

# **City of Hartford: Principles For Transit-Oriented Development**

## **New Britain-Hartford Busway Station Area Planning Project**

Prepared for the Hartford Station Area Planning Municipal Advisory Committee

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## Transit-Oriented Development Principles

### What is Transit-Oriented Development and Why Consider It?<sup>1</sup>

Transit is an important component of life in any metropolitan area, linking jobs, housing, recreation, and services. Compact, mixed-use development goes hand-in-hand with transit systems, because both serve pedestrians and reduce auto-dependency. In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, many cities were built up around transit systems of railroads, subways, and/or streetcars. By the 1890's throughout greater Hartford, the region had an extensive and excellent system of streetcars and rail service. At first, residents were loyal to public transportation and were reluctant to accept the automobile despite the fact that the American automobile industry got its start in Hartford.<sup>2</sup> Nevertheless, interest in the automobile grew and by 1930, automobiles had replaced the region's streetcar system as the dominant mode of transportation.

Across the nation in the 1970s, problems such as traffic congestion, suburban sprawl, and downtown decay generated new interest in Transit Oriented Development (TOD). Some smaller-sized cities have made remarkable progress in the area of TOD in recent years. In the 1970s, Portland, Oregon embarked upon a strategy to counter the forces of suburban sprawl, investing heavily in the transit system and focusing high-density development in the downtown area and around light-rail stations and bus routes. As a result, Portland has become one of the most transit-friendly cities in the country. The downtown is a vibrant commercial center, and the city is becoming a popular tourist destination.

In the Hartford region, buses carry many workers to their jobs, and many city and some suburban residents use the bus system in off-peak hours for a variety of other trips. Since 1997, ridership in the region has been on an upward trend, even though most routes follow older development patterns. CROCOG completed a Regional Transit Strategy in 2001 and is certain that there is unmet transit need in the region that can be tapped, especially if transit operations better reflect current development patterns.

With the planned construction of the New Britain/Hartford busway<sup>3</sup>, there is an opportunity to use the new transit line as a framework for TOD. The busway stations could be surrounded with compact, mixed-use, pedestrian-friendly villages, townhouse neighborhoods, or office clusters. Although such development would not eliminate the need for cars, it would increase the opportunity and the feasibility of taking transit for some people, particularly for the commute to work, and thus reduce today's dependency on the automobile.

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<sup>1</sup> This explanation of TOD is an extract from chapter 5 of the *Livable Communities Toolkit: A Best Practices Manual for Metropolitan Regions* prepared by Abeles Phillips Preiss & Shapiro, Inc. for the Capitol Region Council of Governments in 2002. The complete chapter is available at [www.crcog.org/publications](http://www.crcog.org/publications).

<sup>2</sup> Weaver, Glen. *Hartford: An Illustrated History of Connecticut's Capital*. Hartford: Windsor Publications, 1982. Albert Pope started the Pope Manufacturing Company in Hartford in 1890, and in 1895, Pope and his colleagues produced their first gasoline-powered automobile, the "Pope Hartford". By 1897, Pope unwisely shifted his focus from gasoline to electric automobiles, and Detroit soon took over Hartford's role as the center of gasoline-powered automobile production in the U.S.

<sup>3</sup> A "busway" is defined as a type of rapid transit that functions similarly to a light rail system. It follows a fixed, exclusive guideway that is not accessible to other vehicles. The busway vehicles are rubber-tire, like a car, not rail. Busway stations are in fixed locations that are more widely spaced than on-street bus stops, and buses would run on a more frequent schedule than local buses, more akin to a subway system.

Many transit systems are designed in a "park-and-ride" format, where a transit line is superimposed upon a predominantly auto-oriented landscape. Although the park-and-ride format is an improvement because it increases transportation options, the transit-oriented option is even better because it can combine land use and transportation making efficient use of both. In the transit-oriented option, land use, development, and street patterns are actually re-organized in order to encourage walking to and from the station and to concentrate development where infrastructure can support it. The station area is not just a parking lot, but an activity center and neighborhood node. Emphasis is placed on architectural detailing and facades, streetscape amenities, landscaping, and parks to create a sense of place and high quality of life.

