

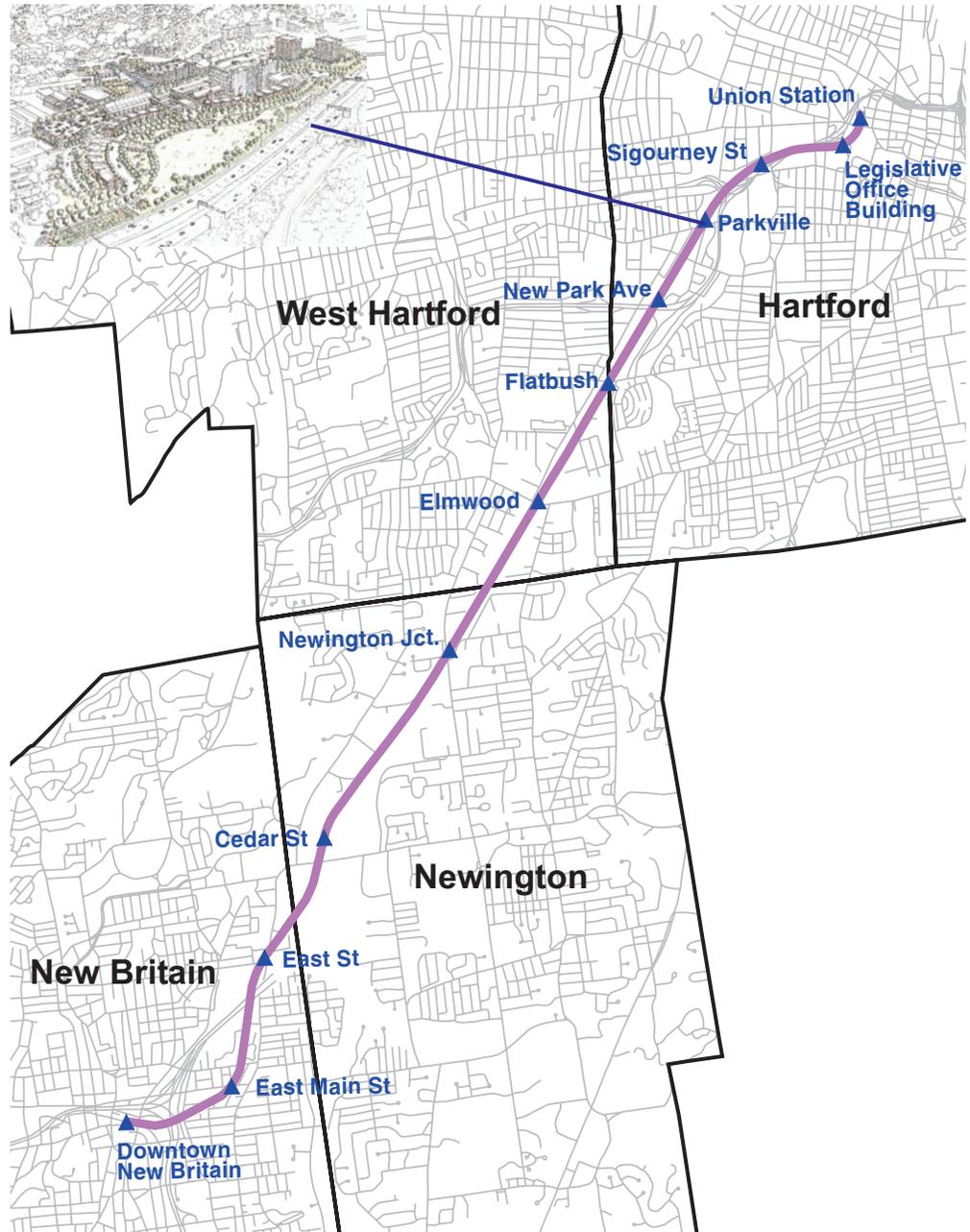
New Britain - Hartford Station Area Planning Project
Parkville Station Area Plan

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: www.crcog.org; 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.

Suggested Citation: Capitol Region Council of Governments (CRCOG), 2004. *New Britain - Hartford Station Area Planning Project: Parkville Station Area Plan*. CRCOG, 241 Main Street, Hartford, CT 06106. www.crcog.org.

Acknowledgements

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

by Crosby | Schlessinger | Smallridge

in association with

Basile Baumann Prost & Associates, Inc.

Fitzgerald & Halliday, Inc.

Susan Jones Moses

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

Hartford Municipal Advisory Committee

Robert Painter, Committee Chairperson - City Council, City of Hartford

Gerry Maine - Planning Department, City of Hartford

Susan McMullen - City of Hartford, Director of Constituent Services

Stephen Jewett - Commission on the City Plan, City of Hartford

Kevin Burnham - Public Works Department, City of Hartford

Glenn Geathers - Hartford Economic Development Commission

John Shemo - MetroHartford Regional Economic Alliance, Inc.

David Morin - Parkville Neighborhood Revitalization Zone Committee

Jennifer Cassidy - Asylum Hill Neighborhood Revitalization Zone Committee

Joseph Barber - North Frog Hollow Neighborhood Revitalization Zone

Carlos Mouta - Parkville Business Association

Jackie Fongemie/Shawn Holloway - Behind the Rocks Neighborhood

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.

Table of Contents

Introduction	1
The Project	1
What is Transit Oriented Development and the Case for Density	2
Study Process	4
Project Area History	6
Site Description / Framing the Opportunities	7
The Project Area	7
The Market	11
TOD Goals	12
Preferred Development Options	15
Site History and Its Influence on Station Area Plans	15
The Plan	15
Bartholomew Avenue Corridor / Commercial Design District	16
Pope Park West Residential District	20
Development Summary	20
Infrastructure Plan	22
Economic Benefits	23
Implementation Strategy	25
Acquisition and Reparcelization Strategies	25
Phasing	25
Zoning	28
Design Guidelines	28
Partnerships and Deal Structure	31
Parking	32
Special Services District	36
Housing Programs	36
Development Plan Summary: Next Steps	38
Appendices	41
A. The Case for Density	
B. Detailed Development Numbers	
C. Proposed Zoning	

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, members of local boards and commissions, 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 was 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 $\frac{1}{4}$ to $\frac{1}{2}$ mile radius around a station, approximately a comfortable five to ten minute walking distance.

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.¹ 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

¹ 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>.

