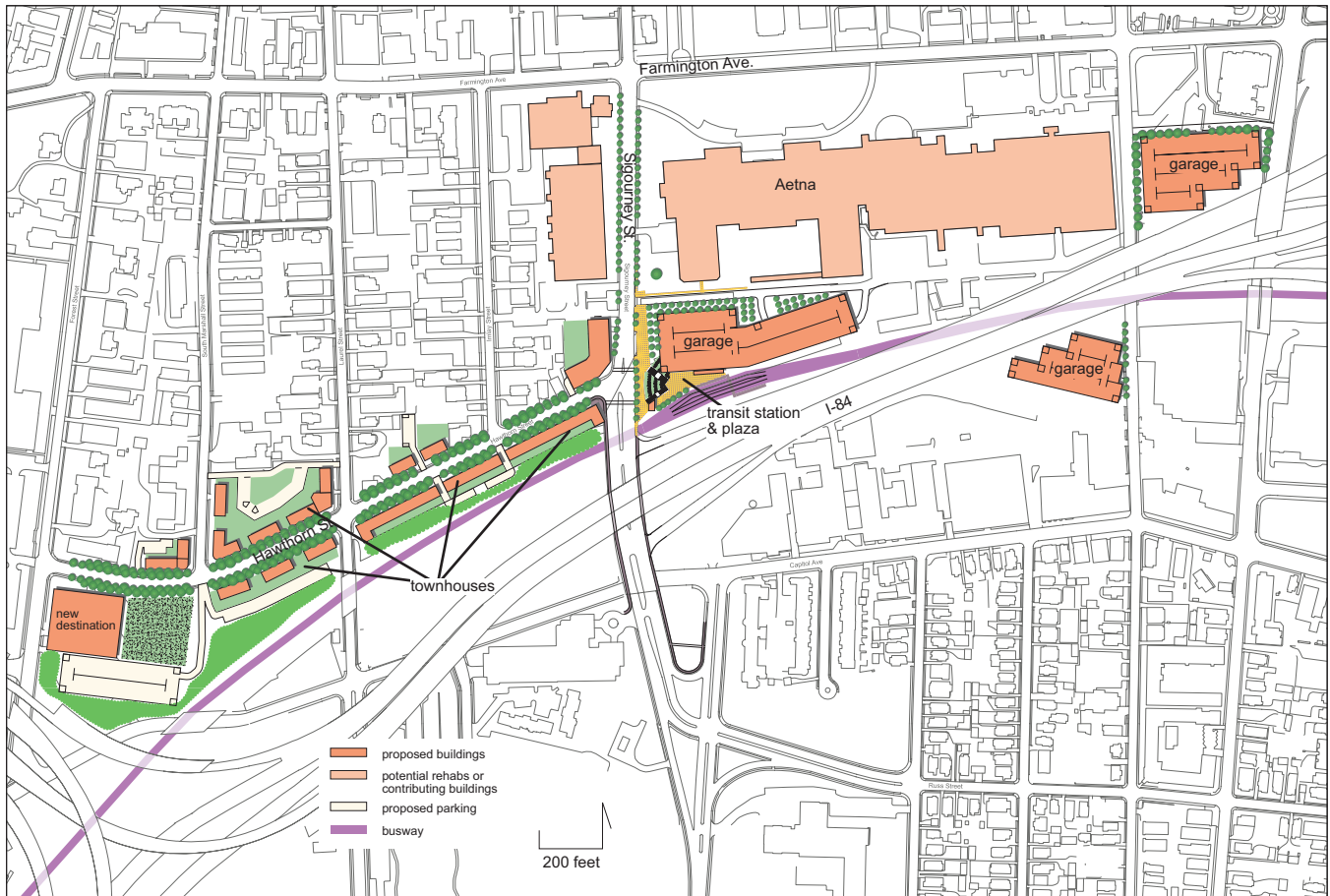


# New Britain - Hartford Busway Station Area Planning Project

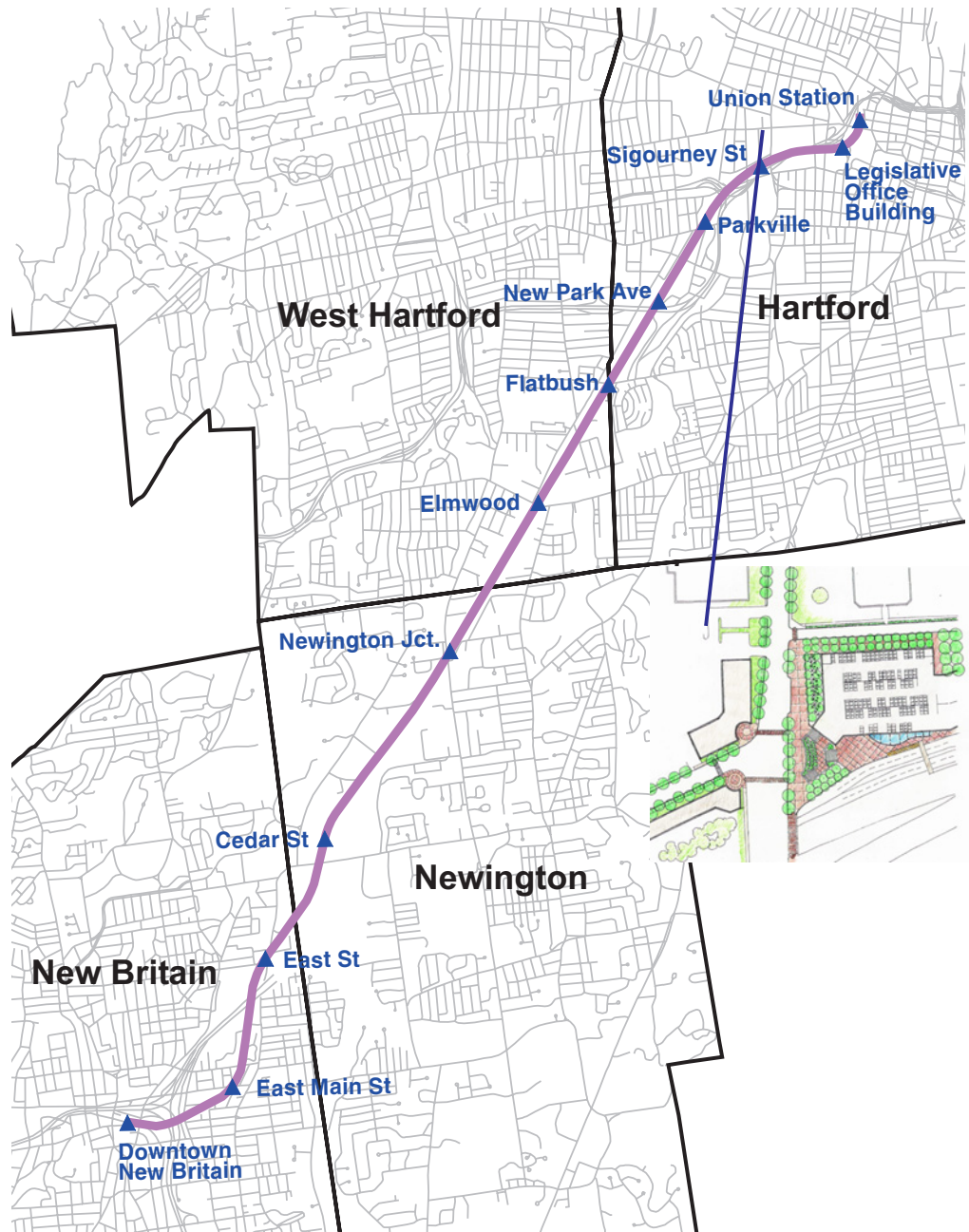
## Sigourney Station Area Plan

July 2004



Capitol Region Council of Governments

CROSBY | SCHLESSINGER | SMALLRIDGE LLC



For more information: contact CRCOG at 860-522-2217 or go to CRCOG's or Hartford's websites at [www.crcog.org](http://www.crcog.org); [www.hartford.gov](http://www.hartford.gov)

Prepared in cooperation with citizens, the Cities of New Britain and Hartford, the Towns of West Hartford and Newington, the Capitol Region Council of Governments, and the Connecticut Department of Transportation. The opinions, findings and conclusion expressed in this publication are those of the respective Municipal Advisory Committees that served on the project and do not necessarily reflect the official views or policies of the Connecticut Department of Transportation and/or the U.S. Department of Transportation.

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## **Acknowledgements**

Prepared for **the Capitol Region Council of Governments**

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*This report was prepared with the help of the Hartford Municipal Advisory Committee.*

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The report was accepted by the Hartford MAC on May 20, 2004 with the following language:

*The Hartford Municipal Advisory Committee for the New Britain/Hartford Station Area Planning project endorses the Station Area Plans for the Flatbush, Parkville, Sigourney, and Unions Station as guides for the City of Hartford to refer to when considering projects and policies pertaining to the stations' environs. City staff should consider these plans when reviewing proposals for infrastructure (e.g. streets) and development in these areas. The Planning and Zoning Commission should incorporate these plans into Hartford's Plan of Conservation and Development. Respective NRZs should adopt these plans as part of their Strategic Plans.*



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## Introduction

### The Project

The New Britain-Hartford Busway is a new rapid transit facility being built by the Connecticut Department of Transportation. The exclusive 9.4-mile long busway, linking downtown New Britain with downtown Hartford's Union Station, will run along active and inactive railroad rights-of-way through four cities/towns: New Britain, Newington, West Hartford and Hartford. The Busway was selected as one of ten Federal Transit Administration (FTA) Bus Rapid Transit (BRT) demonstration projects and will be paid for with both federal and state money. Construction on the Busway is scheduled to start in 2006 and service should start by the end of the decade.

This document is the outcome of a complementary effort to the Busway project: the Station Area Planning Project. The primary goal of the Station Area Planning Project is to coordinate transportation and land use planning for the areas around proposed station sites in order to enhance the pedestrian environment and development around transit stations and maximize the benefits of the Busway investment. This study is state funded through the Transportation Strategy Board. Conducted by the Capitol Region Council of Governments (CRCOG) together with a consultant team led by the Crosby | Schlessinger | Smallridge, the study has been coordinated with municipal and community leaders in Hartford, West Hartford, Newington, and New Britain to identify underutilized property/development opportunities and develop strategies to create vibrant walkable districts with easy access to regional transit.