Although transit does not unilaterally redefine market and development patterns, it can serve as a framework for new and clustered development *when coordinated with TOD planning and zoning techniques*. Transit serves pedestrians. If the areas around the station are zoned for higher-density, mixed-use, pedestrian-friendly development, then pedestrians can be enticed to walk from the transit station to their destination or from their point of origin to the station. A TOD plan would:

- 1 Provide real alternatives to driving and reduce auto-dependency;
- 2 Generate pedestrian activity that can support retail stores (if the scale of development is sizable);
- 3 Create opportunities for infill development and redevelopment in underutilized areas;
- 4 Generate more market support for higher-density housing, in part by reducing auto-dependency for commuters.

Much of the literature on TOD has focused on rail systems. However, a busway — with a dedicated right-of-way and fixed stops — would function like a rail transit system and therefore contains the elements essential for a TOD market response: a fixed place in space that developers can count on and fast, convenient service that riders can count on.

## **What Role do these TOD Principles have in Municipal Land Use Policy?**

The New Britain/Hartford busway will run from downtown Hartford along the Amtrak right-of-way, running just through or near the Asylum Hill and the Parkville neighborhoods of Hartford, the Elmwood section of West Hartford, the northwestern areas of Newington, and along the east side of New Britain and into downtown New Britain. Following this path, the busway will cut through extremely different neighborhoods, built with a wide range of land uses and densities. Nearly all areas along the planned New Britain/Hartford busway have already been developed, but there are opportunities for infill development and intensification, through brownfield reclamation, development of vacant lots or parking lots, and/or redevelopment. In each community through which the busway runs, the character of TOD would have to be tailored to the local conditions while preserving standards essential for TOD. These principles are guidelines that should assist localities in their efforts to ensure the transportation investment provides economic and community benefits at the same time local land use practices support the public's transportation investment.

The TOD Principles were prepared as the first step in a much more detailed area plan for seven of the stations. The intent was to provide some general information for all station areas so that even for those areas that do not have a full station area plan, some preliminary guidelines will exist. The seven station areas for which detailed plans were prepared are: Downtown New Britain, East and Cedar Streets (a combined plan encompassing both stations), New Park at Flatbush Avenue, Park Street, Sigourney at Aetna, and Union. The five stations for which only Principles were prepared are: East Main Street, Newington Junction, Elmwood, New Park at Kane Street, and the Legislative Office Building.

The Principles, along with the full station area plans, were prepared under the direction of Municipal Advisory Committees with technical assistance provided by the Capitol Region Council of Governments and a TOD consultant team led by the Crosby | Schlessinger | Smallridge. The committees consisted of municipal staff and elected officials as well as members of local boards, commission, and/or neighborhood/business associations. *A committee's adoption of the Principles does not in itself change local land use policies but does begin the discussion towards consideration of revised land use policies that are specific only to the ¼ to ½ mile radius around each station.* Actual policy change, such as amendments to Plans of Conservation and Development, zoning, capital improvements, or economic incentives will still need to go through local public processes.

## An Introduction to General TOD Principles

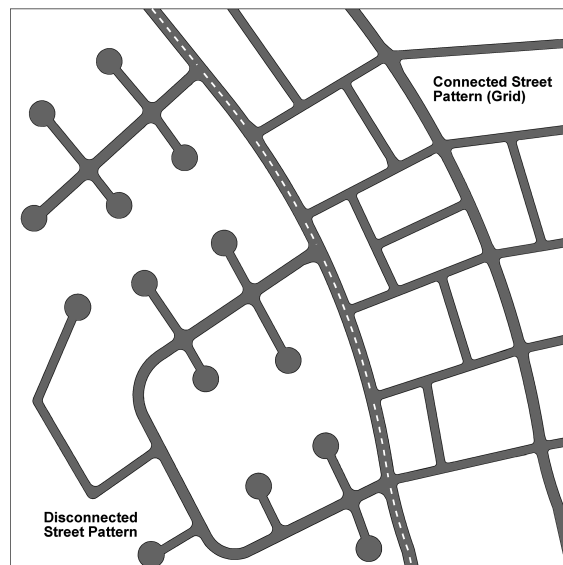
This Introduction section presents Transit-Oriented Development (TOD) principles generally applicable to the areas around rapid transit stations, such as the stations along the New Britain-Hartford Busway. There are two main categories of consideration in transit supportive assessments: Station Approach & Access and Station Area Development. Both of these apply **only** to the rapid transit area of influence, which is ¼ to ½ mile around a station, with the ¼ mile being of greatest importance. This standard is used because ½ mile around a station is approximately the comfortable walk distance to and from a station.

