is to "facilitate the integration of diverse but compatible uses into a single development, with the goal of creating a community that offers 'live, work, and play' opportunities within convenient walking distance of each other."

The Restricted Business (BR) District was designed to recognize businesses/offices located in converted residential buildings. These districts, which are located on Montowese Street and Main Street in the TOD Area serve as essential retail services to the nearby residential neighborhoods. The design, density and intensity of

Anchor Reef Condominiums

commercial uses and the extent of parking is controlled so as to harmonize with the adjacent residential zones. The maximum building height is 40 feet with a floor-area-ratio of 0.30.

Floor area ratio or FAR is the percentage of built space that is permitted to be put on a lot. For example, a FAR of 0.3 on a 10,000 square foot lot means that 3,000 square feet of floor area can be built on that lot.

Additionally, much of the TOD Area is in the Town Center Village District (TCVD). This overlay district is intended to "preserve the character of the Town Center and to guide improvements in keeping with this character." Properties in the TCVD are subject to a design review process to advise the Planning and Zoning Commission on aesthetic concerns.

Single-family neighborhood (R-1 district)

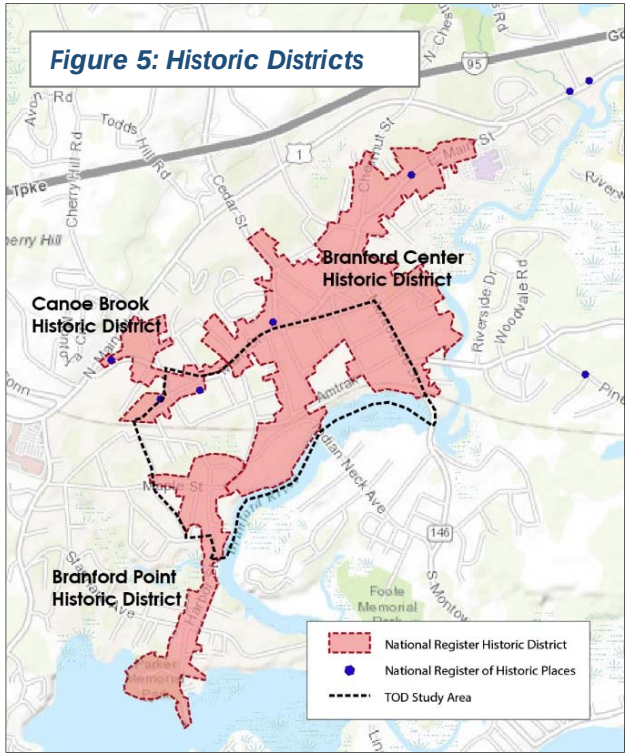
Historic Resources

The community has expressed appreciation for and a desire to preserve the historic nature of Branford. Three of the Town's four Historic Districts are within the TOD Area, the Branford Center Historic District, Branford Point Historic District and Canoe Brook Historic District. These districts are all listed on the National Register of Historic Places which allows them certain national preservation incentives such as rehabilitation tax credits.

The Branford Center Historic District extends from the Branford River north close to the Route 1 and includes the most significant historic settlement of the Town as it grew around the main religious and political institutions located on the Town Green. This district's buildings, streets, waterfront, and open space form a cohesive example of an 18th century Connecticut farming/maritime village which developed over the course of the 19th century into the core of a small coastal town dominated by an industrial based economy. The district's focal point is the Town Green with its old Academy and monumental public buildings and churches. The area surrounding the green includes relatively well preserved commercial, residential and public buildings illustrating various 19th and 20th century architectural styles.

Branford Point Historic District is between Driscoll Road and north to West End Avenue and east to Indian Neck Avenue. This district has maintained a rural character after its past as farming lands. The residential fabric has a concentration of well-preserved homes built between the mid-18th century and the Second World War. Architectural styles include late Federal, Greek Revival, Italianate, Second Empire, Stick, Queen Anne, Arts and Crafts/Bungalow, Shingle and Colonial Revival.

The Canoe Brook Historic District generally lies between North Main Street (US Route 1) on the north and the railroad tracks on the south, and abuts the Branford Center Historic District on the east. This district has a long and rich history of settlement, with contributing buildings built over two centuries (1724-1940). There are a number of colonial style homes, all built before the Revolution. Wood-frame homes predominate, with either stone or brick foundations.



Source: Town of Branford

SECTION 3: PHYSICAL ANALYSIS AND INFRASTRUCTURE

Roadway and Sidewalk Network

This section provides an overview of existing conditions related to roadway and sidewalk infrastructure. Section 6 contains a range of recommendations to enhance infrastructure for all modes (pedestrian, bicycle and vehicle) to improve the quality of life for Branford residents. These include improving roads and sidewalks where needed, providing bicycle lanes on key connecting roads, improved lighting, improving landscaping along street frontages, providing improved signage and wayfinding, enhanced bus and potentially shuttle service, and improved access to the waterfront.

Roadway Network

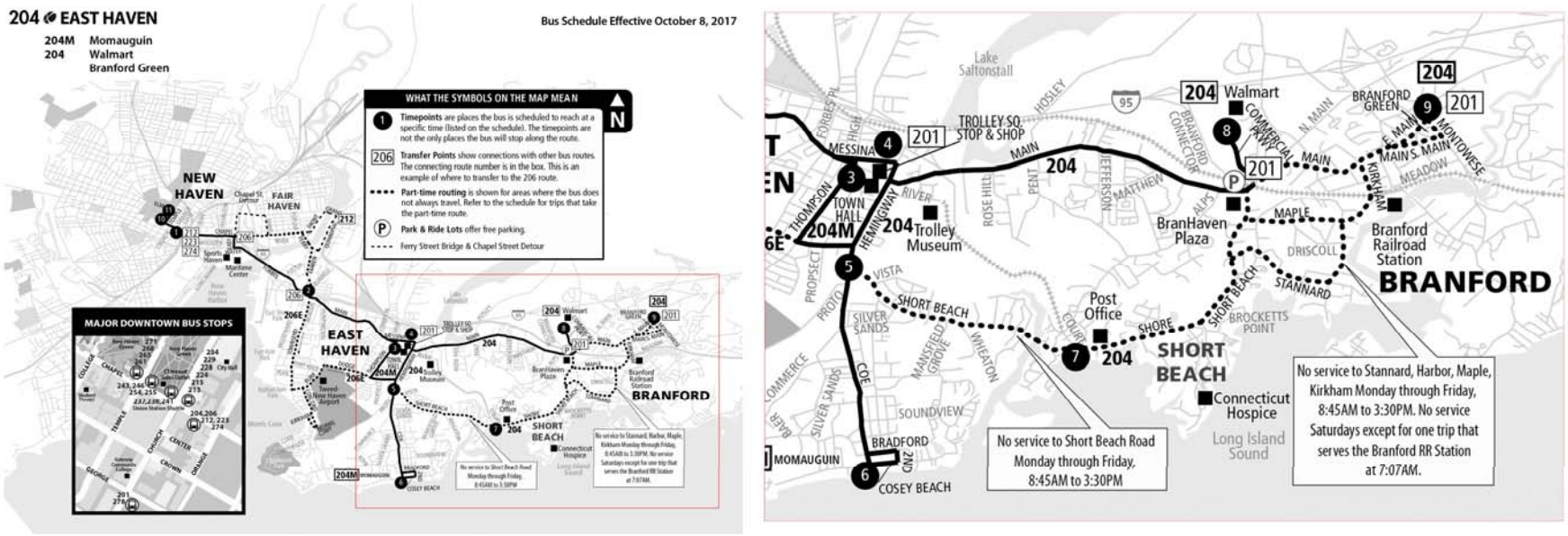
The Branford TOD Area is primarily residential in character. The primary north /south collector roads between the TOD Area and the Town Center along Main Street include Montowese Street, Kirkham Street/Maple Street and Indian Neck Avenue. Montrowese Street, Kirkham Street/Maple Street, and Indian Neck Avenue are also important connections across the railroad tracks and the Branford River. Meadow Street is the primary east/west collector street in the TOD Area.

Main Street is a two-lane (one lane in each direction) state highway (State Route 146) owned and maintained by the State of Connecticut Department of Transportation (ConnDOT). According to ConnDOT, it has a functional classification as an “Urban Collector” which means that it serves access between local streets in Branford and regional routes like US Route 1.

Bus Service

Bus service to the Branford TOD Area is limited. CT Transit has two bus routes that service Branford to New Haven (Routes 201 and 204). Both routes principally use Route 1. The 204 bus has a spur at to the Branford Town Green which provides only part-time "stop on demand" service to the Branford Station and Kirkham Road, primarily during commuting hours. This line does not provide service to Kirkham Road Monday through Friday, 8:45AM to 3:30PM. There is no service on Saturdays except for one trip that serves the Branford RR Station at 7:07AM.

Figure 6: CT Transit Bus Routes (Route 204)



Source: CTTransit (accessed at cttransit.com/schedules)

Pedestrian Connections

Figure 7 shows the location and Figure 8 shows the condition of existing sidewalks in the in the TOD Area. As seen in the maps, the pedestrian infrastructure is relatively good, as most of the streets have sidewalks on at least one side. Generally, the width (four feet wide on average) and condition (well-maintained poured concrete precast concrete unit pavers) of the sidewalks are good. However, there are a number of places where there are gaps in the sidewalk network or sidewalk conditions are in need of improvement. Meadow Street, Maple Street, Rogers Street, and Prospect Street all have gaps in the sidewalk network that should be connected.

At the intersections, there are many places where sidewalk curb ramps are missing, are in disrepair, or are generally not ADA compliant. Some of the crosswalk lines are faded and are in need of a new coat of paint. There are also a number of places where there is an obstruction in the sidewalk. For example, there is a telephone pole in the middle of the sidewalk along Kirkham Road at the station (shown in the photo to the right). Other examples of sidewalk and crosswalk conditions are shown in Figure 8.

on

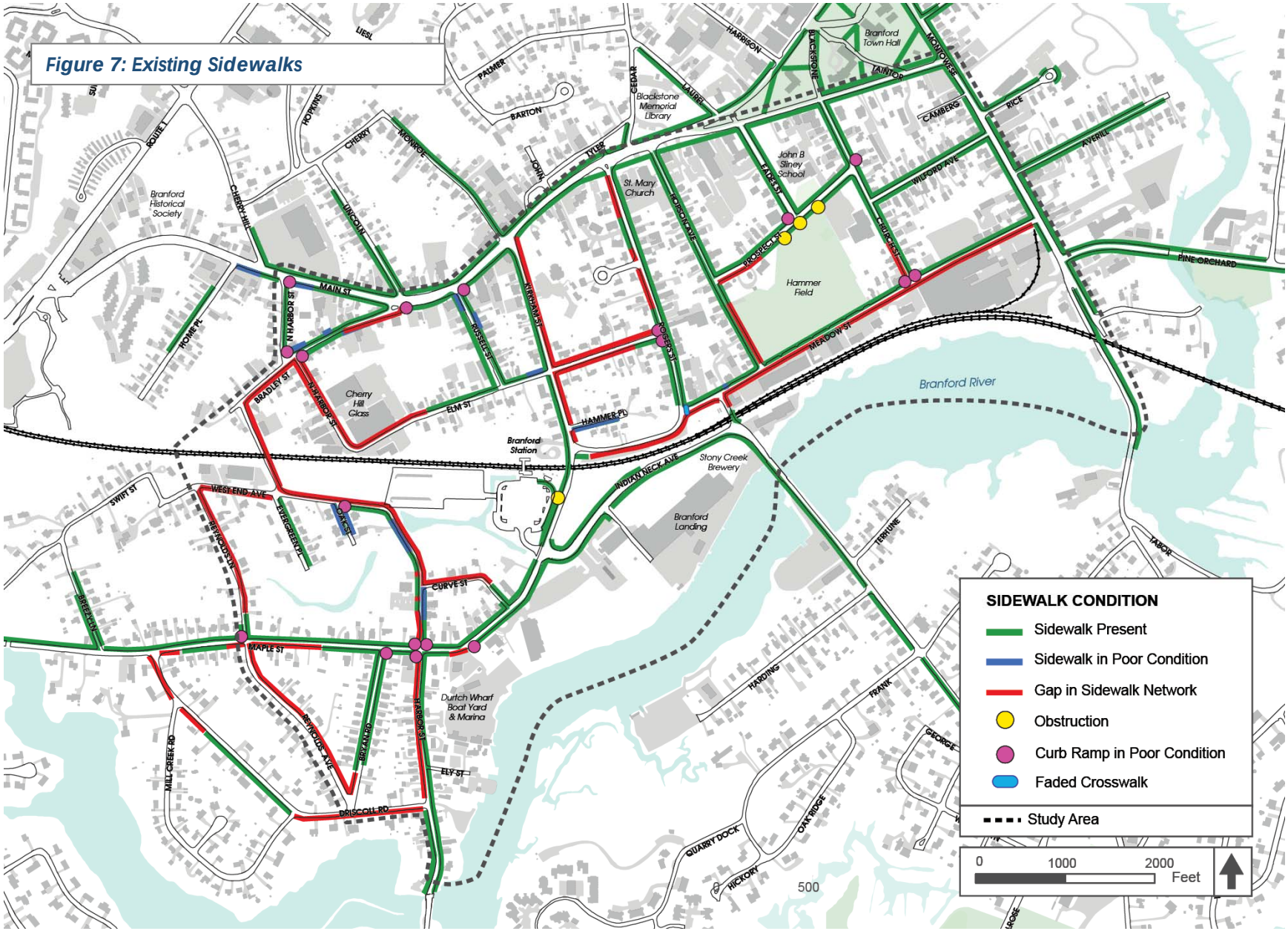


Figure 7: Existing Sidewalks
Branford Historical Society
Blackstone Memorial Library
Branford Town Hall
John B Sliney School
St. Mary Church
Hammer Field
Cherry Hill Glass
Branford Station
Stony Creek Brewery
Branford Landing
Durfch Wharf Boat Yard & Marina
Branford River
MAIN ST
MEADOW ST
WEST END AVE
MAPLE ST
CURVE ST
ELM ST
HAMMER PL
INDIAN NECK AVE
HARBOR ST
REYNOLDS AVE
DRISCOLL RD
QUARRY DOCK
OAK RIDGE
HICKORY
SIDEWALK CONDITION
Sidewalk Present
Sidewalk in Poor Condition
Gap in Sidewalk Network
Obstruction
Curb Ramp in Poor Condition
Faded Crosswalk
Study Area
0
1000
2000
Feet
500

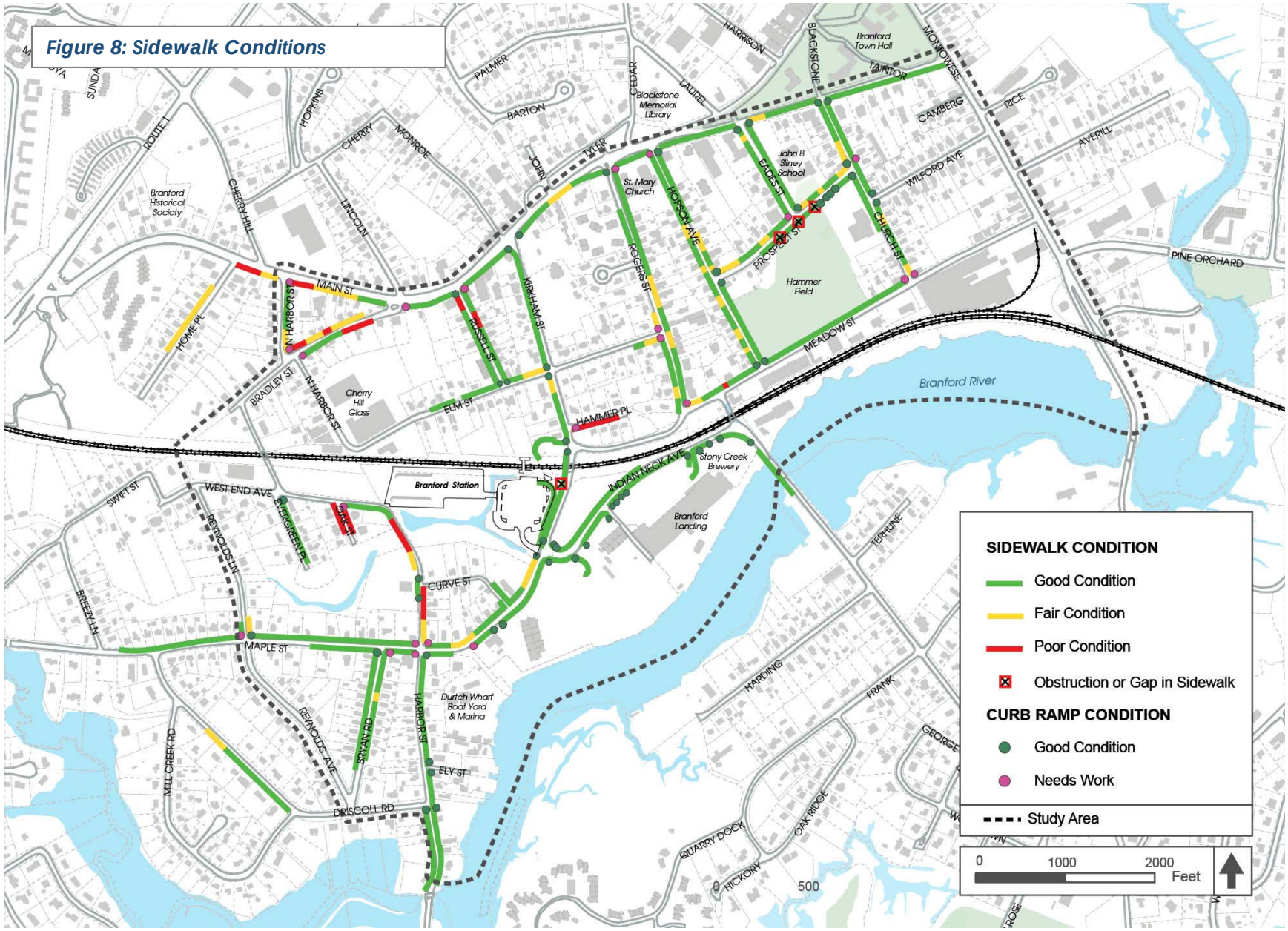


Figure 8: Sidewalk Conditions
Branford Town Hall
Blackstone Memorial Library
John B Sliney School
St. Mary Church
Branford Historical Society
Cherry Hill Glass
Hammer Field
Branford Station
Stony Creek Brewery
Branford Landing
Durfee Wharf Boat Yard & Marina
Branford River
PALMER
BARTON
CEDAR
LAUREL
HARRISON
BLACKSTONE
TAINTOR
MONTOWESE
CAMBERG
RICE
AVERILL
WILFORD AVE
PINE ORCHARD
ROUTE 1
HOPKINS
CHERRY
MONROE
JOHN
TYLER
ENDERS ST
HOPSON AVE
CHURCH ST
PROSPECT ST
ROGERS ST
KIRKHAM ST
MEADOW ST
CHERRY HILL
LINCOLN
HOME PL
MAIN ST
N HARBOR ST
RUSSELL ST
ELM ST
BRADLEY ST
HAMMER PL
INDIAN NECK AVE
SWIFT ST
WEST END AVE
EVERGREEN PL
CHURCH
CURVE ST
REYNOLDS LN
BREEZY LN
MAPLE ST
REYNOLDS AVE
BRYAN RD
HARBOR ST
ELY ST
DRISCOLL RD
MILL CREEK RD
TERHUNE
HARDING
FRANK
GEORGE
QUARRY DOCK
OAK RIDGE
HICKORY
SIDEWALK CONDITION
Good Condition
Fair Condition
Poor Condition
Obstruction or Gap in Sidewalk
CURB RAMP CONDITION
Good Condition
Needs Work
Study Area
0
1000
2000
Feet
500

Figure 9: Sidewalk Condition Examples

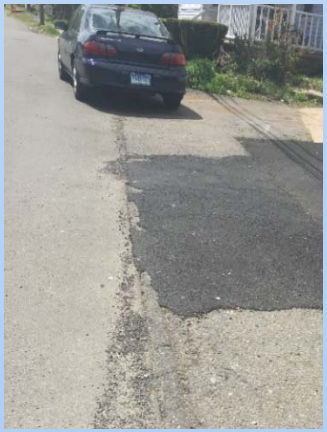
Sidewalks

Good Condition

Poor Condition

Obstructions

Gaps



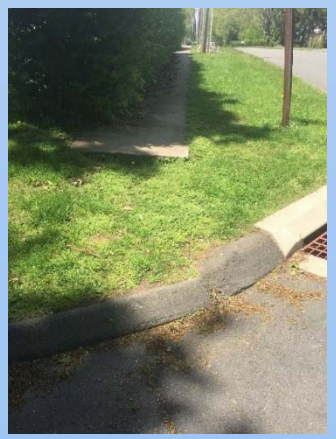
Cars parked on sidewalk

Crosswalks

Good Condition

Poor Condition

Faded



Gaps

Residents consistently expressed the need for improvements that will make the area feel more walkable. This could include improved sidewalks, landscaping, signage, crosswalks, and other traffic calming measures (i.e. bump-outs) to reduce speeding. Most residents would like to see more connectivity for pedestrians and bicycle riders between the station, the waterfront, Town Center and neighborhoods adjacent to the TOD Area. Some of the areas frequently cited for needed improvements include:

"Cattle Crossing": This is the railroad underpass between Meadow Street and Indian Neck Avenue. Residents stated that the crossing is heavily utilized as it connects Main Street and the TOD Area to the neighborhood south of the Branford River. The crossing feels unsafe due to lighting in the tunnel, the narrowness of the road, and the condition of the sidewalk and asphalt. The underpass could be significantly improved for pedestrians with sidewalk and asphalt repairs, lighting, and improved landscaping. A portion of the sidewalk and landscaping on Indian Neck Avenue adjacent to the crossing would be improved as part of the planned Hotel development adjacent to the south.

Meadow Street: This corridor was frequently cited as one that feels unsafe for pedestrians. Cars reportedly speed along the road and there is no buffer for pedestrians. There is no sidewalk on the narrow segment between Kirkham Road and Rogers Street and pedestrians are forced to walk in the ConnDOT parking area (which is rarely utilized). The sidewalk is only on the north side of the street between Rogers Street and Montowese Street.

Problematic Intersections: Some problematic intersections for pedestrian crossings (as reported by the public) include Kirkham Road and the train Station, Pine Orchard Road and Montowese Street, crossing Indian Neck Road by the brewery, and the Intersection of Main Street, South Main and Eades Street. This last intersection is planned to be rebuilt as part of the Branford Main Street Gateway to improve traffic safety and conditions for pedestrians and bicyclists. This planned project is discussed later in this chapter.

"Cattle Crossing"

Meadow Street

Bicycle Connections

There is limited bicycle infrastructure in the TOD Area, which is partially due to the fact that roads are generally narrow with little or no shoulder. While there are no dedicated bicycle lanes within the TOD Area, many residents have stated that recreational bicycling is popular in the area, especially to destinations such as recreational spots along the shoreline (i.e. Branford Point), the Town Center and the Stony Creek Brewery. Some residents bike through the TOD Area (along Montowese Street, Maple Street and Indian Neck Road) to get to work in New Haven or East Haven.

It was also observed that approximately 5 percent of commuters that use Branford Station arrive by bicycle. Alternate transportation modes should be considered as much as possible to improve upon existing infrastructure to connect adjacent neighborhoods to the train station and Branford River waterfront. Section 6 discusses potential opportunities to incorporate bike lanes into the limited right of way.

The Town does have some plans in progress to develop multi-use paths in the study area that would allow bicycles. This includes a path along the east side of Hammer Field which would connect Meadow Street to Prospect Street. The Town in conjunction with ConnDOT is evaluating the potential for bike lanes on Main Street as a part of the Branford Main Street Gateway study. This project is discussed later in this section.

Bicycle parking is limited in the TOD Area. There is a covered bicycle rack at the southern side of the Branford Train Station. There are also racks at the community house, and new ones will be installed as part of the renovation/expansion underway. There are bike racks at the Main Street entrance to the Library (outside of TOD Area). The Stony Creek Brewery has a bicycle rack as well as station with public air for bike tires and tools for repairs.

Covered bike parking facility at Branford Station

Planned Pedestrian/Bicycle Linkages

Shoreline Greenway Trail

The Shoreline Greenway Trail (SGT) is an effort to develop a 25-mile hiking and biking trail extending from Lighthouse Point in New Haven to Hammonasset Beach State Park in Madison, passing through East Haven, Branford and Guilford. In Branford, a few segments of the trail east of the TOD Area have been built including Tabor Trail, Pine Orchard/Birch Road, Tilcon Drive and the Trolley Road. However, there is no detailed plan for the exact locations of future trail connections. A proposed route for the Shoreline Greenway trail in the TOD is shown on Figure 18 and Figure 20 (Page 102 and 105). In the TOD Area, a portion of the trail will be created in the forthcoming Atlantic Wharf mixed-use project. The project includes a multi-use path between Montowese Street and Meadow Street. Streetscape improvements are needed along Meadow Street to connect the Atlantic Wharf and the Hammer Field/Community Center multi-use paths.

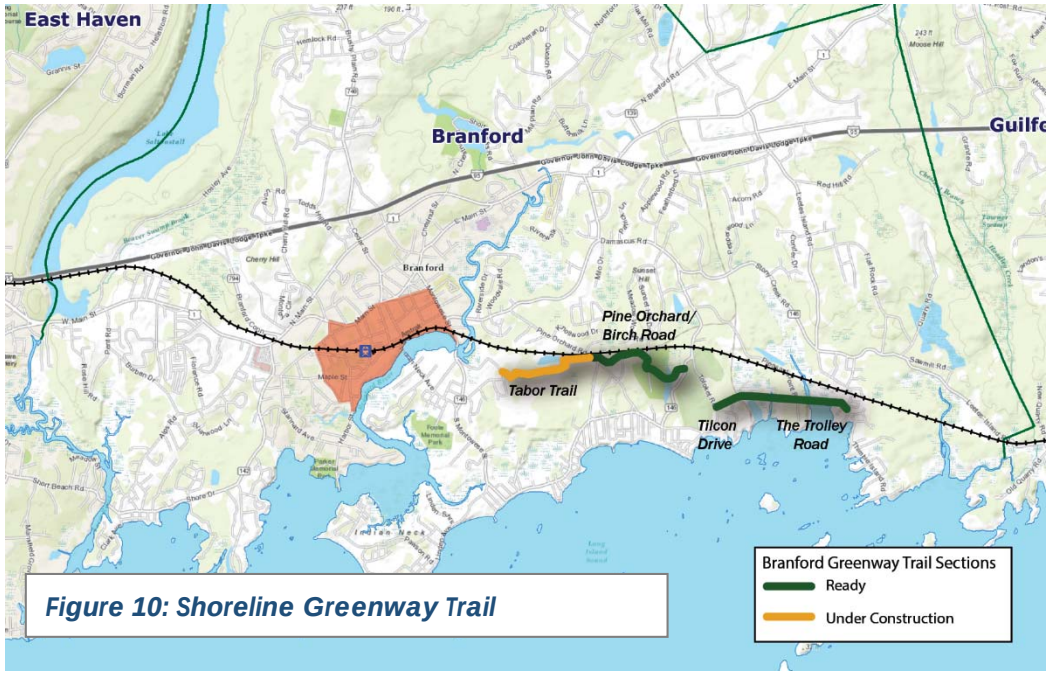


Figure 10: Shoreline Greenway Trail

The Trolley Trail section of Shoreline Greenway Trail. Branford, CT

Branford River Boardwalk/Walkway

The Town is in the planning stage of a project to build a boardwalk/walkway in the TOD Area along the Branford River between Montowese Street and Indian Neck Avenue. This boardwalk/walkway would include a small parking area with a kayak/canoe launch at Montowese Street. The Town does not yet have a definitive plan for the path.

Hammer Field Multi-use Path

The Branford Community Center, currently under construction, which is an expansion and renovation of the Community House. The facility will house both the Senior Center and the Recreation Departments (replacing the current Canoe Brook Senior Center). The project will also transform Hammer Field around it to incorporate an outdoor common area and a multi-use path between Eades Street and Meadow Street. The multi-use path will continue to the north along the east side of Eades Street, which may require some use of Town (school) property). To the south, the path will connect across Meadow Street through a path in the forthcoming Atlantic Wharf mixed-use project onto Montowese Street and the Shoreline Greenway Trail.

Area for potential Branford River multi-use path

Branford Main Street Gateway

The Town of Branford, in association with the South Central Regional Council of Governments (SCRCOG) and ConnDOT, is preparing a plan for the Route 146 Scenic Highway Gateway in Branford. The goal of the project is to improve traffic safety, provide a safe and comfortable environment for pedestrians and cyclists, and provide a more welcoming gateway into the Town Center. The study proposes to redesign the complex intersection of Main, South Main, Laurel, and Eades Streets with an oval roundabout. The project features bike paths, pedestrian walks and crosswalks, traffic lanes, and truck aprons that allow large trucks and buses to navigate the oval. The roundabout will provide bicycle lanes that connect to Eades Street and a new multi-use path the Town is developing along Hammer Field.