In each of the four municipalities, a Municipal Advisory Committee (MAC) was established. The MACs, comprised of municipal staff and station area stakeholders, met regularly over the past year to assist in the station area planning process by reviewing progress to date and providing input on local issues and concerns.

Three Public Open Houses were held in Hartford to elicit input from a larger audience. At the first open house, the concept of transit oriented development was

explained, and the initial assessment of each of the twelve station areas was presented, along with the reasons for the selection of six station areas for further study. At the second open house, the Design Principles for the six Hartford station areas were presented, along with early concepts for the four Hartford station areas selected for more detailed planning. The detailed plans shown in this document were presented at the third open house.

### **What is Transit Oriented Development and The Case for Density**

Transit experts assert that success for a transitway depends on many factors, of which one is planning for and bringing about appropriate and coordinated development. Appropriate means a mix of development—housing, commercial, office—and a relatively high level of density. The other key factors include provision of an attractive, safe and inviting pedestrian environment, and the use of public space integrated with the transit station and commercial space to create a “sense of place.” This type of transit-supportive development is often called Transit-Oriented Development or TOD.

The potential impacts of bus rapid transit on commercial property in Canada, Australia and Latin America suggest that BRT investments can have substantial market impacts. The number of BRT systems in the United States is modest compared to heavy rail, commuter rail and light rail systems, but recent surveys have shown that significant mixed-use development is occurring in the Pittsburgh West Busway and Boston Silver Line Phase II Busway corridors.

TOD districts are usually defined as the ¼ to ½ mile radius around a station, approximately a comfortable five to ten minute walking distance.

<sup>1</sup> Fleming, Randall, The case for Urban Villages, reprinted from Linkages Issue No. 8, periodical of the Institute for Ecological Health. <http://www.fscr.org/html/2000-01-05.html>.

Successful transit-oriented development requires that development occur at densities that encourage pedestrian activity and support transit. Starting at densities of 12 dwelling units per acre, research shows that dependence on the automobile begins to decline and the use of transit increases. At 16 units per acre, these trends become significant.<sup>1</sup> Decision-makers and citizens often balk at the idea of



increased densities due to concerns about the perceived negative impacts of compact urban development. However, research on the topic finds no correlation between urban density and a vast array of urban ills. Conversely, the research shows that density, in fact, results in many benefits for urban areas from the neighborhood to the regional levels. See Appendix A for a more detailed discussion of density and sources for these findings. Some of the findings include:

- Residential density does not increase traffic congestion. In fact, as density increases, automobile usage declines
- Per capita energy usage is lower in denser urban areas as a result of the reduction in vehicle trips and trip length associated with increased density
- Density can lead to increases in expendable income by reducing average household transportation costs
- Infrastructure capital and operating expenditures are lower in dense urban areas than in less densely developed urban areas
- Both commercial and residential properties in close proximity to transit stations enjoy a property value premium
- Increased property values around transit stations translate into increased property tax revenues for municipalities
- Density is not correlated with increased crime
- Increased density in the central city can lead to increased economic productivity, which translates into increased economic performance in both the city and the suburbs

Density succeeds by fostering activity on the street throughout the daytime and into the evening. The keys to successful compact urban development are a mix of uses (including a mix of housing types, shops, and services) and high-quality, pedestrian-oriented design. Through visualization techniques that educate decision-makers and citizens about what successful compact development looks like,

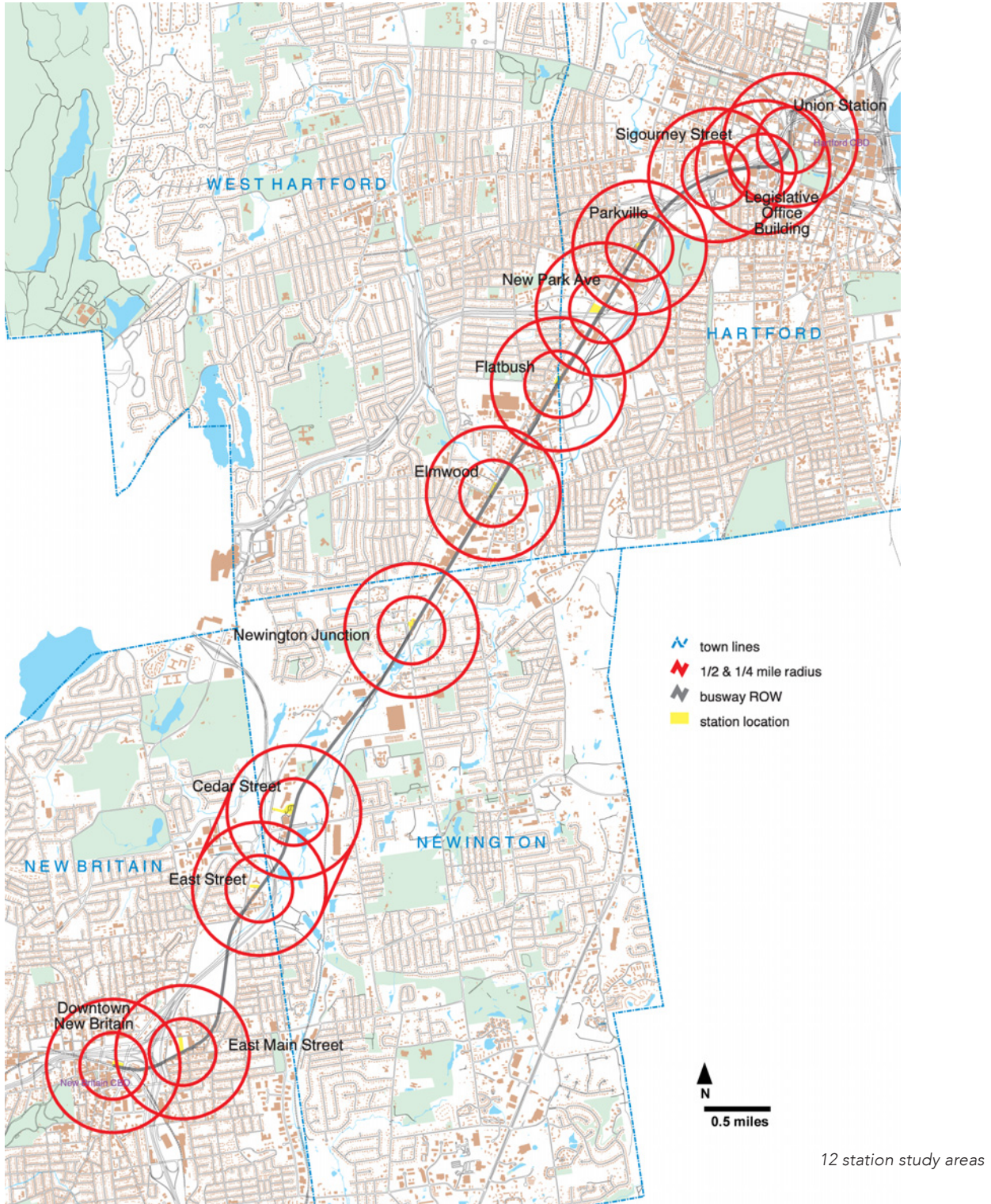
opponents of density can be convinced that dense development translates into significant benefits for the neighborhood, city and region. Compact development, can, in fact, act as a panacea for revitalizing our urban neighborhoods.

### **Study Process**

The study started by evaluating and comparing each of the busway's 12 station sites (see 12 station study area map on next page) for potential transit oriented development opportunities. With the help of the Municipal Advisory Committee, the consultant team summarized issues and opportunities and used the information as background to evaluate each site. A set of criteria was developed and used to select six sites for more detailed study. For all 12 sites, design and development principles were developed to help communities guide development in a transit supportive way. Technical memoranda for each of the four towns were published detailing the principles for transit oriented development (see *City of Hartford: Principles for Transit-Oriented Development*, December 2003, published separately).

For the six station areas selected for further study [*Union Station, Sigourney Street, Parkville (Park Street at Francis Avenue), Flatbush (New Park Avenue at Flatbush Avenue), Cedar and East (studied as one area), and Downtown New Britain*], the consultant team took the design and development principles to the next step and created conceptual land use and development plans to help steer development towards higher density mixed-use projects that will provide economic development opportunities and support transit.

Each of the six sites has different characteristics and different approaches to planning for them were used. In some locations alternative development plans were explored before a preferred plan was adopted, while in other locations a preferred concept was apparent from the beginning. Where applicable, options are discussed as possible alternatives to the preferred plan. In addition to preparing development options and/or a preferred development plan for each site, an implementation and phasing strategy was developed to outline the necessary steps required to realize



the plan. These plans are the primary content of the Station Area Planning Report developed for each station area.

This report frames the opportunities and details the development options for the area around Sigourney Station.

### **Project Area History**

The station areas, are, in the main, broken up into smaller isolated parcels defined by the busway corridor (shared with Amtrak from Hartford Union Station to Newington Junction), highways, major arterial roads, waterways and wetlands. This is not uncommon in older northeastern and Midwestern cities and is the consequence of an historic layering of transportation corridors in the natural environment.

Early roads and turnpikes in the 18<sup>th</sup> century typically followed valleys where there were watercourses and wetlands; in the mid-19<sup>th</sup> century the railroads, seeking routes with relatively level grades, also located in the valleys. In the New Britain-Hartford Busway Corridor there has been a succession of railroad companies – the Hartford and Fishkill Railroad, The New England Railroad, The New York and New England Railroad, and today, Amtrak. Heavy industry developed parallel to the rail line and, as industry declined or moved out in the mid-20<sup>th</sup> century, I-84 and other limited access highways were constructed in the corridor.

The result of this historic pattern is a patchwork series of potential development parcels at station sites that are:

- isolated by watercourses and wetlands, the Amtrak ROW, major arterial roads and limited access highways, and, in some locations, by large formerly industrial parcels
- impacted in some manner (e.g., by highway noise or industrial pollution)

- characterized by the combination of excellent highway access and large residual parcels so that “auto oriented” zones have been created with big box retail, car dealerships and other auto oriented uses

Despite these challenges, there is opportunity for Transit Oriented Development. The factors above, along with market forces, municipal policies, the direction given by the Municipal Advisory Committees, and the unique and singular physical characteristics of these sites, have given form to the final plans.