While these principles may contrast with other municipal development policies, policymakers and citizens should consider that Transit-Oriented Development policies would only be applied to very particular area(s) within a community. The premise is that a municipality crafts special development policies for the area because of the unique opportunities the rapid transit investment offers. TOD strives to coordinate a major investment of the public's resources in transportation with the use of land around the investment to make both more efficient.

These principles are presented as activities that should be considered in all station areas, and evaluated for appropriateness, but may not apply to all areas because of the particular characteristics of a station area. Following the introduction are specific transit-supportive ideas for the actual station areas themselves.

### Station Approach & Access

- Provide direct pedestrian connections from surrounding neighborhoods such as that provided by a grid street system. The adjacent illustration shows two different approaches to street systems. A connected (grid) street system is one in which streets are continuous, or connect to other through streets, with no dead ends or cul-de-sacs. Pedestrians can take the easiest and most direct routes to the transit station and other destinations under the grid pattern.
- Create a safe walking environment (adequate sidewalk width, pedestrian scale lighting, designated crosswalks, and limited curb cuts – as illustrated in the attached prototypical sections).



- Consider implementing roadway sections provided in attached prototypical sections as one mechanism to help control vehicular speed and to better define areas for respective travel modes. Traffic calming techniques such as reducing the travel lane width and incorporating planting strips may also be helpful to balance the mix of transportation modes (walking, bicycling, motoring) that are likely to be utilized around a station.
- Consider incorporating access management techniques such as shared driveways and turning movement restrictions (e.g. right turn in/right turn out).
- Create gateways where appropriate to establish that one is entering a different, and transit-oriented, place.
- Pay attention to and examine pedestrian access at underpasses and overpasses. Walkways and stairs should provide direct and safe pedestrian access and clear lines of site between the street, station and platforms, with no blind corners and no dead ends.
- Provide adequate, safe vehicular and pedestrian access to new development around the stations.

### **Station Area Development**

- Encourage development of mid to high density housing and/or commercial and office uses that create high-density employment.
- Discourage new heavy industrial or auto-oriented uses; encourage change of use from existing heavy industrial or auto-oriented uses. Auto-oriented uses include those uses such as auto sales and service, stores that specialize in large and/or bulk items, and other uses that are land intensive with low employment densities. People driving to a business in a station area do not make it “auto-oriented”. Transit-oriented development recognizes that businesses in the station area will need to rely on vehicular traffic as well as transit riders.
- Some light industrial uses can be transit supportive if they have the following characteristics: high employment density; no outdoor storage; buildings sited to face street, attractive street edge and pedestrian-friendly entrance for employees; loading and truck parking to back of site, screened from view from active pedestrian streets.
- Encourage commuter and neighborhood uses such as convenience stores, drycleaners, daycare, video rental and restaurants with take-out service immediately adjacent to the station.
- Create amenities (plazas, streetscape improvements, open space) to attract new transit-oriented development.
- Encourage development of active ground floor commercial uses to increase street level activity around stations.
- Explore joint development opportunities such as retail, office (public or private) or medium to high-density housing. Joint development is a type of development in which a public agency joins with a private developer or other public agency to bring about transit-supportive development, generally on the station site. Potential incentives to developers include cost savings such as shared costs for site preparation and land acquisition.
- To enliven pedestrian environment, site buildings at street edges

- Encourage shared parking as well as parking that is easily accessible on foot to many destinations so that customers can “park once and shop often”.
- Encourage infill development to fill gaps in street edge.
- Explore opportunities to change street patterns to provide better parcelization of larger properties.
- Change parking regulations to provide both minimums (which may be less than that required in areas not as well served by transit) and maximums (for example, 5% above minimum) and shared parking incentives to encourage transit use and increase the density of development around the stations.