If approved, the ConnDOT project's $3 million construction cost would come from state funding secured in 2015 through the South Central Regional Council of Governments (SCRCOG), as part of its work to develop the region's Local Transportation Capital Improvement Program.

Proposed roundabout at Main, South Main, Laurel and Eades Street
Source: South Central Regional Council of Governments (SCRCOG)

Coastal Resiliency and Flooding

Existing Conditions

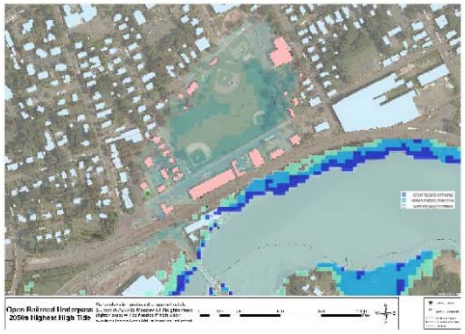
Portions of the Town of Branford TOD Study Area were marshland and tidal wetland, filled to accommodate development. Hammer Field, for example, was a wetland subsequently filled with slag and millings to create the park. High groundwater levels and the low-lying floodplain are significant development constraints. The Branford River meanders along the southern edge of the Town of Branford TOD study area. Marinas and shorefront businesses along the riverfront are most vulnerable to coastal storms and flooding causing property damage and disruption to pedestrian and vehicle passage through the vicinity.

From 2012 LiDAR data, the Branford River would need to rise to an elevation of less than 6 feet (NADV88) to enter the cattle crossing under the railroad tracks at Indian Neck Avenue. The underpass road elevation is less than 4 feet (NAVD88) and many areas north of the underpass are lower than 6 feet in elevation. The TNC's Coastal Resilience Tool's Medium Sea Level Rise projection puts daily high-tide elevations at 7.3 feet (NAVD88) by the 2080s. The railroad is elevated to between 10 and 12 feet (NAVD 88) in this area, and higher to the east and west away from the site. The TNC's Coastal Resilience Tool's Medium Sea Level Rise estimates put floodwaters at 10.0 feet (NAVD88) during a Category 2 storm by the 2050s, and 10.8 feet (NAVD88) by the 2080s.

This area is currently mapped as a FEMA AE zone (1% chance annual flood event) with a base flood elevation of 12 feet (NAVD88). Flooding is exacerbated by storm water flows where the combination of elevated tidal waters and upland run-off causes excessive flooding when storm waters do not have the capacity to move to the Branford River through gated and ungated outfalls.

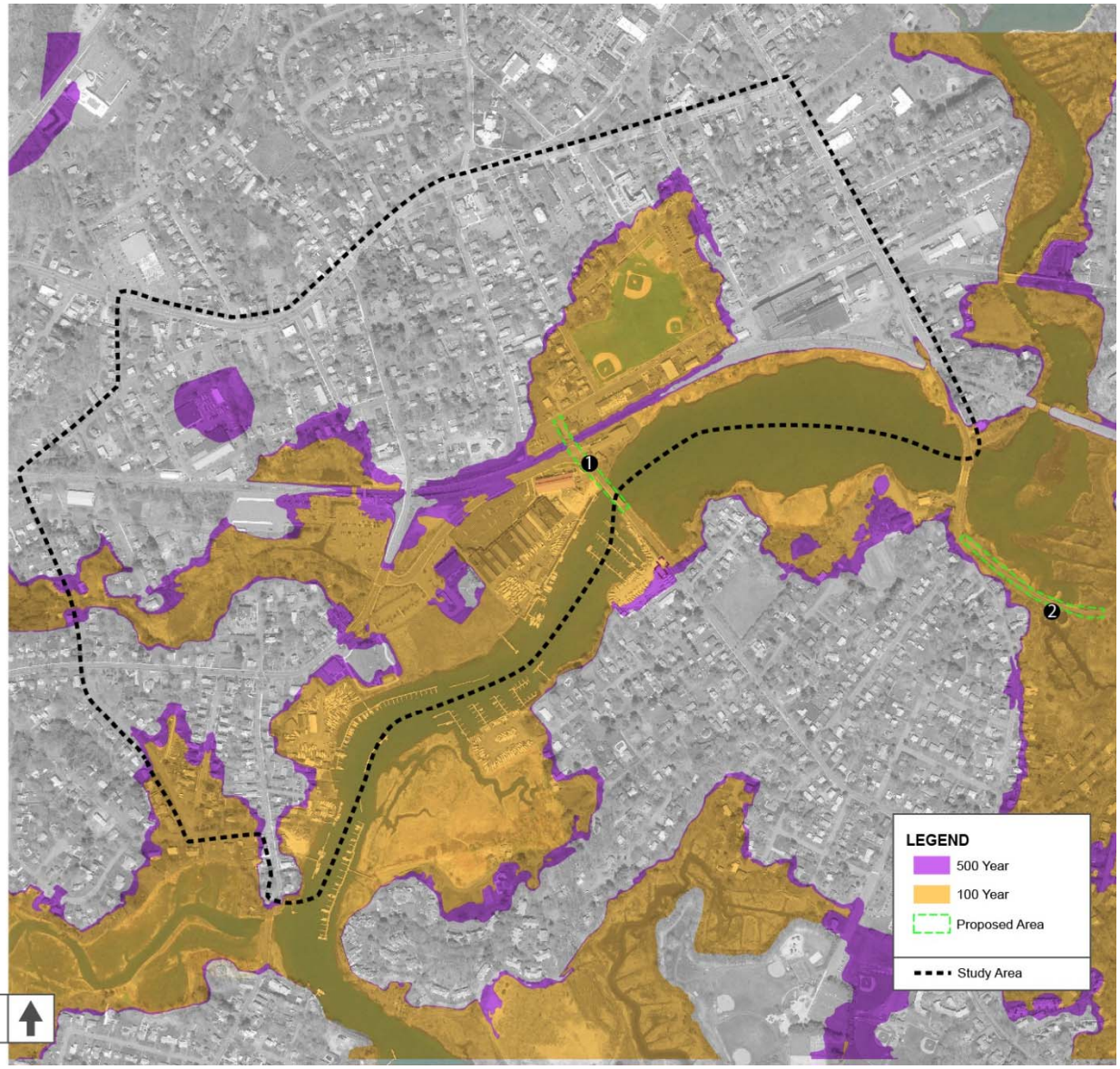
Flooding during Superstorm Sandy at Meadow Street (top) and Hammer Field (bottom). Source: Town of Branford

Figure 11: Flood-prone Areas



❶ - Railroad Underpass
- Indian Neck Ave Access
- Hammer Field

❷ - Use Ark Road as a alternative for Tabor Dr



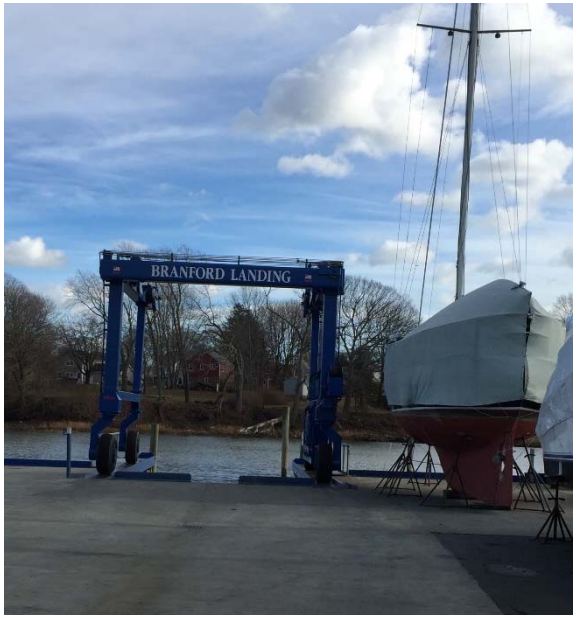
Based on a brief elevation analysis and the previously prepared Resiliency Plan for the Town of Branford, the following locations are subject to upland flooding:

- South Montowese Avenue (river over-topping);
- Maple Street, south of the railroad overpass at Kirkham Road (river over-topping);
- Indian Neck Avenue, the railroad underpass and Meadow Street (river over-topping and stormwater run-off); and
- Branford Train Station parking.

The Threat

The nearest long-term operational gauge for Branford is the tide gauge in Bridgeport, Connecticut. Based on tide gauge data collected at that station between 1964 and 2014, MSL has been increasing at a rate of 2.87 millimeters (0.11 inches) per year (mm/year), which is equivalent to a rise of 0.94 feet over 100 years. Lidar, tide gauge data and associated projections present significant threats to property owners, infrastructure and connectivity within the TOD study area.

Aged, undersized, and/or overwhelmed tide-controlled drainage systems in the vicinity compounded by shallow pitched linear piping and low-lying terrain have led to nuisance flooding. Rising waters associated with climate change and increasing storm severity and frequency have and will exacerbate these problems. The most extensive flooding occurs during periods of high tide and higher rain volumes; when stormwater has no place to drain. This condition requires use of mechanical pumping, including submersible pumps to drain low-lying underpasses (Indian Neck Avenue to Meadow Street connection). Recently modernized tide gates (wood flaps replaced with duck bills) completed by the Town of Branford, prevent common tidal flooding at specific locations; most notable is a 36" stormwater discharge point near Indian Neck Avenue.



Branford Landing marina

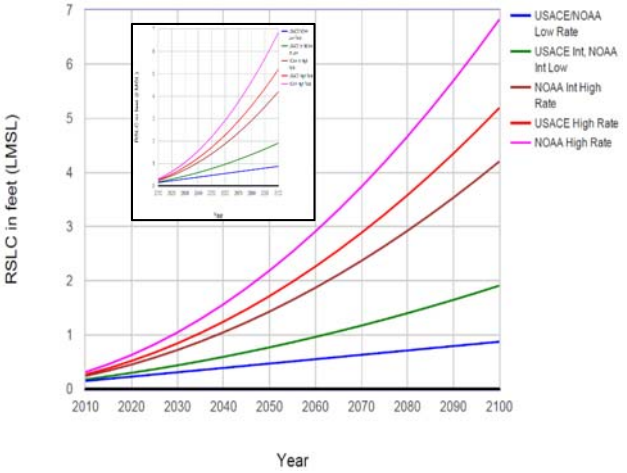
Flooding within the study area negatively impacts water quality. Untreated flood waters, both storm and tidal, transport sediments, pollutants and floatables from roadways, properties and structures that do degrade water quality and coastal habitats. In addition, floatables can present navigational hazards in coastal waters. To mitigate the reality of flooding and these associated impacts, hardened and naturalized infrastructure measures are necessary to reduce sediment loading and capture deleterious materials, while providing other recreation, habitat, aesthetic and resiliency benefits to the TOD study area.

Future plans to increase stormwater pumping capacity from the Meadow Street vicinity will further concern regarding water quality impacts to the Branford River. Pumping will greatly assist in alleviating stormwater quantity (flooding) issues, however, the rapid discharge of roadway and site run-off to open water will warrant water quality measures.

Flooding, or the possibility of flooding, can be a major impediment to desired development and investment in the TOD study area. As part of this study, known flood risks are identified and infrastructure mitigation measures are briefly defined to adapt to these risks, thus enhancing the resiliency, functionality, ecology and value of vulnerable properties. Infrastructure measures proposed in Section 5 are intended to reduce the extent and impact of flooding and sustain connectivity throughout the TOD. A viable TOD must have a high-performance and reliable multi-modal transportation network, most importantly to and from the Branford Train Station, Town Center, The Post Road and I-95.

This plan also recognizes that the Town needs to prepare for future sea level rise. This threat has been echoed in all of the relevant municipal planning documents such as the Town's Coastal Resilience Plan (CRP) and the SCRCOG Multi-Jurisdiction Hazard Mitigation Plan which identify locations vulnerable to future sea level conditions. The CRP provides sea level rise projections using both U.S. Army Corps of Engineers and NOAA projections at existing tidal gauges (see Chart 3). While the ranges between models vary, all show that sea level rise will continue throughout the current century. This heightens the need for resilience planning in Branford.

Chart 3: Sea Level Change Projections



Source: Town of Branford Coastal Resilience Plan, United States Army Corps of Engineers (USACE) sea level projection web tool (www.corpsclimate.us/ccaceslcurves.cfm).

Infrastructure

Existing Conditions

Infrastructure commonly consists of piped, wireless and wired utilities such as storm and sanitary sewers, water, gas, electric and communications. The presence and capacity of these systems are vitally important to sustaining business, transportation and residential communities. In the Town of Branford TOD study area, utility capacity is adequate though sanitary conveyance limitations exist that will need to be addressed either uniformly by the Town of Branford or for each development that is proposed and brought on line.

Infrastructure has a much broader definition in today's planning environment. Transportation networks including roads, sidewalks, bicycle lanes, rail and surface mass transit are all vital components, particularly within a TOD study area where greater density and connectivity via all modes of travel are vital to success. In Branford, the definition expands even further to include the necessary infrastructure to sustain transportation and commerce as well as occupancy and function of development in a flood prone environment. In the 2008 Town of Branford Plan of Conservation and Development, utility capacities were deemed adequate, as defined below. Recent conditions are noted, particularly related to sanitary sewer capacity.

Sanitary Sewers: The Town of Branford waste water treatment plant was upgraded within the last 15 years and has adequate capacity (total 4.9m GPD) to accept flows from new development. The wastewater facility is subject to partial inundation within the next 5-10 years, based on sea level rise and flood models noted the Town of Branford Resiliency Plan, and further analysis and planning to harden the facility and supporting infrastructure is a priority. Sanitary distribution lines in Meadow Street that lead to the municipal pup station are near capacity (80% and greater).

Water: The South Central Connecticut Regional Water Authority supplies potable water to Town properties. Private wells do exist in Town but not within the TOD Area.

Gas: Southern Connecticut Gas services the Town and the study area. Adequate service exists to accommodate future growth.

Electric Service: Power upgrades in the TOD vicinity are underway. These upgrades include redundancy and more reliable and resilient service throughout the town and the region.

The Cattle Crossing at Meadow Street and Indian Neck Road: The passage should remain open to serve pedestrian, bicycle and vehicular traffic and to provide permanent access to underground utilities that service both sides of the railroad tracks.

Recommendations

Stormwater capture, storage, conveyance, treatment and discharge are a priority within the study area. Historically, however, water quality issues were of lower priority. Due to regulatory mandates and the need to bolster water dependent activities within the TOD study area, emphasis on water quality enhancements has elevated. Chapter 5 delves into potential infrastructure improvements on area roads and open spaces, though larger areas of flood water treatment are warranted.

Chapter 5 presents recommendations to address flooding in the TOD study area. These recommendations comprise the vicinity's primary infrastructure needs, in addition to pedestrian and sidewalk connectivity enhancements to link Town center, businesses, and residential areas to the Branford Train Station. Beyond these measures, naturalized systems of expanded marshland, larger expanses of subterranean water storage beneath parking and open space, and stormwater attenuation measures on individual properties may add to the network of structured and passive treatment measures.

SECTION 4: BRANFORD TOD MARKET OVERVIEW

The half-mile radius around the newly expanded Shoreline East Train Station offers new opportunities for residential and commercial development that would strengthen Branford's social, cultural and recreational assets. The success of the Stony Creek Brewery and condominium housing at Anchor Reef, suggests promise for waterfront revitalization and transit area development. The 2019 build-out of the Atlantic Wharf mixed-use complex, a proposed hotel next to the Brewery and additional Anchor Reef units will provide the best indication of the strength of these respective markets. This section addresses the market for these and other potential uses in the context of Branford's demographic and economic conditions.

The Residential Market

Branford's population has remained relatively stable, with a slight decline in total number. As the table below shows, the current population is just under 28,100 residents. However, considerable shifts have taken place among its generations. Since 2000, as anticipated, growth has occurred among the elderly, including the *Baby Boom* generation over 50 years of age, while sharp declines have been recorded among the *Gen X'ers* aged 35 to 49 and their children under 18 years of age by 2015. Only the *Millennials,* aged 18 to 34, have remained relatively unchanged in total number.

Table 6: Branford Population 2000-2015

	Count			2000-2015 Change	
	2000	2010	2011-15	Absolute	Percent
Total population	28,683	28,026	28,074	-609	-2.1%
0-17	5,928	4,962	4,747	-1,181	-19.9%
18-34	5,170	4,858	5,156	-14	-0.3%
35-49	7,502	5,650	4,833	-2,669	-35.6%
50-64	5,240	7,169	7,361	+2,121	+40.5%
65+	4,843	5,387	5,977	+1,134	+23.4%

These trends mirror overall changes in New Haven's demographics, but also suggest the characteristic lifestyle and leisure time advantages of living in Branford. That aging *Boomers* and retirees continue living in Branford is a tribute to their housing conditions. However, the reasons for relative stability among *Millennials* is less clear. While certainly quality-of-life factors play a part, there are likely economic drivers as well. As noted by the South Central Regional Council of Governments (SCRCOG) in its March 2017 report *Demographic and Socioeconomic Trends*, Branford saw growth in median sales price for single-family homes from the fourth quarter of 2014 to the fourth quarter of 2015, increasing from $312,500 to $326,000, and behind only Bethany, Guilford and Madison in the 2015 price. However, Branford has a significantly lower median household income than any of these neighboring communities, totaling $71,938 in 2015, versus $107,183 for Madison, $99,132 for Guilford and $97,254 for Bethany. This makes Branford's single-family housing the most expensive relative to income of any municipality in the region, according to SCRCOG, followed by New Haven.

While comparable data are not available for rental properties, it can be expected that the high cost of housing relative to income in Branford and New Haven would be similar in the rental market. Given these factors, some millennials may be living at home with parents until they can afford to rent or own housing in the region. Although there are no data on the number of adult children living with their parents in Branford, Connecticut overall has the second-highest number of young adults living at home of any state, behind only New Jersey. According to a recent U.S. Census report, in 2015, nearly 42% of adults aged 18 to 34 were living with their parents, an increase of almost 9 percentage points from 2005, while the percentage living independently had declined by 11.5 percentage points over the same period.[5]

[5] Vespa, Jonathan. The Changing Economics and Demographics of Young Adulthood: 1975-2016. U.S. Census Bureau, April 2017.

The sharp decline of the middle-aged working population in Branford may be stemmed by better local employment opportunities and transportation access. However, employment projections for the South Central region show an anticipated slowing in employment growth. For its 2010 *Travel Demand Update*, SCRCOG assumed that the Connecticut Department of Labor's 2006-2016 regional annual employment growth forecast of 0.77% would continue until 2040, with Branford's growth rate equaling the region's through 2040.[6] However, the Department's current labor projections for 2014 to 2024 show total non-farm employment growing from 370,819 to 395,138 over the 10-year period, or roughly 0.66 percent a year.[7]

As shown in the table below, official population forecasts by UCONN's State Data Center predict that Branford will see a total population decline of nearly 4 percent between 2015 and 2025, with the continued growth of more than 2,100 elderly, aged 65 and over offsetting declines in every other age cohort. The aging *Millennial* population, aged 35 to 49 in the next 10-year period, are anticipated to experience relative stability, declining by just 50 people. New Haven, in contrast, is expected to see growth in nearly all of its age groups, leading to total population growth of 7.1 percent.

The recent past trends in Branford's population have resulted in significant changes in household formation. Whereas the number of total households has declined by 148 between 2000 and 2011-15, the number of individuals living alone has increased by more than 330. Married-couple families and unrelated individuals living together have accounted for the offsetting decline, while single-parent families have increased modestly. In turn, these changes resulted in an 800-person increase in elderly homeowners and nearly a 200-person increase in renters between the ages of 35 and 64 over the past 15 years. Since 2010, the Town's housing stock has responded accordingly with a 4 percent rise in renter-occupied housing and a 5 percent decline in owner-occupied housing.

[6] http://scrcog.org/wp-content/uploads/upwp/studies/2010_SCRCOG_TDM_Update.pdf
[7] Connecticut Department of Labor, *2014-2014 Workforce Development Area Employment Projections*. http://www1.ctdol.state.ct.us/lmi/projections.asp

Table 7: Population Projections

	Branford			
	UCONN Projection		2015-2025 Change	
	2015	2025	Absolute	Percent
Total population	27,766	26,718	-1,048	-3.8%
0-19	5,173	4,672	-501	-9.7%
20-34	4,237	3,651	-586	-13.8%
35-49	4,714	4,664	-50	-1.1%
50-64	7,326	5,278	-2,048	-28.0%
65+	6,314	8,453	+2,139	+33.9%
	New Haven			
	UCONN Projection		2015-2025 Change	
	2015	2025	Absolute	Percent
Total population	135,177	144,713	+9,536	+7.1%
0-19	35,979	37,748	+1,769	+4.9%
20-34	41,373	34,816	-6,557	-15.8%
35-49	24,639	34,564	+9,925	+40.3%
50-64	19,501	19,778	+277	+1.4%
65+	13,683	17,805	+4,122	+30.1%

Source: UCONN's State Data Center

Given Branford's demographic outlook, the 2008 Comprehensive Plan advised that housing construction should focus on multifamily development, including senior housing. In fact, building permits issued for new housing construction in the town indicate 281 units were authorized since 2010, all single-family excluding 14 mobile homes and one multifamily dwelling of 25 apartments. In the TOD study area, the Anchor Reef complex of 60 ownership units in two buildings on the waterfront, that were constructed in 2006 including an historic adaptive reuse, stand adjacent to two vacant development sites. However, the proposed Atlantic Wharf mixed-use complex is expected to deliver 205 rental apartments by 2020, including 32 studios, 123 one-bedroom units and 50 two-bedroom units, as well as 12,000 SF of commercial and 10,000 SF of restaurant space, marketed primarily for Millennials.

Despite the outlook for a declining overall population for Branford, the demand for owner and renter multifamily development, particularly empty nester and senior housing, is relatively strong and needs to be addressed, especially if the town is to retain the growth in the senior population. Given a 10 year forecast of some 2,000 more senior residents in Branford and a potential market of aging *Millennials* to tap in Branford and possibly New Haven, serious consideration ought to be given to the development of at least one senior housing complex and one or two condominium apartment buildings on the waterfront, as well as one rental multifamily building at the Shore Line East Railroad Station. The combined capacity of this development is estimated to be 275 to 300 new units. The key test of the market will be the proposed Atlantic Wharf development.

Although the single-family residential market is larger than the condominium or rental apartment market in Branford, the feasibility of multifamily development is real. According to the Berkshire Hathaway Home Services, the number of condo and single-family home sales in the town is roughly equivalent, while the dollar volume of sales is lower but has kept pace over the last three years, as the cost of condominium construction is considerably less than single-family development. On the rental side, the median rental price per square foot of multifamily units (adjusted for inflation) has decreased slightly by less than one percent between 2011 and the first quarter of 2017, or from $1.32 to $1.31 PSF as reported by Zillow. This suggests continuing demand for rental housing. Based on input from real estate professionals in Branford, asking rents for new construction apartments would likely be in the range of $2,100 to $2,300 for two-bedroom units and $1,800 to $2,000 for one-bedroom units. This compares with rents ranging from $900 per month for a one-bedroom unit in an older townhome community on Route 1, to $2,750 per month for a two-bedroom unit at Anchor Reef. Two-bedroom units at several other waterfront condominium communities were also available at rents in excess of $2,000 a month.[8]

Chart 1: Total Sales, Town of Branford

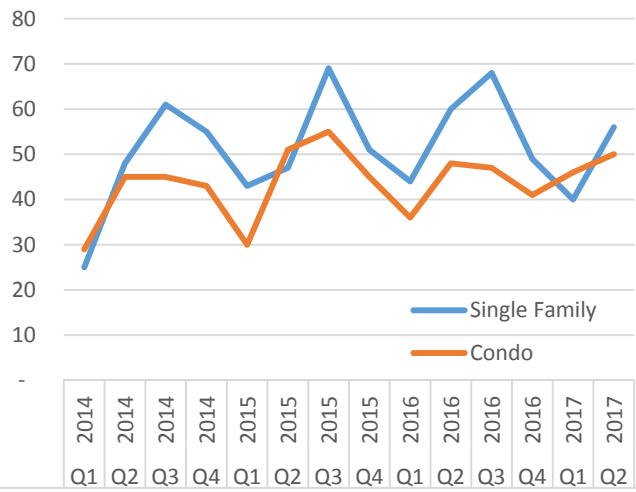
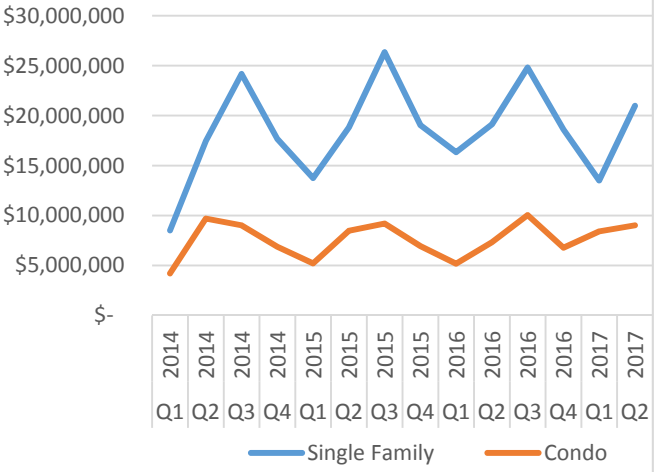


Chart 2: Dollar Volume, Town of Branford



Source: Zillow

[8] Realtor.com, August 2017.

The Market for Tourism & Recreational Uses

Between 2010 and 2016, employment in Branford increased by 7 percent, growing from 12,123 private and public sector jobs to 12,975, according to the *Quarterly Census of Employment and Wages (QCEW)* of the Connecticut State Department of Labor. Growth was strongest in sectors of *Arts, Entertainment & Recreation, Health Care, Real Estate,* and *Financial Services,* which collectively accounted for 80 percent of the total job increase. In the City of New Haven, job growth was equally strong, but led by sectors such as *Administrative Services, Health Care,* and *Accommodation & Food Services.* In support of this, a major real estate investment in the City between the downtown and the Hill neighborhood will inject $100 million into constructing more than 500,000 SF of research and office space, and include roughly 150 rental housing units.

Table 8: Employment and Establishments

	Employment			
	2000	2008	2010	2016
Town of Branford	13,443	12,702	12,123	12,976
City of New Haven	78,078	78,194	77,080	82,121
	Establishments			
	2000	2008	2010	2016
Town of Branford	1,114	1,130	1,126	1,145
City of New Haven	2,983	3,010	3,074	3,409

Source: ESRI, *Connecticut State Department of Labor, Quarterly Census of Employment & Wages*

Branford Landing

In addition to anticipated employment growth resulting from its recent investments, the town can benefit from further specialization in cultural, recreational and accommodation activities. *ESRI,* an international supplier of retail geodatabases and consumer profiles, estimates that annual sales of retail establishments in Branford exceed local demand of resident consumers by more than 70 percent, topping $943 million in 2016 compared to local consumption of $547 million.

Relatively few sectors of the retail market were under-served, the most notable being clothing stores, where demand exceeded supply by $18 million in annual sales. Restaurants were also plentiful, with 110 food and drink establishments grossing an estimated $62 million annually, compared with $58 million in resident consumption. The Town is also well-served by grocery stores, a market segment that is extremely competitive nationally and that has recently experienced contraction as it works through a glut of grocery space.[9] While the town can be considered fortunate in attracting such substantial sales from customers outside the immediate trade area, the opportunity for addressing retail markets that are underserved locally is more limited. *ESRI's* profile of Branford residents – based upon detailed demographic characteristics that model lifestyle differences – suggests that, as consumers, the town's population exhibits certain behavior or purchasing patterns that are more oriented toward "*Parks and Recreation"* than urbanization. Thus, expanding opportunities that serve outdoor activities, waterfront or recreational interests should attract more development.

The Branford waterfront has two yacht clubs, numerous boat yards and marinas, several restaurants and a major brewery, a private conference center, residential uses including a bed & breakfast, and public parks. It lacks a hotel, but a proposed hotel adjacent to the Stony Creek Brewery has potential. Not only would a hotel support overnight stays and greater tourism expenditures, it would also provide a hotel tax revenue opportunity for the town.

In summary, there appears to be a solid market for multi-family residential, especially on key waterfront locations which command higher rents. Conversely, there is a much smaller retail market and Branford's Town Center appears to be servicing most of the retail and commercial needs of the area.

[9] Haddon, Heather, and Julie Jargon. "Grocers Hit by Glut of Retail Space." *The Wall Street Journal*. August 1, 2017.

