



HARTFORD LINE

TOD ACTION PLAN PART 1 REPORT



2017

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ACKNOWLEDGEMENTS

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The staff and elected officials of the following municipalities:



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The Town of North Haven



The Town of West Hartford



The Town of Berlin



The Town of Windsor



The Town of Newington



The Town of Enfield



The Town of Windsor Locks

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The Capitol Region Council of Governments



The South Central Regional Council of Governments

Staff from the following agencies:



The Connecticut Department of Transportation



The Federal Transit Administration

The Corridor Advisory Committee

Participants in the Desire and Readiness Workshops and Other Stakeholders

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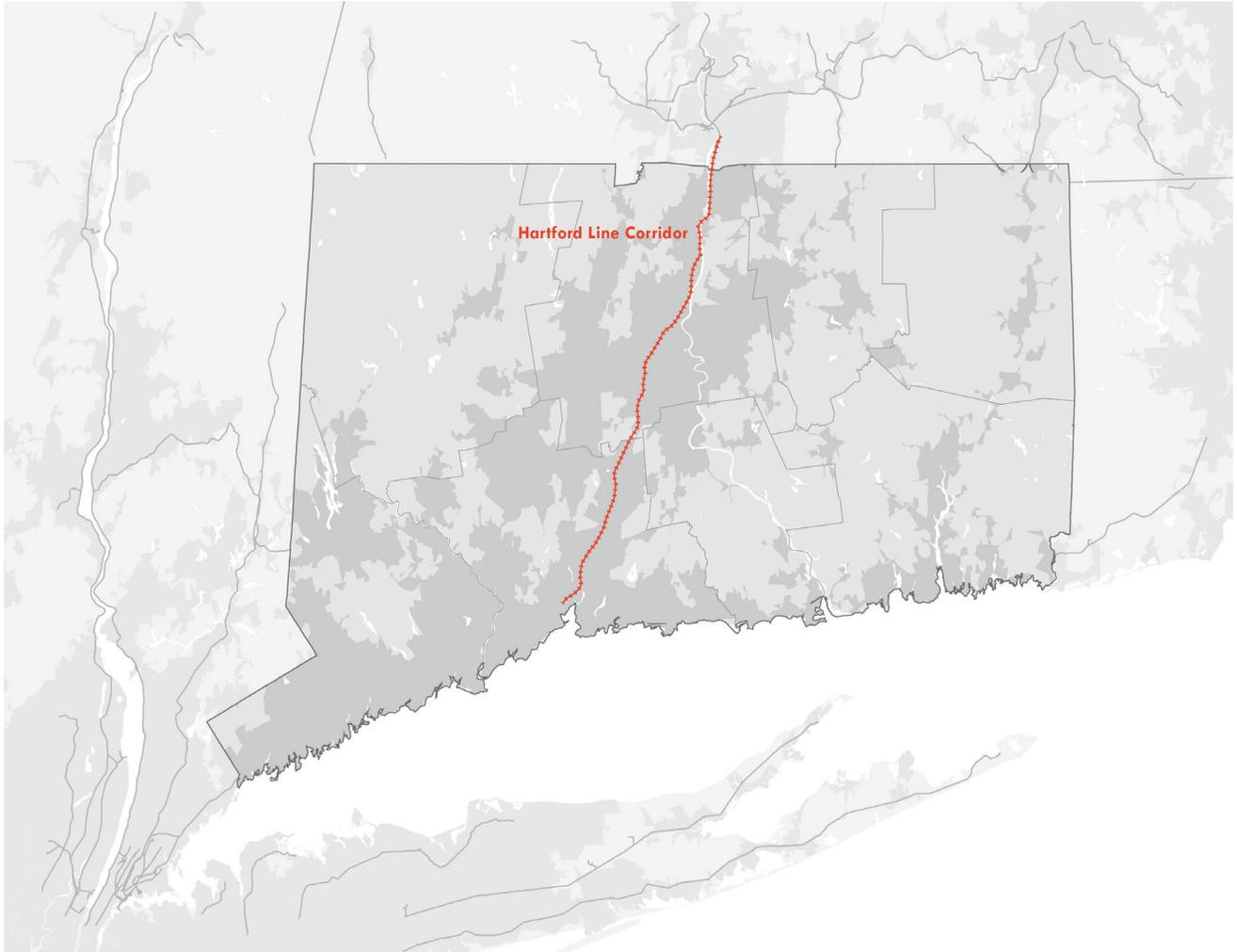
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01 INTRODUCTION

Scenes from the Hartford Line
in 2015-2016



In 2015, the State of Connecticut was awarded a grant from the Federal Transit Administration (FTA) to conduct a study of transit-oriented development (TOD) opportunities pertaining to the New Haven-Hartford-Springfield (NHHS) corridor, now branded as the CTrail Hartford Line. TOD is defined as compact, mixed-use development located within a short walk of a transit station. Whether it is new construction, redevelopment, or small-scale infill development, a fundamental characteristic of TOD is that its physical form responds to - and is interrelated to - transit.

The Connecticut Department of Transportation (CTDOT) initiated the Hartford Line TOD Action Plan in May 2016 to complement the ongoing work to provide more frequent, convenient, and faster passenger rail service along the corridor as part of the NHHS Rail Program. The service improvements are expected to increase ridership, improve travel times, expand intermodal transportation options, encourage economic development, and create more livable communities. The purpose of the Hartford Line TOD Action Plan is to identify strategies to activate TOD in selected station areas along the corridor by building upon local, regional, and statewide planning efforts. As used in this report, the term “station area” refers to a half-mile radius from the location of a Hartford Line station.

Whereas TOD is often considered after transit service improvements are already in place, the Hartford Line presents a unique opportunity for TOD planning to be coordinated with the forthcoming expansion of rail service. The implementation of TOD often catalyzes behavioral change and can be a driver of economic growth. It can provide amenities that build upon the convenience of a reliable transit service and entice users to not only utilize the system for transportation, but to take advantage of opportunities to live, work, and play in these communities.

Through the Hartford Line TOD Action Plan, the project team, consisting of CTDOT with support from its consultant, WSP USA, Inc., is partnering with interested municipalities along the Hartford Line corridor to identify and overcome hurdles for TOD implementation. To achieve this objective, the Hartford Line TOD Action Plan is divided into two parts:

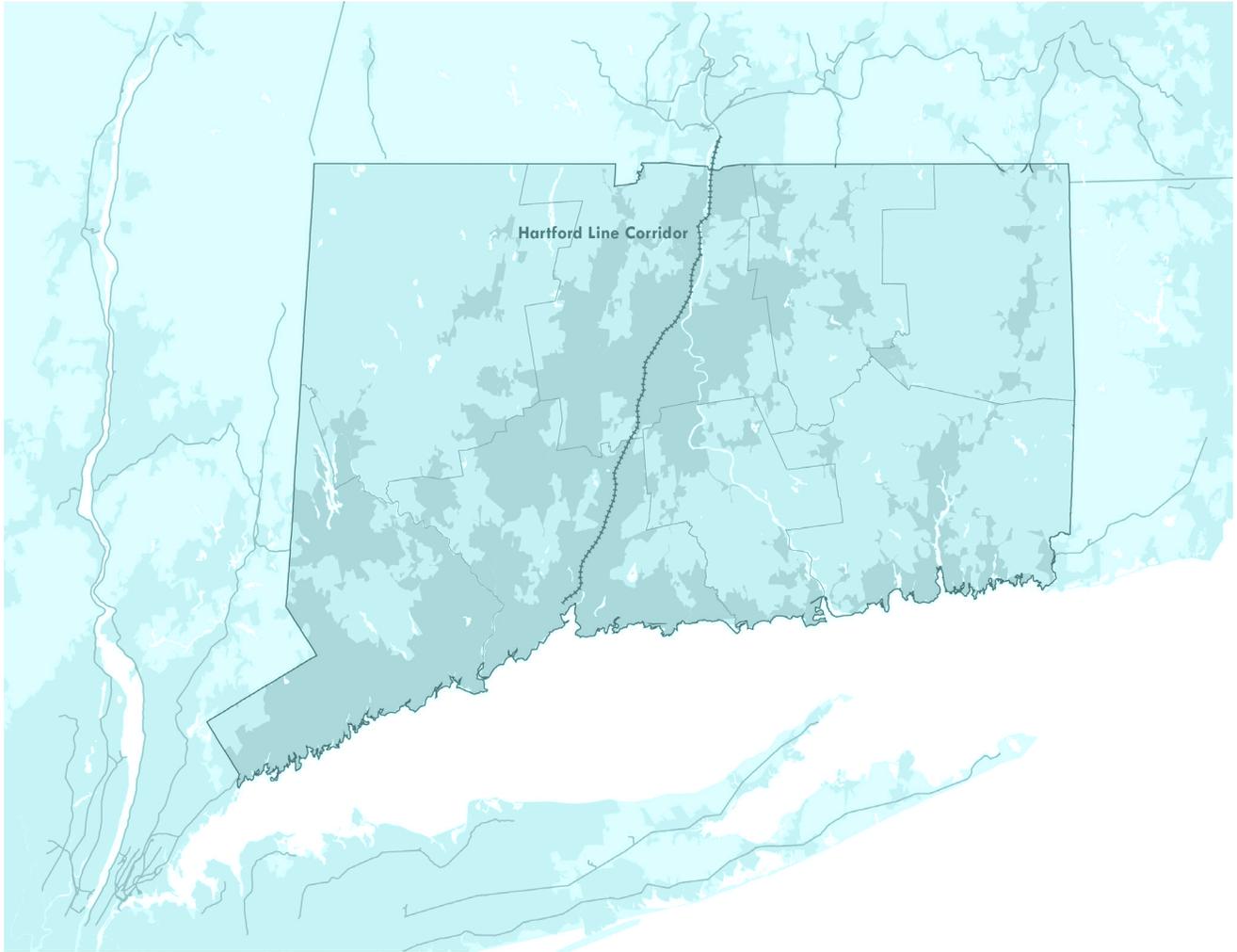
“[Transit-oriented development is] the development of residential, commercial and employment centers within one-half mile or walking distance of public transportation facilities, including rail and bus rapid transit and services, that meet transit supportive standards for land uses, built environment densities and walkable environments, in order to facilitate and encourage the use of those services.”

CONNECTICUT GENERAL STATUTES (SECTION 13B-790)

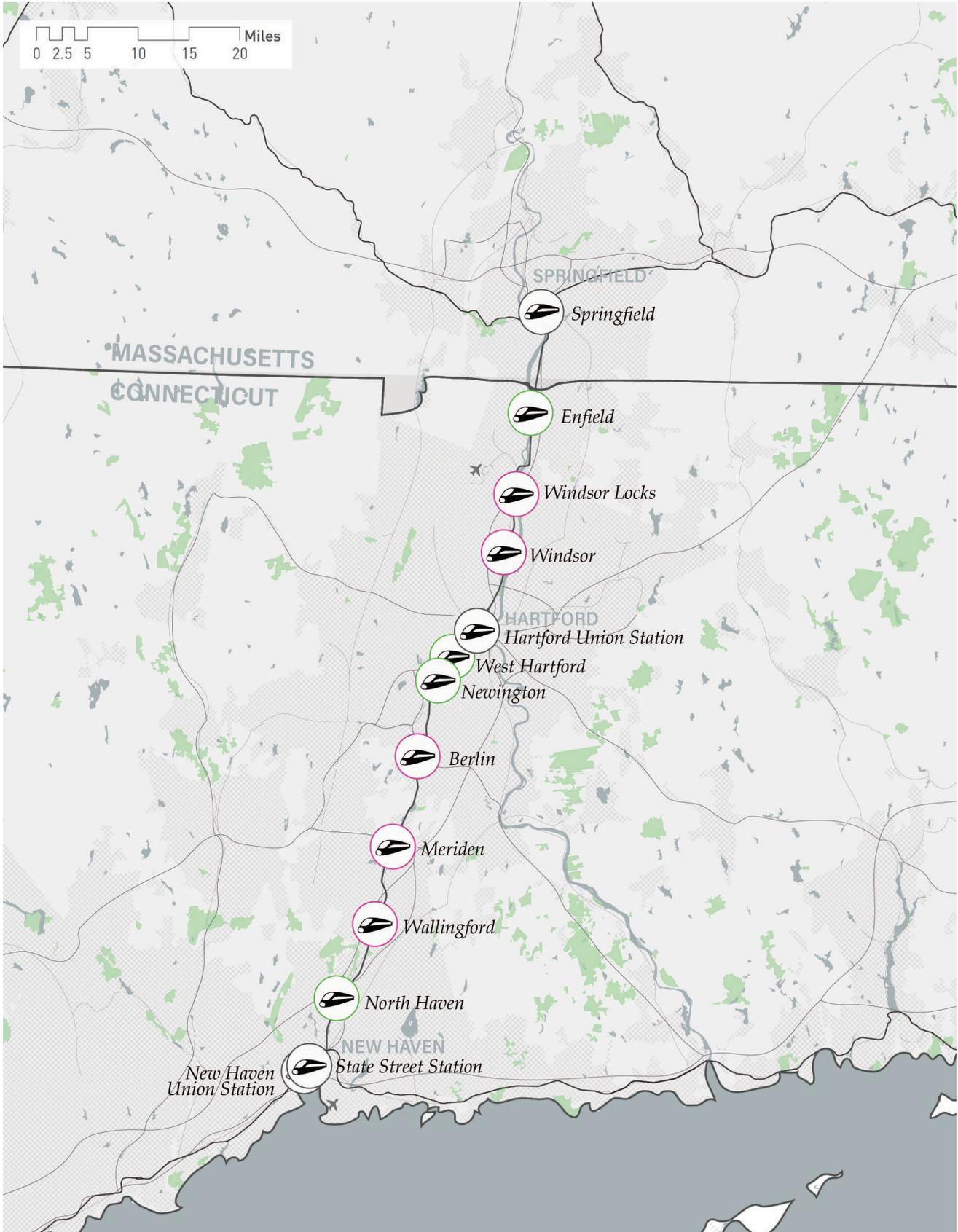
- (1) An assessment of TOD Desire & Readiness, which features an interactive process with municipal officials, staff, and stakeholder leaders to identify actionable strategies to attain locally-defined and context-sensitive TOD goals; and
- (2) Advancement of one of the key recommendations identified in the first part, in close collaboration with the respective municipality and pertaining to specific development propositions, complementary public realm improvements, and/or TOD supportive policies.

The overarching purpose of this initiative is to provide technical assistance to station area municipalities to help the Hartford Line realize the transformative economic development potential enabled by the regional transit investment.

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02 CORRIDOR OVERVIEW



CTRAIL

HARTFORD LINE

The New Haven-Hartford-Springfield Rail Program

New Station



**Relocated/
Replaced Station**



Existing Station



The State of Connecticut has recently been making substantial investments in the region’s multi-modal transportation network. A critical component of this investment is a major expansion of Connecticut’s passenger rail capacity along the Hartford Line corridor through the NHHS Rail Program. Funded by a combination of federal and state sources, the ongoing NHHS Rail Program includes infrastructure improvements to the existing rail system (such as double tracking and upgrades to existing stations, signals, and bridges) as well as construction of new stations.

The Hartford Line will comprise 13 stations:

- **Four existing stations:** New Haven Union Station, New Haven State Street Station, Hartford, and Springfield;
- **Two replaced stations:** Meriden and Berlin;
- **Three relocated stations:** Wallingford, Windsor, and Windsor Locks; and
- **Four new stations:** North Haven, Newington, West Hartford, and Enfield.

The construction of Hartford Station improvements was completed in 2016 and the construction of the Wallingford and Meriden Stations was completed in 2017. At the time of this report, construction is ongoing at New Haven State Street, Berlin, and Springfield. The timeline for future construction of the new stations in North Haven, Newington, West Hartford, and Enfield—as well as the relocated stations in Windsor and Windsor Locks—is contingent upon available funding.

Through the investment of the NHHS Rail Program, the Hartford Line will provide enhanced regional train service between New Haven, CT and Springfield, MA,



Construction on the Hartford Line. top to bottom, left to right - State Street Station construction as of July 2017; Wallingford Station as of July 2017; construction continues at Batchelder Road Bridge in Windsor in July 2017.

NHHS RAIL PROGRAM BENEFITS

Source: NHHS Rail Program, July 2017

TRANSPORTATION	ENVIRONMENT	COMMUNITY	ECONOMY
1.5 million car trips diverted to rail	3.2 million fewer vehicles	promotes active, vibrant communities	13 thousand construction and related jobs
81 million increase in passenger rail miles per year	100+ million fewer vehicle miles driven	80 percent of CT's population within 25-mile radius	connects employees to regional employers
1.26 million new annual trips by 2030	3.5 million gallons of fuel saved	serves transit-dependent populations	

with connections to Amtrak and Metro-North Railroad, which serve New York City and other destinations along the Northeast Corridor. At the time of enhanced service launch (currently scheduled for June 2018), the Hartford Line will include 17 round-trip passenger trains between New Haven and Hartford, and 12 round-trip passenger trains between Hartford and Springfield. This will result in a substantial increase in service—up from six round-trips per day between New Haven and Springfield—and will create a high-frequency passenger rail system along the corridor. The long-term vision for the NHHS Rail Program is to increase service to a total of 25 daily round-trip trains between New Haven and Springfield, with eventual direct connections to Boston, MA and Montreal, QC.

The provision of frequent and convenient passenger rail service along the Hartford Line is a key element to encouraging a shift away from auto-dependent travel and bolstering the market potential of TOD. Higher-density development in and around downtown stations is beginning to breathe new life into many communities in Connecticut and around the country. The NHHS Rail Program is intended to reduce overall vehicle miles traveled (VMT), congestion, and emissions, while promoting the use of transit, active transportation (i.e., walking and bicycling), and the development of more livable and sustainable communities. New and relocated stations will become catalysts for economic development and community investment, and with proper planning and implementation, will result in the creation of unique, vibrant, and attractive TOD communities.

The NHHS Rail Program supports other State initiatives aimed at targeting economic development around transit and reducing reliance on personal automobiles. For instance, the Connecticut Office of Policy and Management (OPM) has awarded multiple rounds of grants throughout the State (including to municipalities along the Hartford Line) to support both planning and implementation of TOD. The complementary nature of the OPM grants and CTDOT investments underscores the State's commitment to transit and associated economic development, which is consistent with the State of Connecticut's Conservation & Development Policies Plan. As discussed in the following sections, the Hartford Line is a strategic corridor with a number of regional assets, and municipalities along the corridor have a unique and timely opportunity to leverage the transit investment for the betterment of their communities.

TRANSIT INVESTMENT SPURS ECONOMIC GROWTH

The American Public Transportation Association estimates that for every dollar invested in public transportation, four dollars are generated in economic return. Throughout the country, transit investments have generated billions of dollars in economic value. In locations such as Dallas, Denver, and the States of Utah and Minnesota, the economic value of regional transit investments ranged from \$250 million to over \$7 billion. Factors that influenced this economic return included public-private and cross-jurisdictional partnerships, station area master planning/redevelopment, mixed-use zoning, multi-modal connectivity, and the availability of regional TOD grants, all of which are pertinent to the Hartford Line.

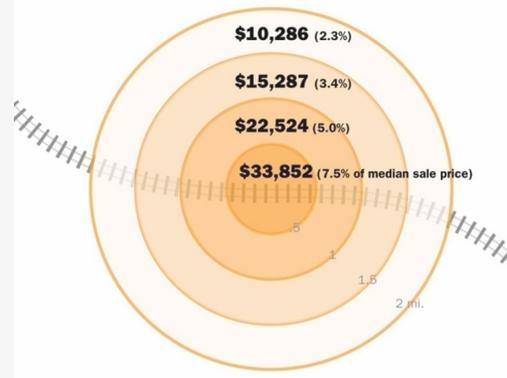
Furthermore, transit investments often have positive real estate impacts. For instance, following investments by NJ TRANSIT to improve transit accessibility and travel time between communities in New Jersey and New York Penn Station (through the Midtown Direct, Montclair Connection, and Secaucus Junction projects), the median sale prices of homes in proximity to the train stations increased by an average of \$23,000 per home. As discussed by the Regional Plan Association (RPA) in its report, *How Better Transit Boosts Home Values & Local Economies*, the investments by NJ TRANSIT resulted in a 5% average increase in home sale prices, and the economic benefits still accrued up to two miles away from the stations, with the highest increases seen closer to the stations.

Accordingly, municipalities along the Hartford Line have the potential to benefit greatly from the ongoing transit investment in the region.

Source: left, American Public Transportation Association; right, Regional Plan Association.



Homes near train stations significantly gained in value after Midtown Direct, Montclair Connection and Secaucus Junction – an average of \$23,000 per home, with the highest gains closest to the stations



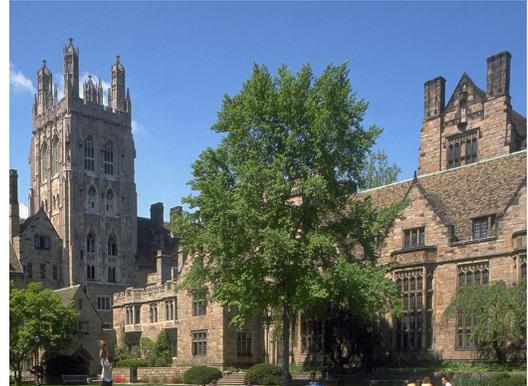
TOD CONTEXT

The geographic context for TOD along the Hartford Line includes a combination of regional and station-area specific considerations. The corridor in its entirety shows promise as a regional asset, built on a series of connected communities, each with its own neighborhood character and opportunities for future growth. Accordingly, this section begins with an overview of the regional market (with additional details included in Appendix B), followed by a brief discussion of the TOD context for each station area along the corridor.

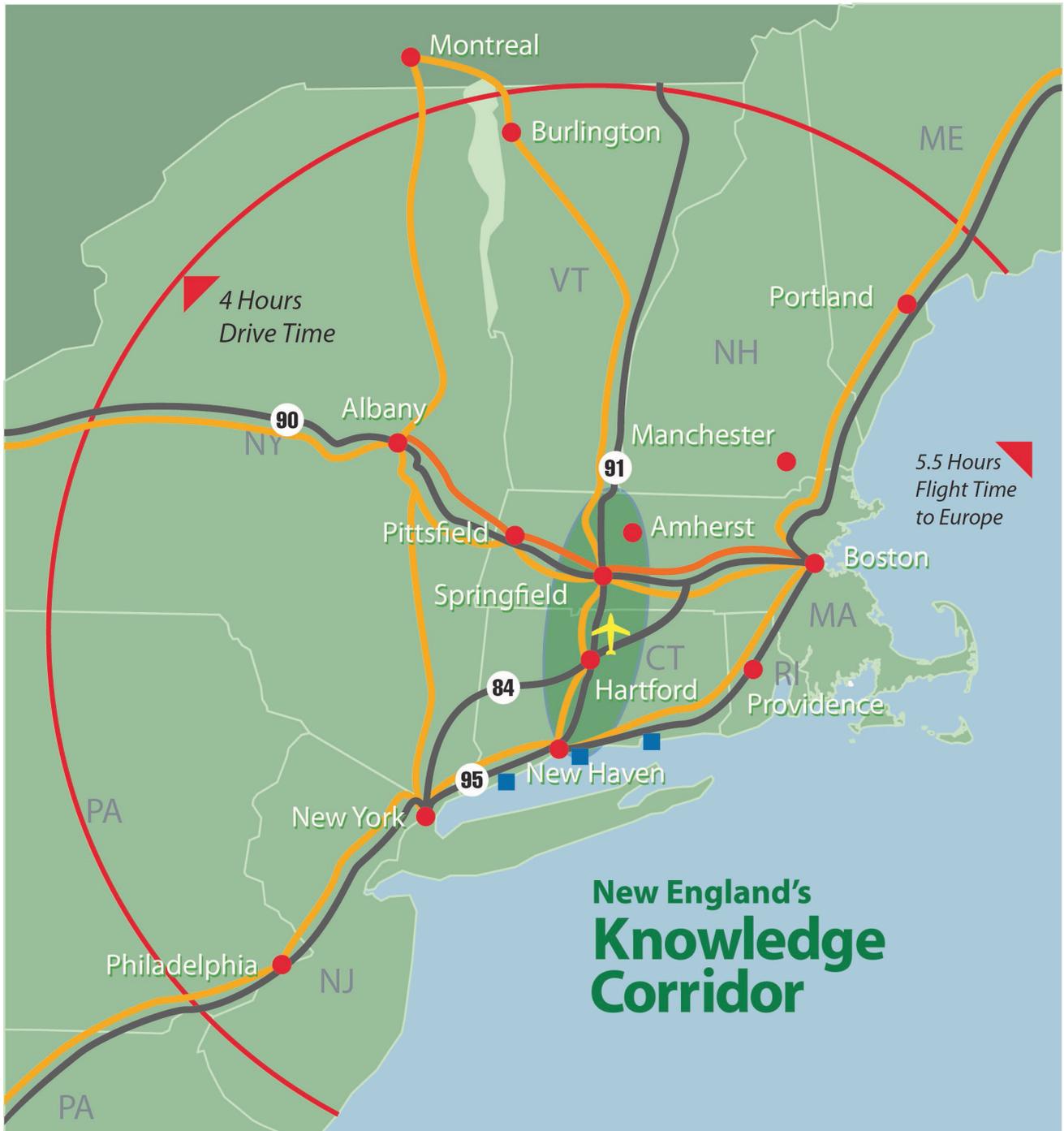
Regional Market Overview

As an indication of the breadth and depth of assets along the Hartford Line, the moniker “New England’s Knowledge Corridor” is often used to describe the region that comprises the New Haven, Hartford, and Springfield metropolitan areas. The region has acquired this name due to its high concentration of firms in information- and technology-related industries, the number and diversity of educational institutions, and the highly-educated workforce. New England’s Knowledge Corridor, an interstate partnership dedicated to advancing economic progress in the region, calculated that over 40 universities and 200,000 students are located in the region.

The aggregation of the New Haven-Milford, Hartford-West Hartford-East Hartford, and Springfield metropolitan statistical areas (MSAs) is a reasonable proxy for the regional economy. As defined by the U.S. Office of Management and Budget and used by the Census Bureau, an MSA is the combination of an urbanized area with a population exceeding 50,000 people and the surrounding counties that have strong economic linkages to the core urban area. American Community Survey (ACS) data indicates that 15 percent of residents in the region have graduate degrees, a rate that exceeds the national average



Key assets in the Knowledge Corridor. top to bottom - Yale University in New Haven (yale.edu); Hartford Hospital in Hartford ([Hartford HealthCare on linkedin.com](https://www.hartfordhospital.com)); Bay State Medical Center in Springfield (baystatehealth.org).



knowledgecorridor.org

- Interstates
- Amtrak
- CSX Rail
- Seaports

“The region we promote transcends political boundaries. It comprises the Hartford, Springfield and New Haven metro areas and is centered on seven counties, linked by a shared economy, history and culture and by features including Bradley International Airport, rail lines, Interstate 91 and the Connecticut River.”

NEW ENGLAND’S KNOWLEDGE CORRIDOR



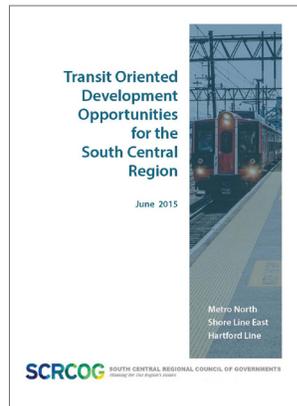
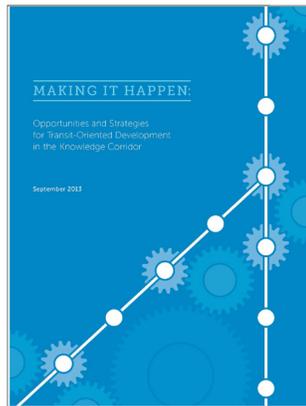
Governor Malloy signing a ceremonial bill. Gov. Dannel P. Malloy during a ceremonial bill signing at the Health Center after a final agreement was reached between the State and Jackson Laboratory. (Tina Encarnacion/ UConn Health Center Photo)

by four percentage points. While the median household incomes of residents in the three MSAs (ranging from \$53,000 to \$70,000) do not exceed the statewide median household income for Connecticut (approximately \$70,000), they do exceed or match the nationwide figure of \$53,000. Furthermore, both Connecticut MSAs, those of New Haven and Hartford, have more high-earner households than the national averages. Fourteen and 16 percent of households in these MSAs, respectively, reported incomes exceeding \$150,000, surpassing the nationwide rate of 10 percent.

Despite these relatively high wages, the region remains affordable relative to surrounding metropolitan areas. The median home value for both the Hartford and New Haven MSAs, per 2015 ACS estimates, is \$245,000, compared to \$380,000 in the Boston-Cambridge-Newton MSA and over \$400,000 in the New York-Newark-Jersey City and Bridgeport-Stamford-Norwalk MSAs. The ratio between median home value and median household income is 3.51 and 3.98 for Hartford and New Haven, respectively, while this figure ranged between 4.9 and 6.9 for the other three comparative MSAs; as a result, residents of the region devote a smaller share of their household incomes to housing costs.

Rents are also lower in the Hartford and New Haven MSAs than nearby major metropolitan areas. Per 2015 ACS estimates, the median gross monthly rents in the Hartford and New Haven MSAs are \$1000 and \$1080, respectively, while median rents in the other three aforementioned MSAs range from \$1200 to \$1320. However, the ratio between gross rent and household income remains roughly the same across all five MSAs.

In the portion of the corridor within the State of Connecticut, the Cities of New Haven and Hartford serve as key drivers of the economy, in part due to their regional connectivity. New Haven is located on Amtrak’s Northeast Corridor and the Metropolitan Transportation Authority (MTA) Metro-North Railroad New Haven Line, and as a result, the economy in the southern portion of the Hartford Line corridor is more heavily influenced by proximity and connectivity to the urban centers of New York and Boston. This transit connectivity could be a significant attractor for



REGIONAL **TOD** POTENTIAL

"The market for TOD is regional, and therefore competitive advantages and disadvantages of the station areas along [the] corridor should be considered in light of their position in the regional market."
 CRCOG, 2013

"The South Central Region is well positioned to facilitate TOD...The region is presented with an opportunity to direct jobs and housing towards its expanding commuter rail service."
 SCRCOG, 2015

commuters seeking more affordable alternatives to living in New York and Boston throughout the corridor.

Moreover, the City of Hartford is strategically located between New Haven and Springfield, the two termini of the Hartford Line service, and could thus serve as an attractive employment and recreational destination for residents along the corridor. As the State capital, Hartford plays an important civic and economic role and it has historically been a centralized point of access by roads and highways. The State has been actively seeking to expand transit connectivity, including the successful launch of the CTfastrak bus rapid transit (BRT) network, which provides a fast and convenient transit option between Hartford and New Britain plus integration with the local and express CTtransit bus network. The forthcoming launch of Hartford Line service is a critical next step in the effort to expand Connecticut's transit network.

New Haven and Hartford are also noteworthy for their contributions to the regional economy. In addition to being

successful transit hubs, New Haven has emerged as a center for the healthcare and biosciences industries, and Hartford has historically been known as the "Insurance Capital of the World" because of its agglomeration of firms in the insurance sector. The introduction of Hartford Line service could support major employers' existing operations, as well as encourage them to invest and expand in these regional economic centers.

In addition to bolstering the market strength of New Haven and Hartford, there are opportunities to leverage the forthcoming Hartford Line service and promote economic development in station areas throughout the corridor. As discussed in Chapter 4, several municipalities have commissioned market studies—as part of station area-specific TOD planning initiatives—to gauge the local market potential for new residential and commercial development associated with the Hartford Line service in their respective station areas. Moreover, the two Councils of Government (COGs) that represent roughly the greater Hartford area and greater New Haven area—the Capitol

Region Council of Governments (CRCOG) and South Central Regional Council of Governments (SCRCOG), respectively—have each recently completed reports that assess TOD opportunities in their respective regions.

In 2013, CRCOG issued the report, *Making it Happen: Opportunities and Strategies for Transit-Oriented Development in the Knowledge Corridor*, which presents a market overview and a preliminary analysis of TOD potential in an area that roughly comprises the combined Hartford and Springfield metropolitan areas. *Making it Happen* reported that the region’s demographics indicate the presence of sufficient demand to support TOD opportunities. Recent population growth has been concentrated in the baby boomer and millennial cohorts, both of which are the primary target market segments for TOD. The growth in these cohorts could shift demand away from traditional single-family housing toward relatively denser multi-family housing options in walkable communities with access to transit.

Making it Happen also identifies economic trends that could be supportive of TOD opportunities. Industries that tend to employ young professionals with relatively high incomes—and that tend to make location decisions with proximity to those workers in mind—have historically had a strong presence in the region and are currently growing in the corridor. The report specifically notes health care, social assistance, and education services as TOD-supportive industries that are growing in the region.

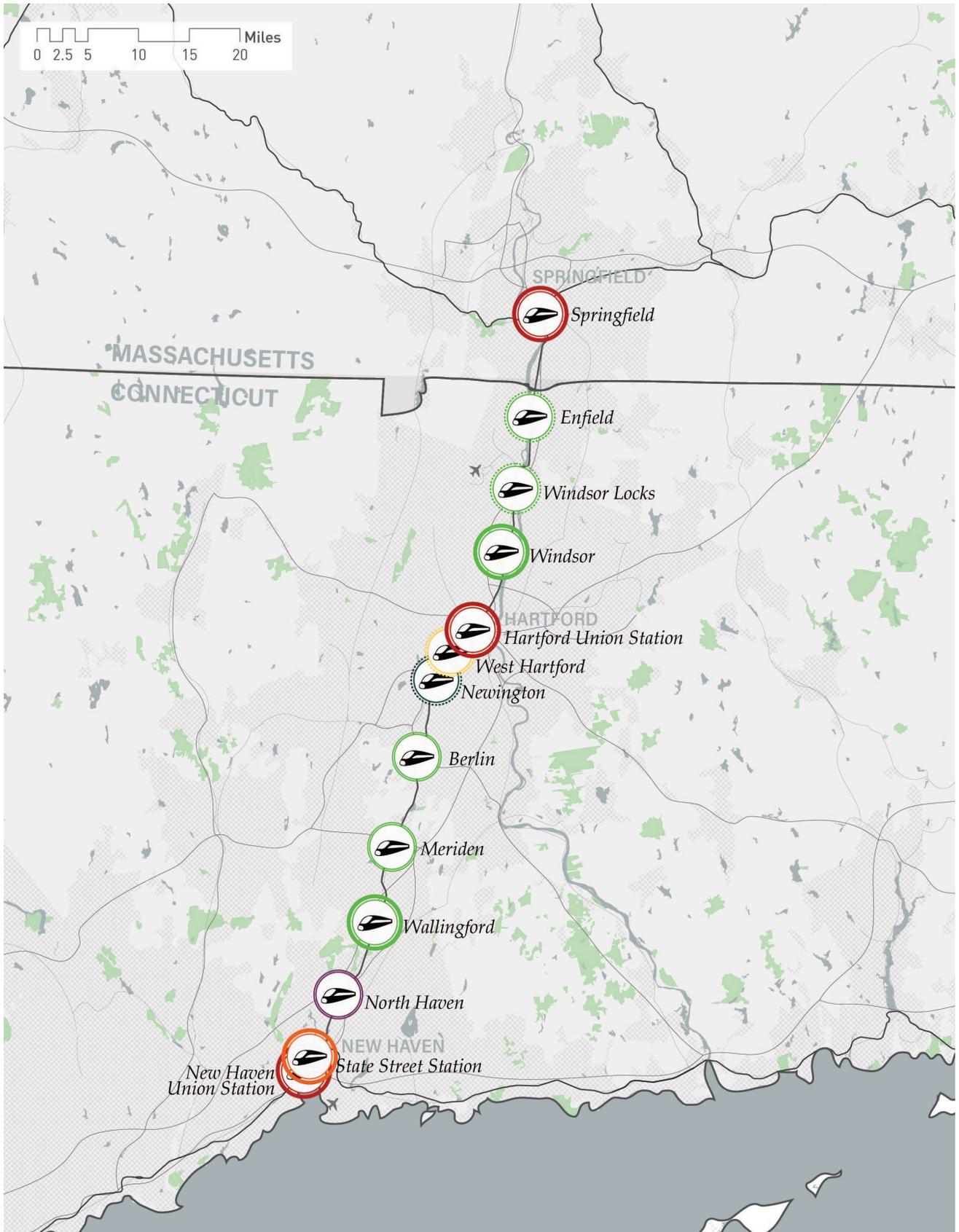
The presence of key anchor institutions in the region—including insurer The Hartford, Trinity College, and Hartford Hospital—has served as a major driver of growth in the area. The report indicates that future expansion of commercial real estate is likely to be connected to the growth of these institutions, and thus future TOD opportunities may be supported by the growth of anchor institutions with facilities located near Hartford Line stations.

In 2015, SCRCOG issued the report, *Transit Oriented Development Opportunities for the South Central Region*, which presents a similar market analysis for an area generally comprising the New Haven metropolitan area. That report presents similar conclusions to *Making it Happen*, with additional observations about some of the local

demographic and employment trends that indicate market potential for TOD opportunities.

Per the SCRCOG report, median incomes within the South Central Connecticut area are relatively high, with the notable exceptions of New Haven and Meriden. Trends in homeownership are similar to other urbanizing regions across the country, with an observable trend toward renter-occupied units; while home values have remained flat since 2012, the report indicates that local rents have been increasing since the end of the recession in 2011. Though more local residents are choosing to live in rental housing, mode choice for commuting patterns has not shifted. Households in the planning area - Meriden, Wallingford, and North Haven - have high rates of car ownership, and most workers commute to work in single-occupancy vehicles. This apparent “mismatch” in housing choices and commuting modes could indicate a potential demand for transit-oriented multi-family opportunities that would enable and support the use of transit as a commuting option. Conditions in these municipalities are fairly typical across the corridor.

Throughout the corridor, both regional and local market forces will affect the feasibility of new development in particular station areas. To supplement the preceding discussion, Appendix B to this report presents a demographic, employment, and housing profile of the New Haven and Hartford metropolitan regions, and Chapter 4 of this report includes a market assessment of the selected station areas in the Hartford Line TOD Action Plan. Furthermore, the following section offers a framework for how to conceptualize TOD potential in individual station areas based in part on station area characteristics and physical considerations such as land use mix and density.



Station Area Typologies

Although each of the Hartford Line’s 13 station areas is unique, there are commonalities among station areas that underscore shared challenges and opportunities for TOD planning and implementation along the corridor. While each station area has distinct housing, employment, parking, transportation, and land use qualities that warrant recognition, the categorization of station areas into typologies can provide a useful framework around which to highlight synergies in TOD potential along the entire corridor.

Accordingly, a TOD “place type” was assigned to each of the 13 station areas. To guide this process, the TOD typologies broadly defined in the Reconnecting America and Center for TOD report, *TOD 202: Station Area Planning*, served as the basis for the TOD place type classifications. Specifically, each of the station areas along the Hartford Line corridor was assigned to one of the following six place types defined in the *TOD 202* report:

-  Regional Center
-  Urban Center
-  Suburban Center
-  Transit Town Center
-  Transit Neighborhood
-  Special Use/Employment District

As discussed in the following sections, the place types differ in part due to their characteristics as regional or local destinations, the land use mix and density of development, and the types of planning and development challenges that often need to be overcome to advance TOD in the respective station areas.

It is also important to note that each place type represents what a station could be with the introduction of new service

and station area development, and that while some station areas are established, others are emerging, and others show promise to achieve the place type designation in the future. Furthermore, both the place type and the relative status of each station area are qualitatively defined, and many station areas have elements of multiple typologies. Therefore, the typology framework should simply be interpreted as a representative construct to discuss the role of the station areas in the context of the region.

The Hartford Line typologies are discussed in the following sections, beginning with established station areas for each typology. In addition to the *TOD 202* report, the typologies and station area descriptions in the *Making It Happen* report, as well as details in local TOD plans and the *TOD Progress Reports for CTfastrak and CTrail Hartford Line Station Areas*, were used as references in guiding this assessment.

STATION AREA STATUS

-  Established
-  Emerging
-  Potential Future

STATION AREA CHARACTERISTICS

-  Regional
-  Municipal
-  Neighborhood
-  Non-centric

LAND USE MIX & DENSITY

-  High
-  Moderate
-  Low
-  Specialized



Characteristics of the station area: Primary center of economic and cultural activity



Land use mix and density: High-density mix of residential, commercial, employment, and civic/cultural uses

Common types of planning and development challenges:

Integrating dense mix of housing and employment into built-out context

Source: Reconnecting America and Center for TOD, *TOD 202*

New Haven Union Station: An Established Regional Center

Hartford Line service will be provided to the existing New Haven Union Station, located on Union Street and adjacent to Long Wharf in the City of New Haven. The station area consists of a high-density mix of residential, commercial, and institutional uses, and the station itself serves as the southern terminus and anchor of the Hartford Line corridor. New Haven is the second most populous city in Connecticut. This established regional center features a robust transportation network punctuated by the convergence of regional and intercity rail corridors, the *CTtransit* New Haven local bus system, and access to the interstate highway system. Union Station is also located less than one mile south of the State Street Station, and is in close proximity to Yale University, Yale-New Haven Hospital, as well as a host of other anchor institutions and retail options within the City of New Haven.

Typical of an established regional center, the station area is largely built out, but there are targeted opportunities to build upon the existing assets surrounding Union Station. For instance, efforts are ongoing to advance the multifaceted Hill-to-Downtown project along Church Street and the surrounding area near the station. Additionally, the City is moving forward with a responsible growth plan for the Long Wharf District east of the station. The City has long been an employment hub as well as a residential center for commuters, and these ongoing efforts will help to reinforce the station area as an established regional center.

Hartford Union Station: An Established Regional Center

Hartford Line service will be provided to the existing Hartford Union Station, which has recently been improved with the construction of a high-level platform and other passenger amenities as part of the NHHS Rail Program. As the capital of Connecticut and the State's fourth most populous city, Hartford is a major employment center particularly known for its concentration of insurance companies and financial services firms. The station is located within the central business district in Hartford's downtown, near major anchor institutions including Hartford Hospital, The Hartford, Trinity College, University of Hartford, and the State Capitol.

Future development opportunities within this established regional center will likely be catalyzed by convenient access to the region's multi-modal transportation network, and could also be informed by future transportation infrastructure improvements, including the reconstruction of I-84. The City of Hartford can build upon the 9am to 5pm government and employment center in the station area to promote a vision for a 24/7 destination downtown for people to live, work, and play. The Capital Region Development Authority (CRDA) plays a pivotal role in helping to advance this vision by spurring economic development with hundreds of millions of dollars in investment in the development district in downtown Hartford. The combination of existing assets and future development opportunities provides the foundation to expand the regional draw of Hartford and the Union Station area.

Springfield Union Station: An Established Regional Center

Hartford Line service will be provided to the existing Springfield Union Station, which has recently been restored through a partnership between the Springfield Redevelopment Authority and Massachusetts Historical Commission. The station is located on Lyman Street in the heart of downtown Springfield, which is a well-established regional center. The City of Springfield is the third largest city by population in Massachusetts and larger than any city in Connecticut. It is a regional hub in western Massachusetts that supports major employment centers in government, medical, and other institutional uses.

The forthcoming addition of Hartford Line service creates opportunities to leverage the City's existing assets. For instance, the presence and recent/planned expansions of anchor institutions in Springfield—including, but not limited to, Baystate and Mercy Medical Centers—could serve as regional draws to the station area. Additionally, the City offers a range of existing and planned entertainment venues, including the annual Big E Festival, which drew over 1.5 million visitors over the course of a month in 2017, as well as the future MGM Springfield casino, which is scheduled to open in 2018. Underutilized parcels in the station area that are currently occupied by surface parking and single-story uses provide opportunities for targeted infill development to complement the existing dense mix of uses in downtown Springfield. Planned long-term expansion of rail service connecting Springfield to Boston would further solidify the status of Springfield as a regional center.



Characteristics of the station area: Significant center of economic and cultural activity with regional-scale destinations



Land use mix and density: Moderate- to high-density mix of residential, commercial, employment, and civic/cultural uses

Common types of planning and development challenges:

Integrating high-density housing into existing mix of housing and employment to support local-serving retail

Source: Reconnecting America and Center for TOD, *TOD 202*



Characteristics of the station area: Significant center of economic and cultural activity with regional-scale destinations



Land use mix and density: Moderate- to high-density mix of residential, commercial, employment and civic/cultural uses

Common types of planning and development challenges:

Introducing housing into predominantly employment uses and improving connections/access to transit

Source: Reconnecting America and Center for TOD, *TOD 202*

New Haven State Street Station: An Established Urban Center

Hartford Line service will be provided to the existing State Street Station in New Haven, and at the time of this report, construction of a high-level platform at the State Street Station is scheduled to be completed in May 2018. Located adjacent to the New Haven Green and near Yale University, the State Street Station is situated in the downtown area and serves as a focal point for the established urban center around this station. Although this station area overlaps with the station area for Union Station, the State Street Station area is identified as an urban center due to the more limited nature of the regional transit destinations compared to Union Station.

The prime location of the State Street Station makes it an attractive area for retail and restaurants catering to commuters. As one of the City's major taxpayers and employers, Yale University is a key anchor institution, but New Haven has also become a major hub for health care and biotechnology. Underutilized lots in the station area that are currently occupied by surface parking could create opportunities for TOD. The 2010 completed mixed-use development on a former brownfield site at 360 State Street, which features 500 apartments and ground-floor retail, demonstrates the potential for targeted infill and redevelopment in the station area.

West Hartford: A Potential Future Suburban Center

A future Hartford Line station is planned in the Town of West Hartford at Flatbush Avenue. The station area, located in both the Town of West Hartford and the City of Hartford, is identified as a potential future suburban center that has promise to emerge as a transit-oriented multi-modal hub with a mix of moderate- and high-density uses. While the existing Flatbush Avenue *CTfastrak* Station and the proposed future construction of the Hartford Line station provide the foundation for a transformation within this community, the station area currently consists primarily of auto-dependent industrial and commercial developments, surrounded by single-family residential neighborhoods.

Existing big-box retail establishments with considerable parking, as well as large-lot industrial developments, provide long-term potential for turnover of these uses into higher-density, mixed-used developments located near and oriented toward the future station. The street network currently contains minimal pedestrian and bicycle infrastructure and amenities, although efforts are underway to plan and implement public realm improvements, which will be critical to leverage the area as a future transit hub with direct cross-platform connections between the Hartford Line and *CTfastrak*. In this way, the West Hartford Station area poses a unique opportunity to evolve into a suburban transit center in the future.



Characteristics of the station area: Local center of economic and community activity



Land use mix and density: Moderate-density mix of residential, commercial, employment and civic/cultural uses

Common types of planning and development challenges:

Increasing densities while retaining scale and improving transit access

Source: Reconnecting America and Center for TOD, *TOD 202*

Wallingford: An Established Transit Town Center

At the time of this report, construction of a new Hartford Line station is nearing completion in the Town of Wallingford between North Cherry Street and North Colony Road, less than a half-mile north of the existing historic station between Quinnipiac Street and Hall Avenue. Although the station is being relocated, the station area is identified as an established transit town center due to its proximity to Downtown Wallingford. Although Uptown Wallingford (in the vicinity of North/South Main Street) is upheld as the consistently strong retail core of the Town, Downtown effectively complements the Uptown area with a mix of retail and civic uses to anchor the new station area. Additionally, the Town has expressed interest in adapting Downtown into a mixed-use environment, introducing housing as a component that supports the viability of first-floor retail.

While the area immediately around the new station primarily contains a mix of low-density and auto-oriented industrial and commercial uses, the existing Parker Place apartment complex just north of the station offers a local precedent for transit-oriented, moderate-density housing. Additionally, there is an ongoing project to expand Parker Place by almost 200 units. The Town's TOD Plan also outlines a number of strategies to shift existing industrial development to the north, freeing up space for mixed-use and retail development Downtown near the existing historic station, with a focus on higher-density residential in close proximity to the new station. One of the Town's priorities is to encourage new development that enhances the station area as a local destination without compromising the existing scale of development. The Town has also identified several necessary pedestrian improvements to provide safe and convenient access between Downtown and the new station.

Windsor: An Established Transit Town Center

A future Hartford Line station is planned in the Town of Windsor, just south of the existing station in the heart of the downtown area known as Windsor Center. This well-established transit town center displays a mix of multi-family residential development east of the railroad tracks with supporting local retail and a number of civic uses west of the tracks, including Town Hall, the Town Green, and the public library. Potential future improvements to the street network and block configuration that stems from Broad Street would complement the existing assets within

the station area, providing a more walkable, pedestrian-oriented local destination in the community.

The Town is not seeking to transform the station area into a regional destination, but there is potential for targeted infill development to add to the local retail presence and mixed-use nature of Windsor Center. The Town has identified a few priority development sites in the area immediately surrounding the new station, with opportunities to build upon without changing the character of the area. Similar to other established transit town centers, it will be important to promote context-sensitive development in Windsor Center. The First Town Square condo complex and the recently completed Windsor Station Apartments complex are indicative of the scale of moderate-density residential projects that the Town deems to be appropriate to maintain and enhance the character of the station area.

Meriden: An Emerging Transit Town Center

A newly renovated Hartford Line station was recently completed on State Street in the City of Meriden. The station area is generally coterminous with Downtown Meriden, and there are recently completed and ongoing efforts to leverage the forthcoming Hartford Line service to bolster this local activity center. Accordingly, the station area is identified as an emerging transit town center.

In highlighting the opportunities and importance of TOD along the Hartford Line as part of the NHHS Rail Program, CTDOT has cited Meriden as an early success story, most notably due to the recently completed mixed-use development at 24 Colony Street. This development, which features a parking garage, represents a unique partnership between the City, the local housing authority, a private developer, and multiple State agencies. The City is continuing to advance its vision for downtown redevelopment and associated public realm improvements as documented in Meriden2020. The implementation of roadway and sidewalk improvements in the station area can effectively complement the ongoing efforts to promote redevelopment on targeted sites to enhance this emerging transit town center, anchored by the main retail thoroughfare of Main Street. As the City builds upon the momentum of the recently completed development at 24 Colony Street, additional redevelopment underway, and the forthcoming introduction of Hartford Line service, it will be important to balance the impetus for new development with the goal to retain and enhance the existing neighborhood character in the downtown.



Characteristics of the station area: Local center of economic and community activity



Land use mix and density: Moderate-density mix of residential, commercial, employment and civic/cultural uses

Common types of planning and development challenges:

Increasing densities while retaining scale and improving transit access

Source: Reconnecting America and Center for TOD, *TOD 202*

Berlin: An Emerging Transit Town Center

Construction of a new Hartford Line station is nearing completion on Depot Road in the Kensington Village neighborhood of the Town of Berlin, directly adjacent to the site of the historic station that was destroyed by a fire in December 2016. This station area is identified as an emerging transit town center due to the Town's progress in moving from plan to implementation in establishing Kensington Village as a local destination anchored by the new station.

While there is currently no discernable activity center in the station area, the Town has invested considerable time and resources to support TOD in Kensington Village over the past several years, and these efforts are ongoing. Most notably, the Town is actively addressing existing gaps in the pedestrian network that provides access to the station through a range of capital improvements. These accessibility improvements complement a recently completed mixed-use development on the south side of Farmington Avenue and directly across from the new station, known as Depot Crossing. Through its TOD Plan for Kensington Village, the Town has also identified and is taking steps to advance several redevelopment opportunities as catalytic sites in proximity to the new station, with a focus on targeted increases in density that maintain the existing character of the area. The combination of ongoing public realm improvements and redevelopment oriented towards the new station underscores the status of this station area as an emerging transit town center.

Windsor Locks: A Potential Future Transit Town Center

A future Hartford Line station is planned in the Town of Windsor Locks approximately one mile north of the existing station on Main Street. The relocated station will be located just north of the historic train station in what was historically a mixed-use and walkable downtown. The area currently lacks a discernable center and consists of auto-oriented uses along a roadway that caters primarily to vehicular throughput at the expense of pedestrian safety and convenience. However, the Town has a desire to rejuvenate the identity of a pedestrian- and transit-oriented downtown anchored by the future Hartford Line station, and thus the station area is identified as a potential future transit town center. The Town has made a conscious decision to pursue relocation of the train station in the historic core of downtown Windsor Locks, recognizing that Hartford

Line service will be an attractor for both businesses and residential development.

For several years, the Town has taken steps to advance downtown revitalization in the area surrounding the future station. In 2013, the Town completed a TOD Plan that outlined potential development sequencing options in conjunction with infrastructure improvements and regulatory changes to guide implementation of TOD. The momentum continues to build, with Town leadership securing State funding to complete pre-development site work and complementary roadway improvements near the future station. Furthermore, the ongoing redevelopment of Montgomery Mills as a 160-unit adaptive reuse of a former mill in the station area is a catalytic project that will help the Town achieve its goal of creating a transit town center along a reinvigorated Main Street.

Enfield: A Potential Future Transit Town Center

A future Hartford Line station is planned on North River Street in the Thompsonville Village neighborhood of the Town of Enfield. Although Thompsonville was historically Enfield's thriving downtown, the area has experienced decades of private sector disinvestment. However, the Town has embarked on a sustained campaign of planning for downtown revitalization, and thus the station area is identified as a potential future transit town center.

Municipal leaders in Enfield have been successful in securing millions of dollars in federal and state grants to support TOD-related initiatives in Thompsonville, including—but not limited to—the Town's goal to create a transit center with complementary development in a former casket-hardware factory, and the goal to increase pedestrian and bicycle accessibility to the future station as well as the riverfront. Additionally, the Town has identified several potential redevelopment sites and is currently advancing an economic development strategy to catalyze private sector investment and promote context-sensitive development that complements the existing scale of development in the area. Bigelow Commons, a mill complex that was rehabilitated in the 1980s, serves as an example of existing multi-family housing adjacent to the station. The potential rejuvenation of the commercial core in Thompsonville with moderate-density mixed-use development, catalyzed by the future Hartford Line station, offers promise for the station area to emerge in the future as a transit town center.



Characteristics of the station area:

Predominantly residential district organized around transit station



Land use mix and density:

Low- to moderate-density residential uses with supporting commercial and employment uses

Common types of planning and development challenges:

Integrating moderate density housing and supporting local-serving retail

Source: Reconnecting America and Center for TOD, *TOD 202*



Characteristics of the station area: Local focus of economic and community activity without distinct center



Land use mix and density: Concentrations of commercial, employment and civic/cultural uses, potentially with some residential

Common types of planning and development challenges:

Creating sustainable off-peak uses and accommodating peak travel demand

Source: Reconnecting America and Center for TOD, *TOD 202*

Newington: A Potential Future Transit Neighborhood

A future Hartford Line station is planned in the Town of Newington, although the timing and exact location of the station are still under consideration by CTDOT. Newington is a suburban community situated between Berlin and West Hartford along the Hartford Line corridor, and the future station would complement existing CTfastrak service in the Town. The station area around the initial planned location of Newington Junction is identified as a potential future transit neighborhood, as it would be surrounded primarily by low-density residential uses, with opportunities for mid- and long-term turnover of existing industrial uses. Future development in the station area could build upon without replacing the stable single-family neighborhoods in the Town of Newington. Depending on the selected location

for the future station, the Town could leverage proximity to local and/or regional anchor institutions, as well as the downtown, through targeted pedestrian and bicycle network improvements and economic development.

North Haven: An Emerging Special Use/Employment District

A future Hartford Line station is planned in the Town of North Haven near the intersection of State Street and Devine Street. The station area is a burgeoning medical epicenter, home to a Yale-affiliated medical center and nearby senior housing, with complementary employment elsewhere in Town (e.g., Covidien, a medical equipment company employing over 2,000 people). Accordingly, the station area is identified as an emerging special use/employment district, and Town leadership remains focused on harnessing the full potential of this evolving hub of medical uses.

Development density is currently focused around the medical uses near the future station. However, ongoing projects such as the remediation and redevelopment of a portion of the former Pharmacia and Upjohn site could offer additional local employment opportunities that could strengthen North Haven's emerging special use/employment district. There are also opportunities to supplement the existing medical uses with future development on vacant and underutilized land in the station area. The introduction of Hartford Line service and the future construction of a station in North Haven could offer the Town a competitive advantage while also deepening its economic, cultural, and social linkages with the City of New Haven.

The Role of the Public Sector in Driving TOD Implementation

As discussed in the previous sections, TOD potential is informed by station-area specific considerations such as land use mix and density, as well as regional and local market forces. The SCRCOG report, *TOD Opportunities for the South Central Region*, notes “TOD cannot overcome regional economics.” This point is echoed in the CRCOG report, *Making it Happen*, which states “Transit alone does not make a market for new development.”

While conventional wisdom is that the “T” in TOD is the most critical element to spurring new development, findings from recent research, which are consistent with stakeholder interviews conducted, suggest that other factors are just as important. A study conducted by the Institute for Transportation & Development Policy (ITDP) in 2013, entitled *More Development for Your Transit Dollar: An Analysis of 21 North American Transit Corridors*, evaluated several market and regulatory factors to determine the strongest “predictor of success” in TOD implementation measured in terms of the dollar value of TOD investment. While the study focused on modes other than heavy rail (including BRT and light rail), the findings underscore an important takeaway that offers promise for the future of the Hartford Line corridor.

Of note, the ITDP study concluded that the second most important predictor for TOD success is the strength of the land market surrounding the transit corridor, whereas the most important predictor is government support for TOD. The study discusses the multitude of ways in which the public sector can promote TOD, including through a combination of station area planning, zoning modifications, tax incentives and other financial assistance, capital improvements, and land assembly. One of the key conclusions of the study was that “There is nearly a direct correlation between the level of TOD investment and the strength of government support. If a government does nothing to support TOD along the transit corridor, there will be no TOD impact.”

“There is nearly a direct correlation between the level of TOD investment and the strength of government support. If a government does nothing to support TOD along the transit corridor, there will be no TOD impact.”

INSTITUTE FOR
TRANSPORTATION &
DEVELOPMENT POLICY

With this in mind, the public sector has an important role to play in maximizing the economic development benefits of the Hartford Line investment. The *Making it Happen* report asserts that “realizing the potential for TOD in the region will require proactive efforts,” and that “active leadership is crucial for success.” Accordingly, municipalities along the Hartford Line have a timely opportunity to take action that positions their respective station areas for TOD implementation, and the FTA Pilot Program for TOD Planning created a framework for CTDOT to provide targeted support to these municipalities.



FEDERAL TRANSIT ADMINISTRATION (FTA) PILOT PROGRAM FOR TOD PLANNING

In 2014, the FTA announced its Pilot Program for TOD Planning, with the goal of “improving public transportation for America’s communities by providing funding to local communities to integrate land use and transportation planning” to promote TOD that may otherwise not be financially feasible. The program aims to support the development of comprehensive planning strategies and to maximize the opportunity for implementation of these strategies through critical partnerships. The FTA states that...

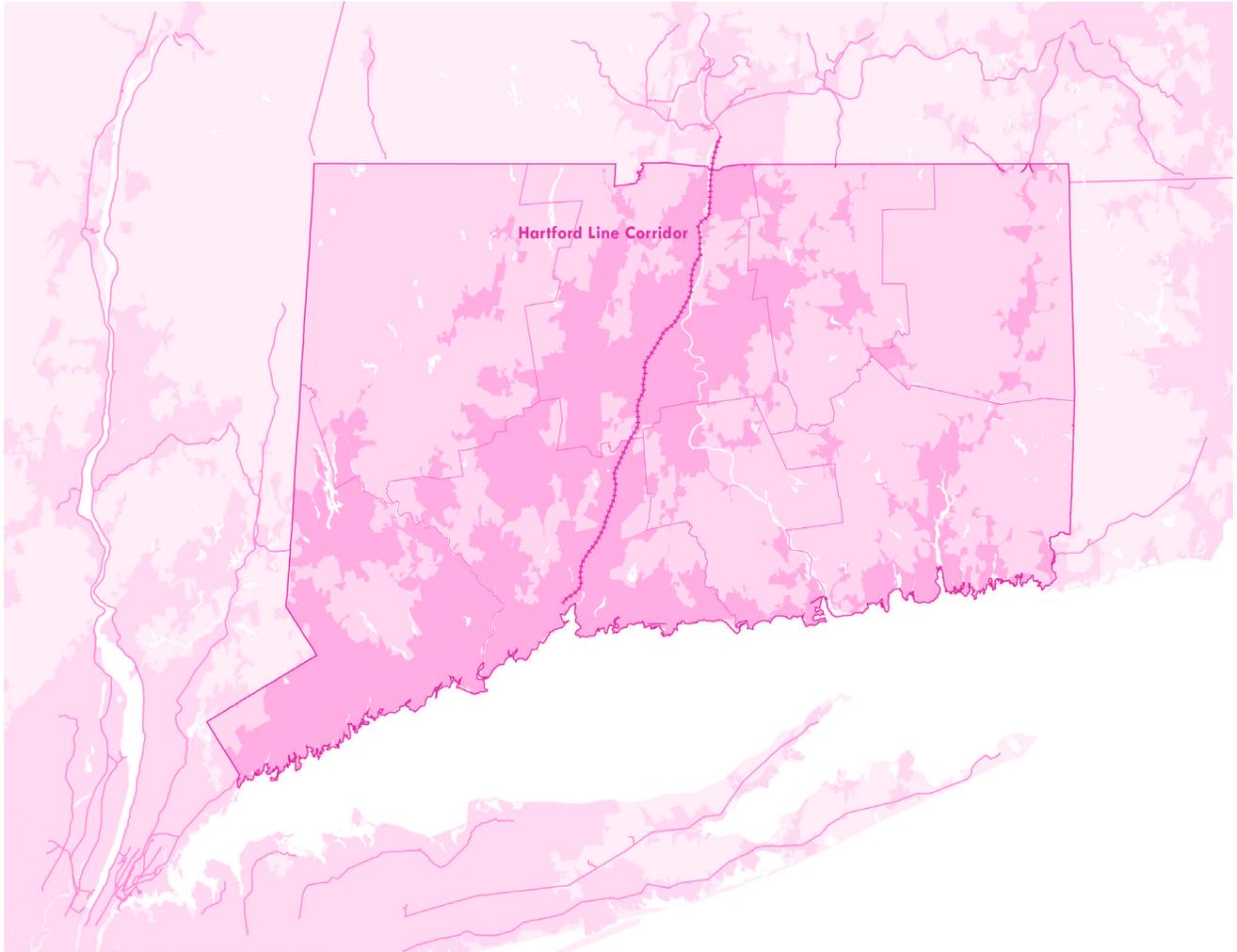
“any comprehensive planning funded through the program must examine ways to improve economic development and ridership, foster multimodal connectivity and accessibility, improve transit access for pedestrian and bicycle traffic, engage the private sector, identify infrastructure needs, and enable mixed-use development near transit stations...and be associated with a new fixed guideway or core capacity transit project...”

In 2015, the State of Connecticut was awarded funding from the FTA grant program to advance economic development along the Hartford Line in association with the NHHS Rail Program. The State’s grant application proposed a work plan for developing actionable strategies to address three primary barriers that are hindering TOD potential along the Hartford Line:

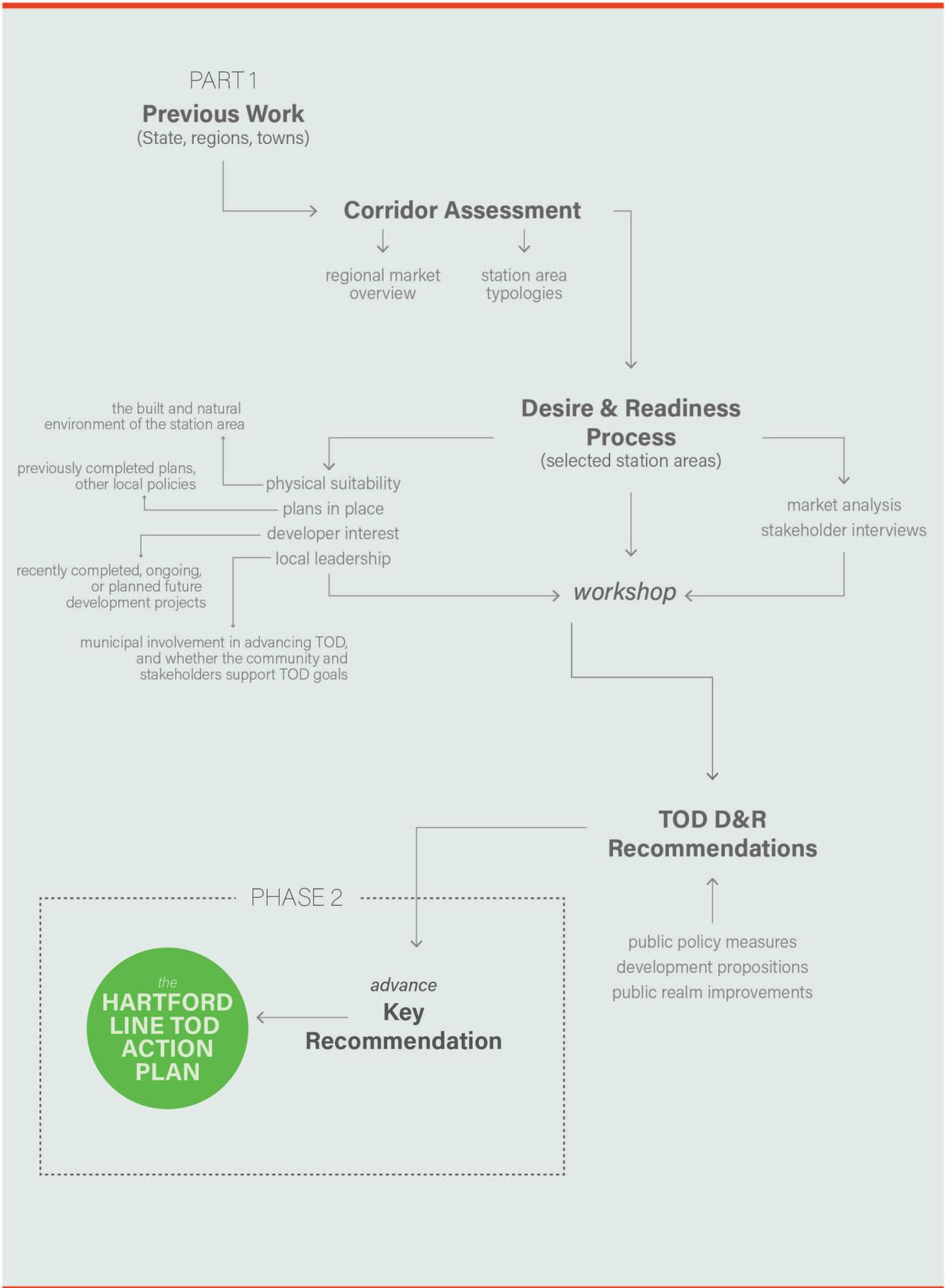
1. Dispersed residential and employment centers;
2. Lack of local physical and institutional structure in stations areas to support TOD; and
3. Lack of understanding of financial levers that could be applied to catalyze sustainable TOD.