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The TOD Principles for each of the station areas are based on examination at all stations of:

- Development opportunities, the market for TOD-related land uses, ownership patterns, available land and existing uses
- The physical environment including vehicular and pedestrian access and physical attributes/constraints
- The regulatory environment

The package for each municipality includes:

- A map of the existing zoning for the area encompassing each of the stations
- A map indicating housing density along the entire corridor
- A map indicating generalized land use along the entire corridor
- Guidelines for prototypical roadway sections

The package for each station area includes:

- A brief written description of the station area and the design principles
- An opportunities and constraints map of the station area
- A plan of the area within the quarter mile radius around the station illustrating the Design and Development Principles
- A proposed revised site plan for the station (Legislative Office Building, Parkville and Flatbush)
- A proposed Station Area Development Concept for vacant/underutilized land immediately adjacent to the station (New Park Avenue)

## Union Station

### *Existing Conditions*

The Union Station area is dominated by the existing station, a major highway interchange, Bushnell Park and large surface parking lots that provide strong opportunities for future redevelopment. As a result of several transportation initiatives, including this project, the Griffin Corridor busway and the Manchester busway, the proposed Springfield/New Haven commuter rail, the existing Amtrak and intercity bus services, and the highway interchange, the station area has excellent access. It is also conveniently located with respect to major downtown destinations including the Civic Center and other entertainment and retail venues as well as major employers. City initiatives to encourage downtown housing and other revitalization activities create the prospect for developing a lively pedestrian environment.

Existing connections to the north, east and west are inhospitable to pedestrians. However, the recently completed *A New Farmington Avenue* planning study includes conceptual plans for pedestrian improvements along Farmington Avenue and the *Asylum Hill Neighborhood Strategic Plan* outlines pedestrian improvements for Sigourney, Garden and Asylum Streets. The Farmington Avenue plan is moving towards the final design stage.

Southeast of I 84, the area within the ¼ mile radius is zoned C-1 Commercial. Northwest of I-84, the land is zoned C-2 Commercial and R-01 Residential/Office. These zones are generally consistent with TOD principles, in terms of both allowable uses and parking requirements. The C-1 and C-2 zones allow multi-family housing with no density restrictions, the R-01 allows up to 300 residents per acre (lot coverage, open space and FAR requirements would reduce the actual achievable densities). The City's planning department has drafted a proposed TOD overlay district that would further restrict auto-oriented uses and limit allowable off-street parking.