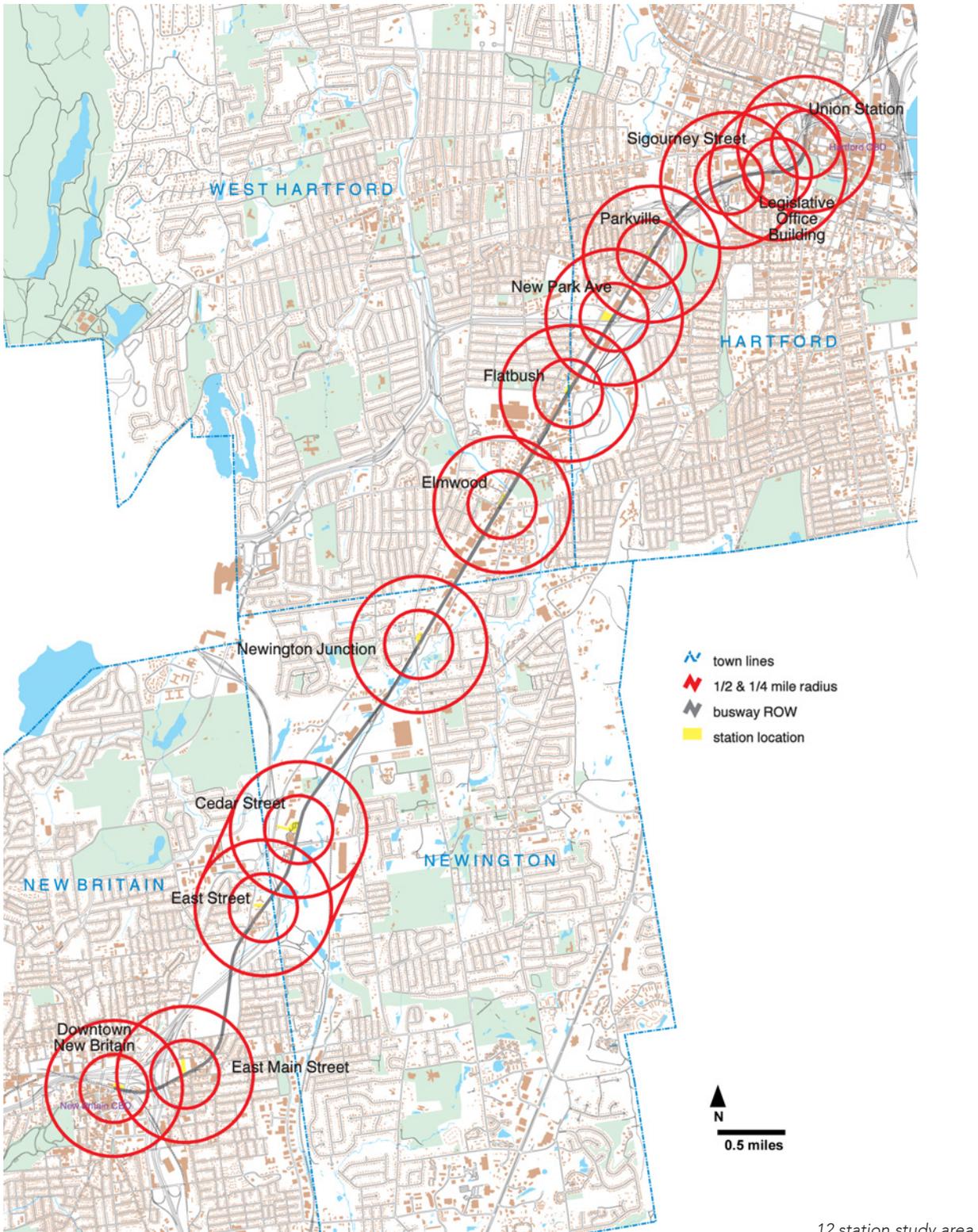
significant benefits for the neighborhood, city and region. Compact development, can, in fact, act as a panacea for revitalizing our urban neighborhoods.

Study Process

The study started by evaluating and comparing each of the busway's 12 station sites for potential transit oriented development opportunities (see 12 station study areas map on page 5). 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.



12 station study area

Project Area History

The busway corridor, and the station sites in particular, are, in the main, broken up into smaller isolated parcels defined by highways, the rail corridor, 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 18th century typically followed valleys where there were watercourses and wetlands; in the mid-19th 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-20th 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.

This report frames the opportunities and details the development options for the area around the Parkville station.

Site Description / Framing the Opportunities

The Project Area

Parkville is a densely developed mixed-use neighborhood that, in fact, has many of the attributes desirable in a station area – high density residential use; active commercial streets; and employment, residences and retail activity all within walking distance of each other and a proposed new transit station. Park Street (and to a lesser extent, New Park Avenue) is the retail heart of the neighborhood.

The eastern edge of the neighborhood is an old industrial corridor (east of the railroad/busway) and an unimproved section of Pope Park (referred to as Pope Park West) cut off from the rest of the park



Parkville looking west; I-84 is in the foreground



Parkville Station Site looking east. BRT Station location shown in red.

by the construction of I-84. A number of the larger, older industrial and warehouse buildings are being reused (or are planned for reuse) for retail, office and residential use. The planned conversion of the multi-story Barridon Building (currently used for self-storage) into loft apartments with ground floor retail will increase the transit supportiveness of the station area by increasing the residential density of the community and redeveloping underutilized space. Likely future prospects for themed reuses include more residential units, home furnishings, restaurants, and entertainment.

As shown on the Ownership and Proposed Development Sites diagrams on the following pages, there are several large parcels in single or limited ownership that could be developed (or redeveloped). The challenge for this station area is to capitalize on the transit investment to accelerate the ongoing rehabilitation activity and strengthen the mixed-use neighborhood with improved pedestrian connections between uses and a more attractive pedestrian environment. The area also suffers from an off-street parking shortage, which will have to be addressed as part of any future development planning.



Existing view of Bartholomew Avenue, looking north; Barridon Building is in the background on the right.



Existing view of Pope Park Highway, looking south. Future expansion space for Pope Park (Pope Park West) is on the left.



Ownership of key parcels



Proposed Development Sites
with acreage indicated

The Market

The Parkville Station area is above the TOD minimum housing density target of 12 units per acre, but below the minimum employment density target of 25 jobs per acre.

2003 Population	1,846
2008 Projected Population	1,944
Projected Percentage Change	5.3%
2003 Dwelling Units	634
2003 Residential Density	20.2 units/acre
2003 At-Place Employment	422
2003 Employment Density	13.4 jobs/acre
2003 % of Public Transportation Commuters	13.5%
2003 % of Walking Commuters	8.1%

The Parkville BRT Station Area has significant transit-oriented development potential. Like the Sigourney Street site, the neighborhood has a balance of residential and employment densities without either component overwhelming the other.