As summarized in the objectives and scope of the NHHS Rail Program, municipalities along the corridor have the potential to serve as “magnets for growth – ideal places to live and to relocate businesses that depend on regional markets and travel.” Accordingly, the purpose of this Hartford Line TOD Action Plan is to fully capitalize upon this potential by collaborating with and providing technical assistance to interested municipalities to address identified barriers in specific station areas along the corridor.

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03 METHODOLOGY & PLANNING PROCESS



CTDOT initiated the Hartford Line TOD Action Plan in May 2016 to activate TOD opportunities along the corridor by supporting and building upon local and regional planning efforts. The effort began with consideration of the entire corridor through a regional market assessment and identification of station area typologies (Chapter 2). While recognizing that each station area is unique, this approach acknowledged the station areas collectively to define the TOD potential for the corridor as a whole.

Following the corridor assessment, eight station areas along the corridor were selected for greater focus. The selected station areas include a combination of replaced, relocated, and new stations: North Haven; Wallingford; Berlin; Newington; West Hartford; Windsor; Windsor Locks; and Enfield. New Haven, Meriden, Hartford, and Springfield were not identified as selected station areas in part because of the extent of TOD implementation that is already underway in these respective station areas, thereby limiting the need for additional station area-specific planning through this project.

CTDOT has been partnering with the respective municipalities for the eight selected station areas to identify and overcome hurdles for TOD implementation. To achieve this objective, the Action Plan is divided into two parts:

1. An assessment of TOD Desire & Readiness (D&R), which features an interactive process with municipal officials, staff, and stakeholder leaders to identify actionable strategies to attain locally-defined and context-sensitive TOD goals; and
2. Advancement of one of the key recommendations identified in the first part pertaining to specific development propositions, complementary public realm improvements, and/or TOD-supportive policies, in close collaboration with the respective municipality.

To establish a point of departure for the selected station area assessments, the project team first compiled and reviewed previous plans, studies, and reports for each of the eight selected station areas, and subsequently conducted a series of kick-off coordination calls with municipal officials and staff in each community. The coordination calls served to confirm key issues that the municipal leaders believed were critical to TOD implementation in their respective communities, and enabled the project team to acquire a nuanced understanding of the locally-defined vision for

each station area. It was important to establish this point of departure because each station area is at a different stage of progress in TOD planning and implementation, and one of the fundamental objectives of this project is to work with the municipalities to build upon prior and ongoing efforts.

Following the initial review of previous studies and the coordination calls with each municipality, a D&R assessment was conducted for each selected station area to determine how “willing and able” each community may be in supporting TOD.

Defining Desire and Readiness for TOD in a Community

In each station area, the local community needs to express its level of desire for TOD to set the context for a station area strategy. High desire (which, in turn, may suggest a community’s degree of readiness) is illustrated by a community that strongly supports denser mixed-use development in the station area and sees the station as a centerpiece to development.

Not every station area is suitable for TOD. Communities define their desire based upon surrounding land uses, surrounding densities, and neighborhood character. However, a lower desire only reflects current opinion and does not necessarily mean that there are no opportunities for future development and other improvements. In station areas where desire is lower, there may still be a need to consider what public realm improvements can optimize the relationship between the station and the surrounding community that would promote use of the station, reduce automobile dependence, and facilitate economic development.

Desire is needed to develop an action plan for implementation. Communities that have desire will be better prepared to coordinate opportunities with developers, implement the steps necessary to achieve capital improvements and/or development opportunity, and build consensus amongst all stakeholders on a shared pathway to achieve the goals set for the station area.

After assessing each community’s level of desire for TOD in the selected station areas, each community was also evaluated for its level of preparedness to implement TOD within the context that it envisions. The readiness evaluation focuses on physical conditions and the capacity of local leadership to implement TOD.

Using four overarching evaluation criteria, the desire and readiness assessment identifies the gaps and critical missing actions that are needed to progress a station area development strategy from planning to implementation. The following four criteria are essential ingredients to successful implementation of TOD. Throughout the TOD D&R process, these criteria are used to frame discussions around development potential and to gauge the degree of desire and readiness for TOD in the community surrounding the station.

Using four overarching evaluation criteria, the desire and readiness assessment identifies the gaps and critical missing actions that are needed to progress a station area development strategy from planning to implementation.

TOD Desire and Readiness evaluation criteria:

1. **Physical Suitability:** A station area's physical context, including availability of large parcels, ownership patterns, pedestrian accessibility, land use composition, vehicular circulation, and transit connectivity, can either support or provide obstacles for TOD.
2. **Public Sector Readiness:** Having the appropriate regulatory framework, provision of incentives, and local plans in place for the station area is important for both the feasibility and timeframe for implementing TOD.
3. **Developer Interest:** Most TOD is initiated by the private sector or through public-private partnerships. Recently completed, ongoing, and potential future development projects can serve as indication of the level of developer interest in a station area.
4. **Leadership in Place:** Leadership and stewardship of planning initiatives at the local and regional level, in addition to community support, is essential to successful implementation of TOD.

The cornerstone of the D&R process was a workshop for each selected station area with a small group of municipal officials, staff, and key stakeholders. Workshop attendees represented individuals with a range of local knowledge and expertise in all of the different functional areas of TOD. These workshops enabled the project team to work directly with each municipality to identify actionable strategies to overcome key hurdles for TOD implementation.

While Newington was identified as a selected station area, it was not included in the D&R process because the timing and exact location of the station are still under consideration by CTDOT.

Additional Outreach

The D&R process was also bolstered by stakeholder interviews, including anchor institutions and developers. Anchor institutions— such as educational institutions, hospitals and related medical facilities, and large employers—play a vital role in catalyzing local economic development by drawing people to the station areas and/or by serving as active participants in advancing development opportunities and public realm improvements around the station areas. The project team conducted interviews with anchor institutions to learn about their employment and transit needs, potential future expansion, and their ability to support TOD. Interviews with developers who are active throughout the region also informed the project team's understanding of market-based barriers and opportunities for TOD along the corridor.

At key milestones in the Hartford Line TOD Action Plan, CTDOT and the project team provided updates to regional stakeholders and the public through presentations at Policy Board meetings of the Capitol Region Council of Governments (CRCOG) and South Central Regional Council of Governments (SCRCOG), as well as meetings of the Corridor Advisory Committee (CAC). As noted on CRCOG's CAC webpage,

The [CAC] was launched in 2013 to provide the chief elected officials and other interested parties of the cities and towns on the [CTrail Hartford Line corridor] and the [CTfastrak corridor] with a forum to share information and tools for taking full advantage of the \$1.5 billion-dollar transportation investment underway.

This stated purpose of the CAC underscores the overall goal of the Hartford Line TOD Action Plan, namely to provide

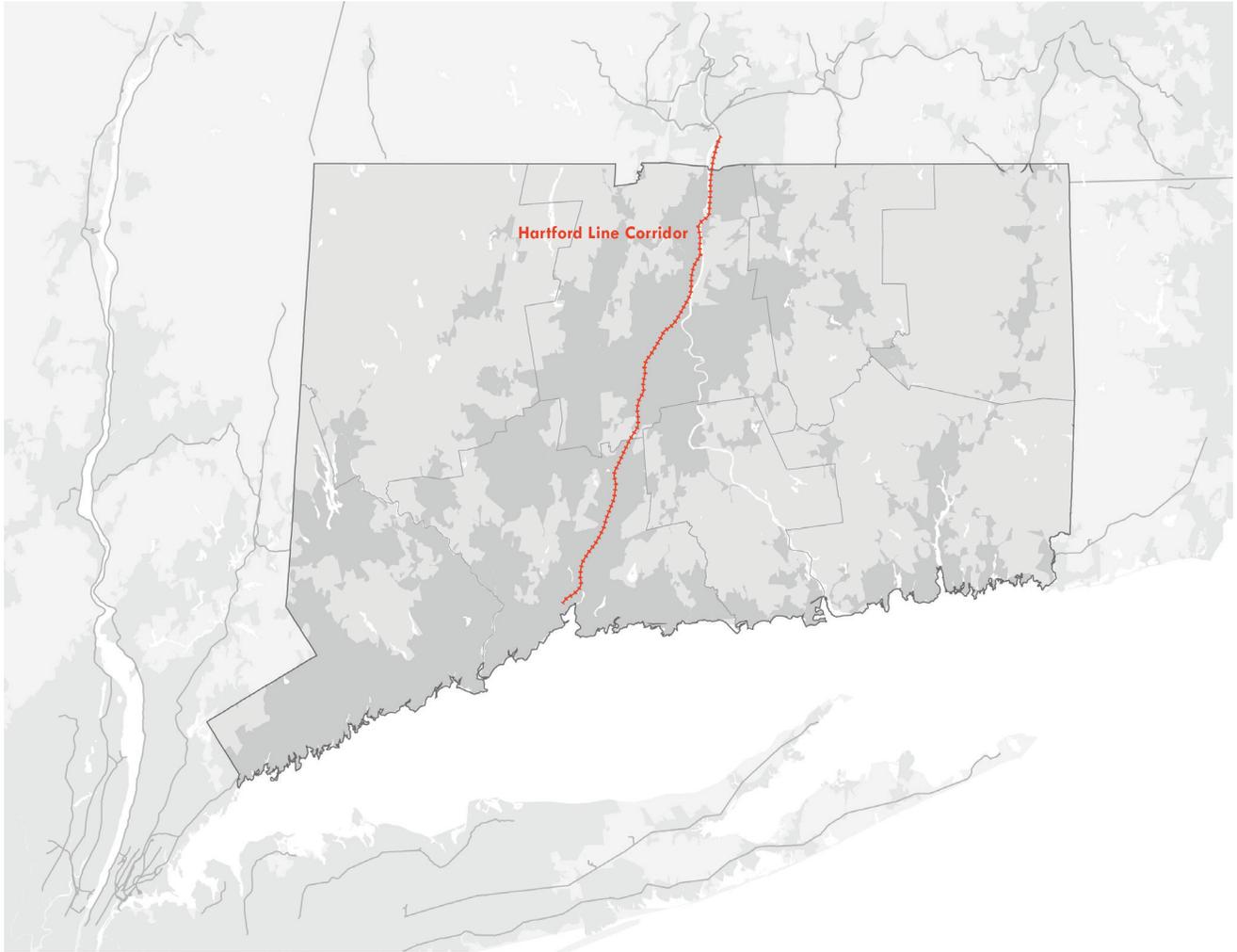
technical assistance to Hartford Line municipalities to help the corridor realize its economic development potential enabled by the transformative regional transit investment.

D&R Recommendations

Following a full synthesis of the stakeholder feedback and D&R workshops, a summary graph, and criteria scales (presented in corresponding station area sections of Chapter 4) were developed to summarize and illustrate each station area's evaluation per the four TOD D&R criteria. As the D&R process provides a qualitative framework for assessing TOD potential, these visual representations should be interpreted as a means of illustrating the four criteria, rather than definitive analysis.

The graphical summaries and station area evaluations helped to inform a set of recommendations tailored to address each station area's hurdles to TOD implementation. The recommendations strive to integrate development opportunities (where appropriate), capital improvements, and public policy initiatives to help municipalities along this strategic corridor move from TOD planning to implementation. In the second part of the Action Plan, the project team will work with each of the selected station area municipalities to advance one key recommendation that emerged and/or were reinforced during the D&R process.

The following sections present a TOD assessment for each of the eight selected station areas along the Hartford Line, discussed south to north as follows: North Haven, Wallingford, Berlin, Newington, West Hartford, Windsor, Windsor Locks, and Enfield. Following an overview of market conditions, the assessment includes a discussion of the four D&R criteria—physical suitability, plans in place, developer interest, and local leadership—that led to the identification of hurdles for TOD implementation. These hurdles directly informed the project team’s recommendations, which are discussed in Chapter 5.

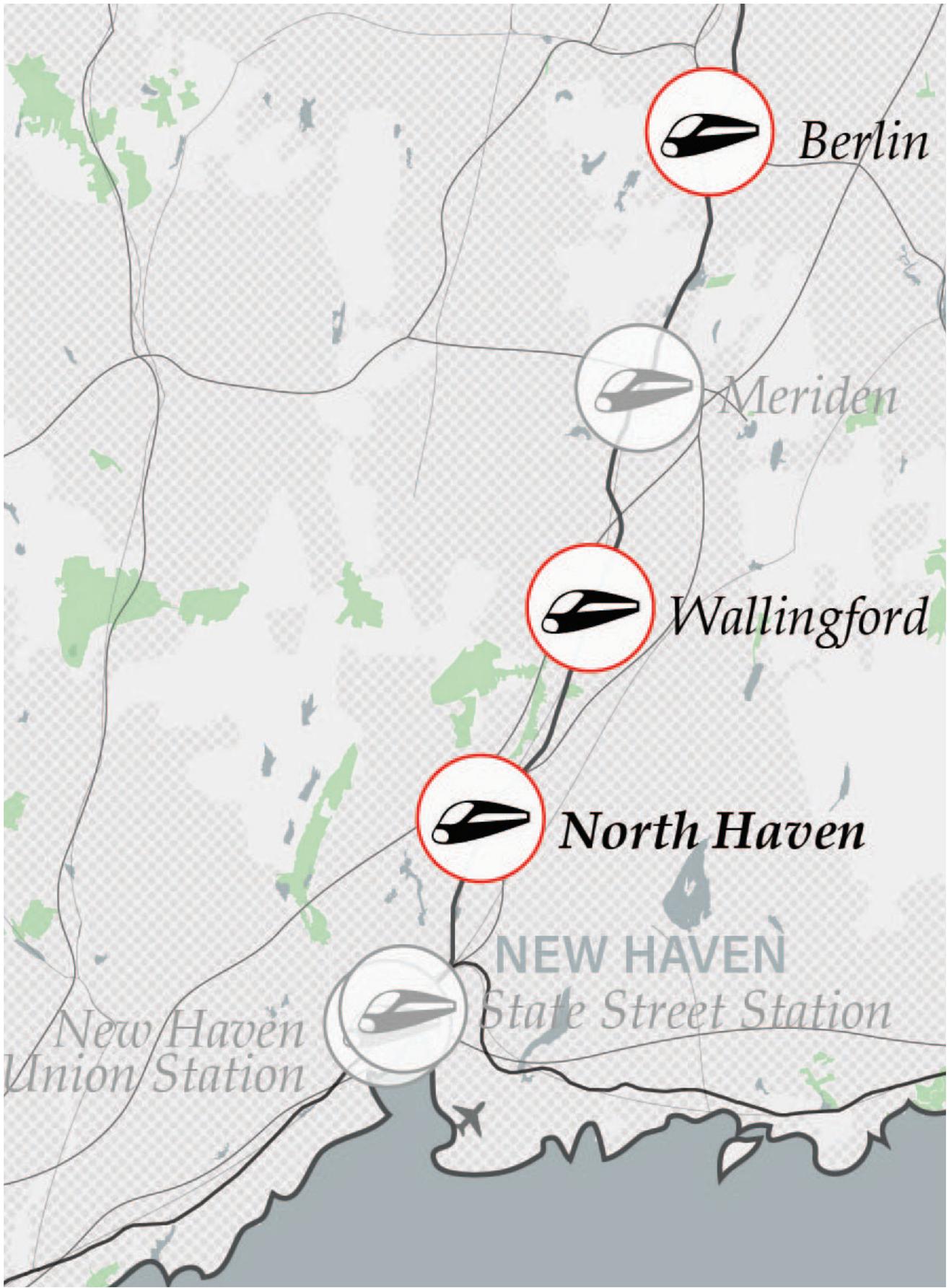


04 SELECTED STATION AREA ASSESSMENTS

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NORTH HAVEN



Berlin

Meriden

Wallingford

North Haven

NEW HAVEN
State Street Station

New Haven
Union Station

MARKET ASSESSMENT

Town of North Haven

in 2015-2016
US Census Bureau and CERC

23,709 residents

17,841 employees

\$86,340 median household income

84.4% owner-occupied houses estimate

21.8 minutes to work mean for a North Haven resident

Located just north of the economic and cultural center of New Haven, North Haven has historically been a suburban bedroom community. However, the neighborhood surrounding the future North Haven station is in transition, due to the Town's effort to be a hub for medicine and healthcare, as well as a retirement destination for seniors. While the proposed station will not be located in a typical town center area with mixed-use development and multi-family housing, the station area does have potential for TOD.

North Haven is near several institutions that are promising sources of future economic growth in the Town (see Figure 4-1). There are several hospitals and healthcare facilities that are central to the Town's vision of its future, including the North Haven Medical Center, which is a Yale-affiliated compound, and Covidien, a medical equipment company employing over 2,000 people in the Town. There are also several nearby universities, including multiple Quinnipiac University campuses in North Haven and neighboring Hamden, as well as Yale University and the University of New Haven in the City of New Haven. The presence of reliable regional rail service will help North Haven better leverage these regional economic drivers, allowing skilled workers and students to avoid commuting by car.

The residents, commuters, and land use patterns within North Haven rely heavily upon the automobile. Over 90 percent of Town residents commute to work by car, truck, or van. According to data from the Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) data, about 15 percent of working North Haven residents are employed within the Town, while the remainder commute outside of North Haven. Twenty three percent of North Haven's residents commute just under ten miles to New Haven. These automobile trip patterns, combined with the economic linkages to New Haven, may indicate latent demand for transit. However, it is important to note

that both older and younger residents often also express a desire for a walkable lifestyle, with proximate amenities and services.

The Town of North Haven is characterized by a relatively older and more affluent population living in single-unit and owner-occupied housing. North Haven's median household income is \$86,340, approximately 20 percent higher than the State median of \$70,330 per ACS data. Furthermore, the Town's median home value of \$295,700 is around 10 percent higher than the State's median of \$270,500. Twenty percent of North Haven residents are over the age of 65, compared to 15 percent of those in the New Haven region. This is likely due, at least in part, to the Town's effort to be a retirement destination for seniors. The Town recently established a Medical Epicenter Elderly Residential Zone (MEERZ), a zoning district allowing for age-restricted housing development near medical services.

Single-unit housing makes up 88 percent of housing stock in the Town, compared to only 66 percent in the State. In addition, 84 percent of dwellings in North Haven are owner-occupied, compared to 67 percent in the State.

In 2015, two new-construction apartment communities were completed, each capitalizing on some of North Haven's unique strengths. The "Village on State" is located just north of the proposed station (within the MEERZ district) and is a 150-unit age-restricted community targeting tenants aged 55 and over. Since North Haven has an older population, such age-qualified product is strategically positioned to meet the demand of empty-nester homeowners seeking a lower-maintenance lifestyle with community amenities. The other apartment community, the 125-unit "Flats at 520," is located adjacent to the Quinnipiac University North Haven campus, and is approved by the University for off-campus housing, which greatly added to the financial feasibility of the project. These two projects represent good examples of new construction strategically positioned to align with the unique attributes of the local socioeconomic profile.

The addition of these two projects resulted in a 40 percent increase in managed apartment unit inventory in North Haven in 2015. As such, the historically very low vacancy rate spiked temporarily as these projects entered the lease-up phase, with an increase from just over 3.0 percent in 2013 to a rate exceeding 9.0 percent in 2016. However, the



NORTH HAVEN MEDICAL CENTER



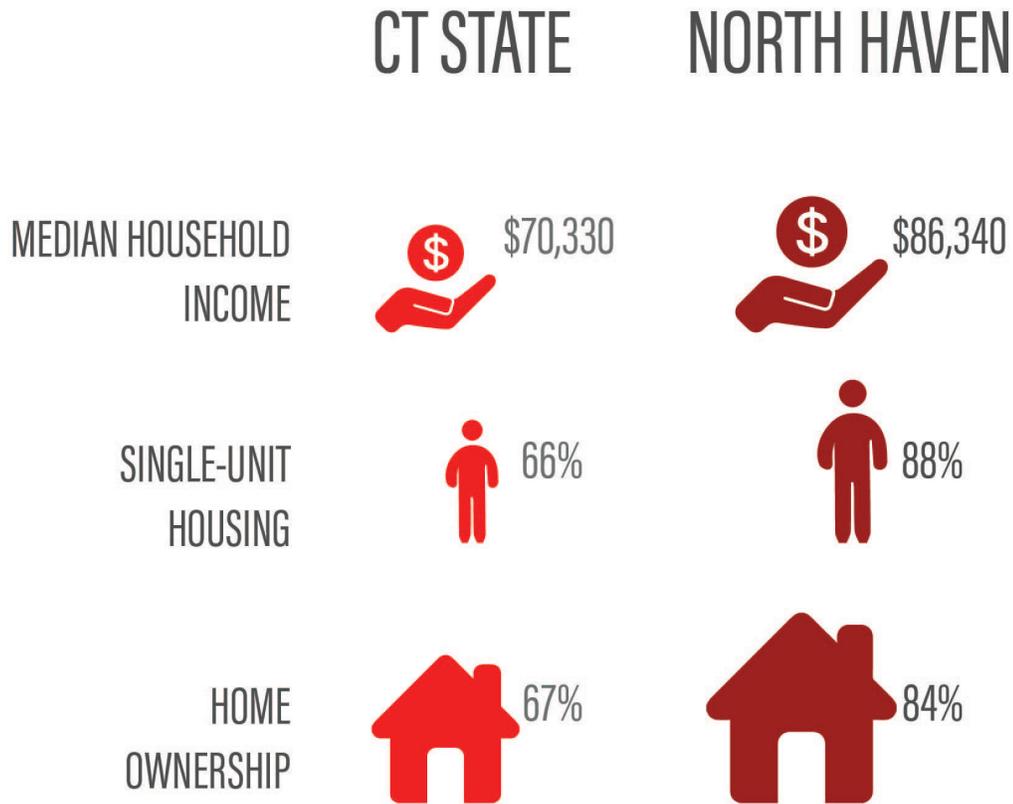
QUINNIPIAC UNIVERSITY



PHARMACIA & UPJOHN



THE CHILDREN'S CENTER OF HAMDEN



vacancy rate stabilized to approximately 6.0 percent in 2017 following these units' absorption in 2015 and 2016, suggesting the potential for additional demand in the near term. These new units have increased North Haven's average rent per square foot by 8 percent in 2015 and another 4 percent in 2016. Although the rent levels at these two projects exceed the North Haven average, they do not appear to be sufficiently high enough to attract additional private-sector interest in new construction.

On the commercial side, the North Haven office vacancy rate has improved vastly since the last recession when vacancy rates were high for several years. Five consecutive years of positive net absorption have resulted in tighter office market conditions. While the average office rent has rebounded since 2015, it has not reached the peak achieved in 2009. New construction has been minimal, with a total of 65,000 square feet delivered over the past 10 years. The most square footage introduced in any year over the past

The neighborhood surrounding the future North Haven station is in transition, due to the Town's effort to be a hub for medicine and healthcare, as well as a retirement destination for seniors.

Jobs Inflow/Outflow



Source: OnTheMap, 2015, <https://onthemap.ces.census.gov/>

decade was 20,000, suggesting that North Haven may not have recently been viewed as a compelling destination for new office development.

The Town of North Haven has a relatively high retail vacancy rate (8.2 percent) compared to other station area municipalities, indicating generally weaker market conditions for retail. Except for two large developments (230,000 SF in 2009 and 50,000 SF in 2015), retail development has been relatively limited.

However, the Town continues to have an active industrial market. In June 2017, Amazon announced plans to construct an 855,000-square foot fulfillment center on the former Pratt & Whitney site, located four miles north of the future station. This notable project, situated on a 168-acre site that has remained vacant for more than 15 years, is projected to add 1,800 jobs in North Haven. While the Town continues to have a strong industrial presence, it has been undergoing

a period of transition to support other forms of economic activity.

The recent growth of medical and auxiliary uses speaks to a community that is attracting economic investment even before the construction of a new train station. North Haven presents very attractive options to leverage its strong medical infrastructure with its vacant and underutilized land. The Town is well-positioned to capitalize on new commercial growth opportunities—like attracting additional medical and education/research facilities while jump-starting residential growth—by marketing the Town’s proximity to New Haven and keeping an eye towards the next generation of new residents and workers that could be attracted to the station area as it continues to evolve with new development.

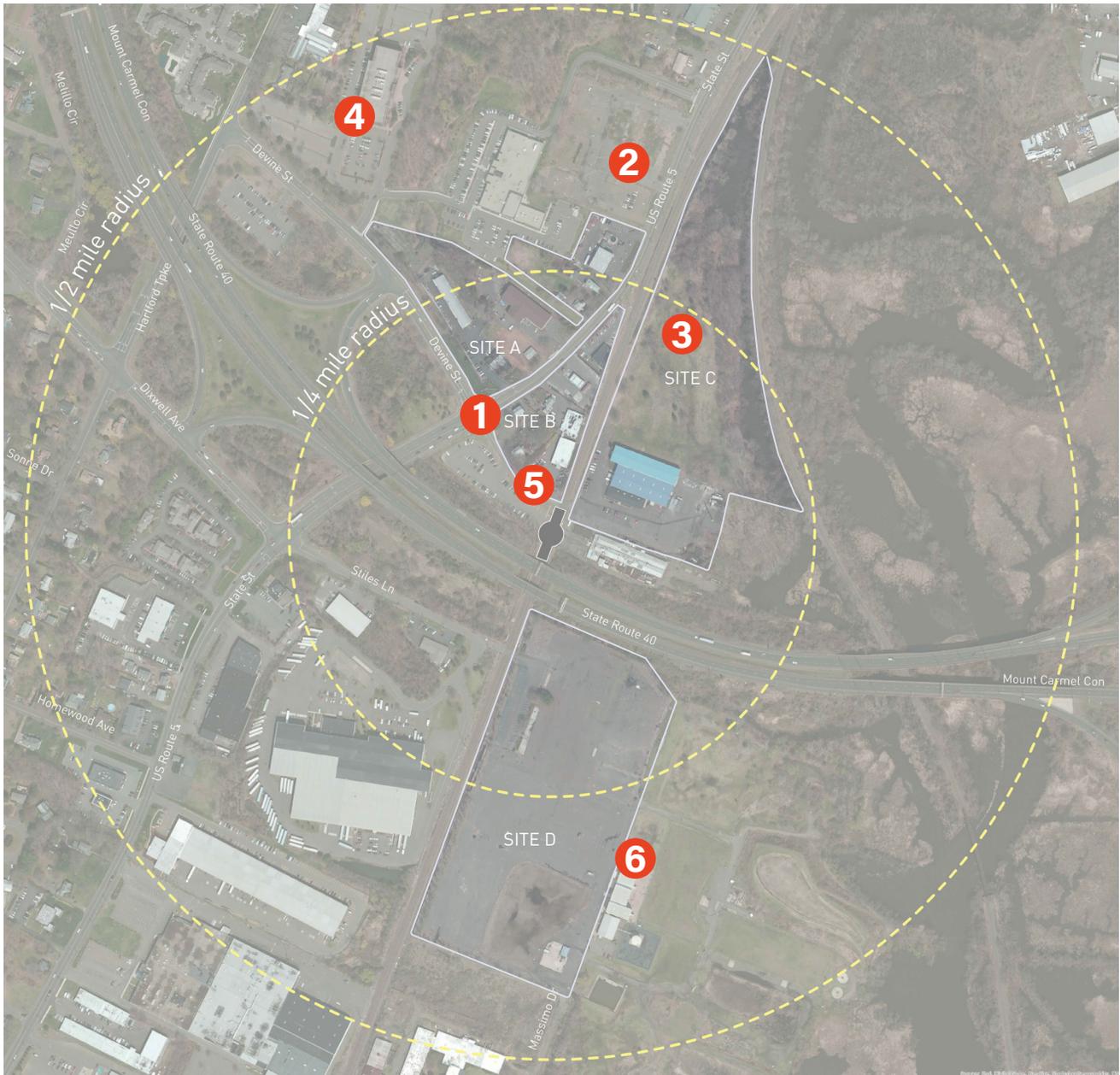


FIGURE 4-2

1/4- AND 1/2-MILE RADII
AND LOCAL LANDMARKS
IN THE NORTH HAVEN STATION AREA

TOD DESIRE & READINESS

Physical Suitability

As introduced in the previous section, the area surrounding the future station in North Haven is in transition, shifting from freight-related industry to an emerging “medical epicenter.” The success of this transition, and the potential for integrating TOD, will depend upon how new development addresses salient physical challenges in the station area.

At the center of this question is the dominance of the automobile. The design of the network of regional and local roadways leaves little accommodation for bicyclists and pedestrians, who are the basis for neighborhood-scale communities at the heart of TOD. Route 40 in particular, which connects the station area to I-91, is a six-lane limited access highway that both precludes non-motorized travel and also presents barriers in the form of overpasses and physical structures that create unfriendly and unappealing conditions for pedestrians in the surrounding area.

Route 5, an arterial roadway, connects local roads to Route 40 and presents a similar set of challenges. Ranging from three- to five-lanes, Route 5 is oriented towards facilitating auto travel, and sidewalks are inconsistent and interrupted by multiple curb cuts. Local roads that connect the future station to the rest of the roadway network also lack pedestrian amenities such as consistent sidewalks, crosswalks, striping, and pedestrian signals.

A consequence of a roadway network that is designed primarily to accommodate cars is that the area surrounding the proposed station lacks a discernable sense of place. Beyond the main arterials and industrial uses along the railroad tracks, this area of North Haven has a low-density residential district with apartments and detached single-unit homes, as well as a small selection of auto-oriented retail and commercial options, such as gas stations and convenience stores. Additionally, the



Landmarks in the North Haven Station area. Facing, left to right: the intersection of State Street and Devine Street, the “gateway” to the proposed station; Village on State, a higher-density residential development for seniors who want to live in proximity to the medical facilities in the station area; a view of the wetlands that occupy the area east of the proposed station. Above, top to bottom: the Yale New Haven Hospital’s North Haven Medical Center; the existing Park and Ride lot to the northwest of the proposed station, owned by Connecticut DOT; the Pharmacia & Upjohn site, a long-time focus for future area development.

STATION DESIGN IN NORTH HAVEN

OCTOBER 2016

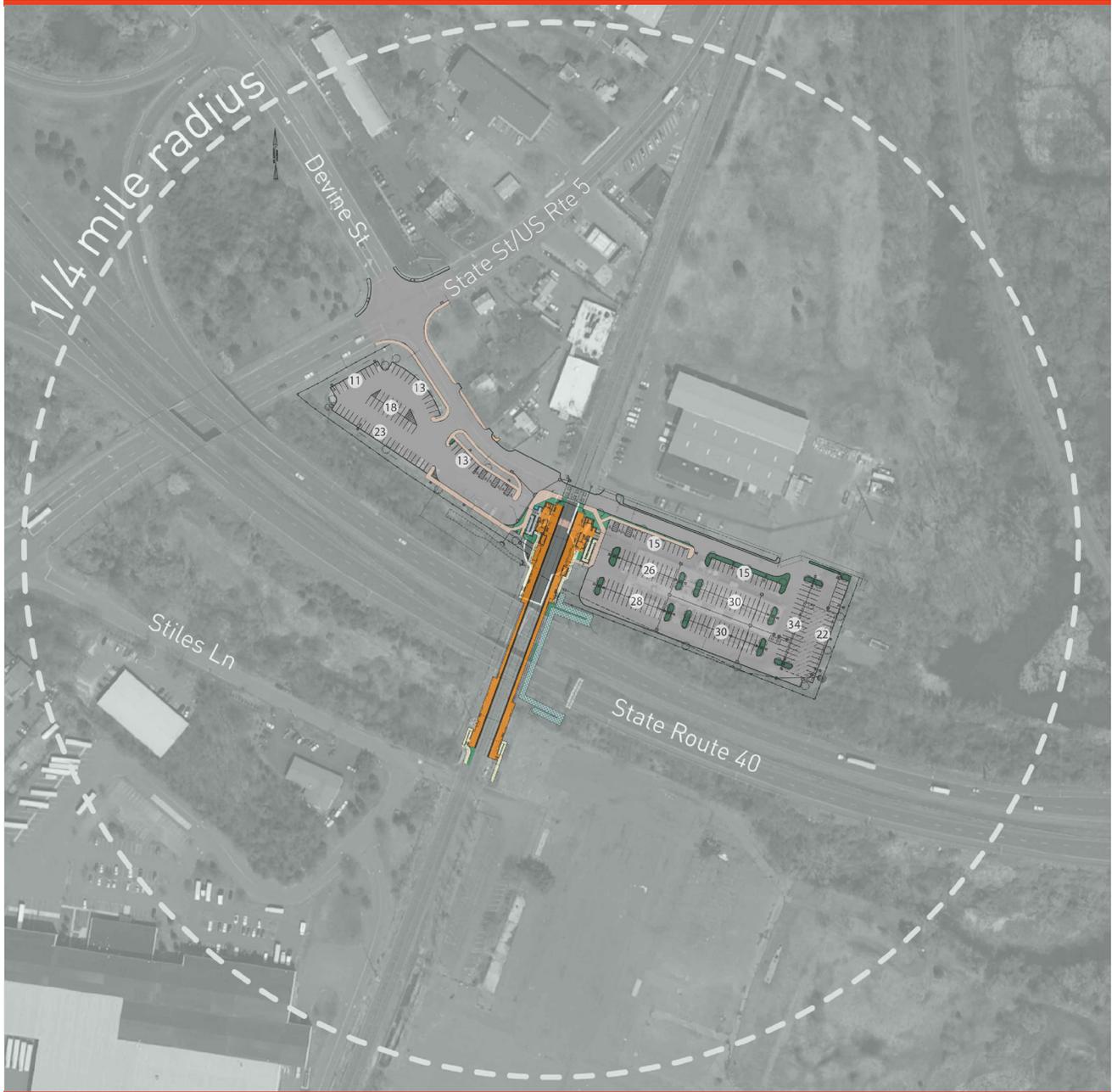


FIGURE 4-3

1/4-MILE RADIUS
AND STATION DESIGN
IN THE NORTH HAVEN STATION AREA

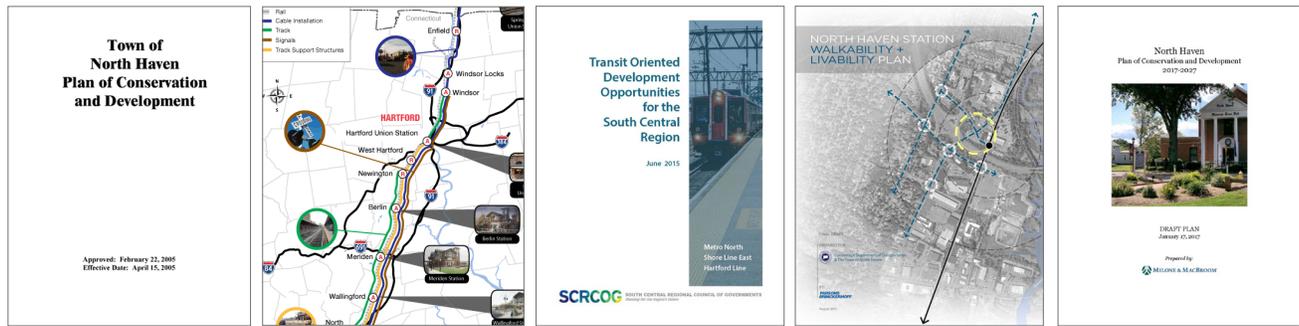
- | | |
|---|---|
|  |  |
| platforms | parking |
|  |  |
| pedestrian space | planting space |



medical uses that form the basis for the medical epicenter are also oriented to automobiles, with swaths of private parking lots and pathways to buildings set back far from the street, thereby limiting the sense of a coherent or identifiable district.

However, there are opportunities to create a sense of place relative to the future station, at locations such as the intersection of State Street and Devine Street. This

Photos of primary “gateways” in the North Haven Station area. Top to bottom, left to right: the intersection of State Street and Devine Street; the intersection of State Street, Dixwell Avenue, and Stiles Lane; Stiles Lane, looking towards future station platform location.



2005 2006 2008 2009 2012 2013 2015 NOW

North Haven POCD	Route 22 Corridor Planning Study	Implementation of the Regional Transit Study	South Central POCD	EA/EIE for NHHS Rail Program	Retail Market Study for Upper Washington Avenue	North Haven Station Walkability + Livability Plan	Hartford Line TOD Action Plan
				Spring Road Traffic Calming Study		TOD Opportunities for the South Central Region	North Haven POCD Update
						South Central Regional Long Range Transportation Plan	

intersection functions as the “gateway” to the site of the proposed station, but like other intersections in the area, it caters to fast-moving automobiles with high speed limits and wide turning radii, without provision for pedestrians. Intersection improvements that would accommodate non-motorized users could strengthen this location as a transit-oriented gateway and help establish a sense of place in the vicinity of the future station.

Another physical challenge in the station area is that the expanse of wetlands, natural area, and the Quinnipiac River to the east of the railroad tracks are all potential amenities inaccessible to the public. This also poses as opportunity, as demonstrated by the ongoing efforts to remediate and restore wetlands as well as provide public trails and paths on a portion of the former Pharmacia & Upjohn site. Expanded accessibility to natural areas east of the station site could create additional opportunities for recreational amenities along the waterfront.

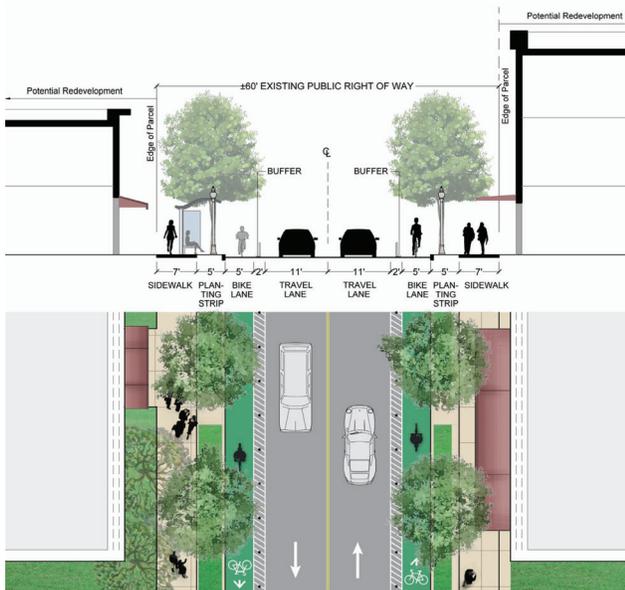
Based on review of prior plans and discussions with Town leadership during the D&R process, four potential redevelopment sites have been identified to support future TOD in the station area. The sites range in size from approximately three acres to more than 14 acres. All but one of the sites would require assemblages of two or more parcels, and several sites have constrained access. As shown in Figure 4-2, Sites A, B, and C are located north of Devine Street in the immediate vicinity of the future station site, and Site D is located south of Route 40.

Plans in Place

Much of the station area has industrial zoning that is not compatible with mixed-use or multi-family development that is typical of TOD. However, the Town of North Haven has recently undertaken several efforts that could address TOD-restrictive zoning as well as stimulate economic development.

“The Town of North Haven is entering an exciting time. The community benefits of transit have been long cataloged, and North Haven has an opportunity to capitalize on the planned transit improvements as part of the NHHS Rail Program.”

NORTH HAVEN WALKABILITY AND LIVABILITY PLAN



Foremost among these initiatives is the establishment of the aforementioned MEERZ zoning district, adopted in 2013 within the station area to permit age-restricted housing in proximity to medical services. The overlay zone applied to the parcel for “Village on State,” allowing the multi-family housing development for seniors. In addition to zoning, other planning documents, such as the recently released draft Plan of Conservation and Development (POCD), aim to promote such “co-location” of medical uses and age-restricted housing. The POCD includes a future land use map that shows much of the station area rezoned as MEERZ, expanding the existing overlay from the Village on State development.

Additionally, the Town of North Haven adopted a Tax Incentive Program in 2014 to attract new businesses and encourage expansion of existing businesses. The tax incentives include an adjusted or reduced assessed value of real property for qualifying new construction or expansion, with greater incentives offered for larger investments.

Another recent planning initiative is the 2015 *Walkability and Livability Plan*, which introduced recommendations for improving the lack of pedestrian and bicycle amenities in the station area. It outlined streetscape, site-specific development, and public realm strategies that would ameliorate conditions for non-motorized users, as well as help to create a sense of place around the future station. This work complemented SCRCOG’s 2015 *Transit Oriented Development Opportunities for the South Central Region* study, which explored regional trends and opportunities in three Hartford Line station areas, including North Haven.

Developer Interest

Some of the recent development in the station area includes auto-oriented uses such as a Shell Gas Station on the site of an old BP station and a Cumberland Farms store. However, the station area also features notable recent developments associated with the introduction and expansion of uses that support the Town’s goal to create a medical epicenter.

In 2012, the North Haven Medical Center purchased a building adjacent to its existing complex, which led to the development of the Crossroads Medical Center, which houses businesses associated with health and wellness. As previously noted, in 2015 the “Village on State” senior residential development was also completed, which is



complementary to and located in proximity to the medical center. Growth of the North Haven Medical Center and related uses shows promise for future development in the station area.

On a larger scale, a highly anticipated potential development in the station area is located on a portion of the former Pharmacia & Upjohn site just south of the proposed station site across Route 40. The site in its entirety is 78 acres, and up to 17 acres on the western portion of the site will be made available for commercial or light industrial development. At the time of this report, Pharmacia & Upjohn has initiated an Expressions of Interest process for future development. The remainder of the site will offer restricted public access to a restored ecological preserve in the future.

Local Leadership

Under the leadership of the First Selectman, the Town of North Haven is focused on promoting new development and complete streets improvements in anticipation of the future Hartford Line station. The 2015 Walkability and Livability Plan gave voice to some of these key concepts and served to create a base for active and ongoing engagement, which continued in this Action Plan.

During the D&R process, Town leaders indicated their aspiration to see development line both the east and west



Photos of recent and ongoing development. Top to bottom: Crossroads Medical Center; the former Pharmacia & Upjohn site; Village on State.

sides of State Street from Sackett Point Road to Devine Street by the time the future station is built. Their hope is to activate a “wish list” of development sites, including some of the sites identified as redevelopment opportunities in the prior “Physical Suitability” section. Town leaders noted that they are in a unique position to market interest in North Haven as a “tri-town” station, attracting commuters from not only North Haven, but also neighboring Hamden and Cheshire.

A defining characteristic of the Town’s leadership is the commitment to economic development, having

D&R WORKSHOP

A D&R workshop was conducted with municipal and stakeholder leaders from the Town of North Haven on November 1, 2016. The workshop was hosted at Town Hall and attended by First Selectman Michael Freda and key staff including the Town Engineer, Land Use Administrator, Director of Public Works, and the Chief of Police, among others. Various local stakeholders were also in attendance, with representatives from Yale New Haven Hospital, Vita Nuova, Joseph Cohn & Son, and various members of the Chamber of Commerce. The project team organized the workshop around two overarching themes: (1) a discussion of options for future zoning modifications to advance development goals in the station area; and (2) ways to leverage development opportunities and capital improvement projects to create a discernable center in the station area.

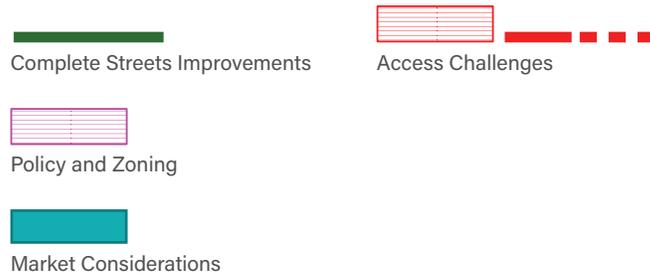


demonstrated a willingness to support private sector investment for the betterment of the Town. A recent and noteworthy example is the forthcoming construction of the Amazon fulfillment center on the former Pratt & Whitney site. In June 2017, the Town Board of Selectmen voted to authorize a multi-year phase-in of real estate and real property taxes, as well as a reduction in building permit fees. In providing these financial incentives, the Town is conveying a desire and unique capacity to promote local economic growth.



FIGURE 4-4

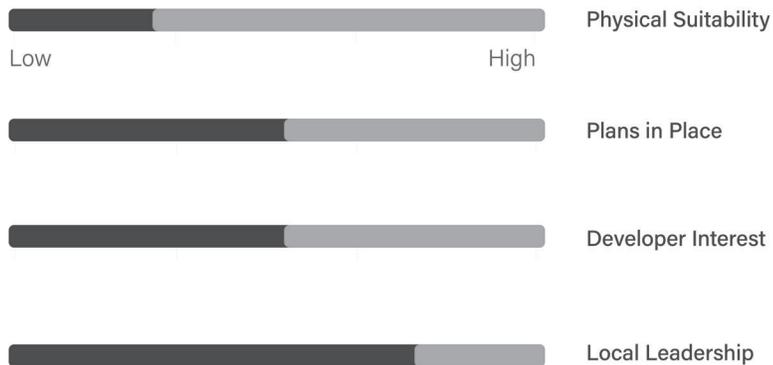
HURDLES FOR TOD IMPLEMENTATION
IN THE NORTH HAVEN STATION AREA



HURDLES FOR TOD IMPLEMENTATION

- Limited sense of place in the station area
- Limited accommodations for non-motorized access to the future station
- Lack of TOD-supportive zoning
- Predominance of auto-oriented land uses
- Constrained access to and from potential redevelopment sites

TOD DESIRE & READINESS



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WALLINGFORD



Berlin

Meriden

Wallingford

North Haven

NEW HAVEN

MARKET ASSESSMENT

Town of Wallingford

in 2015-2016
US Census Bureau and CERC

44,660 residents

27,902 employees

\$74,060 median household income

74.8% owner-occupied houses estimate

23.2 minutes to work mean for a Wallingford resident

Wallingford is a suburban community located strategically between the region's two major cities – around 20 minutes north of New Haven and 40 minutes south of Hartford. Wallingford's population, estimated at 44,660, is larger than most of the other suburban towns along the Hartford Line. However, similar to these other towns, Wallingford has an older population than the State – its median age of 44.4 is four years above the State median. In addition to an aging population, Wallingford has also seen a decline in married-couple family households that prefer single-unit housing and a growth in single-person households, all tending to gravitate toward multi-family housing.

According to LEHD, 25 percent of working Wallingford residents are employed in the Town. The most common commuting destinations outside of Wallingford are New Haven (10 percent), Meriden (6 percent), and North Haven (5 percent). Per 2015 ACS data, over 90 percent of Wallingford workers commute to work via personal vehicle, while only 1 percent utilize public transportation. The high number of workers commuting to destinations also served by the Hartford Line indicates that regional rail service could potentially capture latent demand for transit. Accordingly, there could also be demand for TOD projects, as relatively denser communities with residential and commercial uses could leverage new opportunities for mobility. With a median household income of \$74,060 – higher than the State median – there is potentially a deeper demand pool for higher-priced TOD products.

An additional draw for potential TOD in Wallingford is the presence of a diverse set of anchor institutions (see Figure 4-5). This includes Anthem Blue Cross Blue Shield which, according to the Town's 2016 Comprehensive Annual Financial Report, is the largest employer in Wallingford, with nearly 1,700 employees. There are also several hospitals and healthcare facilities that are important job centers for the Town, such as Masonicare

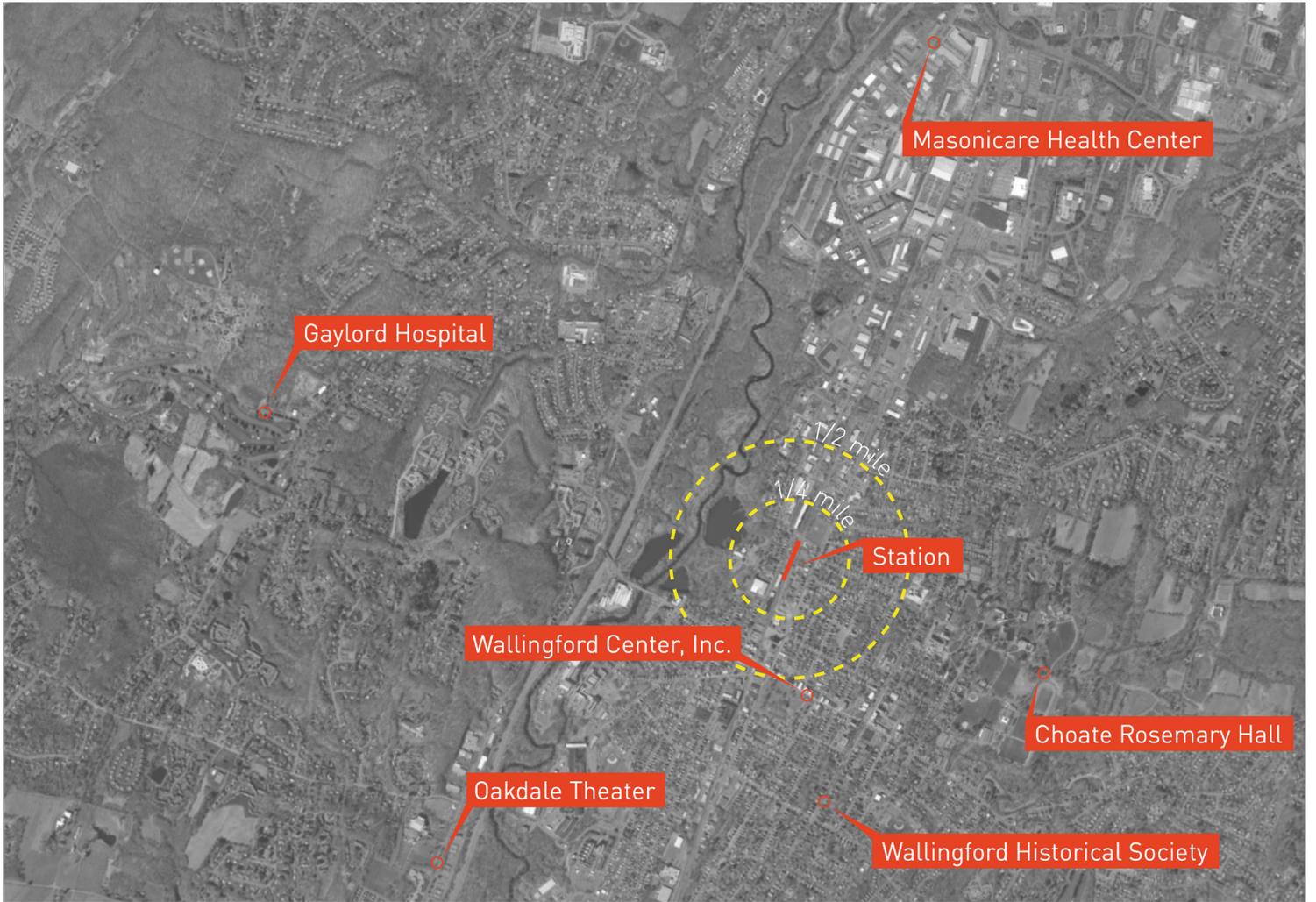


FIGURE 4-5

ANCHOR INSTITUTIONS
IN AND AROUND WALLINGFORD

Health Center and Gaylord Hospital, which employ 1,000 and 450 people, respectively. While the employment base in Wallingford remains centered upon health care and health sciences, it will lose approximately 800 positions due to the closing of the 1 million square foot Bristol-Meyers Squibb research and development facility by 2018. Beyond medical and health-related institutions, Wallingford is home to Choate Rosemary Hall, a nationally recognized private boarding school that occupies a 458-acre campus with over 850 students and approximately 130 faculty members. There are also local and regional entertainment attractions, such as the Oakdale Theater, a 5,000-seat venue.

Compared to other suburban towns along the Hartford Line corridor, Wallingford has a lower share of owner-occupied and single-unit residences. Seventy percent of units in the Town are single-unit; this is slightly higher than the state figure of 66 percent, but far lower than the figure for the

neighboring Towns of North Haven (88 percent) and Berlin (81 percent). Wallingford residents' relative propensity for renting and for multi-family units bodes well for TOD in the station area.

Over the past several years, the apartment market in Wallingford has remained relatively flat. Other than the nine-unit Community Lake Apartments, no new apartments have come online since the 1980s, although there is an ongoing project to expand the existing Parker Place apartment complex near the new station by almost 200 units. The average vacancy rate has remained consistently very low (ranging from 1.9 percent to 4.6 percent since 2007) as supply continues to be constrained. However, achievable rents have not increased over this same period.

The Wallingford office inventory totals 1.8 million square feet, although market activity has been limited over the past decade. Minimal new office development has taken place



OAKDALE THEATER

Source: <http://oakdale.com/venueinfo>



CHOATE ROSEMARY HALL

Source: Wikimedia Commons



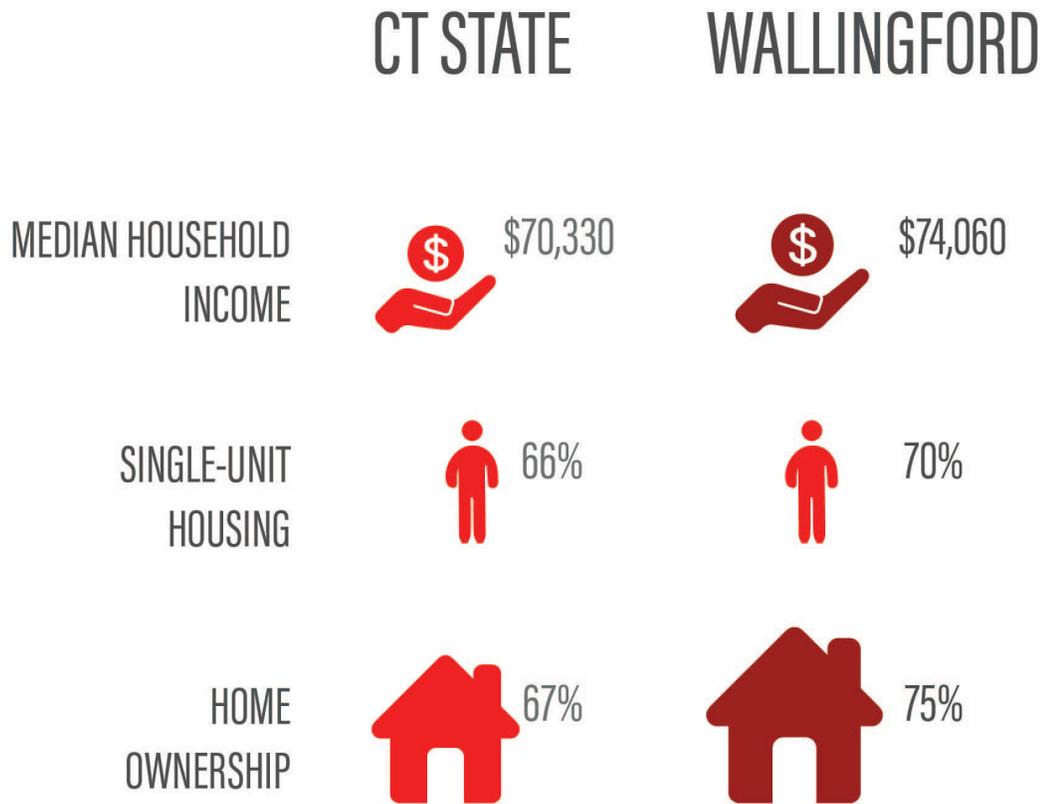
WALLINGFORD HISTORICAL SOCIETY

Source: William Hosley // Pinterest



GAYLORD HOSPITAL

Source: www.gaylord.org



other than a 300,000-square foot office campus finished in 2011 on the outskirts of town, adjacent to I-91. Office space in the station area comprises a diverse mix of small-scale formats, including converted residences, occupied by finance, insurance, and professional service users. There is no indication of potential for significant future office demand in the station area, although it may serve as a complementary use to other segments of the market.

The 3.1 million square foot retail market in Wallingford has been stable over the past decade. New development activity has totaled 67,000 square feet over the period, resulting in a 2 percent increase in inventory. The current vacancy rate of 3.9 percent is relatively low and it has stayed below 4 percent since 2013. Average rents have remained relatively flat over the past decade as well.

During the D&R process, the Town noted that there are cyclical vacancies in the downtown retail market (along

Similar to other suburban Hartford Line municipalities, there appears to be the greatest market potential for residential development, with retail and office development as complementary uses.

Jobs Inflow/Outflow



Source: OnTheMap, 2015, <https://onthemap.ces.census.gov/>

Center Street near North Colony Road), while Uptown retail (in the vicinity of North/South Main Street) has remained consistently strong. There could be an opportunity to retrofit and adapt the retail core Downtown into mixed-use redevelopment, introducing housing as a component that supports the viability of first-floor retail.

The Town's 2016 TOD Plan estimates potential for up to 200 additional units of rental housing, 12,000 additional square feet of retail, and 5,000 additional square feet of office space in the station area. It is important to note that the TOD Plan indicates that this development potential represents "the market's immediate capacity to absorb development. As new development occurs and rail service is improved, this market is likely to expand." Accordingly, there are opportunities for longer-term growth potential in the station area in conjunction with the introduction of Hartford Line service.

In summary, although large-scale, new-construction multi-family development remains unproven in the Wallingford market, the addition of new units near the station as part of the Parker Place expansion will help shed light on if there is further depth of demand in the downtown area. Similar to other suburban Hartford Line municipalities, there appears to be the greatest market potential for residential development, with retail and office development as complementary uses.

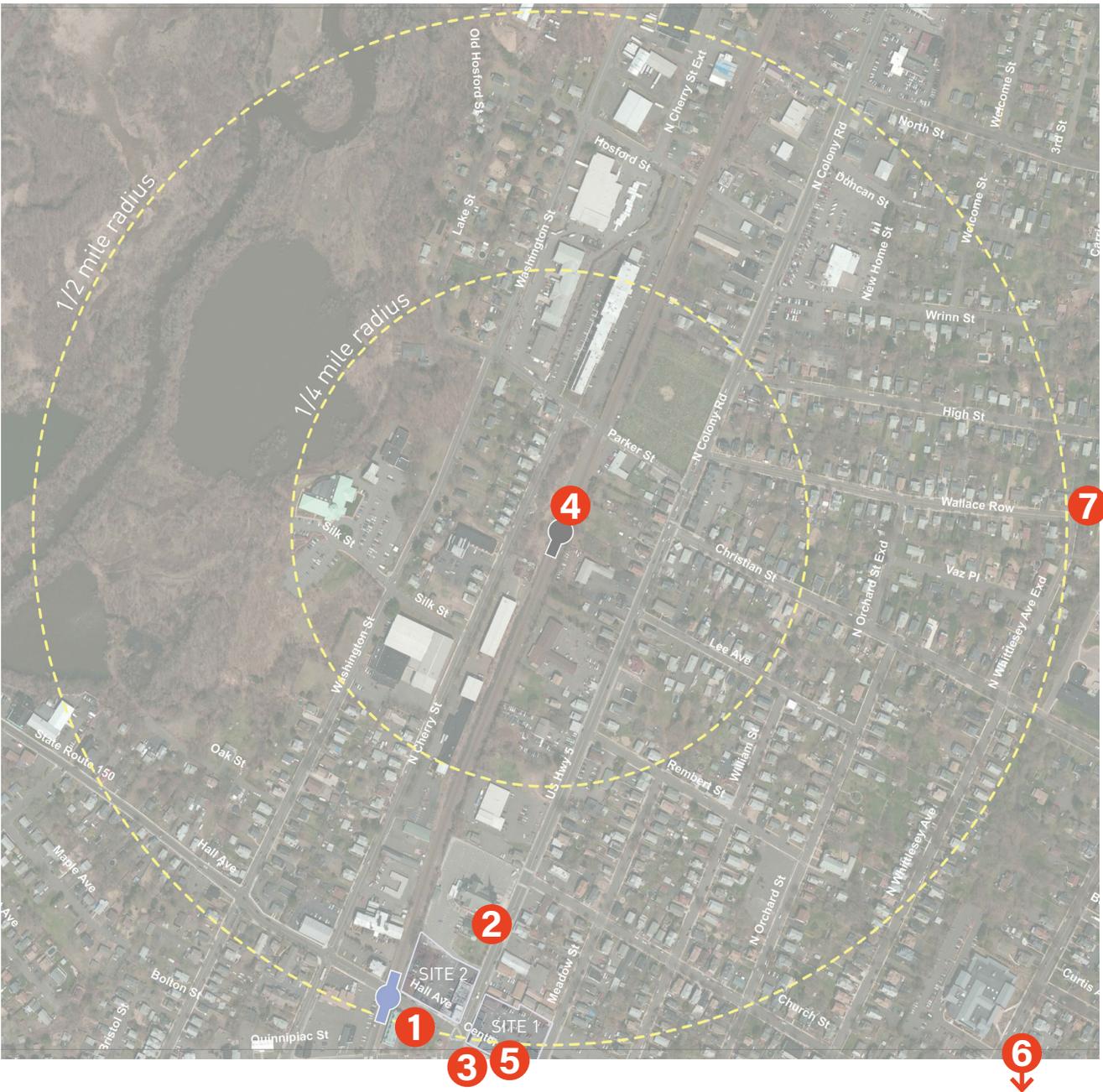


FIGURE 4-6

1/4- AND 1/2-MILE RADII AND LOCAL LANDMARKS IN THE WALLINGFORD STATION AREA

TOD DESIRE & READINESS

Physical Suitability

The area surrounding the new station is characterized by one- to two-story light industrial/commercial buildings, interspersed with small-scale retail and single- and multi-family homes to the west and east. Downtown, south of the station, is anchored by the existing historic station and the Railroad Green. Parker Place is a 4-story apartment building with 120 dwelling units (with approved plans for an expansion) located directly to the north of the new station, adjacent to Holy Trinity Cemetery. Holy Trinity Church, surrounded by extensive surface parking, is located along the west side of North Colony Road and north of Center Street.

The primary thoroughfares in the station area that provide connections both within Wallingford and to other municipalities are Route 5 (North Colony Road) and Route 150 (Center Street). Center Street splits into Hall Avenue and Quinnipiac Street at its intersection with North Colony Road at the Railroad Green, which is the center of Downtown. North Cherry Street provides local access to the station. As the new station is embedded behind buildings and along secondary streets, the intersections of North Colony Road and Center Street, North Cherry Street and Center Street, and Parker Street at both North Colony Road and North Cherry Street, are critical nodes for wayfinding to the new station. Center Street is an important local corridor that links the Downtown and Uptown areas of Wallingford.

While most streets have sidewalks and intersections with marked crosswalks, the pedestrian experience along the primary connectors to the station—North Colony Road and North Cherry Street—can be unpleasant due to narrow sidewalks, utility poles that interrupt sidewalk space, and proximity to roadways with high speed and high-volume traffic. Accordingly, there is constrained pedestrian access between the core of Downtown Wallingford and the new station.



Landmarks in the Wallingford Station area. Facing page, left to right: the Town's historic railroad green; the Most Holy Trinity Church in Downtown Wallingford; the Center Street Cemetery, also at the heart of Downtown. Above, top to bottom: the new Wallingford train station in October 2017; characteristic retail Downtown; characteristic retail and streetscape Uptown; and Choate Rosemary Hall.

STATION DESIGN IN WALLINGFORD

OCTOBER 2016



FIGURE 4-7

1/4-MILE RADIUS
AND STATION DESIGN
IN THE WALLINGFORD STATION AREA

- | | |
|---|---|
|  |  |
| platforms | parking |
|  |  |
| pedestrian space | planting space |



North Colony Road is a two-lane road with parallel parking and very narrow sidewalks with lot lines essentially to the back of the sidewalk. North Cherry Street has a more residential character (albeit interspersed with large footprint light industrial parcels), but it only has a single narrow sidewalk along its western edge. Pedestrian activity appears confined to specific internal networks of parcels or from parking to building entries. Although walkability is greatly improved along Center Street, Center Street does

Photos of primary gateways in Wallingford. Top to bottom, left to right: the intersection of Center Street, Hall Avenue, North Colony Road, and Quinipiack Street, looking southeast down Center Street; the same intersection, looking northeast along North Colony Road; the intersection of North Cherry Street and Hall Avenue.



2005 2008 2009 2010 2012 2014 2016 NOW

Route 5
Planning/
Preliminary
Design Study

Implementation
of the Regional
Transit Study

South Central
POCD

Route 68
Corridor Study

EA/EIE for
NHHS Rail
Program

Town of
Wallingford
Transit Bus
Ridership &
Routing Study

Incentive
Housing Zone
(IHZ)

Wallingford
POCD Update

Wallingford
TOD Plan

Tax Abatement
Program

Hartford Line
TOD Action
Plan

not have existing bike lanes or other bike markings. Overall, current uses and site layouts emphasize automobile use and access, and although most streets have sidewalks and marked crosswalks, there are gaps in the pedestrian network, and there is no accommodation for bicycles.

Aside from bicycle and pedestrian conditions, there are other notable constraints to physical suitability in the station area. As noted in the Town’s *Plan of Conservation and Development 2016-2026* (POCD), one-way streets north of Center Street—between the old and new station area—create access challenges for parking lots. The POCD also highlighted the need for improvements to surface parking in the station area in terms of visibility, attractiveness, lighting, signage, and pedestrian access.