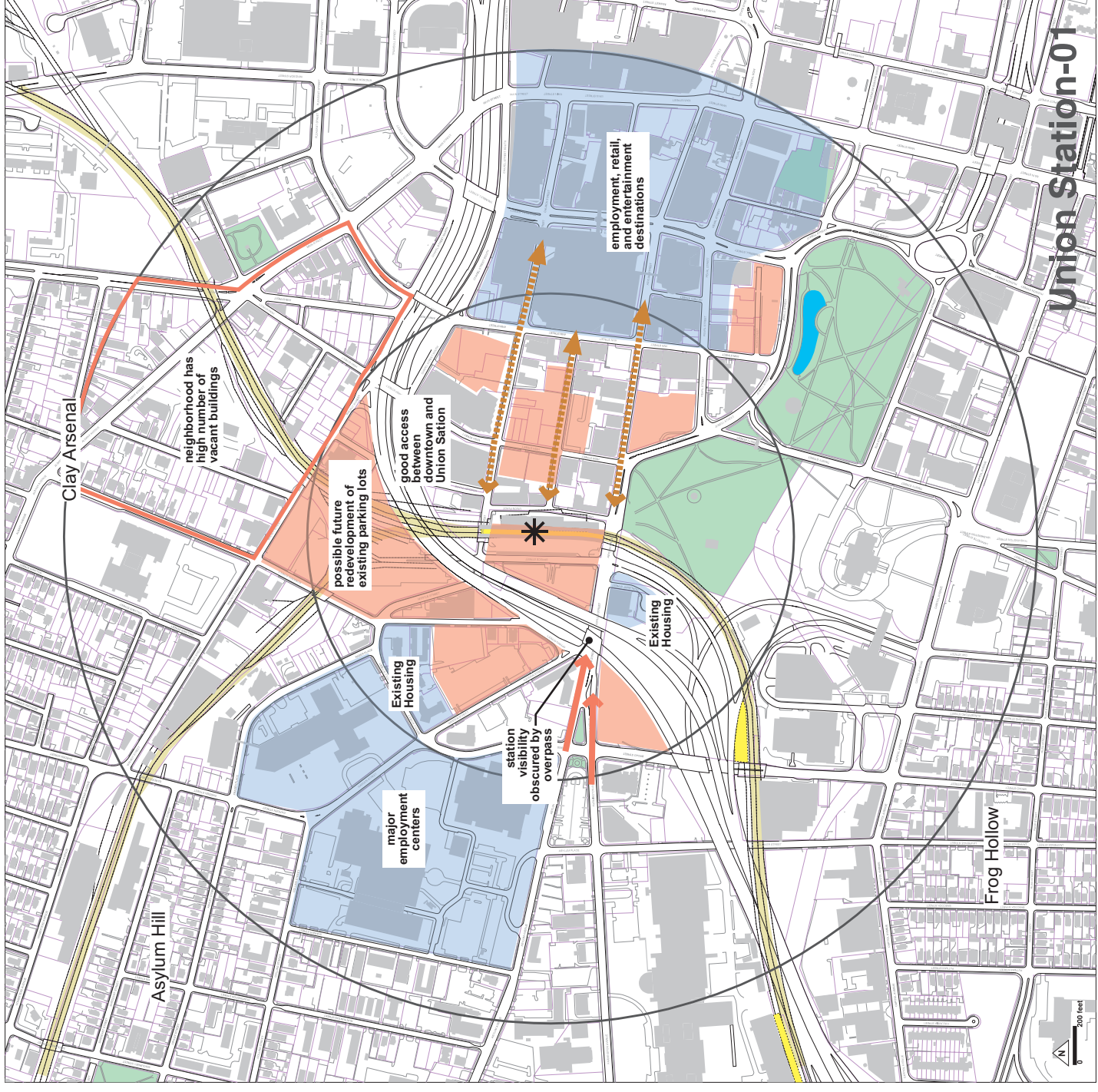
### *Design Principle Recommendations*

The following recommendations, specific to the Union Station Area, are in addition to the general principles on pages 1 and 2, which apply to all of the stations:

1. Provide safe, attractive pedestrian connections to the station along Garden, Spring, Myrtle, Church and Asylum Streets from the Asylum Hill neighborhood to the west; along Asylum Street from downtown to the east and along Broad Street from Frog Hollow to the south (see attached prototypical roadway sections). Encourage the implementation of the pedestrian improvements recommended in *A New Farmington Avenue* and the *Asylum Hill Neighborhood Strategic Plan* described above.
2. Leverage the transportation investment at Union Station to integrate retail, residential/office and structured parking development with the transit facility on the station parking lot behind Union Station to the west. Ground floor retail would help to create activity along Asylum Street and upper floor residential units/office space would have beautiful views of Bushnell Park, the capitol and downtown.
3. Encourage redevelopment of the surrounding surface lots for medium to high density retail and housing use with direct pedestrian connections to Union Station. Redevelopment of these parcels will greatly improve the pedestrian environment around Union Station. Structured parking would be required to replace the existing surface parking and to accommodate parking requirements for the new development.
4. Encourage the adoption of the TOD Overlay Zoning District (see above).