## Site Description / Framing the Opportunities

### The Project Area

The challenge at Sigourney Station is to create a highly visible station in a very hidden location. Beyond the actual station itself, infill projects and development on parcels fronting on Hawthorn Street and adjoining the rail/busway right-of-way and I-84 will enhance pedestrian access from surrounding neighborhoods.

Sigourney Station is located at the intersection of Sigourney Street and Hawthorn Street directly south of the Aetna headquarters and north of I-84. Sandwiched between the neighborhoods of Asylum Hill and Frog Hollow and Aetna, a major regional employer, it is a good location for transit. However, its location below street level and on the edge of the overhead highway makes station design challenging. Although the surrounding neighborhoods are built on pedestrian scaled streets, the approaches from these streets to the station need significant improvement. In general, the station area and potential development parcels (see Proposed Development Sites and Ownership diagram on page 10) are in an area with no identity, at the edge of neighborhoods and abutting major regional transportation



Aerial view looking northeast.  
Station site shown in red.

infrastructure. The challenge will be to improve this edge with development and streetscape amenities.

Immediately west of the station, across Sigourney Street, is the former Hastings Hotel, an 8-story hotel/conference center. The building is slated to become the new home of the Connecticut Culinary Institute which will add another transit supportive use to the area. Further to the west of the station, between Farmington Avenue and Hawthorn Street, is a residential area that makes up the southern end of the Asylum Hill neighborhood. Although some of the primarily multi-family buildings are well-maintained, many are in various stages of disrepair, intermixed with some vacant parcels. Hawthorn Street is lined with surface parking lots owned by Aetna. At the



Proposed Development Sites & Ownership



end of the block is a large vacant parcel. A fire destroyed the factory building that was on the lot, leaving behind a potentially contaminated site. Restoration of this residential neighborhood will be a key component of development plans for the area.

Independent of the busway project, Aetna intends to replace their existing garage (adjacent to the Sigourney Street station) with a larger structure and to consolidate the parking that is currently on Hawthorn Street and in surface lots under and on the south side of I-84 in another structure or structures. This provides a significant opportunity to expand the station site to create a prominent station that serves Aetna employees and local residents.

Pedestrian access to the Sigourney Street station will be via Hawthorn Street or Sigourney Street. Today Hawthorn Street is dominated by parking lots and vacant parcels and is not a particularly pleasant walk. The intersection of Hawthorn Street and Sigourney Street is very wide to accommodate surge traffic from Aetna and cars exiting I-84, and is therefore difficult for pedestrians to cross. Crossing this intersection is also complicated by the nearby I-84 on and off ramps. The northern portion of Sigourney Street, adjacent to Aetna and the Hastings Hotel, is attractive, but the approach from the south is very inhospitable. From the Frog Hollow neighborhood, transit patrons have to either cross a surface parking lot and climb one of three sets of stairs, or walk south on Park Terrace and double back to access



*View looking south down Sigourney St.*



*Today Hawthorn Street is dominated by parking lots and vacant parcels*

Sigourney Street. In both instances they also have to cross two I-84 ramps and walk under the overhead highway before reaching the station.

### **The Market**

As shown below, the Sigourney Station area exceeds the TOD housing density minimum target of 12 units per acre and is well within the employment density target of 25 to 50 jobs per acre.

### ***Station Area Demographics***

|   |                 |
|---|-----------------|
| 2003 Population                           | 1,687           |
| 2008 Projected Population                 | 1,884           |
| Projected Percentage Change               | 11.7%           |
| 2003 Dwelling Units                       | 995             |
| 2003 Residential Density                  | 31.7 units/acre |
| 2003 At-Place Employment                  | 2,090           |
| 2003 Employment Density                   | 35.9 jobs/acre  |
| 2003 % of Public Transportation Commuters | 21.4%           |
| 2003 % of Walking Commuters               | 2.9%            |

The employment density of nearly 36 employees/acre ranks third among the featured stations while the latter ratio of 31.7 households/acre represents the highest average along the corridor. Because of the large number of residents and jobs immediately around the station, the station should both attract and generate a high number of transit riders, and in fact, is projected to have very high ridership, second only to Union Station. The divisions, both physical and socioeconomic, between Aetna and the surrounding neighborhood, however, significantly limit the near-term transit-oriented development potential of the community.

The market potential around the Sigourney Street Station is constrained by a number of factors. First, like the Union Station area, Interstate 84 bisects the area

within the ¼ mile radius around the station (the five minute walking distance). Because of the physical and psychological barriers described above, the station feels distant from a large share of its residential and employment density. For instance, historic and desirable rowhouses in the Columbia Street area, Park Place Towers—a high-rise apartment building with a skyline view, and numerous state offices along Capitol Avenue are for all intents and purposes outside of the station’s ridershed despite their actual proximity.

Second is the potential consumption of land in the station area by Aetna’s future parking demands. Due to consolidate its operations from outside of Hartford, the insurance provider desires to provide substantial new parking facilities closer to the Aetna campus rather than at existing satellite locations in the neighborhood. Thus, strategic parcels near the BRT station may be dedicated to parking rather than a use that could generate transit riders. Good urban design of any new parking structure is critical in order to foster a walkable, transit-friendly environment. This includes designing garages, as appropriate, for the evolution to street-level retail as the market for this retail improves.

Third is the present condition of the blocks around the station. While the residential streets to the west of the station have a great deal of architecturally pleasing housing stock, much of it needs significant rehab and several structures are boarded.

Fourth is the significant difference between the white-collar environment of the Aetna world and the abutting residential neighborhood. Judging by travel behavior data and socioeconomic data (see table on previous page), few of the company’s employees come from the area. Within a ¼-mile radius of the facility, only 2.9% of the population walks to work. Indeed, the corridor’s highest share of public transportation ridership (21.4%) suggests that low-income residents must leave the neighborhood for job opportunities. As of 2003, the median household income for this area was \$15,942. Over 87 percent of all households are renter-occupied. The area’s top three ACORN® (A Classification of Residential Neighborhoods) Lifestyle Segmentation Groups are *Twenty Somethings*, *Distressed Neighborhoods*, and

*Young Immigrant Families.* Struggling to start careers and support their families, these demographic groups often have little disposable income. According to the ACORN ® Spending Potential Index, the area spent less than half the national average in each of the broad budget categories.

Together, the neighborhood's limited buying power and Aetna's employees' security concerns limit the feasibility of transit oriented retail and services. Furthermore, new activity would also have to compete with an existing and strengthening mixed-use corridor along Farmington Avenue.

Recently, NINA (Northside Institutional Neighborhood Alliance), a consortium of local institutions, has been formed to support community revitalization efforts. Although currently focused north of Farmington Avenue, it is anticipated that their successful initiatives will also have a positive effect south of Farmington Ave., and that future efforts will focus on this southern area. These ongoing improvement initiatives, and the transit investment, will increase the market for new housing in the area over time.

### **TOD Goals**

Through work with the Hartford Municipal Advisory Committee, Aetna representatives, Aetna's parking consultant, and CRCOG, the following goals for this area were developed:

- Create a highly visible and pleasant station design
- Improve pedestrian safety on area streets and improve pedestrian access to the proposed station <sup>1</sup>
- Identify locations for and explore the feasibility of transit supportive development within a 5 minute walk of the station
- Meet the parking and security needs of Aetna employees without sacrificing future opportunities for more intensive transit-supportive uses

<sup>1</sup> Encourage the implementation of the pedestrian improvements recommended in A New Farmington Avenue and the Asylum Hill Neighborhood Strategic Plan for Revitalization as noted in the Principles for Transit Oriented Development, published separately.

- Create pedestrian and market linkages between the station area and the surrounding neighborhoods
- Anticipate and meet the future demand for dining establishments and miscellaneous personal services

These goals are in addition to the two overriding project goals:

- Maximize input and benefits from the transportation infrastructure to the municipalities and neighborhoods along the busway corridor
- Coordinate this major transportation investment with land uses and economic development

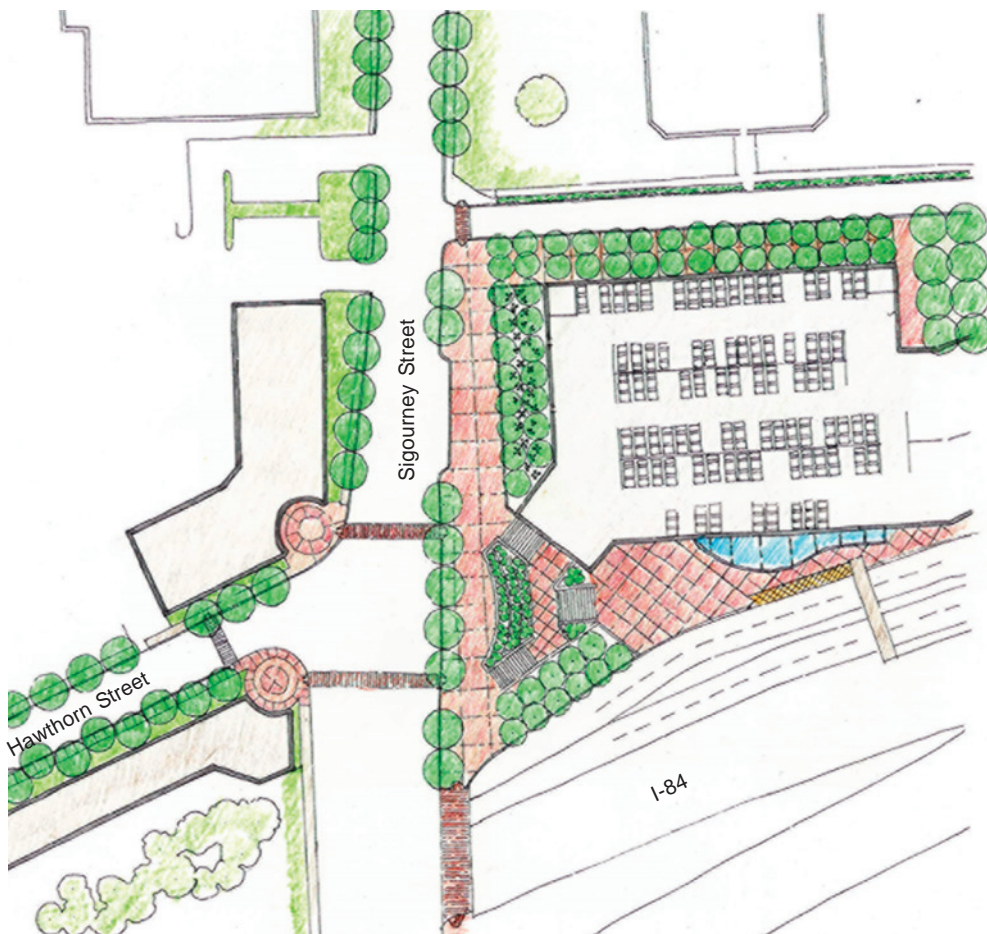


## Preferred Development Option

### The Plan

The Preferred Development Option assumes that the transit station will be developed in conjunction with a new Aetna garage, and will include a plaza facing Sigourney Street and sloping down to the busway level. The Plan uses the transit station plaza, and streetscape/pedestrian improvements along Hawthorn and Sigourney Streets, to create a more attractive environment for residential development along Hawthorn Street (see drawings below and on page 20).