One of the older neighborhoods in Hartford, the Parkville community is bordered on the east by a railroad right-of-way, industrial area, and freeway (I-84) that isolate the neighborhood from the rest of the city. A vibrant, working class neighborhood, the community is composed of a thriving commercial district, the large industrial corridor, and tree-lined residential streets. Its community center includes an elementary school, a library, day care center, and the senior center. Parkville's residents are of varied backgrounds, including Portuguese, Asian, Hispanic, Italian, African American, and Middle Eastern. A variety of churches, ethnic shops and restaurants reflect this diversity. Other assets include Real Art Ways — a premier arts organization, and, near the southern end, the Stop & Shop and Crown Theater.

Several years ago the Super Stop & Shop opened on the site of the former Royal Typewriter factory on New Park Avenue at Kane Street, the first new supermarket to open in Hartford in some time. The retail component along Park Street is both vibrant and diverse. Business owners in Parkville refer to themselves as the United Nations of Hartford as they provide products and services to a wide range of nationalities. The predominant ethnic group represented commercially, the Portuguese-Americans, own several restaurants and bakeries. Most recently, several stores catering to Parkville's most recent arrivals – Brazilians – have opened. There are also a number of Asian-run restaurants, clothing stores, and gift shops.

The Parkville neighborhood is also the site of a true retail destination, an emerging home décor/design district. Convenience, variety, and a concentration of high-quality related businesses attract residents and visiting shoppers to Park Street and Bartholomew Avenue. With its existing retail mix and unique urban form, the corridor has the potential to expand its offerings (e.g. R.L.F. Home, Lyman Kitchens, Dunne & Masse) and attract significant retail traffic. Future complementary uses include unique residential units, entertainment venues, and, in particular, a restaurant at the site of the former brewery.

Despite its structural and cultural assets, the industrial corridor includes many vacant properties. Some small businesses throughout the neighborhood are struggling. Alongside the well-kept homes are deteriorated and unoccupied houses. Like some other Hartford neighborhoods, Parkville must confront issues such as noise, litter, and crime. Its transportation network is characterized by cut-through traffic, a lack of pedestrian facilities, poor truck access, and a highly transit-dependent population. However, transportation initiatives underway — the incoming busway service, the potential redesign of interchanges along I-84, and the redesign of Park Street — will address many of these issues.

TOD Goals

Through work with the Hartford Municipal Advisory Committee and CRCOG, the following goals for this area were developed:

- Capitalize on unique urban industrial environment through innovative reuse
- Promote the vertical mixing of uses among redevelopment projects including ground floor retail (neighborhood services, eating & drinking, home furnishings) and upper floor residential spaces
- Retain and support existing businesses
- Strategically site and centralize shared parking facilities
- Improve the pedestrian environment to create better linkages between the retail, industrial, office and residential uses, as well as between all of these uses and the transit station

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 Options

Site History and Its Influence on Station Area Plans

Historically, the industrial corridor on Bartholomew Avenue was separated from the Parkville neighborhood by the railroad line to the west and was defined on the east by the meandering south branch of the Park River. There are only two places in Hartford where the original river course can be understood - the curvilinear eastern edge of Bushnell Park and at Pope Park Highway, which follows the river course along the western edge of Pope Park West. Today, I-84 is the defining eastern boundary of the area.

This plan acknowledges these historic corridors by (1) spanning the Amtrak/busway right-of-way with a pedestrian bridge which links community plazas on both sides and reunites the Bartholomew Avenue mixed-use district with the neighborhood, and (2) re-establishing Pope Park West as a true community space by screening I-84 to eliminate its visual impact on this important neighborhood park. The Parkville busway station will serve the community in two ways: as a station providing transit service to the north and south, and as a community plaza and landscaped element.

The original south branch river course and the history of Pope Park should be commemorated in some manner within the park, and the railroad history (including the original Parkville Train Station) should be acknowledged in the transit plaza at the station.

The Plan

The Parkville TOD Plan bridges off of the very considerable assets of the neighborhood and the opportunities for renewal and growth (i.e., economic development) along Bartholomew Avenue and Pope Park Highway.

The station, on Francis Avenue, includes both a small building and a transit plaza that extends to the corner of Park Street, providing some much needed green space in this very urban neighborhood. Increased housing and employment density in the area will increase station ridership and pedestrian activity.

The plan has two key components (see diagram on facing page):

- The Bartholomew Avenue Corridor/Commercial Design District
- Pope Park West Residential District