From a development standpoint, while the station area includes a number of vacant and underutilized sites that hold potential for redevelopment, most of these sites comprise many small parcels that would require assemblage for a substantial TOD project. Through the D&R process, the nearly dozen potential redevelopment sites that were previously identified in the Town’s TOD plan were narrowed to four priority sites within Downtown Wallingford, all of which consist of multiple parcels. These

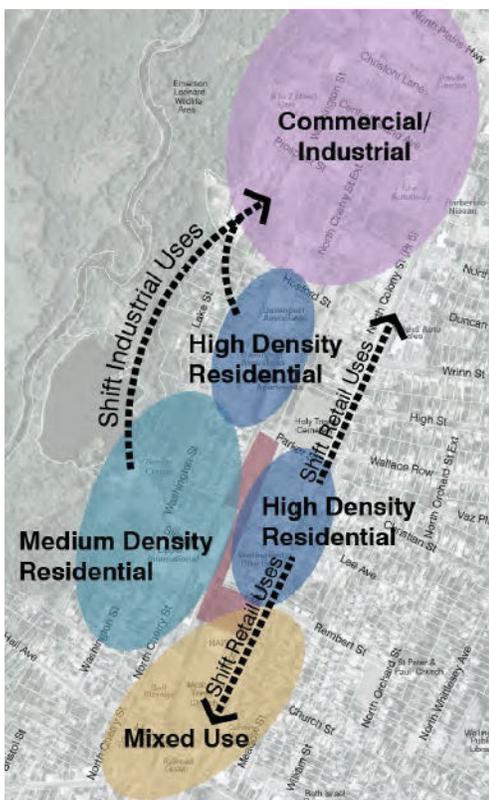
sites are strategically located around the existing historic station and Railroad Green, with frontage on Center Street, Hall Avenue, North/South Colony Road, and Quinnipiac Street. As future development opportunities are considered for these sites, the use of the historic station building and Railroad Green become increasingly important as anchors in Downtown Wallingford.

Plans in Place

The Town’s POCD, adopted in June 2016, is the most recent plan that outlines a vision of the future for Wallingford, and the document dedicates a chapter to making Wallingford’s Town Center—encompassing both Uptown and Downtown—a “vibrant destination.” In addition to the goal of connecting Uptown and Downtown to create “an integrated whole,” another key theme is to promote redevelopment and high occupancy. This is closely aligned with the stated purpose of the Town’s Incentive Housing Zone (IHZ), an overlay district that was adopted in 2014 to “promote the revitalization of downtown Wallingford by encouraging mixed-use development that will provide for a variety of housing and business opportunities.”

To spur development in the station area, the Town Council unanimously approved a new tax incentive program in

“The broad land use strategy involves shifting industrial land uses in the station area to the north and concentrating new retail and land uses in the Downtown area along Route 5 North of the station area.”
 WALLINGFORD TRANSIT-ORIENTED DEVELOPMENT PLAN (2016)



late 2016 that offers tax abatements within the IHZ. This action by Town leadership is indicative of its commitment to promoting private sector investment in the station area.

The POCD also calls for maximizing the benefits of the Hartford Line service by implementing the recommendations in the Town’s 2016 TOD Plan, which are divided into two complementary categories of strategies: land use and development strategies, and transportation enhancement strategies. In the former, the TOD Plan outlines five strategies to shift existing industrial development to the north, freeing up space for mixed-use and retail development Downtown near the existing historic station, with a focus on medium- and high-density residential near the new station. The transportation enhancement strategies aim to enhance non-motorized accessibility to the new station without adversely affecting traffic conditions. Four strategies support this goal with interventions ranging from a targeted increase in pedestrian amenities to creating streetscapes that invite foot traffic to support retail.

The transportation enhancement strategies require funding for implementation (which to date has not been secured), but the land use and development strategies can be advanced through regulatory changes. For instance, the TOD Plan indicated that flexibility of parking requirements, as well as lower overall requirements, could help to accommodate increased density, and the Town subsequently updated their zoning regulations to include opportunities for shared parking as well as decreased base requirements in the underlying commercial district.

Developer Interest

With one notable exception, developer interest has not recently translated into actual development in the station area. As previously discussed, the forthcoming expansion of the Parker Place residential complex, which received approval in May 2016, will combine three parcels for a total of just over nine acres and will add 193 new apartment units to an existing 120 units. This development is consistent with the vision put forth in the Town’s TOD Plan, namely to focus multi-family housing around the station.

The Town’s TOD Plan conveyed a clear message that developers are interested in the Wallingford market. “We fully intend on taking advantage of the proximity to the train station as an inducement to attract ‘commuter tenants,’” one developer stated in an interview for the Town’s TOD Plan. However, during the D&R process, Town leadership noted that no developers have used the



“We fully intend on taking advantage of the proximity to the train station as an inducement to attract ‘commuter tenants.’”
DEVELOPER INTERVIEW,
FROM WALLINGFORD TOD PLAN

IHZ since its adoption in 2014, and that developers have cited the need for significantly higher residential density to make development feasible, especially due to substantial asking prices by property owners in the station area.

Local Leadership

Based on discussions with Town leadership during the D&R process, there is broad support within the Town for economic development in the station area to complement the introduction of Hartford Line service. Wallingford Center Inc., a Main Street-style non-profit, is also a local champion of Downtown improvement and revitalization.

The breadth of engagement in the Town’s recent POCD process underscored the extent to which elected and appointed Town leaders, key departmental staff, stakeholder groups, and the public are dedicated broadly to the future of the Wallingford, and this update to the POCD included a detailed study and associated survey about the Town Center. The POCD notes that a majority of the 385

Wallingford council OKs downtown tax incentives



FILE PHOTO: View of Center Street in Wallingford, Thursday, Jan. 7, 2016. Center Street and several other streets are part of the Incentive Housing Zone in downtown Wallingford. | Dave Zajac / Record-Journal



December 14, 2016 09:45AM
By Matthew Zabierek Record-Journal staff



WALLINGFORD — The Town Council unanimously approved a new tax incentive program intended to stimulate commercial and residential development in the downtown Incentive Housing Zone.

Photos of ongoing and current development. Left to right: Parker Place Apartments; a news clipping from the Record Journal pertaining to the IHZ.

respondents to the Town Center survey expressed support for “extensive” new development in the area.

However, Town leaders also noted that community members may be skeptical of increased residential density. There is a desire to encourage new development while maintaining the existing scale and character of the station area. Town leaders cited the importance of being able to build upon the work completed in the Town’s TOD Plan with visual examples that would help the community understand what future development could look like in the area.

D&R WORKSHOP

A D&R workshop was conducted with municipal and stakeholder leaders from the Town of Wallingford on October 14, 2016. The workshop was hosted at Town Hall and attended by Mayor William Dickinson, Jr.; representatives from the Economic Development Commission and Planning and Zoning Commission; economic development and planning staff; the Chief of Police; and Wallingford Center, Inc. The workshop focused on the themes of connecting the three “nodes” in Wallingford (i.e., Uptown, Downtown, and the new station) and identifying strategies to prioritize and activate redevelopment sites.



SURVEY

As a part of the Town of Wallingford’s TOD Plan (2016), the Town hosted a public workshop in the Wallingford Public Library in December 2015. Roughly twenty-five residents attended. During the workshop, residents anonymously selected their preferred option for the station area based on the three following options:

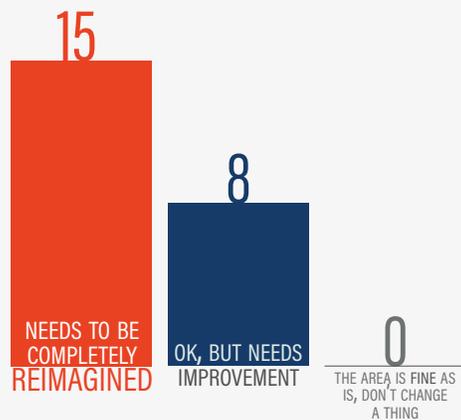
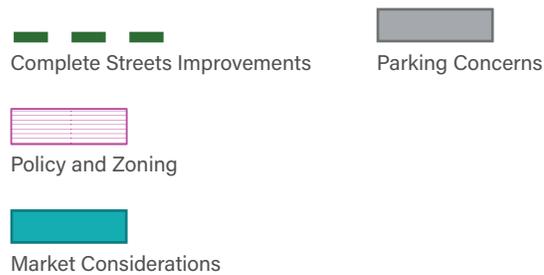




FIGURE 4-8

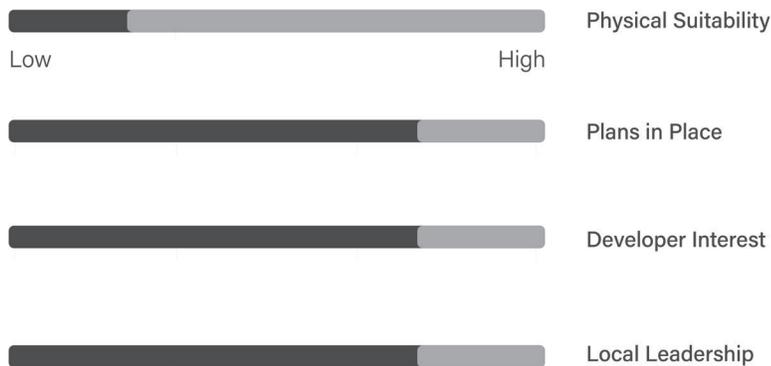
HURDLES FOR TOD IMPLEMENTATION
IN THE WALLINGFORD STATION AREA



HURDLES FOR TOD IMPLEMENTATION

- Lack of stable retail presence Downtown
- Disconnect between property owners and potential developers
- Limitations of existing zoning to encourage TOD-supportive densities and building form
- Limited visibility and accessibility of public parking Downtown
- The need to secure funding for the proposed complete streets improvements to link Downtown and the new station
- Underutilization of historic station building and Railroad Green

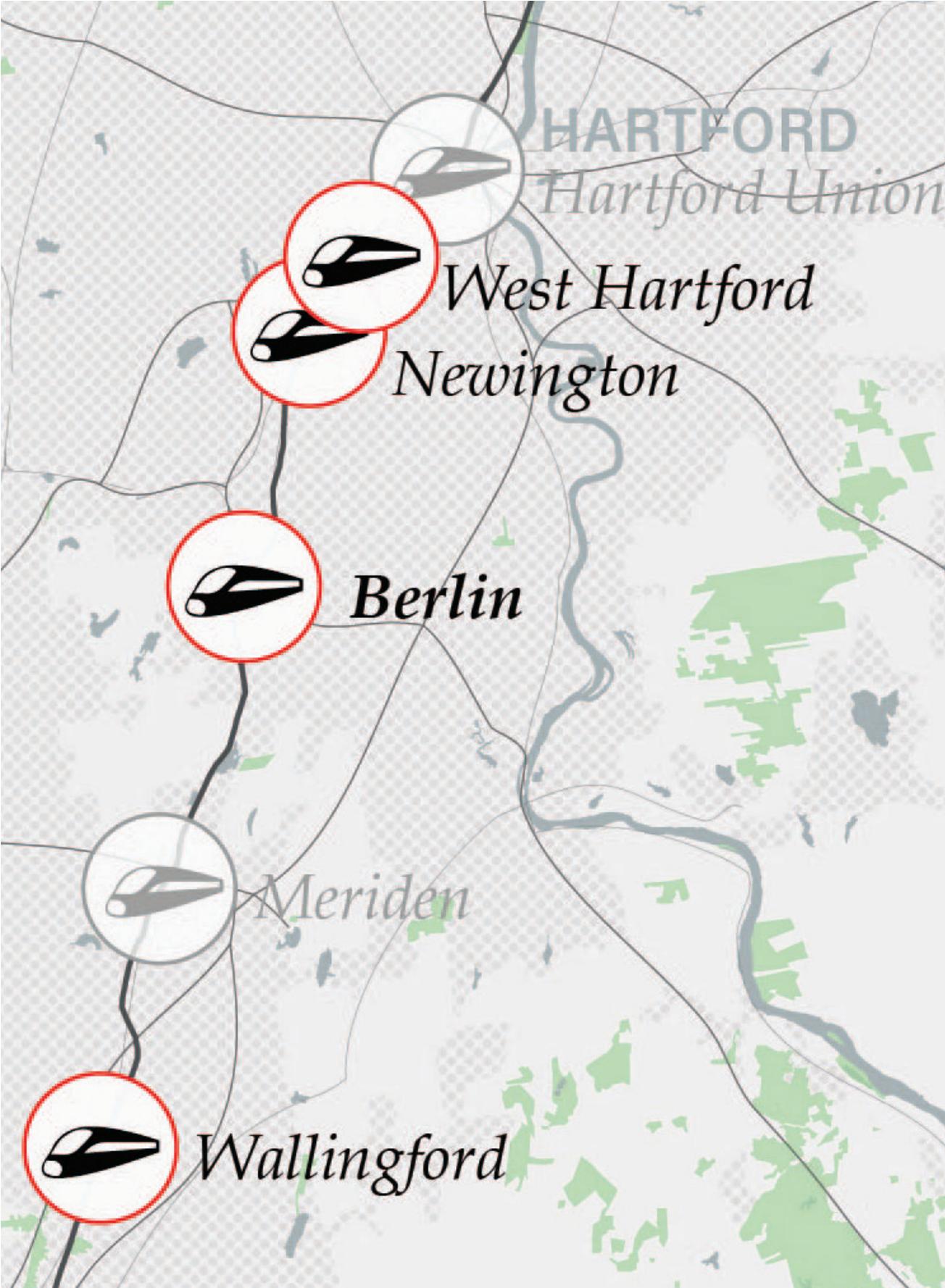
TOD DESIRE & READINESS



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BERLIN



HARTFORD

Hartford Union

West Hartford

Newington

Berlin

Meriden

Wallingford

MARKET ASSESSMENTS

Town of Berlin

in 2015-2016
US Census Bureau and CERC

20,499 residents

11,535 employees

\$87,810 median household income

84.7% owner-occupied houses estimate

22.1 minutes to work mean for a Berlin resident

Berlin is a suburban community located south of the City of Hartford. Town residents are largely employed elsewhere, as only 12 percent of working residents are employed within Berlin. Twelve percent of employed Berlin residents commute to Hartford, the most common employment destination, while 10 percent commute to New Britain. Similar to other suburban towns along the corridor, Berlin residents primarily commute via automobile, rather than transit—less than two percent of workers use public transportation to get to work, according to 2015 ACS data. However, the expansion of commuter rail service may spur commuters both to and from Berlin to shift modes to rail.

Berlin has experienced high population growth in recent years. Between 2000 and 2015, the Town's population increased 12.5 percent, more than double the population growth of the State or Hartford County. The number of households grew 16.5 percent during this period, including 33 percent for nonfamily households. Continued household growth, as well as the perception of Berlin to be a safe town with well-rated schools and a low unemployment rate, could help drive TOD residential demand in the station area.

The Town's population is relatively older and affluent. The median age in Berlin is 46.3, as opposed to 40.4 in the State overall. Berlin's median household income of \$87,810 is also relatively high compared to the other selected station areas. Berlin's proximity to the key employment center of Hartford, as well as its location between New Haven and Hartford, make the Town an attractive home for commuters.

Berlin has a strong and historically stable manufacturing sector compared to other adjacent communities. The Connecticut Department of Labor indicates that manufacturing comprises 18 percent of total employment in the Town. The Town's 2011 *Comprehensive Annual*



FIGURE 4-9

**ANCHOR INSTITUTIONS
IN AND AROUND BERLIN**

Financial Report indicates that the three largest employers are Northeast Utilities (now Eversource Energy), which employs approximately 1,700 people in Berlin; the Town of Berlin (600+ employees); and Comcast (500+ employees). Another major employer that has served as an anchor institution in the Town for over 100 years is Berlin Steel, a metal fabrication company located directly adjacent to the new station.

Berlin's housing stock primarily consists of owner-occupied single-unit units. Eighty-five percent of units are owner-occupied, which is relatively high compared to other selected station area municipalities along the corridor. Eighty-one percent of Berlin's housing stock consists of detached, single-unit residences, which is a greater share than the State (67 percent).

The Town of Berlin's limited supply (approximately 500 units) of market-rate multi-family rental apartments that are not targeted to a specific age group is reflected in a very low average vacancy rate. The apartment market is generally

tight throughout the region; the highest vacancy rate in Berlin over the past 10 years is approximately three percent. While nearly 1,000 multi-family units have been added to Berlin's housing inventory since 2000, three quarters of this supply were age-restricted apartments and condominiums. Although this trend has helped to diversify Berlin's housing stock, there remains a limitation in the type of market-rate apartment supply that exists, one that could be addressed by TOD. Depot Crossing, a new, mixed-use project with apartments configured atop ground-floor retail, is a positive start. However, it is a relatively small development, as it only includes 16 residential units.

Stakeholder interviews indicate that the market for condominium development remains challenging both regionally as well as in Berlin. These findings are consistent with historical market trends, which show ongoing weakness in condominium pricing. Berlin condominiums achieve large price premiums over the county average, with sales in the \$220,000 to \$240,000 range compared to \$150,000 to \$160,000. However, condominium market



EVERSOURCE

Source: <https://www.flickr.com/photos/eversourcect/18742534938>



BERLIN HISTORICAL SOCIETY

Source: <http://historicbuildingsct.com/wp-content/uploads/2015/07/Berlin-Historical-Society.jpg>

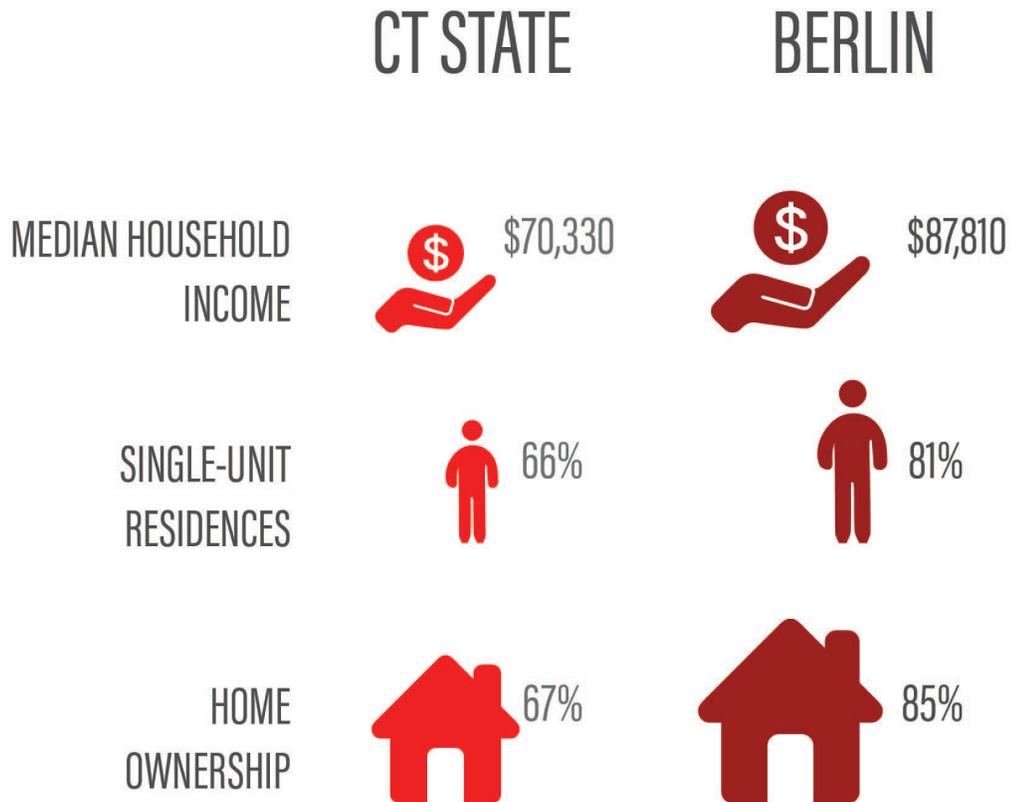


BERLIN STEEL CONSTRUCTION



BERLIN-PECK MEMORIAL LIBRARY

Source: librarything.com



conditions for both geographies have failed to gain post-recession momentum; the average annual sale price for the region has declined in each year since 2011 while average annual price appreciation in Berlin has been inconsistent, with two years of positive gains and three years of declines. This trend suggests only moderate demand conditions for condominiums at this time.

Berlin’s demographic profile suggests potential for continued multi-family development. Market-rate units in a TOD environment would likely be well received by higher-income households seeking to move to a home in a transit-accessible walkable setting. Younger, dual-income households seeking access to the job centers of both Hartford and New Haven may also be attracted to this setting.

The commercial opportunity is likely limited to a complementary/niche element based on office and retail market conditions in the area. The scale of total inventory and historical demonstrated demand for both office and retail uses indicate limited potential for new, large-scale

Berlin’s proximity to the key employment center of Hartford, as well as its location between New Haven and Hartford, make the Town an attractive home for commuters.

Jobs Inflow/Outflow



Source: OnTheMap, 2015, <https://onthemap.ces.census.gov/>

development in Berlin. However, recent market conditions have been stable, and there may be smaller-scale commercial opportunities that serve to support new TOD uses in the station area.

After four years of negative net absorption and no new development during the last recession, the Berlin office market has experienced positive net absorption for six out of the last seven years. Total new construction of 70,000 square feet since 2012 has been absorbed and the vacancy rate has remained low. Berlin office demand is derived primarily from small entities in the professional services sector and there is no indication that larger office users are seeking space in the Town. While these types of end users would likely be drawn to space in a transit-oriented environment, the depth of demand is somewhat limited based on regional and local economic conditions.

The primary retail corridor in Berlin is located on Berlin Turnpike, which includes big box retail and chain restaurants. Town staff also indicated during this planning process that

there is interest in promoting Farmington Avenue as a retail destination. Retail market conditions indicate limited demand for substantial new inventory, although it is likely that there are opportunities for categories that complement the station area and the Town's vision, such as unique anchor restaurants and upscale convenience retail.

While there are generally strong indicators for TOD in Berlin, the Town's recent market analysis—completed as part of the Kensington Village TOD Plan—concluded that Berlin should likely “anticipate an extended time period for completing a significant scale of new TOD,” in the range of 10 to 20 years. Nevertheless, there are near-term opportunities for redevelopment in the station area that can build upon recent momentum and stimulate additional investment in Kensington.

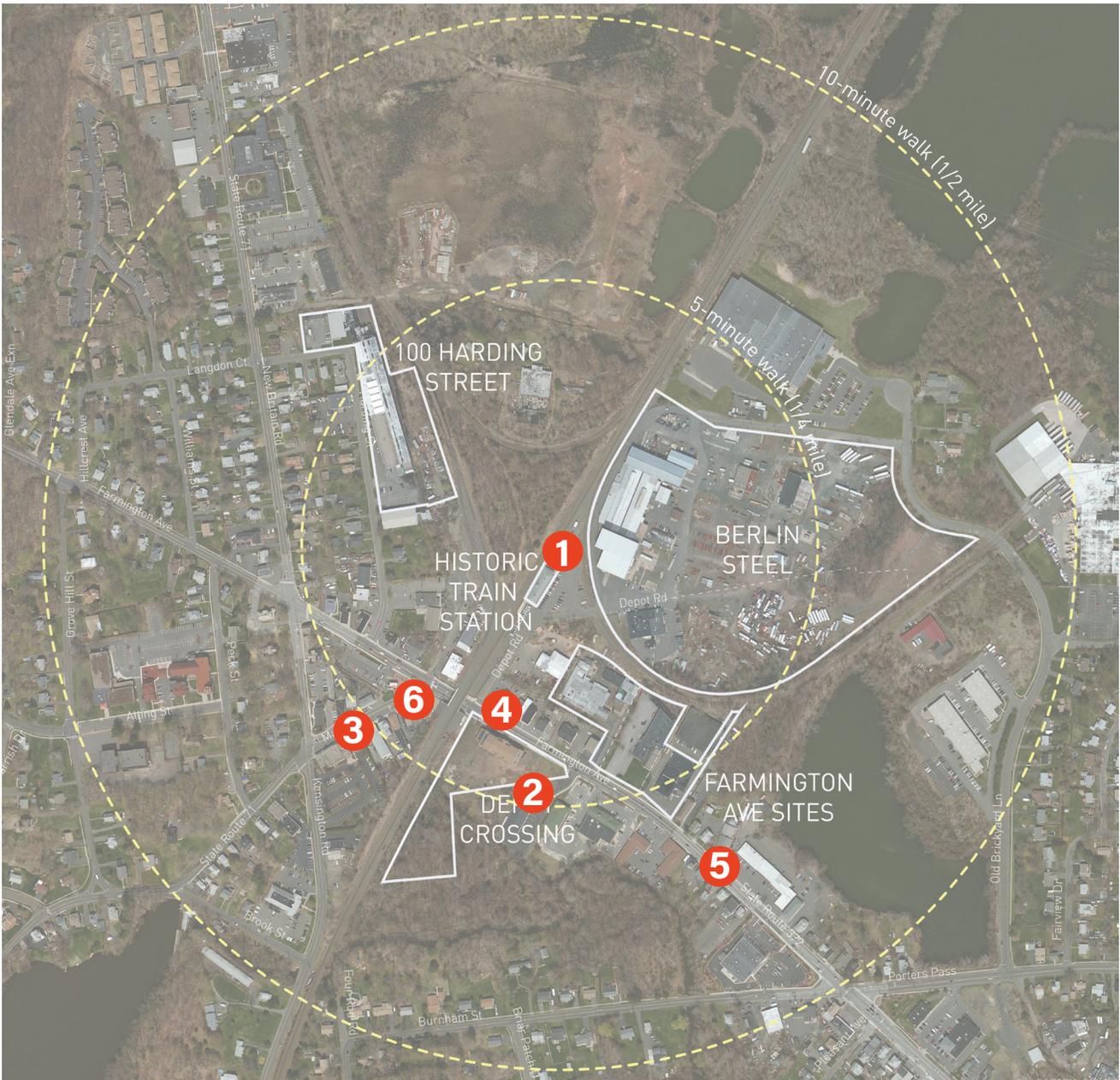


FIGURE 4-10 1/4- AND 1/2-MILE RADII AND LOCAL LANDMARKS IN THE BERLIN STATION AREA

TOD DESIRE & READINESS

Physical Suitability

The station area is located in Kensington Village within the Town of Berlin and is dominated primarily by industrial and commercial uses. Beyond a quarter-mile radius from the new station, commercial land use is replaced with stable single-unit residential neighborhoods, especially to the west. The area north of the station consists of wetlands and other land that is within the 100-year FEMA flood zone. Immediately south of the new station, the historic Berlin Station was destroyed in a fire in December 2016, but is still considered a potential focal point and community asset in Kensington Village.

The only road providing access to the new station currently is Depot Road. The inactive CONRAIL rail spur, located adjacent to the Berlin Steel site, impedes access between the station and neighborhoods to the east along Old Brickyard Lane. The Town has expressed interest in acquiring the rail spur and using the right-of-way to provide a new means of access to the station from the east. Additionally, the Town intends to supplement Depot Road with the creation of a Train Station Boulevard as part of a redevelopment concept for several sites on the north side of Farmington Avenue.

The primary corridor in the station area is Farmington Avenue (Route 372), which runs east to west immediately south of the station. The intersections of Farmington Avenue with Main Street and Burnham Street serve as the primary gateways to the station area. In addition to Depot Road, these streets have historically lacked streetscape amenities and have included gaps in the sidewalk network moving farther away from the station. While there are sidewalks on both sides of Farmington Avenue within the vicinity of the station, there are a large number of curb cuts that are detrimental to the pedestrian experience on the north side of the roadway.



Landmarks in the Berlin Station area. Facing page, left to right: the Berlin Station in construction in the spring of 2017; Kensington Fire Department. Above, top to bottom: newly installed pedestrian amenities on Main Street; Tavern on the Tracks, between Farmington Avenue and parking for the new station; characteristic streetscape along Farmington Avenue; new sidewalk and pedestrian improvements at Main Street and Farmington Avenue.

STATION DESIGN IN BERLIN

OCTOBER 2016



FIGURE 4-11

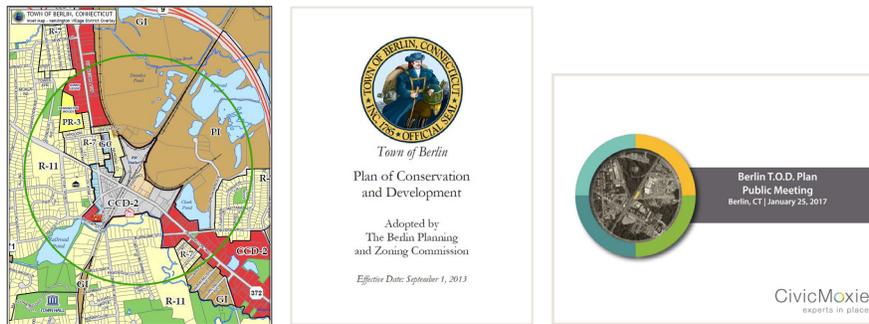
1/4-MILE RADIUS
AND STATION DESIGN
IN THE BERLIN STATION AREA

- | | |
|---|---|
|  |  |
| platforms | parking |
|  |  |
| pedestrian space | planting space |



The Town is actively addressing the deficiencies in the station area pedestrian network through recent and ongoing capital improvements as part of the Main Street Streetscape project and Kensington Village Area Sidewalks project. Phase one of the Main Street Streetscape project included the addition of new medians, crosswalks, pedestrian scale lighting, and other improvements to create a safe and attractive environment for pedestrians along Main Street between Farmington Avenue and Kensington Road. Phase

Photos of primary gateways in Berlin. Top to bottom, left to right - Looking north on Depot Road from Farmington Avenue, currently the only access to the station; looking east on Farmington Avenue towards Depot Road; Main Street, looking north towards Farmington Avenue, where the Town has invested heavily in creating a pedestrian-friendly gateway to the station.



2013 2014 NOW

Berlin POCD Kensington
Overlay Zone Berlin TOD
Making It (Civic Moxie
Happen Plan)

two of the project, funded in part by a State grant, will expand the improvements to the Farmington Avenue and New Britain Avenue sides of the Main Street triangle. The Kensington Village Area Sidewalks project will feature the addition of sidewalks on other roadways that provide access to the station area, including—but not limited to—Kensington Road, Grove Hill Street, and Burnham Street.

To complement these pedestrian network enhancements, the Town has also made improvements to recreational resources in the station area, including Veterans Park and Deming Park, and there are plans to construct a 9/11 Memorial Park at the Kensington Fire Department. Despite these existing and planned amenities, Kensington Village currently lacks a discernible center, although the forthcoming introduction of Hartford Line service can anchor the station area around this transit node while also spurring new development.

The Town has identified several catalytic sites for redevelopment in proximity to the new station. Recently completed, currently active, and prospective near-term development projects are discussed in the subsequent “Developer Interest” section. An additional long-term opportunity could include the redevelopment of the

Berlin Steel site with transit-oriented uses and site layout. Some of these development opportunities pose challenges associated with access limitations to and from the station, as well as environmental constraints due in part to off-site groundwater migration.

Plans in Place

The Town of Berlin has several plans, policies, and initiatives that promote TOD in Kensington Village. For instance, the Town’s 2013 *Plan of Conservation and Development* (POCD) highlights the potential of the station area as an activity center and outlines a vision for an enhanced sense of place within Kensington Village. The vision can ultimately guide it towards becoming a downtown hub within Berlin, anchored by the new train station.

Building upon the POCD, the Town adopted a Kensington Village District Overlay Zone in the station area in 2014. This overlay zone includes a number of regulations that are supportive of TOD, including flexibility for off-street parking requirements and design guidelines that encourage pedestrian-scale building facades, a consistent street wall, streetscape enhancements, and other design elements to promote walkability. The overlay zone also permits an



“This TOD Plan sees the Historic Train Station as the civic heart of Kensington Center and a strong image for the town.”

CIVICMOXIE,
TOD Plan Public Meeting



Long-Term TOD Concept Plan. Above: Long-term concept plan for 889, 903, and 913 Farmington Avenue, Berlin Steel, and Depot Crossing from the Town of Berlin's OPM grant application in June 2017.

increase in residential density subject to special permit and site plan approvals by the Planning & Zoning Commission. However, the allowable density differs considerably among the respective subdistricts, ranging from eight to 20 units per acre.

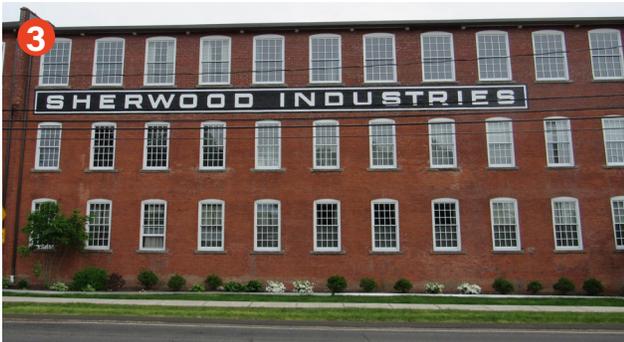
The Town is also focused on planning and implementing capital improvements in the station area. As previously noted, the Main Street Streetscape project and the Kensington Village Area Sidewalks project collectively aim to fill in gaps and expand the sidewalk network in the station area. Additionally, the Town has an active Façade and Landscape Program, which strives to “attract and retain local businesses” and complement TOD by offering grants to eligible property owners or lessees within “strategic development areas” in the Town, including the station area.

In conjunction with these other ongoing initiatives, the Town is currently completing the *Berlin TOD Kensington Village Plan*, supported by funding from the OPM TOD Planning Grant Program. The Town’s TOD Plan, which will complement the Hartford Line TOD Action Plan, will carve a path for TOD implementation by capitalizing upon the various assets and overcoming identified challenges within Kensington Village.

Developer Interest

Two development projects were recently completed in Berlin. While not centrally located within the station area, the Lofts at Sherwood Falls is within one mile of the new station and features 72 condominium units in an adaptive reuse of a paper mill. The \$20 million project was made possible through financial assistance from both the Town (for brownfield remediation) as well as the State (for historic structures rehabilitation). Only half of the project’s initial buyers were Berlin residents, suggesting that these types of unique residential experiences can draw interest from beyond the local market.

On the south side of Farmington Avenue and directly across from the new station is Depot Crossing, a recently completed mixed-use development. Depot Crossing currently includes 16 apartments over ground-floor commercial space. As part of the Town’s TOD Plan, the Town is exploring infill opportunities behind the existing building.



The Town is also focused on promoting new development on the north side of Farmington Avenue and other locations near the new station. For instance, the Town Council recently authorized the issuance of a developer request for quote (RFQ) for an approximately four-acre assemblage of 889, 903, and 913 Farmington Avenue. Additionally, the property owner of 100 Harding Street has expressed interest in exploring the redevelopment potential of the approximately four-acre site on the west side of the railroad tracks.

Local Leadership

Over the past several years, the Town has invested considerable time and resources to support TOD in Kensington Village. In addition to the emphasis placed on the future of Kensington Village in the POCD, and the subsequent momentum associated with the drafting and adoption of the overlay district, the Town has actively pursued and secured a number of State grants to advance TOD planning, public realm and building façade improvements, and development projects in the station area. The recent progress and ongoing initiatives in Kensington



Photos of potential development sites in the Berlin Station area. Top to bottom, left to right: Depot Crossing, a recent mixed-use development that incorporates the Town's design guidelines and façade improvement program associated with the recently adopted Village District Overlay Zone; 100 Harding Street, a near-term redevelopment opportunity on the west side of the tracks; the Lofts at Sherwood Falls, a recent adaptive reuse project; looking north into 889 and 903 Farmington Avenue, two of the Farmington Avenue Sites that are the Town's focus for catalyzing redevelopment in the near-term.

COORDINATION WITH BERLIN TOD KENSINGTON VILLAGE PLAN

To provide the greatest value to the Town of Berlin, the project team modified the D&R process given the ongoing work associated with the *Berlin TOD Kensington Village Plan*. In addition to completing the D&R assessment based in part on collaboration with Town staff, the project team participated in the Town's public meetings hosted for the Town's TOD Plan. This effective coordination enabled the project team to directly complement the Town's local planning efforts. Specifically, the project team identified a key recommendation to advance in the Hartford Line TOD Action Plan—discussed in the following chapter—based on the findings of the Town's TOD Plan.



Town of Berlin
Kensington Center Transit Oriented Development Plan
Public Meeting #2

Come Join Us!

Village demonstrate the Town's commitment to leverage its strategic location along the Hartford Line.

During this planning process, Town staff stressed the importance of coordination and consensus-building between multiple departments, commissions, and elected representatives, in addition to the general public. Accordingly, the development of the Town's TOD Plan has featured a combination of inter-agency meetings, focus groups, and public workshops to both inform and receive input from municipal leaders, key stakeholders, and community members. One issue that has garnered shared interest among these diverse groups is the goal to honor the industrial legacy of Kensington Village and rebuild the historic Berlin station that was destroyed in a fire in December 2016, while also planning for a transit-oriented future anchored by the new station.

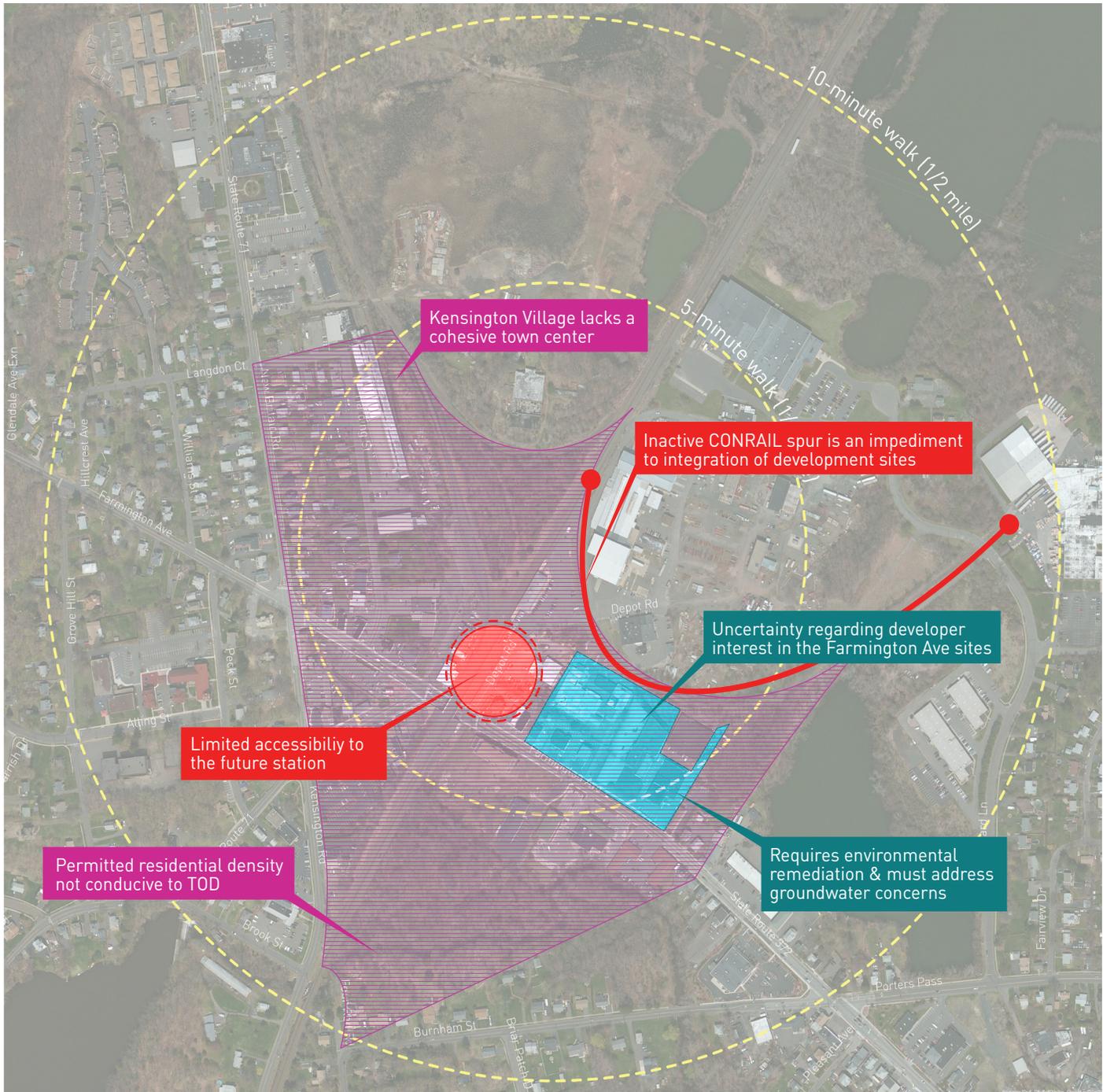
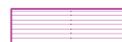


FIGURE 4-12

HURDLES TO TOD PLANNING IN THE BERLIN STATION AREA

 
Access Challenges

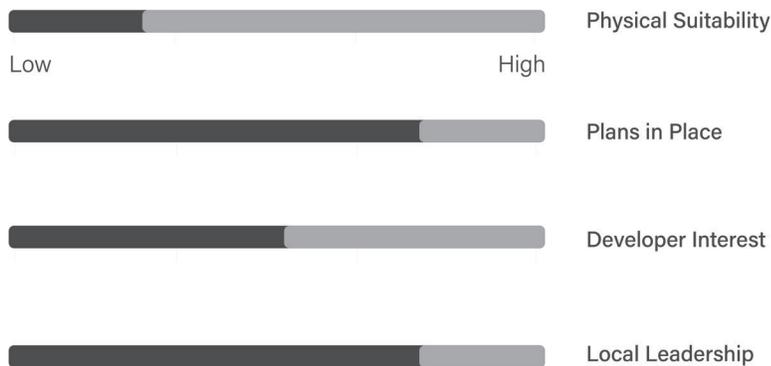

Policy and Zoning


Market Considerations

HURDLES IN TOD PLANNING

- Kensington Village lacks a cohesive and active town center with a balance of commercial, residential, and civic uses
- Uncertainty regarding developer interest in the identified catalytic sites
- Currently permitted residential density within portions of the Village District Overlay Zone is not conducive to TOD
- Limited accessibility to the future station
- Inactive CONRAIL spur impedes integration of development sites and limits access to nearby neighborhoods
- Some potential development sites require environmental remediation and mitigation of off-site groundwater migration

TOD DESIRE & READINESS



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NEWINGTON



MARKET ASSESSMENTS

Town of Newington

in 2015-2016
US Census Bureau and CERC

30,590 residents

17,468 employees

\$80,315 median household income

80.1% owner-occupied houses estimate

21.5 minutes to work mean for a Berlin resident

Located south of Hartford, between the Hartford Line towns of West Hartford and Berlin, Newington is a suburban community with a total population near the median population of Hartford Line municipalities (30,500 residents). However, the Town’s population density—over 2,000 residents per square mile—is much higher than Hartford County overall. The median household income of approximately \$80,000 is also higher than the State median. At 4.4 percent, the poverty rate in Newington is significantly lower than the statewide rate of 10.5 percent. Like many other Hartford Line municipalities, the median age is higher than the State average with a median age of 44.5 in Newington, compared to 40.4 in the State. An aging population may help anchor TOD products, as those looking to downsize may desire multi-family housing units close to transit.

Only 9.8 percent of Newington residents are employed within the town, per LEHD data; this figure is comparable to the commuting patterns seen across other Hartford Line municipalities. The destinations of those commuting elsewhere are widely dispersed throughout the region; 7.7 percent of residents commute to New Britain, 6.2 percent to Hartford, 3.6 percent to Wethersfield, and 3.5 percent to West Hartford. Per 2015 ACS data, 93.2 percent of workers drive to their place of employment, with 86.1 percent driving alone. Only 1.6 percent use public transportation. There are two *CTfastrak* stations in the Town of Newington, Newington Junction Station and Cedar Street Station, and it is anticipated that commuting via public transportation will grow as use of the *CTfastrak* BRT system continues to increase since its opening in 2015.



FIGURE 4-13

ANCHOR INSTITUTIONS
IN AND AROUND NEWINGTON

Employment in Newington is anchored by the governmental, health care and social assistance, and retail trade sectors, which combined, account for nearly half of jobs in the Town, per CERC. In addition to these sectors, a large portion of the employment base in Newington is in manufacturing, due in part to several major industrial areas within the Town. Several large anchor institutions located in Newington, identified in Figure 4-13, account for a significant portion of the job base. While not within a half-mile radius of the Hartford Line, Newington is home to the Connecticut Department of Transportation (CTDOT) headquarters, located on the Berlin Turnpike, a few miles east of the rail line. Also among the Town's largest employers and anchor institutions in the health care sector are the Newington Campus of the U.S. Department of Veteran's Affairs Connecticut Healthcare System, as well as the Newington Campus of Hartford HealthCare. Commercial and retail employment is prominent in Newington, with Data-Mail, Inc. being the largest commercial employer. A large portion

of retail employers are located along the Berlin Turnpike. This corridor is a major retail destination in Central Connecticut, though it is located a few miles from the Hartford Line rail corridor and is primarily auto-oriented, with many big-box type establishments and national retail chains represented. Central Connecticut State University (CCSU) is another major anchor institution and while located in New Britain, it is near the Cedar Street CTfastrak Station in Newington. Of the seventeen institutions comprising the Connecticut State Colleges and Universities system, CCSU is the largest, with nearly 12,000 enrolled students and over 1,500 full- or part-time faculty and staff. The growing university is a fixture in the region with strong ties to the surrounding communities.

Newington is relatively affordable with the median home value (\$228,600) 18 percent lower than the median home value in the State. However, the median list price per square foot in Newington is \$150, which is slightly higher than the Hartford metro area's average of \$147. Recent data from



CENTRAL CONNECTICUT STATE UNIVERSITY



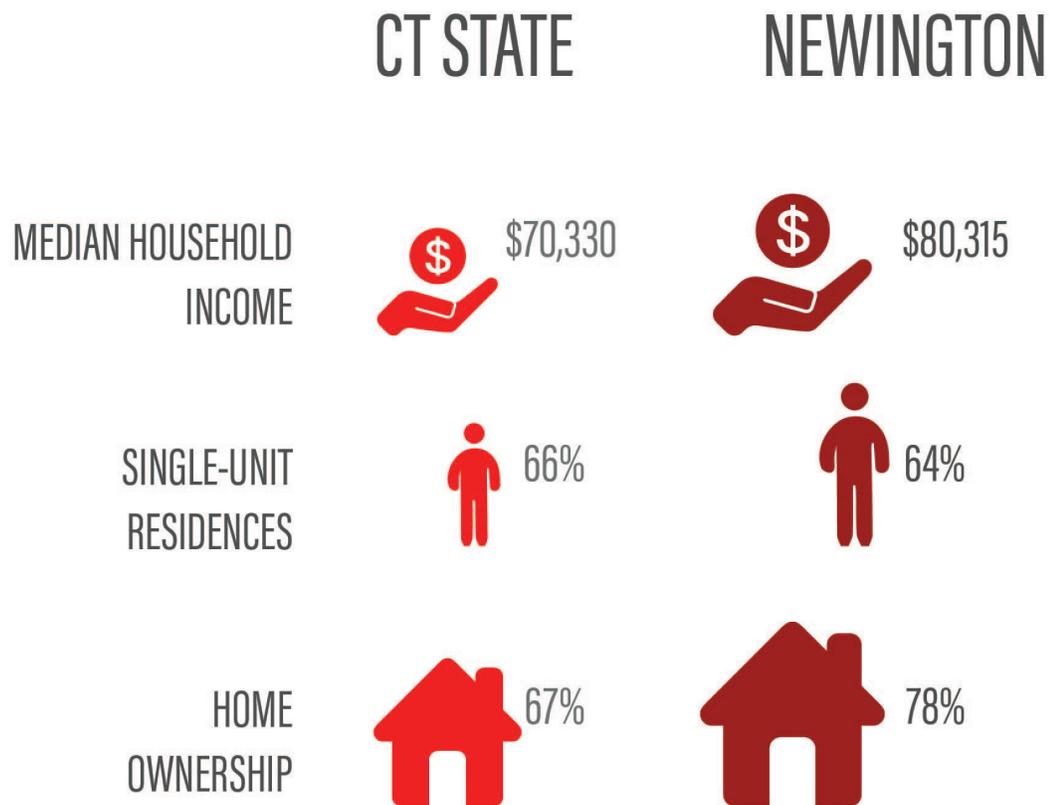
VA CONNECTICUT HEALTHCARE SYSTEM



HARTFORD HEALTHCARE MEDICAL GROUP



CONNECTICUT DEPARTMENT OF TRANSPORTATION



Zillow indicates that home values have generally remained steady over the past year, with a slight dip in late 2017. A high percentage of owner-occupied housing units (77.8 percent) and detached units (63.7 percent) results in a more limited supply of multi-family units in the Town. Average monthly rent for multi-family housing is on par with that of Hartford County, at \$1.34 per square foot. Newington’s age distribution skews higher than the state average, and nearly 20 percent of the population is aged 65 plus. As a reflection of this demographic composition, there are several age-restricted housing options throughout town, including the planned Villas at Cedar Mountain, which is awaiting construction funding, and Keleher Park, which is undergoing renovations and located across the street from the Newington Junction CTfastrak Station.

At the time of this report, available information for retail development within Newington was limited, but it is anticipated that retail rents are consistent with Hartford County at around \$12-\$15 per square foot. While 44 percent

Newington Center, located approximately 1.5 miles from both Newington Junction and Cedar Street CTfastrak Stations, is growing as a walkable downtown neighborhood with improved streetscapes, and smaller scale retail within Downtown.

Jobs Inflow/Outflow



of developed land in the Town of Newington is used for residential land use, with an emphasis on single-family, the next largest land use categories include industrial, commercial, and other auto-oriented uses, per the Town's Plan of Conservation and Development. These uses are mostly clustered along the Berlin Turnpike in the Town's primary commercial core and beyond a half-mile of the Hartford Line. Newington Center, located approximately 1.5 miles from both Newington Junction and Cedar Street CTfastrak Stations, is growing as a walkable downtown neighborhood with improved streetscapes, and smaller scale retail within Downtown.

Small clusters of single-story office structures are situated throughout the town, particularly along Willard Avenue near the Newington Junction CTfastrak Station. Many of these buildings house medical offices, IT services, and insurance providers. Although these offices tend to be newer than the historic commercial buildings found in Hartford and elsewhere along the Hartford Line corridor,

they tend to be Class B or C space that is over 50 years old. As with retail rents, detailed office rent data was similarly limited.

Overall, Newington offers promise for TOD around a future Hartford Line station. The Town's relatively older demographics and proximity to anchor institutions, such as CCSU, offers increased opportunity for higher density residential uses that could serve empty-nesters and young professionals. Furthermore, the presence of various anchor institutions could help generate ridership and support additional future amenities, as well as commercial development that would benefit the Town.

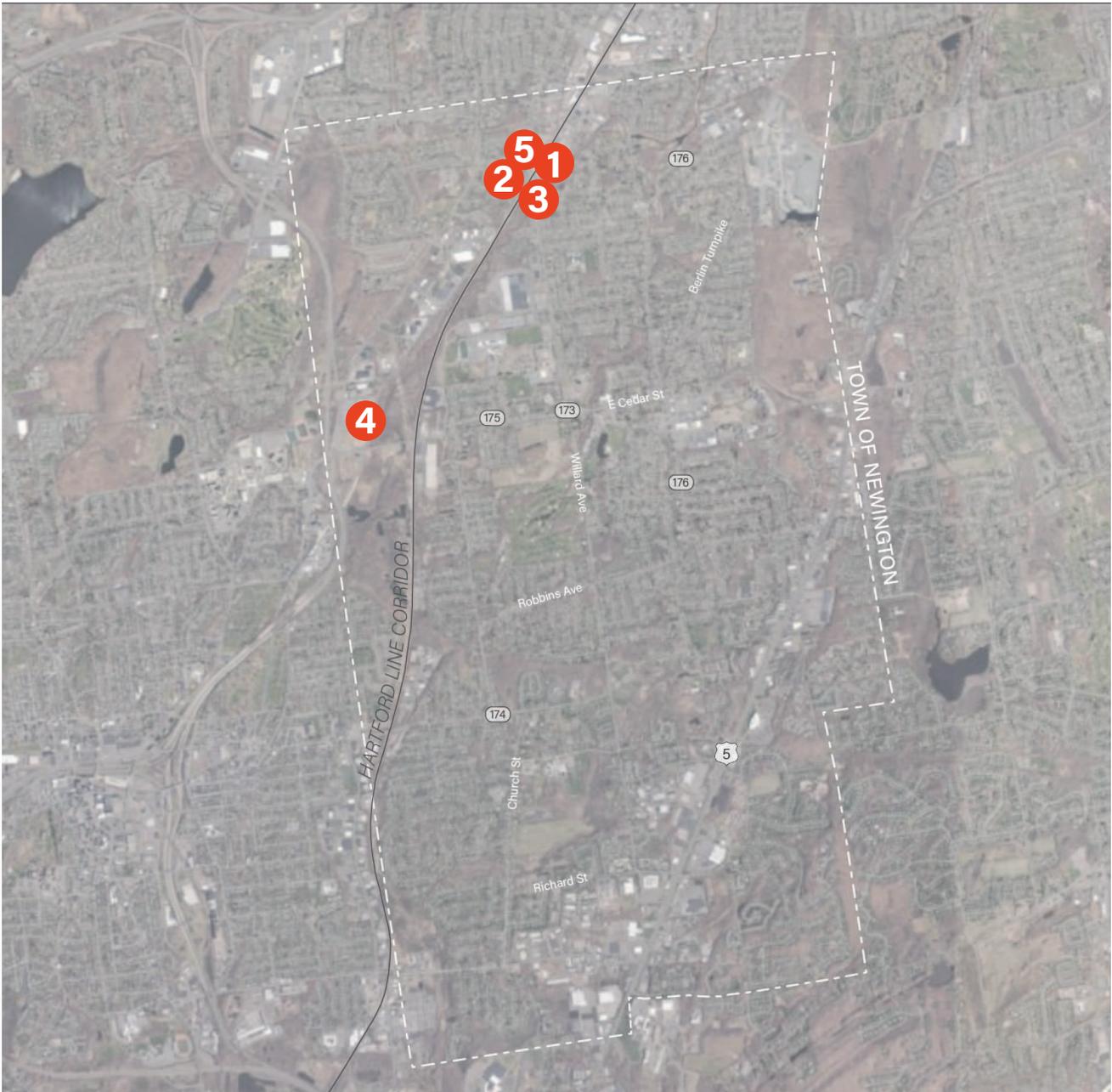


FIGURE 4-14 LOCAL LANDMARKS
IN NEWINGTON

INITIAL OBSERVATIONS

The original proposed site for a new Hartford Line station in Newington was located on Francis Avenue, adjacent to the Newington Junction CTfastrak Station. The initial observations made as part of the Selected Station Area TOD Assessment identified limited potential for TOD in the area surrounding the proposed station site. These initial observations led CTDOT to explore potential alternatives for a future station in Newington that would hold greater potential for TOD. As such, a formal D&R process was not performed with the Town while the station siting was under review. Rather, an Opportunities and Issues exercise was performed to identify and evaluate alternate locations for the station.

Initial observations indicated that the original proposed location of the future Hartford Line station at Newington Junction had limited potential to support TOD. While this location would allow direct access between CTra



Landmarks in Newington. Facing page, left to right: site of the initial proposed Hartford Line station on Francis Avenue; streetscape along Willard Avenue in the Newington Junction area. Above, top to bottom: looking southwest along Francis Avenue from the proposed station location; Cedar Street CTfastrak Station. Below: Newington Junction CTfastrak Station.





These initial observations led CTDOT to undertake an exploration of potential alternative locations for a future station in Newington that would hold greater potential for TOD.

Hartford Line passenger rail service and *CTfastrak* BRT service, there is limited connectivity directly around the site. Despite recent improvements along Willard Avenue, the street network provides limited access to the initial proposed station location, and limited access to major regional highways. Pedestrian and bicycle networks in the community surrounding the original station location are often incomplete, including no sidewalks on Francis Avenue, the only road with direct access to the site from the east. Furthermore, due to topography constraints, there is little to no capacity for streetscape improvements involving road widening to accommodate pedestrian and bicycle traffic, as well as increased vehicular traffic associated with a new station.

In addition to limited accessibility, the Newington Junction Station area offers limited opportunity for development, especially in the short term. The existing housing stock in this area consists primarily of well-established low density single family housing, with limited opportunity for new higher density, mixed-use development, typically associated with TOD. Within a reasonable distance to the proposed location at Newington Junction, there are few readily identifiable near- to mid- term development scenarios that would support TOD-friendly redevelopment initiatives. Even if the residual land acquisition associated with station construction were developed, the proposed location at Newington Junction would hold minimal potential for TOD on-site.

The discourse around higher density residential uses in the municipality as a part of TOD initiatives has been on-going. A long-term vision for denser, mixed-use development in the Newington Junction area that was presented in a 2014 concept memo received little community support. In the summer of 2015 the Town voted to implement a one-year moratorium on higher-density residential development in *CTfastrak* station areas, around both Newington Junction Station and Cedar Street Station. In 2016, per the Town of Newington Zoning Regulations, the Newington Junction moratorium was extended as the Commission continued to develop TOD regulations for the area, to “ensure appropriate residential development in the vicinity of the Newington Junction Station.” Alternatively, TOD regulations were adopted for the Cedar Street Station area in May 2016, thus lifting the moratorium at that location, while the moratorium currently remains in effect for Newington Junction. This moratorium would impact any TOD associated with a proposed Hartford Line station.

Neighborhood context in the Newington Junction Station Area. Facing page, top to bottom: single-family residential community; auto-oriented development; auto-oriented streetscape with limited pedestrian amenities.



FIGURE 4-15

HURDLES FOR TOD IMPLEMENTATION
IN NEWINGTON

- Complete Streets Improvements

Policy and Zoning

Market Considerations
- Access Challenges

Hurdles for TOD Implementation for proposed station at Newington Junction

- Lack of community support for additional development in the Town embodied in a moratorium on higher density residential housing typical of TOD, especially in a traditionally low density neighborhood
- Limited vehicular access to the proposed station area
- Limited capacity for pedestrian and bicycle improvements to access the station
- Existing neighborhood character that is not typically TOD-supportive
- Little near- to mid- term redevelopment potential near the proposed station site, including on residual land acquired for station construction
- Low long-term build out potential within a half-mile of the proposed station site

Opportunities and Issues Exercise

The location for any future Hartford Line station in the Town of Newington will have a significant influence on the station's success. While the original proposed station location is adjacent to the Newington Junction CT*fastrak* Station, several factors identified during initial observations of the Selected Station Area TOD Assessment, including lack of community support for TOD, suggested limited potential for TOD. These initial observations led CTDOT to undertake an exploration of potential alternative locations for a future station in Newington that would hold greater potential for TOD.

An ongoing review of potential alternate locations has found that there are sites elsewhere in Newington that may provide a better opportunity for TOD, with closer proximity to trip generators, greater levels of support from the community and municipal leadership, and better station access. These potential locations offer additional capacity for development, and appropriate context for relatively higher density and a mix of uses, as well as improved connections and access both for pedestrians and vehicles. As CTDOT continues identifying a final site for a future Hartford Line station in Newington, support from municipal leadership and the community will be imperative to selecting a location that will best benefit potential rail passengers and members of the community alike.

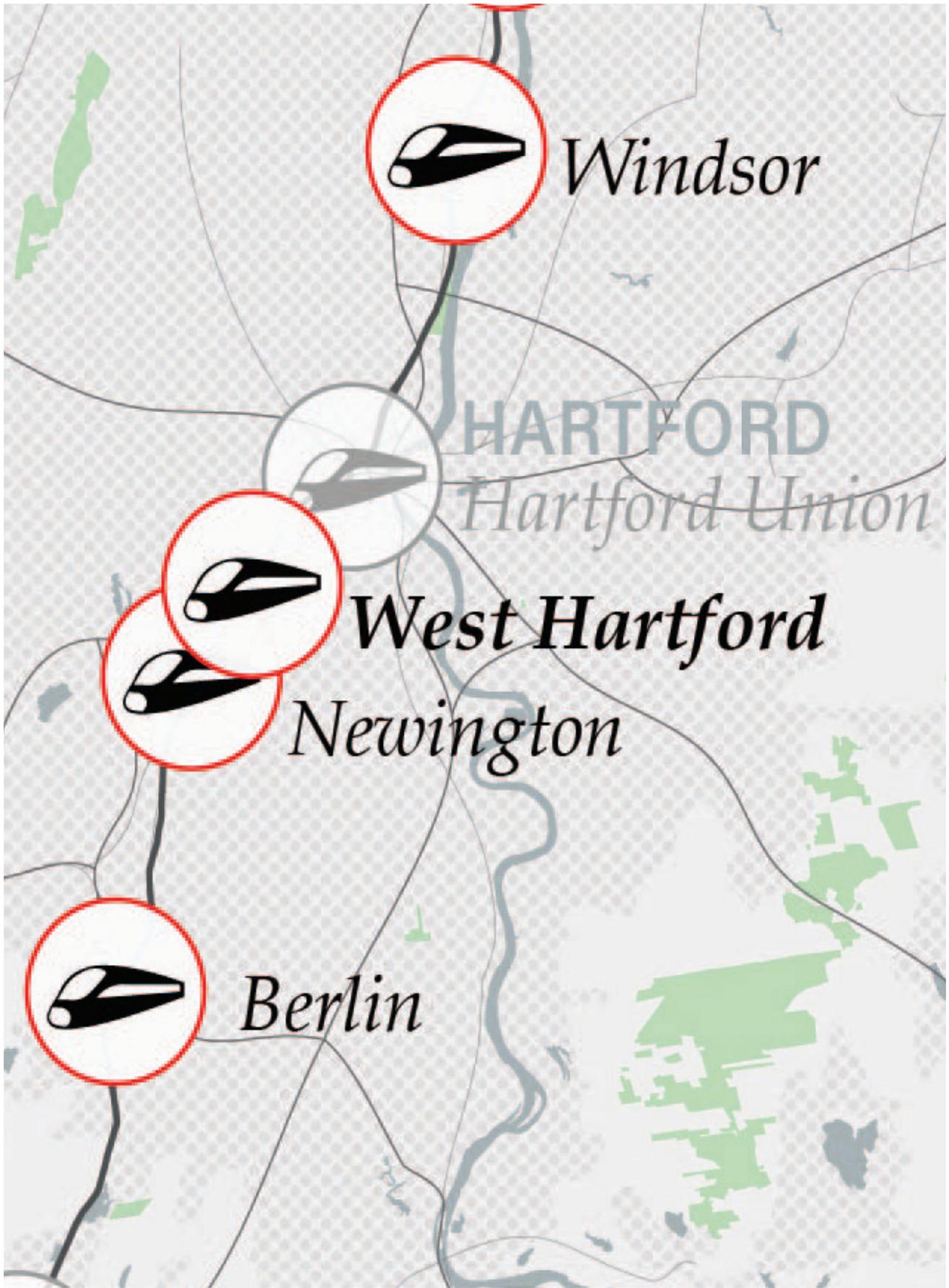
Next Steps for Newington

At the time of this report, the location of the future Newington Hartford Line station has not been finalized. Due to the ongoing review of potential alternative locations for the future station in Newington, a full set of specific recommendations will not be made for Newington in the subsequent chapter. However, CTDOT is continuing to work closely with Town leadership to identify a location for a future station that is beneficial to the Town, favorable to the local community, and supportive of Hartford Line ridership in a way that maximizes the potential for TOD in the surrounding area. The selection of the final location will seek to minimize the type of hurdles identified at the proposed station at Newington Junction. Most importantly, CTDOT is seeking a location that provides both near- and long-term development opportunities that is enabled by market appetite as well as supportive zoning.

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WEST HARTFORD



Windsor



HARTFORD

Hartford Union



West Hartford



Newington



Berlin

MARKET ASSESSMENT

Town of West Hartford

in 2015-2016
US Census Bureau and CERC

62,903 residents

28,631 employees

\$86,570 median household income

72.0% owner-occupied houses estimate

21.6 minutes to work mean for a West Hartford resident

Located less than five miles west of downtown Hartford, the Town of West Hartford is an affluent suburban community with a population of approximately 62,900. As the ninth-most populous community in the State, West Hartford is also denser than many of its suburban neighbors, with a population density double that of Hartford County and close to four times as dense as the State overall. The Town is more populous than the other suburban towns along the Hartford Line largely due to its proximity to the business center of Hartford. Approximately 24 percent of working West Hartford residents are employed in Hartford.

West Hartford has undergone a slight population decline in recent years, with a 1.1 percent decrease between 2000 and 2015. Despite this population decrease, the number of households increased slightly, by 1.5 percent, and the average household size increased from 2.39 to 2.46. The majority of the Town's housing stock—71 percent—is single-unit housing, compared to 66 percent in Connecticut. The future Hartford Line station, along with denser, more compact housing around the future transit node, could potentially help West Hartford reverse its population decline and increase its tax base.

Median home value in the Town is \$313,500, which is relatively high among the municipalities along the Hartford Line corridor. Median household income is \$86,570, over 20 percent higher than the median in the State, and 61 percent of West Hartford residents 25 years and over have a bachelor's degree or higher.



FIGURE 4-16

**ANCHOR INSTITUTIONS
IN AND AROUND WEST HARTFORD**

Per 2015 ACS data, over 90 percent of West Hartford residents use an automobile to get to work, while only two percent use public transportation, although this data reflects travel modes prior to the introduction of *CTfastrak* service. Furthermore, as Hartford Line service commences, residents might be more willing and able to take transit, especially given the proximity of the city center in Hartford and the multi-modal connections with *CTfastrak*.

Several educational and medical institutions are among the most important anchors and largest employers in the Town (see Figure 4-16). These include the University of Hartford, which is the second largest employer in the Town; the University of St. Joseph; and the Hospital at Hebrew Health Care – a non-profit, senior-focused health care facility with over 500 employees. In addition to the importance of the universities as major employers, they also draw a student population as commuters and residents.