In addition to pedestrian improvements along Hawthorn Street, the plan includes significant pedestrian improvements along Sigourney Street. The median in



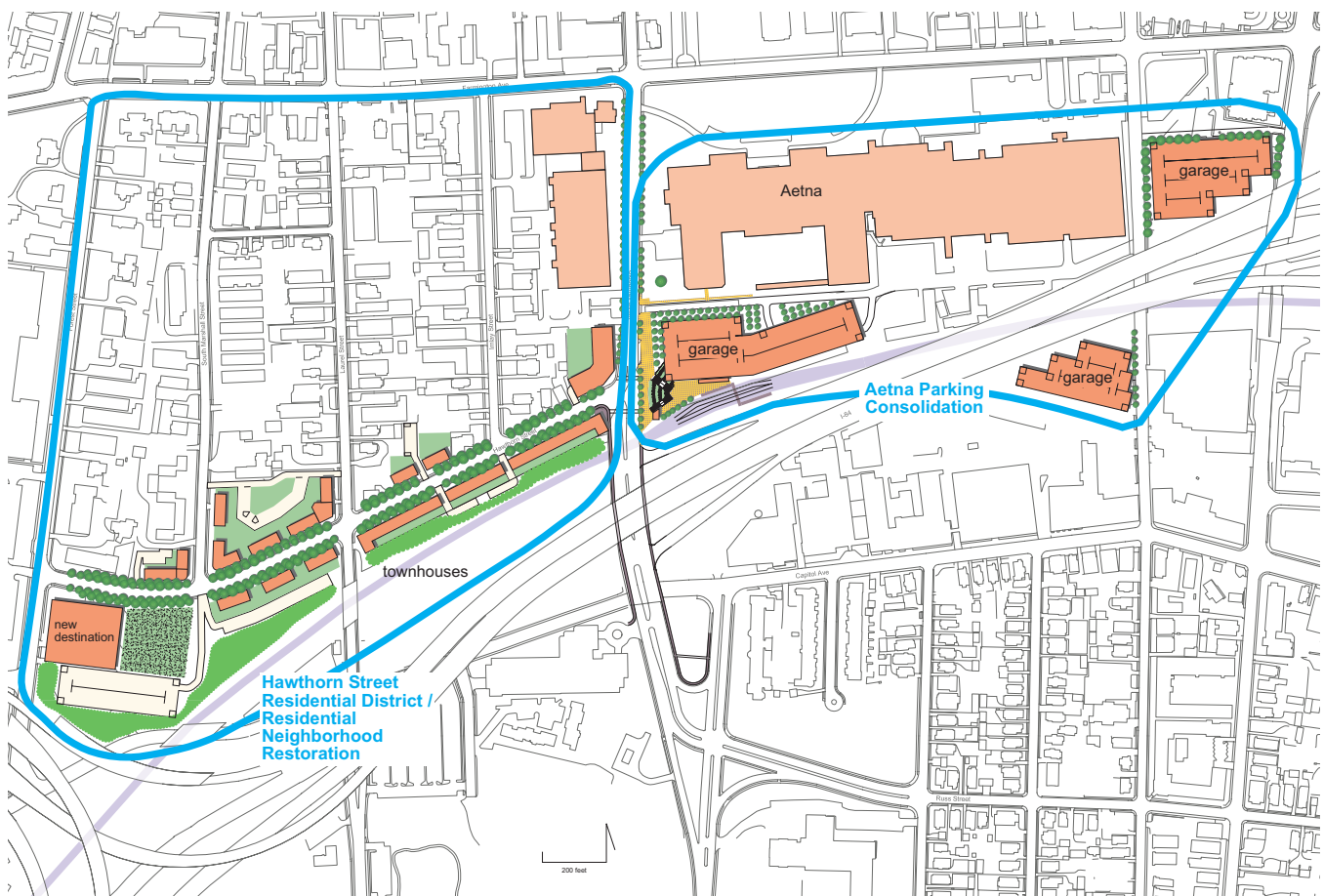
A new plaza connects the busway station to Sigourney Street. Streetscape improvements along Sigourney and Hawthorn Streets link the station to surrounding neighborhoods.



Sigourney Street between Hawthorn and Russ Streets, and the traffic lanes in Sigourney Street, should be modified to permit the widening of the sidewalks on both sides of Sigourney Street; pedestrian scale lighting should be added on both sides between Hawthorn and Russ Streets, and additional lighting should be added to the underside of the I-84 bridge over the street and the sidewalks. Surveys of transit riders have shown street lighting is one of the top 10 safety factors that people consider in their decision to take transit.

The Plan includes three major components (see below):

- Aetna Parking Consolidation
- Hawthorn Street Residential District
- Residential Neighborhood Restoration



Development districts diagram



### Aetna Parking Consolidation

As mentioned in Framing the Opportunities, Aetna is interested in consolidating much of their parking into new structured facilities close to their campus, thus freeing land along Hawthorn Street currently being used for surface parking. Aetna is currently studying options for the location and size of these structured facilities. The concept plan shows parking consolidated in three garages. The existing garage on Sigourney Street is rebuilt to accommodate 1,500 spaces and the new transit station described above. A second garage is shown on Flower Street, just north of I-84. This garage is on a site currently used for parking by the YWCA and would have to accommodate YWCA parking requirements. A third garage is also located on Flower Street, just south of I-84, on a site currently used for surface parking by the Hartford Courant. This garage would accommodate the existing Courant parking in addition to Aetna's needs, and could be built and operated jointly by the two entities.

### Hawthorn Street Residential District

Despite its residential density of over 30 dwelling units per acre, the Sigourney Street station area should be targeted for a long-term residential infill demonstration project. Farmington Avenue, particularly as pedestrian improvements recommended in *A New Farmington Avenue* are implemented over time, will provide an attractive northern edge to the residential blocks bounded by Farmington Ave., Sigourney Street, Hawthorn Street and Forest Street.

Residential development along Hawthorn Street, on land freed up by Aetna's parking consolidation, will provide an attractive southern edge to these blocks, encouraging long-term infill development and rehabilitation of the existing buildings on the north/south streets. The plan includes developing approximately 100 townhouses along the north and south sides of Hawthorn Street. Heavy landscaping will provide a noise and visual barrier to shield townhouses on the south side from the railroad, busway and overhead highway. All of the townhouses have parking in back. The townhouses on the south side of Hawthorn Street between Sigourney and Laurel Streets have parking below grade, taking advantage of the steep slope

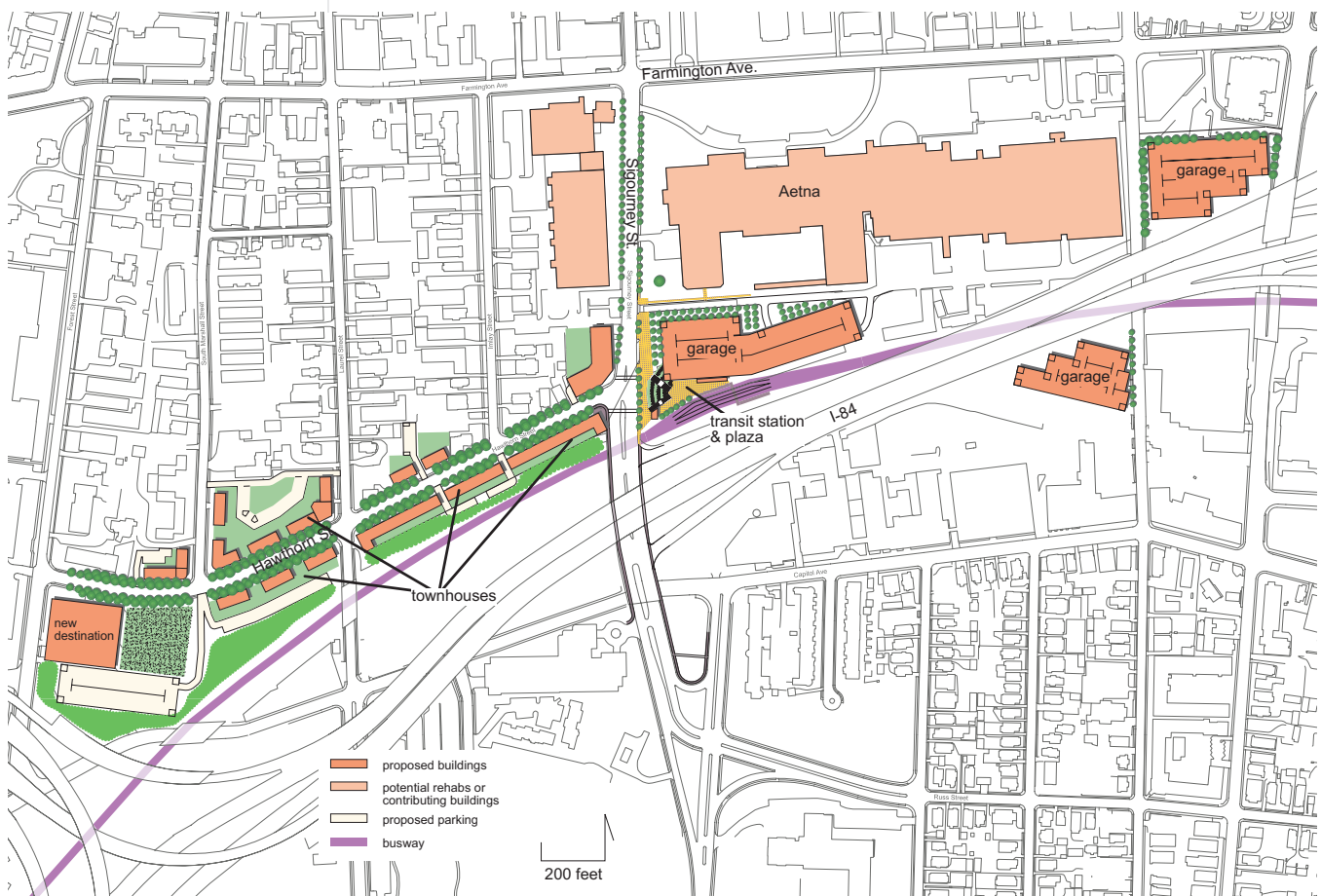


Townhouses along Hawthorn Street will create a strong street edge and block the ground level view of the I-84 viaduct