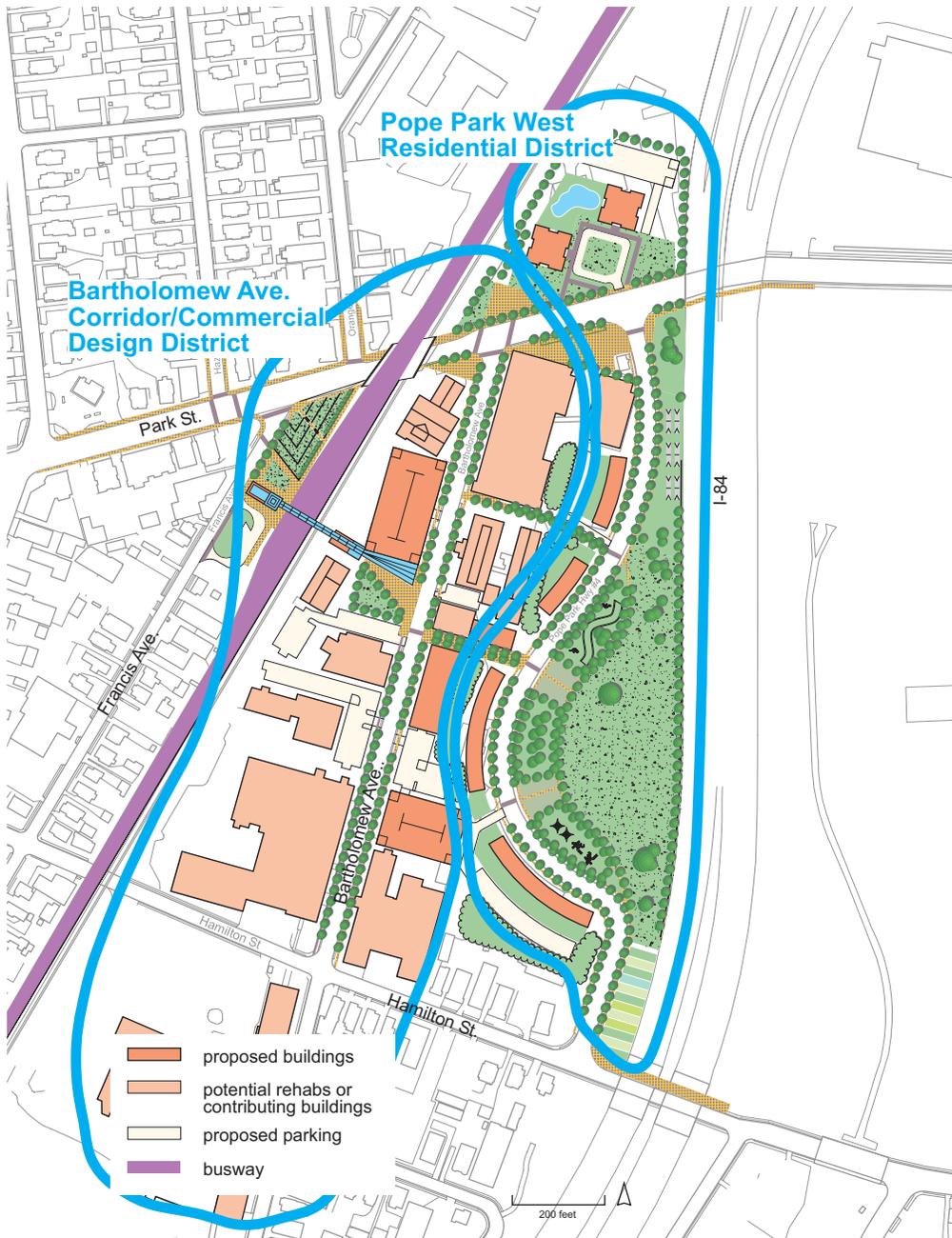
A vital element of both components is the creation of an enhanced pedestrian environment along Park Street, Francis Street, Bartholomew Avenue and Pope Park Highway. Improvements would include implementing the City's plans for Park Street improvements as well as additional improvements illustrated on the plan. Widening the sidewalks under the existing railroad overpass was considered during the Busway environmental review process. ConnDOT dropped the idea because widening would involve the active Amtrak line and would most likely require some property takings for bridge abutments, resulting in a high cost. Also, historic bridge features would have made modifications more difficult to permit.

Bartholomew Avenue Corridor/Commercial Design District

The Plan includes the reuse of a number of existing structures and some new construction along Bartholomew Avenue (see illustrative plan on page 19) to strengthen the existing employment district and the burgeoning home furnishings design district with a clustering of thematic retail and destination restaurants.

In some cases, this reuse entails the re-orientation of buildings to new plazas and/or pedestrianways. A series of pedestrian pathways links Pope Park West to Bartholomew Avenue and to a new "transit plaza" on the east side of the busway. A pedestrian bridge would link the station to a transit plaza on the west side of the busway. The importance of this connection is described below. A bridge over the existing Amtrak line will require coordination with Amtrak; there are national examples of similar bridges being constructed over active rail lines.

As discussed earlier, there is an existing parking shortage in the area and new development (with or without the busway) will require additional parking. Also, many of the proposed development sites are currently used for surface parking; this



Development Districts

parking will have to be accommodated in garages in order to free up the parcels for other uses. A key component of the plan involves resolving the parking deficit.

Two new garages along Bartholomew Avenue will have home furnishing retail space on the ground floor. The northerly garage also will serve transit, retail and housing. It is shown with a large glass enclosure on the southern end facing a new plaza. The enclosure serves as the vertical circulation core for a pedestrian bridge spanning the busway and connecting directly to the new busway station. This pedestrian bridge ties the parking to the station, and more importantly, ties the design district and Pope Park West residential district on the east side of the busway to the station. The station site plan could be adjusted to place the station building at the southern end of the plaza to meet the pedestrian bridge and improve sight lines to the station platforms from public rights of way. The former Trout Brook Brew Pub, which will likely be a new restaurant, also faces this new plaza.

The two linked transit plazas connected by an overhead pedestrian bridge are conceived as a community space. It has been said that transit stations on a light rail line are really stations for only four minutes out of the hour – the rest of the time they are public spaces in the community. The busway's stations will serve as stations for a longer period because the buses will use the stations with greater frequency, but the conceptual plan intends that both plazas be community spaces that serve existing and proposed businesses (and, possibly, serve as outdoor eating areas in good weather) and that both will be handsome landscaped spaces with seating areas. The pedestrian bridge is envisioned as a public art opportunity similar to many such bridges throughout the country which are serving as highly visible icons - symbols of the community. The pedestrian way continues across Bartholomew Street to Pope Park Highway and the proposed Pope Park West and provides an amenity for new retail development.



Example of pedestrian bridge as public art, Portland, OR.

The southerly garage, adjacent to the Parkville Business Center, has one level of parking at the Pope Park Highway elevation serving new housing development, and three levels of parking beginning at and above the Bartholomew Avenue elevation serving the Parkville Business Center.



Illustrative Plan

A new pedestrian way at the southern end of the Barridon (self storage) Building at Bartholomew Avenue and Park Street (planned for rehabilitation as mixed-use loft space) creates a plaza providing a new entry point to the loft building and the existing adjacent home furnishings business to the south.

Pope Park West Residential District

Key to the housing component of the plan is the rehabilitation of Pope Park West, the portion of Pope Park cut off by construction of I-84. The plan shows a large playing field, separate play areas for small children and older children, and a passive seating area for adults. Improvements should include a noise barrier along the highway/park edge. Development of the park will provide an attractive edge to the neighborhood and will enable creation of a townhouse development along Pope Park Highway. The park will provide an amenity for units facing it, and activity along the street will enhance security in the park.



Townhouse examples

The plan also includes mid-rise multi-family buildings on the large parcel to the north of Park Street, directly across from Bartholomew Street. The units on upper floors would have views to downtown and Pope Park West. The large underutilized retail parcel east of the I-84 overpass is proposed for mixed retail and residential use, taking advantage of views to downtown and Pope Park, as well as good transit access.



Pedestrian paths connect districts and provide shortcuts

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.



New townhouses along Pope Park West with active new mixed-use district on Bartholomew Avenue connected to the busway station. Existing view looking north east shown at right.



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
Retail	87,000	
Office	40,000	
Residential		274

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

Infrastructure Plan

The key components of the infrastructure plan for this Station Area will include:

- redevelopment of Pope Park West
- two new transit plazas connected by a pedestrian bridge over the busway and Amtrak and two new pedestrian connections between Bartholomew Street and Pope Park Highway
- streetscape improvements, including landscaping, pedestrian scale lighting and other amenities, along Pope Park Highway, Bartholomew Ave., Francis Ave. and Park Street
- two new parking garages.