The West Hartford residential rental market has been healthy in recent years, with stable occupancy and relatively high average rent per square foot. This premium reflects West Hartford’s linkages to the larger Hartford economy and job base, and is a strong indicator of new multi-family development potential. Not only are anchor institutions like hospitals and universities major employment drivers, they tend to increase demand for rental product, given the transient nature of their student populations and some of their job types, including visiting doctors and professors. This is reflected in the depth of West Hartford’s multi-family rental inventory, which is relatively large compared to other selected station areas along the corridor. The combination of high achievable rents, healthy occupancies, and substantial inventory suggest very strong fundamentals for multi-family development in West Hartford.

Unlike multi-family residential, the office market in West Hartford is far less active, with minimal new construction activity over the last decade (19,000 square feet in 2015).

Source: Wikimedia Commons



UNIVERSITY OF HARTFORD

Source: <http://www.usallifestyle realestate.com>



UNIVERSITY OF ST. JOSEPH



FAXON LIBRARY

Source: Ronni Newton



TRINITY COLLEGE

Source: Glassdoor

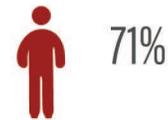
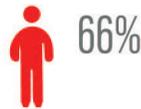
CT STATE

WEST HARTFORD

MEDIAN HOUSEHOLD
INCOME



SINGLE-UNIT
HOUSING



HOME
OWNERSHIP



Although the average vacancy rate has steadily declined since peaking just above 8.0 percent in 2008, reaching its lowest level in 2014 at just above 4.0 percent, annual net absorption has fluctuated between positive and negative for six years, indicating only modest demand for new office space going forward.

The West Hartford retail market has seen far more activity than office, and there is a large amount of retail square footage located in the future station area. West Hartford also has a track record of well executed retail formats, including the Blue Back Square development, a 600,000-square-foot walkable, mixed-use project. While not located proximate to the station area, it is an example of mixed-use development built on the remnants of auto-oriented and single-use buildings. At face value, the presence of a local mixed-use

With a significant commuting population the station area has strong growth potential in the future, particularly through the adaptive reuse of underutilized building stock and the longer-term turnover of the auto-oriented stores and industrial uses near the station to transit-supportive uses.

Jobs Inflow/Outflow



Source: OnTheMap, 2015, <https://onthemap.ces.census.gov/>

development with ground-floor retail, residential units, and commercial office space serves to demonstrate the feasibility of delivering mixed-use TOD in this market. However, the project required a bond issuance of almost \$50 million by the Town to support the project, as well as the contribution of publicly-owned land. This suggests that although West Hartford’s market fundamentals are robust, the prototypical TOD vision of relatively dense, mixed-use formats may still require assistance in the near-term.

While the West Hartford Station area has limited residential uses, it is a hub for big box retail mixed with industrial uses. Walmart, Home Depot, BJ’s, and Marshalls are a few of the many businesses near the future station. With a significant commuting population, the station area has strong growth potential in the future, particularly through the adaptive re-use of underutilized building stock and the longer-term turnover of the auto-oriented stores and industrial uses near the station to transit-supportive uses.

In summary, West Hartford has strong market fundamentals, including favorable demographics and the presence of several anchor institutions. Anchors such as universities tend to be significant sources of demand for various uses from employees, students, and visitors, and are far less sensitive to the economy than private sector employers. West Hartford’s strong base of higher income households coupled with the presence of several anchor institutions provides for future TOD potential.



FIGURE 4-17 1/4- AND 1/2-MILE RADII AND LOCAL LANDMARKS IN THE WEST HARTFORD STATION AREA

TOD DESIRE & READINESS

Physical Suitability

The area surrounding the future station is characterized by a complex array of land uses, including but not limited to active light industrial, big box retail, auto-oriented single story commercial, low-density residential, and significant expanses of surface parking. This eclectic mix creates a clashing of land uses that results in no clear defined character for the station area under existing conditions.

There are three main corridors that comprise the station area: Flatbush Avenue, New Park Avenue, and Newfield Avenue. Pedestrian and bicycle infrastructure on these corridors and throughout the immediate station area is limited.



Landmarks in the West Hartford Station area. Facing page, left to right: Flatbush Avenue CTfastrak Station; Charter Oak Marketplace. Above, top to bottom: West Hartford Industrial Park; West Hartford Place; recent improvements on the Flatbush Avenue bridge between New Park Avenue and Newfield Avenue.



STATION DESIGN

IN WEST HARTFORD

OCTOBER 2016



FIGURE 4-18

1/4-MILE RADIUS
AND STATION DESIGN
IN THE WEST HARTFORD STATION AREA

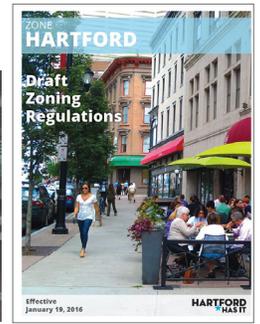
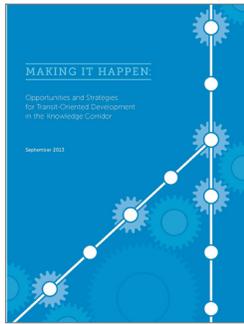
- | | |
|---|---|
|  |  |
| platforms | parking |
|  |  |
| pedestrian space | planting space |



Flatbush Avenue has been improved over the rail tracks with a new bridge and pedestrian sidewalk on the south side of the roadway. While these investments improved pedestrian connections across the rail line by removing an at-grade crossing, the bridge creates a visual barrier within the station area.

New Park Avenue is the central spine of an auto-oriented big box retail corridor, although West Hartford

Photos of primary gateways in the West Hartford Station area. Top to bottom, left to right: the intersection of Flatbush Avenue and entrance ramps to Interstate 84; the Flatbush Avenue bridge over the railroad tracks; big box retail along New Park Avenue.



2009 2010 2012 2013 2014 2015 2016 NOW

West Hartford
POCD

Hartford POCD

EA/EIE for
NHHS Rail
Program

Making It
Happen

Metro Hartford
Region Bike
Share Plan

Capitol Region
POCD

Flatbush
Avenue Station
Area TOD
Primer and
Concept Memo

West Hartford
Complete
Streets Policy

New Park
Avenue
Complete
Streets Study

CTfastrak TOD
Capacity Study

Hartford
Complete
Streets Policy

Adoption of
new Hartford
zoning
regulations

Hartford Line
TOD Action
Plan

CRCOG
Regional
Complete
Streets Policy
and Action
Plan (OPM)

Hartford TOD
Pilot Study

recently finalized a complete streets study that provided recommendations to improve the West Hartford portion of New Park Avenue with new traffic calming measures, pedestrian infrastructure, and bike lanes. While the sidewalk network is relatively robust along this segment, there are limited crossings available to pedestrians that are often lengthy and result in long wait times due to the high traffic volumes along this busy roadway.

Newfield Avenue generally follows the municipal boundary between Hartford and West Hartford and provides access into a long triangular district of West Hartford that sits to the east of the railroad tracks and is primarily industrial, but also contains some blocks with one- and two-family houses. Newfield Avenue is an industry-oriented roadway and has no bike infrastructure and limited sidewalks for pedestrian use.

With the exception of free parking provided at the existing CTfastrak station, current parking in the station area is primarily limited to private parking reserved for the various

businesses, most notably the large expanses of surface parking associated with the big box shopping centers that are scattered throughout the area. In their current form, the station plans for the future Hartford Line station do not meet the full demand for commuter parking, and there is uncertainty regarding near-term parking needs associated with the ongoing I-84 reconstruction project. On-street parking is prohibited on the three major roadways.

Both sides of the municipal boundary have several potential development sites, at varying stages of readiness. There are a number of sites that are either vacant or contain underutilized buildings or parking that could be re-envisioned to include a mix of uses, given the appropriate regulatory and market conditions. Many of these parcels were identified in a 2015 CRCOG report—CTfastrak Flatbush Avenue Transit Oriented Development Primer and Concept Memo—including the vacant, publicly owned parcel on the northwest corner of the intersection of Flatbush Avenue and New Park Avenue; big box retail along the east side of New Park Avenue; and various other industrial parcels

TOD DESIRE & READINESS
CTfastrak Flatbush Avenue Station



“The Flatbush Avenue Station is already generating foot traffic and development interest after the introduction of CTfastrak, and the planned rail station as a part of the Hartford Line will be located directly across from the CTfastrak guideway ... Once built, the station area will be a multimodal hub, that will likely catalyze redevelopment!”

CTfastrak TOD ANALYSIS & IMPLEMENTATION STRATEGIES REPORT

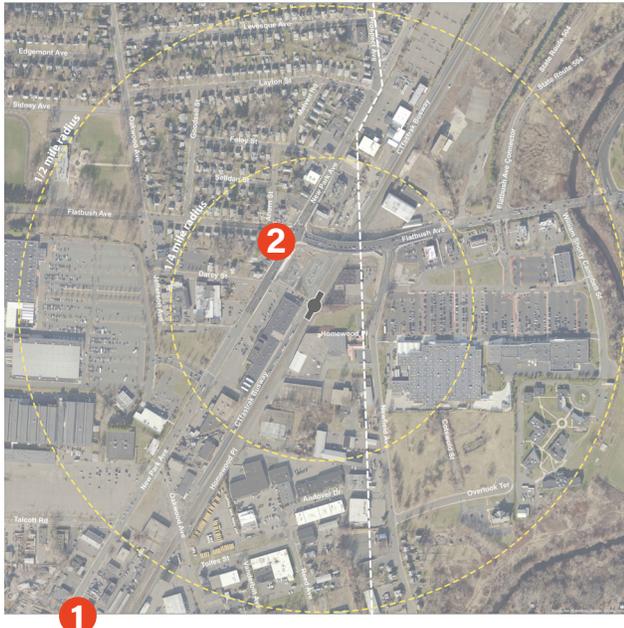
including the so-called ‘Suisman’ site east of the tracks and north of Flatbush Avenue. Longer-term development opportunities also exist along New Park Avenue, especially when reimagining the corridor as a mixed-use environment with pedestrian and bicycle improvements. Changes in land use in the surrounding area could reinvent the Flatbush area as a transit-oriented district that surrounds both the existing CTfastrak station and the future Hartford Line station.

Plans in Place

The 2015 CRCOG report identified approximately eight targeted development sites and provided potential guidelines for development growth scenarios on each site. CTDOT’s ongoing Hartford TOD Pilot Study for the City of Hartford builds on these prior efforts, examining the potential of specific development sites located near CTfastrak stations in Hartford as well as Flatbush Station in West Hartford.

Additionally, West Hartford’s recently completed *New Park Avenue Complete Streets Study* examined potential streetscape and pedestrian infrastructure improvements along New Park Avenue. This study emphasized the importance of repositioning the public realm to enhance walkability and bikeability, which is a key first step in the realization of this station area as a suburban transit center anchored by TOD.

The future station will be located directly on the municipal line between West Hartford and Harford, resulting in differences between allowable densities and land uses in the station area (in addition to mill rates that affect the financial feasibility of different uses from a developer’s perspective). However, there is a foundation upon which to build momentum towards unifying the station area, as both the Town of West Hartford and the City of Hartford recently adopted Complete Streets policies, which lay the regulatory framework for any future streetscape improvements in the station area. Additionally, the City of Hartford recently completed a substantial rewrite of its zoning regulations, and the majority of the station area that lies within Hartford is located within the new TOD Overlay District, facilitating future redevelopment for TOD uses. A number of potential zoning changes were also outlined as part of West Hartford’s recently completed *New Park Avenue Transit Area Complete Streets Study*, through a combination of short-term and long-term recommendations that warrant additional consideration in planning for the future station area.



Photos of recent and ongoing development in the West Hartford Station area. Top to bottom: the 616 New Park construction site in the spring of 2017; new Cumberland Farms on New Park Avenue.



Developer Interest

While there are recent and ongoing development projects in both the Town of West Hartford and the City of Hartford, there has been limited recent development specifically in the station area. The two most recent developments include a Cumberland Farms gas station across the street from the CTfastrak station, and a Chick-fil-A south of the station along New Park Avenue, which are uses more consistent with the existing auto orientation of the station area as opposed to a transit-oriented district.

While outside the station area, further south along New Park Avenue and in proximity to the Elmwood CTfastrak Station, a new mixed-use development (616 New Park Avenue) with affordable and market-rate housing is currently under construction. This \$22 million, 54-unit project was made possible by a change in zoning and a public-private partnership that included \$10 million in federal tax credits. This development, and others such as the Blue Back Square development in the Town of West Hartford, could potentially serve as precedents when considering future zoning changes to the scale and mix of uses in the station area.

Local Leadership

Municipal leaders from both Hartford and West Hartford have been active participants in recent and ongoing TOD planning efforts. However, prior to this Hartford Line TOD Action Plan, there has been limited coordination aimed at creating a common vision and approach to a district that straddles the municipal boundary (though CRCOG’s *CTfastrak Flatbush Avenue Station Area TOD Primer and Concept Memo* served as a starting point). As part of the Hartford Line TOD Action Plan, representatives from both the Town of West Hartford and the City of Hartford came together during the D&R workshop to discuss their respective initiatives to advance TOD in the station area. Representatives from both municipalities expressed a common desire to promote Flatbush Avenue as a multi-modal transit hub with convenient access between the CTfastrak and Hartford Line stations. Ongoing coordination will be critical to identifying and refining shared goals for future infrastructure improvements and development surrounding the planned Hartford Line station, which in turn can inform investments and regulatory changes to support these shared goals.

D&R WORKSHOP

A joint Desire and Readiness workshop was held with municipal leaders from the Town of West Hartford and the City of Hartford on December 13, 2016. The workshop was held at the Noah Webster Library in the Town of West Hartford and was attended by the respective town planners and other economic development and planning staff. The workshop brought together the two municipalities and focused on critical issues and opportunities that the Town and City could tackle jointly to promote TOD in the future station area. The project team identified two areas of focus for discussion at the workshop: the activation of potential development sites, and the implementation of capital improvements in the station area to act as catalysts for development opportunities. The discussion during the workshop underscored the importance of promoting coordination between the two municipalities to advance TOD in the station area.



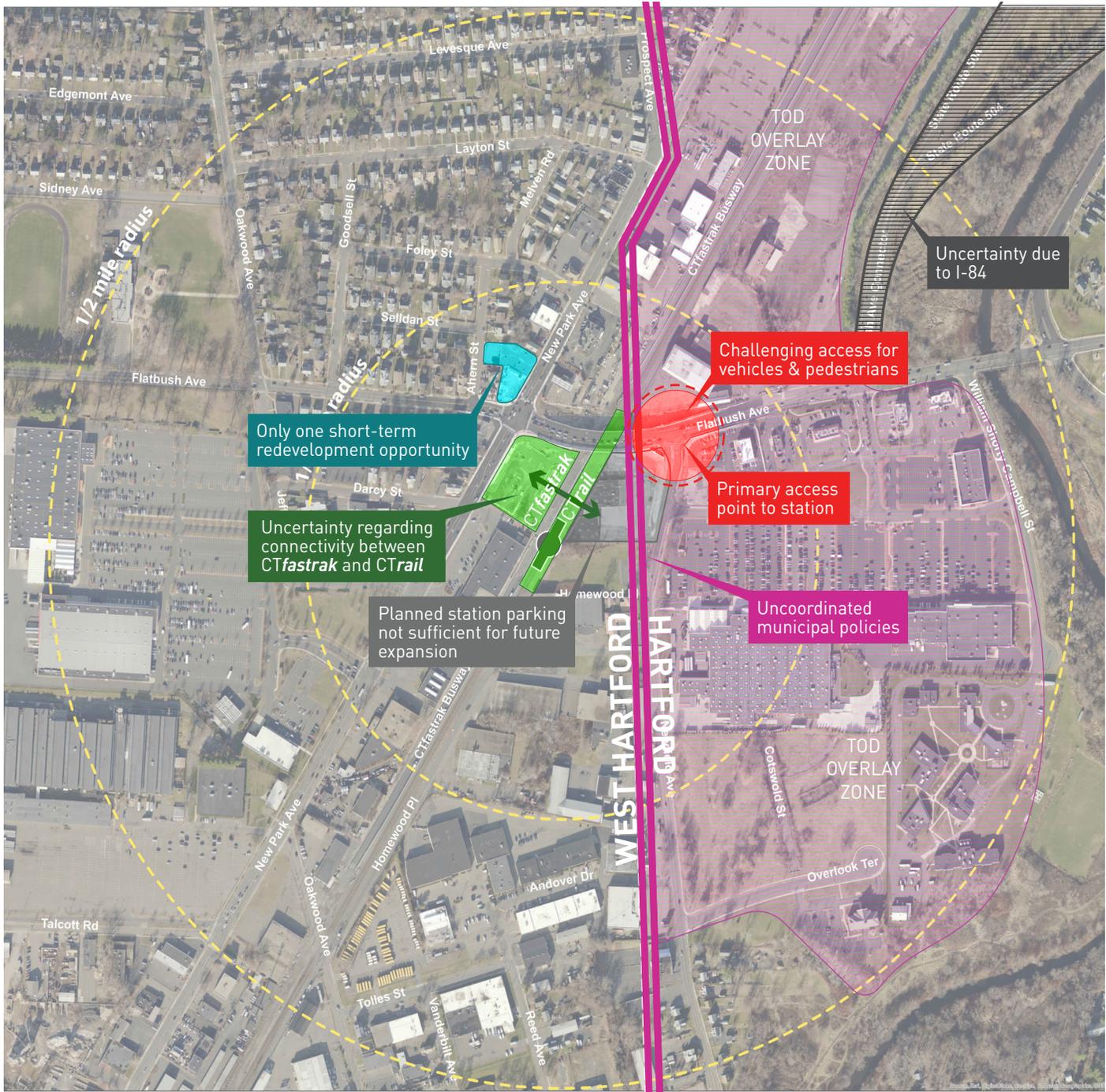
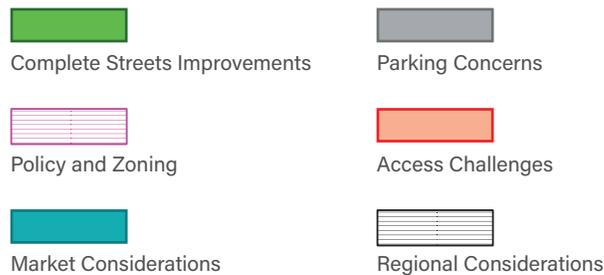


FIGURE 4-19

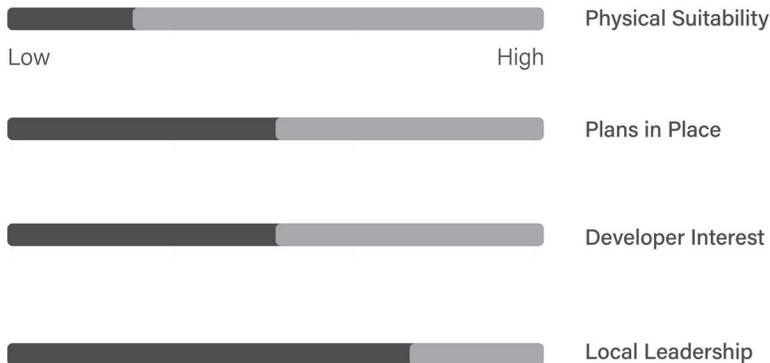
HURDLES FOR TOD IMPLEMENTATION IN THE WEST HARTFORD STATION AREA



HURDLES FOR TOD IMPLEMENTATION

- Lack of a unified station area vision between the Town of West Hartford and the City of Hartford
- Regulatory differences (i.e., zoning, mill rates) between the two municipalities
- Limited redevelopment opportunities in the near-term
- Insufficient station parking
- Lack of pedestrian and vehicular accessibility to the station
- Uncertainty regarding the implications of the I-84 Reconstruction Project

TOD DESIRE & READINESS



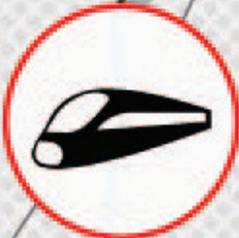
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WINDSOR



Enfield



Windsor Locks



Windsor



HARTFORD

Hartford Union Station



West Hartford

MARKET ASSESSMENT

Town of Windsor

in 2015-2016
US Census Bureau and CERC

28,875 residents

22,990 employees

\$81,980 median household income

82.7% owner-occupied houses estimate

21.7 minutes to work mean for a Windsor resident

Windsor is a suburban community located just north of Hartford. As in other Hartford Line municipalities, most residents commute elsewhere to work, and over 20 percent of employed Windsor residents work in Hartford, by far the most common employment destination. Most Windsor residents commute by car, although at 3.4 percent, Windsor has a higher rate of commuting via public transit than most station area municipalities of comparable density. With the introduction of Hartford Line service, the Town's proximity to the Hartford city center could attract an even greater share of commuters to public transit. Furthermore, this could drive demand for additional residences near the future station, enabling a shortened commute and an alternative as commuters negotiate congestion and delays that will likely increase as I-84 undergoes reconstruction.

As with other suburban communities along the Hartford Line, Windsor has a population older than that of the State and the nation overall. This demographic make-up underscores a statewide struggle to confront and reverse the outmigration of a younger population within the next five and ten years. The number of residents aged 55 and over is projected to grow, while the number of Millennial-aged residents has been in decline and is expected to continue to do so through 2020 and beyond if conditions remain the same.

The median household income in Windsor is \$81,980, which is approximately 15 percent higher than that of the State. However, the median home value in Windsor



FIGURE 4-20 ANCHOR INSTITUTIONS
IN AND AROUND WINDSOR

is \$223,100, 18 percent lower than that of the State. The relative affordability of Windsor, as reflected by its high median income and low median home value, as well as the perception of the Town as a safe and appealing community, may attract future residents once the Hartford Line service comes online.

While not located in direct proximity to the station area (known as Windsor Center), Day Hill Road is a major employment hub in the Town that may drive demand for housing and retail Downtown. According to the Town's 2015 Comprehensive Annual Financial Report, The Hartford (2,000+ employees), VOYA (1,800 employees), and CIGNA (1,000 employees) are three of the largest employers in Windsor, providing over 20 percent of Town employment. These employers are located along Day Hill Road, among a plethora of other companies.

Other anchors that may drive growth in Windsor include Loomis Chaffee School, a private boarding school located in the station area, and Bradley International Airport, located

in adjacent Windsor Locks (see Figure 4-20). Additionally, in the summer of 2015, Amazon began operations of a 1.5 million square foot fulfillment center near Day Hill Road. When Hartford Line service begins, these regional employers could attract employees that may consider Windsor to be a preferred location to live and raise a family.

The housing stock in Windsor is primarily owner-occupied (83 percent) and single-unit (85 percent). These shares are far higher than those of the State and most of the other towns along the corridor. Windsor's multi-family market is relatively limited in terms of inventory, although recent projects in the station area have demonstrated the feasibility of both for-sale and rental product. In 2007, the former Eddy Electric Factory was converted to 50 condominiums just north of the future station, known as First Town Square. Windsor Station Apartments—a new, market-rate apartment community across from the future station—was completed in the first quarter of 2017 and represents another indicator of healthy market conditions in Windsor.



LOOMIS CHAFFEE SCHOOL



WINDSOR CHAMBER OF COMMERCE

Source: www.windsorchamber.com



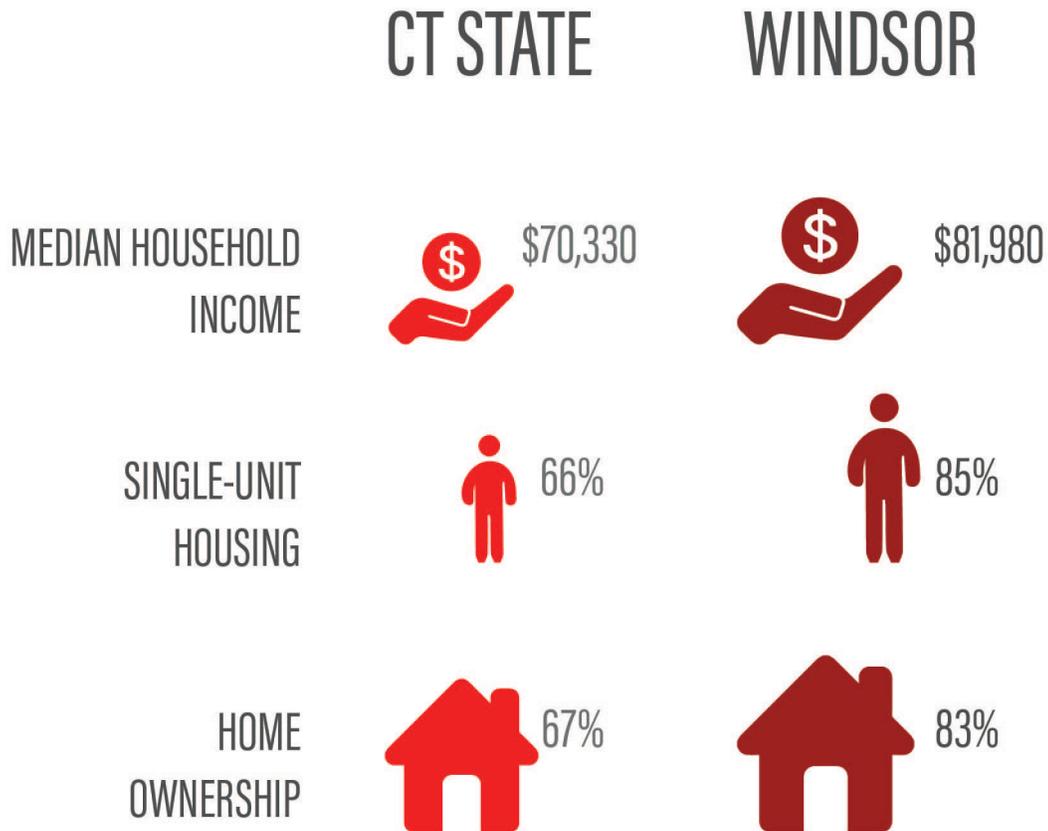
THE HARTFORD

Source: United States Department of Energy



AMAZON FULFILLMENT CENTER

Source: Mark Mirko // Hartford Courant



With 130 units, the achievable rents and lease-up pace of Windsor Station Apartments serve as a gauge for the potential of TOD in the station area. Windsor Station Apartment’s relatively large unit sizes and higher monthly rents also demonstrate the premium that a newly-constructed, transit-oriented apartment community can command over the market averages. Windsor Station Apartment’s average rent per square foot is approximately \$2.00, which is considered near the threshold required to attract new rental apartment construction, according to stakeholder interviews.

A forthcoming new development that could affect the future potential of Windsor Center is Great Pond Village, located near Day Hill Road. The development anticipates attracting more than 7,800 new residents over the next 20 years. Though not considered TOD due to its distance from the future station, the size, walkable format, and mixed-use makeup could simultaneously build upon and facilitate

The successful delivery of First Town Square and Windsor Station Apartments has helped establish the Windsor station area as a destination for households seeking certain amenities and high-quality for-sale and rental multi-family units.

Jobs Inflow/Outflow



Source: OnTheMap, 2015, <https://onthemap.ces.census.gov/>

successful TOD in the downtown and create a secondary town center in Windsor.

The Windsor office market has had negative net absorption seven out of the past ten years, which has resulted in a high average vacancy rate (11.9 percent) compared to other station areas in the Hartford region. Nevertheless, the Day Hill Road corridor remains an important employment hub for office space in the Town of Windsor. The retail market in Windsor is more stable than the office market, but there has been minimal retail development activity over the past decade and no indication that there is robust demand for substantial new development.

Overall, the successful delivery of First Town Square and Windsor Station Apartments has helped establish the Windsor Station area as a destination for households seeking certain amenities and high-quality for-sale and

rental multi-family units. The Town has an opportunity to build on this momentum with additional residential product, which can also support existing retailers and potential future tenants in the immediately surrounding area. Based on a build-out analysis included in the Town's 2014 TOD Master Plan, there is expected to be a growth in demand for residential development that will expand the projected absorption of retail and office space over the next 10 years. Like many of the other suburban station areas along the corridor, moderate market conditions for office and retail make them secondary uses in any planned future Windsor Center development.

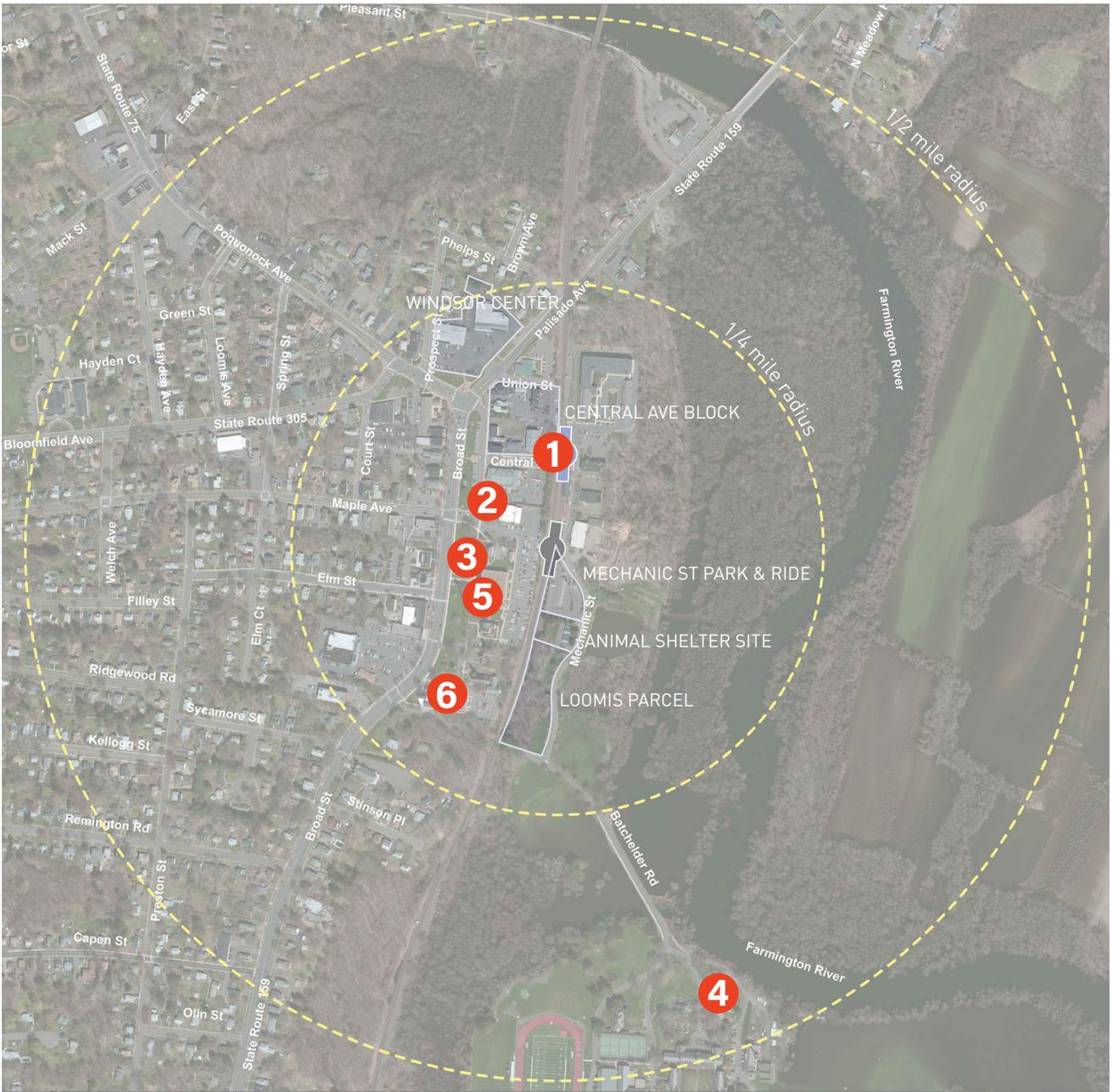


FIGURE 4-21 1/4- AND 1/2-MILE RADII AND LOCAL LANDMARKS IN THE WINDSOR STATION AREA

TOD DESIRE & READINESS

Physical Suitability

The future Windsor station will be located within the downtown core of Windsor Center, adjacent to the historic train station, Windsor Town Hall, the Town Post Office, Windsor Center Apartments, First Town Square, and the Broad Street commercial corridor. The Farmington River watershed/woodlands/trail system lies to the east of the station site, while single- and multi-family residential neighborhoods extend west and south from Broad Street. Building heights are generally limited to 2- to 3-stories, and Windsor Center is characterized by buildings that front onto primary streets or the Town Green, with surface parking located behind buildings. This creates an inviting walkable environment, although enhanced pedestrian and bicycle facilities and improved accessibility to services and destinations are needed.

The primary roadway in the station area is Broad Street, part of Connecticut Route 159, which runs north to south west of the future station. Broad Street culminates at the intersection of Palisado Avenue and Poquonock Avenue, which continue northeast and northwest, respectively. Maple Avenue and Elm Street are the primary neighborhood streets running east/west into Broad Street, while Central and Mechanic Streets and Batchelder Road provide accessibility to the rail station, residential developments, and Loomis Chaffee School to the south. Streetscaping in Windsor Center appears to be approximately a decade old and includes ornamental pedestrian lighting, sidewalks with brick edge detailing, and street furnishings.

The station area has a large but underutilized and decentralized supply of parking. During the D&R workshop, it was noted that this decentralization leads to a perception of insufficient parking in downtown. Additionally, this perception is exacerbated by lack



Landmarks in the Windsor Station area. Facing page, left to right: Existing Windsor Train Station; Windsor Town Green in front of Town Hall; Windsor Town Green looking east. Above, top to bottom: Loomis Chaffee, a boarding school in the station area; Windsor Town Green and Grace Episcopal Church; Windsor Public Library.

STATION DESIGN IN WINDSOR

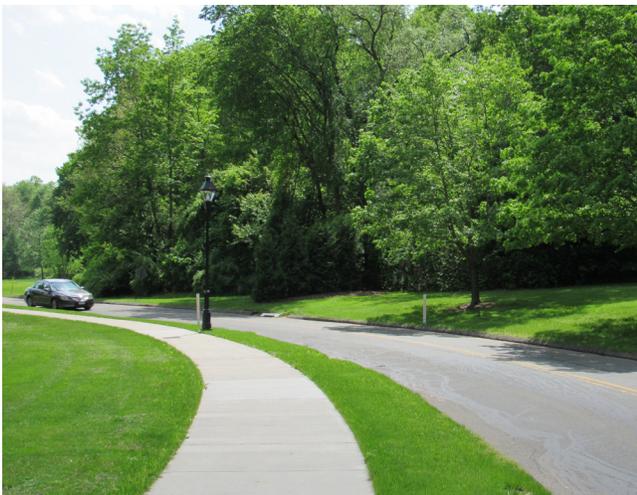
OCTOBER 2016



FIGURE 4-22

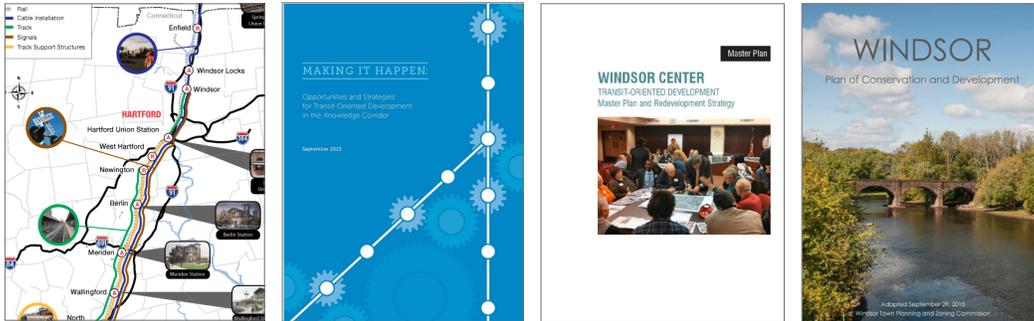
1/4-MILE RADIUS
AND STATION DESIGN
IN THE WINDSOR STATION AREA

- platforms
- parking
- pedestrian space
- planting space



of community receptiveness—based upon anecdotal evidence—for parking and then walking to destinations (i.e., the so-called “park once” mentality that is encouraged in walkable downtowns with TOD). On-street parking is unmarked along Broad Street, creating uncertainty regarding the specific quantity of on-street parking spaces. The majority of available parking is located west of Broad Street, and this roadway acts as a barrier between the parking and destination uses on the east side of the street.

Photos of primary gateways in Windsor. Top to bottom, left to right: Broad Street and Geissler’s Supermarket driveway; Mechanic Street; gateway to downtown Windsor on Palisado Avenue.



2012 2013 2014 2015 2016 NOW

EA/EIE for NHHS Rail Program

Making It Happen

Windsor Center TOD Master Plan and Redevelopment Strategy

Windsor POCD
Capitol Region Transportation Plan

Windsor On-Street and Off-Street Parking Survey

Hartford TOD Action Plan

Animal shelter relocation and site development (OPM)

CRCOG Regional Complete Streets Policy and Action Plan (OPM)

Capitol Region POCD

While there are some physical concerns regarding the station area, there are also a number of characteristics that prove to be promising for TOD implementation.

Broad Street poses a barrier for non-motorized access to and from the Town Green and the planned station, due to its auto-oriented nature, insufficient pedestrian crossing amenities, and lack of dedicated bicycle infrastructure. The Town has proposed a road diet for Broad Street to enhance the corridor for both pedestrians and bicyclists and increase accessibility to the future station.

While there are some physical concerns regarding the station area, there are also a number of characteristics that prove to be promising for TOD implementation. While Broad Street has limited pedestrian accommodations for east-west crossings, there have been several streetscape and access improvements elsewhere in the station area,

most notably along Batchelder Road and Mechanic Street, which have improved connectivity to the future station as well as to the Loomis Chaffee School. The future station will also be in close proximity to a number of recreational uses and open space, such as the Windsor River Trail and the Windsor Green. The Town has expressed a desire to increase programming and active uses of public space in Windsor Center.

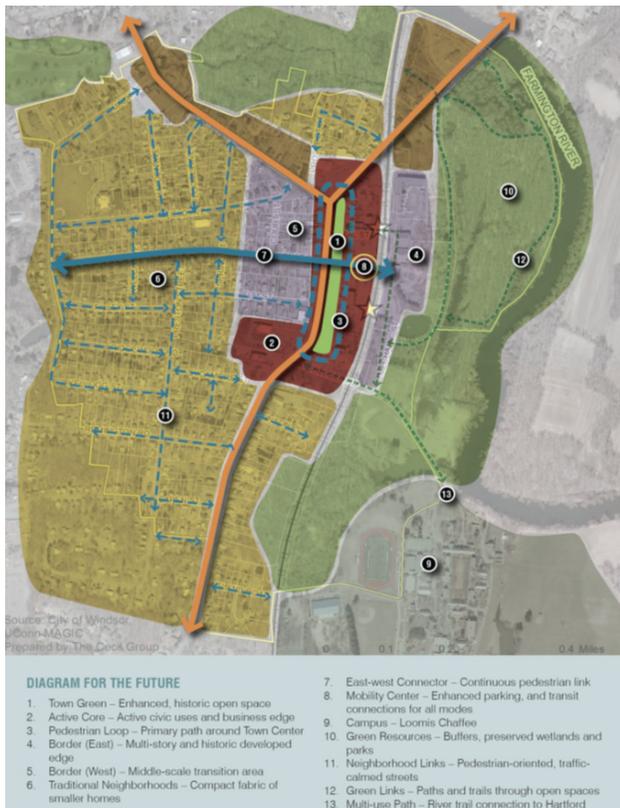
Windsor Center includes several redevelopment opportunities in proximity to the planned station. Recently completed and currently active development projects are discussed in the subsequent “Developer Interest” section. The Town has also identified additional sites that offer longer-term potential for redevelopment, including the Plaza Building and the Central/Union Street block.

Plans in Place

The Town completed the *Windsor Center TOD Master Plan and Redevelopment Strategy* in 2014 and incorporated it into the Town’s *Plan of Conservation and Development* (POCD) the following year. The document presents a comprehensive overview of the station area and outlines potential redevelopment opportunities and public realm improvements. The Master Plan also put forth a preferred

“Participants in the process want to enjoy a vibrant district that boasts a diverse mix of uses that enhances the area as a place to live, work, visit, and play.”

WINDSOR CENTER TOD MASTER PLAN AND REDEVELOPMENT STRATEGY



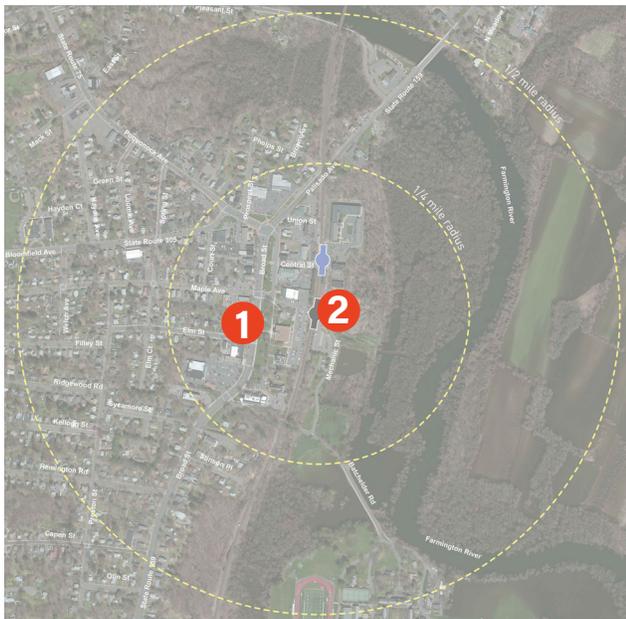
concept for a future road diet on Broad Street (to narrow the road and enhance east-west pedestrian access between the Town center and future station), but the Town has been unable to secure funding to date for design and construction. Following the completion of the Master Plan, the Town updated its zoning regulations to further promote TOD, including new flexible “design development overlays” that allow for shared parking, reduce off-street parking requirements, require retail store frontage, and prohibit curb cuts.

In 2016 the Town completed a survey of on- and off-street parking in the downtown area, identifying capacity and utilization rates in Windsor Center. The survey supported the findings of a previous study that documented low utilization rates throughout the day, including during peak periods. However, as discussed in the D&R workshop, there remains a perception among residents that the parking supply in Windsor Center is inadequate to meet demand. The Town continues to coordinate with CTDOT regarding the conceptual design for a parking deck behind Town Hall to provide parking for commuters, Town staff, and visitors.

The Town also remains focused on encouraging multi-modal connectivity both within the station area and between the station area and the Day Hill Road employment center. A recently completed *Windsor Transportation Management Association (TMA) Study* by CRCOG recommended multiple concepts for a shuttle service serving Day Hill Road, and during the D&R process, Town leadership also discussed the importance of providing additional transit options within Windsor Center.

Developer Interest

As noted in the “Market Assessment” section, the First Town Square condo complex was completed in 2007 as an adaptive reuse project. On the heels of this successful development, another residential project was recently completed across the street from the site of the planned station. The 130-unit Windsor Station Apartments complex is expected to bring an influx of residential foot traffic to downtown. On the west side of Broad Street, there is a desire for renovating a historic theater, with potential plans to reopen in the future. During the D&R process, the Town also expressed an interest in promoting so-called “social retail” along Broad Street, featuring smaller and more specialized retail with active storefronts that are inviting to pedestrians.



Photos of recent and ongoing development in the Windsor Station area. Top to bottom: Theater Plaza; Windsor Station Apartments.

The Town has also noted that there is potential redevelopment interest in the Central/Union Street block, as well as the former animal shelter site on Mechanic Street. The Central/Union Street block is owned by multiple entities - however, only some have expressed interest and willingness to explore redevelopment opportunities. The Town is completing pre-development work at the animal shelter site, but geometric and environmental (flood zone) constraints could limit the development potential of this site.

Local Leadership

Town leadership has been actively positioning Windsor Center for TOD implementation for nearly a decade. Municipal leaders have shown that they are willing to be a partner to the private sector by not only enacting design development overlay areas and reducing parking requirements, but also by actively aiding development opportunities. Over the past few years, the Town has assisted in obtaining financial assistance for soil remediation

D&R WORKSHOP

A Desire and Readiness workshop was held with stakeholders and municipal leaders from the Town of Windsor on November 16, 2016. The workshop was held at Windsor Town Hall and was attended by Town Manager Peter Souza, members of the Economic Development and Planning/Zoning Commissions, and various other planning and economic development staff. Additionally, stakeholders from the Windsor Chamber of Commerce and Amazon, a major employer, also participated in the workshop. The project team organized the workshop around two complementary themes: development opportunities and parking needs in Windsor Center. One of the key takeaways from the workshop was the importance of optimizing the number, location, and layout of parking spaces to meet the varied short- and long-term needs of commuters, Town employees, visitors, and future developments (with consideration for shared parking as appropriate).



at the First Town Square development site, aided in site assemblage and the sale transaction for the Windsor Station Apartments, and secured funding through OPM to prepare the animal shelter site for future development. In addition to municipal leadership, there are a number of other active stakeholders with an interest in preserving and enhancing the character of Windsor Center, including the not-for-profit organization First Town Downtown and the Loomis Chaffee School.

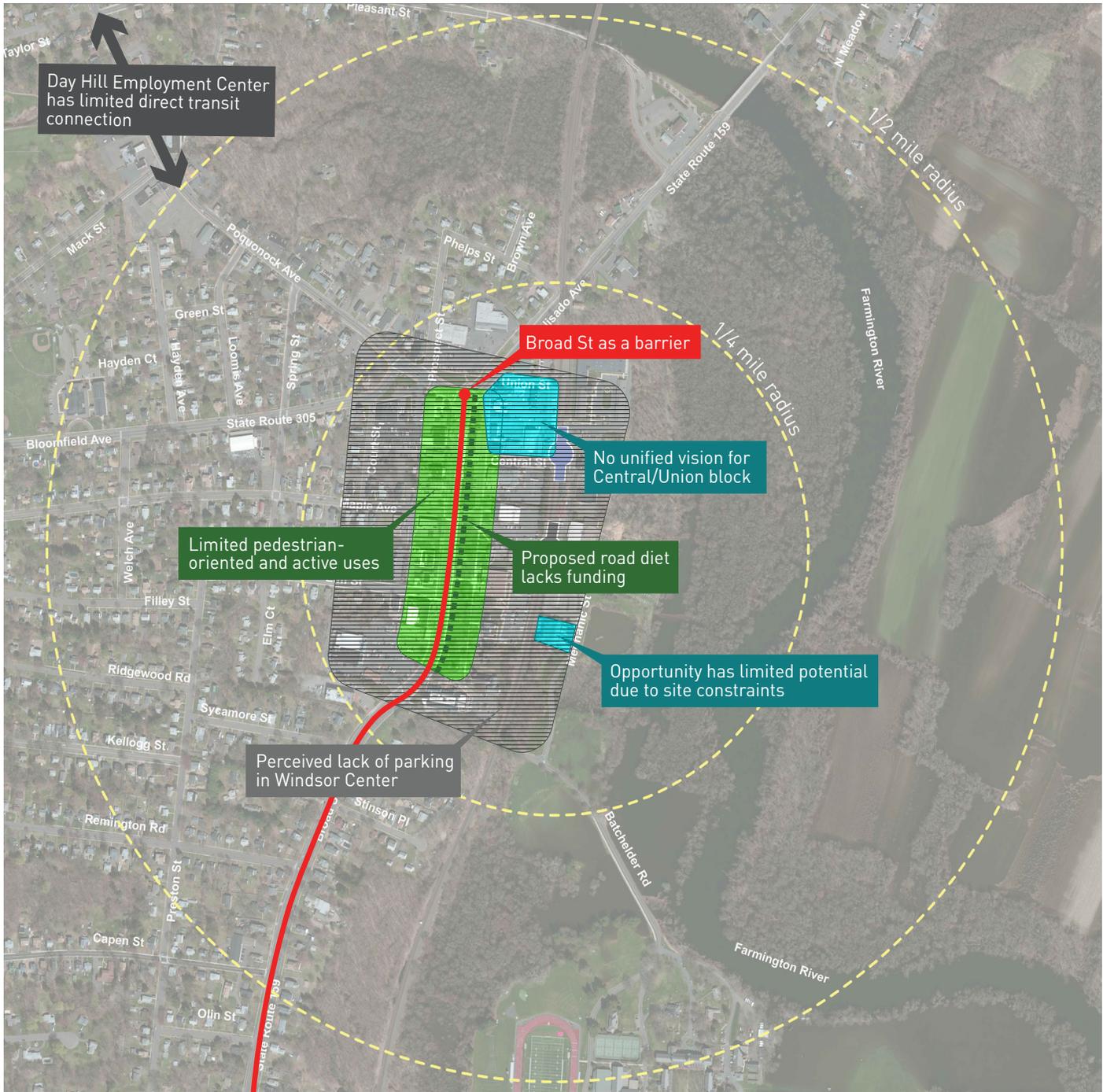


FIGURE 4-23

**HURDLES FOR TOD IMPLEMENTATION
IN THE WINDSOR STATION AREA**

- Complete Streets Improvements

Market Considerations

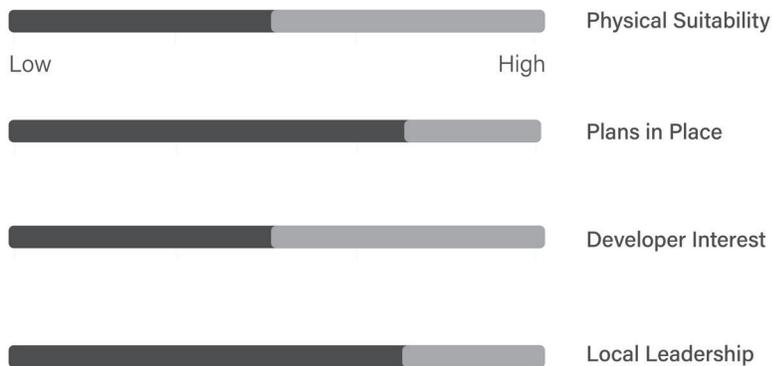
Parking Concerns
- Access Challenges

Regional Considerations

HURDLES FOR TOD IMPLEMENTATION

- Perceived lack of parking and uncertainty regarding future need for parking in Windsor Center
- Barrier (physical and perceived) created by Broad Street
- Limited active and pedestrian-oriented uses in Windsor Center
- Lack of a unified vision for the redevelopment of the Central/Union block
- Constrained development potential of the animal shelter site
- The need to secure funding for the proposed road diet on Broad Street
- Limited direct transit connectivity between the station area and the Day Hill Road employment center

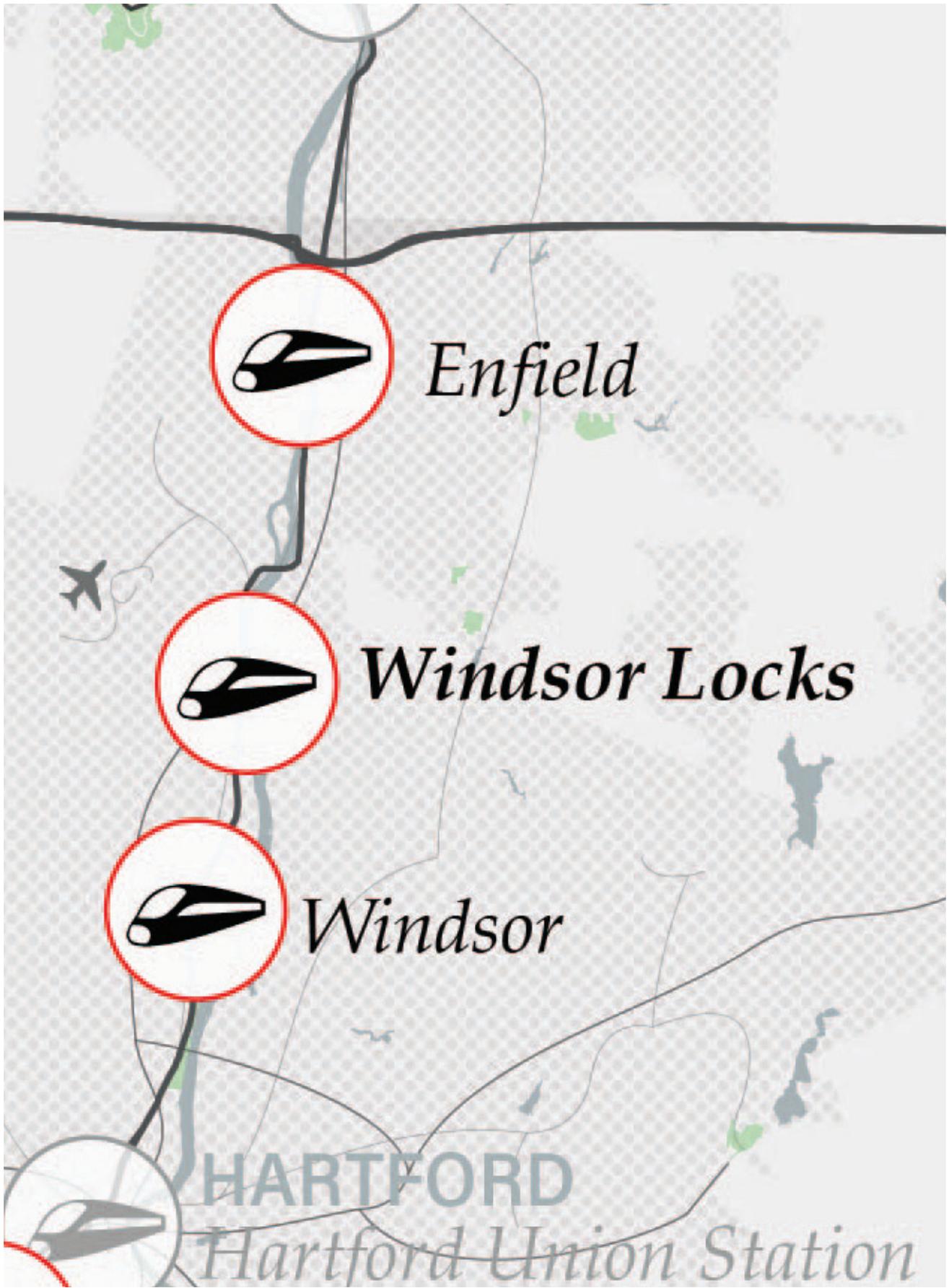
TOD DESIRE & READINESS



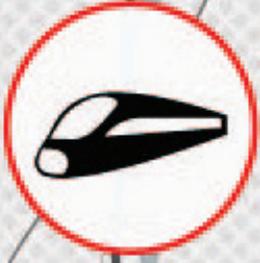
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WINDSOR LOCKS



Enfield



Windsor Locks



Windsor



HARTFORD

Hartford Union Station

MARKET ASSESSMENT

Town of Windsor Locks

in 2015-2016
US Census Bureau and CERC

12,512 residents

12,585 employees

\$68,940 median household income

77.3% owner-occupied houses estimate

22.4 minutes to work mean for a Windsor Locks resident

Roughly equidistant from Hartford and Springfield, Windsor Locks is a suburban community with a relatively small population (12,512 residents) in comparison to other Hartford Line municipalities. However, the Town's population density—nearly 1,400 residents per square mile—is higher than Hartford County overall. The median household income of \$68,940 is on par with the State median. At 5.7 percent, the poverty rate in Windsor Locks is significantly lower than the statewide rate of 10.5 percent. Like many other Hartford Line municipalities, the Town's median age is slightly higher than the State median – the median age in Windsor Locks is 42.5, compared to 40.4 in the State. As mentioned previously throughout this report, an aging population may help anchor TOD products, as those looking to downsize may desire multi-family housing units.

Only 12.9 percent of Windsor Locks residents are employed within the town, per LEHD data; this figure is comparable to the commuting patterns seen across other Hartford Line corridor municipalities. Those commuting elsewhere are widely dispersed among the region; 11.5 percent of residents commute to Windsor, 10.8 percent to Hartford, 5.1 percent to Enfield, and 5.0 percent to East Windsor. According to 2015 ACS data, 97.1 percent of workers drive to their place of employment, with 84.5 percent driving alone. Only 1.3 percent use public transportation. However, the Town of Windsor Locks also serves as an employment destination, with commuters traveling primarily from Enfield and Hartford.

Windsor Locks has a more prominent manufacturing sector than other Hartford Line municipalities, supporting close to one-third of jobs in the Town (for a map of all of the anchor institutions in Windsor Locks,



FIGURE 4-24 ANCHOR INSTITUTIONS
IN AND AROUND WINDSOR LOCKS

Source: FF Hitchcock



BRADLEY INTERNATIONAL AIRPORT



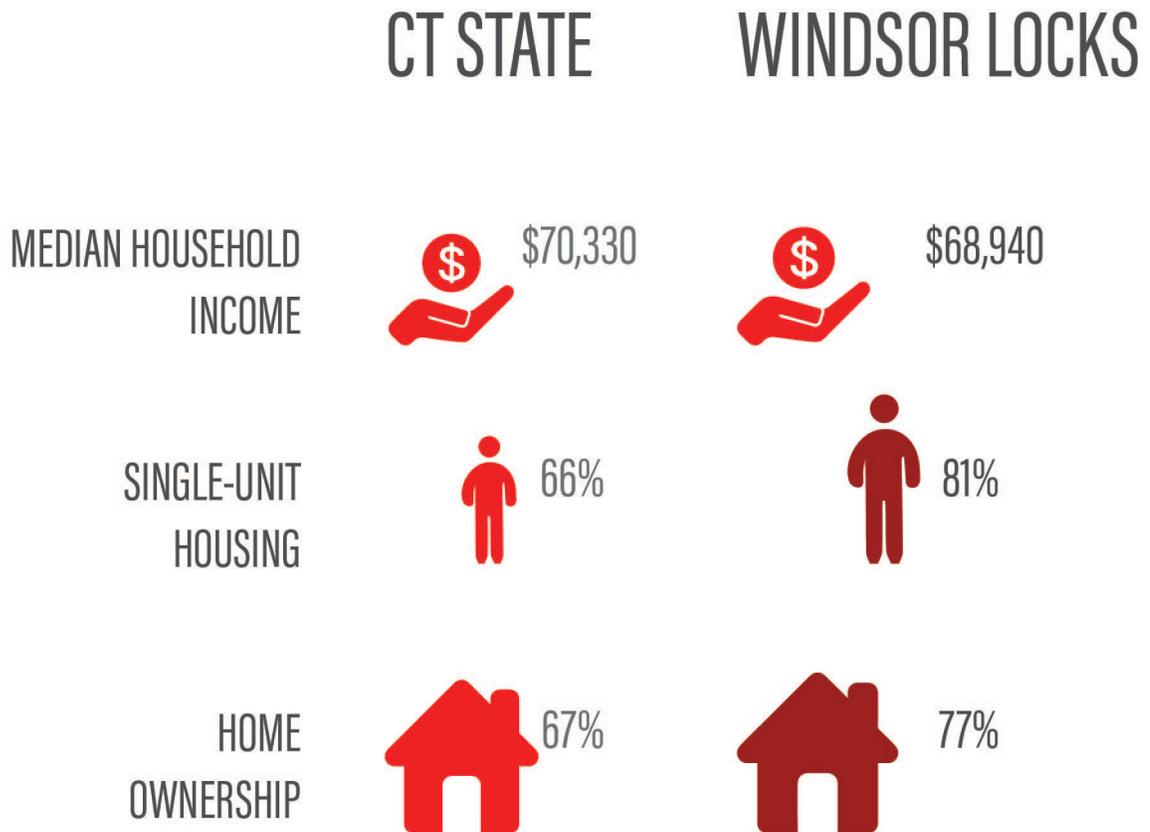
AHLSTROM NONWOVENS INC.

see Figure 4-24). In addition to manufacturing, a large portion of the employment base in Windsor Locks consists of transportation and warehouse operations. The Ahlstrom-Dexter Corporation is located immediately south of the future station and employs approximately 500 employees. Two major aerospace firms—Bombardier and UTC Aerospace—are among the Town’s five largest employers, likely due to the proximity of Bradley International Airport.

Windsor Locks is unique along the Hartford Line corridor in its relationship with an international airport. Bradley acts as both an employment center and the primary airport servicing the Greater Hartford region. The airport employs 4,200 people in Windsor Locks, more than any other business or institution in the Town. Bradley may contribute to additional demand for denser residential and/or commercial development with the introduction of Hartford Line service, although it will be important to provide multi-modal connectivity between the future station and the airport to maximize the marketability of future development.

The median home value in Windsor Locks (\$195,800) is 28 percent lower than the State’s median home value, reflecting the town’s relative affordability. Recent data from Zillow indicates that home values have declined 2.4 percent over the past year, but are predicted to rise 0.8 percent within the next year. The median list price per square foot in Windsor Locks is \$130, which is lower than the Hartford metro’s average of \$147.

There is a high percentage of owner-occupied housing units (77.3 percent) and detached units (71.3 percent). There are few market-rate apartments in Windsor Locks (350 units tracked by CoStar), but there will be a notable increase in inventory once the redevelopment of Montgomery Mills is completed. The project is a 160-unit adaptive reuse of the former mill, located just south of the future Hartford Line station. Of the 160 units, approximately 80 will be market rate with the balance slated to be income-qualified. The project, coupled with the relocation of the train station to the heart of downtown, is expected to be catalytic for the Windsor Locks Station area. The total project cost of \$62 million is funded by a combination of private investment and a range of local, state, and federal grants, loans, and tax credits including Low Income Housing Tax Credits



(LIHTC) and historic preservation tax credits. It is likely that additional multi-family development will still require assistance and incentives to be financially feasible in the near term, with the goal of generating even greater private investment in the future.

Like the multi-family residential market, office and retail inventory is limited in Windsor Locks. There is approximately one million square feet of leasable office and retail space combined, according to CoStar. There has been almost no commercial development activity over the past decade, with the exception of a combined 22,000 square feet of retail. As a result, vacancies for both office and retail are very low, at 3.5 percent each. The 2013 *Windsor Locks: Once and Future TOD Study* estimated that a total of 20,000-40,000 square feet of office space and up to 88,000 square feet of retail space could be absorbed into the market within the next 10 years, in conjunction with the relocation

Due to its small size and currently limited market demand for new development, the relocation of the train station and the introduction of Hartford Line service are of particular importance for Windsor Locks.

Jobs Inflow/Outflow



Source: OnTheMap, 2015, <https://onthemap.ces.census.gov/>

of the train station. Furthermore, the possibility of a new casino in neighboring East Windsor could influence future development potential in the station area.

Overall, due to its small size and currently limited market demand for new development, the relocation of the train station and the introduction of Hartford Line service are of particular importance for Windsor Locks. The strong development interest in re-purposing the Montgomery Mills into residential loft units also marks a critical potential transition toward Windsor Locks becoming a substantial residential and mixed-use downtown destination. As subsequently discussed, the Town's ability to maximize the catalytic potential of these investments hinges upon several factors and actions, including implementing forward-thinking plans that will help revitalize the future station area.

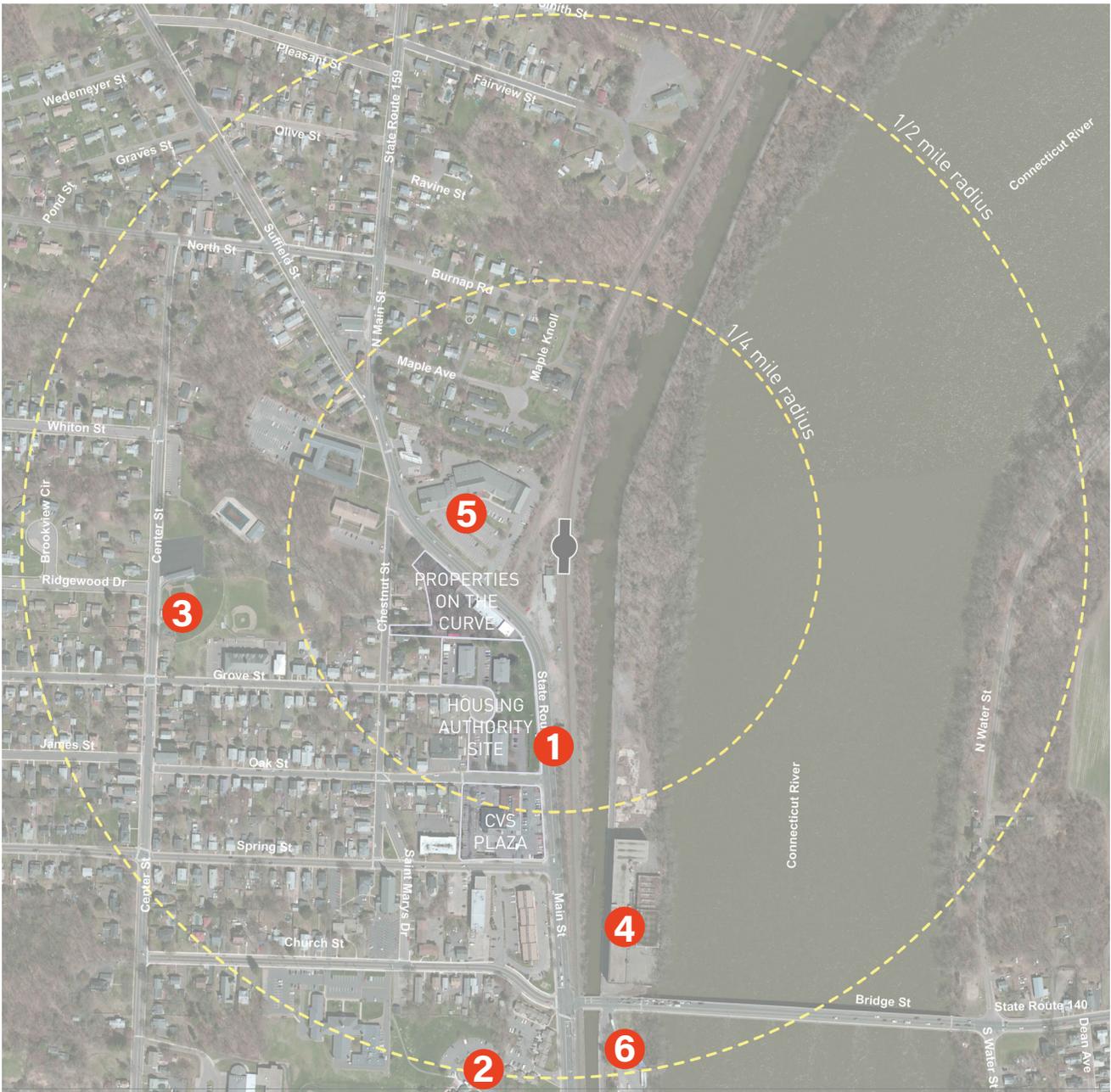


FIGURE 4-25 1/4 AND 1/2 MILE RADII AND LOCAL LANDMARKS IN THE WINDSOR LOCKS STATION AREA

TOD DESIRE & READINESS

Physical Suitability

The planned station site is located adjacent to Windsor Locks Commons, a one-story retail complex with small shops, services, and restaurants. One- to two-story auto-oriented commercial buildings continue down the west side of Main Street to the south, while single- and multi-family residential neighborhoods extend to the west. East of Main Street lies the Connecticut River, with a narrow strip of land that currently supports a combination of active and abandoned light industrial uses, including Montgomery Mills which will be adaptively reused as a multi-family residential development. A canal separates this strip of land from Main Street, while the Bridge Street/Route 140 Bridge spans the river and connects Windsor Locks to East Windsor.