SECTION 5: DESIGN AND ZONING ANALYSIS

TOD Opportunity Areas

Based upon the preceding analysis of connectivity, land use, zoning, and environmental constraints, the following areas have been identified as promising locations for transit oriented development or redevelopment. While there are a number of properties within the study area that could be suitable for redevelopment to transit supportive uses, these sites have good connectivity to the station and are large enough to accommodate substantive development. The identification of these sites only suggests future potential for redevelopment and does not imply that the sites are available for development or redevelopment.

Branford Train Station (Area A)

A parking occupancy survey at the train station found that the two main parking areas at Branford Station (existing parking lot and western expansion) are only about 25 percent occupied during the week when the lot is busiest. The parking expansion is only about 10-20 percent occupied.

One opportunity at the lot could be to reuse the underutilized areas for residential development. This site is a good candidate for transit oriented development as it is directly adjacent to the train station. This opportunity is discussed in Section 6. While ConnDOT is open to the possibility of transit oriented development on the lot, they would require that the total number of commuter parking spaces remain the same. Another constraint at the site is that the main parking lot and the eastern portion of the parking lot expansion are located within the 100-year floodplain.

West End Avenue Property (Area B)

This 1.7 acres privately owned property is currently vacant. The site has been identified by the Town and SCROG as an opportunity for transit oriented development as it is directly adjacent to the train station parking lot.

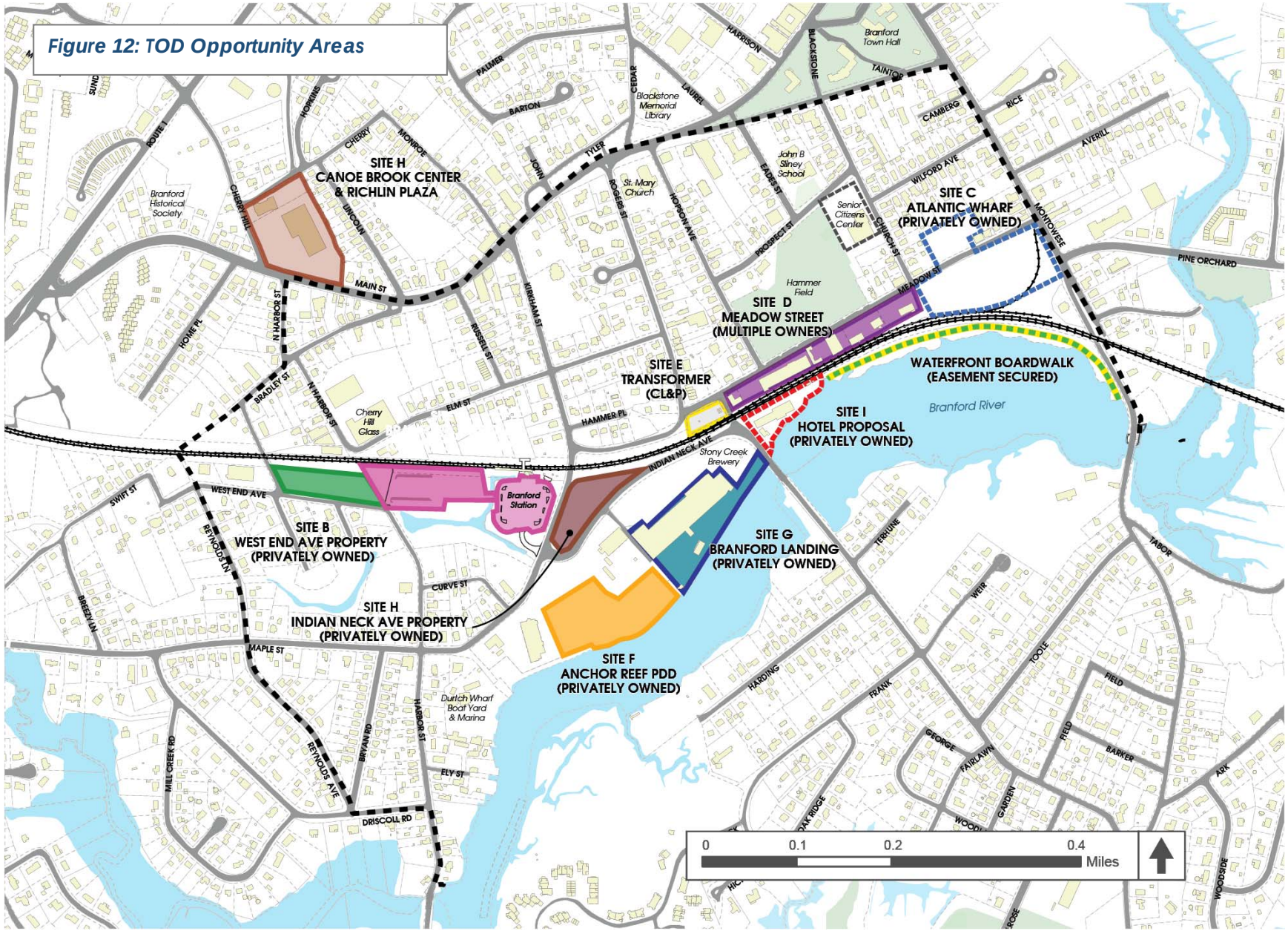


Figure 12: TOD Opportunity Areas
SITE H
CANOE BROOK CENTER
& RICHLIN PLAZA
SITE C
ATLANTIC WHARF
(PRIVATELY OWNED)
SITE D
MEADOW STREET
(MULTIPLE OWNERS)
SITE E
TRANSFORMER
(CL&P)
WATERFRONT BOARDWALK
(EASEMENT SECURED)
SITE I
HOTEL PROPOSAL
(PRIVATELY OWNED)
SITE B
WEST END AVE PROPERTY
(PRIVATELY OWNED)
SITE G
BRANFORD LANDING
(PRIVATELY OWNED)
SITE H
INDIAN NECK AVE PROPERTY
(PRIVATELY OWNED)
SITE F
ANCHOR REEF PDD
(PRIVATELY OWNED)
Branford Historical Society
Branford Town Hall
Blackstone Memorial Library
John B Sliney School
Senior Citizens Center
St. Mary Church
Hammer Field
Cherry Hill Glass
Stony Creek Brewery
Branford Station
Durtch Wharf Boat Yard & Marina
Branford River
ROUTE 1
MAIN ST
WEST END AVE
INDIAN NECK AVE
MEADOW ST
WILFORD AVE
PINE ORCHARD
MAPLE ST
CURVE ST
DRISCOLL RD
0
0.1
0.2
0.4
Miles

Atlantic Wharf (Area C)

This 7.5-acre mixed use development is currently being built on the former Atlantic Wire factory on Meadow Street. While the site is zoned industrial (IG-1), it was approved to be a Planned Development District (PDD) by the town in 2015. The plan for the transit oriented development includes ten three-story mixed-use buildings. Nine of the buildings will occupy the former factory land, which faces the Branford River. The tenth building is located across Meadow Street on a vacant lot.

The complex has 205 residential rental units, including studio, one and two bedroom apartments. The development also includes 12,000 square feet of commercial use and 10,000 square feet of restaurant use. 273 parking spaces are provided with 195 spaces in an underground garage and 78 at street level. The plans include a new road through the complex accessed from a realigned Meadow Street/Church Street intersection and a new four-way intersection at Montowese Street and Pine Orchard Road.

Meadow Street (Area D)

This area includes six privately owned properties along Meadow Street between Indian Neck Avenue and Church Street (Atlantic Wharf). Meadow Street has a mix of light industrial, commercial, and office uses, some of the buildings are in disrepair. The properties, which abut the railroad tracks are relatively narrow, with widths of 100-160 feet. The area is also largely located within the 100-year flood plain which is an important consideration if any redevelopment were to happen.

Transformer Site (Area E)

This ½-acre transformer facility at 13 Meadow Street, is owned by Connecticut Light and Power Co (CL&P). CL&P has plans to demolish the facility and relocate/consolidate the infrastructure elsewhere. CL&P's future plans for the site are not known. The lot is located within the 100-year flood plain.

Atlantic Wharf rendering (top) and site plan (bottom)

CL&P transformer facility

Anchor Reef (Area F)

Anchor Reef Condominiums which were built under Planned Development District which allowed for reuse of the former industrial area for mixed-uses. The PDD also mandates the provision of a publicly accessible walkway along the waterfront. The site consists of two buildings, one that adaptively reused a historic industrial building and another that was constructed in 2006. The building located off of Maple Street has 30-units in the three story building. There are 15-units in the brick building on Indian Neck Avenue. Both buildings have views of the river. This development is conveniently located less than a quarter-mile to the train station. While 2 additional 30-unit buildings were planned for the site, the project has been stalled since the recession in 2008. Approximately 4.5 acres of land, where the two buildings were planned remain vacant. The provision of public waterfront access is mandated in the master plan for the Anchor Reef PDD. The area is also largely located within the 100-year flood plain, an important consideration for future development.

Anchor Reef PDD

Branford Landing (Area G)

This 4.6 acres site is currently used as a marina and a waterfront restaurant. The former Malleable Iron Fittings Factory building is in disrepair and is currently utilized for boat storage and repair. While the building houses a viable waterfront related use, the building itself is relatively inefficient with regards to boat storage and there are other sites along the river that are better suited for boat storage. Previous studies such as the SCROG TOD report have identified this location as a potential site for redevelopment. The waterfront property has good access to the station site and is bordered by the Anchor Reef residential development. If the site ever were to be redeveloped, it could potentially include recreational, cultural/arts and boat-related retail uses. These would mesh with surrounding uses (e.g. Stony Creek Brewery and Nellie Green's) and the recreational usage of the waterfront. The property is located within the 100-year flood plain.

Branford Landing

2 Indian Neck Avenue (Area H)

This privately owned 1.5 acre parcel is primarily used for overflow parking associated with the Stony Creek Brewery. The lot tends to fill on weekend days when the brewery is busiest, but remains relatively un-utilized during the week. A portion of the lot is reserved for stormwater detention. The lot is largely located within the 100-year floodplain.

Indian Neck Avenue vacant parcel

Proposed Hotel on Indian Neck Avenue (Area I)

The owner of Stony Creek Brewery has proposed to build a waterfront hotel on the 1.5-acre site of the former Paul's Wire Rope & Sling Company. The site is directly across Indian Neck Avenue from the brewery. The proposed hotel would include 34 rooms which face the Branford River, a small scale café/bakery and a publicly accessible waterfront walkway.

Proposed hotel (pre-application rendering)

Canoe Brook Center and Richlin Plaza (Area H)

While the Canoe Brook Center and the Richlin Shopping Plaza are technically outside of the TOD study area, they are close enough to warrant identification as a future opportunity in the vicinity of the station for the Town to consider. The Canoe Brook Senior Center will soon be vacant when services are incorporated into the new Community Center at Hammer Field. There are no plans for the redevelopment of this Town-owned site. The Richlin Shopping Plaza is privately owned and has no stated plans to redevelop. This site was previously identified in a 2008 report prepared by the South Central Regional Council of Governments (SCRCOG) as an opportunity if the property is redeveloped by their owners in the future. The Conceptual Improvement Plan in the *Main Street (Route 146) Scenic Highway Gateway Study* Identified the site as an underutilized area that could be reinvigorated with thoughtful infill development in the form of a "Traditional Neighborhood Development" (TND). The TND would have guidelines which would require clustering and integration with the surrounding neighborhood to make it contextual and walkable.

Key Linkages/Connectivity

The Town of Branford offers unique opportunities among Connecticut shoreline towns for transit oriented development and enhanced neighborhood connectivity. Branford's' downtown has numerous commercial and civic destinations and a traditional town green, yet it lacks clear pedestrian and vehicular connectivity between the town center and the Branford Train Station.

As noted in Section 3, many residents stated that there is a need to improve connectivity between these locations for pedestrians and bicycle riders. Workshop participants recommended several methods of improving connections between these areas. The first would be to improve the network for pedestrians and bicycles, especially along main corridors connecting to Main Street, the waterfront and the train station. While the sidewalk network is generally good, there are some gaps and areas with sidewalks and curbs in poor condition. There is little existing infrastructure for bicyclists.

If the train station were better connected, people would be more likely to visit Branford by train (i.e. Stony Creek Brewery). Therefore, improving the physical connections could have a direct impact on tourism and commerce. Another suggestion from the public was to have a shuttle route which provided regular service to the major destinations in the area. Shuttles could serve Foote Memorial Park, Hammer Field, station area, Town Center and waterfront area (e.g. Stony Creek Brewery and Nellie Green's). A potential route is proposed in Section 6.

There was agreement from residents that the Town should promote tourism that capitalizes on area's location along the waterfront. Residents feel the river is more of an asset than the train station and that protecting the river will protect the town. Maximizing the riverfront could help bring people into Town. Branford could be a "days-outing" and "backpack" destination for urbanites who seek access to the waterfront in close proximity to the/a train station. The area could function as a "hospitality suite" for transit riders to visit the area, have access to restrooms and such, and enjoy a day outdoors and evening dining all within the TOD District.

Another way to link the Town of Branford with other Connecticut shoreline towns is completing the proposed 8.9-mile Branford section of the Shoreline Greenway Trail.

Stony Creek Brewery

Branford Point

This trail will provide an alternative mode and recreation amenity along the town's coast and, when completed, connectivity between dispersed open space, commercial areas, and neighborhoods within and beyond the town's boarders.

Improving wayfinding signage will help foster a psychological link between the attractions in the area. The wayfinding would help to identify and connect destinations, districts and parking areas. Wayfinding signage should be done in a way that creates a sense of place without cluttering the landscape. Potential locations for wayfinding signage are proposed in Section 6.

Existing wayfinding signage

Case Studies

Transit-Oriented Developments in Connecticut

In the last 10 years, there have been a number of municipalities in Connecticut that have studied development opportunities near transit that promote smart growth which is less reliant on single-occupant vehicles. This type of development typically is compact, mixed-use, and walkable, and it is increasingly attractive to a variety of people to live, visit, shop, or work. Transit-oriented development (TOD) benefits towns and cities by better utilizing existing infrastructure and already developed land, attracting new private investment, and providing a greater diversity of housing types. Preparing for successful TOD is a complex undertaking however, and requires coordinated policies, thoughtful planning, and community support.

Glenbrook and Springdale, Stamford CT

The villages of Glenbrook and Springdale in Stamford provide an informative case study.[10] These two neighborhood centers were identified in the City of Stamford's 2002 Master Plan as opportunities for development and growth while maintaining a lower density and scale than a typical downtown neighborhood. These two stations are serviced by Metro North's New Canaan branch line and provide service to Stamford's main train station in approximately 10 minutes. Both stations are near existing commercial areas and residential neighborhoods.

The neighborhoods recently completed a multi-year planning process to reposition their village centers as walkable Main Streets ensuring that all infill development is transit-oriented. In January 2009, new zoning and design guidelines for Springdale were approved that combine a variety of elements to achieve TOD. These elements include a progressive approach to parking that acknowledges the neighborhood's transit service and walkability.

[10] Stantec team members completed the "Glenbrook Springdale TOD Feasibility Study" while employed at another firm.

	Branford	Glenbrook and Springdale (Stamford)
Train service type	Shore Line East	Metro North - New Canaan line
Train service frequency	20 departures M-F 13 departures Sa-Su	20 departures M-F 18 departures Sa-Su
Destination hub and travel time	New Haven Union Station (15 minutes)	Stamford (<10 minutes), Grand Central Terminal (NYC – 50-65+ minutes)
Mode share	90% of riders drive (park or drop-off) 5-6% walk 3-6% bike	57-59% of riders drive (park, drop-off, or carpool) 39-42% walk 1-2% bike
Parking at station	465 surface spaces, no charge (20-40% utilized)	156 surface spaces at GB, permit and metered (65- 75% utilized) 210 surface spaces at SD, permit and metered (80-90% utilized)
Zoning	Town Center Village District (overlay district)	Village Center District (base zoning)

5-minute walking radius

Branford Station

Springdale Station

Glenbrook Station

Saugatuck Center, Westport CT

In 2006, the Town of Westport adopted the General Business District Saugatuck, to "encourage residential development including affordable housing in addition to the commercial, office and retail currently allowed in the General Business District in Saugatuck Center resulting in sites developed to enhance and conserve the area's aesthetic appeal and historic scale, massing and character, pedestrian access, and recreational water-related uses and views while limiting the intensity of development consistent with the Town Plan of Conservation and Development."

In 2011, Saugatuck Center was built, the first development under the new regulations. The development is sited on the Saugatuck River a quarter mile from the Westport Train Station (New Haven Line). The development has become a role model for small-scale, transit-oriented, multi-purpose neighborhood that is well connected to the surrounding neighborhood. The complex features seven buildings, most of which are mixed use with ground floor retail or office and 2nd story residential. There are 25 units, 5 of which are affordable. Parking is located underneath the building. The plan features a marina and a village square area with access and views to the waterfront.

5-min walking radius from Westport Station (0.25 mi) / Saugatuck Center

Source: Saugatuckcenter.com

Takeaways from Transit-oriented Development Case Studies

Community involvement: An open, transparent planning process that includes both educational and hands-on discussion components can empower residents and help them feel more comfortable with the concept of TOD. Actively engaging the public from the start and working with them to establish a shared vision for the station area can reduce uncertainty and build support for changes around the station.

In Glenbrook, the public process led to support for a zoning change that increased the allowable building height from 3 floors to 4 floors, a recommendation that was determined to increase the financial feasibility of TOD projects. The zoning for In Saugatuck, resulted from outreach conducted during the Westport's Plan of Conservation and Development. This helped to set the density of the district (20 units per acre for market rate apartments). The public involvement also prioritized the need for public access and amenities along the Saugatuck River.

High-quality multi-modal transportation options: Successful TOD is based on reliable, high- quality transit service, but also requires a robust pedestrian and bicycle network to improve access to the station. This benefits both residents who take the train to work, and visitors who want to visit Main Street or the water without needing a car. A complete sidewalk network that is in good repair, with adequate crosswalks and ADA ramps, should connect the station to Main Street, surrounding neighborhoods, and nearby attractions. Bicycle facilities like "sharrow" lane markings, bike lanes where possible, and secure bicycle storage at the station should be installed as well. Adequate street lighting along pedestrian and bicycle routes is also critically important to create a sense of safety for train riders.

The City of Stamford implemented significant streetscape improvements to widen sidewalks, install bicycle lane markings, and enhance street lighting as part of a comprehensive effort to attract private development near the stations and increase ridership. In Saugatuck, properties adjacent to the Saugatuck River were required to provide public access to the waterfront as part of site plan approval.

Street level retail with residential above (Saugatuck, CT)

Transit-supportive zoning: Zoning is a critical component for successful TOD. The base zoning near the station should allow for a variety of transit-supportive uses including multifamily housing, and greater density to encourage private development and increase station use. Active ground floor uses and careful building design should create a diverse, interesting public realm for pedestrians, with large transparent windows and frequent building entrances. Parking requirements near the station should be reduced to maximize the use of valuable land and reduce development costs. Parking areas should be located behind buildings or landscape buffers to minimize its visual impact on the public realm.

In Glenbrook and Springdale, the Village Commercial District is the base zoning district designed to allow a mix of uses appropriate for a transit area. Several changes were identified to help create a better public realm, encouraging wider sidewalks and clarifying active ground floor uses and design. In Saugatuck Center, ground floor residential was limited to promote vibrant public space. The development has a mixed use core oriented towards the river, which has become a popular gathering space for the surrounding neighborhood.

High-quality design standards: High-quality design that reflects the community's vision is important to maintain support for TOD as projects are built. The community involvement process should also determine goals for public realm and building character. Illustrated guidelines with appropriate precedent images and clear diagrams will communicate this vision in a more concrete way than text alone. Guidelines should prioritize critical issues and allow flexibility on others, encouraging creative responses to site constraints to facilitate organic growth and avoid cookie-cutter approaches.

The architectural sketchbooks created for Glenbrook and Springdale provide useful basic information for catalyst sites but could have more clearly identified specific standards for proportions, design detailing, materials, and other key features to help developers, architects, and the community better understand the vision. The zoning regulations for Saugatuck Center mandate that the architectural design, scale and mass of buildings shall be made compatible with the historic structures in the Saugatuck area by reflecting both the characteristic scale and building traditions of those historic structures so as to preserve and improve the

High-quality design standards (Saugatuck, CT). Source: LandTech

appearance and beauty of the community.

Parking economics: Getting parking right is a critical step to encourage successful TOD. High parking requirements for new projects near the station adds cost and degrades the quality of the public realm around the station. Surface parking is cheaper but uses significant land area (more than four acres at Branford), while structured parking consumes less land but is an expensive alternative.

As part of the analysis for Glenbrook and Springdale, the team investigated options for adding structured parking at one or both stations. Despite having a parking waitlist at both and demonstrated demand for TOD housing, the project economics still required significant public subsidy to attract a private developer. The potential value of new development was not enough to offset land acquisition and parking garage construction costs by itself. Determining whether structured parking would benefit the station area is an important policy decision to be considered in light of competing needs for limited public funding. Zoning regulations for Saugatuck Center encouraged below ground parking by not having it count towards gross interior floor area. This helped to improve pedestrian access, connectivity to the river and provide open space at the site. The parking garage is also a viable use for the portions of the building located in flood prone areas.

Development potential: A firm understanding of the development potential near the station and the market demand for these projects is critical to build realistic expectations and preserve flexibility for future growth. As part of the analysis for Glenbrook and Springdale, the team conducted a site-by-site capacity analysis of key sites based on zoning, realistic building prototypes (determined from conversations with developers and local market analysis), and community design priorities. Sample pro formas were developed to identify obstacles to market-driven investment (zoning requirements, parcel size, etc) and determine any funding gap. Based on this analysis, the City and residents had a better understanding of likely near-term development capacity. In order to encourage private investment, recommendations were developed to change certain zoning requirements and provide incentives like expedited review and application fee waivers.

Mixed-use building over ground level parking, public open space with views/connection to riverfront (Saugatuck, CT). Source: LandTech

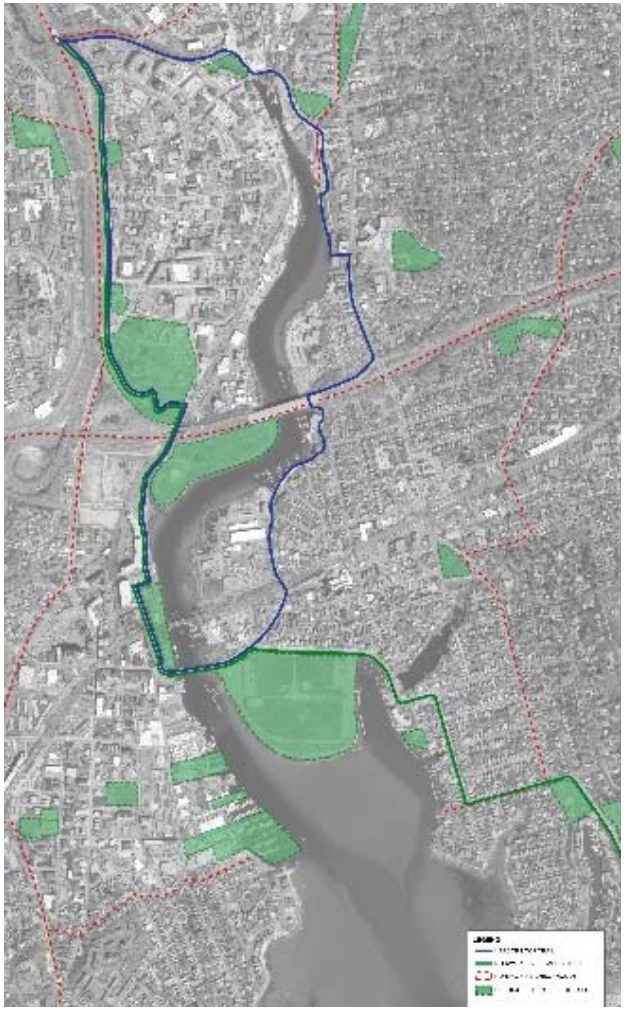
Norwalk River Valley Trail and Inner Harbor Loop

In looking at other Connecticut communities with similar assets and challenges, the City of Norwalk is a relevant case study. Although a city with both a larger population and geographic area than Branford, Norwalk has similarities such as dispersed public parks and open spaces, and thriving, yet disconnected, retail and commercial districts. To enhance connectivity through the various destinations, the City of Norwalk in partnership with community groups, state and municipal agencies and private donors has planned, designed and implemented a series of interconnected shared-use trails and greenways that connect in and around the Norwalk waterfront and beyond. Through advocacy and vision, the City of Norwalk has successfully and incrementally implemented multi-use trails through public and private lands a budding network of walking and bicycle trails once deemed nearly impossible to realize.

The Norwalk Harbor Loop trail is a planned three-mile-long path that connects numerous commercial, retail, civic and residential assets. Although not fully completed, the trail utilizes existing on-street connections, dedicated off-road links, wayfinding signage, pavement markings and new infrastructure to complete the network. The trail will provide benefits for tourists and recreational users as a stand-alone amenity, providing economic benefits and alternative access to retail centers and alternative rail station link for residents. Importantly, collaboration with private developers has made the trail an integral part of new mixed-use and residential developments being constructed in the vicinity.

At the head of Norwalk Harbor and connecting to the northern-most portion of the Harbor Loop trail is the Norwalk River Valley Trail (NRVT). This proposed 38-mile trail will connect from the Norwalk coast through the Harbor Loop trail to the north through a variety of land uses. Like the Harbor Loop trail, the NRVT will create expansive recreational opportunities for cyclists, joggers, and walkers as well as an alternative for commuters and mass transit users from well beyond the borders of Norwalk.

The Shoreline Greenway Trail and vision for an interconnected sidewalk, pathway and waterfront walkway network within the proposed Branford TOD, present great similarities to the City of Norwalk and it's Harbor Loop and regional NRVT. Successful



Norwalk Harbor Loop and Norwalk River Valley Trail Link. Source: Stantec

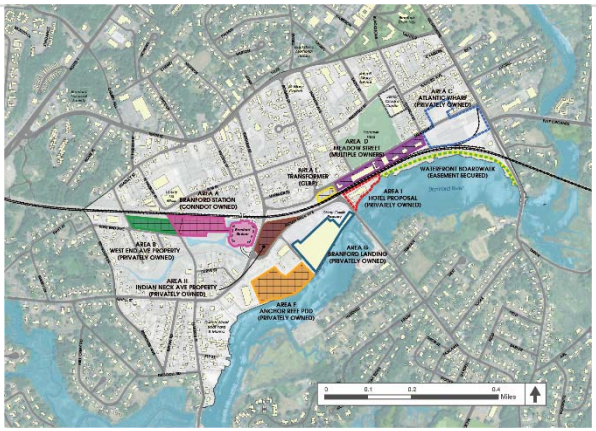
TODs require layers of transit alternatives and economic, social, recreation and entertainment opportunities – all possible in Branford with commitment to both enhanced neighborhood and regional connectivity.

SECTION 6: BRANFORD TOD RECOMMENDATIONS

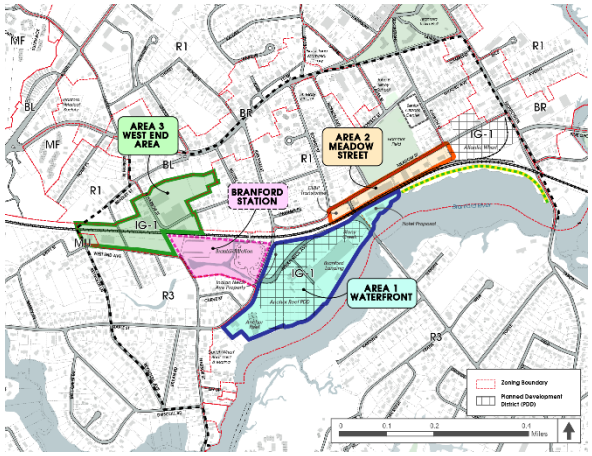
Planning and Design Concepts

The planning and design concepts for the recommendations that follow build upon and follow the Vision for Branford TOD Area presented earlier in this document (see Section 1). The "Vision" identifies four specific areas of aspiration voiced by the Steering Committee and participants in the planning outreach process. These are: 1) encouraging future development to be in scale with the surrounding neighborhoods; 2) supporting land uses that do not compete with the Town Center; 3) improving connections among the TOD Area, the Town Center, and the waterfront; and 4) encouraging sustainable development in the TOD Area. These are discussed in more detail in the sections that follow.