Streetscape improvements within 1,500 feet of the station could be partially or fully funded as part of the station construction. The Bartholomew Avenue garage (north), the second (east) transit plaza and the pedestrian bridge can be designed and built in part with federal transportation funding through the 5309 Bus Grant Program. The garage should be developed by a City/ConnDOT partnership and a portion of it should serve as a park & ride location for residents outside of the walk-in radius who are using the busway.

Two short-term opportunities for increasing surface parking include changing the on-street parking to the west side of Bartholomew Ave. and using the parking lot at

the former Bradlees for special events. Development of the new surface parking lot on the northern end of Bartholomew Avenue reduced the number of curb cuts on the west side of the street. Shifting on-street parking from the east side to the west side would result in an increased number of spaces. Parking on the east side adjacent to the Parkville Business Center is well utilized and it does not make sense to switch it to the west side. The no parking area in the vicinity of Champlins could serve as the transition area between parking on the east side and the west side. The shifting of the parking may also serve as a traffic calming strategy. The former Bradlees parking lot, east of I-84 and currently underutilized, could be used for overflow parking during special events such as large sales.

Economic Benefits

The potential tax and economic benefits of development at Parkville have been quantified. As noted in the phasing section below, this would include near-term development likely to occur prior to the operation of the BRT, mid-term development likely taking place during the first 5 to 10 years of BRT operation and longer-term development which is assumed to take place following the market absorption of the mid-term development.

The assumed transit oriented development activity in the Parkville area would consist of an estimated 174 residential units, an additional 87,000 square feet of retail facilities, approximately 40,000 square feet of office space and an estimated 838 structured parking spaces to replace a portion of the existing surface spaces, provide needed spaces for the transit facility, provide secure parking for the residential units and support retail and office/employment expansion.

In constant 2004 dollars this would have an estimated construction value of approximately \$45.1 million dollars, thereby generating an estimated \$16.2 million dollars in direct and indirect payroll as well as 343 person years of employment. Once the development was fully absorbed, the annual, permanent, sustained economic and fiscal impact would represent 430 direct jobs, \$9.5 million dollars in payroll, 600

residents and \$1.9 million dollars of property tax. All amounts are in constant 2004 dollars and do not include any impact from inflation; they are based upon current construction costs, payroll levels and property tax rates.

Implementation Strategy

Acquisition and Reparcelization Strategies

The initial phase of the Parkville area development, as described below, would primarily involve the private sector and would require little acquisition and reparcelization (consolidating or subdividing parcels) to facilitate development, with the exception of station development. Public sector assistance would be required to create the physical enhancements in the area and potentially to undertake the marketing and merchandising strategies necessary to create a residential and specialty retail (home furnishings and improvements) image. Public sector financial incentives may be required if structured parking is necessary in the early phase (see Partnerships, below).

The second phase of development would likely require significant public/private cooperation. Necessary station area improvements must be undertaken, including the renovation of Pope Park West and creation of a pedestrian walkway and plaza network. This may require acquisition of right-of-way or negotiation of pedestrian easements. The public and private sector needs to work together to plan for and provide for this system.

Public approvals and infrastructure investments should be contingent upon the submission of plans consistent with Transit Oriented Development. Similarly, the provision of any publicly assisted parking structures should also be contingent on Transit Oriented Development plans similar to those shown in the concept plan.

Phasing

The development plans look at three time horizons (see Phasing Diagram on page 27):

- **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 2010, or at the start of busway operation, and continues through 2019 (up to ten years following the start of busway operation)
- **Long-term:** begins in 2020 and continues through 2025

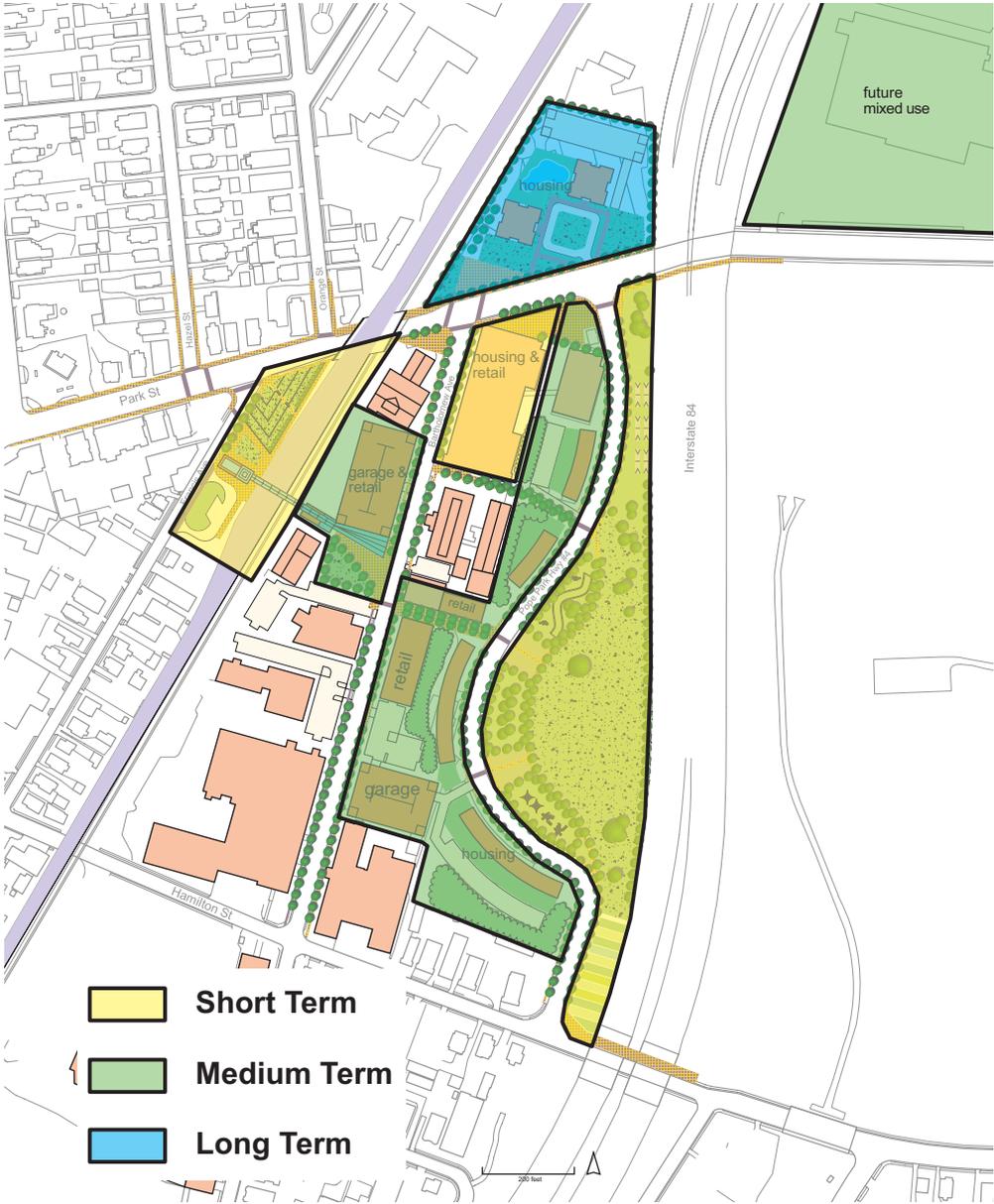
The three time horizons are approximate and there could be some overlap between the medium-term and long-term periods.