The primary roadway within the station area is Main Street/Route 159. Main Street is a major north/south roadway with North Street, Bridge Street, and Elm Street as intersecting streets. Both North and Elm Streets connect downtown Windsor Locks to Bradley International Airport, approximately two miles to the west. Shuttle service is provided from Hartford to the airport by the Bradley Flyer, a semi-express bus. While the Bradley Flyer does not currently serve the station area, bus service between the future Windsor Locks station and the airport is expected.

The intersection of Bridge Street and Main Street is a critical node in the roadway network in terms of supporting current and future traffic needs related to the new rail station and potential TOD in the area. This intersection, which includes an at-grade rail crossing, has major congestion and circulation issues.



Landmarks in the Windsor Locks Station area. Facing page, left to right: Historic Windsor Locks Train Station; Windsor Locks Public Library; Pesci Park. Above, top to bottom: Montgomery Mills, Windsor Locks Commons; Ahlstrom.

STATION DESIGN IN WINDSOR LOCKS

OCTOBER 2016



FIGURE 4-26

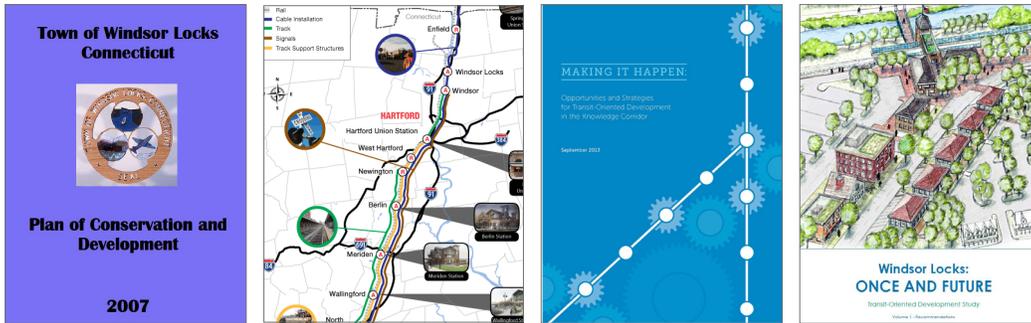
1/4-MILE RADIUS
AND STATION DESIGN
IN THE WINDSOR LOCKS STATION AREA

- | | |
|---|---|
|  |  |
| platforms | parking |
|  |  |
| pedestrian space | planting space |



Pedestrian infrastructure is very limited, and there is no dedicated bicycle infrastructure on any downtown street. Main Street includes a tree-lined sidewalk on the west side, but fast moving traffic and multiple curb cuts for automobile access into surface parking lots make for an uncomfortable pedestrian environment. There are no sidewalks on the east side of the roadway, which limits pedestrian access to both the historic station and the future new station. Suffield, North, and Elm Streets have slightly better sidewalks but

Photos of primary gateways in the Windsor Locks Station area. Top to bottom, left to right: Bridge Street over the Connecticut River to East Windsor; Main Street south of Bridge Street; Intersection of Main Street and Chestnut Street.



2007 2008 2012 2013 2014 2015 2016 NOW

Town of Windsor Locks POCD	Windsor Locks Downtown Master Plan	EA/EIE for NHHS Rail Program	Windsor Locks TOD Study	Incentive Housing Zone Study	Historic Train Station Reuse Study	Downtown TIF District Master Plan	Hartford Line TOD Action Plan
			Making It Happen	Capitol Region POCD	Capitol Region Transportation Plan		Main Street Property Acquisition and Pre-Development (OPM)
							CRCOG Regional Complete Streets Policy and Action Plan (OPM)

they are adjacent to moving traffic lanes with little or no buffer. In the future, there is potential for a pedestrian bridge between Windsor Locks station and the Windsor Locks Canal Trail, which could encourage recreational uses north of the Montgomery Mills site.

As the principal north-south roadway that serves the future station, Main Street plays a dual role as both the core of downtown Windsor Locks as well as a State route that connects the Town with Windsor to the south and Suffield to the north. These two roles serve different functions that can often be at odds, namely to provide an inviting pedestrian experience and to ensure adequate vehicle throughput. The Town of Windsor Locks' ongoing efforts to design a complete street strategy must account for both of these important functions of Main Street.

There are a number of vacant or underutilized properties in the station area that provide potential for future redevelopment opportunities. Some of these sites have already attracted interest from potential developers and are included in the "Developer Interest" section. Another

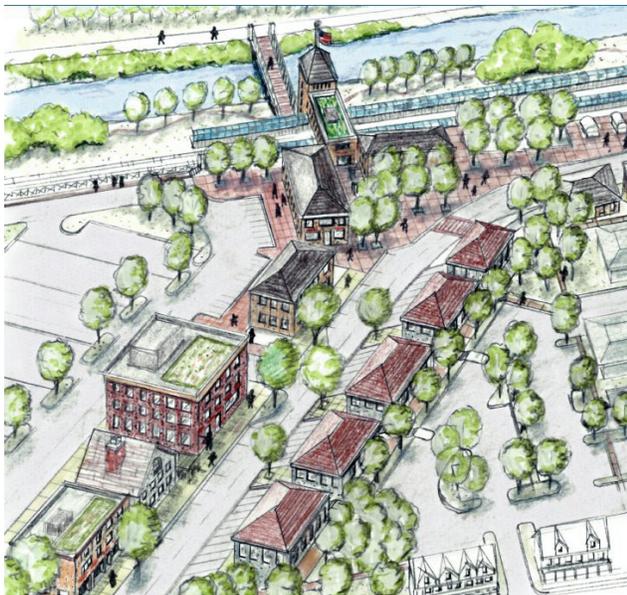
potential future development opportunity is the Windsor Locks Housing Authority site located on the west side of Main Street and north of Oak Street. Though there is a steep grade change between this site and Main Street, its proximity to the future station offers promise. While the town has identified this as a potential opportunity, there is uncertainty regarding owner interest in future redevelopment. There is also potential for longer-term turnover of auto-oriented uses, such as those within the CVS Plaza, in conjunction with complete streets improvements and other redevelopment elsewhere Downtown.

Plans in Place

In 2013, the Town completed the *Windsor Locks: Once and Future Transit-Oriented Development Study*, which outlined potential development sequencing options along with infrastructure improvements and regulatory changes to guide implementation of TOD in the station area. This study incorporated the findings of the *Windsor Locks Downtown Master Plan*, completed in 2008, and outlined a complete vision for TOD, including build-out scenarios for Windsor Locks Commons, the historic train station, Bridge Street

“The Town of Windsor Locks has a tremendous opportunity to revitalize its downtown ... its downtown has the potential of becoming a thriving center as it historically once was. The future of Windsor Locks is bright.”

WINDSOR LOCKS: ONCE AND FUTURE TOD STUDY



Square, and a “gateway plaza” at the intersection of Main Street and Suffield Street, among others.

During the D&R process, municipal leadership noted that the Town has been working to position itself for future TOD by enacting zoning changes and adopting other TOD-supportive policies. Recently, the Town updated its zoning regulations to include a Main Street Overlay Zone (MSOZ), which encourages mixed use, increases allowable density, and includes modified off-street parking requirements to promote TOD. Additionally, Windsor Locks recently became the first town in the State to establish a TIF district under new State legislation. TIF is a method of value capture that enables a municipal entity to capitalize on increased property values and redevelopment to finance public infrastructure projects and community amenities. The TIF district is coterminous with the MSOZ, and the Town hopes to use TIF to attract additional investment in the downtown area.

The Town is also advancing the design of complete streets improvements on Main Street through the State’s Local Transportation Capital Improvement Program (LOTICIP) to enhance walkability Downtown and complement ongoing and potential redevelopment projects. The current plan for complete streets improvements targets the intersection of Main Street and Chestnut Street and extends south on Main Street, adjacent to the Windsor Locks Commons site. Opportunities to extend these improvements further on Main Street, as well as east to the Warehouse Point neighborhood in the Town of East Windsor, may exist in the future.

Developer Interest

There are a number of ongoing efforts regarding active and potential development opportunities in proximity to the future station. As previously noted, the ongoing redevelopment of Montgomery Mills on the strip of land between the Connecticut River and Windsor Locks Canal will add an additional 160 residential units through adaptive reuse of the existing building. Directly south of the future station, the historic Windsor Locks train station is currently undergoing redevelopment as community space, among other uses, and is envisioned as a downtown focal point. The future station will provide direct pedestrian access to this historic landmark.

Some of the priority sites identified in the Town’s TOD Study are also drawing developer interest. The owners of the Windsor Locks Commons are working directly with



Photos of recent and ongoing development in the Windsor Locks Station area. Top to bottom: Montgomery Mills and Historic Windsor Locks Train Station

the Town to consider redevelopment opportunities on the strategic site that directly abuts the future station. The so-called “properties on the curve”—located on the opposite side of Main Street from Windsor Locks Commons, and specifically at 246, 252, and 254 Main Street as well as 39 Chestnut Street—have drawn interest from multiple developers. The Town is actively working to make these sites more attractive for future development, and liens have been purchased on the properties, although site geometry and steep grade changes could complicate the development potential at this location.

Local Leadership

Under the guidance of the Windsor Locks First Selectman, there are several champions for TOD and downtown revitalization among Town leadership. Elected officials and municipal staff have actively pursued grant applications for funding to support TOD initiatives, including a \$3 million grant to advance the complete streets design of Main Street and \$137,000 in OPM funding from the Responsible Growth and TOD Grant Program to support pre-development site work for the “properties on the curve.”

Town leadership is also actively coordinating TOD planning and implementation with the Town of East Windsor,

which lies directly across the Connecticut River. The two municipalities are focused on complementary efforts to improve connections between the future station and the Warehouse Point neighborhood in East Windsor. This coordination is particularly focused on resolving the Bridge Street/Main Street traffic constraints that are necessary to secure the relocation of the station.

In addition to promoting complete streets improvements and redevelopment of priority sites in downtown, Town leadership also noted the importance of understanding lessons learned from the era of urban renewal. During the D&R workshop, one prominent theme that emerged among the participants was the need to avoid repeating perceived mistakes of the past. Group discussion during the D&R workshop highlighted the impression that urban renewal projects resulted in an outflow of businesses in the downtown and facilitated the use of Main Street as a high-speed thoroughfare as opposed to the pedestrian-oriented destination that the Town seeks to achieve today.

D&R WORKSHOP

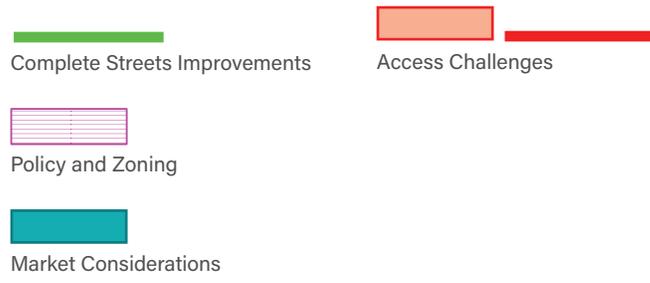
A Desire and Readiness workshop was held with municipal leaders and stakeholders from the Town of Windsor Locks on October 20, 2016. The workshop was hosted at Windsor Locks Town Hall and attendees included First Selectman Christopher Kervick and various Town planning/zoning and economic/community development officials and staff. Additionally, several local and regional stakeholders participated in the workshop, including local business owners, representatives from the Town's complete streets consultant team, the Town of East Windsor, the CT Airport Authority, the Windsor Locks Housing Authority, CRCOG, and OPM. The project team organized the workshop around the complementary themes of reinvigorating downtown Windsor Locks as a destination and maximizing the development potential of priority sites in the station area.





FIGURE 4-27

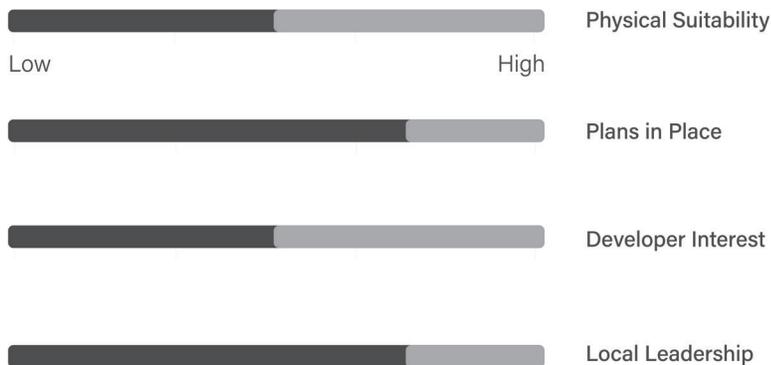
**HURDLES FOR TOD IMPLEMENTATION
IN THE WINDSOR LOCKS STATION AREA**



HURDLES FOR TOD IMPLEMENTATION

- Adverse effects of urban renewal on downtown identify
- Traffic and circulation issues at Bridge Street and Main Street
- Lack of pedestrian and bicycle accommodations on Main Street
- Limited area of planned complete streets improvements
- Topographic constraints associated with potential redevelopment sites
- The need to avoid displacement of existing uses in conjunction with future development
- Lack of precedent for use of TIF following recent state legislation

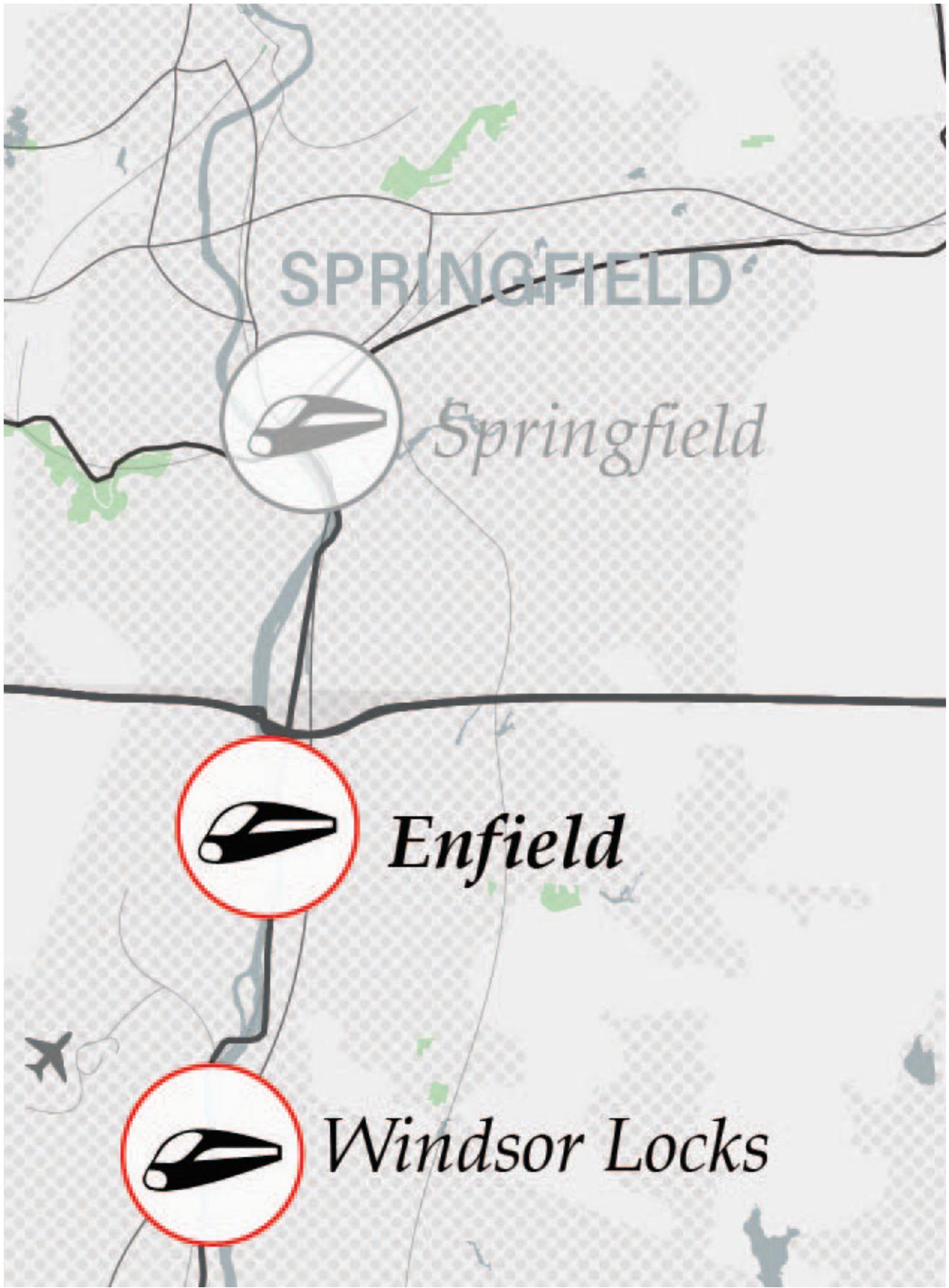
TOD DESIRE & READINESS



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ENFIELD



SPRINGFIELD

Springfield

Enfield

Windsor Locks

MARKET ASSESSMENT

Town of Enfield

in 2015-2016
US Census Bureau and CERC

44,368 residents

19,044 employees

\$67,380 median household income

74.1% owner-occupied houses estimate

21.9 minutes to work mean for a Enfield resident

Enfield is a historic suburban town located just south of the Massachusetts border and less than 10 miles from the City of Springfield, MA. The population of Enfield is approximately 44,370, making it one of the larger towns along the Hartford Line. A sizable share of working residents in Enfield (over 19 percent) are employed in the Town. The town also generates significant numbers of workers commuting elsewhere. According to LEHD data, the most common commuting destinations for Enfield residents are Hartford (8.1 percent), Windsor (7.0 percent), and Springfield, MA (5.3 percent). Approximately 1 percent of Enfield commuters use public transit, while 91 percent drive to work, per 2015 ACS data.

Enfield has a diverse group of major employers and anchor institutions, including insurance giant Mass Mutual Insurance, toy manufacturer Lego Systems, Inc., and life science manufacturer Eppendorf Manufacturing (see Figure 4-28). According to the Town's 2014 *Comprehensive Annual Financial Report*, Mass Mutual employs over 1,700 employees and Lego employs over 700 people in Enfield. In addition, Enfield is home to Asnuntuck Community College, which draws approximately 1,700 students and 100 faculty from around the region, including the surrounding communities of Ellington, Suffield, and Springfield, as well as Enfield. The College has plans underway to expand in the coming years and is currently working on an update to its master plan. Based on an interview with leadership from this stakeholder, the planned Hartford Line station in Thompsonville is viewed favorably as a future benefit to its students.



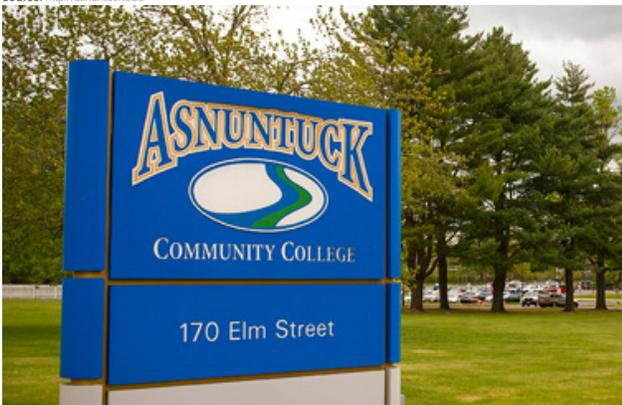
FIGURE 4-28 ANCHOR INSTITUTIONS
IN AND AROUND ENFIELD

Source: <http://www.businesswest.com>



MASS MUTUAL INSURANCE

Source: <http://asnuntuck.edu>



ASNUNTUCK COMMUNITY COLLEGE



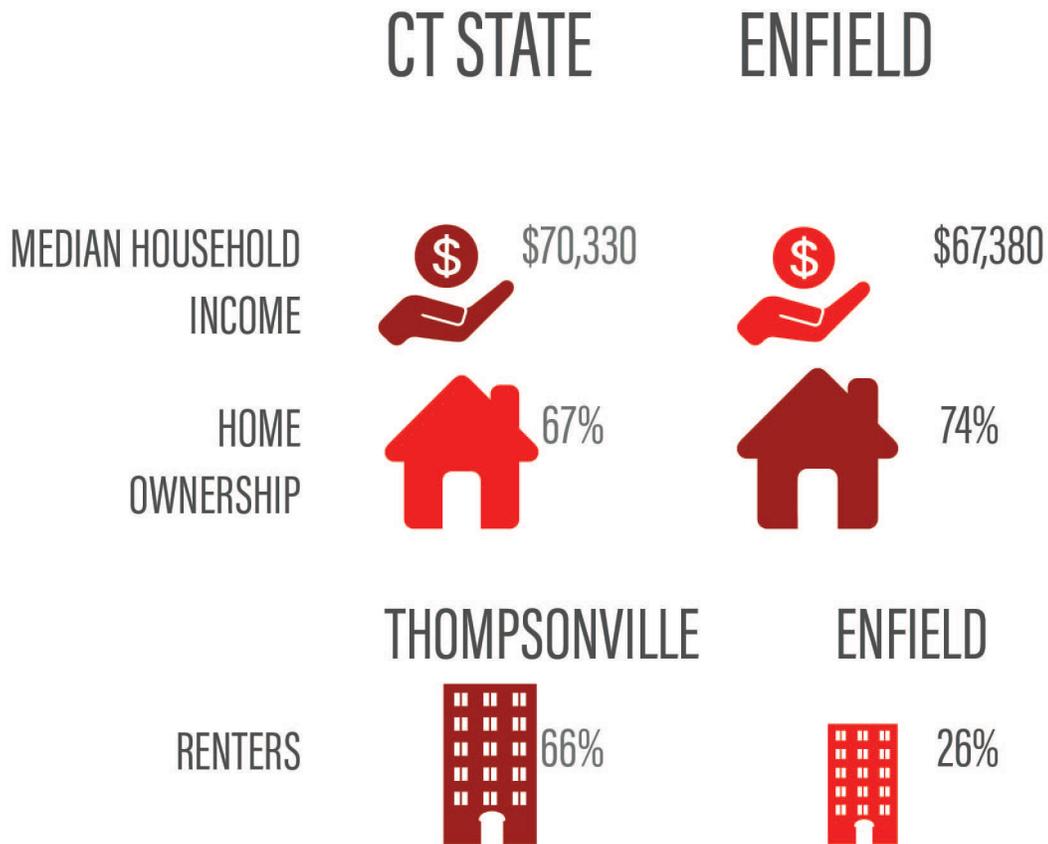
BIGELOW COMMONS

The planned station will be located in the Thompsonville neighborhood of Enfield, which has a population of around 8,800 and has a different demographic and socioeconomic profile from the rest of Enfield. The median age is approximately 35, much lower than the Enfield median of 41. The January 2015 report, *Economic and Fiscal Impact of the Thompsonville Transit Center*, noted that Thompsonville has a median household income of \$51,368, which is substantially lower than the \$67,380 Enfield-wide median as indicated by 2015 ACS data, and reflects the lower purchasing power of current residents in Thompsonville. Thompsonville also has a higher percentage of renters, at 66 percent, compared to the 25 percent Enfield-wide rate.

The multi-family apartment market in Enfield has demonstrated strong fundamentals for several years, including consistently low vacancies and positive net absorption. For example, Bigelow Commons is an adaptive reuse of a former factory mill that was completed in the late 1980s. The high-end multi-family development, located adjacent to the site of the future station in Thompsonville, has been immensely successful since opening, with high rents and an occupancy rate near 95 percent. Renters appear to be drawn to the living experience afforded by the historic building; this feature has attracted renters from beyond the local market who are seeking urban-style density in a suburban setting. Given the planned station's proximity to the waterfront, future multi-family development in the station area may offer units at a premium, especially units with waterfront views. With the introduction of Hartford Line service, there could be increased demand for market-rate, luxury-oriented product in Thompsonville from professionals commuting to employment centers in the region, such as Hartford and Springfield.

Office market conditions in Enfield are relatively healthy, with substantial positive net absorption in four of the last five years leading to a very low vacancy rate of 2.3 percent. In recent months, the purchase and conversion of several large commercial and industrial properties, some of which were vacant for years, has expanded the presence of office sectors in Enfield. These purchases are the product of the relocation and expansion of local and outside businesses and potential redevelopment, illustrating that there is growing confidence in the Enfield office market.

However, as noted in the Town's 2014 application for a TOD planning grant from OPM, the closing of the Bigelow-Sanford Carpet Mill in the early 1970s diminished many

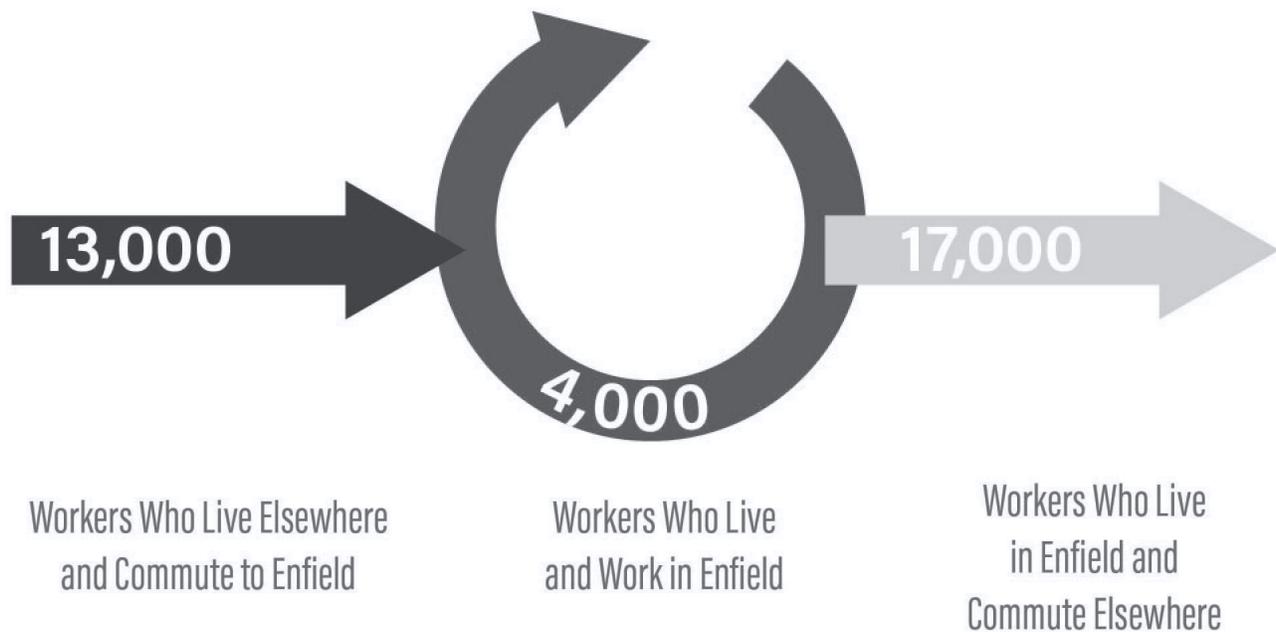


job opportunities within the community, resulting in approximately 25 percent of available commercial space remaining vacant, with no new commercial development in several years. The commercial portion of the Bigelow Commons property near the planned station still has over 30,000 square feet of vacant space. Additionally, in recent years, the Enfield Square Mall has seen the closing of multiple anchor tenant stores, including Sears and Macy's, and its long-term future as a hub of retail activity is uncertain. As the Town focuses on downtown revitalization in the station area, there may be an opportunity to attract new retail away from the mall and fill existing vacant assets within Thompsonville.

Although the Thompsonville area is not currently a strong location for large-scale office and retail, the addition of transit access may improve the feasibility of uses that are complementary to multi-family residential development.

Although the Thompsonville area is not currently a strong location for large-scale office and retail, the addition of transit access may improve the feasibility of uses that are complementary to multi-family residential development. This possibility is bolstered by the proximity to the river.

Jobs Inflow/Outflow



Source: OnTheMap, 2015, <https://onthemap.ces.census.gov/>

This possibility is bolstered by the proximity to the river, which offers a competitive advantage for potential TOD projects. The station area's unique riverfront location also creates an opportunity to create destination-oriented uses such as waterfront restaurants, bars, and other recreational amenities.

The aforementioned *Economic and Fiscal Impact of the Thompsonville Transit Center* report concluded that future development potential, based on the acreage of identified redevelopment sites, ranged from approximately 126,000 to 445,000 square feet of development, based on different assumptions about future zoning regulations. However, the same analysis also concluded that the introduction of Hartford Line service and implementation of a proposed multi-modal transportation center could generate between 593,000 and 890,000 square feet of demand for

new development, the vast majority of which would be in the form of residential development due to enhanced accessibility to regional employment centers. Accordingly, the Town has an opportunity to be proactive in developing a strategy to capitalize upon the anticipated increase in demand in the years ahead.

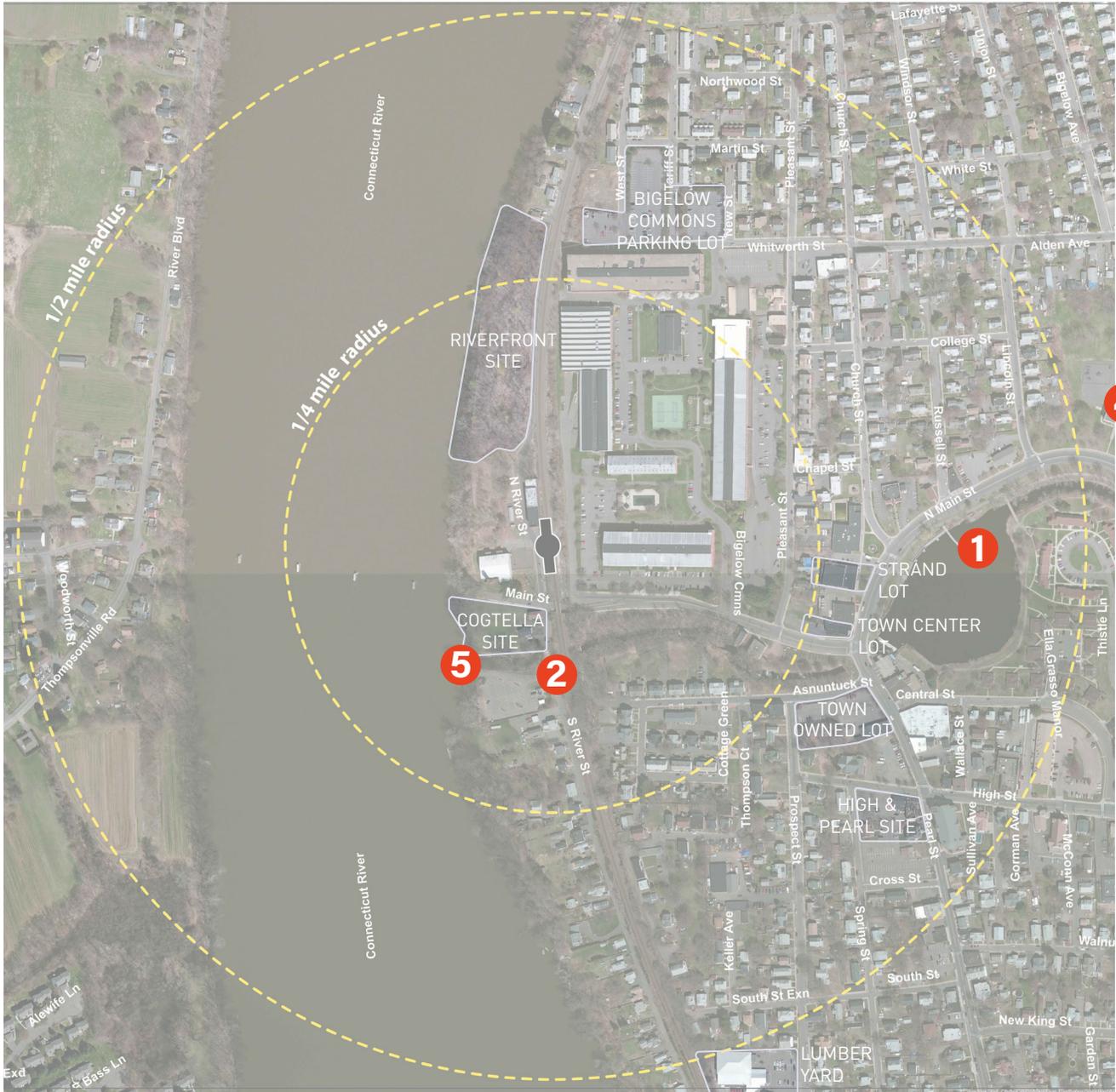


FIGURE 4-29 1/4- AND 1/2-MILE RADII AND LOCAL LANDMARKS IN THE ENFIELD STATION AREA

TOD DESIRE & READINESS

Physical Suitability

The most prominent feature in the immediate station area is the Bigelow Commons apartment complex, which includes approximately 470 units within 3- to 5-story loft-style buildings around a central, private green space, pool, tennis courts, and surface parking. Surrounding Bigelow Commons are single- and multi-family residential neighborhoods. Main Street extends to the east around Freshwater Pond and is surrounded by one- to two-story duplex apartments and civic and service buildings set within surface parking lots. Further east, Main Street connects to Enfield Street, which includes Town Hall and several large footprint office and retail uses that are auto-oriented and surrounded by surface parking.

The roadway network in the station area is defined by Main Street and North River Street with Asnuntuck Street as a key east/west neighborhood street that connects existing residential areas to the future station location. Pearl Street



Photos of gateways in Windsor. Facing page, left to right: the Freshwater Pond in the heart of Enfield's downtown; the rail overpass at Main Street and North / South River Street. Above and below, top to bottom: a sign welcoming visitors and residents to the Village of Thompsonville; the gazebo in the open space surrounding Enfield's Town Hall; the public boat launch on the Connecticut River.



STATION DESIGN IN ENFIELD

OCTOBER 2016

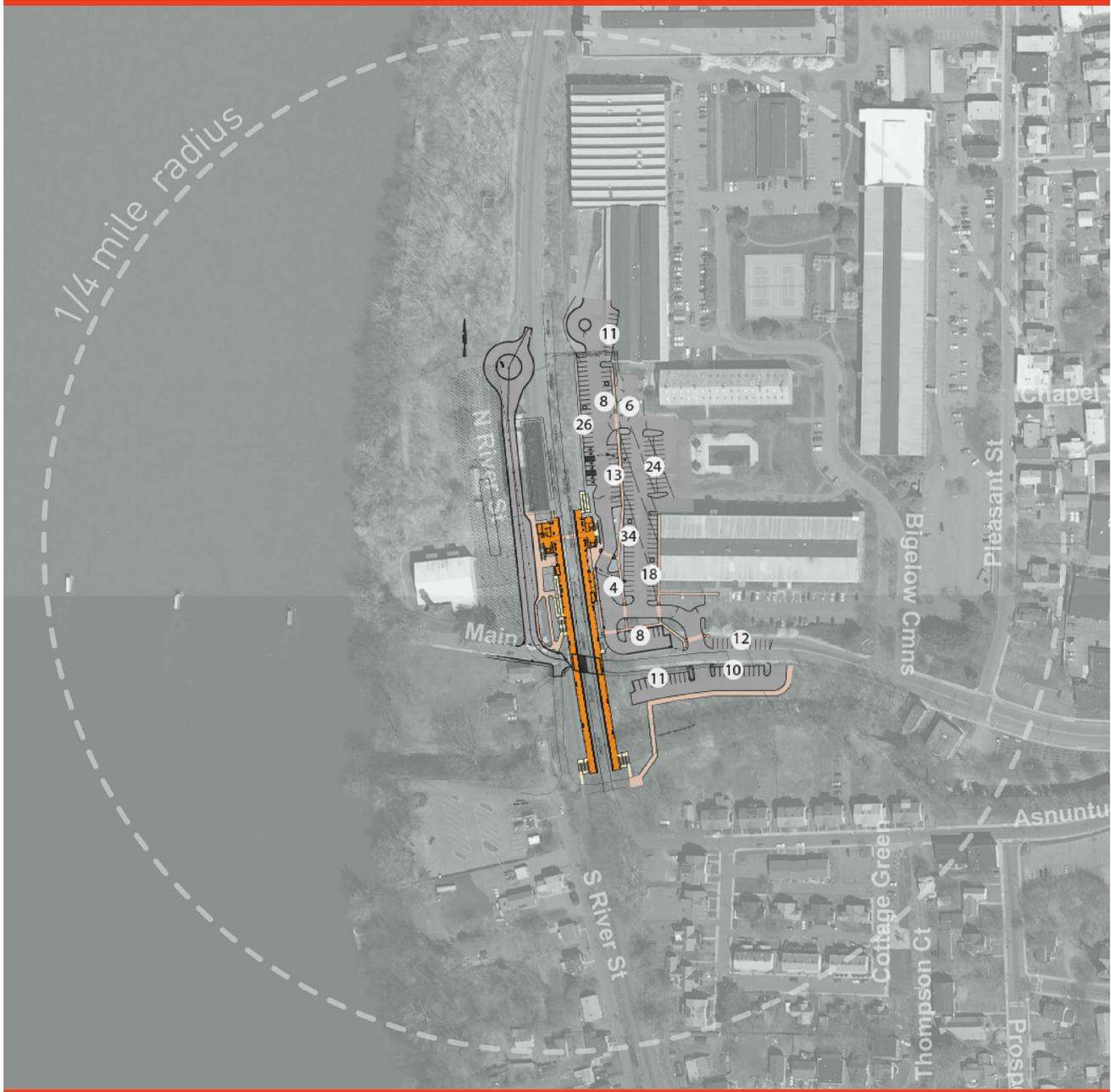


FIGURE 4-30

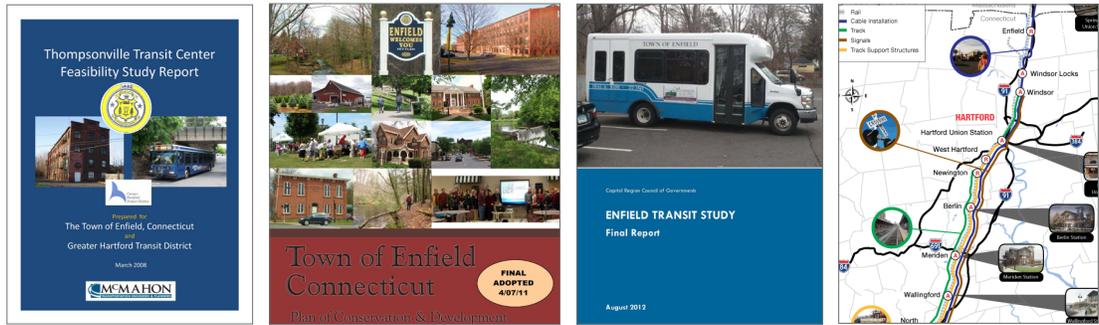
1/4-MILE RADIUS
AND STATION DESIGN
IN THE ENFIELD STATION AREA

- platforms
- parking
- pedestrian space
- planting space



is a primary commercial corridor in Thompsonville. Most streets in Enfield have sidewalks, but they are typically four to five feet wide without street trees, street furniture, or pedestrian-scaled lighting. The intersection of Main Street and North River Street is particularly problematic for pedestrians trying to access the future station site: a rail overpass encloses the space, and there is only one sidewalk. Additionally, there are no dedicated bike lanes on any streets in the station area. The only bicycle infrastructure

Photos of primary gateways in the Enfield Station area. Top to bottom, left to right: the intersection of Enfield Street and Main Street; Main Street, looking west towards the rail bridge and North and South River Street; Asnuntuck Street, looking west.



1992 2001 2007 2008 2009 2011

Thompsonville Revitalization Strategy Report

Setting the Stage for Thompsonville's Revitalization

Main Street Assessment for Thompsonville Village Center (2003 and 2007)

Thompsonville Transit Center Feasibility Study Report

Thompsonville Revitalization Action Plan

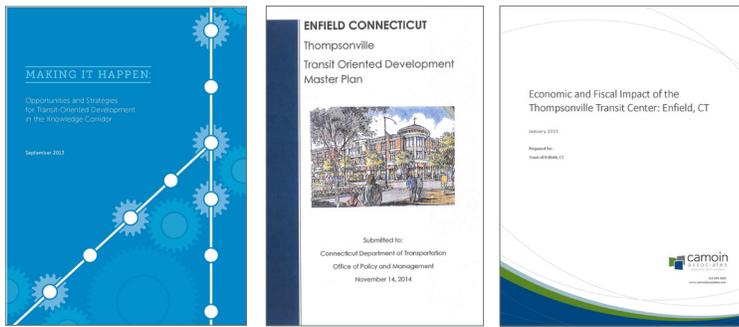
Town on Enfield POCD

“Our ultimate goal is to connect our community physically and enhance our spectacular waterfront ... we want to be a complete community that offers walkable neighborhoods, a variety of living and working opportunities, and the ability to meet our retail needs close to home.”

ENFIELD POCD

is a multi-use bicycle and pedestrian path around the Freshwater Pond, which does not currently connect to the station site or to the Connecticut River. This connection is the focus of the ongoing River Access project, an effort to create a Thompsonville greenway that links the waterfront assets and provides amenities for pedestrians and bicyclists. However, the project as currently funded does not include the addition of active recreational space along the river waterfront, which is a key goal of the Town.

There are several potential redevelopment opportunities in Thompsonville to support the Town’s goal for revitalization. Some sites are the subject of ongoing investment and study (discussed in the “Developer Interest” section). Vacant or underutilized sites throughout Thompsonville that have been identified in the Town’s prior plans as redevelopment opportunities include the Cogtella site just south of the future station, several sites along the North Main Street/



2012 2013 2014 2015 NOW

Enfield Transit Study	Thompsonville Zoning Study	Capitol Region POCD	Economic and Fiscal Impact of the Thompsonville Transit Center	Hartford TOD Action Plan
EA/EIE for NHHS Rail Program	Making It Happen		Capitol Region Transportation Plan	Thompsonville Economic Development Strategy and Public Outreach
				CRCOG Regional Complete Streets Police and Action Plan

Pearl Street corridor, and Molina’s Plaza on the eastern edge of the station area.

Bigelow Commons has an unoccupied building with a large amount of available office space, although it was previously approved for redevelopment as a residential building. Moreover, surface parking associated with Bigelow Commons and located on the north side of Whitworth Street also offers potential for future development. Potential programmatic synergies between the future station and Bigelow Commons may offer opportunities by re-envisioning a portion of the surface parking within the apartment complex to become more of a village center, with small-format community-serving event spaces.

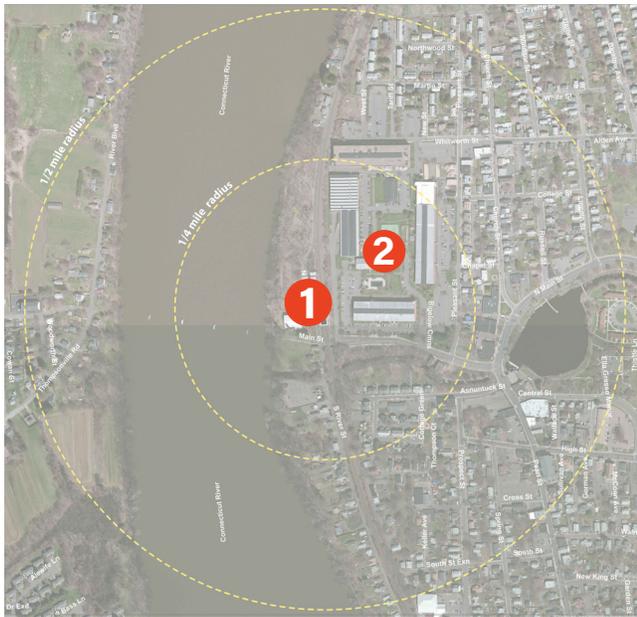
Additionally, the riverfront and the area around Freshwater Brook, a naturalized green area south of Main Street, both present opportunities to advance the revitalization of Thompsonville. These amenities could be leveraged for

recreation connections and context-sensitive development, although flooding concerns and open space conservation are critical considerations, especially adjacent to the river.

Plans in Place

There is a long history of planning and associated public investment in Thompsonville, dating back to the 1992 *Thompsonville Revitalization Strategy Report*. Revitalization efforts have continued throughout the 25 years since, most recently with the 2016 update to the *Thompsonville Revitalization Action Plan*, which underscored the importance of developing actionable strategies to achieve a combination of economic and physical improvements in the historic downtown.

The focal point of the Town’s vision for the future of Thompsonville is the goal to implement a Thompsonville Transit Center, anchored by a multi-modal hub at 33 North River Street. The 2009 *Thompsonville Transit Center Feasibility*



Photos of recent and ongoing development in the Enfield Station area.
 Top to bottom: near the proposed site for the new rail station; Bigelow Commons, the most recent residential development in Enfield.

Study Report discussed the opportunity for the adaptive reuse of the so-called “casket building” on this site as a primary component of the transit center, and in 2014 the property was purchased by the Enfield Community Development Corporation. The full vision includes use of the adjacent site owned by Eversource, but unforeseen delays with respect to the Eversource property have slowed the Town’s progress. In 2015, the Town completed an *Economic and Fiscal Impact of the Thompsonville Transit Center: Enfield, CT* study that estimated the demand for future development in the vicinity of the multi-modal transit center. A key conclusion from the study was that “the Town’s ability to capture the economic impact is constrained by current zoning.” The Town previously completed a zoning study in 2012 that recommended modifications to the existing zoning regulations to promote TOD, but the recommendations were not adopted, in part due to concerns within the community about residential density and the scale of new development.

At the time of this report, the Town of Enfield is commencing work on a Thompsonville Economic Development Strategy and Public Outreach Program to advance its TOD efforts through a grant from OPM. Coordination among all of the

Town’s ongoing efforts, including the design of the River Access project, will be critical because of the complementary and interdependent nature of these various initiatives.

Developer Interest

Thompsonville has experienced decades of private sector disinvestment, but there are efforts underway to unlock development potential on key sites in the heart of downtown. The Town of Enfield was awarded a \$200,000 State grant in 2015 to support assessment and reuse planning of the historic Strand Theater site strategically located near the intersection of North Main Street and Main Street. Furthermore, in June 2017, the Enfield Community Development Corporation issued a request for proposals (RFP) for private development in the casket building to complement the envisioned future use of the building as the centerpiece of the multi-modal transit center.

Developers have expressed interest in new opportunities within Thompsonville, but development plans have not moved forward for various reasons. For example, the developer of Bigelow Commons previously proposed development of the site to the north of the future station, also known as the Riverfront Site. However, Town leadership

D&R WORKSHOP

A Desire & Readiness workshop was held with municipal and stakeholder leaders from the Town of Enfield on October 19, 2016. Attendees at the workshop, which was hosted at Town Hall, included Deputy Mayor Bill Lee, Town planning and community development staff, as well as representatives from the Town Council, Planning and Zoning Commission, Community Development Corporation, Conservation Commission, and others. An overarching theme that emerged during the workshop was the importance of public engagement within the Thompsonville community to establish buy-in for TOD and address concerns about the scale and implications of new development.



has expressed a desire for this site to be utilized at least in part as publicly accessible open space connected to the river. This divergence highlights the challenge of balancing the conflicting goals of promoting new development and ensuring conservation of existing open space along the waterfront.

Local Leadership

Municipal leaders strongly support the goal to attract investment in the station area and have been successful in securing millions of dollars in federal and state grants to support TOD-related initiatives, including the River Access Project and Thompsonville Transit Center. Furthermore, the residents who led the effort to develop

the 1992 Revitalization Strategy Report are still active in championing efforts to promote economic development in Thompsonville.

However, despite a segment of localized support, there is a need to educate the public to improve the perception of TOD and what it could look like in Thompsonville. This is a critical next step for the Town to overcome fear of density, namely by visually communicating the opportunities for context-sensitive development.

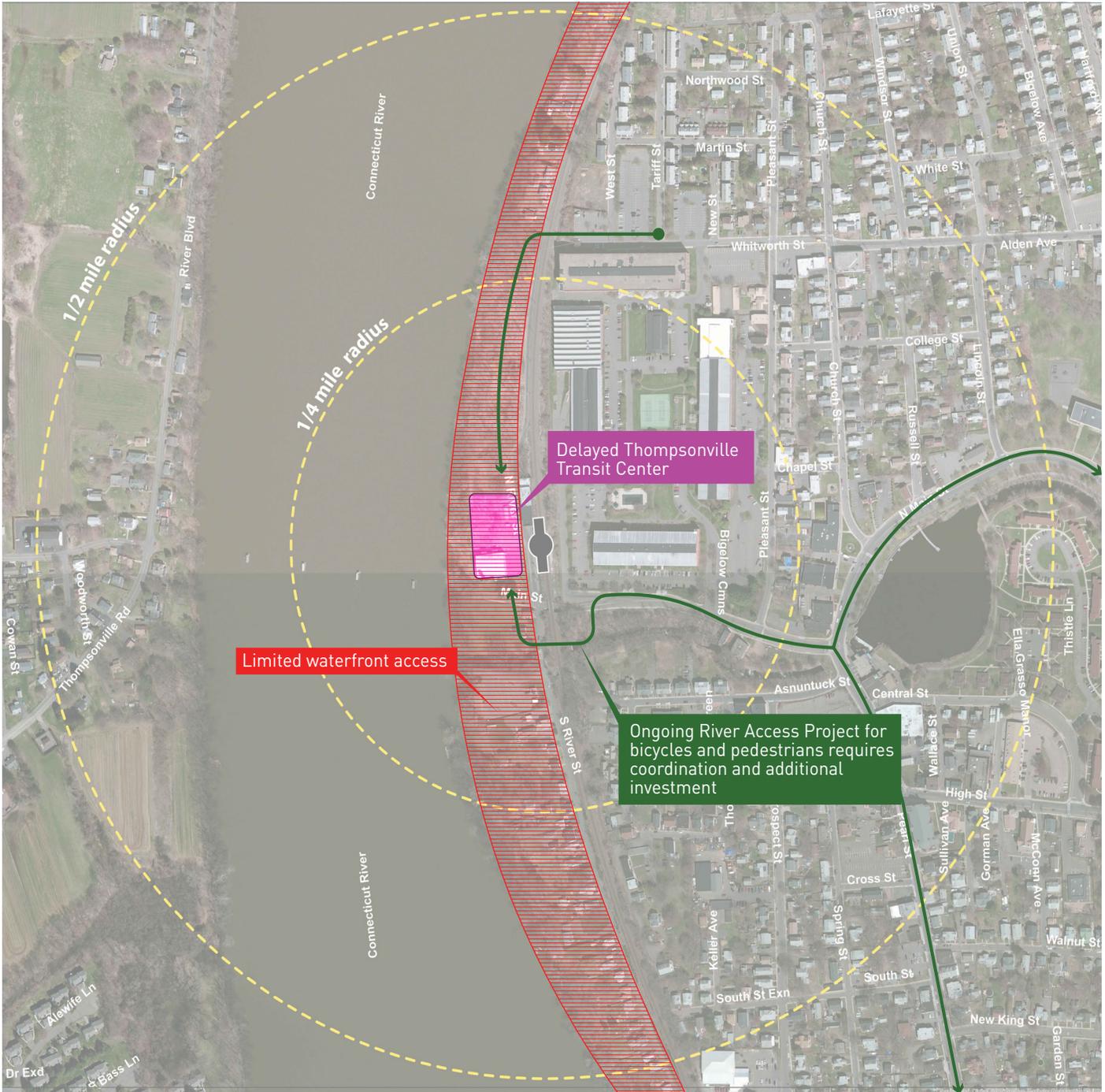


FIGURE 4-31

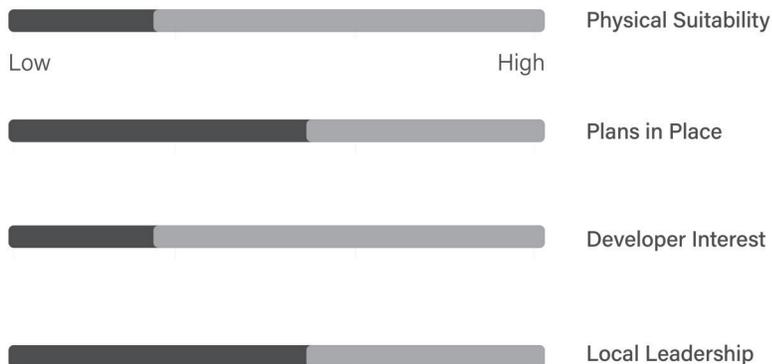
**HURDLES FOR TOD IMPLEMENTATION
IN THE ENFIELD STATION AREA**

- Complete Streets Improvements
- Policy and Zoning
- Access Challenges

HURDLES FOR TOD IMPLEMENTATION

- Interdependencies between ongoing and forthcoming initiatives in Thompsonville
- Misconceptions of the impacts of TOD in the community
- Lack of private sector investment in Thompsonville
- Limited waterfront access and associated amenities
- Misalignment between existing zoning and development goals
- The need to balance goals of open space conservation and development along the waterfront
- Delays in advancing the Thompsonville Transit Center

TOD DESIRE & READINESS



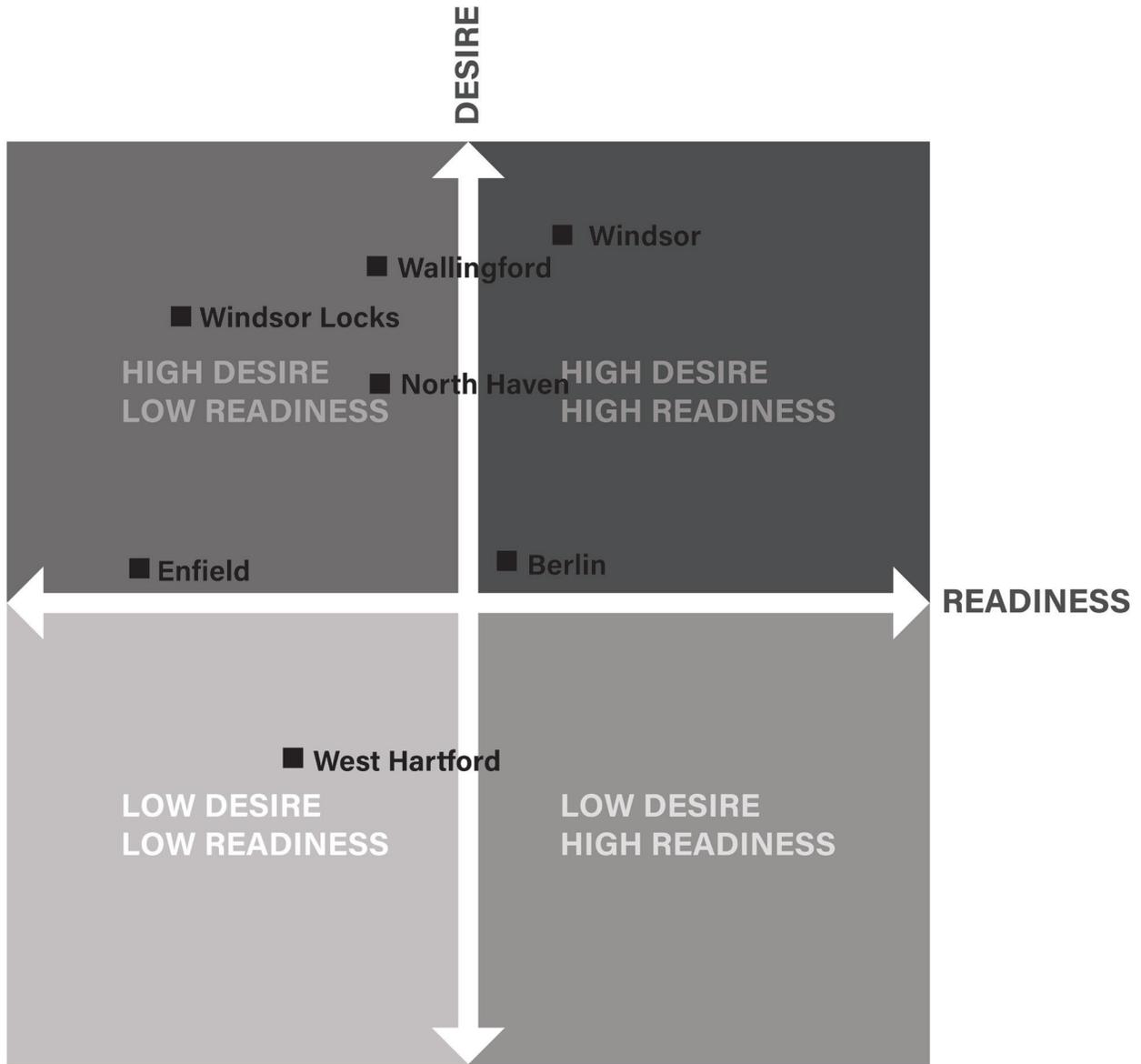


FIGURE 4-32

DESIRE & READINESS MATRIX
FOR SELECTED STATION AREAS

SUMMARY OF FINDINGS

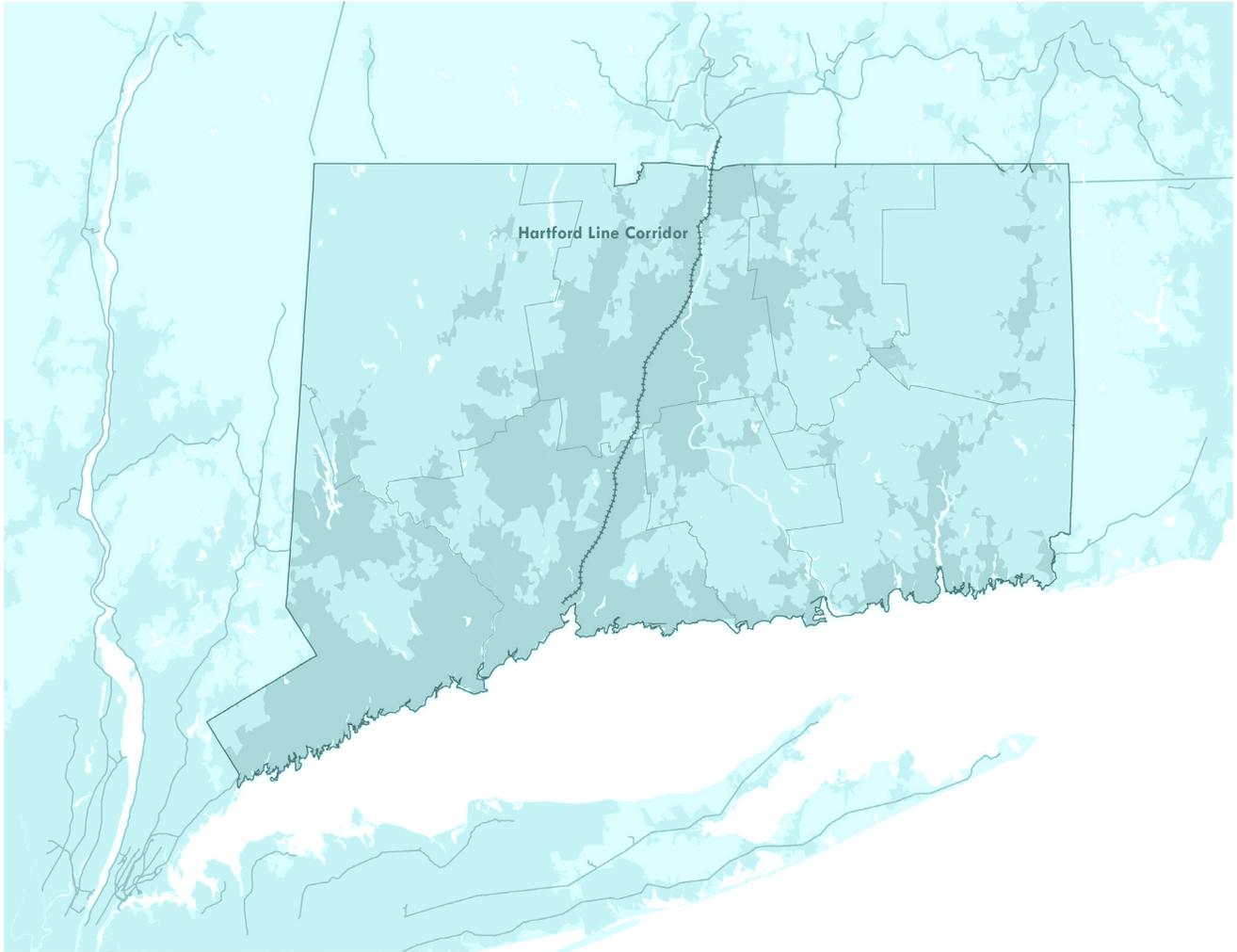
Following an upfront issues and opportunities assessment, the full synthesis of the stakeholder feedback through the desire and readiness workshops, and the identification of hurdles to TOD implementation as presented in this chapter, seven of the selected station areas were qualitatively evaluated using the four TOD desire and readiness criteria (physical suitability, public sector readiness, developer interest, and leadership in place). These evaluations were represented using criteria scales that were included at the end of each station area's section in this chapter. The criteria scales informed an overall assessment of TOD desire and readiness, as represented in the summary graph, shown in Figure 4-32. This graphical summary serves as a visual representation of current capacity for TOD in each station area. While helpful in understanding the relative capacity for TOD, it should be noted that the matrix is a qualitative representation of perceived current capacity and should not be viewed as a definitive analysis.

The Towns of Berlin and Windsor exhibited the highest desire and readiness for TOD and fall within the category of "High Desire-High Readiness". Ranging from private development near the future station location in Windsor, to the development of a targeted TOD plan and public sector investment in Berlin, these municipalities are actively seeking to promote TOD. Falling within the "High Desire-Low Readiness" category at varying levels, the municipalities of North Haven, Wallingford, Windsor Locks, and Enfield, are working to capture their strong desire for TOD implementation and develop additional capacity for TOD through targeted investments and public sector regulatory changes to attract private development. West Hartford qualitatively falls within the "Low Desire-Low Readiness" category in part due to the ongoing development focus elsewhere within the municipality. Falling under this category does not imply that TOD is not wanted nor achievable, but alternatively indicates

that increased levels of public sector involvement may be necessary to drive context-sensitive development around the future station in coordination with the City of Hartford. Due to the ongoing investigation for an alternative station site within the Town of Newington, a formal D&R process was not conducted and as such, the municipality was not included in the matrix.

Based on the qualitative findings of the D&R process, the project team identified recommendations (presented in the following chapter) that may address potential hurdles that would impede TOD implementation in these communities. Levels of both desire and readiness were taken into consideration when determining appropriate recommendations for each municipality.

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05 RECOMMENDATIONS

Key Recommendations for the Hartford Line
in all Selected Station Areas



The following sections present key recommendations for future action in the eight selected station areas along the Hartford Line, discussed south to north from North Haven to Enfield. The recommendations build upon work completed in prior plans and studies, and are therefore not intended to be exhaustive. The D&R process highlighted key hurdles for TOD implementation in each station area, which reflected overall corridor-wide challenges related to dispersed residential and employment centers, limited physical and institutional structure to support TOD, and the need to better understand financial levers to catalyze TOD. The recommendations for each station area are framed to help the respective municipalities overcome the identified hurdles, and broadly fall into three categories:

1. **Development propositions**, including site-specific and market-driven strategies to activate identified redevelopment opportunities;
2. **Public policy measures**, including regulatory recommendations to incentivize and encourage TOD; and
3. **Public realm improvements**, including complete streets enhancements and aesthetic improvements to roadways and public spaces that are essential to attracting and sustaining a transit-oriented community.

For each station area, and in collaboration with the respective municipality and CTDOT, the project team has identified one of the recommendations to advance in the second part of the Hartford Line TOD Action Plan. The second part will enable the project team to provide targeted technical assistance to the municipalities to continue moving from TOD planning to implementation.

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NORTH HAVEN

KEY RECOMMENDATION



Unfriendly for bicycles and pedestrians.

There is little to no accommodation for bicyclists and pedestrians at State and Devine Streets, which is the centerpiece of the existing conceptual design of the gateway improvements.



Access constraints at Site A. This view showcases the priority development Site A to the northwest of the proposed station. Gateway improvements could ease some of the access problems that currently constrain the site.

Position for future grant opportunities to implement proposed complete streets improvements in the station area

A clear starting point for incentivizing TOD in the station area is developing a true “gateway” to the future station at State and Devine Streets. The prospect of creating a bicycle, pedestrian, and transit-friendly intersection that is aesthetically inviting could help to establish a sense of place associated with the station, as well as vastly improve amenities for non-motorized users. The gateway was a principal implementation action identified in the *2015 Walkability and Livability Plan*, which included a conceptual design that works to fulfill these two objectives. Additionally, creating a gateway with accommodations for all users could activate potential development opportunities on Sites A and C (see Figure 4-2), which border this intersection and would benefit from improved vehicular and pedestrian access.

In the second part of the Hartford Line TOD Action Plan, the project team proposes to provide technical support to help the Town realize the vision of this critical gateway. Specifically, the project team proposes to assist the Town in positioning for grant opportunities that could fund the design and construction of the proposed gateway and the surrounding street network.