Ensuring that future development will be contextual to Branford is one of the guiding principles of this plan and its recommendations. The plan engages this concept on a variety of levels. First, great attention has been given to thinking clearly about how underutilized and vacant parcels in the TOD Area would benefit from revitalization. This considers what can be done on the public side, from proposals to improve streetscape and flooding conditions to how redevelopment can accomplish the larger goal of area revitalization by drawing new residents to the area and enhancing livability. The following recommendations present an overall strategy to accomplish this by creating incentives to encourage redevelopment at various levels, each appropriate and contextual to specific on-the-ground conditions of four distinct subareas of the TOD Area. These areas correspond to the parcels and conditions along (1) the waterfront area, focused primarily on the underutilized land between the Anchor Reef development and the Branford Landing boatyard; (2) Meadow Street, east of Montowese Street (and along Hammer Field); (3) the area north and west of the Branford train station; and (4) long-term opportunities at the train station itself. Currently, the market overview does not see current financial viability for development at the train station. As a result, it is considered a long-term development concept and is not included in the



Branford TOD Opportunity Areas
(see Figure 12, page 68)

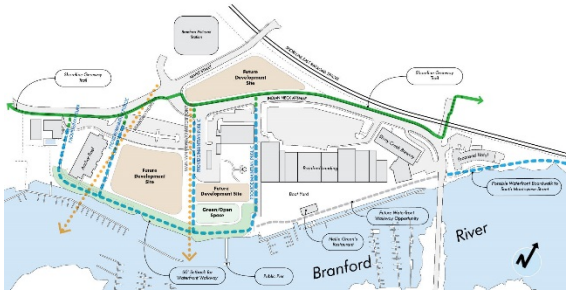


Branford TOD Overlay Sub-areas
(see Figure 13, page 90)

overlay sub-districts. In the future, it could be subject to a PDD application should the market strengthen. The subareas were conceived to ensure that any future development would be compatible with the character, density and settlement patterns extant in each subarea. Under this approach, the TOD Area is not viewed through a single lens, and as such, the plan proposes a framework to address concerns and to affirm the ideas, visions and aspirations expressed by the Steering Committee and citizens throughout planning process.

This strategy dictates that each subarea be treated differently, and indeed the proposals for zoning and redevelopment, streetscape improvements, flooding and environmental concerns that follow attempt to meet that mandate. For example, the zoning proposals suggest a range of allowable densities and building heights. Higher building height and density is permitted along Meadow Street and the waterfront as compared with the West End subarea. Development allowances are provided through a system of incentives, all of which relate to specific design guidelines and improvements that will contribute to the overall enhancement of the TOD Area. This system of incentives is proposed through a series of zoning overlays, each tailored to the conditions and plan objectives for each subarea. Overlay zoning is a regulatory tool that creates a special zoning district, placed over an existing base zoning, which identifies special provisions in addition to those in the underlying base zone. In the Branford TOD Area, overlay zoning will allow existing property owners and businesses in the TOD Area to continue to use their property without change. This means that the current IG-1 district (industrial zoning) will remain in place and existing businesses can continue to operate.

However, the overlay zoning as proposed offers these same property owners new options that are intended to encourage redevelopment appropriate to the overall goals of the plan. These options include a wider range of allowable uses and increased density (to help pay for development and suggested improvements) provided future development meets certain design requirements. For example, in subarea two, along Meadow Street, redevelopment under the overlay zoning would require developers to treat the streetscape and parking access in certain ways, while, in subarea one along the waterfront, the overlay zoning sets forth design guidelines for publicly accessible open space and access to the waterfront. Rather than showing an illustrative plan for the waterfront that might limit future development options, the proposed overlay zoning



Waterfront Overlay Sub-area
(see Figure 14, page 92)

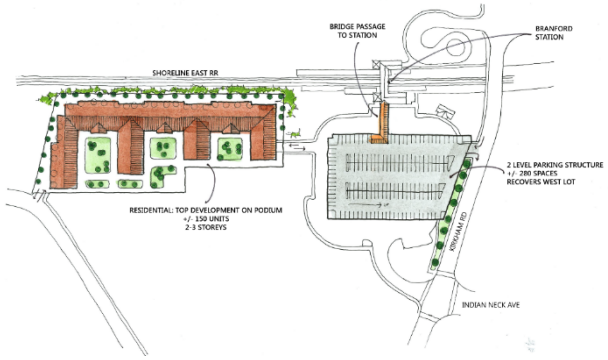
Meadow Street Overlay Sub-area

requires future development to provide appropriately sized, publicly accessible frontage along the waterfront, opening it up for walking and connecting developable waterfront areas to larger pedestrian networks including the Greenway Trail and a proposed walking path along the Branford River from Indian Neck Road to South Montowese Street. This path would provide a small watercraft dock and parking area near the Montowese Bridge, allowing people to enjoy the river and access the Town Center.

These and other proposals of the overlay zoning are outlined in more detail below. Some requirements of the overlay zoning apply to all subareas. For example, all future development under the proposed overlay zoning is required to be sustainable and resilient to flooding, and to meet high environmental standards (e.g. green building standard). Broadly, the intention of the overlay zoning is to encourage and make financially possible future redevelopment of existing underutilized and vacant parcels in the TOD Area, while holding harmless existing businesses and property owners (i.e. they are free to continue operations).

The plan outlines a variety of uses that would be allowable under the overlay zoning, but limits uses so as to complement, and not compete with, the Town Center. For example, any future retail in the TOD Area would be limited to accessory use only, meaning that retail cannot be the primary use on the property and must be subordinate and incidental to the principal allowable use, generally residential. The only proposed exception to this would be water-related retail uses, which would be allowed by special exception, requiring careful review by the Town Planning and Zoning Commission, with an understanding that such a use may be incompatible in some locations within the district because of the size, intensity, design, traffic volumes, or other characteristics associated with the use. Restaurant, cultural and office uses would also be allowed by special exception. (Office is currently a special exception use in the base industrial zoning). By allowing these uses by special exception instead of as-of-right, the proposed zoning overlay will enable the Planning and Zoning Commission to review proposals for these uses on a case-by-case basis to ensure that they will complement and not compete with the Town Center.

The streetscape improvements focus on upgrading the existing pedestrian, bicycle and vehicular environment to make it easy to travel by a variety of means around the TOD Area, and making important connections to where people want to go,

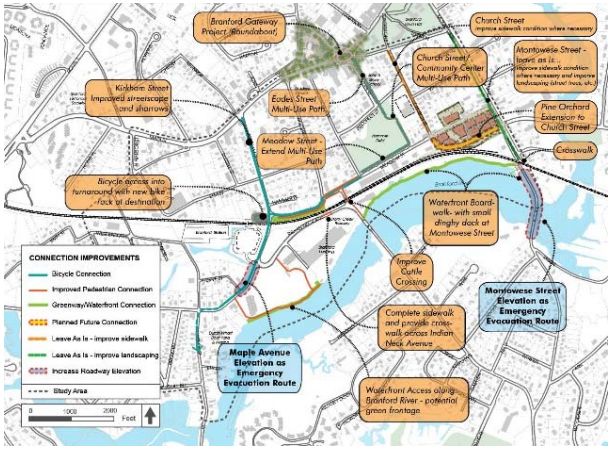


Branford Train Station development Concept
(see Figure 17, page 100)

including the train station, waterfront and Town Center. These enhancements were considered within a range of improvements already in the pipeline, including the multiuse path along Hammer Field near the Community Center and the proposed roundabout on Main Street. The streetscape improvements are made apparent not only by proposing new sidewalks, bicycle lanes, and parking, but also through a proposed system of wayfinding signage to direct people to and from various points of interest. To facilitate movement and reduce congestion while providing access to key points within and beyond the TOD Area, a shuttle bus (trolley) line is proposed to link the train station with the waterfront, Town Center, Branford Point and future development sites.

The proposed recommendations include a wide range of interventions to improve Branford's resiliency and emergency response to natural disaster. These build upon previous work commissioned by the Town, including the Town of Branford Coastal Resiliency Plan (2016). Recommendations for coastal resiliency and flood preparedness include raising street elevations along key stretches of existing roadways, including Indian Neck Avenue, South Montowese and Maple Avenue, to ensure safe evacuation. In each instance, as per the Branford Resiliency Plan, flood protection was calculated on base flood events and projected 2050s Category 2 hurricanes.

Finally, the plan recommends balancing the Town's fiscal responsibilities with the economic capacity of future development opportunities. The overlay zoning strategy seeks to provide development incentives in return for the future development meeting certain design guidelines, including streetscape improvements. Typically, as development occurs, developers make required improvements along their property frontage. For the Branford TOD Area, this could result in a patchwork of improvements and an unrealized network of improved roadways, sidewalks and bicycle paths. Alternatively, the plan suggests the possibility of creating a streetscape fund into which developers contribute funds to be used at large to benefit their property. Such funds would be supplemented by public capital budget appropriation, including state and/or federal grants. This would ensure a more cohesive approach to completing the proposed improvements to the public realm as outlined in this plan.

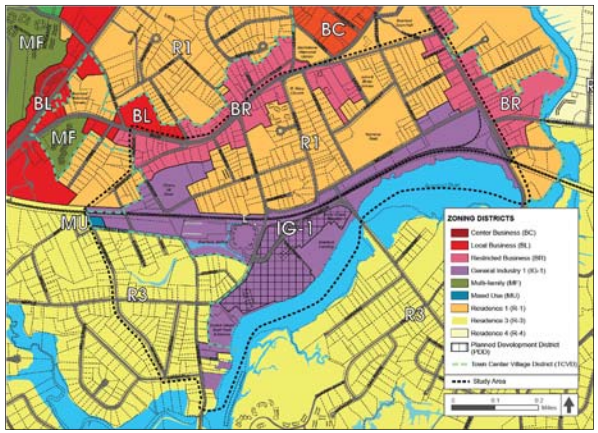


Proposed Road, Pedestrian and Bicycle Connection Improvements (see Figure 18, page 102)

Zoning Recommendations & Design Standards

As discussed in the sections above, there are some target vacant and underutilized areas within the study area that would benefit from revitalization. These sites present opportunities for redevelopment, adaptive reuse and/or creation of additional open space. Improving these areas will help to draw new residents, enhance the livability of the neighborhood and provide better connections to the train station and waterfront.

The existing industrial zoning and uses do not reflect the Town's current vision for the TOD Area. While the area was once predominantly industrial, residents expressed the need for a more vibrant mix of uses. Permitting a modest amount of residential development could help transform the area into a unique waterfront neighborhood, which will be an amenity for Branford residents and will also encourage people to visit from out-of-town. As seen in Table 9, there are a variety of approaches that the Town may take to regulate land uses in the TOD area. The Town has chosen the overlay zone as the best approach to transforming the area while not directly affecting property rights.



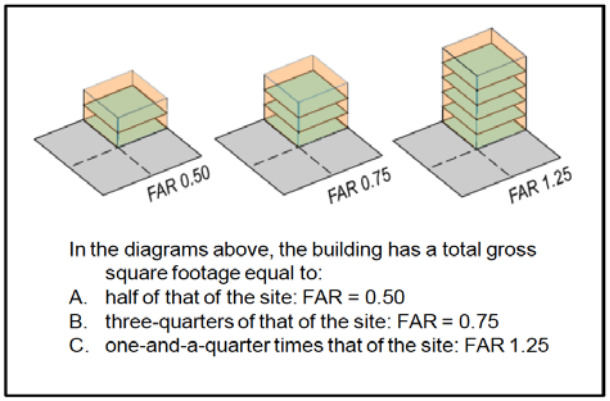
Zoning Map (see Figure 4, page 36)

Table 9: Potential Zoning Approaches in TOD Area

Zoning Action	Pro	Con
Leave existing zoning	No action needed	Risk that people will not do anything or will do more of what already exists
Rely on PDD for redevelopment	Standards negotiated for each site	No specificity for Town, abutters or developers – everything is up in the air
Rely on overlay zone for redevelopment	PZC sets program / incentives for redevelopment desired Establish common standards for the entire area	Property owners can opt-in to zoning but may choose to do more of what already exists
Change the underlying zone	Establish common standards for the entire area	May make existing uses non-conforming

The recommendations in this section primarily apply to the IG-1 zone, which does not allow for residential development, thus preventing property owners from repositioning their properties without a applying for zoning change or variance. In the last 15 years, many of the properties have been rezoned in a piecemeal way through the creation of Planned Development Districts (PDDs). These districts give municipalities and developers flexibility in planning projects involving a mix of different uses. PDD's allow municipalities to negotiate standards for a development that might not fit existing zoning categories. Generally, they cover multiple parcels of land and require a detailed master plan showing the future proposed build-out for the full development. While such a zoning approach allows for upfront flexibility – i.e. the negotiation of standards and the overall program – if the market changes or development stops, the process may leave in place zoning for development that may never occur. In Branford, recent PDDs have allowed for the creation of the Atlantic Wharf and Anchor Reef multi-family buildings, but much of the remaining TOD Area is mapped as IG-1 industrial zoning, and, as discussed earlier, residential uses are not allowed under the underlying IG-1 district.

Instead of looking at each area as an individual development project (e.g. Atlantic Wharf or Anchor Reef), the Town may consider zoning changes that give guidance about desired uses, building heights, site layouts, etc., so that proposed developments are harmonious with the vision articulated through the public process for this plan; the existing streetscape; and future development that may occur. One mechanism to do this is through the creation of overlay zones, which provide increased regulatory guidance tailored for the TOD Area. Property in an overlay zone may continue to be subject to all of the regulations, responsibilities, and controls associated with the underlying zone (in this case the IG-1 zoning district) unless the property owner applies for a special permit, or "opts in" to the overlay zoning, which would allow additional uses of the property not normally allowed in the underlying zone.



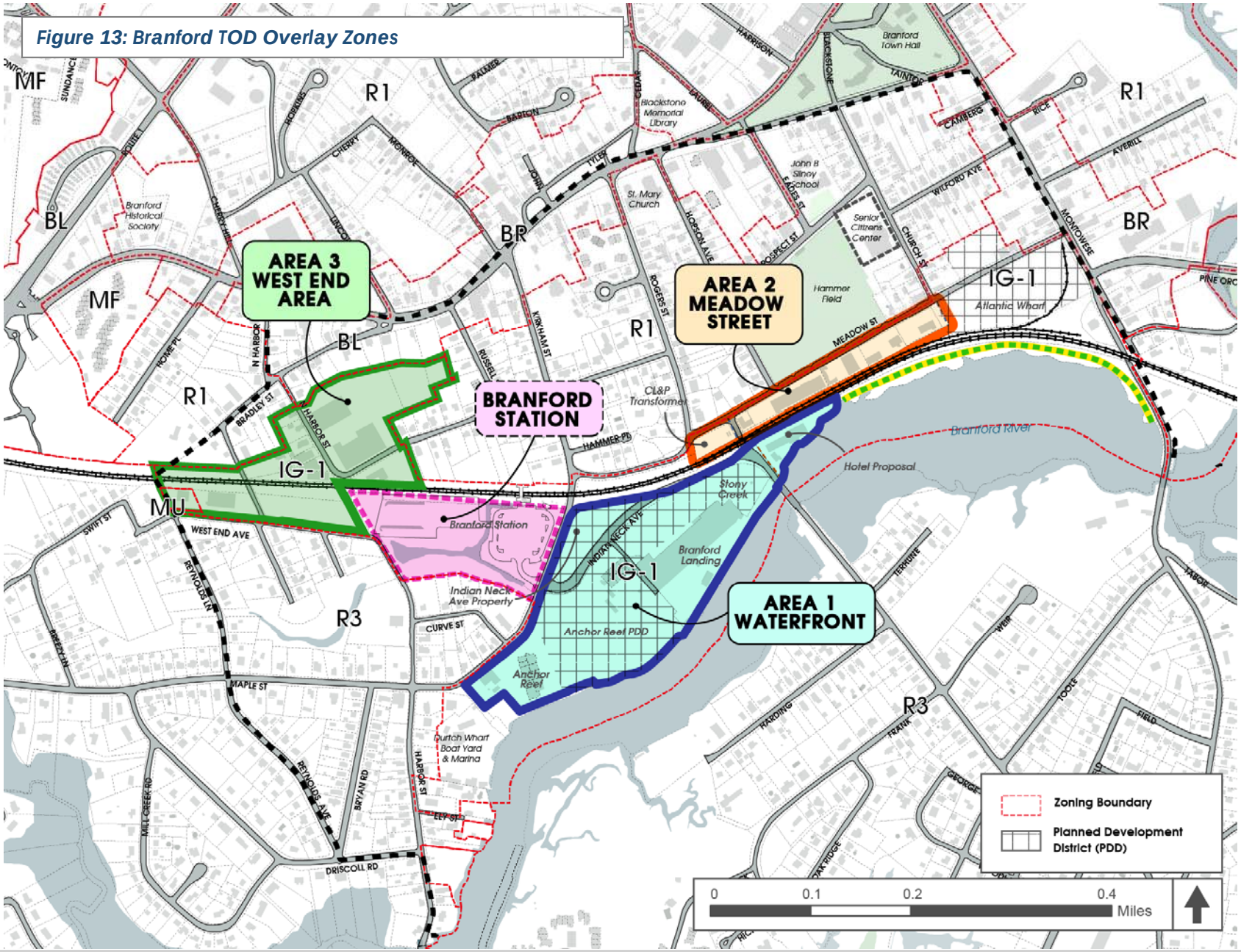
Floor Area Ratio (FAR)

In the proposed overlay zones, property owners are free to opt-in or not. If an owner opts in, they would be allowed additional uses, such as residential, as well as a bonus in Floor Area Ratio (FAR). FAR is a measure of building density based on a ratio of the building area relative to the total area of a parcel of property. FAR simply controls the bulk of a building and not the mix of uses. Residential density would be determined by the mix of bedroom types and sizes of units.

In order to gain the FAR bonus, the proposed development would have to comply with the overly zone's bulk and height regulations and form-based guidelines. Additional requirements may apply, such as green building standards, streetscape standards, floodplain considerations, creation of public open space, and protection of viewsheds. The intent of these requirements is to make it less problematic for property owners to re-invest in their properties. In this way, the Town can capitalize on potential development in the study area to return tangible, meaningful benefits to existing residents.

Not all of the areas within the TOD Area IG-1 zone are the same. There are four different areas, each of which requires a slightly different land use approach: (1) the waterfront area, (2) Meadow Street, (3) the West End Avenue area, and (4) the Branford TOD Area itself. Figure 13 illustrates a zoning approach that creates overlay zones for the first three areas discussed. The Branford Train Station is a unique property because it is owned by ConnDOT, and the market overview has not identified financial viability for development there. Therefore, it is not likely to be developed in the near-term. A PDD may be the best approach to this site, as there are many site considerations for access and shared use of the station parking area. Proposed recommendations and design standards for the four areas are discussed herein.

Figure 13: Branford TOD Overlay Zones



Overlay Area 1: Waterfront

As seen in Figure 13, Overlay Area 1 includes a number of properties identified to be opportunity areas, including the unbuilt portion of the Anchor Reef site, Branford Landing, and the vacant area along Indian Neck Avenue across from the Stony Creek Brewery. There is presently an approved PDD for the Anchor Reef development, which would remain in effect should the developer choose to develop under the approved plan.

The underlying purpose of the overlay zoning in Area 1 is to promote development that is architecturally sensitive to the surrounding environment and responsive to its location along the Branford River. Any future development should provide a high-quality publicly accessible walkway and should be encouraged to provide additional nodes of public space along the water. The height of the building would be limited to 4 stories, the existing height of the Anchor Reef development.

Saugatuck Center, Westport, CT

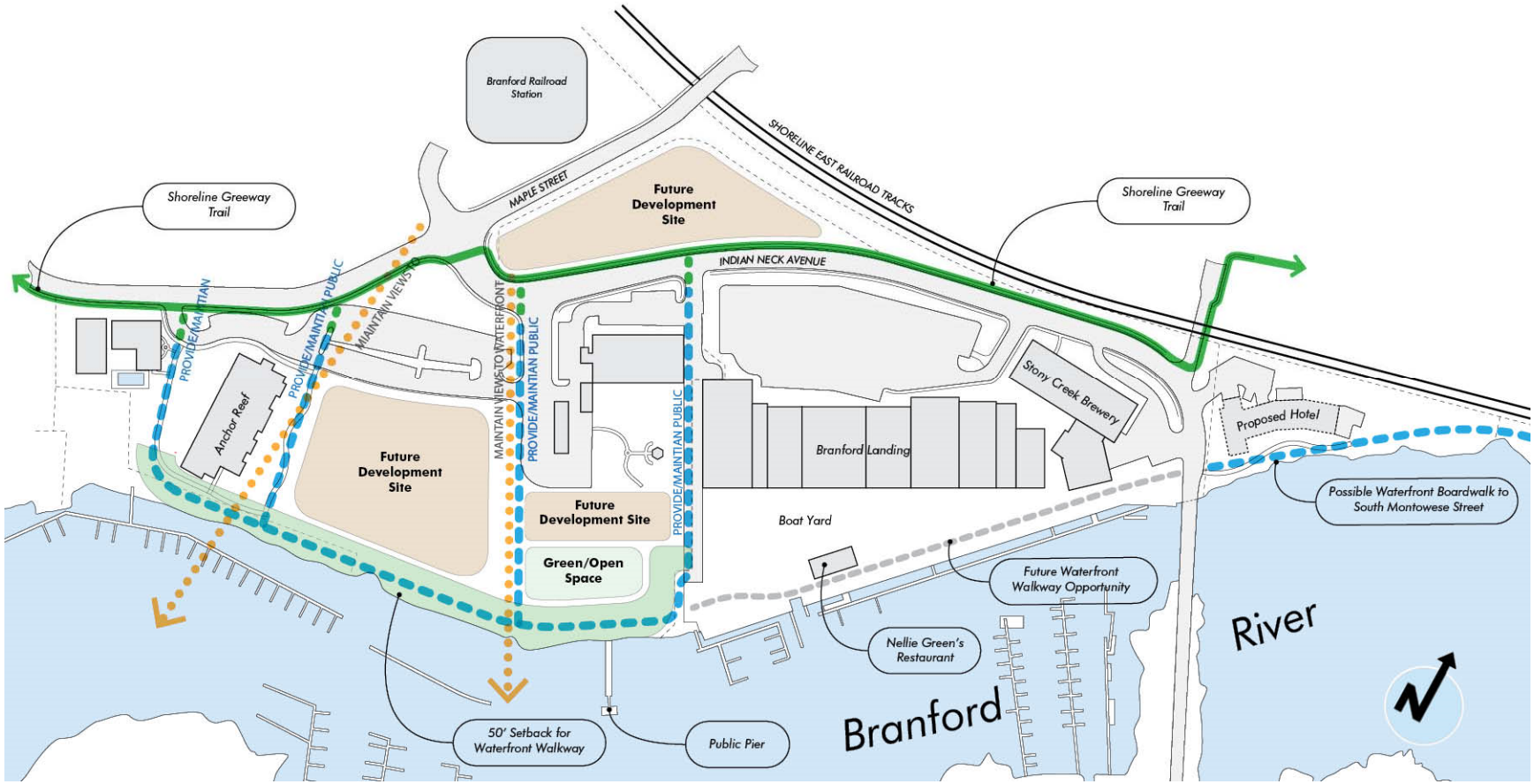
Recommendations for this overlay zone are listed below:

Overlay Area 1: Waterfront

- Additional uses:
  - Residential
  - Recreational/cultural uses
  - Retail as accessory use
  - Restaurant/office with special permit
- Allowable height (as defined in the building code): 4 stories, 46 feet

(cont.)

Figure 14: Waterfront Overlay District Concept



Waterfront overlay recommendations (continued):

- FAR Bonus from 0.4 to 0.6 for the provision of the following amenities:
  - Continuous waterfront walkway with access to existing public pier
  - Viewshed preservation
  - Public walkway/sidewalks back to public roads
  - Flood resilience measures
- FAR Bonus to 0.8 (additional 0.2) for provision of:
  - Publicly accessible waterfront feature (i.e. park, dock)
  - High quality building and streetscape design
  - "Green" buildings
- FAR Bonus to 1.0 (additional 0.2) for:
  - Contribution to a streetscape fund
  - Contribution to affordable housing

Overlay Area 2: Meadow Street

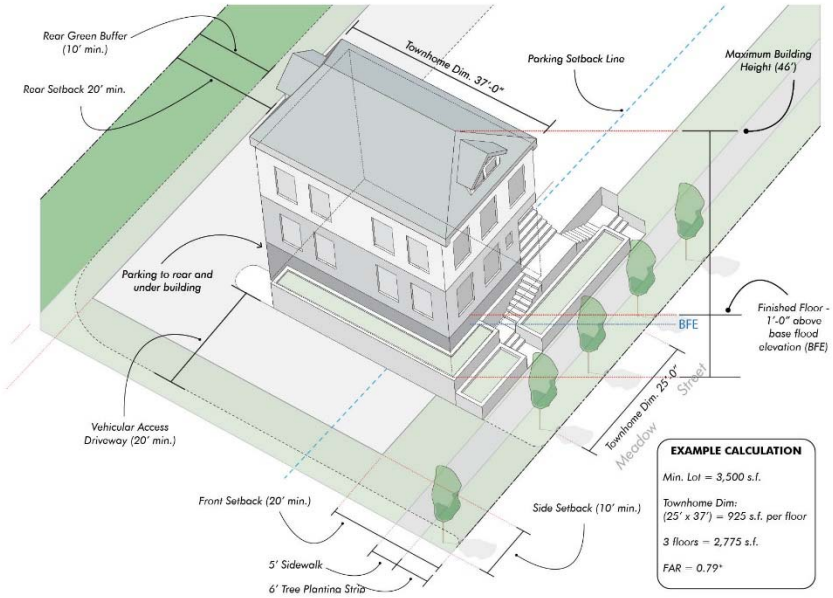
The Meadow Street area has a unique character, distinct from the waterfront area and the upland residential areas. There is a wide mix of uses, with light industrial uses on the south side across the street from Hammer Field and a single-family neighborhood to the north. When completed, the Atlantic Wharf multi-family, mixed-use development will add to the variety of uses on the street.

The proposed overlay district encompasses six parcels in the 3.5-acre area between Rogers Street and Church Street. Market trends indicate that residential development is the most likely use for this area given its proximity to the train station, waterfront and the Town Center. An important consideration for any redevelopment in this area is that most of Meadow Street is within the 100-year floodplain. One goal for the overlay district in this area is to encourage property owners to make their buildings more flood-resilient. Allowing more FAR and additional height will permit the building of ground-floor parking, office or another non-residential use. Residential would be allowed on upper floors only.

Meadow Street Overlay Area

The properties along Meadow Street are constrained by the railroad tracks and are generally 100 feet deep. While the properties are narrow, they are conducive to developing a townhouse-style development with 2-3 stories of development over one floor of parking. Such parking could also be placed a half-story below ground level so as to improve the aesthetic quality along the street, and improve access to the residential units. All residential uses would have to be above the base flood elevation. Having the lowest floor of residential above the street level will enhance residential privacy and, with good building design and carefully placed landscaping, would create an attractive streetscape frontage along Meadow Street.

Parking and service areas should be located in the rear of the building as opposed to along Meadow Street. Any redevelopment should include sidewalks and linear plantings along the street. A conceptual building layout is shown to the right.