down to the railroad tracks. A double tree row along both sides of the street creates a boulevard-like environment for pedestrians and area residents and in fact restores the street to the residential character it had in the early twentieth century.

The plan also includes an apartment building on the corner of Sigourney and Hawthorn Streets. The building provides a street edge at this large, open intersection that lacks buildings to define the edges.

The row of townhouses with strong landscaping and gateway elements will create an edge for the neighborhood while adding to the critical mass for both the busway and potential neighborhood services. Given its access to Aetna and the downtown, a well-buffered townhouse development would appeal to young professionals and empty nesters.



Illustrative plan

The vacant parcel at the southeast corner of Forest and Hawthorn Streets has been discussed as a potential site for a number of different uses. It is important that any development on the site be a use that attracts or generates pedestrian activity and takes advantage of the transit facility. The site and the transit station can then bookend Hawthorn Street and enhance the urban character of the area.

### **Residential Neighborhood Restoration**

In addition to revitalization efforts by NINA, residential neighborhood restoration will require a policy initiative by the City to target this area for code enforcement, home improvement funds, infill development and selective redevelopment.

### **Development Summary**

The plans described above are conceptual and illustrate the general type and scale of development recommended. Building footprints and total square footages were developed as a means of understanding the capacity of the sites; that is, the scale of development that could be accommodated along with associated parking requirements. For purposes of these plans, parking ratios of one space per housing unit and 3-5 spaces per 1,000 square feet of commercial space, depending on the actual type of commercial use and the availability of on-street parking, were used. The square footage numbers also were used to assess potential economic benefits associated with the plans.

As the plan is implemented, actual developments - based on property line surveys, much more detailed site information and level of design, and current market conditions – will differ from those shown here, but should follow the intent of the site plan and design guidelines (*in the Implementation Chapter*).

**Development Summary Table\***

| Use             | Total New Square Footage | Total New Units |
|-----------------|--------------------------|-----------------|
| Residential     |                          | 182             |
| New Destination | 86,000                   |                 |

*\*See Appendix B for a more detailed development summary.*

**Infrastructure Plan**

The key components of the infrastructure plan for this Station Area will be the station plaza and pedestrian improvements along Sigourney and Hawthorn Streets, including widened sidewalks, landscaping, pedestrian scale lighting and other amenities. Improvements on the Sigourney Street overpass and south to Russ Street will help to connect the neighborhoods north and south of the highway and will improve connections to the transit station from the south.

Pedestrian improvements within 1,500 feet of the transit station would be eligible for federal transportation funds. Additional city and/or state funds will also be required to upgrade the pedestrian environment.

**Economic Benefits**

Most of the economic benefits to be derived at the Sigourney Station are a result of the investment in parking facilities made by Aetna. These parking facility investments are not a direct result of the busway system. In fact, it is hoped that the busway will reduce the reliance of the Aetna employees on the automobile.

The proposed housing along Hawthorn Street appears to be of a long-term nature likely following the initial five to 10 years of BRT operation; economic impacts would be difficult to ascertain at this time. The actual construction of the housing would create economic benefits in terms of direct and indirect jobs and payroll. It is not possible at this time to determine the potential real property tax benefits which

would be generated by the residential uses as it is not known the types of initial and/or long-term public sector incentives, including potential tax abatement, which may be required to effectuate the housing.



## Implementation Strategy

### Acquisition and Reparcelization Strategies

Initial acquisition and reparcelization strategies relate to working with Aetna to assure the proper development of the transit plaza related to the BRT Station and pedestrian linkages from the Station and the parking facility to Aetna and the surrounding neighborhood.

Future residential development along Hawthorn Street is viewed as a long-term opportunity. Most of the land is owned by Aetna and the City should work with Aetna to develop a plan for the future disposition of those parcels for residential development. Planning also needs to be undertaken to determine how any interim infill development on side streets and/or tax lien properties can be placed into a land bank for future neighborhood residential redevelopment. The long-term nature of this residential development would limit any private sector interest and most likely the public sector or a nonprofit entity should have responsibility for site aggregation overtime.

One option that Aetna may be interested in is developing an agreement with the City under which the City would purchase the vacant brownfield site at the intersection of Hawthorn and Forest Streets and lease the property to Aetna. Aetna would clean up the site consistent with parking use, pave the site and use it for interim parking during garage construction. Following garage construction, Aetna would turn the site back over to the City for development. A ten-year low or no cost lease on the site would allow Aetna to reasonably amortize costs for site preparation and the City would then have a cleared site ready for the next phase of development and whatever further cleanup would be required for that use.

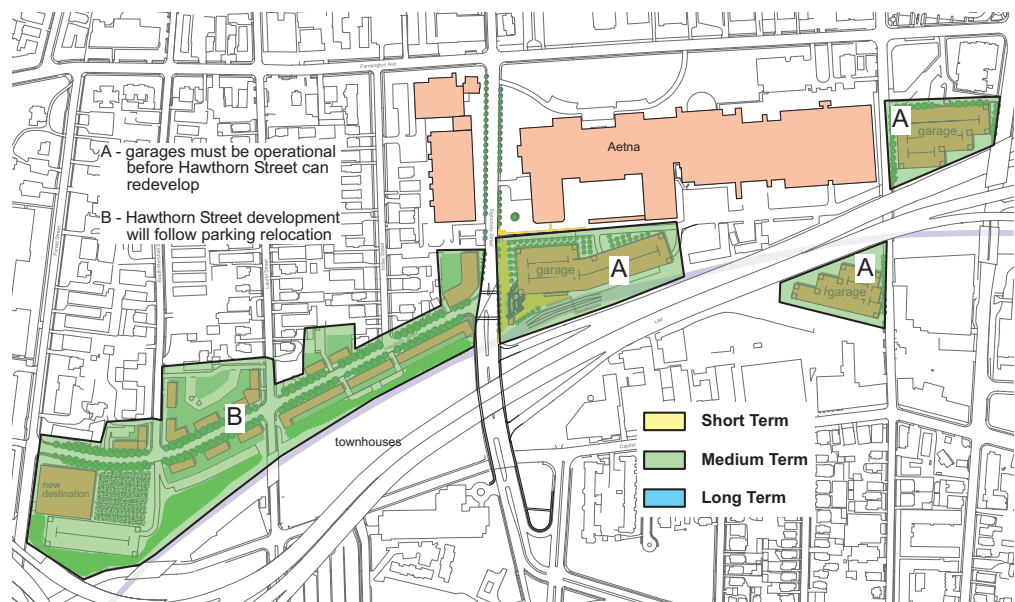
## Phasing

The development plans look at three time horizons:

- **Short-term:** includes the time period up until the end of 2009, or when the busway is scheduled to begin operation
- **Medium-term:** begins in 2009, or at the start of busway operation, and continues through 2018 (up to ten years following the start of busway operation)
- **Long-term:** begins in 2019 and continues through 2025

The three time horizons are approximate and there could be some overlap between the medium-term and long-term periods.

Pedestrian improvements along Sigourney Street should happen in the short-term, to support the opening of the busway. Development phasing is almost entirely a function of Aetna's plans for parking and other campus improvements which are anticipated to happen in the medium-term. The development of Hawthorn Street residential use cannot happen until Aetna has consolidated their parking, making the Hawthorn Street parcels available for redevelopment. Medium and long-term



Phasing diagram



actions should involve continued stabilization and enhancements of the larger neighborhood, efforts to obtain a critical mass of housing development, site control, and construction of pedestrian enhancements along Hawthorn Street.

In the future, public and private interests should capitalize on the resulting levels of pedestrian traffic accessing and emerging from the busway station. Neighborhood services and retail should be phased in to better anticipate the needs of the densely populating community. Beginning with opportunity sites such as the former Hastings Hotel, future development should complement and weave together the existing residential/office environment.

### **Zoning**

The Hartford Municipal Advisory Committee recommends that the City of Hartford consider a proposal for a TOD Overlay District drafted by the City Planning Department. That overlay district should be applied to the Sigourney Street station area.

The complete text of the proposed zoning amendment is included in Appendix C.

### **Design Guidelines**

Adopting design guidelines for the Sigourney station area is important for two reasons: 1) they provide the various parties involved in implementation a common framework for types of development that should be encouraged; 2) they provide developers a sense of comfort that the design integrity of the area will be maintained.

The illustrative plans for each station adhere to the basic site planning design guidelines below. The plans illustrate recommended locations for building siting, both for each parcel and for the larger district, but as implementation begins other, more detailed, proposals will be considered for individual sites. The illustrative plan and the guidelines below can be used to evaluate individual projects.