An important first step in this process would be to identify applicable State and Federal grant programs to assist with implementation of the proposed complete streets improvements. This would include identification of eligibility criteria, ad cycle schedules for the applicable grants, as well as potential amounts available.

After working with the Town to confirm its priorities for complete streets improvements along the network of streets that connect to the station site, the project team could develop scenarios for improvements that would match funding limits for future grant programs. This could also include consideration for whether a potential grant application could assist with implementation of the proposed Hartford Line station in addition to the roadway improvements. In keeping with the spirit of this Action Plan, the purpose of this proposed effort in North Haven is to help the Town move from plan to implementation for a priority project that would not only benefit commuters, but also encourage pedestrian scale activity on adjacent development sites to establish a discernable sense of place in the broader station area.

ADDITIONAL RECOMMENDATIONS



Site C.
The view of Site C from the proposed station site, looking
northeast towards an existing industrial use.



Site D.
Site D as seen from Stiles Lane, looking southeast.

01

Prepare a development feasibility concept plan for priority sites, including new access points

As discussed in Chapter 4, most of the identified redevelopment sites in the station area comprise more than one lot and would thus require assemblage to unlock the full development potential. One of the Town's stated goals in its draft POCD is to "promote parcel assembly to expand development opportunities." Accordingly, the project team recommends that the Town prepare a development feasibility concept plan to demonstrate the value of assemblage to the existing property owners. This exercise could compare the achievable density of development on the individual lots with a scenario that reflects an assemblage of lots on the respective sites. Such a concept plan could also evaluate the zoning implications of future development programs, as well as the financial feasibility of different development scenarios, to assess the extent to which the existing regulatory and market conditions would permit the desired scale and mix of uses.

It was also previously noted that some of the identified development sites have constrained access, which could

potentially limit their development potential and/or their attractiveness to the development community. The Town has astutely identified the need to overcome this challenge in its draft POCD, noting that it will be important to "plan and coordinate funding and construction of major road improvements to improve access to key development parcels." This is relevant to an ongoing development opportunity on the western portion of the former Pharmacia & Upjohn site, where the Town has suggested creating a new roadway connection to Sackett Point Road through improvements to Massimo Road. This is also pertinent to future development opportunities, such as the site directly northeast of the future station location (i.e., Site C as discussed in the prior chapter, see Figure 4-2), where access to the 14-acre site is currently limited to Devine Street. Accordingly, the Town should consider necessary access improvements as part of the development feasibility concept plan.

Village on State.

The 2013 age-restricted development on State Street, the site of which was rezoned under the MEERZ overlay. It is adjacent to the North Haven Medical Center and the Crossroads Center.



Pharmacia and Upjohn Development Site. The site from the southernmost point of the future platform, looking east.

02 Explore options to modify zoning to permit TOD-supportive densities and mix of uses in the station area

Existing zoning in the station area limits the potential for TOD due to restrictions on permitted uses. However, the 2013 adoption of the age-restricted multi-family residential overlay, MEERZ, is encouraging, particularly in conjunction with the POCD's suggested expansion of the overlay as well as the Town's consideration of mixed-use development projects outside of the station area, such as along Washington Avenue.

During the D&R workshop, the project team introduced three potential options for how the Town can reorient the zoning regulations in the station area to support TOD. These

options include maintaining the existing incremental system that enables discretionary control of each development proposal, creating an interim TOD overlay district, and creating a new form-based TOD base zoning district. There are different pros and cons associated with each option due to differences in implementation timelines, predictability of the approvals process for developers, predictability of physical outcomes, and the extent of required staff administration. The project team recommends that the Town consider the trade-offs of these options in planning for the future of the station area.

03 Leverage the planned ecological enhancements at the former Pharmacia & Upjohn site to create recreational opportunities and waterfront access in the station area

In the most recent plans for the former Pharmacia & Upjohn site, a series of walking trails are proposed on the eastern portion of the property that would enable public access upon completion of the ecological restoration, while the western portion of the property would be reserved for potential future development. This envisioned use of the site is directly aligned with the goal outlined in the Town's POCD to "provide public access to recreational assets through development sites where feasible."

Similarly, as the Town considers opportunities for redevelopment on other sites in the station area, most notably the site directly north of the future station location, it would be worthwhile to explore strategies for improving public access to the waterfront. The POCD suggests using "innovative land techniques as part of the developments near the Quinnipiac River including the formation of linear trails and river access points where appropriate," and this could help to establish and enhance a sense of place in the station area.

Yale-New Haven Hospital - North Haven Medical Center.
The North Haven campus of the Yale Hospital, northwest from the proposed station.



Crossroads Medical Center. A hub for medical care and well-being, including Gaylord Physical Therapy and Healthtrax Fitness & Wellness.

04 Coordinate with the North Haven Medical Center and other related uses to continue enhancing the medical epicenter

The Town of North Haven has established an objective, as noted in the draft POCD, to “encourage specific types of growth in targeted areas.” Furthermore, through its tax incentive program, the Town has shown a commitment to strengthen the local tax base with an objective to “maintain and enhance the Town of North Haven as a desirable and competitive business location.”

By engaging in ongoing coordination with one of the station area’s principal anchor institutions, namely the North Haven Medical Center, the Town can take a proactive approach to strengthening the emerging medical epicenter. The North Haven Medical Center previously demonstrated its capacity and interest to expand in the station area

with the arrival of the Crossroads Medical Center, and the development of the Village on State senior housing complex provides further support for the notion that the station area can serve as a magnet for complementary uses. The combination of the existing medical base in the station area and other pertinent anchor institutions in the Town—including the medical equipment company Covidien as well as Quinnipiac University—offers great promise for the future of the medical epicenter. The Town has a unique opportunity to take advantage of its proximity to New Haven and the planned introduction of Hartford Line service by actively engaging key anchor institutions to support sustainable economic growth.

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WALLINGFORD

KEY RECOMMENDATION



Priority Development Site on Hall Avenue. While currently in use, the Town has noted that this site may have potential for long-term redevelopment.

Prepare a development feasibility concept plan for priority sites in the downtown

As discussed in Chapter 4, no developer has taken advantage of the Incentive Housing Zone (IHZ) since its adoption by the Town in 2014, and feedback from the development community identified allowable residential density as a restricting factor in the financial feasibility of development propositions. Under the current zoning regulations, residential density in the IHZ is capped at 26 units per acre, and developers have indicated that they would need in the range of 100 units per acre to achieve a financially feasible project due to the magnitude of some asking prices by property owners. While the Town has expressed a willingness to consider moderate increases in this density threshold, a key priority is to maintain the scale of existing development in the community. Accordingly, although the Town, developers, and several property owners would like to see redevelopment in the station area, there is a need to align the varied interests of these parties to realize the development vision.

One of the recommended strategies in the Town's POCD is to "explore roles the Town may play in catalyzing redevelopment." In the second part of the Hartford Line TOD Action Plan, the project team proposes to work with the Town and the not-for-profit Wallingford Center, Inc. to prepare a development feasibility concept plan to unlock the redevelopment potential of priority sites in the station area. This effort would include an iterative process

that features both physical planning and a preliminary evaluation of return on investment (pROI), with the intent to produce a development concept plan for the Town, that could be mutually supported by the development community and property owners. The pROI effort would include identification of potential financing options to assist with the development, including loans, grants, or incentives (including the Town's recently adopted tax incentive program) to maximize financial feasibility.

Additionally, one of the challenges associated with the priority sites is the need for assemblage of multiple lots to realize the full development potential. To demonstrate the value of assemblage and the constraints associated with the existing lots, the project team could evaluate a development scenario in which individual parcels within the respective sites are developed without an assemblage.

Moreover, the project team could compare an as-of-right development scenario (i.e., complying with existing zoning) and a context-sensitive development scenario (i.e., not constrained by existing zoning, but generally consistent with the existing scale/character of development in Wallingford) for each of the priority sites. The context-sensitive development scenario could inform the Town's forthcoming efforts to consider zoning modifications in the station area to further incentivize redevelopment.

ADDITIONAL RECOMMENDATIONS



Community Lake Apartments. Just outside of the 1/2-mile radius of the station are recently constructed medium-density townhomes. Wallingford is considering further decreasing zoning restrictions on developing higher-density residential.



Parker Place. Parker Place is an example of a medium- to high-density residential complex near the station. The developers are considering financing an expansion.

01

Explore options to modify zoning in the downtown to support TOD

Town leadership noted during the D&R process that zoning modifications would likely be necessary to promote their desired scale and form of future development in the station area. In addition to the goal of updating administrative procedures to streamline the approval process, the Town is focused on three principal considerations for future zoning modifications: residential density, off-street parking, and site design.

Density, as previously mentioned, needs to be sufficient to achieve financial feasibility for developers, while maintaining and enhancing the character of the station area. Accordingly, the Town is willing to consider increases in permissible density while keeping existing building height restrictions. Building off of the recommendations in the Wallingford TOD Plan, and with an aim to spur new development, the Town recently reduced off-street parking requirements and added flexibility in the form of shared parking in one of the commercial zoning districts in the station area. However, the Town recognizes that a further

reduction in the requirements may be necessary to catalyze new development. Additionally, while there are existing building design standards, the Town intends to develop a zoning strategy to maximize street wall frontage and incorporate proposed streetscape improvements into future developments.

The Town conveyed three options that it is considering to achieve these objectives: (1) modifying the underlying zoning districts in the station area; (2) modifying the existing IHZ overlay district; and (3) creating additional overlay district(s). As reflected in the POCD, the Town believes that the creation of a new “Town Center” zoning district has the most promise to be advanced as a future zoning strategy. The project team recommends that the Town consider the tradeoffs of these options based on the results of the aforementioned development feasibility concept plan for priority sites.

Parking lot in downtown Wallingford. The results of the most recent parking study in Wallingford found that while there is plenty of parking supply in Wallingford, the perception among residents is that there is a scarcity.



Photo of Former Wallingford Railroad Station and Railroad Green. The historic station and the green are assets to the Town of Wallingford.

02 Develop a parking management plan to address short- and long-term needs

The Town's 1993 report, *Parking in Wallingford's Central Business District*, noted that an inherent challenge in promoting Downtown revitalization is "the continuing debate over the adequacy of parking," and echoing this uncertainty, a 2004 parking study set out to answer: "Is there really a parking problem (in the downtown) or is it only a perception problem?" The 2004 study and subsequent inventories identified underutilization of parking Downtown, with nearly half of available spaces remaining vacant throughout the day. However, based on the results of a survey conducted during the Town's TOD planning process, the majority of survey respondents noted that there is insufficient parking in the station area.

To address the ongoing discrepancy between the perception and availability of parking in the station area, the project team recommends that the Town develop a parking management plan, consistent with the suggestion from the POCD. The parking management plan should consider both on- and off-street parking, public and private

parking, and short- and long-term demand projections, including different demand from different user groups (i.e., employees, visitors, commuters, etc.). During the D&R workshop, discussion with Town leadership about a potential parking management plan included consideration of fees, enforcement, aesthetic standards such as lighting and maintenance, and whether the establishment of a parking authority would be worthwhile.

The parking management plan could also inform and be informed by the Town's zoning strategy for the station area. The Town's recent zoning amendments introduced shared parking as well as reduced requirements for a private development that makes its spaces publicly available in perpetuity. The Town's 2016 TOD Plan calls for parking requirements that are "consistent with actual parking demand in the station area," which underscores the importance of coordinating the Town's parking management plan with future zoning updates.

03 Identify and implement strategies to leverage the old station building and Railroad Green as a focal point in the downtown

The priority redevelopment sites identified through the D&R process surround the old station building and the Railroad Green, with frontage on Center Street, Hall Avenue, North/South Colony Road, and Quinnipiac Street. The Railroad Green is currently used for summer farmers' markets and holiday events, and the Town owns and operates the adjacent station building for adult education. To maximize the attractiveness of these development sites to future developers as well as potential residents and retail tenants, the Town should explore opportunities to enliven the Downtown by expanding the programming associated

with these catalytic amenities. Downtown serves a critical function as the node that connects the active Uptown area with the location of the new station, and thus the Town should strive to reinforce the notion of the old station building and Railroad Green as anchors to attract activity Downtown. As Wallingford Center, Inc. has noted on its website, the gazebo at the Railroad Green has "become a downtown focal point". The Town should collaborate with this organization to develop short- and long-term strategies to further activate this area as a destination.



Priority Development Site in Downtown Wallingford.
The site is directly across from the Historic Station and Green.

04 Develop a retail attraction and retention strategy in the downtown

The Town of Wallingford hopes to extend the success of the Uptown retail center down the hill on Center Street to Downtown, anchored by the Railroad Green. During the D&R process, Town leadership noted that whereas the Uptown area is characterized by a consistently active retail environment with pedestrian activity, as well as local owners who are invested in the future of Wallingford, two key challenges facing the retail environment Downtown are a lack of foot traffic and ownership by distant landlords. These points are pertinent to the IHZ, which was created with the purpose of providing “the opportunity for the downtown to transform into a retail environment that offers a distinctive experience for consumers.” The IHZ explicitly acknowledges the “significant disinvestment in recent years” in the Downtown Core Sub-District and also notes that the presence of many single-story buildings does not achieve a critical mass of activity that is “conducive to pedestrian traffic.”

The project team recommends that the Town develop a retail attraction and retention strategy to address these challenges Downtown. Such a strategy would aim to leverage the

success of Uptown, the construction of the new station, new residential development (i.e., the Parker Place expansion), and proposed public realm improvements to attract more activity Downtown. Key recommendations from the Town’s TOD Plan demonstrate how these complementary efforts could work together. For example, implementation of streetscape improvements and the addition of pedestrian amenities Downtown could generate increased foot traffic to support existing and foster future retail. Furthermore, the Town hopes to shift industrial uses to the north of the new station, freeing up space Downtown and in the immediate vicinity of the new station area for TOD-supportive development such as mixed use, retail, and medium- to high-residential development. Additionally, an adaptive reuse strategy to expand programming of the existing station building could provide another retail tenant and/or civic anchor Downtown. Ultimately, this strategy would seek to realize the downtown as a destination. Increased and less cyclical tenancy in downtown retail could spur greater developer interest for complementary residential and mixed-use development on nearby vacant/underutilized sites.

North Cherry Street. North Cherry Street is a primary connection to the station area and lacks pedestrian infrastructure. Pedestrians are also hindered by utility pole and tree placement.



05 Pursue funding opportunities to implement public realm improvements between Downtown and the new station

One of the Town's overall objectives in the station area is to promote walkability between Downtown and the new station, and specifically to leverage public realm improvements to encourage private investment. Prior to completion of the 2016 TOD Plan, the Town submitted an application for OPM grant funding to support planning through construction of desired complete streets improvements, but the Town was not successful in securing the requested funding. The Town subsequently completed its TOD Plan and adopted the updated POCD, which collectively provide a strong framework for pursuing funding to advance its complete streets initiatives.

The Town's TOD Plan recommends a number of transportation enhancement strategies on several roadways in the station area, such as North Colony Street, Center Street, Hall Avenue, and North Cherry Street. These enhancements include new or expanded sidewalks, accommodations for bicyclists, and pedestrian-scaled amenities. The Town is also considering different options for streetscape improvements, including crossings, lighting, furnishings, and plantings.

Based on discussions during the D&R workshop, the Town hopes to revisit its prior grant application and develop a strategic approach to subsequent funding requests. This could include prioritizing certain roadways (e.g., North Colony Street) that serve as particularly critical links between Downtown and the new station, as well as pursuing funding for certain project phases (e.g., planning and design, while subsequently requesting funding for construction) to frame a more competitive application. It would also be worthwhile to explore eligibility and grant cycles for a wide range of funding opportunities to cast as wide of a net as possible to effectively position the Town to advance its priorities. Overall, any successful approach should target specific capital improvements to reshape the roadway network and directly relate to catalyzing TOD opportunities, especially in near-term focus areas such as Downtown.

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BERLIN

KEY RECOMMENDATION



100 Harding Street Site. Existing building at 100 Harding Street, where the town and owner are exploring redevelopment plans. The smokestack is a historic asset that the town is interested in preserving.



Looking south at 100 Harding Street. Existing light industrial use on 100 Harding Street, south of the smokestack.

Conduct a site development feasibility concept plan for 100 Harding Street

The *Berlin TOD Kensington Village Plan* identifies four catalytic sites in the vicinity of the new Berlin station, and the Town's consultant team is preparing concept plans for three of these sites on the east side of the railroad tracks (discussed in the following recommendation). As noted in the D&R assessment, the property owner of 100 Harding Street (see Figure 4-10) has expressed interest in exploring the redevelopment potential of the approximately four-acre site on the west side of the railroad tracks.

To complement the work completed through the Town's TOD Plan, the project team proposes to conduct a site development feasibility concept plan for 100 Harding Street. A number of key considerations would inform the project team's approach, such as the Town's preferences regarding specific land uses to include in the development program, the extent to which the redevelopment concept

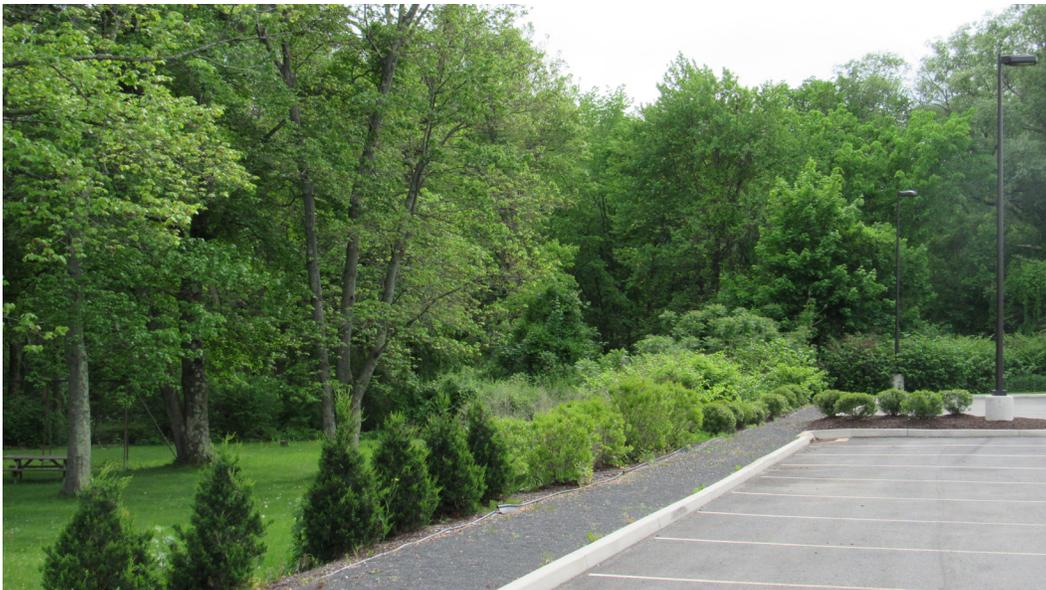
would be constrained by existing zoning, the acceptable scale of new development, and the Town's goals related to historic preservation and site design.

Despite the physical barrier between 100 Harding Street and the station created by railroad infrastructure and undevelopable land, the site is still within walking distance of the station (i.e., approximately 0.4 miles along Harding Street, Farmington Avenue, and Depot Road). Although additional pedestrian improvements in the station area would be necessary to fully unlock the TOD potential at 100 Harding Street, the site is well positioned for redevelopment due to its size and strategic location near the station. Additionally, the site is located in the Kensington Village District, the stated purpose of which is to "promote the development of a transit-oriented, pedestrian-friendly, village-type environment."

ADDITIONAL RECOMMENDATIONS



Farmington Avenue Redevelopment Sites. The pictured sites form the centerpiece of town plans to implement TOD in Kensington Village.



Potential continuation of redevelopment at Depot Crossing. The area abutting Depot Crossing to the south is being considered for an expansion of the existing development.

01

Gauge developer interest in the identified catalytic sites with consideration for necessary regulatory changes and associated public realm improvements

In addition to identifying 100 Harding Street as a potential redevelopment site, the Town's TOD Plan presents a vision for redevelopment on the following three sites (see Figure 4-10) in the station area:

1. An assemblage of 889, 903, and 913 Farmington Avenue, with accommodation for a future Train Station Boulevard to provide an additional connection from Farmington Avenue to the station;
2. Depot Crossing on the south side of Farmington Avenue at Depot Road, which offers opportunities for infill development behind the existing building; and
3. The Berlin Steel site, which is located adjacent to the Berlin station and poses a longer-term opportunity for redevelopment with the potential for turnover of the existing industrial use.

An important next step for the Town is to gauge developer interest in these sites, which can inform the financial feasibility of the envisioned redevelopment concepts. The Town is actively taking this step for the identified assemblage on the north side of Farmington Avenue through the issuance of a developer RFQ.

Of note, the Town previously selected a preferred developer for an approximately 1.2-acre portion of the Town-owned parcel at 889 Farmington Avenue, but the preferred developer withdrew its designation after concluding that the proposed multi-family residential project would require substantial public subsidies and/or greater allowable density to improve the financial feasibility of the development proposition. At that time, the Town planned

to use 903 and 913 Farmington Avenue to house a relocated police station, but the Town Council recently decided to include these two lots (with 889 Farmington Avenue) in the forthcoming developer RFQ, thereby expanding the size of the redevelopment site from 1.2 acres to 3.8 acres. The responses to the RFQ can shed light on the extent to which the expanded site is attractive and financially feasible from a developer's perspective, as well as the range of development programs that can be supported by the market (e.g., mixed-use or single use, condominium or rental for residential, etc.).

Furthermore, the Town could consider proposing zoning amendments to enhance the TOD-supportive nature of the existing Kensington Village District. Although public subsidies can help to address a gap in available financing, the withdrawal of the previously identified preferred developer for the 889 Farmington Avenue site underscores the need for residential density to be sufficient to achieve financial feasibility for developers. However, one of the Town's priorities is to maintain and enhance the character of the surrounding area. There is an opportunity to enable targeted increases in residential density without jeopardizing neighborhood character, such as by limiting building height and encouraging use of the existing design guidelines.

Overall, the project team recommends that the Town continue its efforts to position Kensington Village for TOD by gauging interest from developers on site-specific opportunities, exploring potential zoning modifications to further entice TOD, and implementing public realm improvements in the station area.

Farmington Avenue and Depot Road. Streetscape improvements can be made throughout the station area, particularly building on the momentum of recent and ongoing projects.



The spur at the Berlin Steel site. Pictured in the foreground, the inactive rail spur loops through the Berlin Steel site and terminates at the eastern edge of the site.

02 Continue to pursue funding opportunities for public realm improvements

As discussed in the D&R assessment, the Town of Berlin has embarked on a sustained campaign of capital investment to enhance the physical suitability of the station area to support TOD. The Kensington Village Area Sidewalks project and the Main Street Streetscape project have expanded the pedestrian network and added streetscape amenities on roads that serve as key gateways in the station area, and these efforts are ongoing.

The project team recommends that the Town continue to build upon the momentum of these projects and seek additional funding to address other impediments to walkability and overall accessibility in the station area. For

instance, the addition of sidewalks along Harding Street would be an important step to increase the attractiveness of the 100 Harding Street site as a walkable location to and from the station. Additionally, as subsequently noted, some of the Town's desired access improvements could be realized through property acquisition, with the corollary benefit of expanding a potential redevelopment site.

03 Consider public acquisition of the inactive rail spur to improve access to adjacent neighborhoods and maximize development potential on adjacent sites

An inactive CONRAIL rail spur, which breaks from the main line just north of the new station, is a remnant of the industrial uses associated with Berlin Steel and hinders accessibility as well as development potential in the station area. This rail spur prevents vehicular and pedestrian access between the new station and Old Brickyard Lane to the east and also separates the Berlin Steel site from both the new station and the redevelopment sites on Farmington Avenue.

To overcome these hurdles, the project team recommends that the Town of Berlin seek to acquire the right-of-way associated with the rail spur. The acquisition would enable the Town to explore concepts for a direct connection between the new station and the residential neighborhood to the east, while also supporting the vision for a Train Station Boulevard to provide an additional access point to the new station from Farmington Avenue. Furthermore, the acquisition would expand the acreage of the redevelopment sites on Farmington Avenue and enhance the feasibility of long-term redevelopment of the Berlin Steel site.

Depot Crossing. The recent development incorporated new design standards that regulate façade and landscaping requirements.



04 Incentivize private property improvements in Kensington Village through a unified branding effort and continued financial support for the Town's Façade and Landscape Program

During this planning process, Town staff identified the forthcoming introduction of Hartford Line service as a “game changer” that could provide the impetus to establish a sense of place around the new station. The Town's POCD highlights the opportunity to transform the station area into a pedestrian-oriented downtown and regional destination through the creation of a cohesive town center. With the continuation of streetscape improvements and architectural unity, Kensington Village can become a lively downtown area, and both the public and private sectors have a role to play in realizing this vision.

The Town has emphasized the importance of defining and implementing a branding campaign to reinforce and enhance the unique character of Kensington, especially

along Farmington Avenue. To support this effort, the Town's Façade and Landscape Program offers financial incentives to commercial property owners to upgrade building facades and improve on-site landscaping features, with a focus on adding to the vitality of Kensington Village and ensuring consistency with design guidelines adopted for Farmington Avenue. The Town has successfully secured multiple State grants to support the Façade and Landscape Program, and the Town should continue to promote this program as a way to achieve a coherent architectural design and streetscape condition in the station area. Additionally, the Town's branding effort could also encourage private property improvements through event programming in public spaces, such as Veterans Memorial Park, to make the station area increasingly appealing as a destination.



889 Farmington Avenue Site. Pictured here is the access road to the site, 889 Farmington Avenue. It is situated behind three parcels (861, 873, and 883 Farmington Avenue) and development is contingent upon resolving existing groundwater issues.

Historic Berlin Train Station. The potential reconstruction of the historic station could revive this civic asset as a focal point in Kensington Village.



05 Continue efforts to address groundwater migration issues on the north side of Farmington Avenue to overcome potential constraints for redevelopment

One of the three lots that comprise the assemblage on the north side of Farmington Avenue is a brownfield site that requires remediation. Investigations conducted as part of the remedial action plan (RAP) for the brownfield site (889 Farmington Avenue) identified off-site groundwater migration such that the groundwater on at least one proximate lot (861 Farmington Avenue) exceeded remedial standard regulations. The RAP presented options for mitigation of the groundwater issue, which could have different implications for the financial feasibility of redevelopment.

The Town has noted that the acquisition and subsequent on-site mitigation of 861 Farmington Avenue could be a cost-effective solution (i.e., limiting both the capital and operating and maintenance costs) to meet the requirements of the RAP. Furthermore, the acquisition of this lot could offer the added benefit of expanding the acreage of the assembled redevelopment site at 889, 903, and 913 Farmington Avenue. In conjunction with additional groundwater testing of another potentially affected site (873 Farmington Avenue), the project team recommends that the Town consider pursuing the acquisition of 861 Farmington Avenue and implementing the necessary mitigation measures to address the off-site migration at 889 Farmington Avenue, thereby facilitating the redevelopment of the three-lot assemblage.

06 Explore opportunities to rebuild the historic station as a civic/commercial space to anchor the station area

In December 2016, a fire destroyed the historic Berlin station, which was a community focal point in Kensington Village. In the wake of the fire, many community members have called for the reconstruction of the historic station to honor its legacy. Indeed, a central theme of the public process that is informing the Town's TOD Plan is the importance of honoring the past while planning for the future.

As construction of the new station is completed, and as Hartford Line service is introduced along the corridor, the Town should explore the prospect of rebuilding the historic station as another destination in this emerging downtown.

The Berlin Historical Society has served as a champion in garnering local support around the goal to reconstruct the historic station, and could continue to play a pivotal role in soliciting input from the community about the future vision for the site. Potential uses of a reconstructed station could include but are not limited to a civic space, small café, or museum that details both the history and evolving character of Kensington Village. This could effectively complement the Town's ongoing efforts to promote a unique and unified brand for the future of Kensington.

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NEWINGTON

KEY RECOMMENDATION



Initial Proposed Station Site.

The site, near the CTfastrak Newington Junction Station, posed many hurdles to TOD.



CTfastrak Newington Junction Station.

The proximity of the Newington Junction Station to the initial proposed station site offered an opportunity to support multimodal connectivity.

Perform review of alternative station siting and TOD potential analysis

The original proposed location for the future Hartford Line Station, adjacent to the Newington Junction CTfastrak Station, has limited potential for TOD. Several factors identified in the initial observations of the Selected Station Area TOD Assessment, including lack of community support for TOD, led CTDOT to explore alternative locations for a future station in Newington that would hold greater potential for TOD.

At the time of this report, CTDOT is working closely with Town leadership to identify an alternative location for a future station that is beneficial to the Town, favorable to the local community, and supportive of Hartford Line ridership in a way that maximizes the potential for TOD in the surrounding area. The project team recommends advancing a station siting and TOD review of alternative locations. This review should identify the opportunities present at

the alternative locations that could minimize the type of hurdles identified at the proposed location at Newington Junction. It could also provide a guide for potential TOD implementation initiatives that could be undertaken by the town in the future to improve the feasibility of TOD at the proposed alternative locations, increasing potential ridership to warrant the state's investment in the design and construction of the new station.

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WEST HARTFORD

KEY RECOMMENDATION



Big Box Retail and Surface Parking along New Park Ave.
The General Industrial base district in West Hartford allows big box retail and auto-oriented uses by right in the much of the station area.



West Hartford Industrial Park. Light industrial uses are also allowed by right in the General Industrial base district, and development is - more often than not - auto-oriented and set back from the street.

Explore options to modify zoning in the West Hartford portion of the station area to support TOD

Currently, the majority of the station area in West Hartford is zoned as General Industrial, with a sparse mix of other residential and business districts. The regulations associated with these zoning districts are generally not supportive of TOD. With a number of longer-term development opportunities in the West Hartford portion of the station area, the turnover of uses and success of any potential TOD will ultimately be tied to allowable scale and mix of uses as defined in the Town's zoning regulations.

In the second part of the Hartford Line TOD Action Plan, the project team proposes to work with the Town of West Hartford to conduct a build-out analysis that will inform options for zoning modifications, building on recommendations outlined in the recently completed *New Park Avenue Transit Area Complete Streets Study*. Future zoning changes could include modifications to the

underlying zoning text, establishment of a TOD overlay district (akin to the City of Hartford's recently implemented TOD Overlay Zone), and/or establishment of design guidelines for future development. The purpose of the City of Hartford's TOD Overlay Zone in the eastern portion of the station area (i.e., within its jurisdiction) is to "allow for greater flexibility and require greater density in the vicinity of fixed nodes of public transportation," and the project team recommends that the Town of West Hartford should work towards implementing zoning changes of its own to promote context-sensitive TOD at a scale deemed acceptable to the municipality. Ultimately, future zoning changes will aid in creating a regulatory environment that will foster the image of a unified station area, as desired by both the Town of West Hartford and the City of Hartford.

ADDITIONAL RECOMMENDATIONS



CTfastrak Flatbush Station and Parking Lot. The CTfastrak Flatbush Station provides free parking while the Hartford Line expects to charge a fee in association with its parking facilities, which will likely affect riders' behavior.



Charter Oak Market Place. One of the many examples of large swaths of surface parking associated with big box retail in West Hartford.

01 Develop a parking management/ transportation access strategy

A parking management and transportation access strategy is necessary to realize the full potential for TOD in the station area. A parking management strategy should both inform and be informed by a transportation access strategy to ensure safe and convenient multi-modal access. Vehicular and pedestrian access to and from parking locations should be an integral component of the parking management strategy. A traffic analysis would help to determine current traffic conditions in the station area and to project future traffic based on different levels of development and transit usage. Projections should consider American Association of State Highway and Transportation Officials (AASHTO) standards for different types of development, a pre-Environmental Impact Statement (EIS) traffic analysis related to potential development build-out, and different development scenarios.

A coordinated parking management and transportation access strategy should also incorporate pedestrian improvement design plans to enhance access between the station and parking. This could include a walkability plan that identifies specific strategies to ensure safe and convenient pedestrian and bicycle access to and from the station, including connections to the *CTfastrak* station and parking. This work should build upon the recently completed Complete Streets Study by recommending detailed pedestrian and bicycle improvements along other critical corridors in the station area such as Flatbush Avenue and Newfield Avenue. These improvements should be sequenced to align with potential future development opportunities, to connect both short- and long-term redevelopment effectively with the station.

Proposed station site. The proposed station site crosses the municipal boundary separating West Hartford from Hartford. Unifying the entirety of the station area will require intermunicipal coordination.



Short-Term Development Site. The corner parcel has been identified as a short-term development site because it is state-owned and vacant.

02 Continue to pursue inter-municipal coordination to define a unified station area vision

The D&R process as part of this Action Plan marked another milestone in developing a TOD strategy for the future West Hartford station. During the D&R workshop, municipal leaders from both Hartford and West Hartford came together to discuss a common vision for the station area that transcends the municipal boundary. These discussions built upon the 2015 CROG report—*CTfastrak Flatbush Avenue Transit Oriented Development Primer and Concept Memo*—which recommended joint planning for TOD. The ultimate vision for the station area should incorporate a

parking strategy, investments in pedestrian and bicycle infrastructure improvements, prioritization of short- and long-term development opportunities, and an appropriate mix and scale of uses to promote a build-out scenario that is acceptable to both municipalities. It is recommended that the Town and City continue to coordinate with one another as station design and construction progresses, and as each municipality advances its own initiatives (e.g., rezoning) to promote TOD.

03 Consider near-term opportunities for redevelopment in the station area

During the D&R process, a few sites were identified as having short-term development potential in the station area. One site is located at the northwest corner of the intersection of New Park Avenue and Flatbush Avenue (see Figure 4-17). The potential site includes three parcels with multiple owners, one of which is CTDOT. Development potential would be maximized if these sites could be

assembled. The project team recommends conducting a site development feasibility analysis to evaluate different development scenarios on this site, including consideration for an assemblage of the parcels to maximize development potential.

"Suisman" Site.

A long-term development opportunity with ownership, access, and environmental constraints.



CTfastrak Guideway. The CTfastrak Flastbush Station is adjacent to the Hartford Line Rail, which creates a unique opportunity for a connection between the two.

04 Define opportunities for staged development propositions over the longer term in the station area

Throughout the D&R process, it was acknowledged that there is potential for substantial change in the character of the station area through a long-term turnover of industrial sites to mixed-use developments. Especially east of the railroad tracks, most of the potential long-term redevelopment sites are active or legacy industrial uses. These sites will likely require turnover of ownership and environmental remediation prior to becoming feasible for redevelopment. There are a number of development sites that fit into this category, including lots north of Flatbush Avenue situated between New Park Avenue and the rail right-of-way, the industrial triangle between the railroad tracks and Newfield Avenue, a site owned by the Hartford Housing Authority south of the Charter Oak Marketplace, and the 'Suisman' site located north of Flatbush Avenue and east of the rail right-of-way (see Figure 4-17).

There is opportunity to connect the 'Suisman' site to the future station through access under the bridge and potential to incorporate supplemental parking for the station on the site in the near-term. Due to varying degrees

of contamination across the overall site, it is anticipated that the southernmost parcel on the 'Suisman' site has potential to be activated for development earlier than the rest of the site. The ongoing Hartford TOD Pilot Study explored the long-term potential of the site through a Phase I Environmental Site Assessment (ESA), a conceptual rendering showing build-out potential in coordination with the City of Hartford, and envisioned access improvements to the site to be considered in coordination with future I-84 reconstruction. The Pilot Study also investigated the development potential of the Hartford Housing Authority site including a Phase I ESA, and while it was determined that future development of this site is likely, it is not a short-term priority for the owner at this time.

The project team recommends that the Town of West Hartford and the City of Hartford continue to coordinate their respective efforts to pursue TOD in the station area by defining opportunities to stage redevelopment at different sites over time.

05 Market the Flatbush Station area as a multi-modal hub

The future station in West Hartford will have the unique feature of providing a direct connection between the *CTrail* Hartford Line service and the *CTfastrak* bus rapid transit service. As such, this station has the distinct capacity to be marketed as a multi-modal hub. Both the Town of West Hartford and the City of Hartford expressed optimism about the opportunities associated with a unified Flatbush

Station area with multi-modal connectivity, and it is recommended that both municipalities continue to explore how to promote this vision. This could further bolster the prospect of a coordinated TOD district that transcends the municipal boundary.

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WINDSOR

KEY RECOMMENDATION



On-Street Parking on Broad Street. Public parking for Windsor Center is available on the west side of Broad Street and various off-street locations. However, decentralization of parking and lack of signage and/or striping for parking creates a sense of uncertainty regarding availability.

Develop a parking management strategy to address short- and long-term needs in Windsor Center

Existing surface parking in Windsor Center is decentralized, and there is a lack of signage or striping to indicate the location of permitted on-street parking. As a result, there is a perceived lack of parking, while utilization rates are low for both on- and off-street parking throughout the day, including during peak periods. Additionally, the decentralized parking supply facilitates the practice of driving to and parking at multiple locations in Windsor Center as opposed to promoting a “park once” mentality that is often encouraged in walkable downtowns.

In the second part of the Hartford Line TOD Action Plan, the project team proposes to collaborate with the Town to develop a parking management strategy to accommodate both short- and long-term needs in the station area. The strategy should address the goal to align the supply and demand for both public and private parking, based on assumptions about future TOD build-out and opportunities for shared parking. The parking management strategy

should also inform a future retail attraction strategy for Broad Street and consider current plans for a potential parking deck in Windsor Center. This parking strategy can and should move forward in partnership with the design and construction of the relocated station and new parking by CTDOT associated with the relocation.

Since a large portion of the available parking in downtown Windsor is located west of Broad Street, streetscape improvements along this busy road—to ensure safe and efficient accessibility to the parking supply—become an additional priority to support a parking management strategy.

ADDITIONAL RECOMMENDATIONS



Broad Street at Windsor Center. Broad Street does not have bicycle lanes, consistent crosswalks, signals for pedestrians, or wayfinding that could create a pedestrian- and bicycle-friendly corridor.

01 Explore options for implementation of public realm improvements on Broad Street

One key challenge to enhancing the mixed-use and retail presence in Windsor Center is the character of Broad Street, which could be enhanced as a more pedestrian-friendly corridor. In the broader context of the Town overall, Windsor Center is a walkable enclave, with a multi-block Town Green and places to congregate, sit, and enjoy the outdoors. However, there is opportunity for creating a much more walkable downtown through complete streets strategies and additional amenities along Broad Street. Indeed, enhancing the pedestrian orientation of Broad Street is a priority for the community and a public sector investment would help to position identified sites for redevelopment.

The implementation of improvements along Broad Street, is critical to enhancing the pedestrian environment of the station area. This need is demonstrated in the Town's TOD Master Plan which documents a preferred concept for a Broad Street road diet. During the D&R process, Town staff also indicated that the traffic signals and controllers on Broad Street are several decades old and require an upgrade in technology. The estimated order-of-magnitude cost estimate for the signal design work is approximately \$130,000, covering the intersections of Broad Street at Batchelder Road, Broad Street at Maple Avenue, Broad Street at Palisado Avenue/Poquonock Avenue, and Poquonock Avenue at Prospect/Bloomfield. Prior to implementation, a road diet feasibility study that includes consideration of

updated signal design should be conducted to understand how lane removal and realignment would impact existing and projected travel volume and flow. Depending on the results of a feasibility study, the Town could proceed with pursuing design and construction of the proposed road diet on Broad Street.

Regardless of the outcome of a road diet feasibility study, the project team recommends that the Town consider different funding sources and financing options to implement associated streetscape improvements on Broad Street. In addition to pursuing funding opportunities at the state, regional, and/or federal levels, the Town could explore different ways to finance public realm improvements. For instance, during the D&R workshop, the Town suggested the possibility of using TIF to generate funds for implementation, with consideration for whether a potential TIF district would apply to existing developments or only future developments. TIF is a form of value capture that would enable the Town to finance public infrastructure projects and community amenities by capitalizing on redevelopment. As the Town pursues funding sources, it was noted by participants in the D&R workshop that an economic value study could help to quantify the benefits to local business owners (in the form of more pedestrian activity and potential patrons) of proposed streetscape improvements.



Central/Union Block Potential Redevelopment Site. Top and bottom photo: this site offers a long-term opportunity to assemble multiple parcels into a larger site that could be advantageous for future TOD.

02 Coordinate with property owners of the Central/Union block to promote redevelopment

Windsor Center is a relatively small geographic area, with only a few remaining blocks that can accommodate redevelopment. The Town should carefully plan for growth on these blocks, optimizing development density to support retail and position the downtown as a destination for entertainment and shopping with complementary multi-family residential uses. This growth must be balanced against the desire to maintain the historic small village character that makes Windsor Center such a desirable place to live, work, and visit.

Future redevelopment in Windsor Center should build upon the previous work completed by the Town to understand the development dynamic and work towards an optimal build-out of the downtown. The remaining potential development blocks consist of unassembled parcels, some of which have existing buildings and some of which are undeveloped or used for parking. There is opportunity to assemble these sites, but the challenge lies in “right-sizing” development to align with existing neighborhood character. Working with owners to assemble properties in order to create a site that could attract development interest, maximize property value, and balance growth against parking needs will allow the downtown to add density without creating

large parking fields that break-up the street wall and detract from the character of the downtown. Windsor Center offers unique amenities that should provide incentive to attract development interest if sites of sufficient size and density can be assembled.

One of the key sites targeted for redeveloped is the Central/Union Street block (see Figure 4-21). Currently, there are a number of owners of the lots within this block, and the different owners have expressed to the Town varying levels of interest in redevelopment. The Town should continue to discuss potential redevelopment opportunities with the owners of this block. Building upon the work completed in the Town’s TOD Master Plan, the Town should consider completing a site development feasibility assessment to demonstrate the limited development potential associated with the individual lots in comparison to an assemblage comprising most of the block. The feasibility assessment should consider site constraints, potential financial incentives associated with designated and potentially historic structures, and the likelihood of property owner resistance to redeveloping certain lots within the block.

Retail along Broad Street. Across from the Town Green are several small, pedestrian-scaled storefronts. However, there is a need for retail to activate these streetfronts and attract foot traffic. Along this central commercial corridor, existing uses such as banks may need to employ creative strategies to attract pedestrian interaction.



Windsor Center Pond and River Trail. The Windsor Center Pond and River Trail are public open space assets that could be a part of an open space network in Windsor.

03 Develop a “social retail” attraction and retention strategy for Windsor Center

Windsor is an archetypal New England Town, with a Town Green anchored by a library, post office, Town Hall, church, and historic train station. The town center is attractive as a downtown destination and a source of pride and identity for the town of Windsor. The Town Hall and the nearby Loomis Chaffee School serve as employment anchors and create foot traffic that support local retail, as does the local Grace Episcopal Church.

Historically, Windsor Center has featured primarily service retail uses such as banks, insurance companies, nail salons, etc., but has lost some of its character as Broad Street has evolved into a major thoroughfare through the downtown. Town leadership has expressed a desire to attract more “social retail” moving forward, aimed at the promotion of a locally-catered “artisan” downtown experience. This reflects the Town’s overall goal to increase the attractiveness of Windsor Center as a local destination for Town residents.

There is a former theater that Town leaders are hoping will be restored to support evening activity in the downtown with entertainment options that create a larger attraction and help to sustain additional retail investment. Other

properties along Broad Street offer opportunity for turnover to more active retail uses as Windsor Center continues to evolve with the introduction of Hartford Line service.

Accordingly, and in coordination with the aforementioned parking management strategy, the Town should develop a retail attraction strategy for Windsor Center, focused on Broad Street. This strategy should aim to attract the Town’s desired type of retail, including street-facing active storefronts that cater to the pedestrian environment. The strategy should identify available retail space and total potential square footage associated with future development opportunities. It should also consider the appropriate scale of development and retail mix for Windsor Center, in keeping with the Town’s goal to remain a “New England Downtown” for residents. Such a strategy should also outline an outreach and marketing approach with an associated implementation plan that capitalizes upon existing resources available to the Town, including collaboration with the not-for-profit organization First Town Downtown.

04 Enhance programming and connectivity of public spaces in Windsor Center

Windsor Center already has an active Town Green outside its Town Hall, which hosts many community events throughout the year. However, there is opportunity to build upon these existing assets by creating an open space network that increases connectivity in Windsor Center, with focal points at the future Hartford Line station, waterfront trail system, Town Green, and major destinations. The

reactivation of public space can draw residents and visitors alike to downtown, enhancing the area as a vibrant and active town center. To accomplish this, the Town can consider expanding programming of the Town Green and nearby trails, especially in coordination with the impending renovated theater.

CTtransit Bus on Mechanic Street. A few CTtransit bus routes run along Mechanic Street, connecting Windsor to Hartford. Private and quasi-private shuttle service could supplement existing fixed transit service and offer greater connectivity between Windsor Center and other destinations in town.



The Animal Shelter Redevelopment Site. The Animal Shelter has been part of Town development plans. However, the site is small, and there is a small site directly south that Loomis Chaffee School owns. Combining the two would greatly increase the site's TOD potential.

05 Coordinate with Day Hill Road employers and other local and regional entities to enhance transit accessibility to and from the station

In coordination with the increased rail service, the Town should actively explore opportunities to expand multi-modal connections serving the planned *CTrail* station. For instance, a Windsor Center circulator, generally servicing downtown Windsor and its various destinations, in conjunction with a Day Hill Road shuttle to the town's major employment center, could create a true multi-modal transportation hub.

The Town should pursue opportunities to build upon the momentum from recent local and regional planning efforts,

such as the Windsor TMA Study and Hartford Transit Study, which highlighted recommendations for improved transit connectivity in Windsor. In doing so, the Town should consider partnering with anchor institutions, major employers, and stakeholder groups (including chambers of commerce) to establish broad-based support from potential beneficiaries of multi-modal transit improvements in Windsor.

06 Coordinate with Loomis Chaffee to explore the full redevelopment potential of the animal shelter site and adjacent property

The development potential of the animal shelter site and adjacent park-and-ride lot (see Figure 4-21) are limited by geometric constraints of the parcels as well as the location within the flood zone. As noted in the TOD D&R section, the Town is actively working towards the redevelopment of the animal shelter site and is currently completing pre-development site work with an OPM-funded TOD grant. The scale of development on this individual site is limited due to the small size of the parcel. Participants during the D&R workshop discussed an adjacent parcel owned by Loomis Chaffee School of which the school may be open

to the possibility of working with the Town to consider development opportunities. The project team recommends that the Town continue to coordinate with Loomis Chaffee School in an effort to maximize the development potential of this strategic site located adjacent to the planned station. An expansion of the developable area to include a portion of the Loomis Chaffee School-owned lot could also potentially increase building frontage along Mechanic Street and Batchelder Road, two critical access roads to the future station.

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WINDSOR LOCKS

KEY RECOMMENDATION



Main Street and Chestnut Street. The northernmost point of planned complete streets improvements along Main Street.



Municipal Boundary between Windsor Locks and East Windsor. The boundary bisects the Bridge Street Bridge.

Coordinate complete streets and TOD planning/implementation with the Town of East Windsor

The Town of Windsor Locks is actively planning for complete streets improvements and transit-supportive development in the station area, most notably along Main Street, and the Town of East Windsor is similarly striving to promote transportation improvements and redevelopment in the adjacent Warehouse Point Village. There is recent and ongoing coordination between Windsor Locks and East Windsor as they advance their respective priorities, including through participation in the D&R workshop as part of this Action Plan, as well as through discussions with CTDOT regarding traffic issues on Bridge Street. Continuation of this coordination will help guide the implementation of development strategies and public realm improvements in both towns.

The Town of East Windsor has a unique opportunity to leverage the proximity of Warehouse Point Village to the future Windsor Locks station through two complementary initiatives: (1) activating redevelopment opportunities; and (2) improving walkability and multi-modal connectivity, both of which are consistent with the recently completed Warehouse Point Master Plan. The Town of East Windsor can pursue complete streets improvements to both enhance mobility within Warehouse Point and also increase accessibility between Warehouse Point and the future Windsor Locks station. The project team proposes to continue coordination with the Town of Windsor Locks to advance its goals of redevelopment and roadway improvements along Main Street, in conjunction with enhancing Warehouse Point's connectivity to the future Windsor Locks station.

ADDITIONAL RECOMMENDATIONS



Main Street, Near the Historic Station. Pedestrian-scaled amenities, wayfinding, and retail attractions would encourage a livelier and more walkable downtown.



The Windsor Locks Canal and Trail. The Trail is a community recreation asset that could benefit from improved access.

01

Develop a strategy to rejuvenate the identity of downtown

Windsor Locks has a history as a significant center with a dynamic industrial heritage, and although it currently lacks a discernable “downtown,” Main Street offers great promise as a future focal point in the community. Throughout the D&R process, Town leaders indicated that urban renewal policies replaced the historic mixed-use and walkable downtown with auto-oriented uses, and there is strong interest in the prospect of returning to the previous legacy. Specifically, there is a desire to rejuvenate the identity of downtown through the creation of a town center along Main Street, anchored by the future Hartford Line station. The Town has made a conscious decision to pursue relocation of the train station in the historic core of downtown Windsor Locks, recognizing that Hartford Line service will be an attractor for both businesses and residential development.

Building upon the outcome of the Town’s TOD Study, the project team recommends a strategy that focuses on activating storefronts, improving pedestrian amenities, and harnessing the potential of waterfront access to create a true destination downtown. The overarching goal of the strategy should be to increase foot traffic on Main Street. In

its current state, Main Street functions primarily as an auto-centric thoroughfare. Methods to improve the pedestrian environment, which is a critical challenge and key focus for the Town, could include providing active storefronts along Main Street in coordination with proposed streetscape and pedestrian safety improvements. Additionally, Windsor Locks already has an amenity in the ‘lock’ and Windsor Locks Canal Trail. Providing direct links to this recreational asset could prove to draw interest downtown. New downtown amenities that can take advantage of the unique juxtaposition of park, waterfront, and major industry could create the potential for a unique neighborhood character that attracts residents and businesses.

The redevelopment of Main Street and the creation of an appropriate building character will dictate whether the downtown will grow as a TOD district with a pedestrianized Main Street. Although there are many steps still to be taken, Windsor Locks has the space and historic precedent to rebuild its downtown as a significant mixed-use TOD node.

"Properties on the Curve." The Town of Windsor Locks has secured funding for pre-development work on these sites, and is working to incentivize redevelopment.



Housing Authority Site. Despite unknown owner interest and challenging slopes, the town has identified this site as a potential near-term redevelopment opportunity in association with the "properties on the curve."

02 Continue pre-development work to activate priority sites

The Town of Windsor Locks has ongoing efforts to unlock the development potential of priority sites in the area immediately surrounding the future station location. These sites, specifically the “properties on the curve” on the west site of Main Street and the Windsor Locks Commons adjacent to the future station (see Figure 4-25), could serve as gateways from the north to the future station.

The project team recommends that the Town continue to prepare these strategic sites for future redevelopment. Windsor Locks received an OPM grant to fund site

acquisition, engineering, and clearing/demolition to support the “properties on the curve,” and as this work progresses, the Town should continue to gauge developer interest and pursue additional funding as necessary to maximize the financial feasibility of development on this site. Additionally, the Town should continue its coordination with the owner of Windsor Locks Commons as well as CTDOT to identify a redevelopment plan that leverages the adjacency of the site to the future Windsor Locks station.

03 Conduct site feasibility assessment to determine development potential on additional sites

The Town’s TOD Study identified a number of potential development sites in the station area. As work continues with other priority sites that are already in motion, such as Montgomery Mills, the “properties on the curve,” and Windsor Locks Commons, the Town should conduct development feasibility assessments in order to understand the opportunities and constraints associated with potential development on other sites. These include the Windsor Locks Housing Authority site just south of the “properties

on the curve” as well the CVS plaza south of Bridge Street (see Figure 4-25). The feasibility assessment could evaluate development potential by applying the regulations of the MSOZ and/or exploring the zoning implications of different scenarios for future development on the sites. An important component of the assessment would be an evaluation of potential developer return on investment to determine whether different scenarios would be financially feasible from a developer’s perspective.

The Historic Windsor Locks Train Station. The ongoing redevelopment of the historic Windsor Locks Station is an opportunity to harness the potential of the State's first TIF district.



04 Develop value capture strategy for recently enacted TIF district

Windsor Locks recently became the first municipality in the State of Connecticut to adopt a TIF district following new State legislation. The Town adopted a TIF policy in October 2016 and subsequently adopted a downtown TIF district in November 2016, the boundaries of which are coterminous with the MSOZ.

According to the Town's TIF district plan, the purpose of the TIF is to "provide capital reinvestment revenue for the downtown district," which the Town hopes will also "spur and assist with other economic development activities." Eligible TIF expenses include—but are not limited to—capital costs, financing costs, real property assembly costs, costs of technical and marketing assistance programs, professional service costs, maintenance and operation costs, and administrative costs in support of the Town's revitalization efforts in the downtown. The TIF district plan identifies several municipal projects that could be financed in part through TIF revenues, such as the Main Street

streetscape program, TOD pre-development costs, the historic train station restoration, the provision of a second point of vehicle ingress and egress to the canal bank, and preservation and development of the canal as a cultural resource.

The Town's TIF district plan includes an estimate of captured assessed value and incremental tax revenue that could be generated through the TIF district over a 20-year period. At the time of this report, the recently adopted TIF policy and district remains untested in the Town. The project team recommends that the Town develop a value capture strategy, which should be coordinated with the aforementioned site feasibility assessment, to position the Town to realize the full potential of the TIF district. The Town of Windsor Locks has a unique opportunity to serve as a case study for other Hartford Line municipalities that may consider TIF in the future.

Source: Ryan Caron King / WNPR



The Bradley Flyer Semi-Express Bus Service.

The Flyer offers service between downtown Hartford and Bradley International Airport. Similar service is planned between Windsor Locks Station and the airport.

05 Coordinate with Bradley International Airport, CTDOT, and CT*transit* to maximize multi-modal opportunities

Bradley International Airport is a unique asset in Windsor Locks that should be leveraged in conjunction with the introduction of Hartford Line service. The proximity of the future Hartford Line station to Bradley opens up opportunities for transit connectivity between downtown Windsor Locks and the airport, creating greater user activity that will help to support local economic growth. Under the NHHS Rail Program, a direct bus connection is planned between Windsor Locks Station and Bradley that will mirror the Bradley Flyer bus service offered between downtown Hartford and Bradley.

The project team recommends ongoing coordination with Bradley, CTDOT, and CT*transit* to maximize the potential of the anticipated bus connection between Windsor Locks Station and the airport. Coordination could pertain to the

provision of additional services such as remote check-in and ticketing for air travel at the station, or remote ticketing for rail transportation at the airport, in addition to automatic transferring of luggage between transportation modes. Other considerations for coordination include the integration of a robust marketing strategy for shuttle and rail service at the airport, as well as the reconciliation of peak hours of operations between the two services. Peak hours of operation for the rail service may not necessarily correspond with the busiest times for airport passengers and employees, which may require creative solutions to overcome. As Windsor Locks emerges as a multimodal hub and continues to explore seamless connections between modes, it will expand its opportunities for further economic growth.

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ENFIELD

KEY RECOMMENDATION



View of the Connecticut River Waterfront from Thompsonville. The Town is planning improved access and waterfront amenities as a part of the River Access Project.

Develop a blueprint for TOD implementation in Thompsonville

The Town of Enfield is poised to capitalize on the introduction of Hartford Line service and the future construction of a station in Thompsonville. Building upon more than two decades of planning for the future of Thompsonville, the Town is focused on implementation to realize its revitalization goals for the historic downtown. The current OPM-funded TOD grant for Thompsonville will address two critical elements of implementation: creating an economic development strategy to attract private investment and modifying zoning to be more supportive of TOD. The Town is also advancing other complementary efforts to revitalize Thompsonville, including the Thompsonville Transit Center and River Access Project. An important next step is to ensure that the Town effectively leverages these mutually beneficial projects and moves from planning and design to implementation. Accordingly, for the second part of the Hartford Line TOD Action Plan, the project team proposes to work with the Town to develop a blueprint for TOD implementation in Thompsonville.

The blueprint will include a timeline framework that shows interdependencies and critical path items related to

public realm improvements, planning/policy initiatives, and development propositions in Thompsonville. The identification of critical path items will be particularly valuable to help the Town maintain momentum and explore options for sequencing its revitalization efforts in the face of potential hurdles for implementation. As discussed in the following other recommendations, the Town has experienced inconsistent progress on a number of efforts to achieve its revitalization goals, including—but not limited to—proposing modifications to the Town’s zoning regulations to support TOD, progressing with the Thompsonville Transit Center, and activating key sites for redevelopment. The purpose of the blueprint is to serve as a strategic resource for Town leadership as they strive to concurrently advance multiple projects with an overarching objective to promote downtown revitalization in Thompsonville.

The blueprint will complement the OPM-funded effort to develop economic development and zoning strategies, and the details of the blueprint will be informed by the scope, schedule, and expected outcome of that effort.

ADDITIONAL RECOMMENDATIONS



2016 Desire & Readiness Workshop.
The Hartford Line TOD Action Plan kicked off public engagement with a workshop in Enfield in 2016.

01

Develop and implement a public engagement program to establish community support for TOD in Thompsonville

In charting a path for the revitalization of Thompsonville in the 2014 OPM grant application, Town leadership identified the lack of sustained community support for TOD as the “most critical hurdle to overcome.” Community support will be critical to attracting investment and realizing the Town’s vision for revitalization in Thompsonville.

During the D&R process, Town leadership informed the project team that there is a need to educate the community on the meaning of TOD and its various benefits, in order to overcome local misconceptions about the impacts of TOD. The D&R workshop started this process with municipal and stakeholder leaders, as the project team offered visuals of context-sensitive TOD in similar communities. However, a

key takeaway from the workshop was that this educational effort must be extended to the entire community to dispel the myths of TOD in Thompsonville.

Accordingly, the project team recommends that the Town develop and implement a robust public outreach program to develop a shared vision for investment and the appropriate scale, mix of uses, and locations for new development in Thompsonville. This endeavor is vital to building active support and achieving consensus on steps to be taken to shape this nascent TOD district.

Vacant property along Pearl Street. Pearl Street, a primary commercial corridor in Thompsonville, struggles with storefront vacancy.



Bigelow Commons. Converted from the Bigelow Carpet Mill to a mixed-use development, the Commons has struggled to fill its office space.

02 Create an economic development strategy to attract private investment

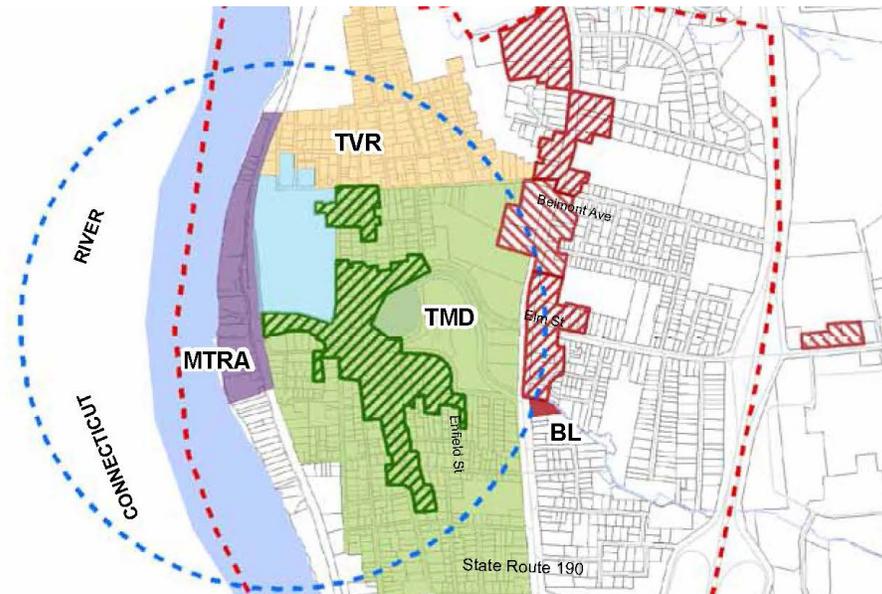
As noted by the Town in its 2014 OPM grant application, the challenge associated with the lack of private sector investment in Thompsonville is a “frustrating reality that has vexed local officials for years and has damaged the psyche of established residents.” As a reflection of this frustrating reality, significant public investment in Thompsonville has not yet spurred the complementary private investment that is needed to achieve sustainable economic growth and downtown revitalization.

Of note, the subtitle of the Town’s 2016 Revitalization Action Plan is “Preparing for the Future...Honoring the Past,” which underscores the desire to return Thompsonville to being a thriving downtown. In discussions with Town staff and stakeholders during the D&R process, it became apparent that years of private sector disinvestment and the era of urban renewal adversely affected much of the cohesive fabric of the Thompsonville community, with many of the employment opportunities shifting to the new business district around the Enfield Square Mall. Incidental to this shift, the Main Street bridge that spanned the Connecticut River and provided a connection between Thompsonville and Suffield was decommissioned in 1970; today, a bridge at Franklin Street—located over a half-mile south of the station area—connects Enfield and Suffield, and provides access to the Enfield Square Mall.

In the 2014 OPM grant application, the Town cited the planned Hartford Line station in Thompsonville—and the prospect for a multi-modal transit center—as a “ray of hope.” The application notes that the Town has “embarked on a sustained campaign to make that hope a reality not just for improved transportation, but for real community and economic revitalization in Thompsonville.” Indeed, the envisioned future transit center would be at the nexus of Thompsonville’s commercial and civic heart, connected to the Hartford Line station as well as a renewed and revitalized mixed-use community rising next to the station.

Prior planning efforts by the Town have identified key sites for redevelopment, and the 2016 Revitalization Action Plan outlines a range of marketing strategies to achieve the Town’s goals. As such, the Town has a strong framework upon which to establish an economic development strategy that has market-vetted readiness. This strategy should include an assessment of financial feasibility of different development scenarios on the targeted sites, as well as an engagement process with real estate professionals to acquire a nuanced understanding of the short- and long-term market potential in Thompsonville. Such a strategy is included in the Town’s forthcoming OPM-funded work, and should be coordinated with other ongoing local and regional initiatives aimed at promoting the revitalization of Thompsonville.

The Casket Building. The former Casket Building is the centerpiece of the planned transit center.



Proposed Future Zoning Map. The proposed zoning map for Thompsonville from the 2013 Zoning Study.

03 Consider alternative approaches to advance the Thompsonville Transit Center

In the 2014 OPM grant application, the Town pointedly described the future Hartford Line station as a “linchpin for the community’s future.” As previously discussed, the Town hopes to implement a transportation center with convenient connections between future Hartford Line service and expanded local bus services. In addition to repurposing the casket building at 33 North River Street to anchor the transit center, the Town’s full vision includes building bus facilities and parking on adjacent lots, including a site owned by Eversource. Delays in securing an access agreement with Eversource for environmental testing have slowed the Town’s momentum in advancing the transit center, and while the access agreement is now in place, the Town should be prepared to address other

unanticipated obstacles that may arise and that could affect the timing of implementation.

Based on discussions during the D&R process, the Town’s preferred sequencing is to complete the environmental site assessment at the Eversource site and subsequently acquire the land and build the parking and bus facilities so that when the Hartford Line station is constructed, the Town will have a fully functioning multi-modal transit center. The project team recommends that the Town consider a contingency plan to advance the transit center should this preferred sequence be interrupted. A first step in this process could be to revisit the phasing approach that was suggested in the Town’s 2009 *Thompsonville Transit Center Feasibility Study Report*.

04 Revisit previously proposed zoning amendments after establishing community support for TOD

The Town’s 2015 *Economic and Fiscal Impact of the Thompsonville Transit Center: Enfield, CT* drew a targeted conclusion that new TOD-supportive zoning “will be required to maximize the economic benefit of the new transit center.” The 2013 Thompsonville Zoning Study clearly articulated a strategy to update zoning to incentivize TOD in the station area, but the recommendations were not adopted due in part to resistance in the community to increases in residential density and concern about the quality of life implications of TOD.

Therefore, an important precursor to proposing zoning modifications going forward is the need to educate the public about context-sensitive TOD through the

mentioned public outreach program. Zoning is a regulatory tool that guides development, and future updates to the existing regulations should be informed by public engagement to determine the desired scale and mix of uses in Thompsonville.

The previously proposed zoning strategy can serve as an effective starting point for the Town. Modifications to existing districts and/or the creation of one or more new districts could be potential mechanisms for targeting appropriately scaled development in certain locations of Thompsonville while also respecting the goals of open space conservation along the waterfront.

The Freshwater Creek. The River Access Project has considered creating public and recreational amenities along the Freshwater Creek.