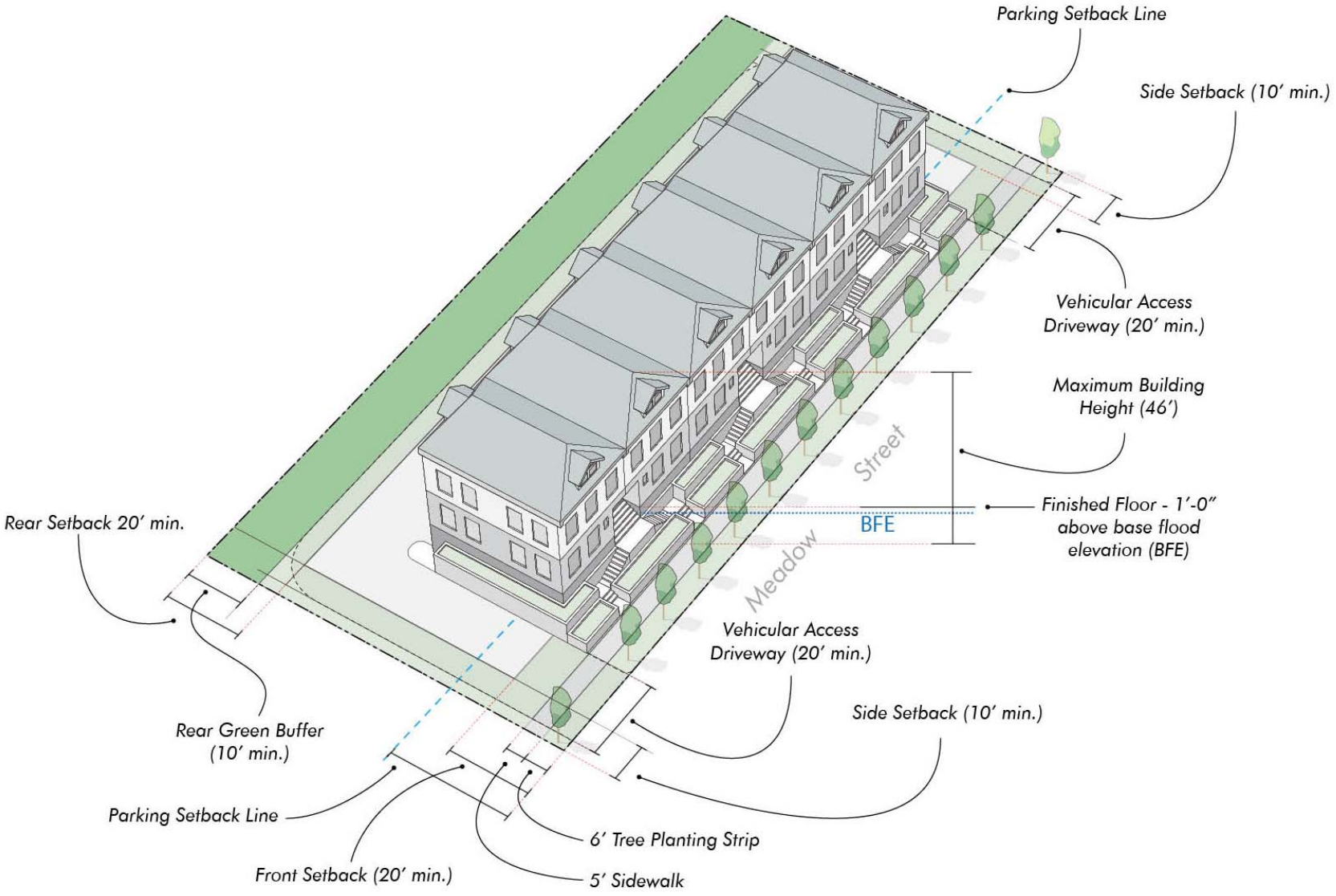
Potential development on Meadow Street under proposed overlay zone

Overlay Area 2: Meadow Street

- Additional use: Residential
- FAR: increase from 0.4 to 0.8
- Height: 46 feet
- Residences must be raised above parking (due to 100-year floodplain), access to parking from rear
- Setback: 20 feet from curb, 20 feet from railroad
- Sidewalks required
- 3,500 sq.ft. lot minimum

Delamar townhomes, Southport

Figure 15: Meadow Street Overlay District Concept



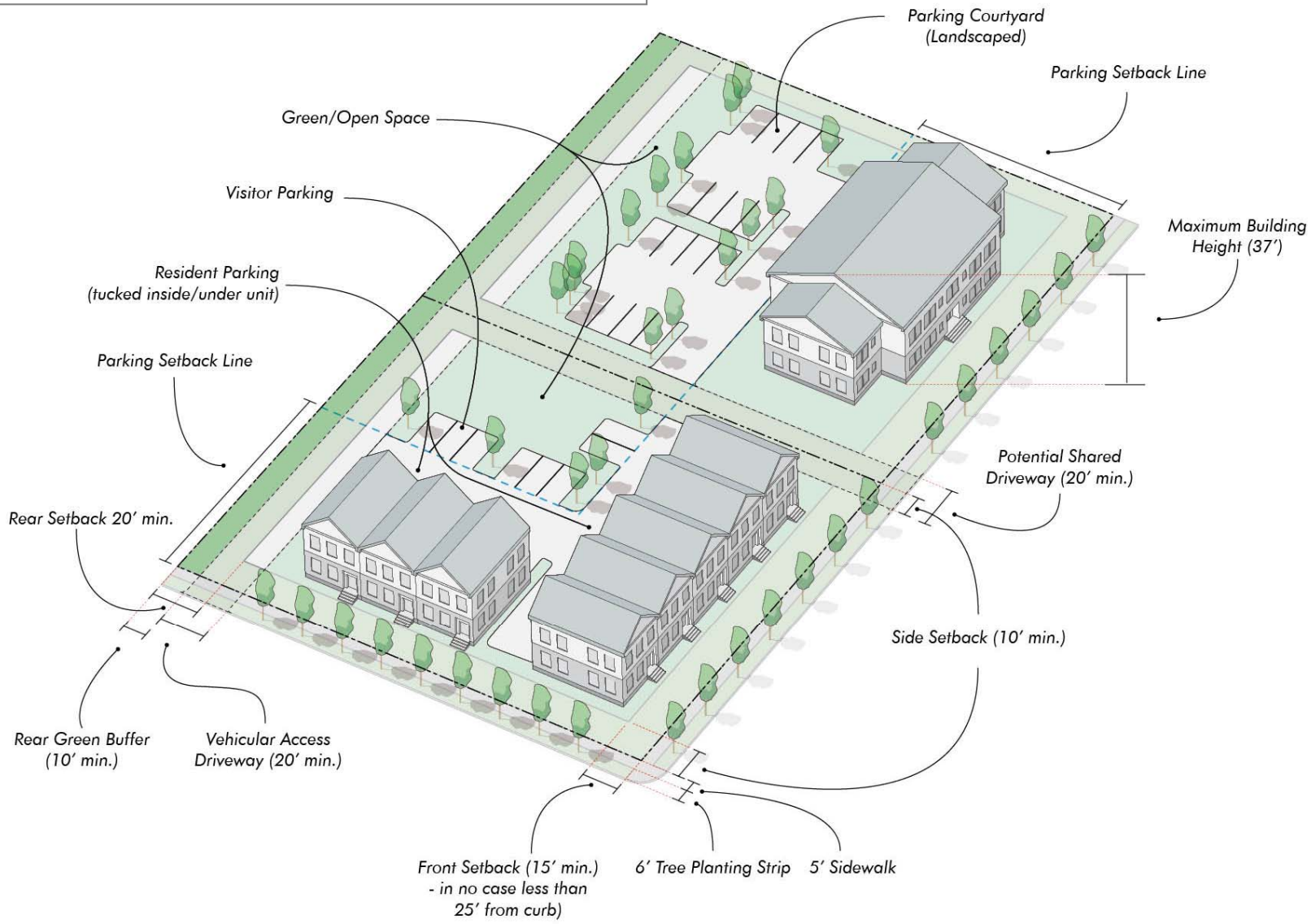
Overlay Area 3: West End Ave

The industrially zoned area on the western portion of the TOD Area is bordered to the north and south by residential districts (R-1 and R-3). The proposed overlay area includes 10 privately owned parcels across 11 acres. Beyond the existing industrial uses (which are permitted to remain under the base IG-1 zoning), the character of this area is decidedly residential. Therefore, the overlay for this area would allow for residential uses at the same density as the R-1 district: 7 units per acre, with a 35 foot/3 story maximum building height. This will help ensure that future development will complement and reinforce the residential fabric. The design guidelines encourage larger parcels to break into smaller development pads to promote better street connectivity.

Potential area for West End Ave Overlay Area

Warwick Grove, NY

Figure 16: West End Ave Overlay District Concept



Branford Station Area

This the 8.7 acre area currently serves as a surface lot for the Branford Train Station. As discussed in Section 5 of this report, the western expansion of the lot is underutilized on a typical workday. This site presents an opportunity for transit-oriented development, given its direct proximity to the train station. However, there are some obstacles to development, the first being that ConnDOT owns the site. If any development were to occur, ConnDOT would require all existing parking spaces to be maintained. This would require the need for a parking structure to accommodate all of the on-site parking, which would significantly impact a project's financial feasibility. Second, ConnDOT would need to be reimbursed for any property sold to a developer.

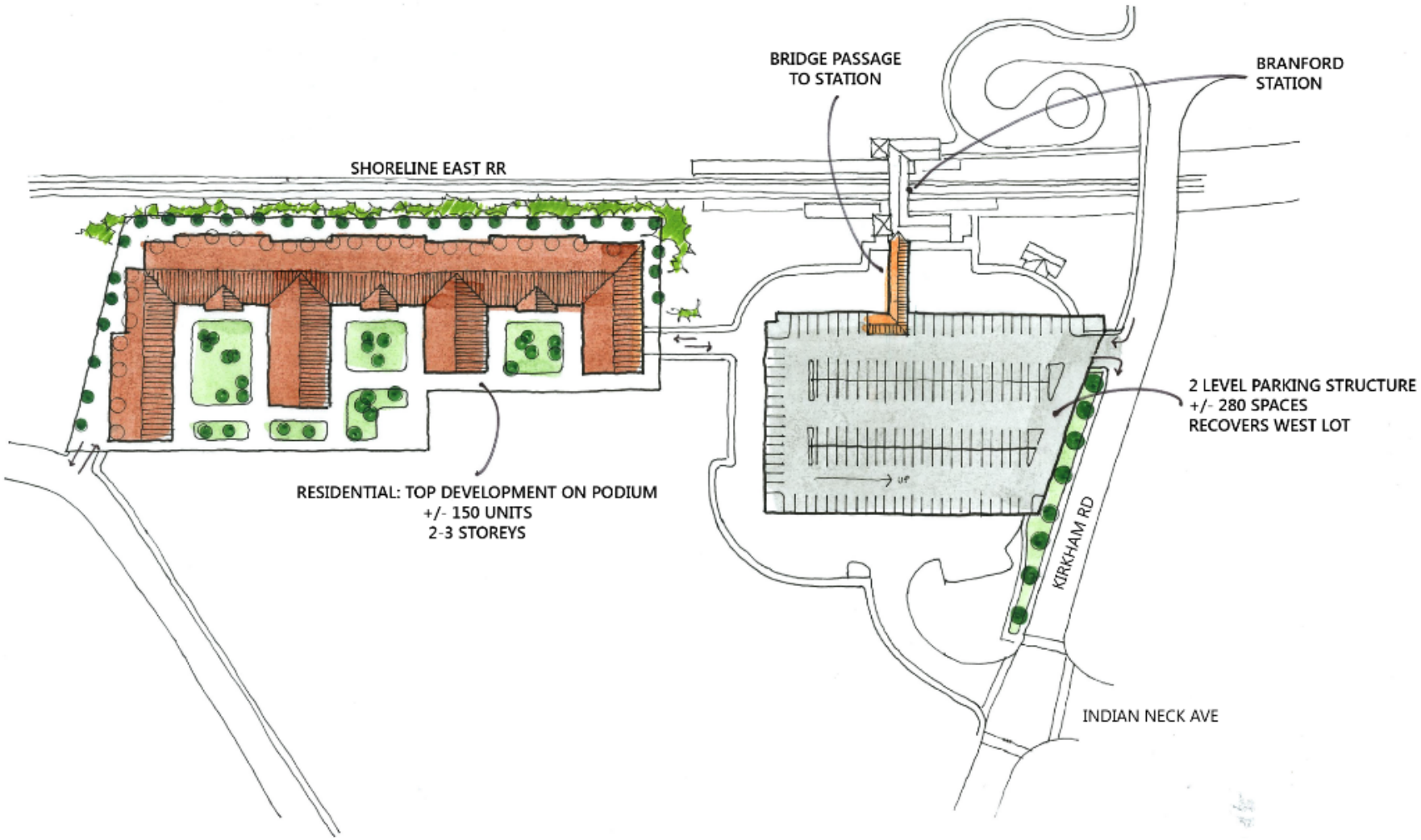
Since there are many nuances to development in this location, it is recommended that this area, if developed, be done under a PDD, which would allow for the Town and a developer to negotiate standards for the development that might not fit existing zoning categories.

If a development were to occur on this site, one scenario could feature a multi-family residential building stitched into the western portion of the lot. The development could be built with 2-4 stories of residential over a ground-floor platform of parking. Vehicular access could be provided through the ConnDOT train station parking lot and from Harbor Street/West End Avenue.

A 2-3 level parking structure on the eastern parking area would replace the spaces lost on the western lot. Parking in this area is more desirable, given its proximity to the train platform. An added benefit could be the potential for an access ramp directly onto the second level of the garage from Kirkham Road.

Avalon, Bronxville, NY

Figure 17: Branford Train Station Development Concept



Streetscape and Open Space

Many residents noted the need for improved pedestrian and bicycle connections among the TOD Area, the Town Center and the train station. This section provides recommendations to enhance connections among these destinations such as improved sidewalks and crosswalks, and traffic calming solutions that will improve walkability and pedestrian safety. Figure 18 provides a summary of recommended streetscape and roadway improvements. These measures will help to provide a more cohesive neighborhood by creating an environment that accommodates the automobile but also improves access for pedestrians, bicyclists and users of all abilities and ages.

Roadway Improvements

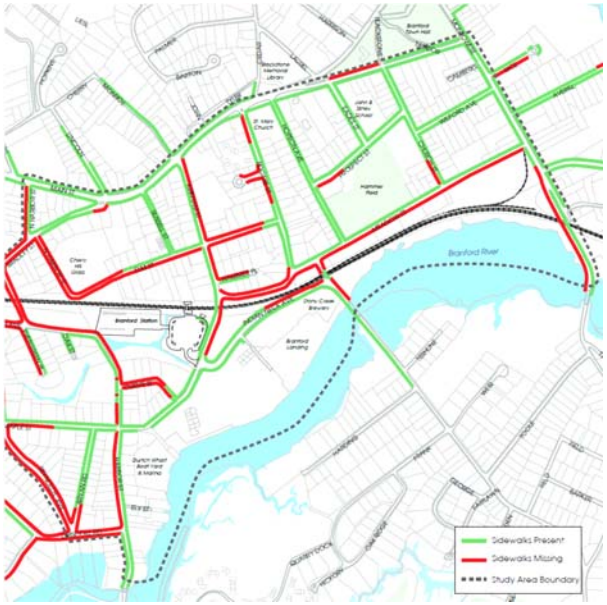
The roadway improvements identified in Figure 18 incorporate resiliency measures at Meadow Street, Maple Street and Montowese Street to reduce the flood risk to key evacuation routes during a storm event. These improvements are discussed further in the Coastal Resiliency portion of this Section. Figure 18 also reflects the Pine Orchard Road extension from Montowese Street to Church Street that will be built into the Atlantic Wharf development.

Streetscape Improvements

Streetscape refers to the elements in or near the street right-of-way, including buildings, building setbacks, lawns, sidewalks, street furniture, trees, signs, streetlights and public art. These elements can help to make the environment feel friendlier to all users, and can benefit local businesses by attracting a diversity of users.

Sidewalks

Recommended improvements to the pedestrian network are discussed in Section 3. Two areas frequently cited by residents as needing improvement are Meadow Street at Kirkham Street and at the "Cattle Crossing" at Indian Neck Avenue. As seen in Figure 8 (page 45), many streets have at least a sidewalk on one side, but there are a few locations where there are gaps in the sidewalk network.



Gaps in sidewalk network. See Figure 8 for sidewalk inventory and conditions

Indian Neck Avenue & RR underpass

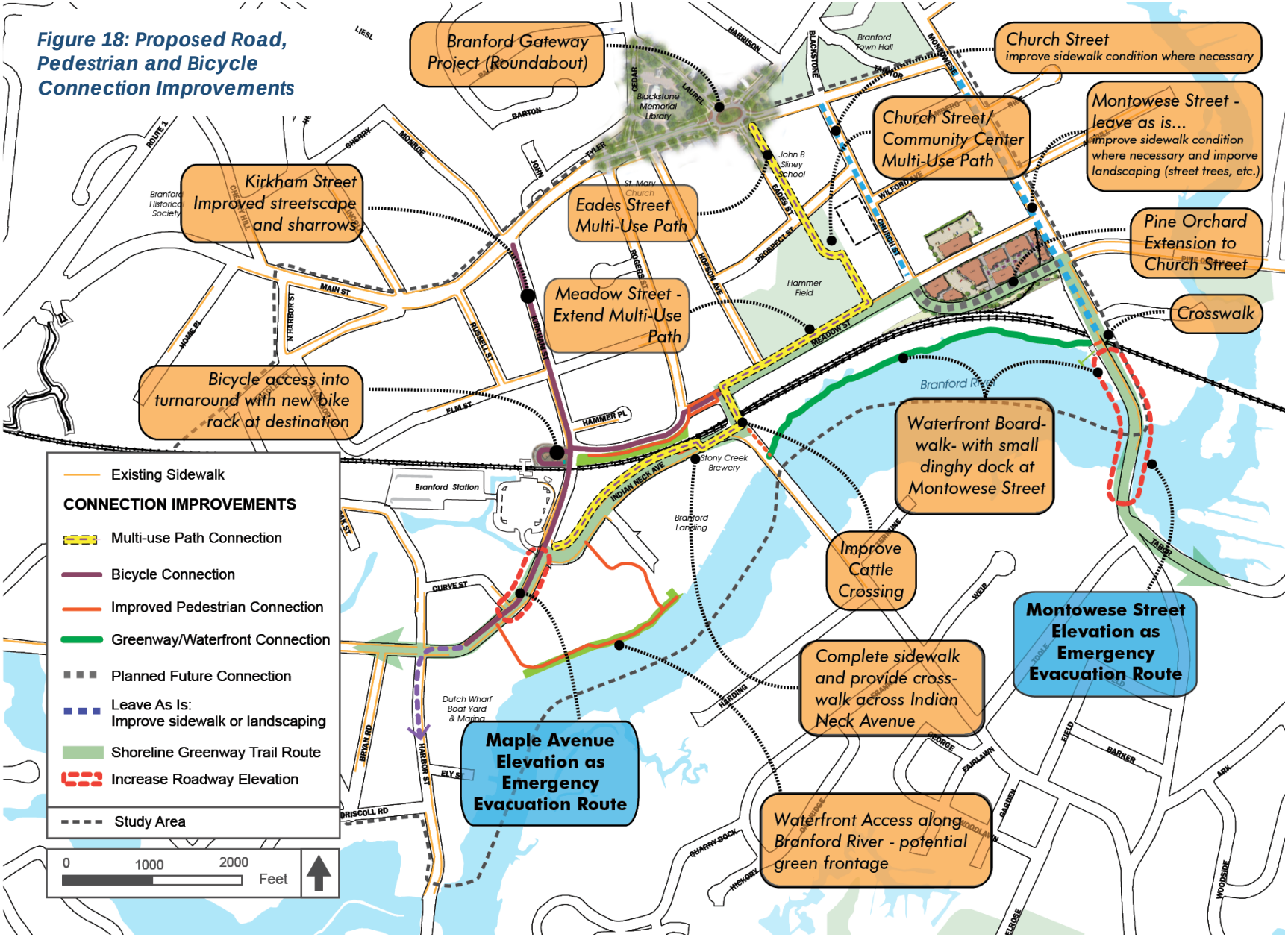


Figure 18: Proposed Road, Pedestrian and Bicycle Connection Improvements
Branford Gateway Project (Roundabout)
Church Street
improve sidewalk condition where necessary
Church Street/ Community Center Multi-Use Path
Montowese Street - leave as is...
improve sidewalk condition where necessary and imporve landscaping (street trees, etc.)
Kirkham Street Improved streetscape and sharrows
Eades Street Multi-Use Path
Pine Orchard Extension to Church Street
Meadow Street - Extend Multi-Use Path
Crosswalk
Bicycle access into turnaround with new bike rack at destination
Waterfront Board-walk- with small dinghy dock at Montowese Street
Improve Cattle Crossing
Montowese Street Elevation as Emergency Evacuation Route
Complete sidewalk and provide cross-walk across Indian Neck Avenue
Maple Avenue Elevation as Emergency Evacuation Route
Waterfront Access along Branford River - potential green frontage
Existing Sidewalk
CONNECTION IMPROVEMENTS
Multi-use Path Connection
Bicycle Connection
Improved Pedestrian Connection
Greenway/Waterfront Connection
Planned Future Connection
Leave As Is:
Improve sidewalk or landscaping
Shoreline Greenway Trail Route
Increase Roadway Elevation
Study Area
0
1000
2000
Feet
Branford Station
Stony Creek Brewery
Branford Landing
Dutch Wharf Boat Yard & Marina
Blackstone Memorial Library
Branford Town Hall
John B Sliney School
St. Mary Church
Hammer Field
Branford River
MAIN ST
HAMMER PL
INDIAN NECK AVE
CURVE ST
HARBOR ST
BRYAN RD
DRISCOLL RD
MEADOW ST
CHURCH ST
WILFORD AVE
PROSPECT ST
EADES ST
HOPSON AVE
RUSSELL ST
ELM ST
HARRISON
BARTON
MONROE
CHERRY
LAUREL
CEDAR
BLACKSTONE
MONTOWESE
TABOR
WEIR
HARDING
GEORGE
FAIRLAWN
BARKER
ELDER
ARK
WOODSIDE
QUARRY DOCK
HICKORY
ELROSE

Some sidewalks are either not well-maintained or are actively deteriorating. The Town should work with property owners to improve sidewalk conditions, and all new development within the study area should require high-quality sidewalks. Crosswalk pavement markings are also in various states of repair. While some roads have newly striped crosswalks, others are completely faded. Restriping these areas will give better guidance to drivers, pedestrians and bicyclists.

Crosswalk in TOD Area

Traffic Calming

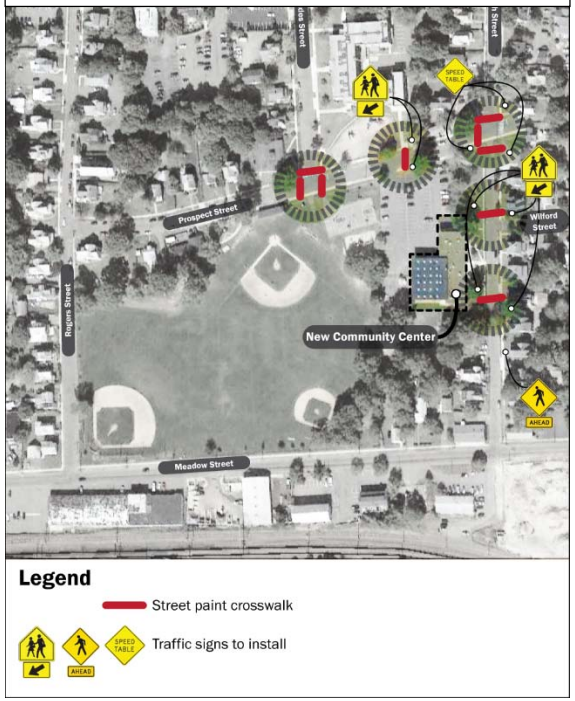
As discussed earlier in the Plan, a frequent concern of residents pertained to traffic speeds and pedestrian safety. The main problems noted were cars traveling at high speeds along key corridors (i.e. Meadow Street, Kirkham Road and Indian Neck Ave) and destinations (i.e. Hammer Field/Community Center, Stony Creek Brewery). "Traffic calming" refers to physical design measures that improve pedestrian safety and connectivity while maintaining satisfactory traffic flow and circulation. This may include the installation of safety solutions such as crosswalks, speed humps, signage and radar speed signs. The Town is already planning on implementing a number of complete street improvements around the new Community Center at Hammer Field (see Figure 19).

Streetscape Amenities

The streetscape could be improved with lighting, benches, trash cans and street furniture. These fixtures contribute to a sense of community by creating an inviting atmosphere that encourages public use and relaxation. Walkability should be a primary consideration for all improvements. A well-designed streetscape can help mitigate noise from cars, protect pedestrians, reduce glare and soften the suburban environment.

Presently, there is intermittent "cobra head" lighting (arms mounted on wood utility poles) on most of the streets. However, pedestrian-scaled lighting fixtures should be considered in areas with higher pedestrian volumes, such as along Montowese Street, Eades Street and Kirkham Street. The fixtures can also be used near institutional uses such as the community center, the train station, and the John B.

Figure 19: Proposed Traffic Calming Measures near Community Center



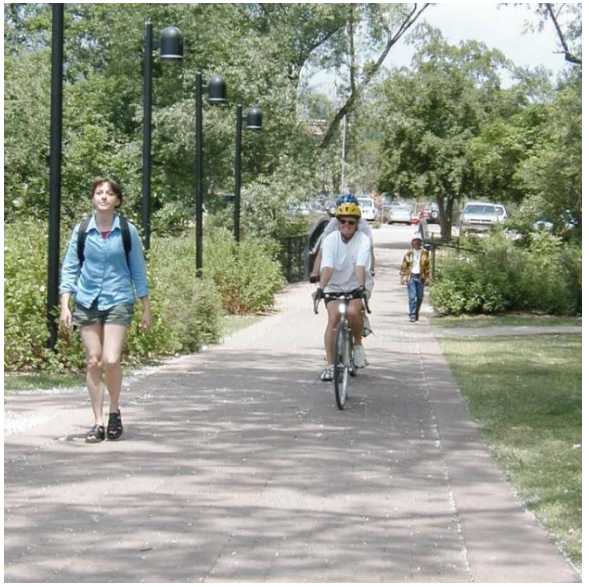
Source: BFJ Planning, Milone & MacBroom

Sliney School. The lighting fixtures would continue in style from those used in the Town Center.

Streetscape Improvements in Priority Areas

A network of pedestrian routes should be established that provides safe and attractive links among the major destination points in the area. Figure 20 shows the major pedestrian routes among the train station, Town Center and the waterfront. These streets can be highlighted as a "pedestrian loop" in the TOD Area that ties together the important destinations into the Shoreline Greenway Trail. A well-designed streetscape program should be implemented along these identified key streets in the network. This section provides examples for how key corridors can become safer and more comfortable for all users.