Short-Term

The Parkville area perhaps represents the best opportunity in the busway corridor for both near-term and long-term transit oriented development. The triangular area created by the rail line, I-84 and Hamilton Street generates an opportunity for a true “transit village”. The owner of the Barridon Building is ready, willing and able to initiate transit oriented development prior to busway operation. This development will further reinforce future transit oriented development opportunities that will likely be created by the BRT and an active public/private partnership.

In the short-term, prior to the anticipated opening of the BRT in 2009, it is likely that the Barridon Building will be redeveloped for loft apartments, with home improvement related retail on the ground floor, office on the second floor and potentially a 500-space garage located proximate to the transit station. It is estimated that approximately 116 apartments and 200,000 square feet of development could take place in the short-term. The square footage of development will likely depend on both the pace of market absorption and the ability to provide adequate parking. Although the developer has expressed an interest in a parking structure (on property he owns across the street at 17-35 Bartholomew Ave.) that could be shared with other property owners and the City, he has also expressed a willingness to develop underground parking beneath the Barridon Building if necessary to move forward.

Pope Park West improvements could also occur in the short-term. Planning and design of the park should definitely occur in the short-term.



Phasing diagram

Medium-Term

Development of the two parking garages, the pedestrian bridge over the Amtrak/ busway ROW, pedestrian paths and parks will help to encourage the rehabilitation of existing buildings and the development of new residential and commercial

buildings shown on the plan. Housing along Pope Park Highway will be dependent upon improvements to Pope Park West.

Long-Term

Long-term, it is estimated that the momentum created by the short and medium-term development could create sufficient demand to support a third phase of development on the remaining triangle between the rail line and Interstate 84 north of Park Street. A portion of this triangle is in the same ownership as the storage building and would likely support higher density (30 units to the acre) mid-rise residential development of approximately 100 units over one or two levels of structured parking.

The redevelopment of the partially vacant retail parcel east of I-84 and north of Park Street (the former Bradlees) is also likely to happen in the long-term.

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 Parkville Street station area.

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

Design Guidelines

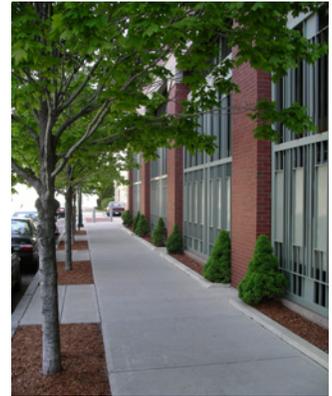
Adopting design guidelines for the Parkville station area is important for two reasons: 1) they provide the various parties involved in implementation a common framework for types of development that should be encouraged; 2) they provide developers a sense of comfort that the design integrity of the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

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.

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 should include active ground floor uses. Parking should be located 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 *Parkville: 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



Buildings should be built at the sidewalk edge and have street level windows.



Examples of ground floor retail with residential use above. Wide sidewalks, individual store entrances and on-street parking create an active pedestrian environment. Photo on left is at Orenco Station in Portland, OR; drawing on right is from Cleveland, OH.



Building windows should be individual openings in the façade, not continuous bands of windows.



Mid-block pedestrian paths should be landscaped and well lit.



Garage with ground floor retail, compatible with surrounding commercial development, Cambridge, MA.

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 designed 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 guidelines listed above there are components of the Parkville Plan that require additional attention.

- Because of elevation differences and existing development along the east side of Bartholomew Street and the Pope Park West residential area, direct pedestrian walkways from the transit station down to Pope Park West are key to integrating these two districts. These pathways should be attractive, well lit, and landscaped, and have doors and/or windows of new development facing them, to increase security.
- Bartholomew Street has the potential to develop into a very unique destination retail street. It is important that proposed garages along this street have high first floors for future use as home furnishing retail and restaurants. Garages should have facades that screen parking and flat floors. Garages should be built with the ability to be expanded if parking needs increase.
- New buildings in the Parkville area should reflect the historic industrial character of the area through the use of appropriate materials and detailing.

Partnerships and Deal Structure

The initial phase of Parkville development appears to require relatively limited public sector assistance. The City should work with the existing private sector property owners to provide the necessary area wide improvements (streetscape, infrastructure, code enforcement, public safety, design review, site plan review) for assurance of a transit sensitive design. Minor development incentives may need to be provided in terms of public sector design improvements surrounding the parking facilities.

A Municipal Development Plan (MDP) for the Parkville area has been under discussion. An MDP is a locally and state-approved plan describing a project or projects intended to increase employment in an area. Activities authorized by the state statutes include, but are not limited to, acquisition, relocation, environmental evaluations, demolition, property disposition, site and infrastructure improvements. Approval of the MDP by the Commissioner of the CT Department of Economic and Community Development (DECD) allows the City to apply for state implementation funds to undertake these activities. Currently an application for a MDP is being prepared. The draft area to be incorporated into the MDP includes the areas discussed in the Parkville and Flatbush Station Area Plans; these plans are compatible with the goals of a MDP. If the City proceeds with the MDP application and is successful in having it approved by DECD, the MDP can bring funding to implement some of the actions recommended in the station area plans. It would be important that the MDP also be compatible with the TOD goals.

The second phase of Parkville development will involve significant public/private sector partnerships. These would likely include cost-sharing for transit required parking garages and pedestrian linkages, prioritization of public sector capital improvement projects, shared parking programs, parking/transit management programs, code enforcement, community policing, facade grants, tax abatements, tax increment financing, tax benefit assessment districts and loan guarantees.