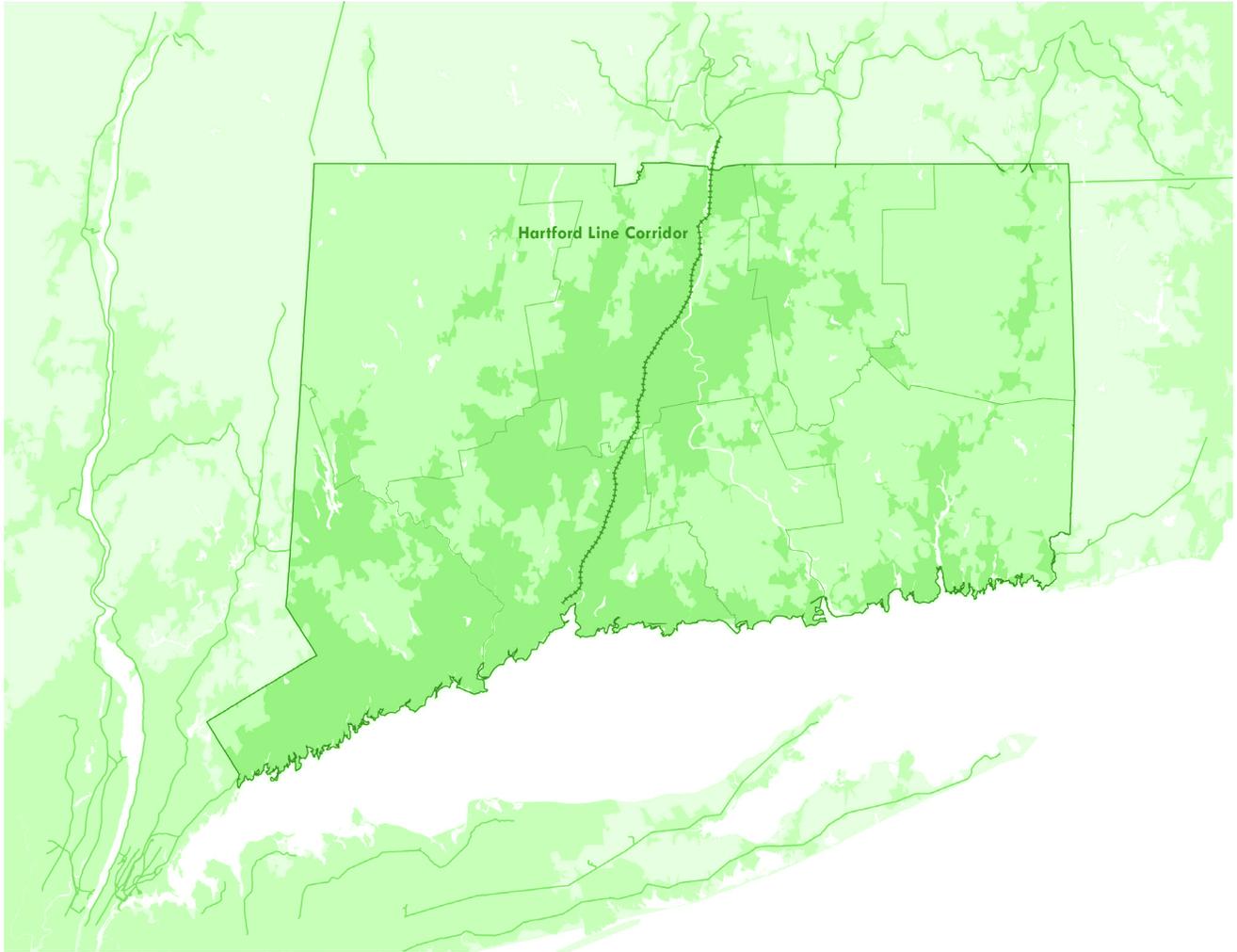
The Asnuntuck Arch. The River Access Project will create a pedestrian and bicycle-friendly gateway at the Arch.

05 Pursue funding to implement recreational component of River Access project

The Town of Enfield is actively advancing the design of the River Access project to provide pedestrian and bicycle connectivity between Freshwater Pond and the Connecticut River, and depending on cost estimates, groundbreaking is anticipated in 2018. The Town also previously proposed creating a recreational area with a fishing pier near the Barnes Boat Launch as a destination along the waterfront. However, due to restrictions on the use of the federal funding, the project as currently defined does not include recreational space along the river as envisioned by the Town.

The project team recommends that the Town explore a range of supplemental funding options to support the recreational component of the River Access Project. The activation of the river's edge, in conjunction with providing more complete and accessible connections to the waterfront, offers an immense opportunity to shape the future redevelopment of Thompsonville. Accordingly, the Town should seek to identify potential funding sources for the recreational space while concurrently completing the design and construction of the greenway component of the project.

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06 CONCLUSION

Key Recommendations for the Hartford Line
in all Selected Station Areas



This interim deliverable presents the results of the first part of the Hartford Line TOD Action Plan. The first part of work featured an interactive D&R process with municipal and stakeholder leaders in the selected station areas along the Hartford Line corridor. The outcome of the D&R process was the identification of targeted recommendations to overcome hurdles for TOD implementation. For each station area, and in collaboration with the respective municipality and CTDOT, the project team has identified one of the recommendations to advance in the second part of the Hartford Line TOD Action Plan.

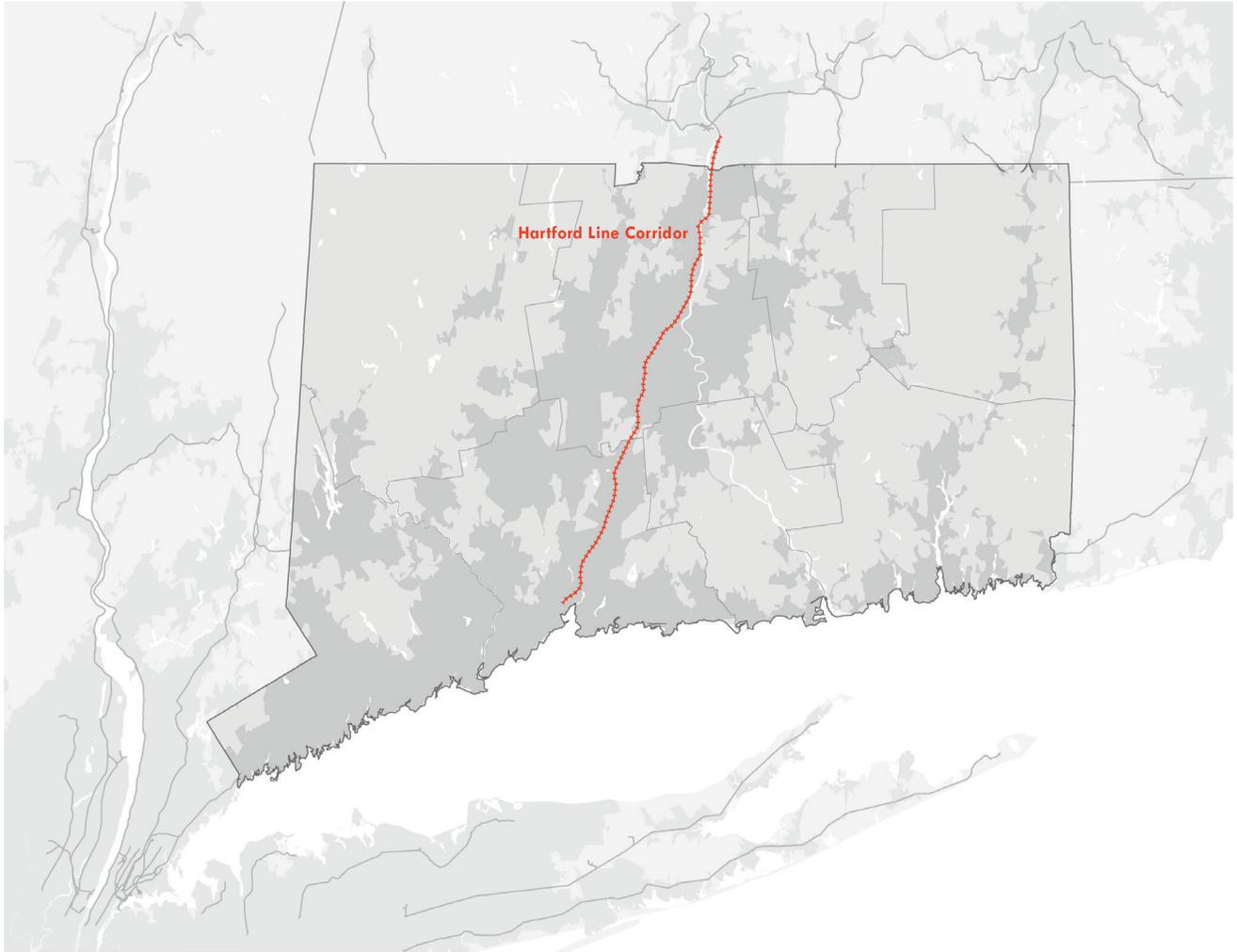
The second part of work will enable the project team to provide targeted technical assistance to the selected station area municipalities to continue moving from TOD planning to implementation. The following part two efforts, listed from south to north, will be documented in a second report for the Hartford Line TOD Action Plan:

- **North Haven:** Position for future grant opportunities to implement proposed complete streets improvements in the station area
- **Wallingford:** Prepare a development feasibility concept plan for priority sites Downtown

- **Berlin:** Prepare a conceptual site plan for the redevelopment of 100 Harding Street
- **Newington:** Perform review of alternative station siting and TOD potential analysis
- **West Hartford:** Explore options to modify zoning in the West Hartford portion of the station area to support TOD
- **Windsor:** Develop a parking management strategy to address short- and long-term needs in Windsor Center
- **Windsor Locks:** Coordinate complete streets and TOD planning/implementation with the Town of East Windsor
- **Enfield:** Develop a blueprint for TOD implementation in Thompsonville

Collectively, these part two efforts will help a regionally connected network of communities to capitalize upon the ongoing transit investment along the Hartford Line by advancing specific development propositions, complementary public realm improvements, and TOD-supportive policies.

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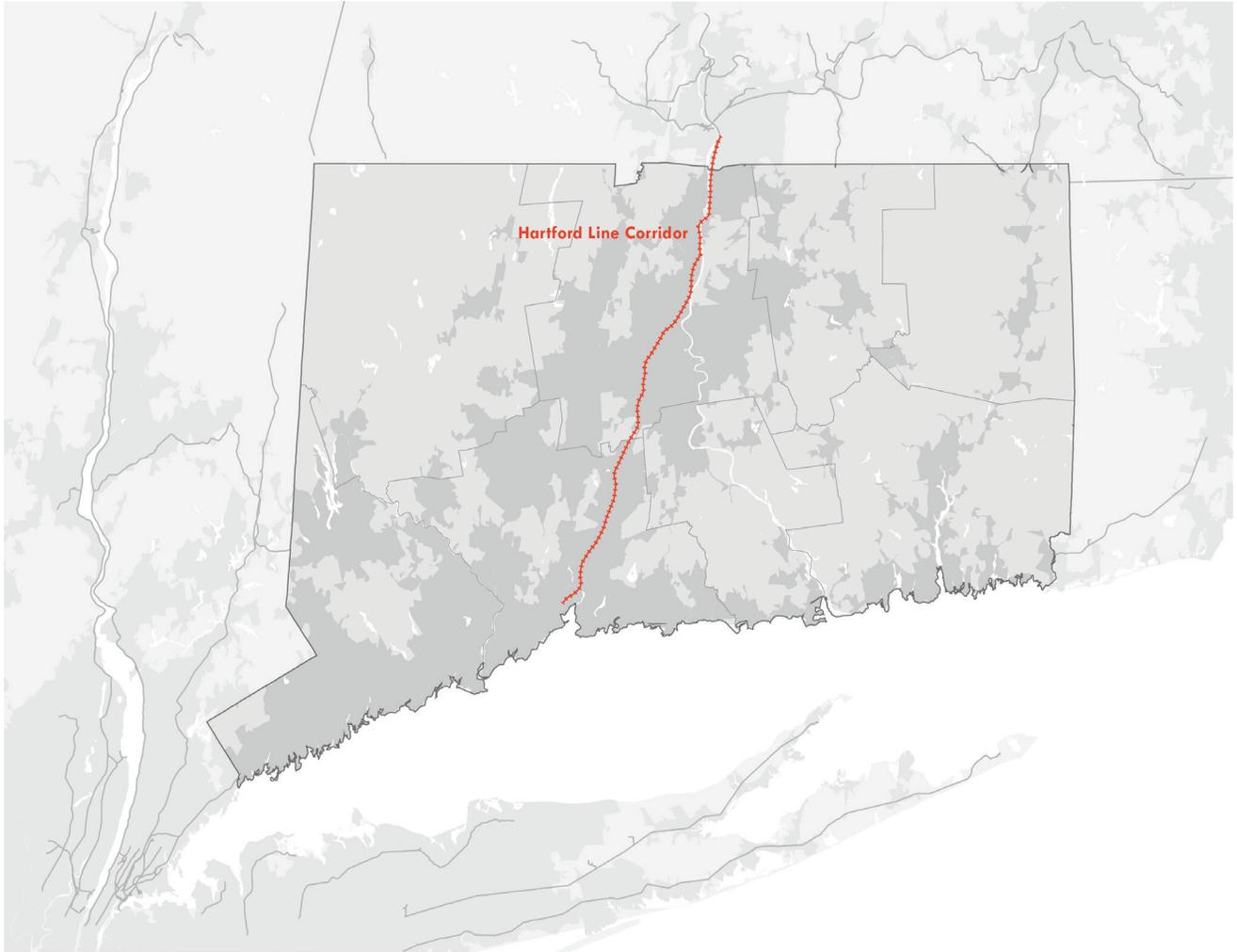
APPENDICES

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APPENDIX A

STAKEHOLDER INTERVIEWS

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Introduction

Between May 2017 and July 2017, the project team interviewed stakeholders along the Hartford Line corridor with familiarity of the real estate market and anchor institutions who may be impacted by the new rail service. These interviews examined TOD opportunities and constraints, noting trends in demand, costs, financing, and end-user preferences, as well as future plans. The content of these interviews informed the market study (Appendix B), which was a key input in the Desire & Readiness Process and provided a base understanding of the market conditions of the region. The following sections summarize the information gleaned from these conversations.

These summaries are not based on transcription and therefore may be subject to misinterpretation of ideas or information. The content provided is based on opinions or views shared by the individual(s) interviewed, but does not necessarily reflect the entire agency or organization. While this information provides insight and offers a general understanding of market conditions throughout the corridor, it should not be used as a source of definitive data.

Real Estate Stakeholders

Interviews were conducted with real estate stakeholders who have insight and expertise regarding market conditions along the Hartford Line corridor. Interviewees included representatives from the following stakeholders:

- BEACON COMMUNITIES LLC
- CALAMAR
- CENTERPLAN DEVELOPMENT COMPANY LLC
- JFA MANAGEMENT LLC
- THE NEW HAVEN GROUP
- PRIVATE DEVELOPER/PROPERTY OWNER

Transit-Oriented Development in Connecticut

Real estate representatives noted that while few multi-family products have been built in the corridor over the last 25 years, there is far more supply being added now compared to historical levels. Of this new inventory, 1-bedroom units are being rapidly absorbed, with less demand for 2-bedroom units, and few 3-bedroom units being built. One of the developers that was interviewed has a portfolio of residential properties that consist mostly of 1-bedroom units and a limited number of 2-bedroom and studio units. In this

developer's experience, local jurisdictions have generally opposed a greater supply of 2-bedroom units, in an effort to minimize the number of families with children added to the local public school population, which increases local fiscal costs. Occupancy rates are high across all of this developer's projects, which could be viewed as evidence that 1-bedroom units have strong market demand.

The market for the increase in multi-family products is composed primarily of millennials and seniors. One representative believes that the trend in Connecticut is similar to the national trend, in that there is continued movement to urban areas, especially among millennials and baby boomers seeking urban amenities and lifestyles. This pattern is driving demand for multi-family rental units in urban locations.

One of the developers interviewed is involved in senior housing developments. When identifying potential sites, the developer looks for a minimum amount of older households within close proximity to a site, as well as proximity to major commercial corridors and interstates. In this developer's experience, older households tend to seek certain amenities, including access to transit. However, this developer does not limit development to TOD locations. Tenant surveys have suggested that seniors place a high value on shuttles that facilitate trips to critical destinations such as grocery stores or medical centers. However, as the minimum age of these complexes is often 55 years, many residents are still willing and able to drive personal automobiles.

While representatives acknowledged that the multi-family market is soft, one developer shared the view that the market for condominiums is currently "dead." For-sale product may be too discretionary since households seeking to own residential property often have cars and do not necessarily place a high priority on proximity to transit. However, a dense, attached for-sale product like townhomes could tap into workforce positioning for households priced out of the urban core but who want to purchase a high-quality, new product, and desire the space and other features that townhomes offer over condominiums.

Financial Feasibility of Development

Real estate representatives estimate the need for subsidies in residential projects throughout the corridor exists, partially due to Connecticut's current weak market fundamentals and anemic growth. As an example, one representative referenced that the City of Meriden issued

RFPs for four different sites, including two affordable housing developments and two market-rate projects. The two market rate project sites generated minimal interest from respondents, while the two affordable housing project sites advanced into projects that received 9 percent LIHTC and were moving towards construction at the time of the interview. Another representative referenced the adaptive reuse of a former mill complex that occurred in the 1980's. By registering the property on the National Register of Historic Places, the developer was able to leverage tax credits and tax regulations to help make the project financially feasible. The factory buildings were converted into 472 apartment units that achieved 98 to 100 percent occupancy and rent premiums above other local apartments. The size of the units, high ceilings, great views, uniqueness, and quality still make it an attractive product in the local market. Developers expressed the opinion that it is very challenging to make new construction in Connecticut financially feasible, but that redeveloping existing buildings can work with the right incentives, such as tax credits.

To reduce its overall risk profile and generate additional demand for units in its complex, one of the developers entered into a multi-year agreement with a nearby university to rent an entire building for student housing. The developer has found that student housing is a demand driver in properties that it owns and manages. This developer builds, owns, and manages its assets for the long-term, and has been able to complete projects without incentives or tax abatements, most likely incurring cost savings because it runs its own construction operation.

In addition to different financing sources and strategies, achievable rents depend on a variety of other financial variables, including land costs and construction costs. A representative expressed the view that the New England region is one of the most expensive markets in terms of land costs and construction costs. In one developer's experience, hard costs for stick-built multi-family residential product tend to range from \$150 to \$170 per square foot, with \$20,000 to \$30,000 per unit in land costs. Costs in these ranges require a minimum of \$2.00 to \$2.50 in monthly rent per square foot, which equate to rents that are higher than a workforce positioned product but typically necessary to support new market rate construction. However, in most of the towns along the corridor, new market rate products cannot rent for over \$2.00 per square foot and are achieving rents closer to a range of \$1.30 to \$1.80 per square foot. These developments are made feasible by some combination of

factors such as lower construction costs (for example, \$130 to \$150 per square foot), lower land costs (for example, \$15,000 to \$20,000 per unit), subsidies (typically associated with an affordable/workforce positioned product), and efficiencies within a developer's business operations model (for example, in-house construction). In terms of retail, one representative noted that achievable annual retail rents along the corridor tend to be around \$12 per square foot, depending on the town.

Anchor Institutions

Interviews were conducted with representatives from a variety of anchor institutions along the Hartford Line corridor. Anchor institutions include schools, hospitals, and major employers that are unlikely to move locations and that have a significant impact on the local and regional economy. These institutions draw large populations of employees, students, patients, and customers with a shared need for commuting options.

Asnuntuck Community College

A representative of Asnuntuck Community College (ACC) indicated that ACC is unique among other Connecticut colleges as many of ACC's students are Massachusetts residents, due to the College's proximity to Springfield and a 2-year pilot program that offers Massachusetts students in-state tuition. At the time of the interview, the college had 1,600 to 1,700 students taking credits, and 1,200 taking classes but not earning credits. There are 100 full-time faculty members. At the time of the interview, ACC was updating its master plan for the next ten years.

Enfield Transit's Magic Carpet Bus, a local fixed route shuttle service, offers free rides to ACC students contributing to a rapid growth in ridership, which has increased from 2,500 rides to close to 10,000. With the *CTrail* Hartford Line's participation in the UPASS Program, which allows free rides for eligible students, a transit connection from the future Hartford Line Enfield Station to ACC may be viewed as a significant asset.

Bradley International Airport (BDL)

Representatives from the Connecticut Airport Authority (CAA) indicated that they believe access to rail is important in order to remain competitive in an increasingly international market, as international passengers tend to expect a certain level of multi-modal connectivity. The CAA is trying to position Connecticut as a tourist destination

with day trip access to New York and Boston. With regard to domestic passengers, the CAA believes that accessible rail service would enhance their experience as the cost of taxi service to and from BDL is very expensive relative to airports in other cities.

Approximately 20 percent of BDL passengers are from Western Massachusetts. Representatives would like to see enhanced connectivity between Windsor Locks and BDL which would include bus service to meet all twelve daily trains at Windsor Locks Station. Additionally, it would be desirable to include free bus trips between the station and BDL for airline passengers. BDL representatives expressed a concern that transit is often not available during hours when passengers and employees need to get to the airport (for example at 1 AM or 5 AM). Currently, the Bradley Flyer operates between Downtown Hartford and the airport seven days a week. This shuttle was originally created to serve airport employees living in Hartford, but it morphed into a public service when demand became apparent. The CAA has 150 employees and estimates that they support 18,000 jobs which contribute to BDL operations.

At the time of the interview, a Ground Transportation Center (GTC) and Consolidated Rental Car (ConRAC) facility was in design for BDL, which will provide public parking and a central location for rental cars and shuttles. Taxis and cars will still operate from the designated kiss 'n' ride areas at the terminal. Ideally, a location for Uber and Lyft pick-ups and drop-offs (which currently happen at kiss 'n' ride areas) will be integrated into the GTC/ConRAC facility. In the future, if a transit connection between BDL and the airport is established, the CAA representatives may wish to integrate a transit component into the GTC/ConRAC.

CAA expressed concerns for parking in the future as BDL's passenger base grows, but various potential solutions are being considered. At the time of the interview, BDL was in the process of updating its master plan, which has a 20-year planning horizon and covers capital projects, growth, and fiscal constraints. Other topics to be addressed include traffic, airfield geometry, freight operations, and a new terminal.

CAA representatives expressed interest in innovative ideas such as remote passenger check-in at rail stations (like New Haven or Hartford) and kiosks to allow airport passengers to buy train tickets at the airport.

Loomis Chaffee School

The project team spoke with a representative of the Loomis Chaffee School in Windsor. The boarding and day school includes 700 students and approximately 150 staff and 150 faculty. Most students come from New York and Southern Connecticut, including Greenwich, New Haven, and Stamford. Day students account for 30 percent of the student population, while the rest of the student population resides on the school's campus. Most employees live in the area, either on campus or nearby in faculty housing. Students and employees have commented that there are not enough high quality restaurants or shops in proximity to the school, which is located just outside of the Windsor Station area. At the time of the interview, Loomis Chaffee School did not have any large expansion plans, following the construction of two new dormitories in the prior two years, but planned to construct a new campus center in late 2017. The representative viewed the school's proximity to the station as close enough to not necessitate a shuttle, and anticipated that the boarding students would generate Hartford Line ridership on the weekends to visit home. At the time of the interview, most individuals were typically driving to New Haven Union Station for their rail travel, a distance of nearly 50 miles.

Masonicare Health Center

A representative of Masonicare Health Center indicated that it does not currently run shuttles and that the institution has not received requests for a connection between its facility and Wallingford Station. As such, Masonicare is not interested in a connection to the station at this time. There are no expansion plans at this time.

Quinnipiac University

The project team conducted an interview with a representative of the Office of Facilities at Quinnipiac University. Quinnipiac has no future expansion plans, but in recent years has added over 2,000 students. The University runs a shuttle to New Haven Union Station and looks forward to being able to run shuttle service to the future North Haven Station instead.

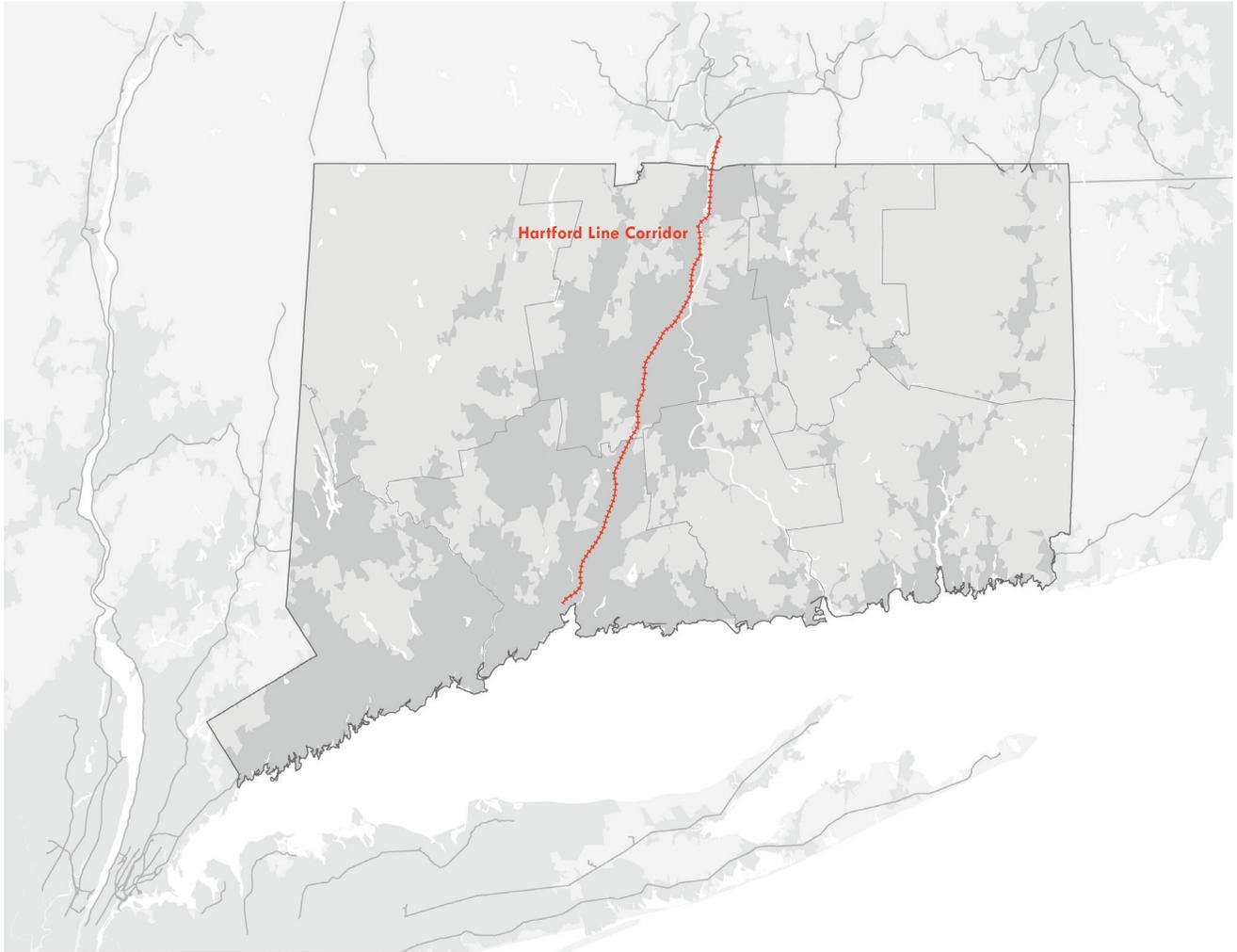
University of Saint Joseph

A representative from the Office of Marketing and Communications at the University of Saint Joseph indicated that while the University is relatively small, 70 percent of the 2,000 students are undergraduates and commute, while

250 live on campus. All of the graduate students commute and most are Connecticut residents, while the rest commute from Western Massachusetts or from border towns in Rhode Island. All of the institution's employees commute. The representative suggested that there would likely be some interest in a shuttle between the university and the future West Hartford Station. The campus is located in an "odd location" and is currently served by only two buses, one on Asylum Avenue and another on Route 72. There is already local precedent for a shuttle service, as a shuttle route exists between a nearby university, Blue Back Square, and West Farms Mall.

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APPENDIX B

MARKET PROFILE OF THE HARTFORD AND
NEW HAVEN METROPOLITAN AREAS

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Introduction

Municipalities along the Hartford Line corridor have the potential to serve as “magnets for growth – ideal places to live and to relocate businesses that depend on regional markets and travel” (*New Haven – Hartford – Springfield Rail Program Objectives*). To maximize this potential, it is important to understand the macro-level forces that influence real estate market demand, which involves an analysis of demographic, economic, and housing-related data. Accordingly, this Appendix summarizes market trends as well as key data findings for the Metropolitan Statistical Areas (MSAs) that encompass the Hartford Line corridor in the State of Connecticut, namely the Hartford and New Haven regions. Several of the Hartford Line selected station areas are highlighted in this analysis.

This Appendix supplements the regional market overview and the selected station area market assessments that are included in the main body of the Hartford Line TOD Action Plan Part 1 Report.

Background Trends: Structural Shifts in Residential Supply and Demand

Several market forces have been contributing to an ongoing structural shift in supply and demand conditions favoring the type of multi-family housing found in transit-oriented development (TOD) typologies. Demographic segment preferences, as well as consumption patterns stemming from the housing crisis and Great Recession during the late 2000’s and early 2010’s, have been evolving. Although there will always be certain segments of the population, such as growing and mature families, that prefer single-family housing options, this segment is not nearly as prevalent as it was in the past. Demographic trends suggest increasing demand for denser living arrangements from two large and growing segments: empty nesters (also known as baby boomers) and millennials.

As the baby boomer generation continues to age, a large segment of mature family households (those with older children) are transitioning into empty nester households and no longer need the amount of space provided by their current home. Those choosing to move are generally seeking smaller, low-maintenance residential options that offer proximity to amenities and services, typically in denser locations. They are, however, generally less willing to relocate to emerging or transitioning areas, and can typically afford more well-established locations.

Millennials represent the other key segment to the recent turnaround in many urban centers. This rapidly growing segment comprises the children of baby boomers who are in early adulthood and seeking their first residence. They are generally attracted to urban locations offering a broad range of activities, but because they are in the early stages of their careers, they are typically financially constrained and more willing to consider emerging locations, especially rental units with access to transit. Desired locations typically offer some combination of cultural amenities and affordability.

The boom and resulting bust in for-sale housing that culminated in the Great Recession has served to create a market opportunity for new rental apartments. From a demand perspective, household preferences have shifted from owner to renter for a variety of reasons. After a period of declining price trends, homeownership is now no longer perceived as a relatively risk-free investment. Furthermore, the transaction costs of buying and selling a home serve to limit mobility, thereby limiting a worker’s pool of job opportunities. Flexibility became more of a priority during the weak economic conditions of the recession when employees generally sought work wherever they could find it geographically. Lastly, numerous households found themselves in homes they eventually could not afford. This segment gradually shifted back to the rental demand pool.

During the housing boom, a higher proportion of for-sale units were developed and rental apartments were delivered at a far lower rate compared to historical trends. Now, as demand preferences have shifted back from owner to renter, the relatively low level of new rental construction that took place during the housing boom has resulted in tight rental markets throughout the country.

The Economics of Transit-Oriented Development

TODs throughout the United States have historically performed well in the marketplace. However, the opportunity for TOD remains strongest in markets with already healthy underlying real estate market conditions, suggesting that the delivery of transit alone is not always sufficient to catalyze new TOD. The increased costs and complexities of dense, mixed-use development result in a higher overall risk profile, and as such, a developer must be very confident in the project’s overall ability to generate sufficient revenue to offset these additional costs. The achievable prices and rents for various products must have a premium over conventional, suburban development alternatives, or land and other costs must be significantly

lower than alternative competitive sites. Where absorption rates are more moderate, some cities have only been able to absorb one or two projects at a time and care must be taken to avoid a flood of the market. In softer markets, public entities often offer subsidies and financing to offset costs and close the “gap” by covering costs for public benefit elements of a project. These elements can include infrastructure, utilities, environmental remediation, affordable housing, and parks or other open space.

Another challenge to implementing TOD is the availability of developable land along key transit corridors or around transit stations. Land may not be available in the short term due to the fragmentation of land holdings or may be currently underutilized by older, less intense land uses. However, these circumstances can point to longer-term opportunities for lot assemblage and/or the turning over of existing auto-oriented land uses to support TOD in the future.

A study conducted by the Institute for Transportation and Development Policy (ITDP) found that public sector support for TOD was the strongest predictor of success. In other words, the local government’s level of effort involved with supporting TOD, including regulatory changes, marketing, and financing, had the biggest impact on success. The second most important predictor for TOD success is the strength of the land market surrounding the transit corridor. The presence of transit alone is not enough to be a catalyst for the delivery of new TOD, and those corridors with the strongest market conditions experience the greatest amount of TOD investment from the private sector. Conversely, weaker market conditions for new development necessitate greater public investment. Such public sector investment can take on many forms, including some more directly tied to incentivizing new development. These incentives could include:

- Tax abatement/phase-in - This type of incentive serves to reduce the overall tax burden of the owner of a new development in the initial operating years, and can help make a project financially feasible. This mechanism has been used by towns along the corridor, including Meriden, North Haven, and Wallingford.
- Tax Increment Financing (TIF) - As opposed to a tax abatement, which simply halts or reduces tax revenues for a set period, TIF is a mechanism for capturing all or part of the increased property tax resulting from an increase in properties values within a defined area.

TIF is neither an additional tax nor does it deprive governments of existing property tax revenues up to a set base amount within the TIF district. If structured to catalyze development, these incremental revenues can be applied to certain development costs borne by the developer. Offsetting certain costs, such as land acquisition or construction costs, through a TIF is one way to reduce market risk. However, because TIF utilizes future tax revenue, it will not be effective in conjunction with a tax abatement incentive. Windsor Locks recently implemented new TIF policy.

- Shared parking - Constructing a parking garage close to a station and offering shared parking to nearby projects can be a strong development incentive. Offsetting parking costs would be another method of reducing development project cost and risk and represents a way to incentivize structured parking, which may not be otherwise financially feasible depending on current market conditions.
- Land assemblage and/or acquisition - Often in areas in need of revitalization, private landowners may not have the incentive to sell or participate in redevelopment with land values that make new development financially feasible. As a result, redevelopment does not occur or is slow to occur on key parcels of land. A local jurisdiction can strategically acquire, assemble, and prepare land on selected parcels to facilitate the delivery of development-ready sites to developers and potentially offset developer costs. Local costs associated with land acquisition or preparation can be seen as an investment in revitalizing the area.
- Zoning overlays - A zone that allows for denser development, the flexibility of a variety of uses, and reduced parking requirements can encourage more innovative development formats.
- Institutional partners - Another way to overcome challenging market conditions is by identifying potential institutional partners or tenants. Institutional tenants are far less exposed to real estate market conditions and economic cycles, making them viable partners in areas with real estate development conditions that are not TOD supportive. Universities, hospitals, and other less cyclical uses can serve as an anchor that catalyzes future TOD.

Regional Profile

The region served by the Hartford Line runs along Interstate 91 from New Haven to Springfield, Massachusetts. This region, also known as New England's Knowledge Corridor, spans three MSAs - those of New Haven-Milford, Hartford-West Hartford-East Hartford, and Springfield - which tie together the second and fourth most-populous cities in Connecticut - New Haven and Hartford.

In addition to its strong economic and transportation linkages to the largest cities along the Northeast Corridor - especially Boston and New York - the Knowledge Corridor is home to nearly three million residents, employs over 1.3 million workers, and is anchored by nationally significant academic institutions and financial services firms.¹ According to the 2015 American Community Survey (ACS)², the Knowledge Corridor is home to 2.7 million residents, over two-thirds of whom are over the age of 25 (Table 1).

In addition to being denser and more populous than comparably-sized regions elsewhere in the United States, the Knowledge Corridor is notable for its residents' higher levels of educational attainment (Table 2) and relatively high household incomes and housing affordability (Table 3).

Table 1. Total Population Workforce, Knowledge Corridor

	Knowledge Corridor	United States
Total Population	2,705,080	316,515,021
Total Population, Age 25+	1,831,900	211,462,500

Source: American Community Survey, 2011-2015 Five-Year Estimates

Table 2. Educational Attainment, Knowledge Corridor

	Knowledge Corridor	United States
Total Population, Age 25+	1,831,900	211,462,500
Less than High School	199,800 (11%)	28,229,100 (13%)
High School	523,600 (29%)	58,722,500 (28%)
Some College	325,900 (18%)	44,529,200 (21%)
Associate's Degree	149,200 (8%)	17,029,500 (8%)
Bachelor's Degree	351,800 (19%)	39,166,000 (19%)
Graduate/Professional Degree	281,600 (15%)	23,786,200 (11%)

Source: American Community Survey, 2011-2015 Five-Year Estimates

Table 3. Median Household Income and Median Home Value, Upper Northeast Corridor

	Hartford MSA	New Haven MSA	Bridgeport-Stamford MSA	Springfield, MA MSA	Boston MSA	New York MSA
Median Household Income	\$69,900	\$61,600	\$84,200	\$52,800	\$74,500	\$64,000
Median Home Value	\$245,000	\$245,200	\$416,000	\$214,200	\$381,900	\$437,700
Home Value to Income Ratio	3.5	4.0	4.9	4.1	5.1	6.8

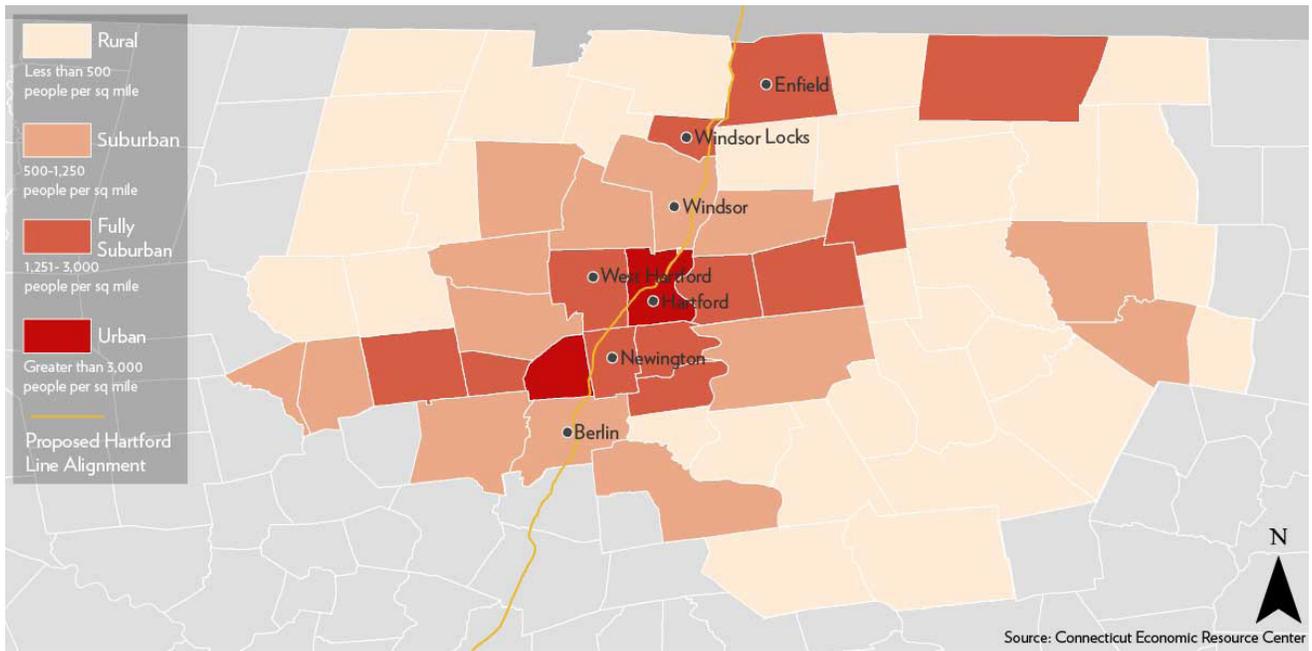
Source: American Community Survey, 2011-2015 Five-Year Estimate

¹ <http://knowledgecorridor.org/vital-statistics/population-and-related-socioeconomic-data/>

² References to "2015 ACS" indicate data collected by the 2011-2015 American Community Survey five-year estimates. The ACS is an ongoing survey performed by the U.S. Census Bureau, collecting voluntary responses to questions related to demographics and employment. The five-year estimates are based on data collected over that period, and therefore describe a data point that represents the full survey period; for brevity, this dataset will be described in this report as "2015."

FIGURE 1

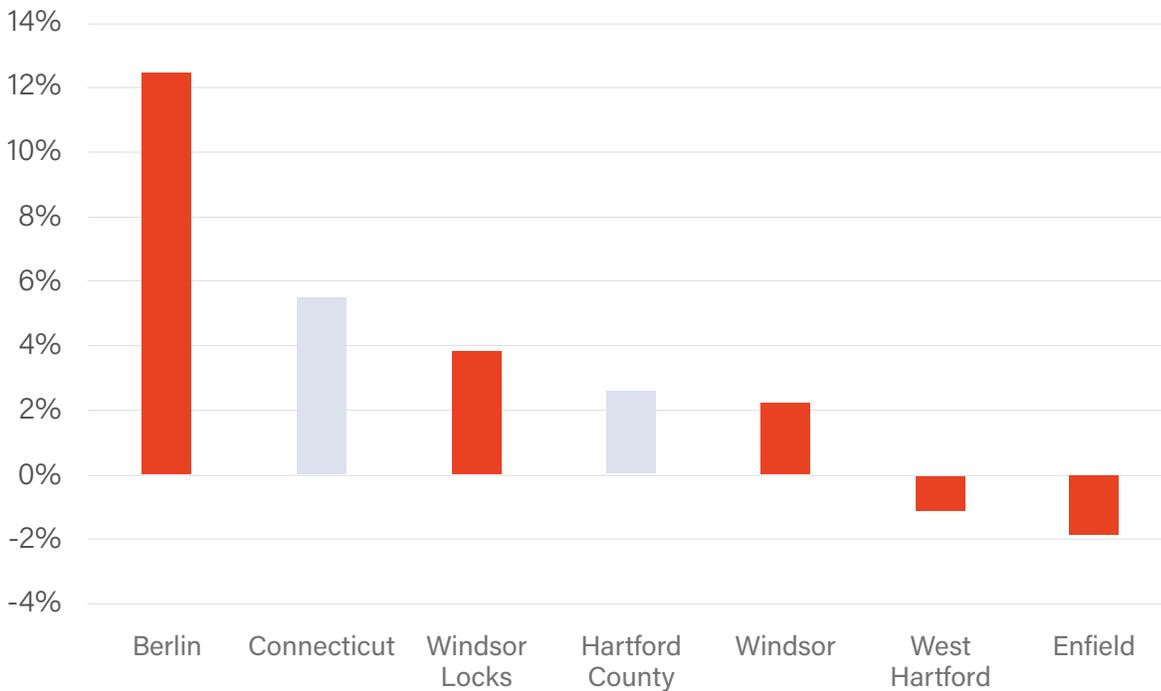
HARTFORD MSA/CAPITOL REGION POPULATION DENSITY BY MUNICIPALITY



Note: The CRCOG Regional POCD defines communities as "Rural," "Suburban," "Fully Suburban," and "Urban" according to the population density thresholds delineated in the map's legend.

FIGURE 2

POPULATION GROWTH, 2000-2015



Market Profile: Hartford Metropolitan Area

Based on May 2016 area definitions provided by the Bureau of Labor Statistics (BLS), the Hartford MSA comprises 54 municipalities in central Connecticut, including five municipalities with existing or planned stations along the Hartford Line corridor: Berlin, Newington, West Hartford, Hartford, and Windsor. Five additional municipalities in the Capitol Region (i.e., members of the Capitol Region Council of Governments [CRCOG]) are not included in the Hartford MSA, including two municipalities with planned Hartford Line stations, namely Windsor Locks and Enfield, which are part of the neighboring Springfield MSA. For the purposes of this market profile, these municipalities will be included within the Hartford region.

As noted in the CRCOG Regional Plan of Conservation and Development (POCD), “the composition of the Capitol Region is consistent with other U.S. metropolitan areas, containing a core city surrounded by lower density suburban and rural communities.” This dynamic is reflected in Figure 1, which shows the population density by municipality within the Hartford MSA including the five additional municipalities in the Capitol Region.

Population

According to 2015 estimates from the ACS, the total population of the Hartford MSA is just over 1.2 million, or more than one-third of the State’s total population (Table 4). While the MSA has grown since 2000, its growth rate is substantially below that of the state and nation. The pace of this growth is somewhat typical of a mature Northeast market, such as Hartford, as much of the nation’s recent population growth has taken place in regions with more expansive real estate activity, particularly the Sun Belt.

Of the five Hartford Line selected station area municipalities included in the Hartford region as part of this market profile (Berlin, West Hartford, Windsor, Windsor Locks, and Enfield), populations range from among the highest in the region, to among the lowest, highlighting the varying market conditions along the corridor. Table 5 provides an overview of population and population change for these municipalities. Population growth rates range from well above, on par, or well below those of the region and the state between 2000 and 2015 (Figure 2).

Table 4. Hartford MSA Population, 2000-2015

	Total Population (2000)	Total Population (2010)	Total Population (2015 Estimate)	Change, 2000-2015
Hartford MSA	1,183,100	1,212,400	1,214,100	2.6%
Connecticut	3,405,600	3,574,100	3,593,200	5.5%
United States	281,421,900	308,745,500	316,515,000	12.5%

Source: U.S. Census Bureau, 2000 and 2010 SF1 Data, 2015 American Community Survey Five-Year Estimates

Table 5. Population by Municipality, 2000-2015

	Total Population, 2000	Total Population, 2010	Total Population, 2015 Estimate	Change, 2000-2015
Enfield	45,212	44,654	44,368	-1.9%
Windsor Locks	12,043	12,498	12,512	3.9%
Windsor	28,237	29,044	28,875	2.3%
West Hartford	63,589	63,268	62,903	-1.1%
Berlin	18,215	19,866	20,499	12.5%

Source: Connecticut Economic Resource Center (CERC) Town Profiles

FIGURE 3 HARTFORD MSA/CAPITOL REGION PROJECTED POPULATION GROWTH BY MUNICIPALITY, 2020-2025 FORECAST

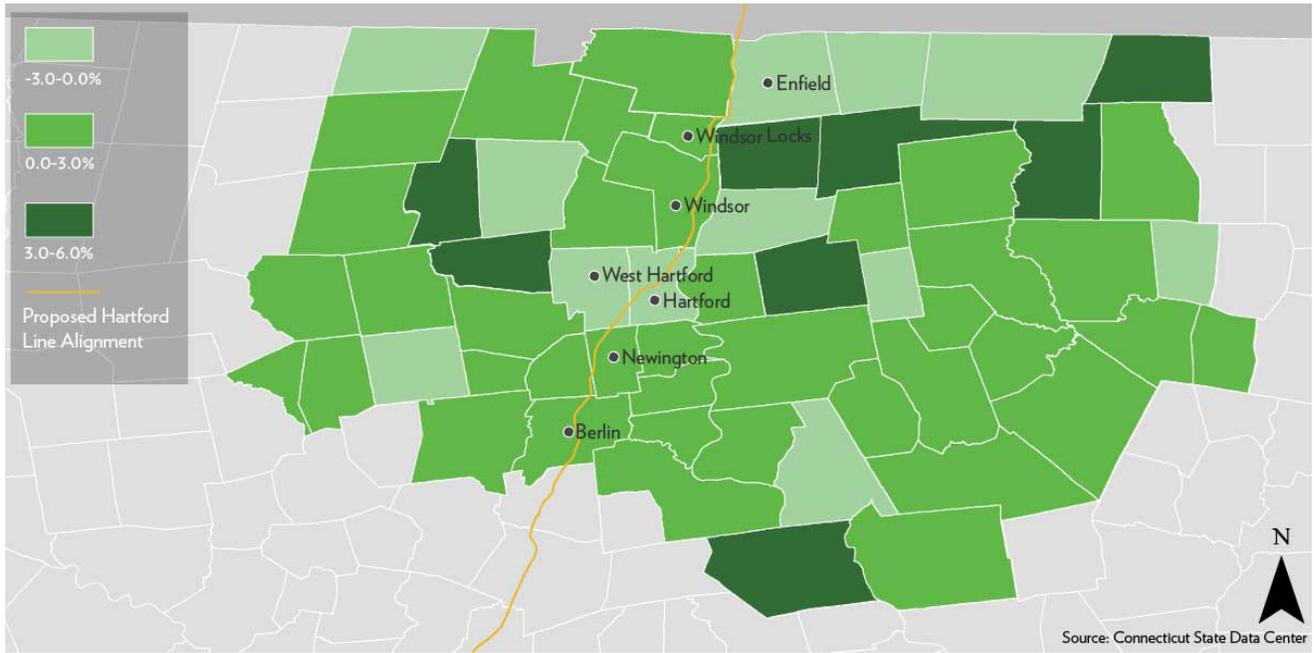
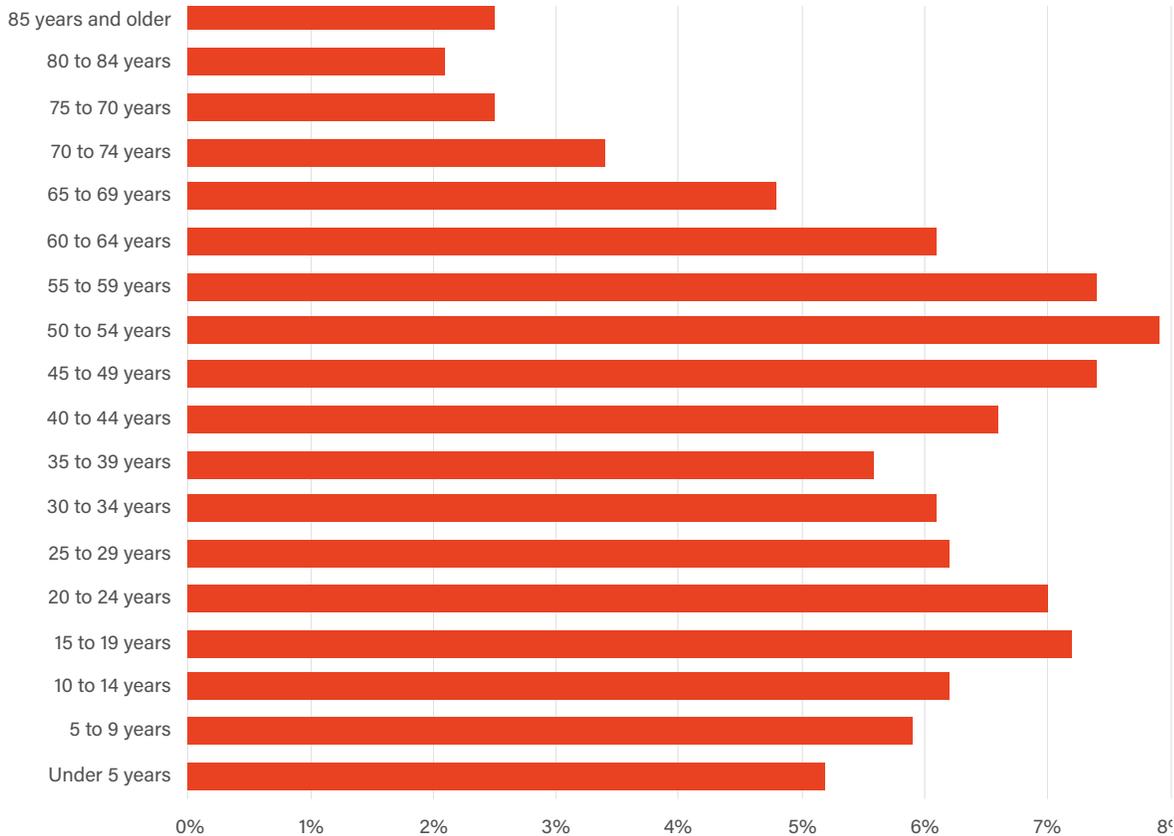


FIGURE 4 HARTFORD MSA, POPULATION SHARE BY AGE COHORT, 2015



Source: American Community Survey, 2011-2015 Five-Year Estimates

According to projections prepared by the University of Connecticut’s (UConn) State Data Center in 2012, the Capitol Region’s population is projected to grow by 1.2 percent from 2020 to 2025. Figure 3 shows projected population growth rates between 2020 and 2025 by municipality in the Hartford MSA as well as the five additional municipalities in the Capitol Region.

Table 6. Hartford MSA Population by Age Cohort, 2000-2015

Cohort	2000	2010	Change, 2000-2010	2015	Change, 2000-2015
Under 5 years	75,013	65,895	-12%	63,131	-16%
5 to 9 years	82,798	73,552	-11%	71,629	-13%
10 to 14 years	83,687	79,868	-5%	75,271	-10%
15 to 19 years	78,839	86,267	9%	87,412	11%
20 to 24 years	69,116	81,122	17%	84,984	23%
25 to 34 years	155,815	142,410	-9%	149,329	-4%
35 to 44 years	200,959	194,960	-20%	148,115	-26%
45 to 54 years	168,181	194,960	16%	185,751	10%
55 to 59 years	61,010	82,662	35%	89,840	47%
60 to 64 years	45,369	70,358	55%	74,057	63%
65 to 74 years	79,640	87,938	10%	99,553	25%
75 to 84 years	60,417	57,212	-5%	55,847	-8%
85 years and over	22,266	29,350	32%	30,351	36%

Source: American Community Survey, 2011-2015 Five-Year Estimates

Despite relatively static overall growth, the region has seen notable population increases for specific age cohorts, most notably those cohorts that are the target markets for TOD-style development projects. From 2000 to 2010, the so-called millennial and baby boomer cohorts demonstrated high rates of growth, as shown in Table 6. In particular, the Hartford MSA has seen population growth exceeding 15 percent for the 20-24 year-old cohort and those cohorts between 45 and 64 years old. These trends are also evident in the 2011-2015 5-Year ACS estimates, and Figure 4 shows the population share by age cohort in 2015 based on ACS estimates.

Data obtained for the five selected station area municipalities mirrored the trends shown in the chart above. With a high median age and a large proportion of the population aged 65 or older (Table 7), these trends bode well for the potential success of TOD-style real estate development constructed in tandem with the introduction of the Hartford Line service. Baby boomers are increasingly attracted to smaller homes, including rental townhomes and apartments, located in walkable communities with access to public transit and millennials are also seeking dense communities with amenities and multi-modal options.

According to surveys conducted on behalf of the Federal Home Loan Mortgage Corporation (commonly known as Freddie Mac) in 2016, nearly 11 million baby boomers expect to move by 2020; over half of those who expect to move, including those who are currently homeowners, plan to rent their next home. Sixty percent of those polled by Freddie Mac indicated that affordability was the most important criterion for choosing their next home, followed by proximity to retirement amenities, minimal responsibility for home maintenance, and neighborhood walkability.

Table 7. Population Share by Selected Cohorts by Municipality, 2015

	Population Percent Aged 20-29	Population Percent Aged 45-64	Population Percent Aged 65+	Median Age
Enfield	13.8%	29.4%	15.3%	41.0
Windsor Locks	12.8%	30.2%	17.4%	42.5
Windsor	12.3%	31.0%	16.2%	42.7
West Hartford	10.8%	27.9%	17.7%	41.8
Berlin	9.0%	33.4%	19.3%	46.3

Source: Connecticut Economic Resource Center (CERC) Town Profiles

Table 8. Hartford MSA Population Growth by Age Cohort, 2020-2025 Forecast

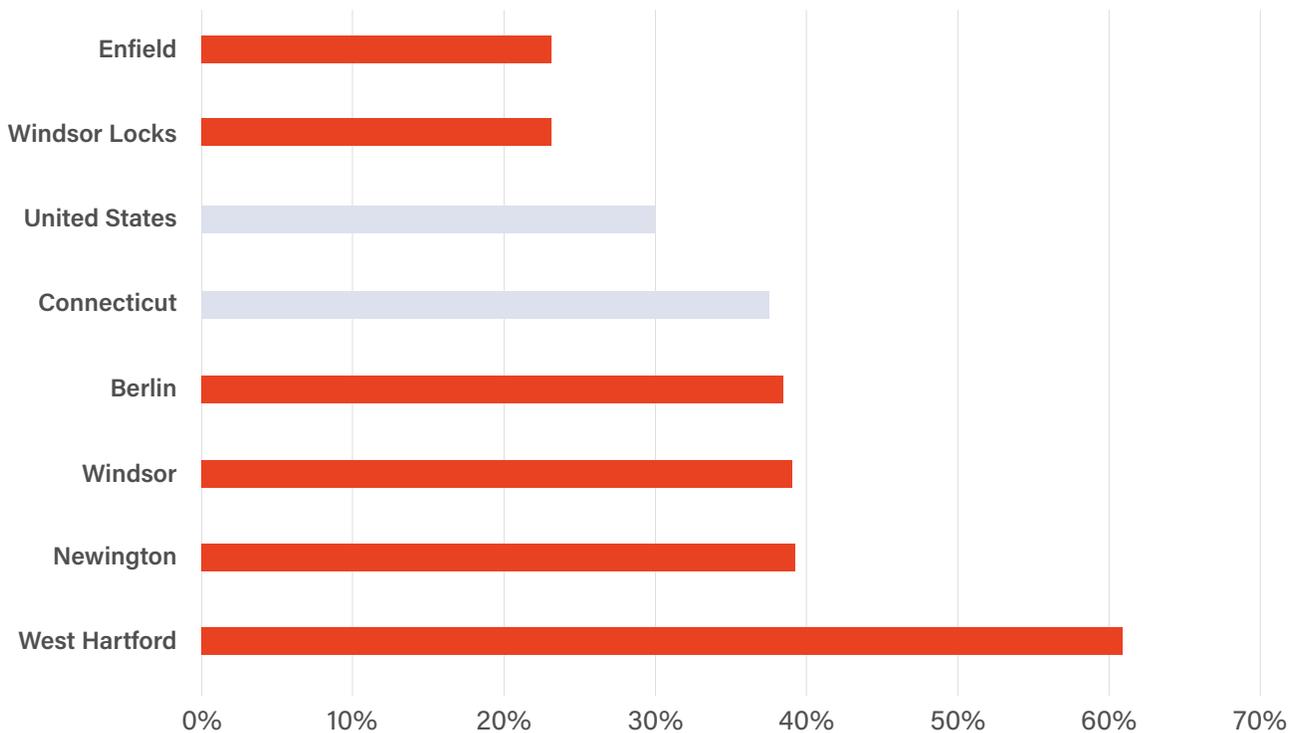
	2020	2025	Change, 2020-2025
9 years and under	84,499	84,522	0%
10 to 19 years	99,995	94,482	-6%
20 to 29 years	98,168	99,788	2%
30 to 39 years	95,889	92,522	-4%
40 to 49 years	100,307	105,442	5%
50 to 59 years	117,267	105,038	-10%
60 to 69 years	103,337	111,999	8%
70 to 79 years	61,511	73,281	19%
80 years and over	36,803	40,665	10%

Source: University of Connecticut State Data Center

Similarly, millennials often desire the same kind of living accommodations, and are increasingly less interested in car ownership and/or more willing to commute to their jobs by public transit. While relatively stagnant incomes among this age cohort following the recession tempered the impact on the housing market, recent surges in earnings are rippling through markets across the country. The shifting age profile of the Hartford MSA could therefore yield increased demand for the types of real estate projects that would best leverage the Hartford Line service, and that would generate increased land values and expand the tax base for station-area municipalities.

Per population projections for the Capitol Region by the UConn State Data Center (Table 8), the region is expected to continue aging. In fact, the 60-years-and-over cohort is projected to increase 12 percent between 2020 and 2025, 10 times faster than the projected rate of growth for the population as a whole. As discussed earlier, growth in older age cohorts could present increased demand for TOD-style real estate projects. Furthermore, new construction in walkable and transit-accessible communities may serve as a

FIGURE 5 PERCENTAGE OF POPULATION AGED 25+ WITH BACHELOR'S DEGREE OR HIGHER, 2015



Source: American Community Survey, 2011-2015 Five-Year Estimates

Table 9. Hartford MSA Households, 2000-2015

	Total Households, 2000	Total Households, 2010	Total Households, 2015	Change, 2000-2015
Hartford MSA	457,400	472,500	467,000	2.1%
Connecticut	1,301,700	1,371,100	1,352,600	3.9%
United States	105,480,100	116,716,300	116,926,300	10.9%

Source: U.S. Census Bureau, 2000 and 2010 SF1 Data, 2015 American Community Survey Five-Year Estimates

Table 10. Hartford MSA Housing Units by Occupancy Status, 2000-2015

	2000	Share	2010	Share	2015	Share
Occupied Housing Units	457,400	95%	472,500	93%	466,900	92%
Vacant Housing Units	25,200	5%	34,500	7%	41,100	8%

Source: U.S. Census Bureau, 2000 and 2010 SF1 Data, 2015 American Community Survey Five-Year Estimates

pull factor for the millennial demographic, attracting young professionals to the region.

As discussed in the regional profile, the Hartford Line corridor, and by extension, municipalities in the Hartford region, exhibit higher proportions of the population with advanced academic attainment. Along the “Knowledge Corridor” approximately 34 percent of the population has earned a Bachelor’s Degree or higher, as compared with the national average of approximately 30 percent. Several Hartford Line communities exceed these levels, including West Hartford whose percentage of 61 percent is over double the national average (Figure 5).

Housing

The Hartford region has been experiencing relatively slow population growth and trends in number of households are similar. From 2000 to 2015, the Hartford MSA saw

Table 11. Hartford MSA Average Household Size, 2000-2015

	Average Household Size, 2000	Average Household Size, 2010	Average Household Size, 2015
Hartford MSA	2.49	2.46	2.49
Connecticut	2.53	2.52	2.57
United States	2.59	2.58	2.64

Source: U.S. Census Bureau, 2000 and 2010 SF1 Data, 2015 American Community Survey Five-Year Estimates

the number of households increase 2.1 percent from approximately 457,000 to 467,000 (with a slight decrease between 2010 and 2015), while the country saw a 10.9 percent increase, from approximately 105 million to 117 million (Table 9).

The total number of housing units in the Hartford MSA increased five percent from 2000 to 2010, with nearly 25,000 net-new housing units produced over the decade. This growth rate tracks with the rate of overall population expansion, but outpaces household growth during this period. As a reflection of these trends, the share of occupied housing units has decreased from 95 percent in 2000 to 93 percent in 2010 (Table 10). According to 2015 ACS data, this trend has continued, with the proportion of occupied housing units falling to 92 percent.

The average household size for the Hartford MSA stands at 2.46 people as of the 2010 Census, a figure that has remained relatively unchanged over the last decade (Table 11). This figure is slightly lower than the average household size for the state and nation, which are 2.52 and 2.58 people per household, respectively. For all three geographies, average household size increased between 2010 and 2015 based on ACS estimates.

Table 12. Hartford MSA Average Household Size, 2000-2015

	2000	Share	2010	Share	2015	Share
Owner-Occupied Housing Units	301,900	66%	320,900	68%	313,300	67%
Renter-Occupied Housing Units	155,500	34%	151,600	32%	153,600	33%

Source: U.S. Census Bureau, 2000 and 2010 SFI Data, 2015 American Community Survey Five-Year Estimates

Table 13. Housing Tenure by Municipality, 2015

	Owner-Occupied Housing	Renter-Occupied Housing	Single-Family Housing	Multi-family Housing
Enfield	74.1%	25.9%	75.5%	24.5%
Windsor Locks	77.3%	22.7%	81.1%	18.9%
Windsor	82.7%	17.3%	85.2%	23.1%
West Hartford	72.0%	28.0%	71.0%	29.0%
Berlin	84.7%	15.3%	80.5%	19.5%

Source: U.S. Census Bureau, 2015 American Community Survey Five-Year Estimates

The share of owner-occupied housing units in the Hartford MSA has stayed relatively constant from 2000 to 2010, increasing slightly from 66 percent to 68 percent (Table 12). Approximately one-third of housing units in the Hartford market are occupied by renter households, a similar proportion to that of the nation, with slightly less of a renter population represented in the selected station municipalities (Table 13).

Municipalities along the Hartford Line corridor exhibit varying levels of median home values, ranging from both above and below the median values for both the region and the state (Figure 6).

Based on a comparison of median home value and median household income, the region remains affordable relative to neighboring metropolitan areas along the Northeast Corridor, especially in Windsor, whose relative affordability is reflected by its high median income, and relatively low median home value, resulting in a ratio much lower than that of the state or region (Figure 7).

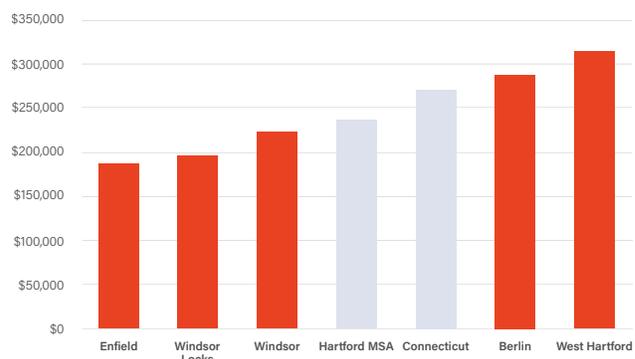
Nevertheless, among renter households, 51 percent are considered “rent-burdened” (as defined by the U.S. Department of Housing and Urban Development), indicating that rent payments consume over 30 percent of those households’ gross income, per ACS data; the national average is 52 percent. This figure indicates that there is a large number of households whose need for more

affordable housing is not being met—a dynamic that is likely reinforced by the large proportion of owner-occupied units in the region.

While higher than the state average, West Hartford has a relatively low owner-occupied housing rate compared to other towns in the surrounding region. This is reflected in the depth of West Hartford multi-family rental inventory, which is dramatically larger than other areas analyzed along the corridor (Figure 8).