Garage with brick facade that contributes to the streetscape (Harvard Sq., Cambridge, MA)

The general guidelines for all station areas are:

- All development must be designed to enhance or create urban character that is pedestrian friendly, convenient for transit patrons accessing stations on foot, and safe. This is done through the siting of buildings at the sidewalk edge and using landscape elements that reinforce the street edge. Buildings should have at least one entrance on the street. Building facades should have street level windows and active ground floor uses. Parking should be behind buildings or screened with landscape elements.
- Sidewalks should be separated from moving traffic by planting strips and on-street parking. Street trees will frame the sidewalk space and improve the visual character of the station area for drivers on local streets (see typical ROW sections in *City of Hartford: Principles for Transit-Oriented Development*, published separately).
- Streets in station areas should be as narrow as possible to facilitate pedestrian crossings without impeding traffic circulation. Slowing traffic will also allow drivers to take note of new development and hopefully entice them to stop and shop. Within station areas, streets need to be designed for people, vehicles, and businesses, not just to meet highway standards.
- Where possible, buildings should be designed to accommodate various uses over time. If market conditions do not support ground floor retail, buildings should be design to be easily retrofitted to accommodate retail at a later date.
- Building windows should be individual openings in the façade, not continuous bands, with well-defined lintels and sills. Building tops should be shaped with attention to their view against the sky. Use of upper floor setbacks and peaked roofs to articulate the roofline is encouraged. Façade planes should be visually broken to reflect the scale and development pattern of other buildings on the street. Mechanical penthouses and other projections or roof elements that are visible from the street should be architecturally integrated with the overall building design.

In addition to the overriding principles listed above there are characteristics of the Sigourney Street Station Area that require additional guidelines.

- Development and landscaping along Hawthorn Street should be large enough to screen pedestrians view to I-84 to the south.
- If possible, Hawthorn Street should be narrowed to allow for heavy landscaping to help change the areas image from an edge to an integral part of the neighborhood.
- The Aetna garage proposed on Sigourney Street at the end of Hawthorn should have a handsome façade facing the street and bringing attention to the transit station.
- Townhouses on Hawthorn Street should have parking located on-street and in back.

### Partnerships and Deal Structure

Partnership and deal structure primarily involves working with Aetna on their parking and facility plans. The proposed design for the transit station plaza requires close cooperation with Aetna and its plans for a new garage on the parcel. Initial conversations have been positive, with both sides expressing an interest in cooperating to develop a station that can best serve the community. This cooperation will need to continue through the design and construction process.

The City must work with neighborhood organizations and likely nonprofit housing providers to improve neighborhood conditions and obtain site control on potential redevelopment parcels. Designation of the area as a Redevelopment Area would allow the City to acquire and consolidate parcels and dispose of them for residential development.

Aetna and the Courant will also have to negotiate an agreement for a shared garage on the Courant's Flower Street parking lot. The agreement would cover responsibility for design, construction, operations and maintenance, in addition to issues related to security and access for employees from the two companies.



*Townhouse developments with parking located on-street and in back.*



*Townhouses and a well landscaped street will screen views of the overhead highway and create a pleasant walking environment. Additional examples are shown earlier in this report under the description of the Hawthorn Street residential district (page 19).*

At present, CROG and the City of Hartford should encourage Aetna to promote busway ridership with free bus passes, parking cash outs, an employee awareness program, and other Transportation Demand Management (TDM) measures. Once Aetna's parking has been relocated, or the requirements reduced by the steps above, the City of Hartford should help the private or non-profit development community to acquire and assemble Aetna's interests along Hawthorn. Hartford should also offer incentives and streetscape improvements to help ensure quality residential programming. Typically, townhouse populations generate fewer children than other types of residential development; therefore, Hartford would expand its tax base without overly straining its educational services.

### **Housing Programs**

The station area plan for the Sigourney Station area includes significant new housing units. The proposed housing includes new construction on vacant lots, rehabilitation of existing units, and the reuse of older commercial and industrial buildings for housing. To support the busway and increase activity in the station areas, the plan calls for higher densities and a mix of housing types.

The plan assumes that the housing will be constructed by the private sector, and will be offered for sale or rent at market rates. The housing will be developed over the next twenty to twenty-five years as the market demand dictates.

Under ideal market conditions, housing developers will construct housing to meet market demand without any incentives or assistance from the public sector. However, to encourage developers to build product that mirrors the housing densities and types recommended in the station area plans, the City, ConnDOT, and other state and local agencies might choose to consider public sector initiatives that could help direct the housing development program for the station areas. In addition, it is possible that the market prices for housing fall short of the cost of new construction. In this case, public sector initiatives could be used to help bridge this gap.

Therefore, the plan for each station includes specific public sector programs that can be implemented to support the proposed station area housing development. The plans focus on public sector tools that can encourage and support market rate housing. There are additional housing incentives and assistance programs through local, state, federal, and non-profit sources that could be used to support development of low and moderate-income housing development, should the City choose to target this market at some time in the future.

The Sigourney Station Area Plan calls for new development of 110 townhouses and 72 apartments. In addition, the plan calls for the rehabilitation of housing along the north-south streets from Forest Street to Sigourney, between Farmington Ave. and Hawthorn St.

To support housing development in the vicinity of the Sigourney Street Station, the City could implement several of the tools described under the housing strategy for Union Station. These include:

- A TIF district to coincide with the TOD Overlay District;
- Tax abatements for housing construction consistent with the Station Area Plan;
- A streamlined permitting process;
- Reduction in permitting fees;
- Targeted infrastructure and capital improvement funds; and
- Location Efficient Mortgages.

The existing stock of housing along Forest, South Marshall, Laurel and Imlay Streets could benefit from some additional programs aimed at rehabilitation of the existing housing stock. Clearly, **municipal code enforcement** is one strategy that could help stabilize the existing housing stock in the area. Code enforcement would further serve to improve the marketability of the surrounding development sites by making the area safer and more attractive.

In addition to code enforcement, the City could consider amending the building code to include specific provisions that **relax specific requirements for the rehabilitation of the older housing stock**. Most building codes typically are written for application to new construction. Code provisions for ceiling heights, the width of staircases, doorway size, etc. frequently cannot be met without substantial cost (and sometimes not at all) in older homes in need of renovation. Hartford could consider adopting code provisions for older homes that recognize the difficulties with renovating older structures to meet newer codes, without compromising building safety. The drafting of any such code amendments should be done in consultation with the fire department and building inspector to ensure that code provisions meet basic safety standards.

The City already has in place the **Housing Preservation Loan Fund** (funded from the City's CDBG moneys) and the **Homeownership Appraisal Gap Financing** program, both of which are aimed at helping developers and homeowners renovate the existing housing stock in the City. These programs can be applied in the existing residential neighborhoods in the Sigourney Street station area to help revitalize existing residential structures, and improve the marketability of the entire station area. The Housing Preservation Loan Fund "provides low interest loans that are designed to encourage property owners to fix-up their properties and, thereby increase the supply of decent housing for lower and moderate income people."<sup>1</sup> The fund has been used in some neighborhoods in conjunction with funds from non-profit (such as Community Development Corporations) and private sources to rehabilitate historic housing units. Eligibility for the program is determined by the income of the homeowner or the affordability of the units. The loans can be used to fix building code violations, improve energy conservation, provide handicapped access, and undertake general property improvements.

<sup>1</sup> [www.hartford.gov](http://www.hartford.gov)

The Homeownership Appraisal Gap Financing Program aims to increase homeownership opportunities and return to the market existing vacant and deteriorated housing. The program targets the rehabilitation of one to four unit residential structures, and can provide zero interest mortgages of up to \$20,000 per unit or \$40,000 per structure to bridge the gap between the appraised value of the prop-

erty and the rehabilitation costs. The program is only available for houses that will be sold to homebuyers for their primary residence.

### **Development Plan Summary: Next Steps**

The following summarizes the phasing of the key development components:

#### Short-Term: 2004-2009

- Consider incorporating station area plan into Plan of Conservation and Development
- Consider adopting zoning overlay district as outlined in Appendix C
- The North Frog Hollow and Asylum Hill Neighborhood Revitalization Zone Committees (NRZs) should consider amending their Strategic Plans to incorporate the Station Area Plan
- Aetna/City partnership begins planning for Hawthorn Street
- Initiate residential neighborhood renewal through targeting City programs to the station area
- Redesign Sigourney Street to improve pedestrian connections (including stairways) south to the North Frog Hollow neighborhood

#### Medium-Term and Long-Term: 2010-2025

- Develop RFPs for Hawthorn Street parcels
- Develop Hawthorn Street townhouses and related Hawthorn Street improvements
- Develop infill housing on the blocks bordered by Farmington Avenue to the north and Hawthorn Street to the south





## Appendices

A: The Case for Density

B: Detailed Development Numbers

C: Proposed Zoning

## Appendix A: The Case for Density

Many studies have shown that density is a necessary component of successful transit-oriented development. Starting at densities of 12 dwelling units per acre, research shows that dependence on the automobile begins to decline and the use of transit increases. At 16 units per acre, these trends become significant. To be truly successful, residential density must be part of a vibrant community, with sufficient neighborhood-level jobs, services, and shops to meet the daily needs of the residents, and designed to attract and accommodate substantial pedestrian activity.<sup>1</sup>

While urban planners and transit proponents often recognize the benefits of density around transit station, many policymakers and urban area residents remain skeptical. Opponents contend that density equates with a myriad of urban ills, including increases in traffic congestion, public expenditures on infrastructure and services, and crime, while causing property values to decrease. Some suggest that density equates with poverty, although no empirical data supports this relationship.

Because of the debate over density and its impacts on the urban environment, considerable research has explored just how density effects urban neighborhoods. The overwhelming evidence is that urban density results in personal and public cost **savings**, environmental benefits, and an improved local and regional economy. Conversely, the urban ills often associated with density are more clearly related to the failure to mix uses and provide transportation options within an urban setting, as well as poor design that discourages pedestrian activity. Significant findings from the research are documented below.

### Traffic Congestion

One of the most often cited arguments against increased residential density is that, by concentrating more people into a smaller area, traffic congestion will increase and become unmanageable. Many studies have been conducted to assess the relationship between density and traffic congestion, and the findings have consistently shown that residential density does not correlate with increased traffic

congestion. In fact, the research indicates that, as residential density increases, vehicle use decreases.