Parking

As discussed earlier structured parking will be required to accommodate parking demands for new development, as well as to free up underutilized land currently being used for surface parking. The provision of adequate parking will likely require a variety of programs. Reduced parking requirements stemming from transit and transit management programs as well as shared parking from mixed-use development must be maximized to reduce the number of required spaces and the concomitant capital costs. Tax increment financing may be utilized to support a portion of the parking cost. Assuming approximately a \$12,000/space cost of structured parking construction the current property tax rate in Hartford generally requires approximately \$50,000 of development value to support each parking space at a debt service constant of 8 percent. Residential values are likely to be clearly above \$50,000 per unit, meaning tax increment financing can probably support the cost of residential parking demand at one space per unit.

If retail space is built out as described in this plan (87,000 square feet), the bulk of the retailers' parking needs could be met with a mix of limited surface parking and additional structured facilities along Bartholomew. The jointly shared structures could be financed through the combination of a self-taxing special parking district, tax increment financing, payment in lieu of providing parking, facility revenues, and state and local sources. Once erected, the facilities could be managed by either the Hartford Parking Authority or a separate entity. On the other hand, office and retail parking cost is likely to exceed the potential revenues generated by tax increment financing gained from new office and retail property values. Assuming an order of magnitude of three parking spaces per thousand square feet, each 1,000 square feet of nonresidential development would have to generate \$150,000 in new property value to begin to support the cost of financing structured parking. At three spaces per thousand, and \$12,000 per space parking cost and an 8 percent debt service constant, the private sector cost of amortizing structured parking is equivalent to an additional \$2.88 per square foot in rent or occupancy cost. Current expectations are to charge approximately \$15/square foot in Parkville. Those rental

rates cannot absorb this \$2.88 increase. Therefore, a combination of public financial assistance and private sector parking cost contributions would likely be required.

Redevelopment in the Parkville area will likely require creation of both an area wide **Parking District** and a **Special Services District** (SSD). Redevelopment within the Parkville area cannot support the estimated additional \$2.88 per square foot in occupancy costs that would be required if occupants of nonresidential space had to amortize the entire cost of the structured parking space demand they would generate. The total number of required structured parking spaces needs to be reduced and the cost of supporting the required parking spread among multiple funding sources. The creation of an areawide Parking District could address these issues. The area wide Parking District would probably consist primarily of nonresidential uses, with the preponderance of residential parking demand addressed by apartment owners or homeowners associations.

The areawide Parking District would initially function similarly to a Transportation Management Association in working to manage parking spaces and reduce the actual number of parking spaces required. The Parking District would first be an association with a staff which would facilitate transit utilization, carpooling and shared parking programs to reduce significantly the number spaces required.

A detailed parking and transit demand evaluation for the District would be undertaken to determine how over time transit could serve a larger mode share of residents and employees in the area, reducing parking demand. The Parking District could also encourage car and van pooling, further reducing parking demand potentially by up to an additional 20 percent.

Shared parking opportunities among the residential, office, retail and entertainment uses could be encouraged. Facilitation of strong employment/residential linkages could impact parking requirements. Use of office related parking space for evening and weekend residential, restaurant, entertainment and retail activities should be optimized. Overall, a proactive Parking District management plan coupled with transit availability may reduce parking requirements by up to 50 percent.

The areawide Parking District could further facilitate the use of shared parking and more creative financing mechanisms by providing for payments toward a Parking District Fund in lieu of providing the full amount of required parking. A sliding scale Parking District fee could be charged, depending upon the proportion of required parking spaces provided. For marketing purposes developers can be expected to provide some on-site parking (handicapped, short-term, executive). Given the fragility of the market, this provision should be credited towards developer's parking district fees. The Parking District fee could also provide credits for documented reduction in parking demand. Parking demand could be reduced through a number of Transportation Demand Management strategies including employee transit passes, van pools, guaranteed ride home programs, flextime, alternative work schedules, and pedestrian/bicyclist facilities (bike racks, employee showers). In essence, each property would pay a parking fee in relationship to the parking demand created. This would create incentive to reduce parking demand. The actual fee would bear some relation to the estimated \$2.88 per square foot rent or occupancy cost required to cover the total parking cost (described above).

The Parking District, however, should be able to reduce even further the required parking fees through the utilization of a tax increment financing mechanisms. Tax increment financing mechanisms could be built into the Parking District. Under this scenario, all or a portion of the property tax revenues generated from the incremental value of development within the Parking District could be allocated to help fund the debt service of providing structured parking. With a relatively high property tax rate, a significant portion of the cost of parking could be supported by allocating new property tax to retire the debt of structured parking facilities.

At project build out there may be sufficient real property value created to support the entire cost of structured parking. There is likely, however, to be a significant cash flow problem in that the development of the parking facilities and the necessity to amortize their capital costs would significantly precede the generation of revenues from the subsequent construction of the tax paying private sector development. In this case, the Parking District fees would likely serve as a primary funding mecha-

nism in the early project years and as a financing enhancement (greatly increasing debt service coverage ratios) for the revenues generated by the incremental property tax. The utilization of tax increment financing revenue for parking also assumes that these funds would not be required for other area infrastructure improvements. The tax increment financing for parking further assumes that private sector development projects would not require significant tax abatement to achieve economic viability.

This financial timing problem could also be addressed through the early development of parking related to and paid for by transit. In the early years, excess transit supportive parking spaces could be utilized to help support the early phase development. The subsequent phases of the development would be able to support expanded development-related parking, allowing the transit-related parking to support expanded transit use over time.

Similarly the public sector could “upfront” the cost of parking, recognizing that over time expanded development within the Parkville area would create property tax revenues to more than repay the upfront public sector investment. A detailed development phasing and economic value analysis could display the cash flows to the public sector in terms of the amortization of a parking facility with fixed annual payments over a fixed period of time against a growing property tax revenue stream which would be sustained over a long period of time. The property tax revenue stream is likely to be far in excess of the time required to retire parking garage bonds.

Examples of locations where TIF districts have been used successfully include:

- Oakland, CA - together with grant monies, used to fund a police station, a pedestrian plaza, and bus turnaround at Fruitvale BART station.
- Cedar Rapids, IA - TIF district backs the floating of a \$4.5 million bond to cover the local share of Ground Transportation Center joint development projects and the construction of parking structure’s ramp.

- Annapolis, MD - TIF established to secure the issuance of tax-exempt special obligation bonds for funding the public portion of the parking facility for public-private economic development project composed of a hotel, office building, theater, retail stores, residential condominiums, and a below-grade parking facility.