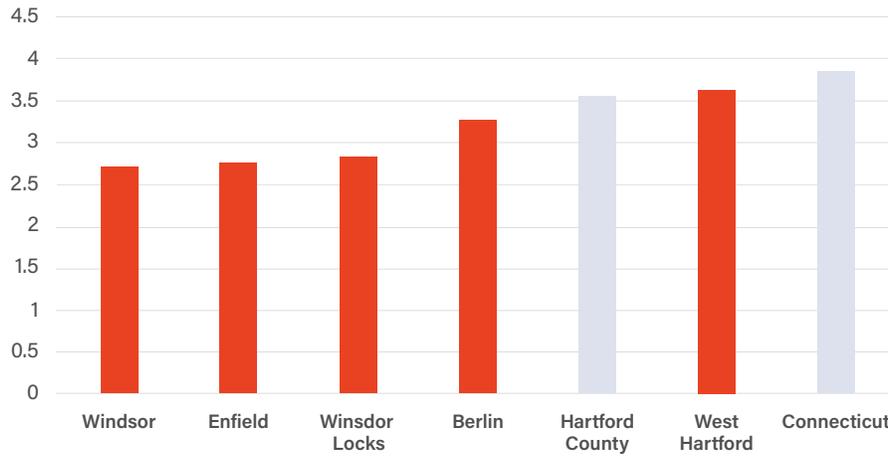
With this large supply, the rental market in West Hartford has maintained stable occupancy and the highest average

FIGURE 6 MEDIAN HOME VALUE IN MUNICIPALITIES COMPARED TO STATE AND REGION, 2015



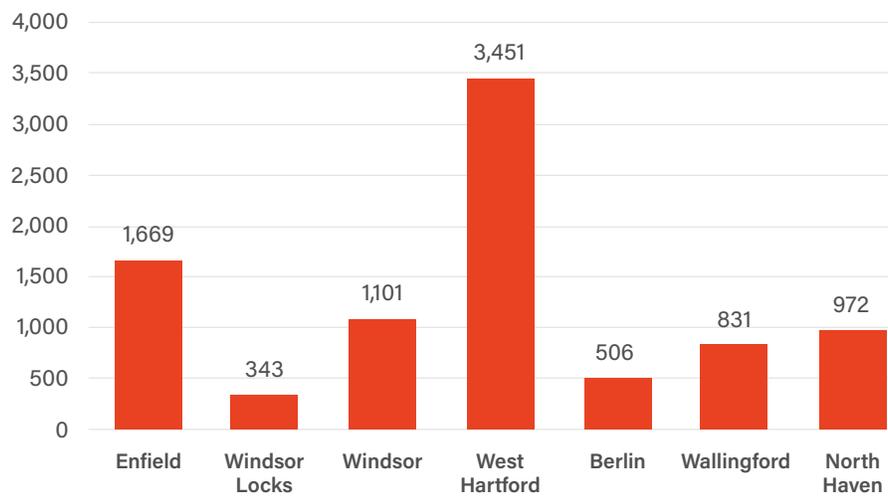
Source: Connecticut Economic Resource Center (CERC) Town Profiles

FIGURE 7 RATIO OF MEDIAN HOME VALUE TO MEDIAN HOUSEHOLD INCOME BY MUNICIPALITY/STATE, 2015



Source: American Community Survey, 2011-2015 Five-Year Estimates

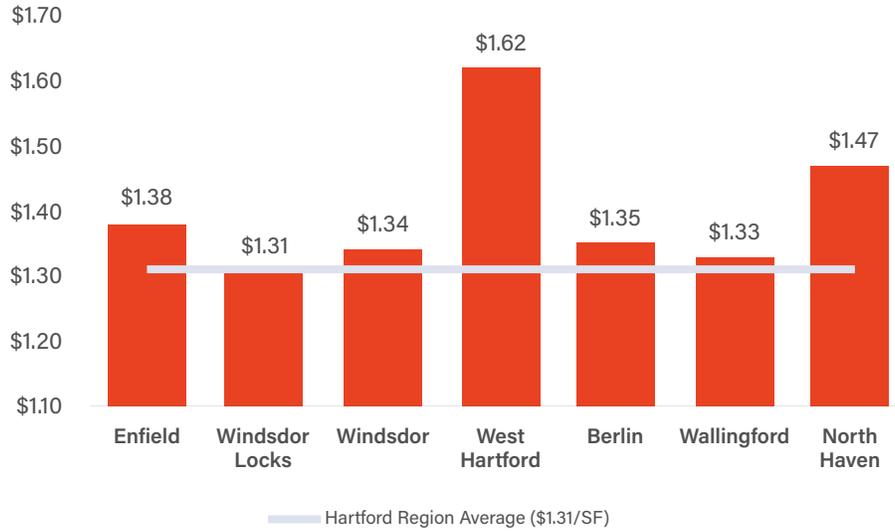
FIGURE 8 TOTAL MULTI-FAMILY RENTAL APARTMENT UNITS BY MUNICIPALITY, Q1 2017



Source: CoStar, 2017.

FIGURE 9

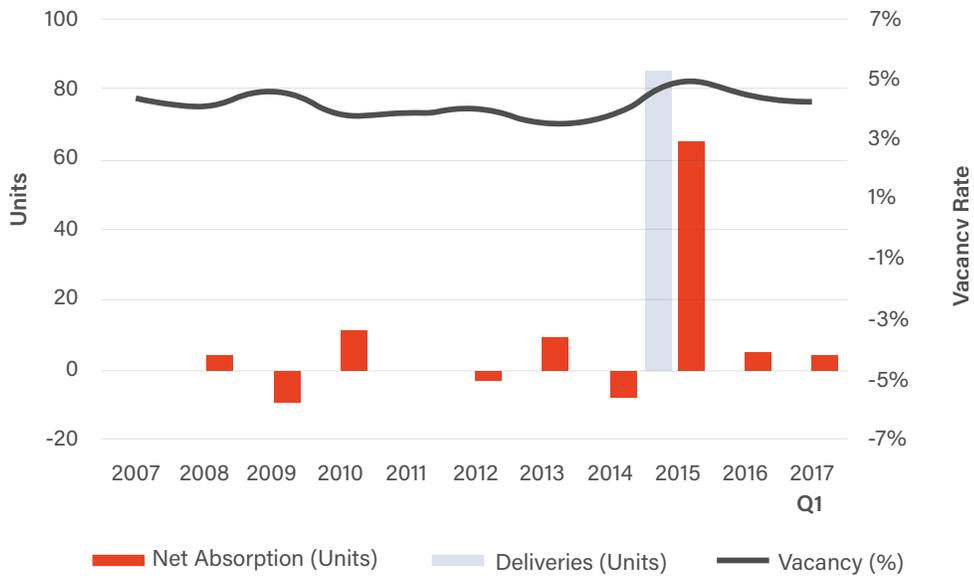
AVERAGE MONTHLY RENT PER SQUARE FOOT BY MUNICIPALITY, Q1 2017



Source: CoStar, 2017.

FIGURE 10

HISTORICAL APARTMENT NEW DELIVERIES, NET ABSORPTION, AND VACANCY, ENFIELD, Q1 2017



Source: CoStar, 2017

rent per square foot among the suburban communities analyzed as part of this market study (Figure 9), achieving rent premiums well over the regional average, while other municipalities in the region are on par with the average.

The multi-family apartment market in Enfield has demonstrated strong fundamentals for several years, including consistently low vacancies and positive net absorption of new construction (Figure 10). This includes the 400-unit Bigelow Commons complex, an adaptive reuse of a former factory mill that was completed in the late 1980s and maintains a nearly 95 percent occupancy rate, directly adjacent to the proposed site of the future station in Enfield.

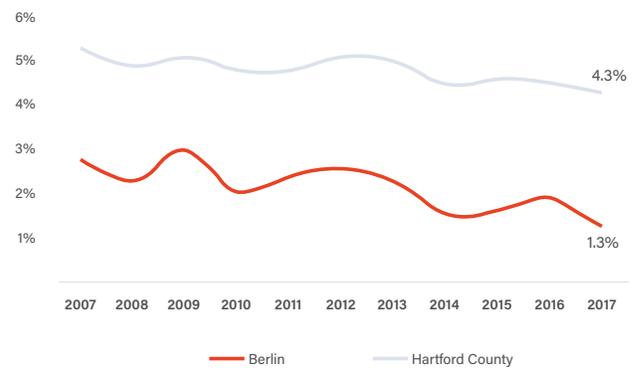
While municipalities such as Enfield maintain vacancy rates on par with the region average, due in part to the limited supply of multi-family options, Berlin has maintained an apartment vacancy rate well below that of the region (Figure 11).

A large portion of the multi-family supply in Berlin consists of age-restricted housing and condominium product. Condominiums perform especially well within this municipality, achieving significant price premiums over the larger county average (Figure 12). However, condominium market conditions for both geographies have failed to gain post-recession momentum. While products in Berlin would likely retain their price advantage over the county, there has been demonstrable weakness in achievable pricing since 2012 (Figure 13).

Like Berlin, Windsor’s multi-family market is relatively limited in terms of inventory, although recent projects in the station area have demonstrated the feasibility of both for-sale and rental product. Research has indicated that the Windsor rental market is characterized by a higher percentage of high-income renters. Part of the continued strength in the apartment market nationally is a growing segment sometimes referred to as ‘luxury renters by choice’, consisting of higher-income households opting to rent versus own for a variety of reasons. The presence of higher income renters in Windsor may also be associated with large average unit size in the local market, which is significantly greater than other markets analyzed.

The average unit size in Windsor is almost 1,000 square feet, compared to the regional average of approximately 850

FIGURE 11 HISTORICAL APARTMENT VACANCY RATE, BERLIN SUBMARKET AND HARTFORD REGION, 2007 - Q1 2017



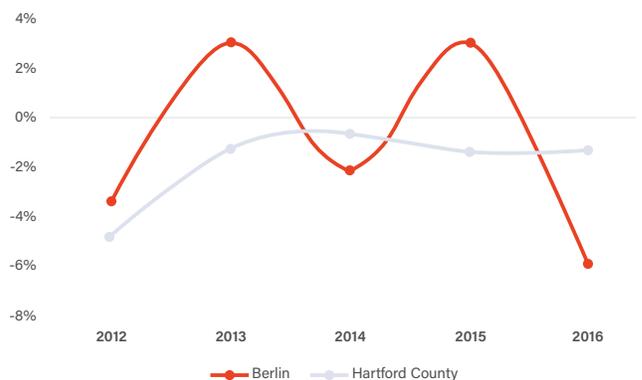
Source: CoStar, 2017.

FIGURE 12 MEDIAN CONDOMINIUM SALE PRICE, BERLIN AND HARTFORD COUNTY, 2011-2016



Source: Berkshire Hathaway, 2017.

FIGURE 13 ANNUAL CHANGE IN MEDIAN CONDOMINIUM SALE PRICE, BERLIN AND HARTFORD COUNTY, 2011-2016



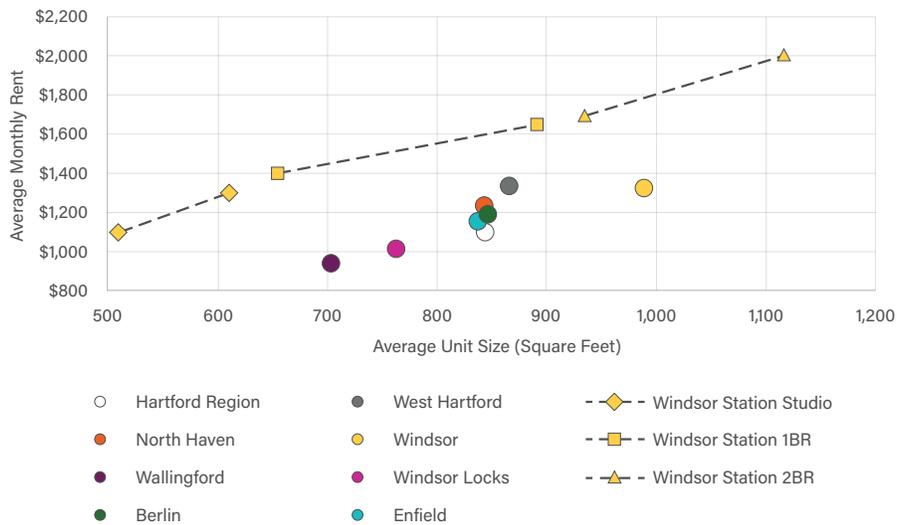
Source: Berkshire Hathaway, 2017.

FIGURE 14 AVERAGE UNIT SIZE AND MONTHLY RENT BY SUBMARKET, HARTFORD LINE, Q1 2017



Source: CoStar, 2017

FIGURE 15 UNIT SIZE AND MONTHLY RENT, WINDSOR STATION APARTMENTS AND SUBMARKET AVERAGES, HARTFORD LINE, Q1 2017



Source: CoStar, 2017

square feet (Figure 14). With larger options for residential living at a similar or slightly higher price point, Windsor is a growing option for residents seeking a higher end market at a regionally competitive price point.

The available unit sizes and monthly rents also demonstrate the premium that a new-construction, transit-oriented apartment community can demand over the market averages in the corridor (Figure 15). This is evidenced by the new Windsor Station Apartments which represent another indicator of healthy market conditions in Windsor. With 130 units, the achievable rents and lease-up pace of these apartments will be an important indicator for the potential of TOD in the station area.

The average rent per square foot in the Windsor Station area is approximately \$2.00, which is considered near the threshold required to attract new rental apartment construction, according to interviews with stakeholders active in the region.

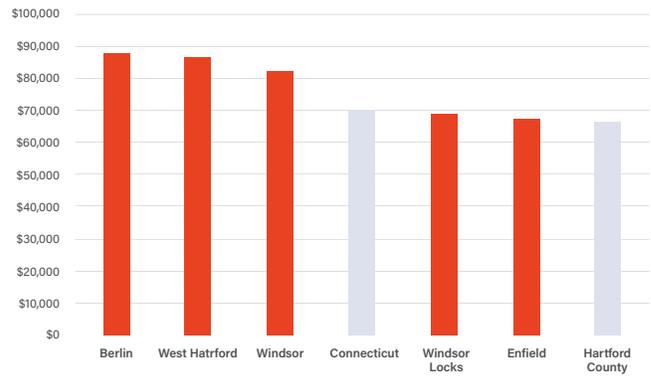
Economy

Based on household income, the Hartford MSA is consistently one of the wealthiest regions in the country. According to 2015 ACS data, the Hartford MSA’s median household income is \$69,900; this figure is on par with the statewide median of just over \$70,000, but is 30 percent higher than the national median of \$53,900. In addition, the BLS May 2016 Metropolitan Area Wage Estimates place the annual mean wage in the Hartford MSA at \$58,400, 18 percent higher than the national mean wage of \$49,600. Among the five municipalities included in this market profile, Berlin is the highest, exceeding both the regional and state household median incomes (Figure 16).

Employment growth has been steady but slower than the national average. As shown in Figure 17, the country had a larger decline in employment than the Hartford region during the recession, but has since grown at a faster pace during the recovery. Nevertheless, employment has grown every year in the Hartford MSA since the end of the recession in 2011. BLS data indicates that total nonfarm employment in the Hartford MSA stands at 570,600 jobs as of March 2017, a 0.8 percent year-over-year increase from March 2016.

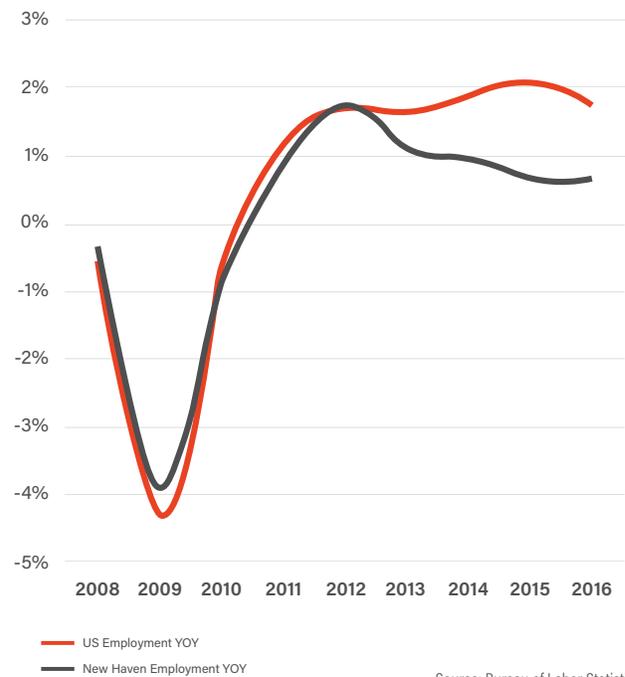
According to BLS, Education and Health Services (108,500 jobs); Trade, Transportation, and Utilities (89,700 jobs); and Government (86,900 jobs) are the three largest sectors in the Hartford MSA by employment. Together, they account

FIGURE 16 MEDIAN HOUSEHOLD INCOME, 2015



Source: U.S. Census Bureau, 2015 American Community Survey Five-Year Estimates.

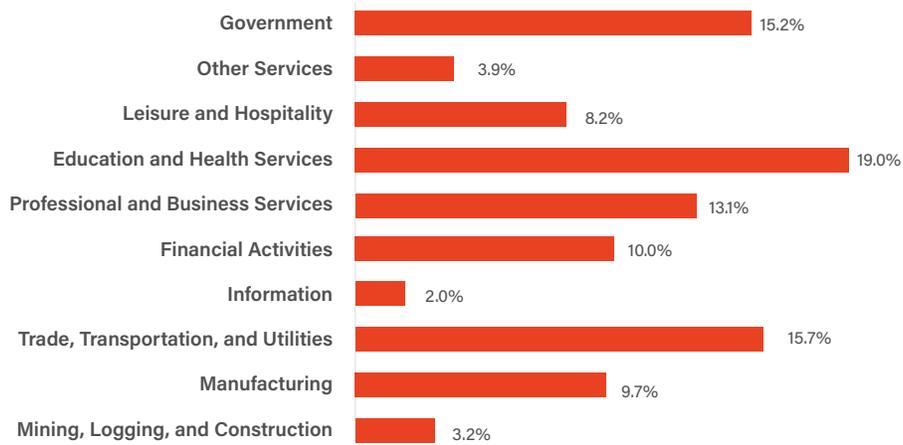
FIGURE 17 HARTFORD MSA NONFARM EMPLOYMENT TREND, YEAR OVER YEAR (YOY), 2008-2016



Source: Bureau of Labor Statistics

FIGURE 18

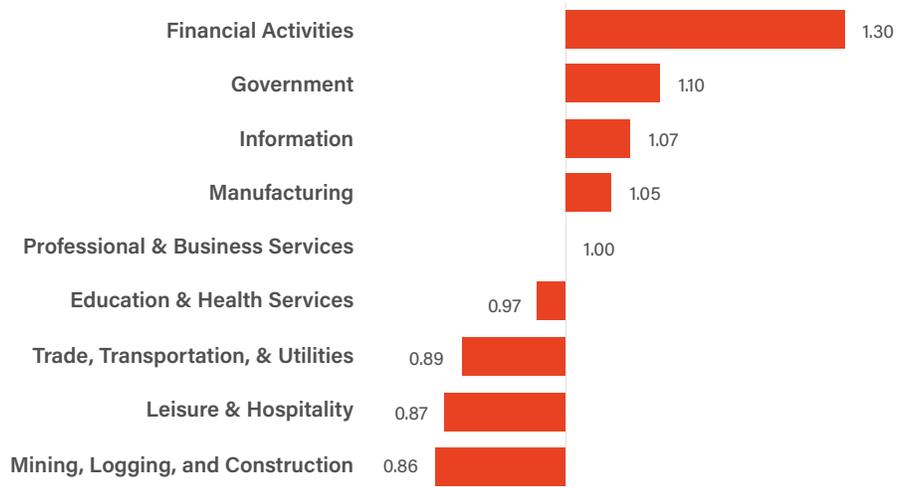
HARTFORD MSA NONFARM EMPLOYMENT BY SECTOR, 2017



Source: Bureau of Labor Statistics.

FIGURE 19

HARTFORD MSA VS. CONNECTICUT LOCATION QUOTIENT BY EMPLOYMENT SECTOR, 2017



Source: Bureau of Labor Statistics.

for approximately half of total employment in the region (Figure 18). As the State capital, Hartford has an economic base that is supported in large part by the presence of State agencies, the Connecticut General Assembly, and other employers who supply goods and services to State government.

In addition to being the largest sector by employment in the region, Education and Health Services has emerged as one of the region’s fastest growing sectors, with 14.7 percent growth since 2007. The Professional and Business Services sector has grown even faster over the last decade, with nearly 10,000 new jobs added since 2007, for an increase in employment of 15.4 percent. Conversely, the Government sector has seen the greatest employment decline in recent years, losing over 5,000 jobs (or 5.6 percentage points) from its peak in 2008; nevertheless, it remains one of the three largest sectors of employment in the region.

Certain industries have a substantially stronger presence in the Hartford area relative to the State overall. The relative concentration of specific industries in and around Hartford is illustrated by location quotients, which are calculated by comparing the proportion of jobs in the regional economy contained within that industry to the respective proportion for the larger “reference” geography. That is, if 20 percent of jobs in the Hartford MSA are concentrated in a specific industry, while only 10 percent of workers statewide are employed in that industry, the industry’s location quotient for Hartford would be 2.0, or a 100 percent overrepresentation of that sector in the regional economy. A location quotient exceeding 1.0 indicates that the industry “exports” the goods or services it produces to elsewhere

in the State’s economy (i.e., the supply produced by the industry exceeds local demand). These so-called “basic” industries are frequently targeted for local economic development efforts.

Based on an assessment of location quotients, the most overrepresented industries in the Hartford MSA by share of total employment are Financial Activities (30 percent overrepresented) and Government (10 percent overrepresented). The overrepresentation of the Government sector is due to Hartford’s status as the State capital. The prominence of the financial services sector is explained by the agglomeration of insurance firms in the region. Figure 19 indicates each primary sector’s relative concentration of employment compared to the State.

Combined with the data presented earlier, the economic base data indicate that the Hartford MSA holds potential for TOD-style projects. The region’s mix of industries, relatively-high household incomes, and age-cohort distribution all suggest that the target markets for these types of real estate projects are already present within the region. The development of walkable, higher-density communities adjacent to Hartford Line station locations could capture some of the latent real estate demand that potentially exists, as well as increase the region’s relative attractiveness, compared to other northeastern urban centers. In addition, the high share of cost-burdened renter households demonstrates potential latent demand for affordable rental projects.

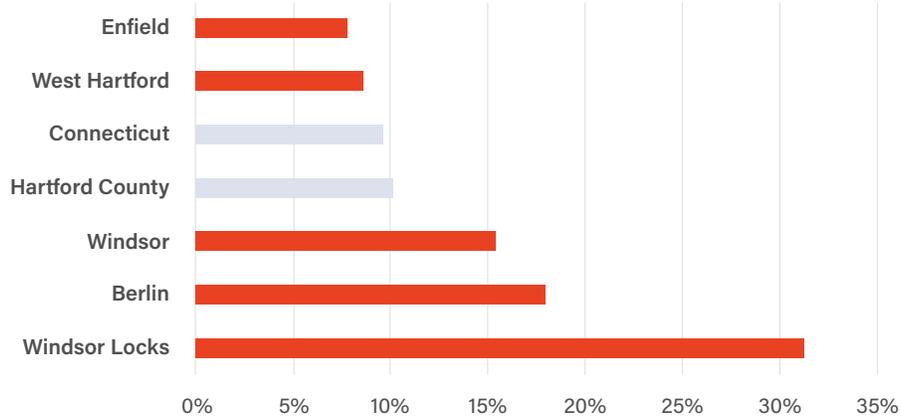
Table 14 provides a brief comparison of the labor profile of the five towns included in this market profile. With varied industry focuses, the employment pool along the

Table 14. Employment comparison overview of selected Hartford Line Municipalities, 2015

Town	Largest Industry (by % of Total)	Largest Employment Destinations	Commuter Transit Utilization
Enfield	Retail Trade (17.3%)	Enfield Hartford Springfield, MA	1.1%
Windsor Locks	Manufacturing (30.5%)	Windsor Locks Hartford Windsor	1.3%
Windsor	Finance and Insurance (20.7%)	Hartford Windsor Bloomfield	3.4%
West Hartford	Health Care and Social Assistance (17.8%)	Hartford West Hartford Farmington	2.4%
Berlin	Manufacturing (18.0%)t	Berlin Hartford New Britain	1.6%

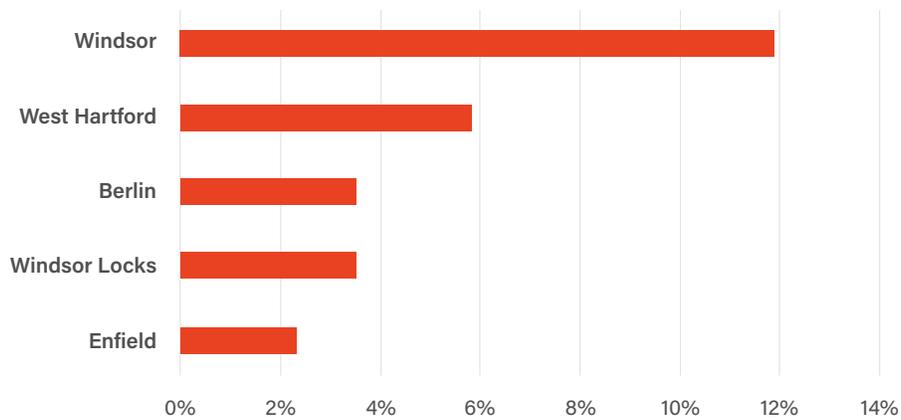
Source: Connecticut Economic Resource Center

FIGURE 20 MANUFACTURING AS SHARE OF TOTAL EMPLOYMENT BY LOCATION, 2015



Source: American Community Survey, 2011-2015 Five-Year Estimates

FIGURE 21 AVERAGE OFFICE VACANCY RATE, HARTFORD LINE, Q1 2017



Source: CoStar, 2017

corridor is eclectic, allowing for a broad range of sectors and employers to be serviced by the Hartford Line. By far, the largest share of a single industry based on percentage of the total employment, is the manufacturing sector in Windsor Locks, which accounts for over 30 percent of the workforce (Figure 20). While all communities have relatively low transit utilization rates, with the exception of Windsor, the Hartford Line service has the potential to impact commuting patterns for jobs in critical industries such as Manufacturing, Finance, and Health Care.

The office and retail commercial markets throughout the corridor have varying degrees of strengths. Office market conditions in the broader Enfield market are relatively healthy, with substantial positive net absorption in four of the last five years leading to a very low vacancy rate of 2.3 percent. Closer to the planned station location, however, the commercial portion of the Bigelow Commons property has over 30,000 square feet of vacant space.

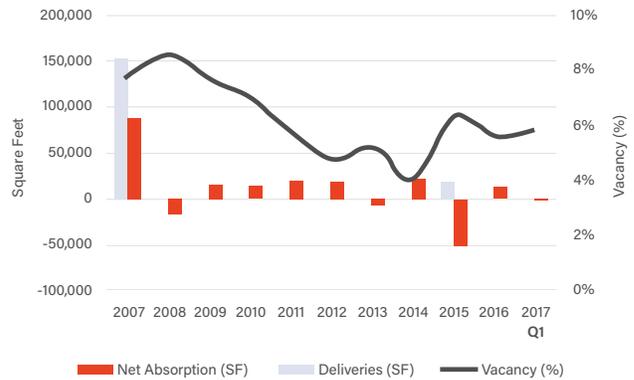
Office and retail inventory is limited in Windsor Locks. There is approximately one million square feet of leasable office and retail space combined according to CoStar. There has been almost no development activity over the past decade, with the exception of a combined 22,000 square feet of retail. As a result, vacancies for both office and retail are very low, at 3.5 percent each.

On the other end of the spectrum, the Windsor office market conditions are somewhat weak. The Windsor market has had negative net absorption seven out of the past ten years, which has resulted in the highest average vacancy rate of the five municipalities included in this market profile (Figure 21). The retail market in Windsor is more stable than office but there has been minimal development activity over the past decade and no indication that there is robust demand for substantial new development.

The office market in West Hartford has experienced minimal new construction activity over the last decade (19,000 square feet in 2015). Although the average vacancy rate has steadily declined since peaking in 2008, annual net absorption has fluctuated between positive and negative for six years, indicating only modest demand for new office space going forward (Figure 22).

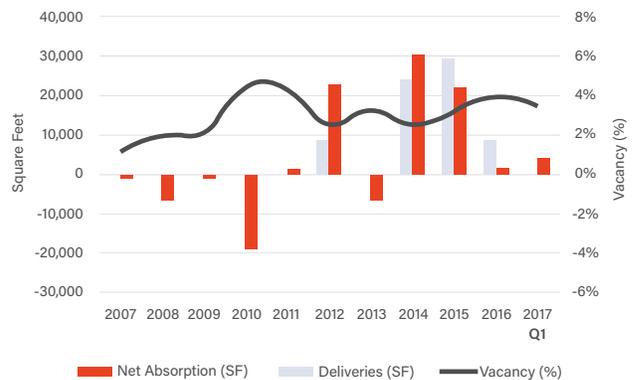
After four years of negative net absorption and no new development during the Great Recession, the Berlin office market has experienced positive net absorption for six out of the last seven years. Total new construction of 70,000

FIGURE 22 HISTORICAL OFFICE NEW DELIVERIES, NET ABSORPTION, AND VACANCY RATE, WEST HARTFORD, 2007 - Q1 2017



Source: CoStar, 2017.

FIGURE 23 HISTORICAL OFFICE NEW DELIVERIES, NET ABSORPTION, AND VACANCY RATE, BERLIN, 2007 - Q1 2017



Source: CoStar, 2017.

square feet since 2012 has been absorbed and the vacancy rate has remained relatively low (Figure 23). Retail market conditions indicate limited demand for substantial new inventory.

FIGURE 24

NEW HAVEN MSA POPULATION DENSITY BY MUNICIPALITY

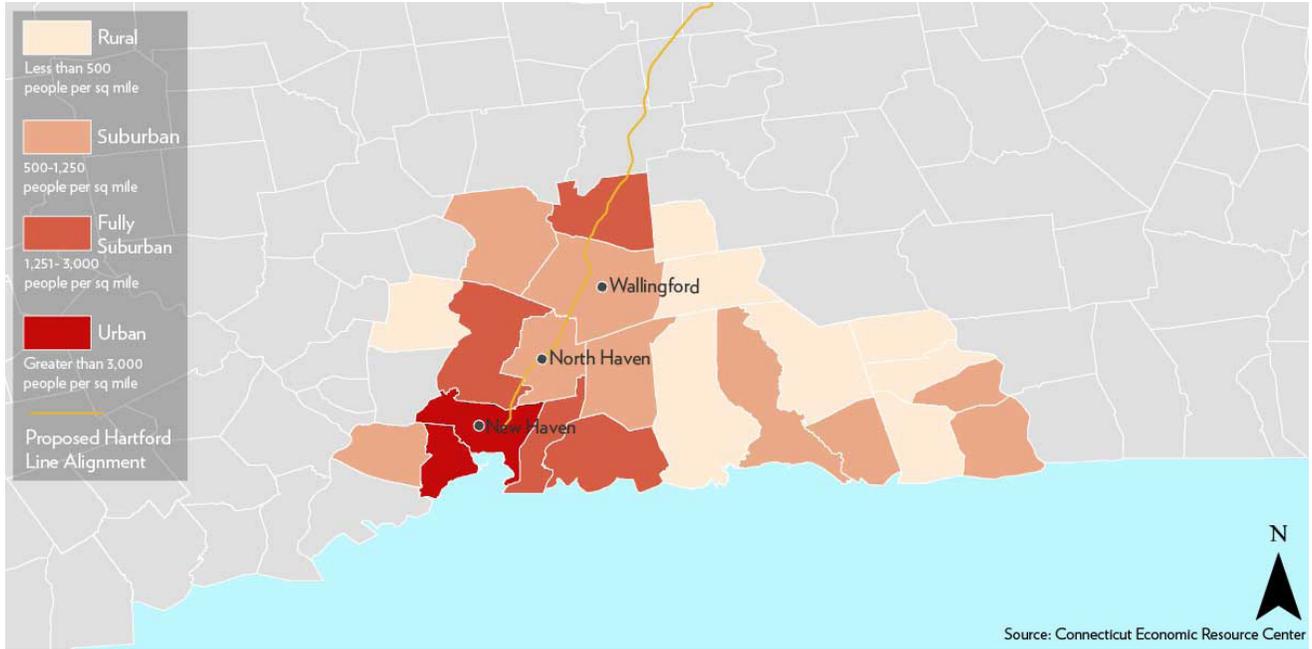
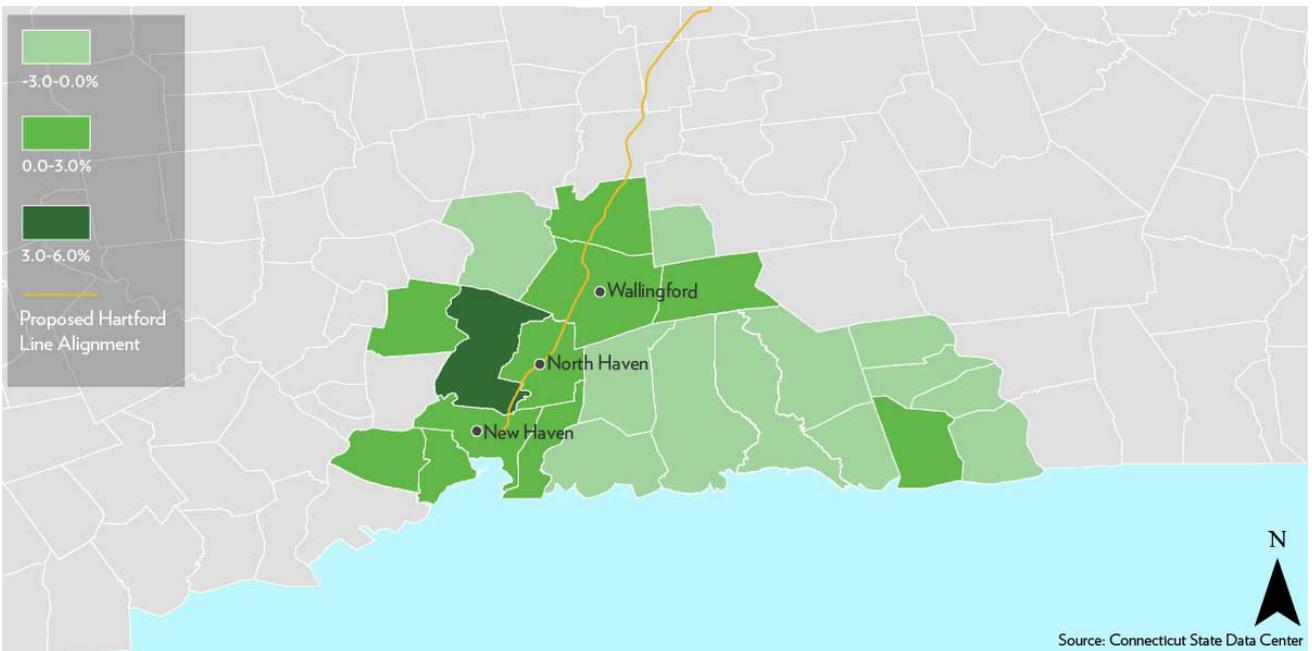


FIGURE 25

NEW HAVEN MSA PROJECTED POPULATION GROWTH BY MUNICIPALITY, 2020-2025 FORECAST



Market Profile: New Haven Metropolitan Area

With a population of 130,000, New Haven is the second most populous city in Connecticut. New Haven has emerged as a center for the healthcare and biosciences industries, and the introduction of Hartford Line service could support major employers' existing operations, as well as encourage them to invest and expand in this regional economic center.

The New Haven MSA is a reasonable proxy for the regional economy anchored by the City of New Haven. As shown in Figure 24, and based on May 2016 area definitions, the New Haven MSA encompasses 23 municipalities with a range of population densities, including four municipalities with existing or planned Hartford Line stations: New Haven, North Haven, Wallingford, and Meriden. Two of these municipalities, North Haven and Wallingford, are detailed in this market profile.

Population

According to 2015 ACS estimates, the total population of the New Haven MSA is 862,000, a 4.6 percent increase from the region's population in 2000. This growth rate is comparable to but slightly less than that of the State overall, and much less than that for the nation over the same period (Table 15).

Population growth is expected to remain moderate over the next decade. According to 2012 projections from the University of Connecticut's State Data Center, the South Central Region's population is projected to grow 1.4 percent from 2020 to 2025.³ Figure 25 shows projected 2020-2025 population growth rates by municipality in the New Haven MSA.

As with the Hartford MSA, the New Haven MSA's population is aging. From 2000 to 2010, the median age in the region increased from 37.0 to 39.3, while the share of the population above 55 years old rose from 23.2 percent to 26.5 percent. Between 2000 and 2015, the 60- to 64-year-old cohort has seen the largest increase, at 74 percent, while the 35- to 44-year-old cohort declined by 21 percent (Table 16). These trends are similar to those seen in the Hartford

³ Regional population projections were reported based on Council of Governments (COG) regions as opposed to MSAs. The South Central Region encompasses 15 contiguous municipalities including and anchored by the City of New Haven. Thirteen of the 15 municipalities are included in the New Haven MSA, with two municipalities (Milford and Woodbridge) included in the neighboring Bridgeport-Stamford-Norwalk MSA.

Table 15. New Haven MSA Population, 2000-2015

	Total Population, 2000	Total Population, 2010	Total Population, 2015 Estimate	Change, 2000 - 2015 (%)
United States	281,421,900	308,745,500	316,515,000	12.5%
Connecticut	3,405,600	3,574,100	3,593,200	5.5%
New Haven MSA	824,000	862,500	862,200	4.6%
Wallingford	43,026	45,135	44,660	3.8%
North Haven	23,035	24,093	23,709	2.9%

Source: U.S. Census Bureau, 2000 and 2010 SFI Data, 2015 American Community Survey Five-Year Estimates, Connecticut Economic Resource Center

Table 16. New Haven MSA Population by Age Cohort, 2000-2015

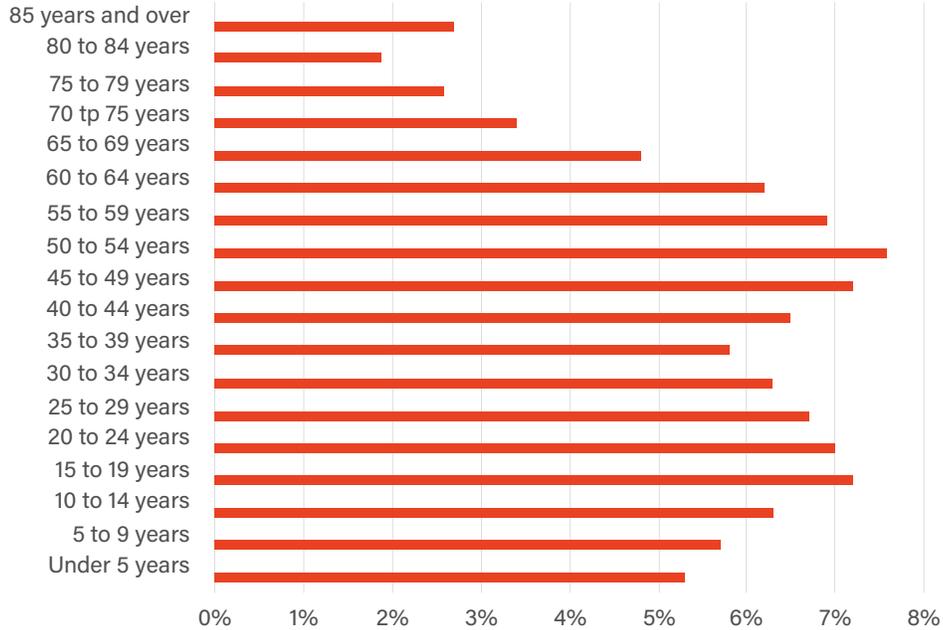
	2000	2010	Change, 2000-2010	2015	Change, 2000-2015
Under 5 years	53,094	48,663	-8%	45,698	-14%
5 to 9 years	57,953	51,759	-11%	49,147	-15%
10 to 14 years	58,270	56,357	-3%	54,320	-7%
15 to 19 years	54,284	62,248	15%	62,080	14%
20 to 24 years	49,587	59,639	20%	60,366	22%
25 to 34 years	112,312	107,891	-4%	112,089	0%
35 to 44 years	134,536	114,007	-15%	106,054	-21%
45 to 54 years	112,863	132,623	18%	127,609	13%
55 to 59 years	41,113	56,439	37%	59,493	45%
60 to 64 years	30,704	48,879	59%	53,458	74%
65 to 74 years	56,315	60,734	8%	70,702	26%
75 to 84 years	46,049	41,125	-11%	38,800	-16%
85 years and over	16,928	22,113	31%	23,280	38%

Source: U.S. Census Bureau, 2000 and 2010 SFI Data, 2015 American Community Survey Five-Year Estimates,

MSA, indicating that the entire Hartford Line corridor is undergoing similar age-related demographic shifts.

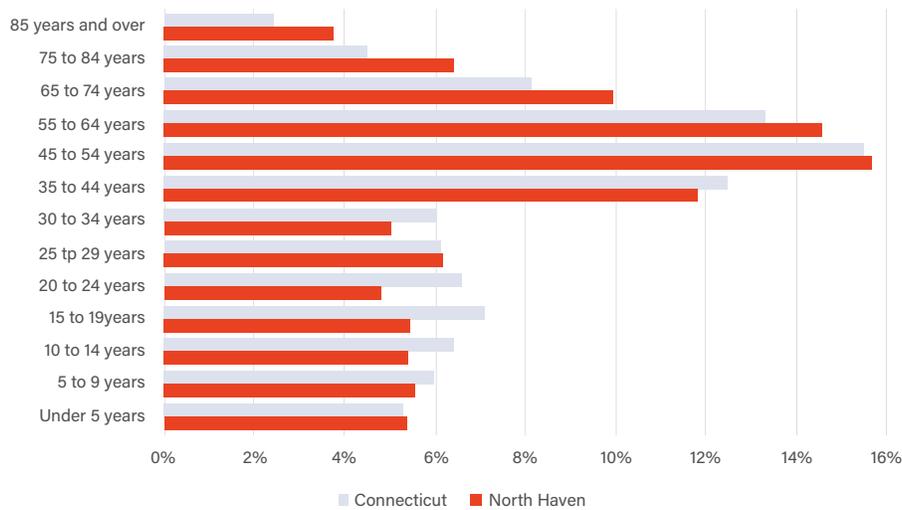
Also similar to the Hartford MSA, the demographic trends among the millennial and baby boomer cohorts in the New Haven MSA suggest that there is demand potential for

FIGURE 26 NEW HAVEN MSA POPULATION BY AGE COHORT, 2015



Source: American Community Survey, 2011-2015 Five-Year Estimates

FIGURE 27 POPULATION BY AGE COHORT, NORTH HAVEN, 2015



Source: U.S. Census Bureau, 2015 American Community Survey Five-Year Estimates

Table 17. Population Share by Selected Cohorts by Municipality, 2015

	Population Percent Aged 20-29	Population Percent Aged 45-64	Population Percent Aged 65+	Median Age
Wallingford	10.5%	31.0%	17.8%	44.4
North Haven	11.0%	30.3%	20.1%	45.3

Source: Connecticut Economic Resource Center (CERC) Town Profiles

Table 18. New Haven MSA Projected Population Growth by Age Cohort, 2020-2025 Forecast

	2020	2025	Change, 2020-2025
9 years and under	63,500	63,600	0%
10 to 19 years	70,800	68,800	-3%
20 to 29 years	76,400	75,100	-2%
30 to 39 years	81,900	77,900	-5%
40 to 49 years	70,500	78,300	11%
50 to 59 years	81,200	72,800	-10%
60 to 69 years	74,400	78,600	6%
70 to 79 years	46,500	54,900	18%
80 years and over	27,600	30,900	12%

Source: University of Connecticut State Data Center

transit-oriented residential opportunities. As baby boomers reach retirement age they are increasingly downsizing from single-family homes, mirroring an increase in demand for multi-family housing demonstrated by the millennial cohort. The increase in demand for multi-family housing may generate additional demand for retail and commercial office space in walkable, downtown-style developments. As shown in Figure 26, the 50- to 54-year-old cohort is the largest cohort in the New Haven MSA, indicating that market demand for TOD opportunities will likely continue to grow, if current trends hold.

Table 19. New Haven MSA Households, 2000-2015

	Total Households, 2000	Total Households, 2010	Total Households, 2015	Change, 2000-2015
New Haven MSA	319,000	334,500	326,000	2.2%
Connecticut	1,301,700	1,371,100	1,352,600	3.9%
United States	105,480,100	116,716,300	116,926,300	10.9%

Source: U.S. Census Bureau, 2000 and 2010 SF1 Data, 2015 American Community Survey Five-Year Estimates

Trends in the selected towns of Wallingford and North Haven reflect this regional trend, as shown in Table 17, with large percentages of the population primarily falling under the baby boomer generation, and median ages among the highest in the corridor.

Population forecasts appear to correspond with this distribution, as the age-cohort distribution in the New Haven MSA is expected to continue trending upward. According to the UConn State Data Center forecasts, the number of 70- to 79-year-olds is forecasted to increase 18 percent between 2020 and 2025 (Table 18), compared to an overall population growth rate of only 1.4 percent.

Figure 27 indicates the age breakdown of North Haven, among the oldest communities along the corridor, in comparison to Connecticut—a substantially larger share of the population is represented by elderly cohorts in North Haven than in the state.

Housing

As with population, the number of households in the New Haven MSA has grown at a relatively slow pace. From 2000 to 2015, the number of households increased only 2.2 percent, below the Connecticut-wide rate, and well below the national figure. As shown in Table 19, more rapid growth between 2000 and 2010 has been offset by declines since 2010, both in the New Haven MSA and the State overall.

At the same time, however, the total number of housing units in the New Haven MSA increased approximately six percent from about 341,000 in 2000 to 362,000 in 2010.

Table 20. New Haven MSA Housing Units by Occupancy Status

	2000	Share	2010	Share	2015	Share
Occupied Housing Units	319,000	94%	334,500	93%	326,400	90%
Vacant Housing Units	21,700	6%	27,500	7%	36,200	10%

Source: U.S. Census Bureau, 2000 and 2010 SFI Data, 2015 American Community Survey Five-Year Estimates

Table 21. New Haven Average Household Size, 2000-2015

	Average Household Size, 2000	Average Household Size, 2010	Average Household Size, 2015
New Haven MSA	2.50	2.49	2.56
Connecticut	2.53	2.52	2.57
United States	2.59	2.58	2.64

Source: U.S. Census Bureau, 2000 and 2010 SFI Data, 2015 American Community Survey Five-Year Estimates

Perhaps because this expansion outpaced actual population and household growth during this period, the share of occupied housing units declined slightly between 2000 and 2010 (Table 20). This trend has continued according to 2015 ACS data, and the share of occupied housing units is estimated to be 90 percent in the region.

The average household size in the New Haven MSA is 2.56 based on 2015 ACS data, which represents a modest increase since 2000 (Table 21). This figure is comparable to, but slightly lower than, the average household size for the state and nation, which stand at 2.57 and 2.64, respectively. In conjunction with the aforementioned growth in housing units and vacancy rates, this statistic indicates that absorption has likely lagged behind regional housing production.

The share of owner-occupied housing units in the New Haven MSA remained stable at approximately 63 percent between 2000 and 2015 (Table 22). These figures are slightly lower than the state and the Hartford MSA, indicating that

Table 22. New Haven MSA Housing Tenure, 2000-2015

	2000	Share	2010	Share	2015	Share
Owner-Occupied Housing Units	201,300	63%	212,200	63%	204,700	63%
Renter-Occupied Housing Units	117,700	37%	122,300	37%	121,300	37%

Source: U.S. Census Bureau, 2000 and 2010 SFI Data, 2015 American Community Survey Five-Year Estimates

the New Haven region has a greater share of renter-occupied housing. This likely reflects the City of New Haven’s greater influence on regional statistics, as compared to the City of Hartford; New Haven’s housing stock is, like those of many urban municipalities, majority renter-occupied. ACS data also indicate that 57 percent of renter households in the New Haven MSA are cost-burdened, a rate that exceeds that of the Hartford MSA (51 percent), Connecticut (53 percent), and the United States (52 percent).

However, similar to the Hartford Region, the selected municipalities exhibit higher proportions of owner-occupied and single-family residences than the New Haven regional average (Table 23).

North Haven’s relatively small population and high percentage of owner-occupied households has frequently resulted in low vacancy rates and higher achievable rents. A 40 percent increase in managed apartment unit inventory resulted in a temporary spike of the vacancy rate which stabilized as these units were absorbed in 2015 and 2017 (Figure 28). Average rent per square foot grew steadily following this increase, starting in 2015 (Figure 29). An aging and financially stable residential makeup has paved the way for high-end age restricted communities in proximity to medical centers, and is cementing North Haven’s place as a medical epicenter for an aging population.

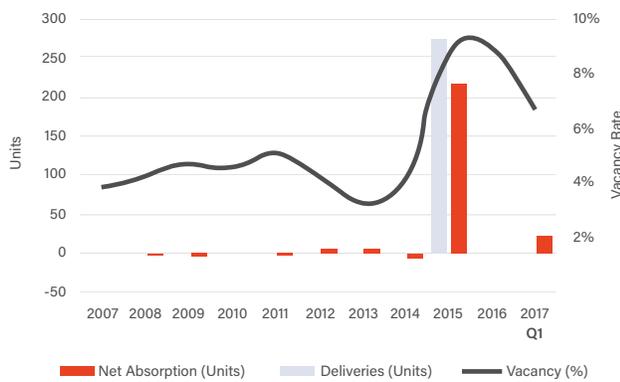
Wallingford has a lower share of owner-occupied and single-unit residences. Approximately 70 percent of units in the town are single-family; this is higher than the state average of 59 percent, but far lower than the figure for the

Table 23. Housing Tenure by Municipality, 2015

	Owner-Occupied Housing	Renter-Occupied Housing	Single-Family Housing	Multi-family Housing
Wallingford	74.8%	25.2%	70.2%	29.8%
North Haven	84.4%	15.6%	87.7%	12.3%

Source: Connecticut Economic Resource Center (CERC) Town Profiles, 2015 American Community Survey Five-Year Estimates

FIGURE 28 HISTORICAL RESIDENTIAL ANNUAL NEW DELIVERIES, NET ABSORPTION, AND VACANCY RATE, NORTH HAVEN, 2007 - Q1 2017

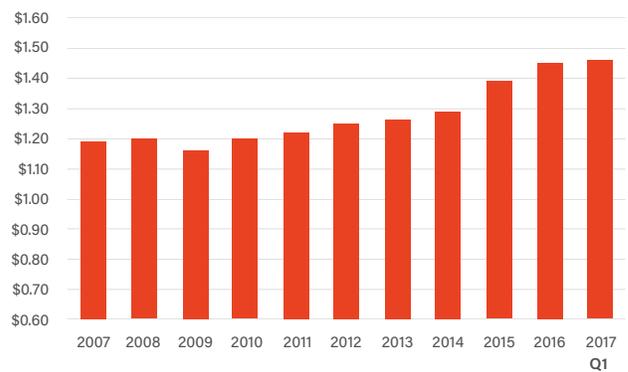


Source: CoStar, 2017.

nearby towns of North Haven (88 percent) and Berlin (76 percent) (Figure 30).

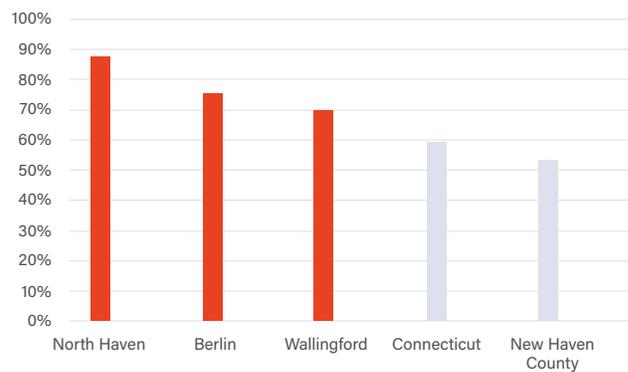
The Wallingford rental market has remained flat in recent years, with no new apartments built since the 1980s. As such, the average vacancy rate has remained consistently very low (ranging from 1.9 percent to 4.6 percent since 2007) as supply continues to be constrained. Achievable rents have not increased accordingly over this same period. Wallingford rents have historically achieved a discount relative to the larger market, and this discount has

FIGURE 29 HISTORICAL AVERAGE MONTHLY RENT PER SQUARE FOOT, NORTH HAVEN, 2007 - Q1 2017



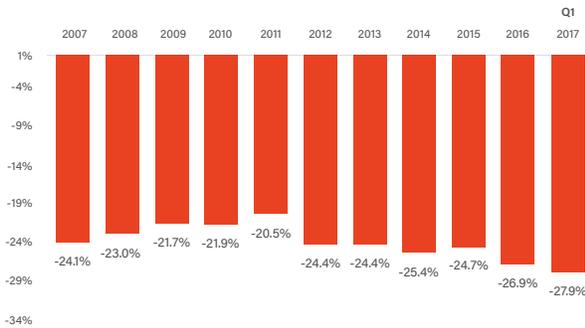
Source: CoStar, 2017.

FIGURE 30 SINGLE-UNIT HOUSING - SHARE OF TOTAL, WALLINGFORD, 2015



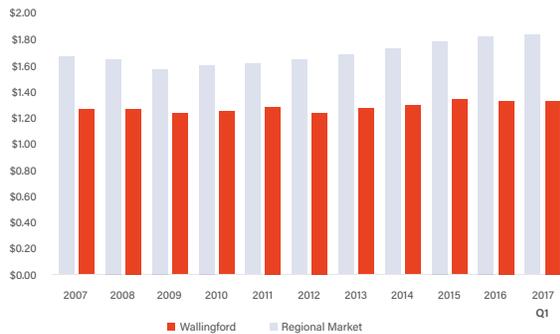
Source: U.S. Census Bureau, 2015 American Community Survey Five-Year Estimates.

FIGURE 31 HISTORICAL WALLINGFORD MONTHLY RENT PER SQUARE FOOT RENT DISCOUNT COMPARED TO REGIONAL MARKET, 2007 - Q1 2017*



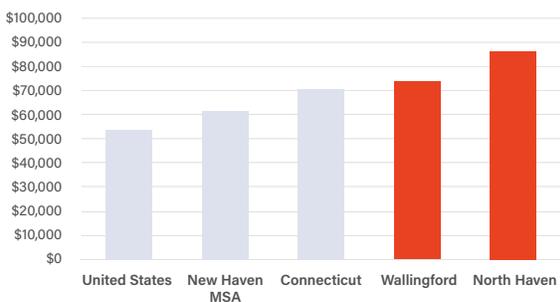
Source: CoStar, 2017.

FIGURE 32 HISTORICAL AVERAGE MONTHLY RENT PER SQUARE FOOT, REGIONAL MARKET AND WALLINGFORD SUBMARKET, 2007 - Q1 2017*



Source: CoStar, 2017.

FIGURE 33 MEDIAN HOUSEHOLD INCOME BY LOCATION, 2015



Source: U.S. Census Bureau, 2015 American Community Survey Five-Year Estimates

*Note: The "regional market" as defined by CoStar differs from the New Haven MSA region defined in this report. CoStar regional market data includes additional areas of southeastern Connecticut and Westchester County, New York, in addition to the New Haven MSA region.

increased over time, from -24 percent to -28 percent (Figure 31). From 2007 to 2017, the average monthly rent per square foot in Wallingford increased at an average annual rate of 0.5 percent (from \$1.26 per square foot to \$1.32 per square foot), while the market-wide average rent increased at an annual rate more than twice that, at 1.1 percent over the same period (\$1.65 per square foot to \$1.84 per square foot), highlighting the Town's relative affordability compared to the region (Figure 32).

Economy

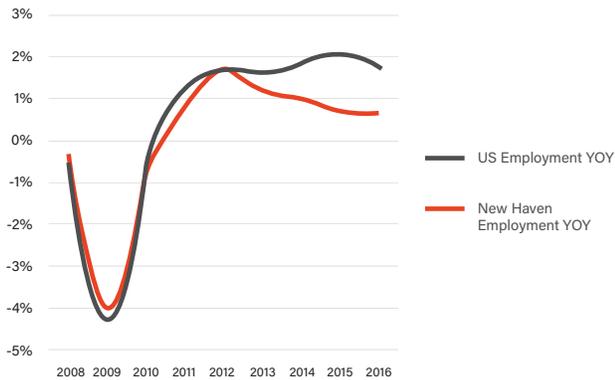
The New Haven MSA is relatively wealthy by national standards, but has lower household incomes than the statewide averages. ACS data from 2015 place the New Haven MSA's median household income at \$61,600—a figure 12 percent lower than the median household income for Connecticut (\$70,330), but 14 percent higher than that for the nation (\$53,900). BLS's May 2016 Metropolitan Area Wage Estimates place the region's annual mean wage at \$55,800, 13 percent higher than the national mean wage of \$49,600. The median household incomes of Wallingford and North Haven are on the higher end of the spectrum, when compared to the region and the state (Figure 33).

As shown in Figure 34, the New Haven region experienced a lesser decline in nonfarm employment compared to the country during the recession, but has since grown at a slower pace during the recovery. While nonfarm employment surpassed pre-recession highs in late 2015 and 2016, preliminary BLS data from 2017 indicate that total employment has started to contract. As of March 2017, total nonfarm employment in the New Haven MSA stands at 277,900 jobs, approximately 1.4 percent lower than in 2016.

The regional economy is anchored by the Education and Health Services sector, which employs 79,800 total workers. Together with the Trade, Transportation, and Utilities (50,100 jobs) and Government sectors (36,200 jobs), these three sectors account for 60 percent of the region's jobs (Figure 35).

While overall job growth has been stagnant, the Education and Health Services industry—the so-called "Eds and Meds" sector—has consistently expanded. Despite the impact of the recession—and large employment declines in the Construction, Manufacturing, and Information sectors—over 10,000 net jobs were created in the Education and Health Services sector between 2007 and 2016, a nearly 20 percent increase. The sector has also expanded its share

FIGURE 34 NEW HAVEN MSA NONFARM EMPLOYMENT TREND, YEAR OVER YEAR (YOY), 2008-2016



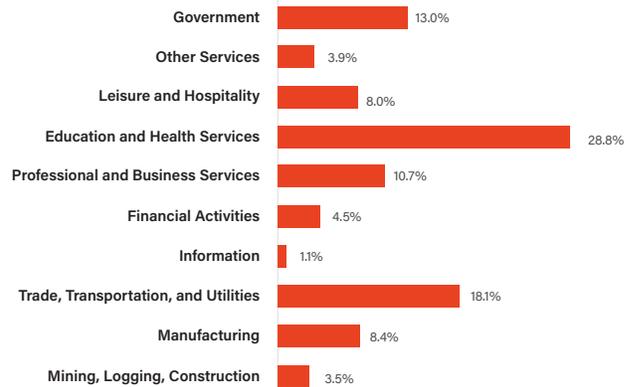
Source: Bureau of Labor Statistics

of regional employment relative to the state overall; by share of total nonfarm employment, the sector is 46 percent overrepresented, indicating that “Eds and Meds” is a net exporter from the region, and therefore a potential target for economic development initiatives (Figure 36).

The presence of anchor institutions, such as Yale University and affiliated medical centers, supports agglomerative effects in the industry; not only is Yale-New Haven Hospital the largest employer in the region, with 18,000 workers, but it also attracts high-tech firms, particularly in the biomedical sector, which are increasingly choosing to locate in New Haven and neighboring North Haven.

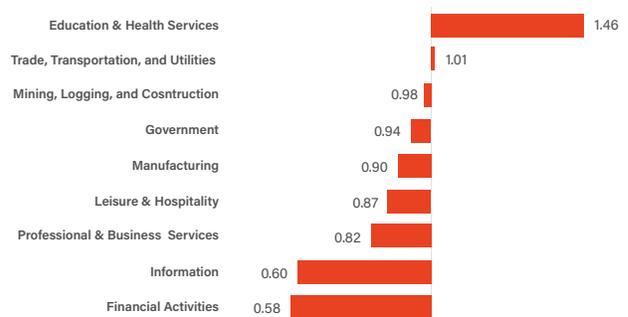
These anchor institutions are a consistent draw for the types of households that would produce demand for TOD-style projects: educated, higher-income, and interested in walkable, transit-accessible neighborhoods. Additionally, as previously noted, there is a high proportion of rent-burdened households, indicating potential demand for affordable housing development. Like Hartford, the New Haven region demonstrates substantial potential for new development that could leverage the Hartford Line service. Additionally, multi-modal connectivity with Amtrak’s

FIGURE 35 NEW HAVEN MSA TOTAL NONFARM EMPLOYMENT, BY SECTOR, 2017



Source: Bureau of Labor Statistics

FIGURE 36 NEW HAVEN MSA VS. CONNECTICUT LOCATION QUOTIENTS BY EMPLOYMENT SECTOR, 2017



Source: Bureau of Labor Statistics

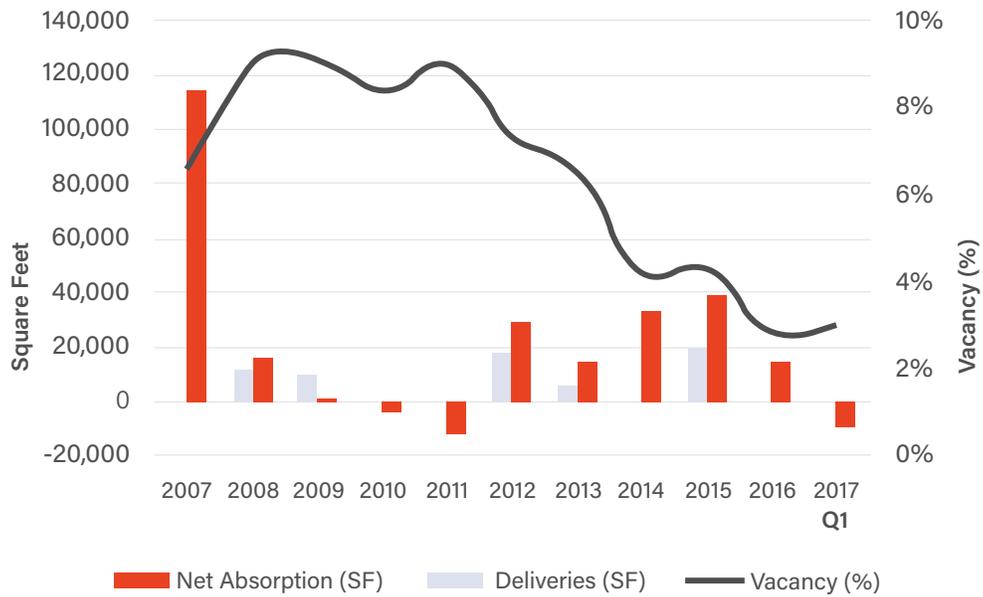
Northeast Corridor and the Metropolitan Transportation Authority (MTA) Metro-North Railroad New Haven Line could be a significant attractor for commuters seeking more affordable alternatives to living in New York and Boston throughout the corridor. Residential and commercial TOD projects could therefore serve as a catalyst for economic

Table 24. Employment comparison overview of selected Hartford Line Municipalities

Town	Largest Industry (by % of Total)	Largest Employment Destinations	Commuter Transit Utilization
Wallingford	Healthcare and Social Assistance (15.4%)	Wallingford New Haven Meriden	1.0%
North Haven	Manufacturing (19.9%)	New Haven North Haven Hamden	2.2%

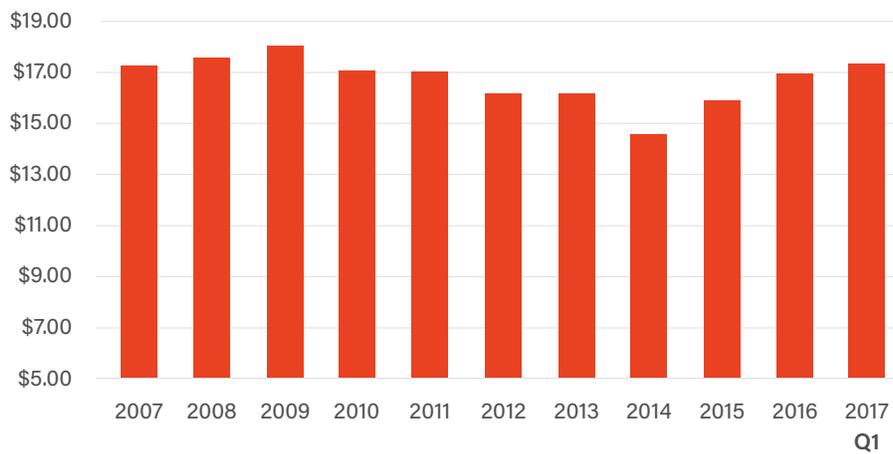
Source: Connecticut Economic Resource Center

FIGURE 37 HISTORICAL OFFICE NEW DELIVERIES, NET ABSORPTION, AND VACANCY RATE, NORTH HAVEN, 2007 - Q1 2017



Source: CoStar, 2017.

FIGURE 38 HISTORICAL AVERAGE ANNUAL OFFICE RENT PER SQUARE FOOT, NORTH HAVEN, 2007 - Q1 2017



Source: CoStar, 2017.

development anchored by high-capacity regional rail service along the Hartford Line.

Table 24 provides a brief comparison of the labor market within each town included in this profile. Both municipalities exhibit low transit utilization rates, while many workers originating from these towns travel to New Haven for work. The Hartford Line has the potential to impact transit utilization for access to jobs in critical industries such as Manufacturing and Health Care.

While the North Haven office vacancy rate remained high for several years during the Great Recession, five consecutive years of positive net absorption have resulted in very competitive office market conditions, including a decreasing vacancy rate and high absorption over the last decade (Figure 37). However, this trend of ongoing positive net absorption and declining vacancy rate was due in part to a steady decline in average rents from 2009 through 2014. The average office rent has rebounded since 2015 but has not reached the peak achieved in 2009 (Figure 38).

In North Haven, declining rents have limited the viability of large scale office construction, with a total of 65,000 square feet being developed in the past decade. In that time, a large development consisting of approximately 20,000 square feet has accounted for nearly one-third of the total. While office vacancy has plummeted over the past decade to approximately 3 percent, retail vacancy has remained relatively high at over 8 percent. Two large retail developments have accounted for the majority of new construction in the past decade, with a 230,000-square foot development constructed in 2009 and a 50,000-square foot development constructed in 2015. As highlighted in the main report, average office and retail rents have remained relatively flat in Wallingford.

Conclusion

The provision of frequent and convenient commuter rail service along the Hartford Line corridor is a key element to bolstering the market potential of TOD. Existing and future stations will become catalysts for economic development and community investment, and with the proper planning and implementation, will result in the creation of unique, vibrant, and attractive TOD communities that cater to the evolving demographic composition of the region.

The geographic context for TOD along the Hartford Line includes a combination of regional and station-area specific considerations. The corridor in its entirety shows promise as a regional asset, built on a series of connected communities, each with its own opportunities for future growth. As discussed in greater detail in the body of Hartford Line TOD Action Plan Part 1 Report, the Hartford Line is a strategic corridor with a number of regional strengths, and municipalities along the corridor have a unique and timely opportunity to leverage the transit investment for the betterment of their communities.