The argument that density causes more traffic congestion is flawed in part because it fails to recognize that the denser a neighborhood becomes and the greater the mix of uses found in that neighborhood, the less the residents rely on the automobile. “Research suggests that densities of seven units per acre are needed to support a small corner store; a small supermarket requires 18 units per acre.”<sup>2</sup> In urban areas with higher densities, retail establishments and services can locate within walking distance of their customer base, reducing reliance on automobiles. Urban “villages with adequate jobs, housing, shops, and entertainment that are serviced by good transit appear to be most effective in reducing automobile dependent leisure trips. In 11 US metropolitan areas, mid to high rise neighborhoods with employment centers, retail, and service areas and 1.5 mile commute distances have at least 25% of the population walking or biking to work.”<sup>3</sup> “Individual census tract statistics gathered in the 1996 Canadian census...showed that the denser a neighborhood gets, the less it relies on auto travel and more on foot and public transit. The Smart Growth Network found that “when communities are created that double household density, vehicle travel is reduced by 20 to 30 percent, as people use convenient and cheaper alternatives to the car.”<sup>4</sup>

### **Energy Consumption**

The relationship between density and energy consumption follows directly from the reduction in vehicle trips and trip length associated with increased density. With fewer vehicle trips, residents of denser urban areas use less gas, and thus consume less energy. In contrast to areas of low density development, energy usage for vehicle trips in higher density urban settings can be reduced by up to 43%.<sup>5</sup> “With mixed uses involving 1 to 1 job/housing ratios, up to 68% less energy can be used and average commute distances have been reduced by 28%.”<sup>6</sup> A study for the California Energy Commission found a direct correlation between reductions in vehicle miles of travel and energy consumption.<sup>7</sup>

### **Expendable Income**

Higher density development near transit can benefit residents by providing real gains in expendable income. These gains result from two different impacts of transit-oriented development. First, in higher density areas well-served by transit, the average annual cost to operate a vehicle was found to be 33 percent less than in less dense neighborhoods with fewer transit options.<sup>8</sup> This difference is attributable to reduced auto ownership in the denser areas served by transit, and shorter distances to services and shopping (resulting in decreased spending on fuel and auto maintenance.) The Federal National Mortgage Association (Fannie Mae), in conjunction with the banking community in several US cities, recognize this savings and its impact on expendable income, and have responded with the Location Efficient Mortgage (LEM) program. The LEM program considers this transportation cost savings when calculating an applicant's income qualifications for a mortgage, allowing homebuyers in areas served by transit to qualify for higher mortgages than their income would otherwise permit.<sup>9</sup>

Denser, transit-oriented development also can increase an individual's buying power if communities allow reductions in parking requirements for new housing construction in neighborhoods served by transit. "Required parking raises the cost of new housing construction by \$20,000 to \$40,000 or more per space."<sup>10</sup> By not requiring parking, or by lowering the number of spaces required per unit, housing construction costs can be lowered, translating into reduced housing prices. These reduced prices have the effect of both providing home ownership options to a broader segment of the population, and allowing homeowners to reduce their housing costs, thereby increasing their expendable income.

### **Public Services and Infrastructure**

Another argument proffered by opponents of urban density is that density will result in higher infrastructure costs. This argument is not borne out by the research. In fact, "more compact neighborhoods require fewer linear feet of utility lines – like

water, sewer, electricity, phone service, and others – than dispersed communities do. As a result, many communities find that it is cheaper to provide and maintain many services to compact communities.”<sup>11</sup> High density development can provide economies of scale in infrastructure investments, and by encouraging infill, excess capacity from existing utility infrastructure can be tapped before new construction is required.<sup>12</sup>

A 2004 Brookings Institute report catalogues the findings from numerous studies of the costs of providing services and infrastructure to densely developed urban areas compared to less dense urban and suburban development.<sup>13</sup> The consistency of findings is remarkable. All of the studies found a substantial cost savings for providing infrastructure and municipal services to more densely developed urban areas. Some of the more striking findings include:

- A 1998 study found that “compact...growth patterns could reduce 25-year road-building outlays by 12 to 26 percent.”<sup>14</sup>
- A 1989 study of the Orlando metropolitan area found that “the public capital and operating costs for close-in, compact development were much less than they were for fringe, scattered, linear, and satellite development...the costs per dwelling ranged from a low of \$9,252 for downtown Orlando (1989 dollars) to a high of \$23,960 to serve new homes in ... a low density fringe development.”<sup>15</sup>
- Additional studies showed that shifting development from a pattern of sprawl to planned development “could reduce total road-building expenditures 12 percent in South Carolina, 12 percent in Michigan, and 26 percent in New Jersey.”<sup>16</sup> Similar savings were reported for water and sewer infrastructure.
- The Brookings Insistute research survey also showed substantial savings in operating costs resulting from economies of scale, efficiency of service delivery, and the ability to draw on excess capacity in already developed areas.<sup>17</sup>

The overarching finding from the Brookings Institute study is that, while the magnitude of the savings will differ somewhat from community to community, governments can reduce the cost of public services and capital expenditures, saving taxpayers money, by channeling development into areas where existing infrastructure and services can be more efficiently utilized.

### **Property Values**

One common misconception about density is that increased density results in decreased property values. In fact, some of the most expensive neighborhoods in many U.S. metropolitan areas have densities in excess of 50 units per acres. For example, two of the most desirable residential areas in Boston, Newbury Street and Commonwealth Avenue, have residential densities of 60 units per acre and 100 units per acre, respectively.<sup>18</sup>

Research on the relationship between proximity to transit stations and property values consistently shows that residential and commercial properties in close proximity to transit enjoy a property value premium. Some of the research results are as follows:

- In Washington, DC, the value of residential land within the impact area of Metro stations was found to be \$6 to \$8 per square foot greater (1980 \$s) than land in non-station locations.<sup>19</sup>
- Residences near the Lindenwold High Speed Line in Philadelphia realized a location premium of 6.4 percent.<sup>20</sup>
- “Properties near the Los Angeles Metro Rail have average sale prices of \$102.13 per square foot compared to \$71.13 for properties that are not near the Metro Rail.”<sup>21</sup>

The above-cited studies focus on residential property values. Similar studies of commercial properties in the vicinity of transit stations have shown that these properties also realize a property value premium directly linked to their proximity to transit stations.<sup>22</sup> The increased property values associated with locations near

transit translate into an increase in the municipal property tax base, and a direct increase in tax revenues in the very neighborhoods where average public infrastructure and service delivery costs are reduced due to increased densities.

### **Crime**

An additional argument often put forward by opponents of density is that increased density leads to increased crime. The research does not support this argument. International comparisons of crime rates, which show lower crime rates in more densely populated European and Asian metropolitan areas than in less-dense US cities, suggest that factors other than density contribute to high urban crime rates in the United States.<sup>23</sup>

In fact, a strong argument can be made that increased density, combined with a mix of uses that generate activity throughout the day and evening, and designed to be pedestrian-oriented, leads to increased public safety. A high density neighborhood with a mix of uses will result in more pedestrian activity throughout the day and evening, creating more “eyes on the street”, and a built-in deterrent to crime. Furthermore, infill development on vacant lots and surface parking sites will eliminate areas devoid of activity. One “key to ensuring that density improves security is design that encourages greater neighborhood surveillance and interaction.”<sup>24</sup>

### **Regional Economic Performance**

The Brookings Institute study cited above also looked at how density impacts regional economic performance. The study found that urban planning strategies that encourage “compactness, density, and “quality of life” enhancement seem to support – or at least be associated with – modestly strengthened economic performance.”<sup>25</sup> Some of the findings include:

- Doubling employment density increases productivity by approximately 6 percent.
- Communities that utilize growth management techniques to limit sprawl

realize a 1 percent increase in their economic performance (measured in terms of personal income) relative to other regions.

- Income growth in the central city of a metropolitan area translates into corresponding income growth in its suburbs.<sup>26</sup>

These findings suggest that the economic benefits of compact development reach well beyond the individual neighborhood where density occurs to the entire city and metropolitan area.

### **Density, Design, and Mixed Uses**

The above discussion serves to debunk a number of the myths associated with urban density. Research suggests that density, in fact, can provide numerous benefits to a municipality and its residents. The real keys to successful development at densities that support transit are 1) to incorporate a mix of uses, and 2) to design active, vibrant, pedestrian-oriented communities. The mix of uses should include a variety of types of residences, including townhouses, condominiums and apartment. By offer a range of housing types, the community will attract a variety of residence from young singles to empty-nesters. A heterogeneous population will ensure activity on the street during the day (when many folks are at work) and in the evening (after offices and service establishments close.) In addition to residences, uses should include shops and businesses that will be open during the day and that can provide job opportunities for neighborhood residents, as well as restaurants and entertainment establishments that will attract nighttime activity.

Design is also a crucial component of successful urban development. Urban neighborhoods should be designed to be pedestrian-friendly, contain lively public spaces, and respect the context of the surrounding community (with particular attention to the historic context of the built environment). Building materials, signage, streetscapes and street furniture, the location of buildings and entrances relative to the sidewalk, and the location of parking will all contribute to the success of urban neighborhoods and transit-oriented development. Buildings should be located close to the sidewalk, with parking located on-street, or in back of build-



ings. Ground floor space should be for active uses such as retail, with multiple doors and windows facing the street (see Design Guidelines in the Implementation Strategy chapter of the report). Density can and should be a central component of these neighborhoods.

### **Visualizing Density**

Many opponents of density are influenced by memories of 1960s-style high rise public housing projects, or visions of dense office development accompanied by street-level garage entrances that undermine the pedestrian environment. Both decision-makers and residents need to be educated about what higher density, mixed-use, transit-oriented urban villages, and vibrant transit-served city centers can look like.

This can be accomplished through visualization techniques that show what density looks like elsewhere, as well as what density can look like around the proposed station areas. Real-world examples of density can be downloaded from existing web sites<sup>27</sup>, or obtained directly from communities that have already accomplished compact transit-oriented development projects. Computer-generated visualization techniques that superimpose new development designs on photographs of existing station areas (such as the techniques used in CRCOG's TCSP project) can be used to help people understand what compact transit-oriented development can look like around the stations.