Proposed traffic calming improvements by Town near Community Center (speed table and painted crosswalks)



Multi-use path, Boulder, CO

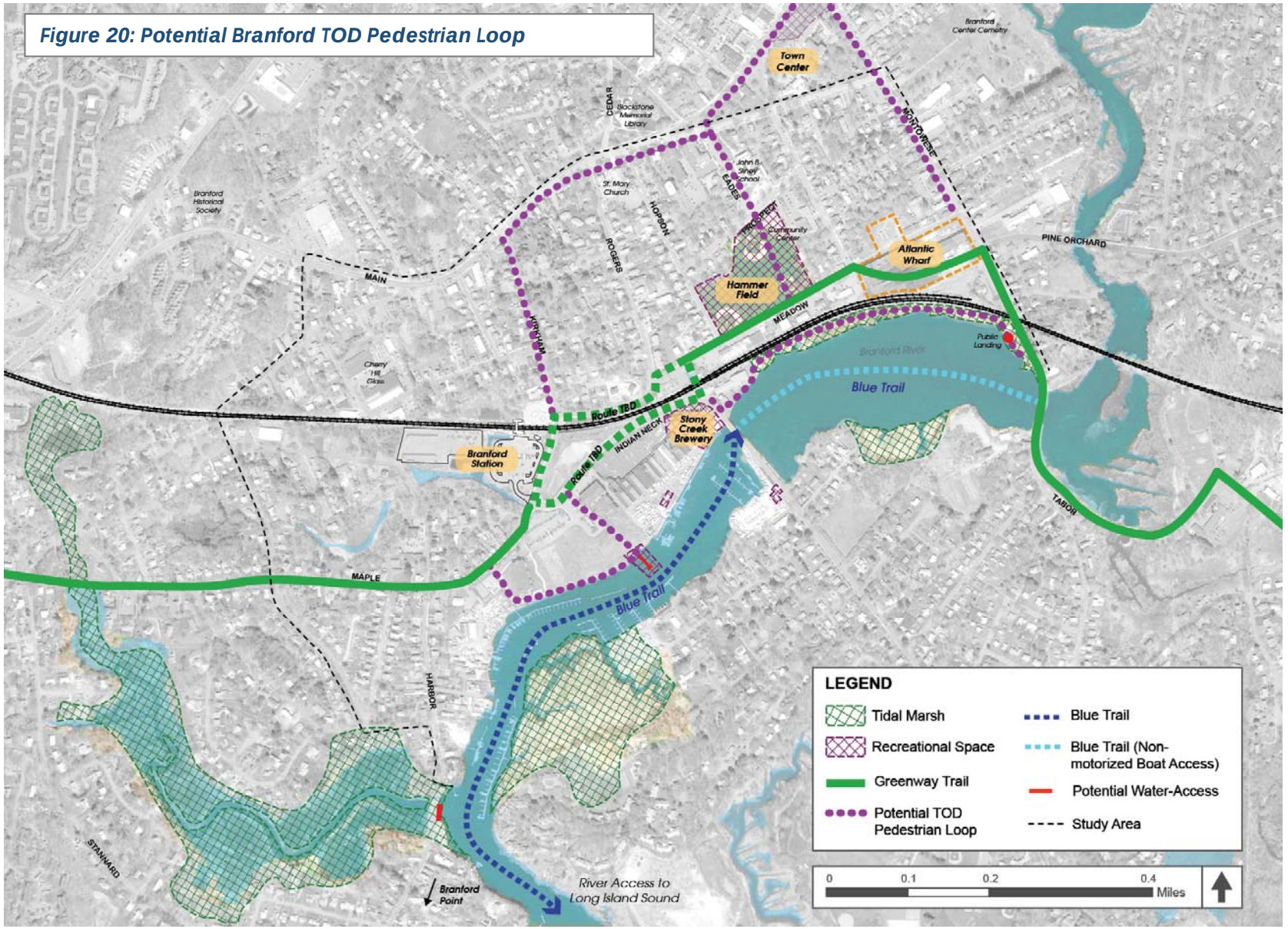
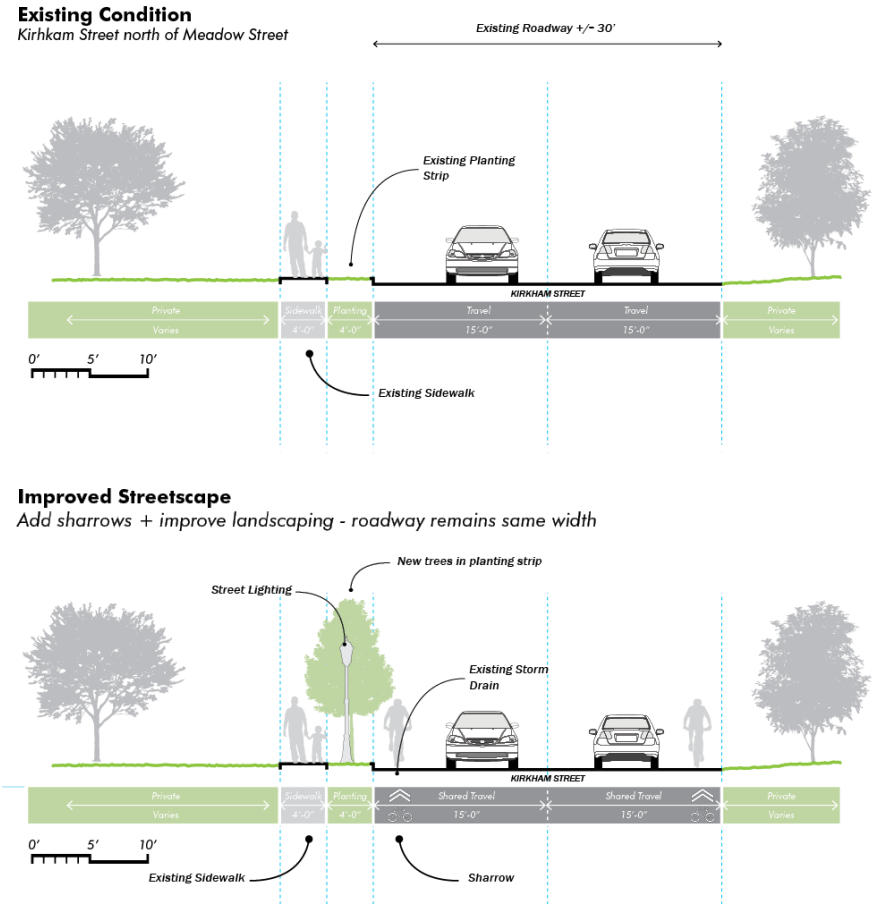


Figure 20: Potential Branford TOD Pedestrian Loop

Kirkham Street

Kirkham Road is a key north-south connector lijnking Main Street, the train station and waterfront points to the south. Currently, there is a continuous sidewalk on the east side of the street. While the existing roadway is too narrow for dedicated bicycle lanes, “sharrows” can be painted on the road to notify drivers to “share the road” with bicyclists. Other improvements on Kirkham Street include continuous pedestrian-scaled lighting, landscaping and wayfinding signage.

Sharrow, Exeter, NH



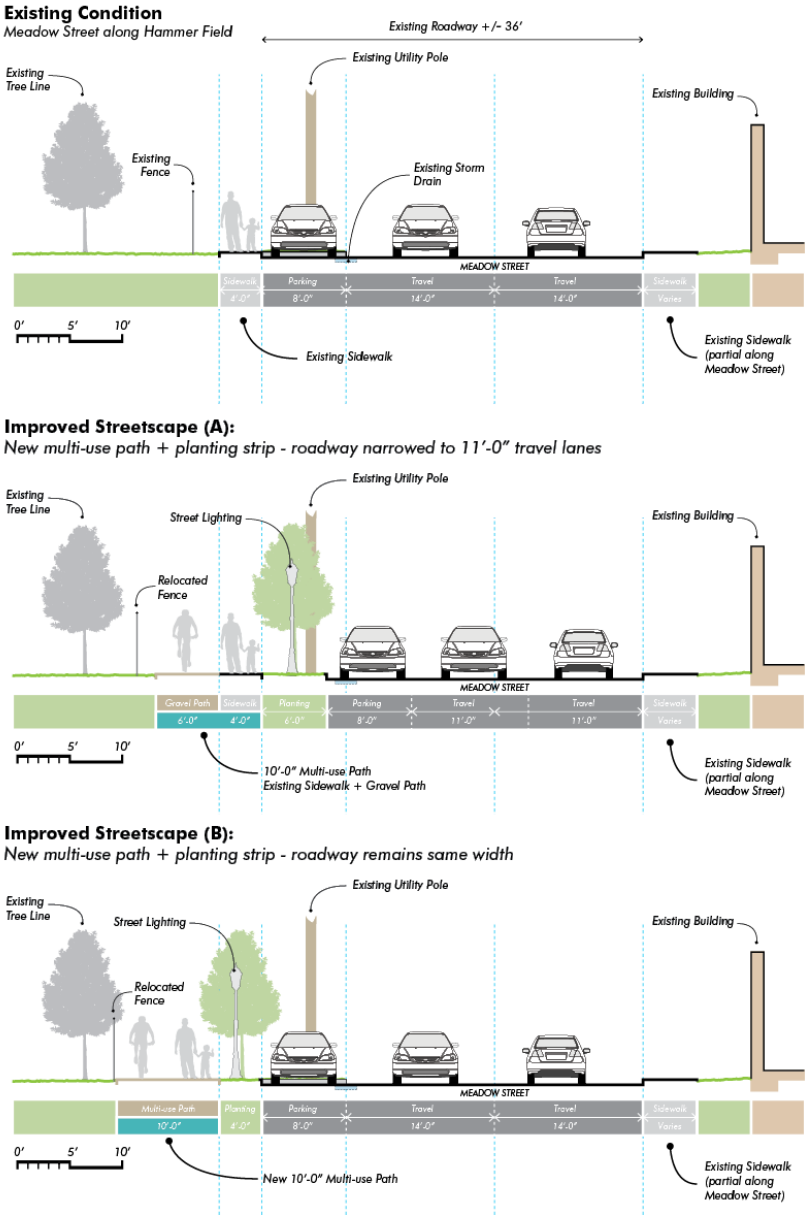
Kirkham Street: Existing Conditions (top), improved streetscape + sharrow (bottom)

Meadow Street between Montowese Street and Rogers Street (at Hammer Field)

The Town may consider improving the pedestrian and bicycle infrastructure along the north side of Meadow Street. A "multi-use path" that accommodates pedestrians and bicyclists could be built along Hammer Field. The figures at right show two options, Option 1 creates a path within the park and does not disturb the existing Meadow Street right-of-way. Option 2 fills in the existing parking area with a landscaped buffer between the roadway and the path. There is still enough room for two 11-12 foot travel lanes and parking on the north side. This option narrows the travel lanes, which can help to reduce speeding, a concern expressed by residents.

Eades Street and Hammer Field

The proposed path along Meadow Street would connect to a larger pedestrian/bike network, including the planned multi-use path adjacent to the new Community Center between Meadow Street and Prospect Street. The multi-use path could also continue north along Eades Street to Main Street. This may require working with the School District to secure access for a path on the John B. Sliney School's property. This path would then connect to Main Street at the Branford Main Street Gateway project proposed by ConnDOT (see Section 3). If these elements are completed, there would be a continuous bicycle and pedestrian link among the Blackstone Memorial Library/Main Street, the John Sliney School, and Hammer Field including the new Community Center.

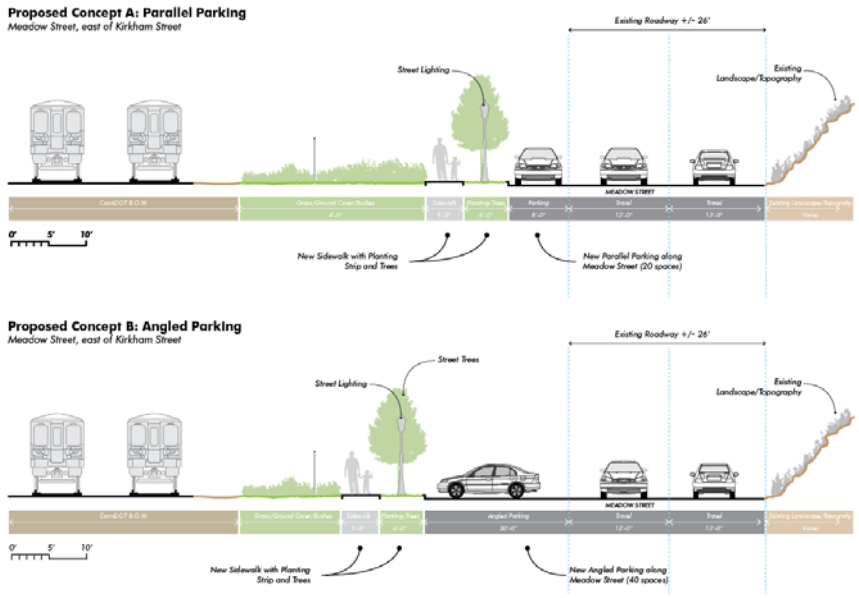


Meadow Street: Existing Conditions, Option 1, and Option 2 (top to bottom)

Meadow Street between Kirkham Street and Rogers Street

This segment of Meadow Street does not have a sidewalk on either side. However, it is an important link in the pedestrian network, as it connects the train station to areas to the east via Meadow Street and Indian Neck Avenue. Pedestrians walking from Kirkham are forced to walk across the 51-space parking area owned and maintained by ConnDOT. There are no sidewalks, landscaping or other barriers that buffer pedestrians from the roadway and help them feel more comfortable. It is likely infeasible to put a sidewalk on the north side of Meadow Street due to existing steep slope constraints.

Figure 21 shows how the parking lot area can be redesigned to incorporate a sidewalk and landscaping, filling an important gap in the sidewalk network. The landscaping would also help to soften the visual and noise impacts of the railroad and passing trains. Parallel parking on the street (20 spaces) would act as a traffic calming measure by narrowing the perceived width of the street. The options to the right show alternatives with parallel parking, which would maximize green and pedestrian space, and angled parking, which would reduce the loss of parking.



Concept for Meadow Street train station parking area. Parallel parking (top) and angled parking (bottom) along Meadow Street

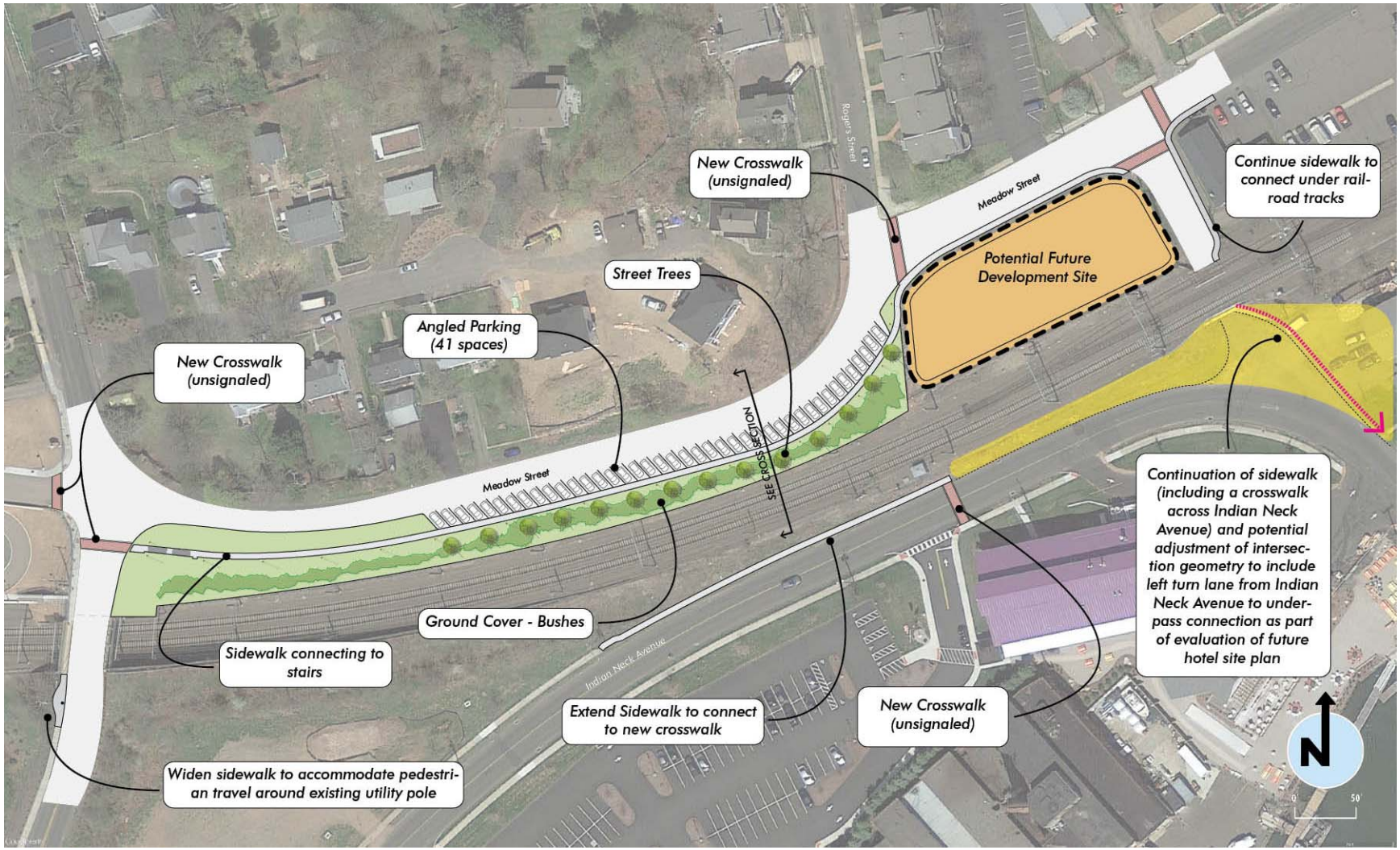


Figure 21: Meadow Lane at Kirkham Street

Waterfront

Many residents cited the need for improved access to the waterfront, which could become a more significant destination/amenity in the Town. The river is a popular destination, especially on weekends when people tend to visit the brewery or Nellie Greens, go kayaking, and dock in the local marinas. While the area is a local attraction, residents expressed the need to expand access and make the area a major attraction for the Town.

Residents suggested that the walkway be designed with high-quality materials, and some residents also suggested the walkway have intermittent parks for people of all ages to congregate. It was also suggested that the waterfront area include educational opportunities such as signage and/or locations for aquaculture or marine research. Positive examples of other waterfront walkways are shown to the right.

The Town is pursuing an initiative to create a waterfront walkway between Montowese Street and Indian Neck Avenue. The waterfront areas at the Anchor Reef and Branford Landing Marina present opportunities to continue the path if redevelopment were to occur in those areas. Redevelopment at the Anchor Reef site is more likely in the short-term than the Branford Landing site.

Positive examples of waterfront walkways

Shuttle Route

Another way to link train station, waterfront and Town Center areas is with a shuttle bus or rubber-wheeled trolley which could potentially operate on weekends in the summer. A potential loop, shown in Figure 22, also connects to Branford Point. The Town should seek funding sources and private partners to establish this service. The Town has also expressed interest in a workforce shuttle service or equivalently functional private service in conjunction with major employers in Town to as possible way to better utilize available train service. For example, some companies like Chariot offer private shuttles along fixed routes, a service that falls somewhere between public transportation and Uber/Lyft. Additional study may be needed to determine whether these new shuttle services are justified and economically viable.

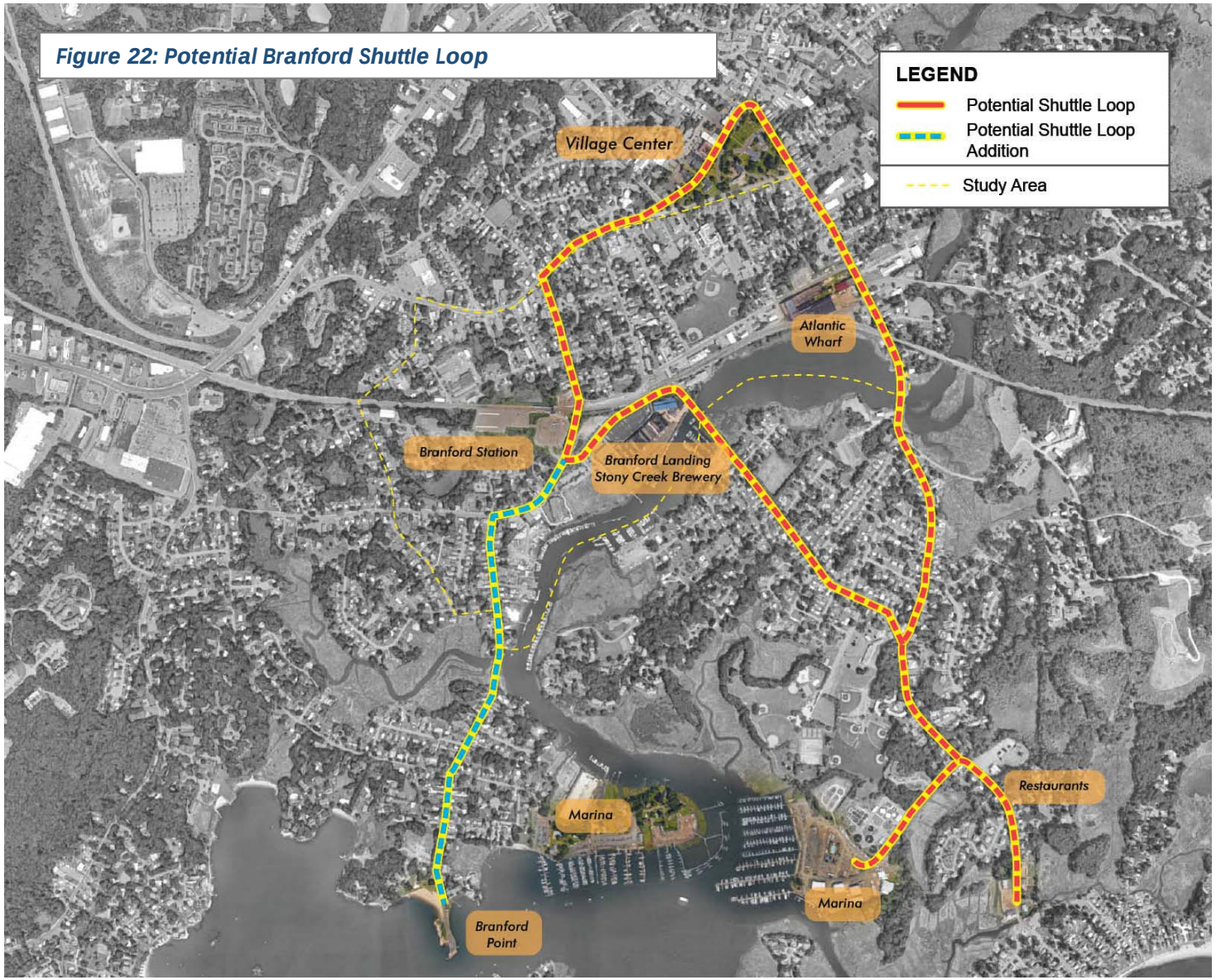


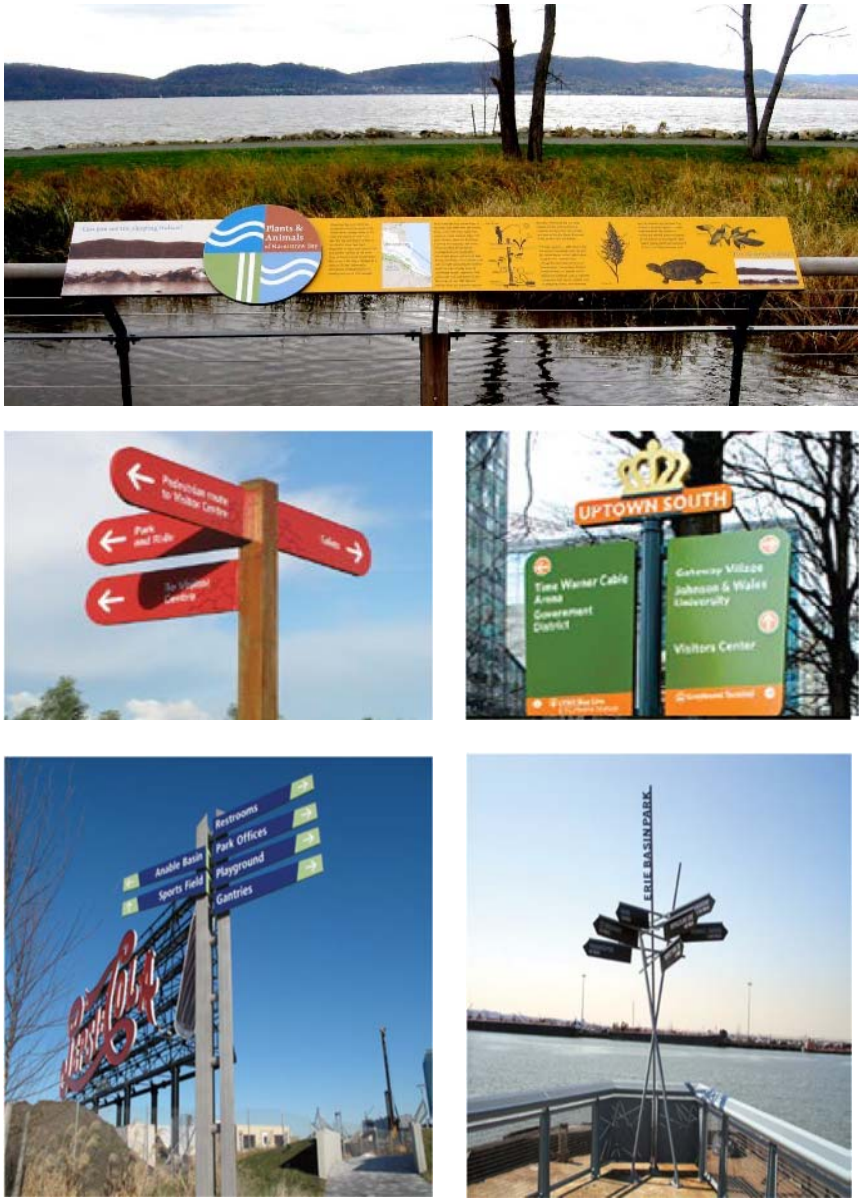
Figure 22: Potential Branford Shuttle Loop
LEGEND
Potential Shuttle Loop
Potential Shuttle Loop Addition
Study Area
Village Center
Atlantic Wharf
Branford Station
Branford Landing
Stony Creek Brewery
Restaurants
Marina
Marina
Branford Point

Wayfinding Recommendations

This component of the plan allows for some original thinking on how a well-considered and fresh wayfinding and signage program could contribute to easier navigation for residents and visitors and create a distinct identity for Branford. Among many benefits, such a program will also support local businesses, attract new shoppers and tourists and encourage growth.

At the June 22, 2017, workshop, attendees voiced their concerns and the need for a plan that would address a number of issues, from the fact that there is no sense of arrival when you get off the train, to the lack of directions to parking locations and Downtown. There was an expressed need to improve signage at the gateways, or entry points to the TOD area, specifically from Exit 54/Ceder Street. Wayfinding will also help to identify and connect lesser-known areas such as the 4th Ward and link the two parts of Main Street. Branford's history would benefit from further awareness and interpretation; appropriate signage will aid in this.

Navigating the TOD area can be confusing, especially for first-time visitors, and one can easily get lost whether driving, cycling or walking. This plan's recommendations, including future development possibilities along the river, make it imperative that the wayfinding issues be addressed.



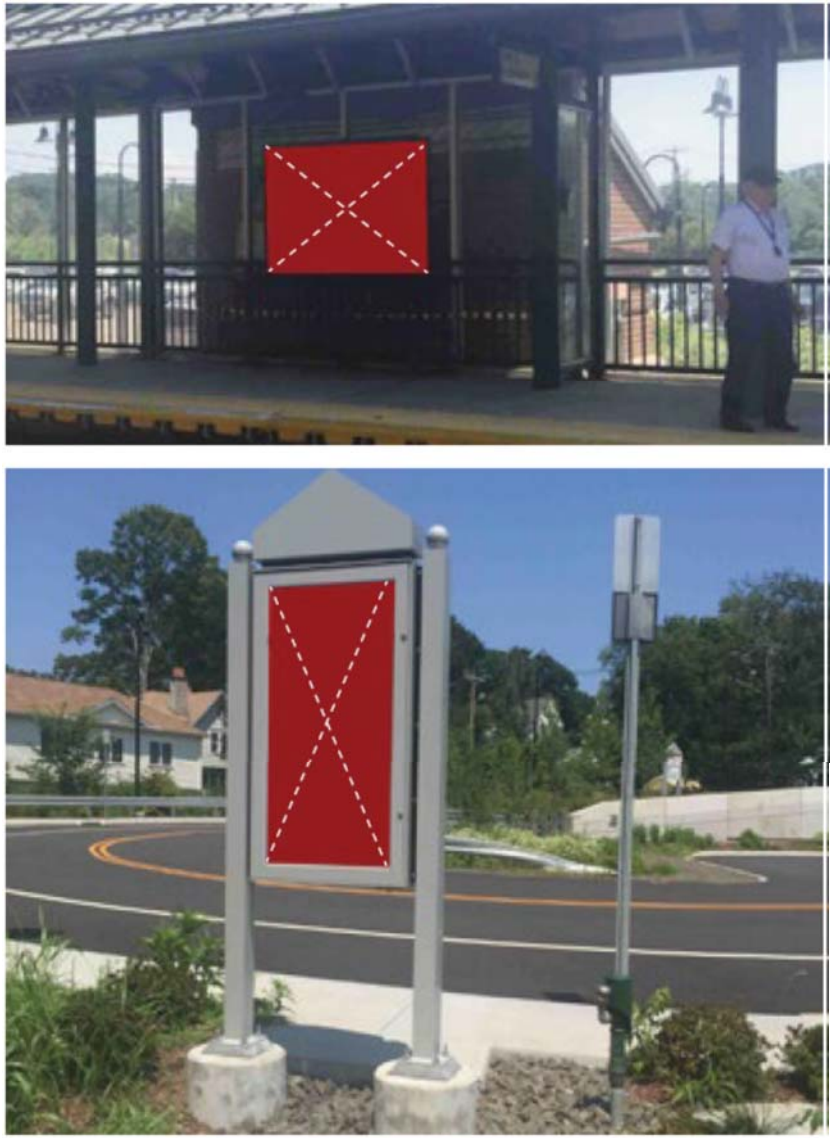
Wayfinding signage examples: Croton-on-Hudson, NY; Austell Park, UK; Charlotte, NC; Gantry Plaza State Park, NY; Erie Basin Park, NY (top to bottom)

The work process included a review of available studies and proposed plans, a site visit to study the current wayfinding experience and photography of existing signage and possible new locations, as well as Branford's architecture and overall ambiance. There is a notable lack of directional signage (especially to parking) and little attempt to highlight special places in town. The wayfinding approach would be not to litter the landscape with signs, to respect Branford's architecture, to design a program that is distinctive and easy to maintain and to create a sense of place while doing so. Any program should be incorporated into town-wide efforts, which could be addressed during the POCD process.

After some internal design exploration, the following pages show one concept that would work well in addressing the issues that have been raised. The concept shown should in no way be considered final. A more comprehensive signage design program would include the exploration of a number of design approaches, a refined design, documentation for bidding, overseeing installation and an estimate of costs.

Arrival

In keeping with the aim of NOT inventing additional sign furniture, at the train station there are opportunities to utilize a number of existing locations. Assuming that permission could be obtained, these could house "Welcome to Branford" posters, illustrating the various attractions and how to find them, perhaps on a specially designed map of the Town.



Arrival: Possible "Welcome to Branford" sign locations at the station

Gateways & Wayfinding

The design approach is a simple one – basic furniture, clear lettering style and appropriate color. "Faux Colonial," a style that is overplayed all over New England, lacks distinction. The family of signs suggested is inspired by basic signpost directionals that have been around for 200 years or more and would work well for vehicles, cyclists and pedestrians alike. This approach also allows the architectural landscape of Branford to express itself without signs competing with or referencing its style.