Special Services District

The Parkville Area Parking District would likely be supplemented by a Special Services District. This District would reflect a generally modest (less than one dollar per square foot fee) benefit assessment on nonresidential property. This would essentially represent a pass-through cost for the provision of services such as: property maintenance, cleaning, security, marketing, merchandising, street lighting etc. This would be similar to the common area maintenance charges for services in a mall. The residential uses would likely provide similar services through the landlord or a homeowners association. The Special Services District would generally provide ongoing maintenance operation and management and marketing functions as opposed to capital improvements.

Housing Programs

The station area plan for the Parkville Station area includes a significant number of 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.

Substantial new residential units are already in the predevelopment phase for an existing multi-story mill building on the north end of Bartholomew Avenue. The plan shows approximately 158 additional units along Pope Park Highway and on a parcel at the northwest intersection of Park Street and Interstate 84. Several of the public sector housing initiatives described for the Union Station and Sigourney Street station areas could also be implemented in the Park Street Station Area to encourage and support the development of the proposed housing. Applicable initiatives include:

- A TIF district to coincide with the TOD 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 Rehabilitation Building Code amendments, as described as part of the Sigourney Street Station Area Plan may also be applicable for the adaptive reuse of the upper floors of mill buildings along Bartholomew for housing. However, since the use of the buildings is being changed, complete renovation and rebuilding of interior space will likely be needed, and the developer may not benefit from code amendments.

While the Parkville Station Area Plan concentrates on the area to the east of the busway right-of-way, the City's existing Housing Preservation Loan Fund and the Homeownership Appraisal Gap Financing offer good opportunities for residential rehabilitation in residential neighborhoods to the north and south of Park Street, west of the busway. Rehabilitation and home improvement projects in these areas will enhance the general market position of the entire Parkville neighborhood.

Development Plan Summary: Next Steps

The following summarizes the phasing of the key development components

Short-Term: 2004-2009

- Neighborhood Revitalization Zone Committees should amend the Parkville Strategic Plan to incorporate the Station Area Plan
- Consider incorporating the station area plan in the Hartford Plan of Conservation and Development
- Consider adoption of TOD zoning changes as outlined in Appendix C.
- Development of the Barridon Building for mixed use
- Plan and design the Parkville Station pedestrian bridge
- Continue work on Municipal Development Plan (MDP) application
- Design and construct pedestrian improvements along Park Street

- Plan and implement Special Services District and TIF District to fund new parking
- Design and rebuild Pope Park West

Medium-Term: 2010-2019

- Design and build pedestrian bridge, plazas, and mid-block walkways
- Construct parking garages
- Develop Bartholomew Street commercial uses and Pope Park townhouses

Long-Term: 2020-2025

- Develop mid-rise housing on north side of Park Street and former Bradlees site



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.¹

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."² 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."³ "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."⁴

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%.⁵ "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%."⁶ A study for the California Energy Commission found a direct correlation between reductions in vehicle miles of travel and energy consumption.⁷

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.⁸ 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.⁹

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."¹⁰ 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.”¹¹ 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.¹²

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.¹³ 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.”¹⁴
- 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.”¹⁵
- 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.”¹⁶ 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.¹⁷

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.¹⁸

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.¹⁹
- Residences near the Lindenwold High Speed Line in Philadelphia realized a location premium of 6.4 percent.²⁰
- “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.”²¹

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.²² 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.²³

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.”²⁴

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.”²⁵ 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.²⁶

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 buildings. 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 sites²⁷, 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.²⁸

- ¹ 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>.
- ² *Designing for Transit: A Manual for Integrating Public Transportation and Land Development in the San Diego Metropolitan Area*. July 1993.
- ³ Op.cit., Fleming.
- ⁴ Smart Growth Network, Getting to Smart Growth: 100 Policies for Implementation, the International City/County Management Association, undated, p. 10.
- ⁵ Op. Cit., Fleming.
- ⁶ Ibid.
- ⁷ Parsons Brinkerhoff, Smart Growth Energy Savings; MPO Survey Findings, for the California Energy Commission, September 21, 2001, p. 8.
- ⁸ Perkins, Broderick, The High-Density Solution for Tight Markets. http://realtymtimes.com/rtpages/20020509_highdensity.htm
- ⁹ www.locationeffeciency.com
- ¹⁰ ____, unbundle new urban parking + housing. [ttp://www.dbarchitect.com/www-writing/parking.html](http://www.dbarchitect.com/www-writing/parking.html)
- ¹¹ Op. cit., International City/County Management Association.
- ¹² California Planning Roundtable, Myths and Facts about Affordable and High Density Housing. <http://www.abag.ca.gov/services/finance/fan/housingmyths2.htm>
- ¹³ 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.
- ¹⁴ Ibid., p. 13.
- ¹⁵ Ibid.
- ¹⁶ Ibid.
- ¹⁷ Ibid., p.18.
- ¹⁸ Rappaport Institute for Greater Boston, The D Word, January 2004 Conference Proceedings. <http://www.ksg.harvard.edu/rappaport/forums/thedword.htm>
- ¹⁹ PriceWaterhouseCoopers, Richmond/Airport-Vancouver Rapid Transit Project, April 3, 2001, p.2
- ²⁰ Ibid., p. 3.
- ²¹ ____, Urban Sprawl Ideas that Work. [Http://www.stateaction.org/issues/sprawl/sprawlideas.cfm](http://www.stateaction.org/issues/sprawl/sprawlideas.cfm)
- ²² Op. Cit., PriceWaterhouseCoopers.
- ²³ 1000 Friends of Oregon, The Debate Over Density: Do Four-Plexes Cause Cannibalism? <http://www.friends.org/issues/density.html>
- ²⁴ 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).
- ²⁵ Op. Cit., Muro, p. 21.
- ²⁶ Ibid., pp. 21-23.
- ²⁷ See, for example, www.architects.org/emplibrary/A1_a.pdf.
- ²⁸ 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 Sqft / Floor	Stories	Total Unit
Garage	100	5	500 spaces
Retail			15,000 sq. ft.
Garage	82	4	328 spaces
Retail	12,000	2	24,000 sq. ft.
Townhouses			12 to 20 units
Townhouses			12 to 20 units
Townhouses			6 to 12 units
Townhouses			6 units
Apartments	10	10	100 units
Retail Expansion	4,080	2	8,160 sq. ft.
Lofts			116 units
Retail	40,000	1	40000 sq. ft.
Office	40,000	1	40000 sq. ft.

Townhouses 1200 to 1800 sq. ft.
 Apartments average 1000 sqft per 2 bedroom
 Retail square feet are gross

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*