Finally, in a recent Boston-area conference on density, one participant noted that to implement public policy, both a problem and a solution to that problem must be articulated. Thus, in educating the public, density must be presented as a solution to many of the very urban ills that opponents of density have often offered as arguments against it. The goal should not be to demonize sprawl, but instead to advocate for the many benefits of density.<sup>28</sup>

- <sup>1</sup> Fleming, Randall, The case for Urban Villages, reprinted from *Linkages* Issue No. 8, periodical of the Institute for Ecological Health. <http://www.fscr.org/html/2000-01-05.html>.
- <sup>2</sup> *Designing for Transit: A Manual for Integrating Public Transportation and Land Development in the San Diego Metropolitan Area*. July 1993.
- <sup>3</sup> Op.cit., Fleming.
- <sup>4</sup> Smart Growth Network, Getting to Smart Growth: 100 Policies for Implementation, the International City/County Management Association, undated, p. 10.
- <sup>5</sup> Op. Cit., Fleming.
- <sup>6</sup> Ibid.
- <sup>7</sup> Parsons Brinkerhoff, Smart Growth Energy Savings; MPO Survey Findings, for the California Energy Commission, September 21, 2001, p. 8.
- <sup>8</sup> Perkins, Broderick, The High-Density Solution for Tight Markets. [http://realtytimes.com/rtpages/20020509\\_highdensity.htm](http://realtytimes.com/rtpages/20020509_highdensity.htm)
- <sup>9</sup> [www.locationeffeciency.com](http://www.locationeffeciency.com)
- <sup>10</sup> \_\_\_\_, unbundle new urban parking + housing. <http://www.dbarchitect.com/www-writing/parking.html>
- <sup>11</sup> Op. cit., International City/County Management Association.
- <sup>12</sup> California Planning Roundtable, Myths and Facts about Affordable and High Density Housing. <http://www.abag.ca.gov/services/finance/fan/housingmyths2.htm>
- <sup>13</sup> Muro, Mark, Investing in a Better Future: A Review of the Fiscal and Competitive Advantages of Smarter Growth and Development Patterns, *The Brookings Institute Center on Urban and Metropolitan Policy*, March 2004.
- <sup>14</sup> Ibid., p. 13.
- <sup>15</sup> Ibid.
- <sup>16</sup> Ibid.
- <sup>17</sup> Ibid., p.18.
- <sup>18</sup> Rappaport Institute for Greater Boston, The D Word, January 2004 Conference Proceedings. <http://www.ksg.harvard.edu/rappaport/forums/thedword.htm>
- <sup>19</sup> PriceWaterhouseCoopers, Richmond/Airport-Vancouver Rapid Transit Project, April 3, 2001, p.2
- <sup>20</sup> Ibid., p. 3.
- <sup>21</sup> \_\_\_\_, Urban Sprawl Ideas that Work. [Http://www.stateaction.org/issues/sprawl/sprawlideas.cfm](http://www.stateaction.org/issues/sprawl/sprawlideas.cfm)
- <sup>22</sup> Op. Cit., PriceWaterhouseCoopers.
- <sup>23</sup> 1000 Friends of Oregon, The Debate Over Density: Do Four-Plexes Cause Cannibalism? <http://www.friends.org/issues/density.html>
- <sup>24</sup> Local Government Commission in cooperation with the US Environmental Protection Agency, Creating Great Neighborhoods: Density in Your Community, September 2003 (sponsored by the National Association of Realtors).
- <sup>25</sup> Op. Cit., Muro, p. 21.
- <sup>26</sup> Ibid., pp. 21-23.
- <sup>27</sup> See, for example, [www.architechts.org/emplibary/A1\\_a.pdf](http://www.architechts.org/emplibary/A1_a.pdf).
- <sup>28</sup> Rappaport Institute for Greater Boston, The D Word, January 2004 Conference Proceedings. <http://www.ksg.harvard.edu/rappaport/forums/thedword.htm>

## Appendix B: Detailed Development Numbers

| Use                                     | Units or Sq.<br>Ft./ Floor | Stories | Total Units    |
|---|----------------------------|---------|----------------|
| Townhouses                              |                            |         | 110 units      |
| Apartments                              | 12                         | 6       | 72 units       |
| Surface parking (some under townhouses) |                            |         |                |
| School                                  | 43,000                     | 2       | 86,000 sq. ft. |
| Garages by Aetna                        |                            |         |                |

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Townhouses 1,400 to 1,600 sq. ft. per unit  
 Apartments 1,000 sq. ft. per 2 bedroom unit

## **Appendix C: Proposed Zoning - Hartford**

*Introduced by:*

Heading  
And  
Purpose:

### **AN ORDINANCE ESTABLISHING DEVELOPMENT PROVISIONS FOR TRANSIT ORIENTED DEVELOPMENT OVERLAY DISTRICT**

COURT OF COMMON COUNCIL  
CITY OF HARTFORD,

2003

Be It Ordained by the Court of Common Council of the City of Hartford:

#### **Section 35- Purpose**

The purpose of the Transit Oriented Overlay District is to create a more walkable, less auto-oriented and better-landscaped environment around the transit stations for any dedicated fixed guideway transit system, to encourage mixed use development, and to connect existing neighborhoods to transit stations through appropriate development, pedestrian-friendly design, attractive architectural design, and landscaping. Generally, any parcel of land fronting on a major street in the City of Hartford that is within a 1500 feet radius of a transit station along a fixed guideway transit system shall be developed according to guidelines in the following sections.

#### **Section 35- Uses Permitted**

Use requirements of the underlying zoning districts remain in force, except as noted in Section 35-xxx.

#### **Section 35- Uses Not Permitted**

The following uses shall not be permitted in the Transit Oriented Overlay District:

- Automobile General Repair and Services
- Automobile Limited Repair and Services
- Automobile Wash, Self Service
- Automobile Laundry
- Motor Vehicles – Retail
  - ◆ New and Used Cars
  - ◆ Used Cars only
  - ◆ New and Used Trucks
- Motor Vehicles or Gasoline Fueling Stations
- Motor Vehicles or Gasoline Service Stations
- Eating Places with Drive-in or Curb Service
- Commercial Parking Lots

- Junk and Scavenger Yards
- Motor Vehicle Wrecking and Junkyards
- Solid Waste Disposal
- Drive-in Movies

### **Section 35- Density Waiver**

A Special Permit may be granted from the Planning and Zoning Commission to waive residential density, height limits, lot occupancy, and open space requirements from the maximum underlying zoning regulation provided that no portion of the structure shall be within fifty (50) feet of a residentially zoned property. The open space requirement may only be waived if the development is within fifteen hundred (1500) feet of a public park.

### **Section 35- Required Parking and Loading Areas**

- a. All development in the Transit Oriented Overlay District shall provide the minimum onsite parking and loading spaces as required by the present zoning code, unless stated otherwise in this section.
- b. The maximum number of onsite parking spaces shall not exceed the minimum requirement by more than 5%. This requirement shall not apply to residential uses.
- c. The minimum required number of parking spaces may be reduced by the number of on-street parking spaces located along the building frontage. Only those parking spaces that are located on the same side of the street as the development and that do not extend beyond the street frontage of the subject property may count toward the reduction. This allowance shall not apply to residential uses.
- d. Shared Parking
  1. If there is more than one use on a lot, then the total parking requirement shall be equal to the sum of the parking requirement for each individual use.
  2. On lots with more than one use, the total parking requirement may be reduced, provided that the applicant submits credible evidence to the satisfaction of the Zoning Administrator that the peak parking demand of the uses do not coincide, and that the accumulated parking demand at any one time shall not exceed the total capacity of the facility. Such evidence must take into account the parking demand of residents, employees, customers, visitors, and any other users of the lot. It must also take into account parking demand on both weekends and weekdays, and both during the daytime and overnight.
- e. All surface parking lots shall provide a perimeter-landscaped strip a minimum of 5 feet wide around the edges of the entire lot. The landscaped strip shall contain no fewer than 4 trees for every 100 linear feet, as well as shrubs no less than 4 feet in height. A wall or decorative fence measuring 2.5 to 4.0 feet in height, as measured from grade, may be added to the landscaping strip.

- f. For surface parking lots greater than 20 spaces, at least 15 percent of the interior area shall be planted with trees and shrubs.
  - 1. Each planting area shall be a minimum of 25 square feet in size and have no dimension less than 5 feet.
  - 2. Each planting area shall have at least one tree.
  - 3. No row of parking shall contain more than 10 spaces wide without installation of a planting area.
- g. Bicycle racks shall be provided onsite at a rate of one bicycle parking space for every 10 automobile parking spaces.
- h. All zoning lots in effect at the date of this ordinance's adoption are subject to this ordinance for the purpose of determining maximum allowed parking.
- i. Property owners are responsible to properly maintain all landscaping, and replace all dead and diseased vegetation.

#### **Section 35- Design Standards**

Development in the Transit Oriented Overlay District shall comply with the following design standards:

- a. The main entrance of any building shall face the street.
- b. The main entrance of any building must provide for easy and convenient access from the sidewalk to the entrance.
- c. Any new construction must be built to the building line.
- d. In all Business and Commercial zones at least 25% of sidewalk level (or first level) wall area shall be in the form of transparent windows or doors.

#### **Section 35- Structured Parking**

Structured parking is an allowable use and is exempt from the maximum number of on-site parking spaces per Section 35-xxx Required Parking and Loading Areas but must follow the following design provisions:

- a. Structured parking built to the building line must have retail/office uses on the entire first floor length, except for portion of building used for means of access and egress.
- b. Structured parking without retail/office on the first floor must be set back a minimum of thirty feet from the street line. A perimeter, landscaped strip must be provided around the entire structure. The landscaped strip shall contain no fewer

than four trees for every one hundred linear feet, as well as shrubs, a minimum of 4 feet in height.

- c. A liner building containing retail/office on the first floor may be constructed in lieu of the landscaped strip at time of construction or at any time in the future.
- d. The design and site plan for the structured parking must be submitted to the Design Review Board.

**Section 35-** Parking facilities, as part of transit station development shall be exempt from Section –  
Required Parking and Loading Areas.

*Ord. Transit Oriented Overlay District 6-23-03*  
*GM*