The post color is a reference to the color of the Harrison House, and the soft white/cream is adopted to be distinct from the pervasive white of most of Branford's buildings.

Sign Locations

The map shown in Figure 24 indicates where signage should be considered. This map is by no means comprehensive and should be done within a wider wayfinding campaign for the Town. Eventually, in consultation with various stakeholders, final messages and locations will be determined. Although the design approach and installation shown is simple, a certain amount of field work, checking sight lines and surface areas will need to be undertaken.

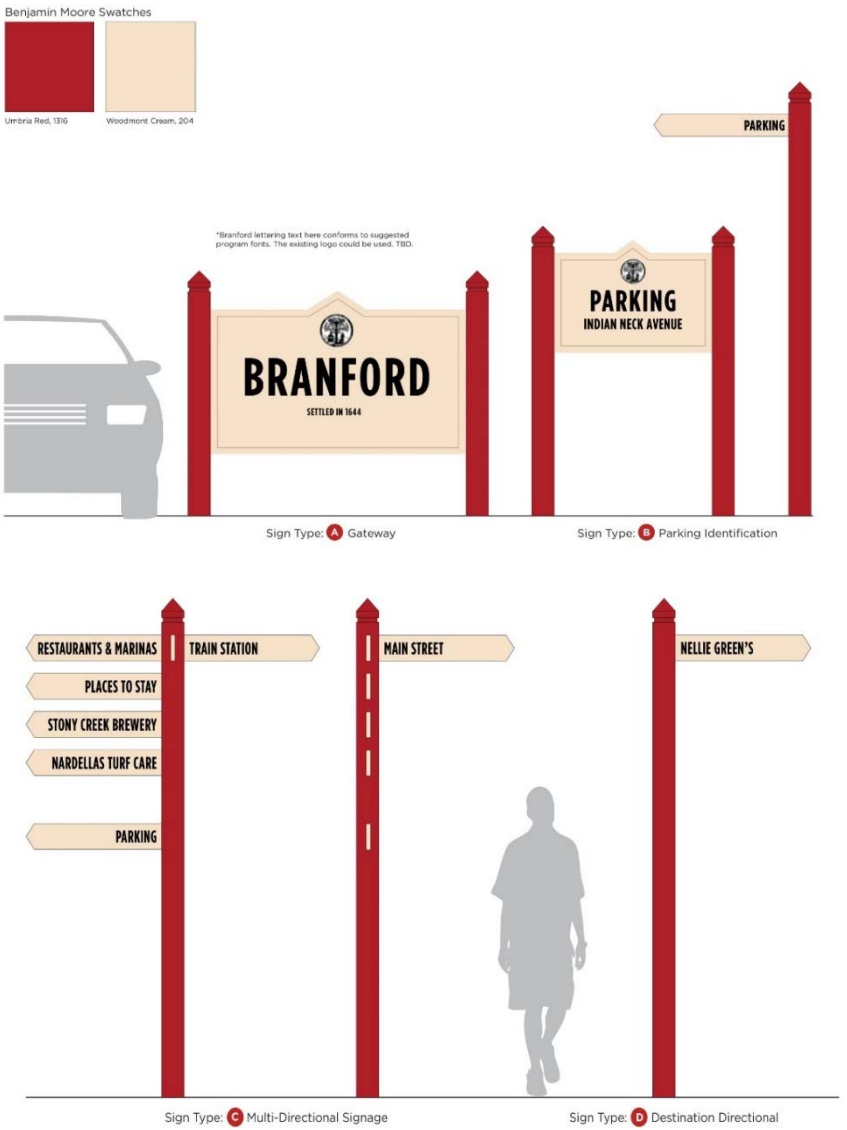
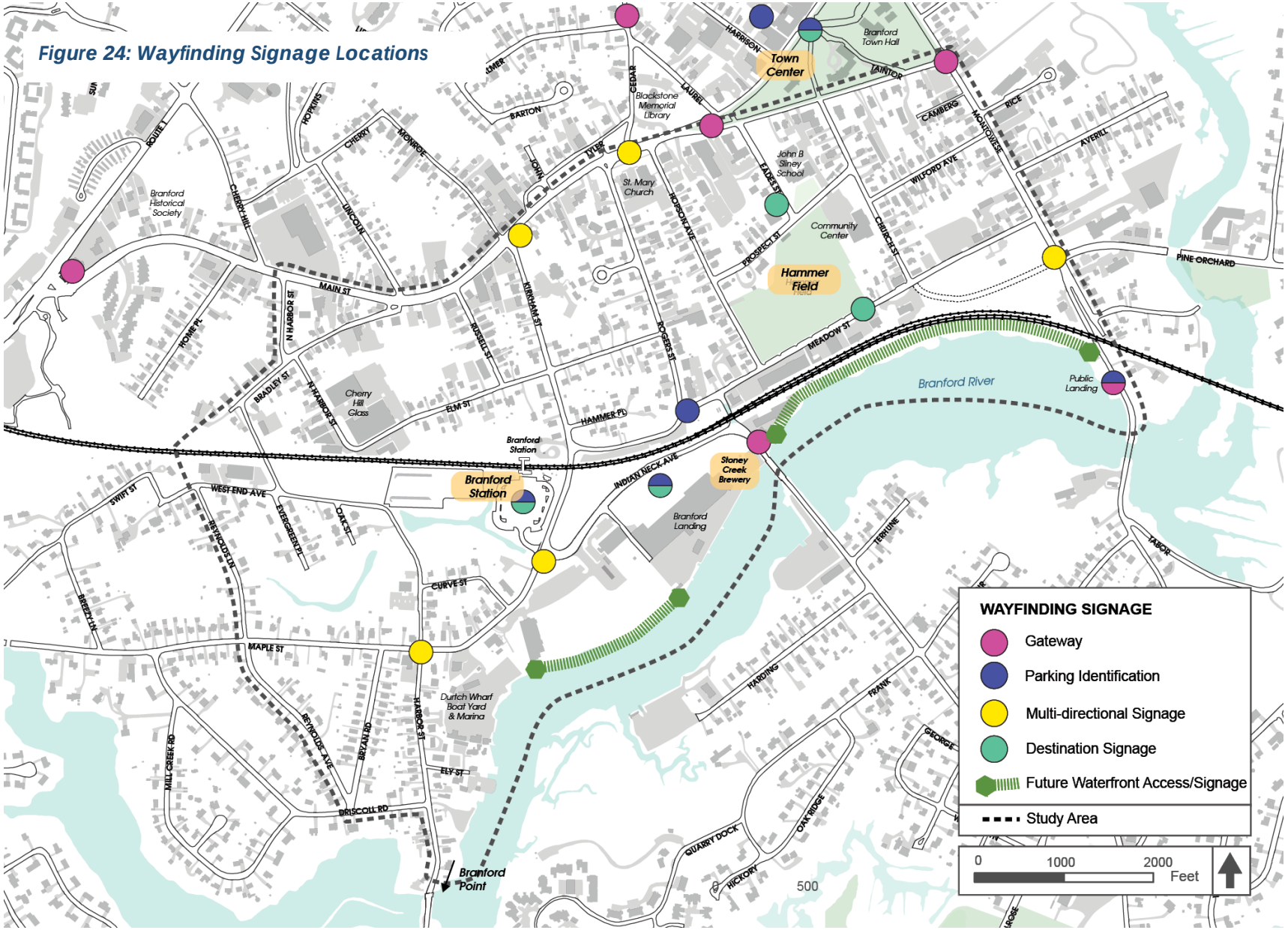


Figure 23: Wayfinding Signage Concept (Gateway and Directionals)

Figure 24: Wayfinding Signage Locations

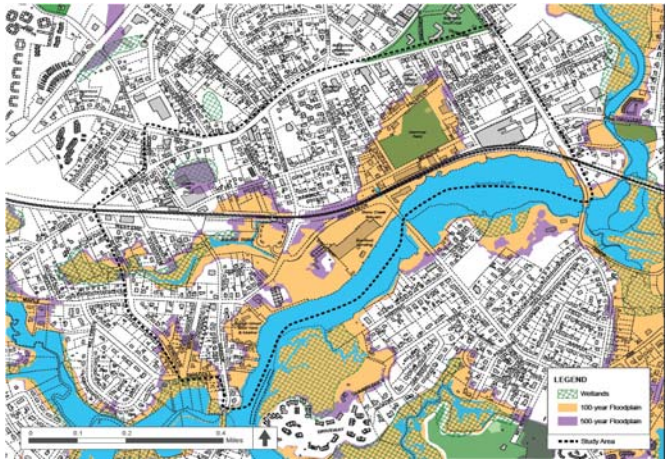


Coastal Resiliency and Flood Preparedness

This Section is not intended to replace the Town of Branford Resiliency Plan (2016), rather to supplement its recommendations with focus on the TOD study area. Previous studies conducted for the Town of Branford identified several key goals in response to coastal storm and flooding vulnerability:

- Enhanced awareness of coastal risks;
- Assessment of coastal vulnerabilities, risks, and opportunities.
- Identification of options or choices for addressing risks; and
- Development and implementation of an action plan to pursue selected options.

This Section highlights previous strategies and potential new measures to reduce the impact of coastal flooding in the proposed Branford TOD vicinity.



Areas at risk of flooding

Recommendations

National Oceanic and Atmospheric Administration (NOAA) cites multiple categories of "Climate Change Adaptation Measures":

- Impact Identification and Assessment;
- Awareness and Assistance;
- Growth and Development Management;
- Loss Reduction;
- Shoreline Management; and
- Coastal Ecosystem Management

Of the above, the most applicable options for the Town of Branford TOD vicinity may be infrastructure improvements, retrofits and hardening; home and business protection (elevation modifications); and coastal infrastructure realignment.

As stated in the Town Resiliency Plan, Coastal adaptation strategies include both planning (non-structural) and structural-related modifications. Non-structural measures include preparedness; emergency response; retreat; and policy,

regulatory, and financial measures to reduce risk. Structural measures include dikes, seawalls, groins, jetties, temporary flood barriers, and the like. The measures that are implemented must provide adequate protection yet be flexible enough to allow them to be adapted to changing conditions. Remedies may require combinations of structural and non-structural solutions. Structural measures may be site-specific, neighborhood-scale, or large-scale that protect multiple square miles of infrastructure. Site-specific measures may protect a specific building infrastructure asset or other amenity. Neighborhood-scale measures apply to a specific group of buildings or assets that are adjacent to each other. Large-scale structures might include large dike and levee systems or tide gates that can prevent tidal surge from moving upstream.

Potential flood gate. Source: Town of Branford, Milone and MacBroom

Water Resource Management and Protection

The Meadow Street corridor and surrounding properties are a low-lying area that include residential, commercial, and industrial buildings, open space and critical facilities. The neighborhood is separated from the Branford River by elevated train tracks, which function as a levee (not certified as such), but a small underpass at Indian Neck Avenue allows floodwaters to enter roads and properties north of the tracks. According to the Town of Branford Coastal Resiliency Plan (2016), the neighborhood suffers from poor drainage, where floodwaters enter the area from the Branford River, rain water has no means to infiltrate or discharge, and water surcharges through stormwater drainage infrastructure. The Resiliency Plan flood prevention strategy focuses on the prevention of floodwaters from entering the neighborhood through the railroad underpass, upgrading storm drainage infrastructure to prevent surcharging or drainage failures, and installing stormwater pumping stations to remove ponded water during storm surge or future extreme high-tide events. These are strategies that should remain in place, though additional measures may be considered.

The existing and aged drainage network at Hammer Field and Meadow Street is not well documented, and gaps and compromises in stormwater conveyance may exist.

Infrastructure Preparedness

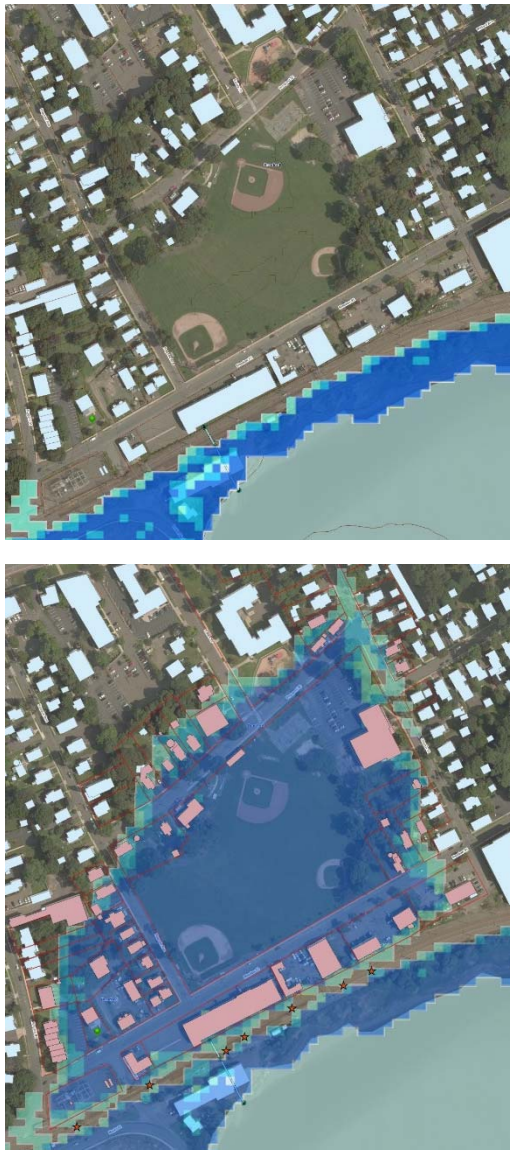
The Coastal Resiliency Plan presents examples for building resilience through infrastructure projects. One remedy comprises a set of structural options to prevent floodwaters from flowing under the Meadow Street railroad underpass, known as the "cattle crossing." The opening allows high water to enter Meadow Street, Hammer Field, and the surrounding neighborhood. Future daily high tides could become significantly problematic and storm events are already an issue. The Coastal Resilience Plan considered a number of options for the underpass including:

- Abandoning and filling the opening;
- Installing manually-deployed floodgates;
- Installing automatically-deployed floodgates; and
- Implementing additional protective measures along the railroad itself.

The floodgate concept has the potential to significantly reduce stormwater flooding in the area around Hammer Field. While any of the first three options would prevent floodwater from flowing through the underpass during future high tide events and many storm events, additional protective measures along the railroad right-of-way would be necessary to protect the neighborhood to the north from larger storms.

During high tide events, upland stormwater floods portions of the TOD study area. To alleviate flooding, and due to limitations for creating detention and retention, pumping of stormwater beneath the railroad right-of way to the Branford River is needed. A consolidated system that addresses flooding on Meadow Street, Hammer Field and the underpass (the "cattle crossing"), is recommended. The location of the pumping system is to be determined, though an existing utility substation on Meadow Street, scheduled for removal, may provide an optimal location. A pumping system should include a redundant power source, to maintain operation and flood prevention in periods of power outage.

The above recommendation addresses stormwater *quantity*. As these quantity measures are planned, designed and implemented, protecting and enhancing water *quality* will also be needed. As stormwater, particularly flood waters, are



Floodgate concept at "Cattle Crossing," 2050s Category 2 Hurricane, Gate Closed (top), no gate (bottom)

conveyed, the quality of the discharged volumes and impacts on the Branford River and wetlands will need to be addressed.

Marina Operations

Transit-oriented development requires a successful business component. In the Branford TOD vicinity, businesses are highly water-dependent, including commercial and recreational marina operations. As such, the capacity and quality of the Branford River is vital to their success. Normal tidal cycles and upland erosion contribute to sediment loading and potential compromise to navigable waterways by reducing available depth, particularly at low tide. Storm events exacerbate these conditions and can result in significant and rapid loss of navigable depths. Local marina operators have expressed the need for dredging of the Branford River to sustain their operations and cite deposition regulations as a major hurdle in today's regulatory environment. In all instances, regulatory and physical measures need to be addressed to sustain water-dependent uses on the Branford River.

Montowese Street

Key Measures

The following measures summarize recommendations for advancing resiliency in the Town of Branford TOD. All measures recommended may be implemented in public right-of-way, avoiding the need to acquire private property for these purposes.

- Confirm the location and capacity of the drainage network in the Hammer Field and Meadow Street vicinity prior to implementing further measures.
- The primary recommendation to alleviate stormwater flooding in the Hammer Field and Meadow Street vicinity is the placement of a pump system with adequate capacity to convey projected volumes. Redundant power source should be provided.

- Elevating the railroad tracks would lift the rail line above the 500-year flood elevation and provide greater protection for the Meadow Street vicinity. This, however, is a costly and disruptive measure. The same benefit may be realized by constructing a flood barrier along a select length of the southern edge of the railroad track right-of-way and tying these measures into the existing higher grade.
- Emergency evacuation routes should be identified and hardened to prevent pockets of potentially flood-locked residences and businesses and to provide emergency access to these properties.
- Repave Meadow Street in select areas with a crown that will provide better stormwater drainage in moderate flood conditions.
- The TNC model shows that by the 2020s, daily inundation will threaten some sections of the wastewater pump station. The site is at high risk of flooding during storm events and hardening of the facility should be considered an infrastructure priority.
- Shoreline adaptation of the Branford River to the south of Indian Neck Road (see Figure 25) may reduce tidal flooding of the Branford Railroad Station parking area and surrounds. Implementing these measures in tidal wetlands will, however, require extensive regulatory review and approvals and may not be achievable. It is important to note that FEMA's current flood elevations may not reflect future flood elevations because of anticipated sea level rise.

Montowese Street

Figure 25: Flood Control Measures

❶ Flood control gate for railroad underpass.

Underpass Location

❷ Construct a flood wall or raise berm along the railroad right-of-way (south)

Flood Barrier

❸ Raise Montowese Street to provide dry access to upland.

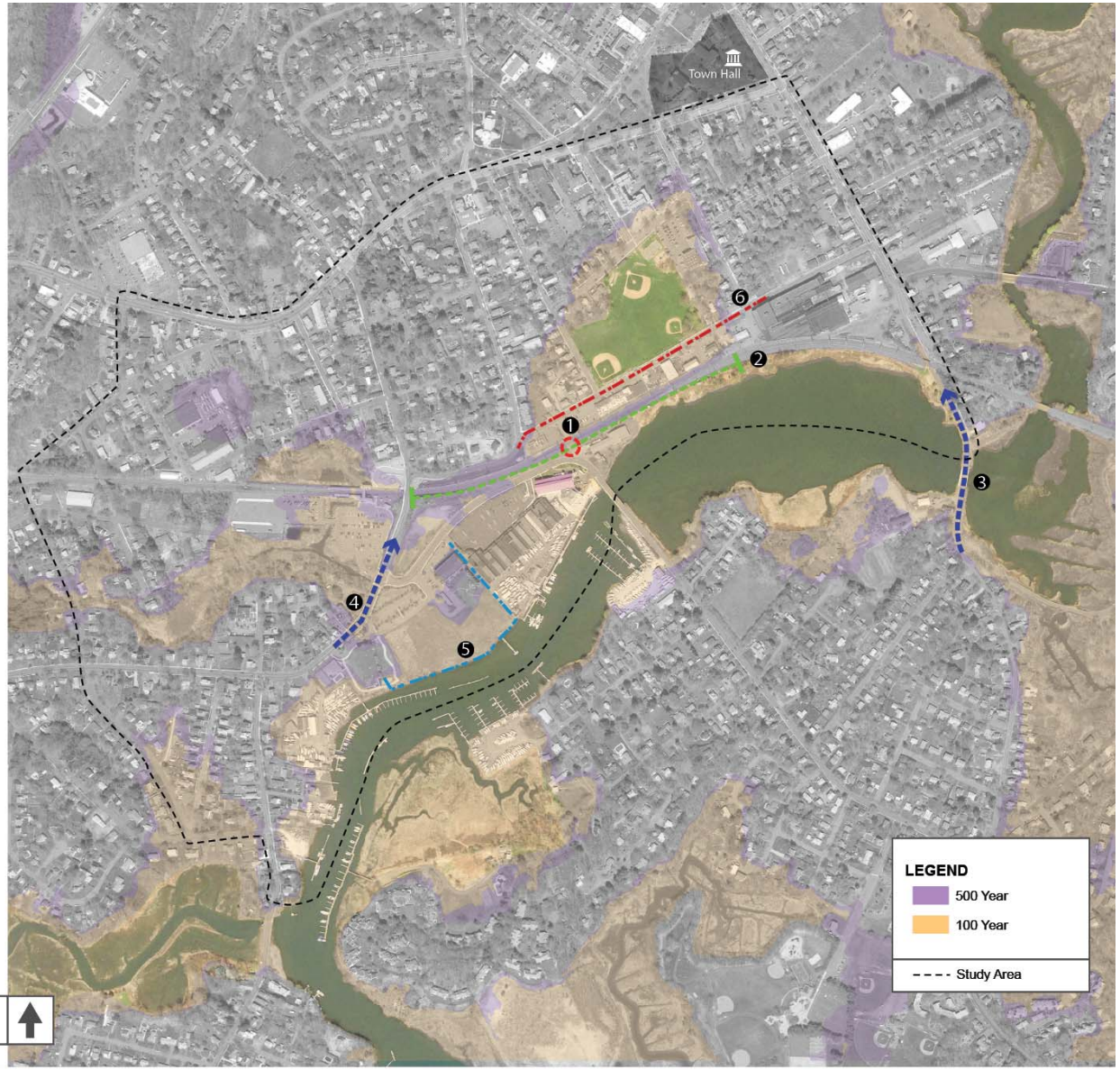
❹ Raise roadway to provide dry access from Harbor Road/ Maple Street to Kirkham Street

❺ Raise shoreline and add tide gate on stream outfall to reduce 100-year flood impact in railroad station vicinity. Connect raised shoreline to Indian Neck Road

Raised shoreline

❻ Streetscape improvements along Meadow Street to include stormwater quality measurement.

Streetscape improvements



Emergency Evacuation

Areas to the east of Indian Neck Avenue are subject to flooding. According to the 2016 Resiliency Plan, Tabor Drive is projected to be flooded before 2030 daily high tides, as is Ark Road by the 2050s. A present-day Category 2 hurricane event would impact both Indian Neck Avenue and South Montowese Street, causing significant isolation concerns for neighboring property owners and tenants.

A segment of Maple Street, just south the railroad overpass at Kirkham Street should be raised to provide egress to the south during 100-year storm events. Elevations should exceed forecasted flood elevations.

In each instance, as per the Town of Branford Resiliency Plan, flood protection should include base flood events and projected 2080s Category 2 hurricanes.

Implementation

The implementation of the recommendations as describe within this report will require many coordinated actions over a period of several years. This measures below are priority measures that the Town can take to implement this plan.

1) **Adoption of TOD Plan**
   A first step is a ratification or adoption of the plan so that it is officially recognized by the Town and can form a basis for grant applications, capital budget allocations and zoning changes.

2) **Incorporation in the Plan of Conservation and Development (POCD)**
   The TOD plan can form a section or chapter of the Town's new plan of Conservation and Development (POCD), which will be developed in 2018. The recognition of the TOD principles within the POCD provides further support for zoning changes within the TOD area.

3) **Zoning Text Adoption**
   Accompanying this TOD plan are zoning text amendments to establish the TOD overlay zone. Once the plan is adopted or ratified, it can form the basis for the Planning and Zoning Commission to consider the zoning changes.

4) **Funding Partners/Capital Budget**
   Many of the recommendations of the TOD plan will need funding to accomplish specific projects. The Town will need to work with funding partners on a range of issues. These include the following possibilities:

   - **Dredging of the Branford River.**
     This falls within the jurisdiction of the U.S. Army Corps of Engineers, which is also a funding source.

- **Raising the level of key evacuation routes for storm floods.**
  Some roads, such as Montowese Avenue, are state roads falling under the jurisdiction of ConnDOT. The state is a potential funding source for these roads.

- **Local Flood Protection**
  Both the federal government (FEMA) and the State Government (Department of Energy & Environmental Protection) are potential partners and funding sources.

- **Roadway and Streetscape Improvements.**
  Grants for these improvements should be sought through the Office of Policy and Management (OPM) as well as ConnDOT. These would need a local match, which could come from the capital budget or from private sources through the incentives of the overlay zone.

APPENDIX

Appendix A: Public Workshop #1 Summary

Appendix B: Public Workshop #2 Summary

Appendix C: Public Survey

Appendix D: Telephone Survey

Appendix A: Public Workshop #1 Summary

This event was held at the Canoe Brook Senior Center on Monday, May 22nd. Approximately 60 participants were in attendance and the meeting was also recorded for Branford Community Television. After an opening presentation, participants were invited to participate in a town hall meeting where the floor was open for the public to voice concerns, recommendations, and feedback about the approach to the TOD Plan. Following the discussion, participants were encouraged to participate in a "Dot Point Exercise." Each participant was given stickers to place next to the topics raised that they agree with or disagree with the most. While this was not a scientific survey, it was helpful to understand the general level of interest in certain ideas/themes.

Workshop #1 (presentation)

Some of the major themes discussed during the meeting are summarized below:

Branford Train Station: Residents expressed that the train station area is relatively underutilized and is not well connected to the rest of the Town including Town Center. There was some concern about future plans by Amtrak to expand the tracks (from two tracks to four) in their effort to improve service along the northeast corridor. It was explained that planning for this long term expansion is in its early phases and there is no money appropriated for the project. The Branford TOD Plan would get any available information but would proceed under the assumption that the likelihood of any significant changes to the corridor is low in the near term. Residents also expressed desire to have direct train service from Branford to Stamford.

Pedestrian/Bicycle Connectivity: Most residents would like to see more connectivity for pedestrians and bicycle riders between the station, the waterfront, Town Center and neighborhoods adjacent to the TOD Area. The streetscape project completed some years ago in the Town Center is a good example for well-designed space inviting to pedestrians. Streetscape improvements along Montowese Street, Meadow Street and Maple Street appeared to have support for priority treatment to connect the TOD Area to the rest of Town. There are some segments in these areas that either have sidewalks in poor condition or gaps in the

network. There appeared to be support for landscaping improvements and guard rails to slow cars and make the area feel more walkable. Some residents expressed support for the completion of the Shoreline Greenway Trail through the TOD Area to increase bicycle ridership to the station and tourism throughout the town. One suggestion was to locate the trail upland to avoid the risk of flood inundation.

Vehicular Connectivity: There was discussion about the need to create a direct connection (for both vehicular and foot traffic) from I-95 Exit 54 (as there is no southern off ramp at exit 53) to the train station with clear signage. A multi-use path should be considered to connect pedestrians and bicycles to open space north of I-95. There was some discussion about Connecticut Department of Transportation's plans for a roundabout in the Town Center and whether this was an appropriate redesign of the intersection. It was explained that this intersection was not part of the scope of the Branford TOD Plan.

Economic Development: A large topic of discussion was what the economic impacts the TOD Plan will have on the Town Center and the town as a whole. Residents expressed the need to ensure that proposed uses in the TOD Area are complimentary with the Town Center and do not compete with retail. It was explained that the likely market for new development would be residential, as the demand for office, retail and industrial space is currently low. Residential uses would also help support retail in the downtown area. The discussion expanded into the idea of promoting tourism in Branford to help with the local economy. The tourism could look to capitalize on the area's location along the waterfront. Residents feel that the river is more of an asset than the train station and that protecting the river will then protect the town. Maximizing the riverfront could help bring people into the town. There was some discussion of promoting a shuttle bus to connect the Stony Creek Brewery to Town Center and the station area. There was some disagreement on this topic as one participant mentioned that many people are using Uber and a shuttle would not be regularly utilized.

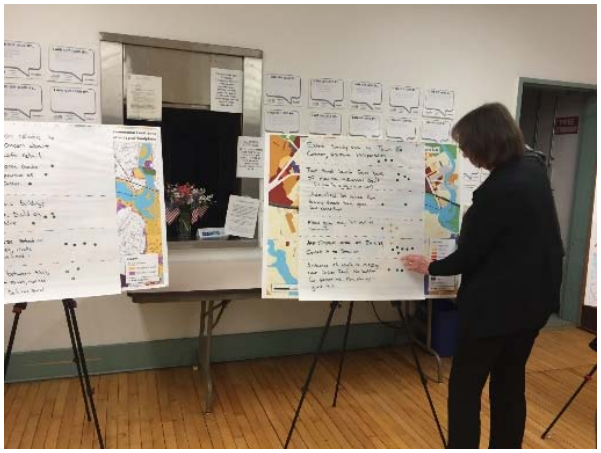
Potential Zoning Changes: A participant mentioned the importance of keeping zoning regulations flexible to allow multiple uses which might be appropriate for the area. One participant expressed that manufacturing uses may still be a

Workshop #1 (town hall meeting)

desirable use to consider as an allowed, as technology is changing. One resident observed that there is not a lot of developable land within the TOD Area so there may not be a dramatic change with new development. The focus of the plan should be to enhance the livability for those who currently live and visit Branford. One property owner expressed concern about potential zoning changes and how they would affect existing properties and development plans in place. Due to the fact that the study is in an early stage, a zoning strategy has not been proposed, however it will be developed in conjunction with the Town and community and there will be many opportunities for public input.

Environmental Issues: A significant portion of the riverfront area is prone to flooding, as shown in the 100-year floodplain map. The Town is in the early stages of looking at the potential for a flood gate at the underpass of Indian Neck Avenue to Meadow Street to protect the areas adjacent to Hammer Field from flooding. Some residents expressed concern about this project for various reasons. More information is needed with regard to how the flood gate will impact transportation connections and flood risks in the area. Another flood protection option discussed was increasing the height of the bulkhead/seawall at the riverfront as a flood protection measure.

Historic Preservation: A large portion of the surrounding areas are in historic districts. Some residents expressed the need to maintain and promote historical preservation in order to preserve the historical value of Branford.



Workshop #1

Appendix B: Public Workshop #2 Summary

This memo summarizes the second public workshop, which was held on Thursday, June 22nd from 7-9 PM at the Branford Fire Department. There were approximately 70 participants in attendance. The meeting was also recorded by Branford Community TV. The taped recording can be accessed at branfordtod.weebly.com.

Live feed to Branford Cable TV (available on Town's website)

Presentation

The workshop began with an introduction from Harry Smith, Town Planner. First Selectman, James Cosgrove then provided some remarks. Mr. Cosgrove explained that this plan would not be focusing on Amtrak's long range plans for northeast corridor. However, there would be an opportunity to learn and discuss Amtrak's plan at a special meeting on July 13th, 7PM at the firehouse.

Representatives from BFJ Planning then discussed the purpose of the project along with a preliminary analysis of planning issues along in the TOD Area (approximately 0.5 miles from the station), as identified by the Town, the Steering Committee and prior studies. The team then presented their preliminary understanding of issues and opportunities relate to: potential development areas, streetscape and roadway connectivity, environmental constraints and wayfinding. The PowerPoint presentation that was given is attached to this summary report.

Attendees watching presentation

Land Use and Zoning

Land Use (Meadow Street): Meadow Street was described as seedy and in need of improvements, specifically to sidewalks and some buildings that are in disrepair. Improving the streetscape is a priority. There was agreement that redevelopment in the area would change the neighborhood character in a way that wasn't necessarily good. The buildings on Meadow Street have affordable rents and available office space, which could be lost with redevelopment. There was support for a mix of uses in the wider TOD Area, including residential, recreation,

commercial and maintaining existing light-industrial uses. Adaptive reuse of historic buildings should be encouraged.

Architecture: There was concern that with redevelopment, the area would get too "pretty." One participant stated that the "essence of the area is its lack of uniformity." There was support for different architectural building styles, but use of brick should be encouraged. Participants were less excited about "boxy" developments with a tower element at the corner (as shown in some of the case studies). Participants stated that along the waterfront, buildings should be no higher than what is already there (e.g. Branford Landing, Anchor Reef).

Housing: There was some concern with the entire area being developed as condominiums or rentals. There was support for work/live housing, artist studios, and senior housing.

Branford Landing: There was agreement that boat storage may not be the best long range use for the Branford Landing site along the waterfront. The underutilized building does not store boats efficiently and there are other sites along the river that are better suited for storage. If the site ever were to be redeveloped, it could potentially include recreational, cultural/arts and boat-related retail uses. These would mesh with surrounding uses (e.g. Stony Creek Brewery and Nellie Green's) and the recreational usage of the waterfront.

Connections: It is important to connect the train station to nearby destinations such as the brewery and the greenway. These connections will help to establish Branford as an attractive place to live and visit.

"Cattle Crossing:" There was agreement that the underpass between Indian Neck Ave and Meadow Street (a.k.a. the "cattle crossing") needs to be improved for pedestrians and bicyclists. The connection is heavily utilized but is unfriendly, unattractive and in disrepair. The area can be improved with sidewalk connections and other relatively minor improvements such as painting, or tiling on the walls, lighting, and landscaping. This is an important gateway to the waterfront/station area.

Workshop #2 (roundtable discussions)

Development Possibilities Table

Future Development: Concern about overdevelopment in the area, specifically condominiums. Branford also does not feel like a tourist town. The waterfront will most likely be developed in sections/phases. Looking at Atlantic Wharf (i.e. who moves there, how it activates area), will help understand how the rest of area will unfold. How will re-development of different properties connect to each other? With regard to Meadow Street, some participants felt it should stay the way it is. It was expressed that the Town should retain what uses they currently have.

Train Ridership: The study needs to gather more information on ridership to see who is using the station, what their needs are to see if train schedule/service is working or not.

Transportation: There was some concern about road patterns and whether there will there be too much traffic with new development? Traffic counts are needed in the area to determine the existing level of traffic and how much development can be accommodated. There was a question about whether a traffic light is needed at Meadow Street and Montowese Street.

Waterfront: Participants stated that developers should work with Town and community to build connections to waterfront. The riverfront esplanade should be improved with landscaping, lighting, benches, etc.

Workshop #2 (roundtable discussions)

Roadway Connections & Transportation Table

Traffic and Vehicular Connectivity: There was concern about heavy traffic related to new development and visitor traffic in the summer. Participants expressed the need to study the re-alignment of some intersections along Main Street including: Ceder Street/Hopson Ave, Eades Street/Laurel Street, Church Street/Blackstone Ave/Harrison Ave. This issue should be addressed in the Town's POCD.

Bicycle Connectivity: Bikeway ideas near station should be considered within the larger context of town-wide access (e.g. Greenway trail). Bikeways should be considered as part of POCD. Many of the streets are too narrow for designated bike lanes, but there is the possibility of changing some roads to one-way to allow

for bike lanes and better traffic flow. However, this idea needs study as one-way roads tend to increase traffic speeds. The Town should consider a shared bicycle route from the west to the station along Swift Street and West End Ave.

Pedestrian Connectivity: Sidewalks should be improved to be accessible to disabled people. The Garden Club should be involved with streetscape improvements so that they can help maintain landscaping and plantings. Stumble stone (plaques) can be used in sidewalk to display the Town's history (similar to what was done in Guilford).

Shuttle Connections: Shuttles could serve Foote Memorial Park, Hammer Field, station area, Town Center and waterfront area (e.g. Stony Creek Brewery and Nellie Green's).

Safety concerns: Participants expressed concern about break-ins at the station parking lot. There is a fear that this behavior will expand if more people are there (i.e. if there is more public. access to the waterfront). One Anchor Reef resident also expressed concern about public waterfront access due to issues of safety, maintenance and respect for property. Provision of waterfront access is mandated in the master plan of the Planned Development District (PDD) for that area.

Outreach: The Town should involve Branford public schools with this study and the POCD to engage children (at all levels) in a planning process and expose them to career possibilities. Students should be encouraged to participate in the POCD as there will be more opportunity for future public engagement and they will be able to provide input on a wider range of issues.

Workshop #2 (roundtable discussions)

Environment and Waterfront Table

Flooding Concerns: There was discussion about the consequences of the proposed gate at underpass at Indian Neck Ave. Participants discussed whether the Town consider closing that pass at some point.

Neighborhood Character: Participants expressed that the station and waterfront area is gritty and should stay that way (area should not "be sterile"). Existing businesses should be retained where possible.

Waterfront: There was support amongst participants for a continuous waterfront walkway that has an eclectic feel, representative of surrounding land uses. The waterfront should capitalize on the big attractions at the waterfront such as the Stony Creek Brewery and waterfront recreation areas (e.g. put-in areas for small watercrafts). There is concern that there is no space along the waterfront for young adults (e.g. millennials) to congregate. There also needs to be a place for families with kids to congregate on the waterfront. Participants expressed the potential for education opportunities which could take advantage of the ecology of the river. The outdoor education could include aquaculture or marine research.

Waterfront Wayfinding: Wayfinding is needed to along the esplanade to direct visitors between landmarks/destinations such ecological landmarks, waypoints, shuttle stops, marinas/put-in points for water crafts, restaurants, places to rent equipment, etc. A wayfinding program will help to increase tourism. There was also mention of a designated water trail for small boats and kayaks. This route could be called the Branford Blue Trail (BBT).

Tourism: Participants expressed the notion that Branford could be a "days-outing" and "backpack" destination for urbanites who seek access to the waterfront in close proximity to the/a train station. The area could function as a "hospitality suite" for transit riders to visit the area, have access to restrooms and such, and enjoy a day outdoors and evening dining all within the TOD District. This could be unique to Branford.

Workshop #2 (roundtable discussions)

Wayfinding Table

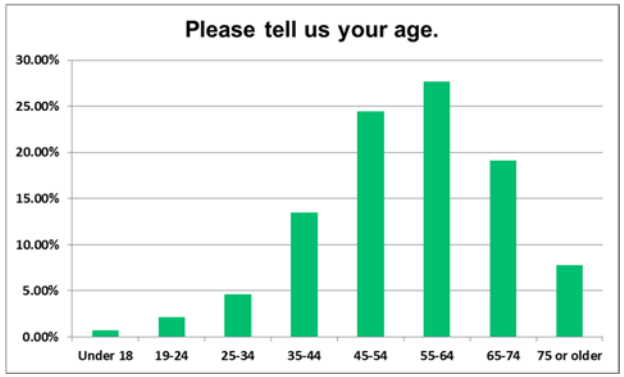
Wayfinding: Participants discussed how there was no sense of arrival when you get off the train; nothing telling you where you are, nor how to get to other areas, Main Street and Town Center in particular. There could potentially be a kiosk there with a map that identifies destinations, historic spots, parking, etc.

There is a need for signage and wayfinding throughout Branford but it needs to be done in a way that creates a sense of place without cluttering the landscape. The main entry gateways were identified—these present a "Welcome to Branford" opportunity. Wayfinding will also help to identify and connect lesser known areas such as the 4th Ward and link the two parts of Main Street. Branford has a history and we should find a uniform way to interpret this in general and specifically at certain significant spots that we'd like visitors to see.

Although there is ample parking, no directionals guide you to the various lots or garages—this could be solved with the usual P signs with arrows. The existing, or about to be developed, riverside facilities and future trail, present other opportunities to guide and inform visitors. It was suggested that we connect with the Historical Society and Brewery owner/operator, both of whom would be excellent resources for further information.

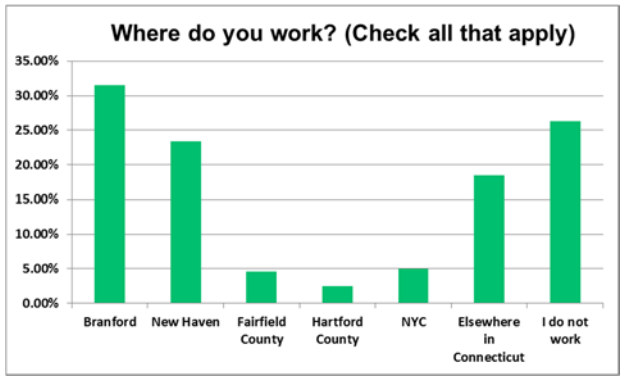
Appendix C: Public Survey

A short electronic survey was created to understand how people use the TOD Area and what preferences people have if any redevelopment were to occur. The survey was publicized by e-blasts from the Town, flyers and through social media venues. 282 responses were received. 30 percent of the respondents live in the TOD Area and the remainder predominantly live elsewhere in the Town of Branford. The most frequent locations for work were Branford (32%) followed by New Haven (23%) and elsewhere in CT (18%).



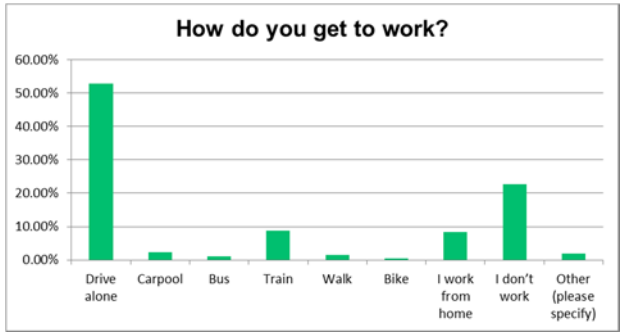
Train Station

While 9 percent of respondents take the train to work, over half of the people said that someone in their household uses the train for inter-city travel (i.e. to New Haven or NYC). Only 31 percent of respondents said that no one in their household uses the train. The most frequently requested improvements were to have more frequent service and improved pedestrian access.



Pedestrian and Vehicular Safety

Approximately 30% of respondents said that they walk daily or weekly when running errands or going to work. 162 open ended comments were received for the question that asked where walking or biking feels difficult. While not listed here, these comments were very helpful to understand perceptions of safety at specific locations. Some of the most frequently cited roads were Montowese Street, Main Street, Meadow Street, Maple Street and the intersection at Kirkham Road and the station. There was concern about the speed of cars along Meadow Street. Many respondents cited the need for continuous sidewalks connecting the station area/waterfront to Main Street. Many also cited the difficulty of biking in the area because there are no dedicated lanes.



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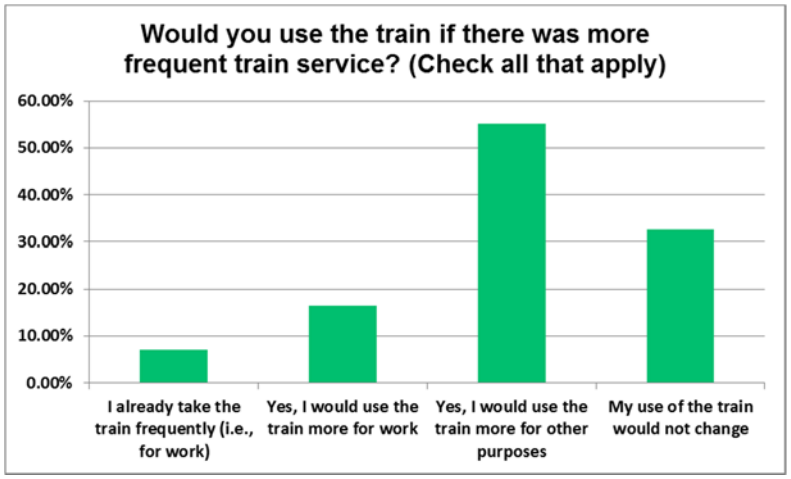
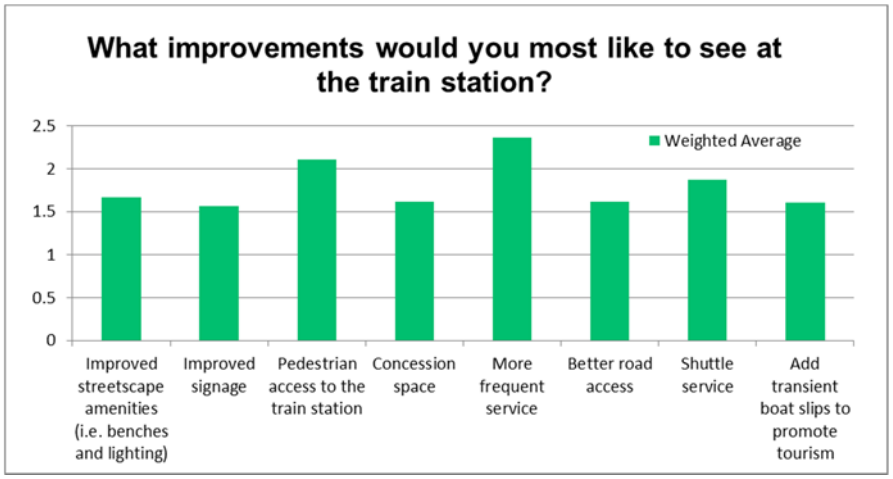
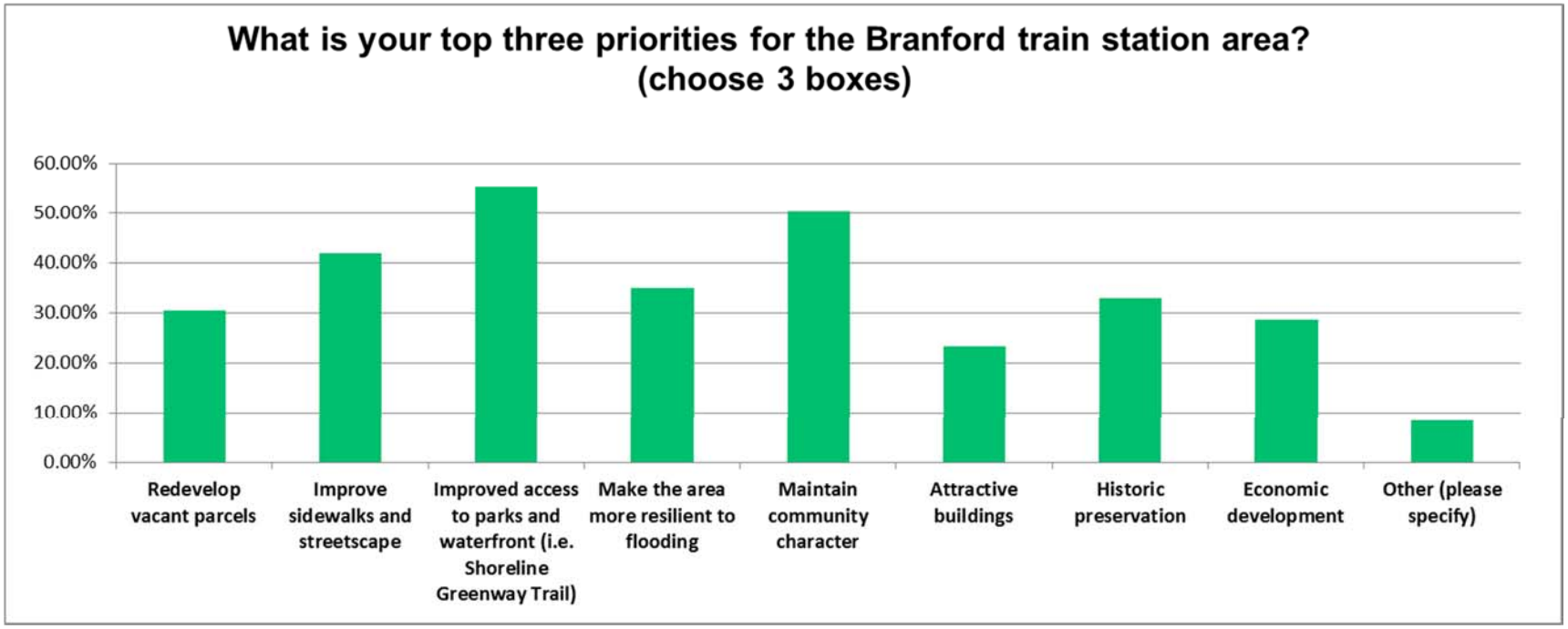
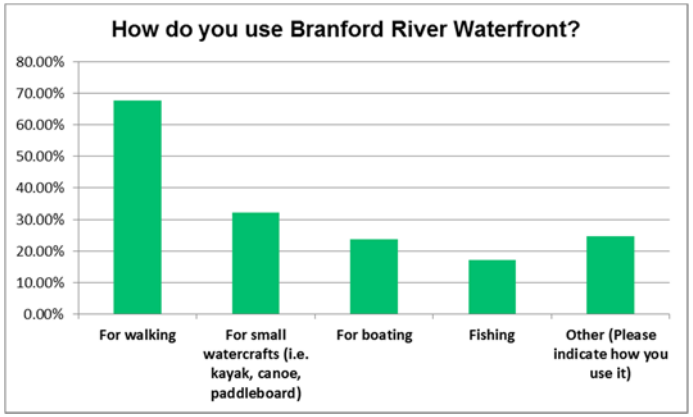

Would you use the train if there was more frequent train service? (Check all that apply)
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
I already take the train frequently (i.e., for work)
Yes, I would use the train more for work
Yes, I would use the train more for other purposes
My use of the train would not change

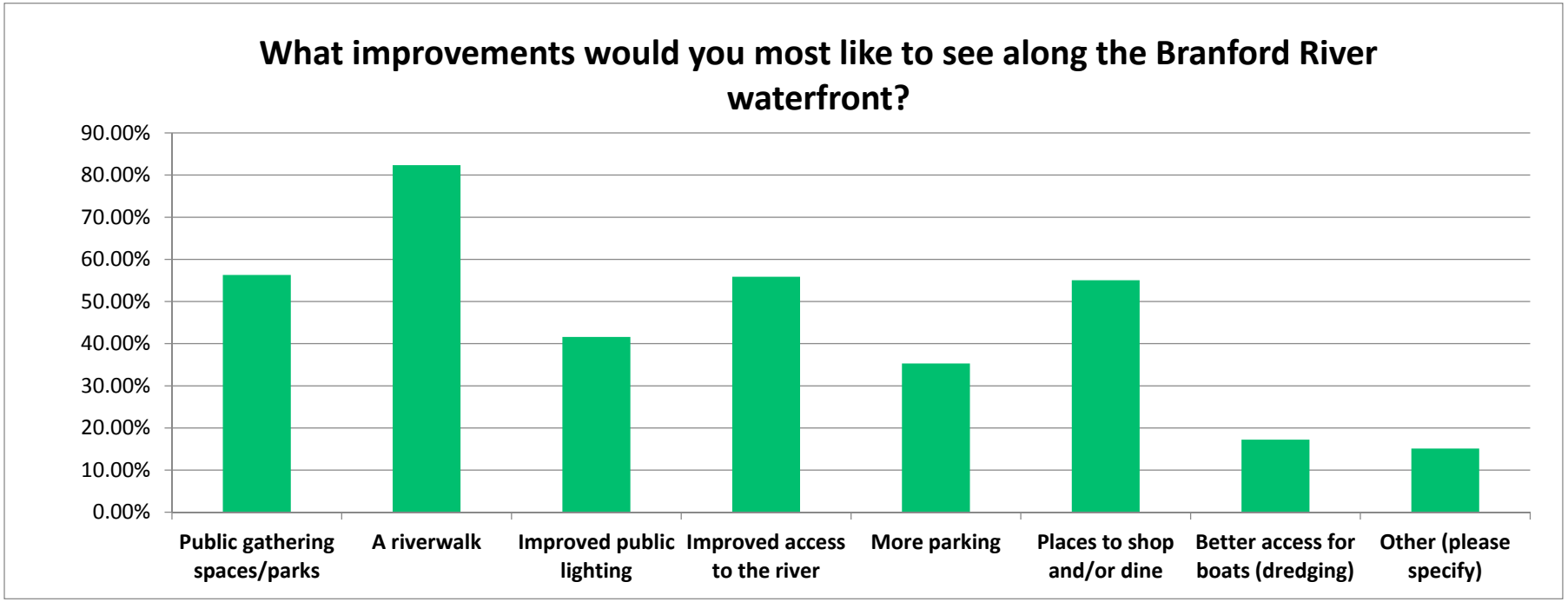

What improvements would you most like to see at the train station?
Weighted Average
2.5
2
1.5
1
0.5
0
Improved streetscape amenities (i.e. benches and lighting)
Improved signage
Pedestrian access to the train station
Concession space
More frequent service
Better road access
Shuttle service
Add transient boat slips to promote tourism


What is your top three priorities for the Branford train station area? (choose 3 boxes)
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Redevelop vacant parcels
Improve sidewalks and streetscape
Improved access to parks and waterfront (i.e. Shoreline Greenway Trail)
Make the area more resilient to flooding
Maintain community character
Attractive buildings
Historic preservation
Economic development
Other (please specify)

Waterfront Area

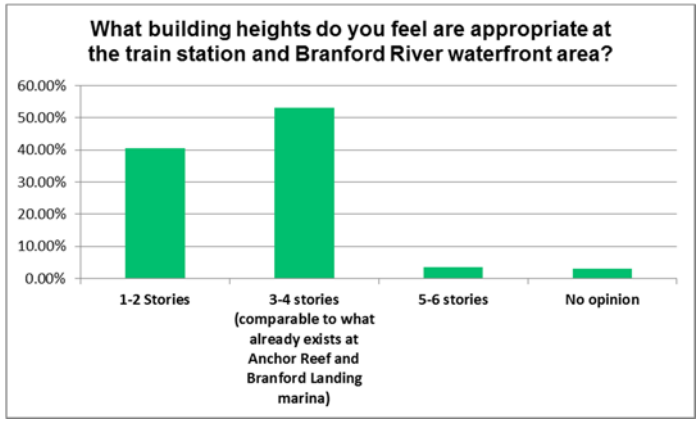
As seen in the graph to the right, the Branford River waterfront is utilized by the public in a variety of ways. Over two-thirds of the respondents use the waterfront for walking and about one third use the waterfront for some kind of boating. The most commonly cited improvements preferred along the waterfront include a riverwalk (82%), public gathering spaces/parks (56%), improved access to the river (56%) and places to shop and/or dine (55%). In the open ended responses, many respondents cited the need for improved access for small watercrafts.

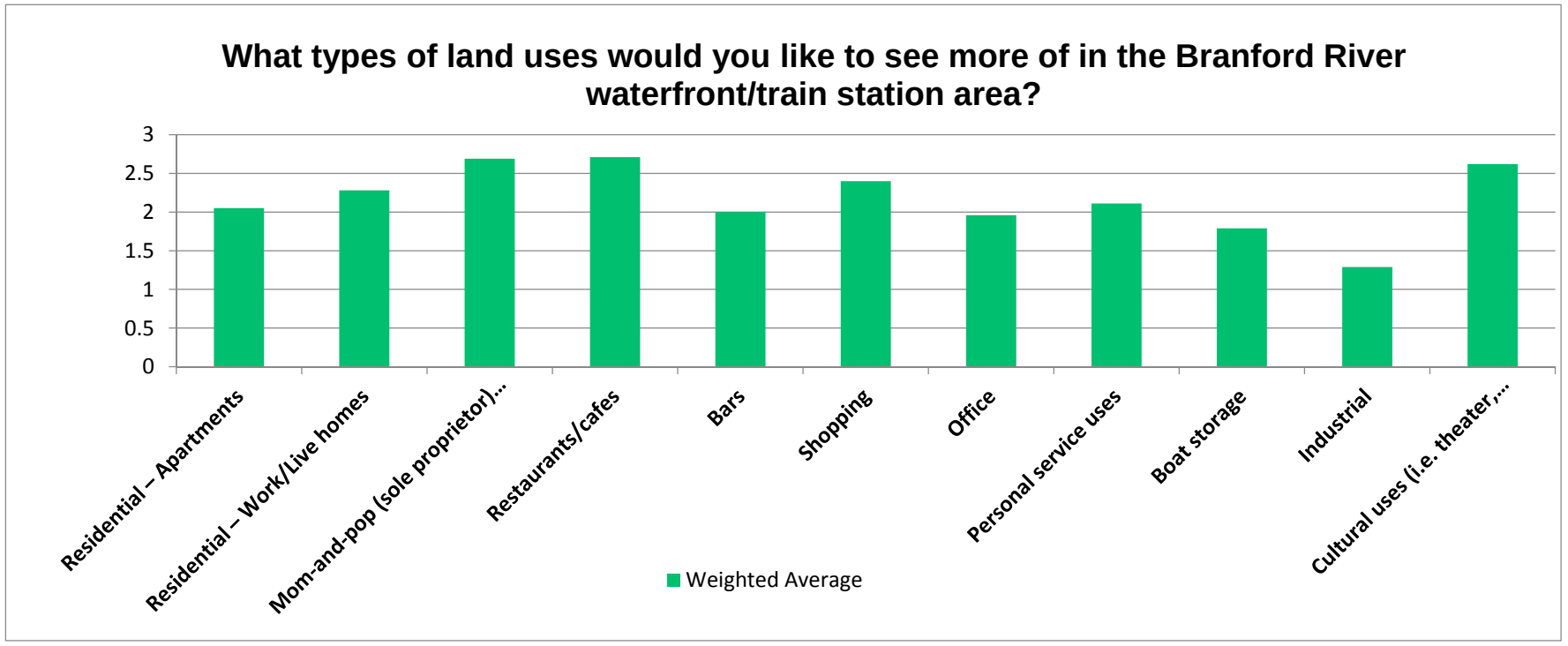




TOD Area Land Uses

Respondents' top three priorities for the TOD Area were improved access to parks and waterfront (55%), maintain community character (50%), and improve sidewalks and streetscape (42%). Commonly cited themes from the open ended responses included the need to consider sea level rise/resiliency, addressing traffic impacts of new development, affordable housing, improving aesthetics (i.e. landscaping), and maintaining small town feel while allowing for some development. When asked what building heights are appropriate at the train station, over half of respondents said that 3-4 stories was acceptable (comparable to what already exists at Anchor Reef and Branford Landing marina).





Appendix D: Telephone Survey