# Issues & Opportunities Union Station

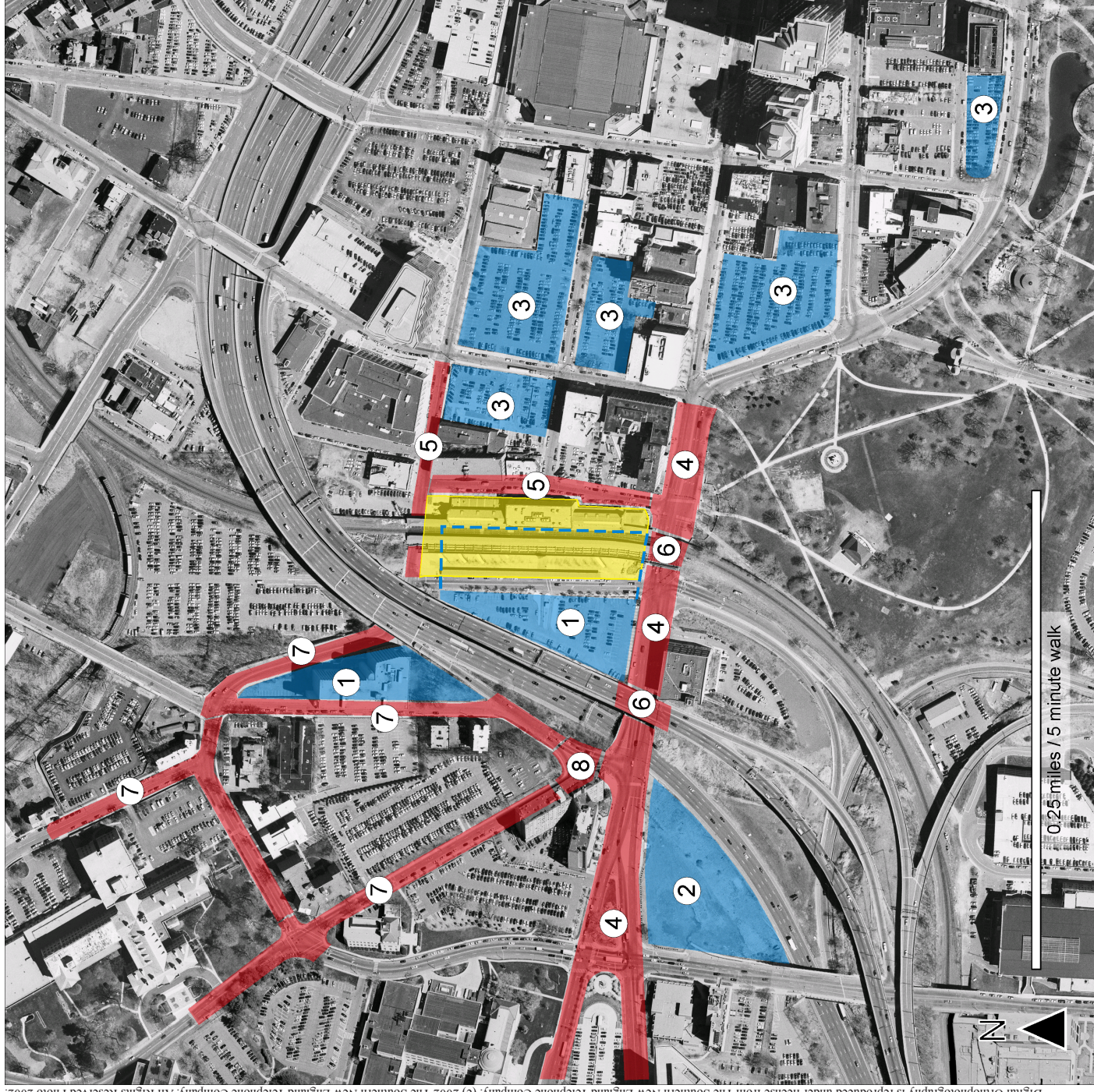


- quarter and half mile radius (5 & 10 minute walk)
- potential development opportunity
- transit patron origins and destinations
- key pedestrian routes to transit stations
- station site
- other issues or opportunities - see note



## Union Station

- 1 Encourage development of mid to high density housing, retail, and office uses. Include structured parking and maximize number of spaces to accommodate the combined needs of building users and commuters using Union Station. Provide direct access from new development to Union Station.
- 2 Encourage development of mid to high density housing, retail, and/or office uses.
- 3 Encourage development of mid to high density retail and housing. Insure development of pedestrian oriented streetscape with direct connections to Union Station.
- 4 Improve streetscape and provide traffic calming features in roadway, as planned in neighborhood traffic planning documents.
- 5 Improve streetscape (adequate sidewalk width, pedestrian scale lighting, designated crosswalks, limited curb cuts, planting)
- 6 Improve environment at underpasses. Provide "gateway design elements" at underpass to enhance presence of station.
- 7 Create a safe walking environment between "The Hartford" and the Asylum Hill neighborhood to the north, and Union Station.
- 8 Enhance pedestrian safety at street crossings. Provide adequate pedestrian phase and designated crosswalks.



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## Legislative Office Building

### *Existing Environment*

The LOB Station site is surrounded by the backs of buildings, parking lots, highway ramps, roadway overpasses and the railroad. The station is located within close proximity to a dense residential neighborhood to the south, a number of major area employers to the south, west and east, and Bushnell Park to the east. However, the isolated pedestrian routes to the station from both employment destinations and the neighborhood, and the station's very limited visibility from the surrounding area, make security for transit users a particularly important design consideration. The recently cleared state owned parcel at the northeast corner of Broad and Capitol represents the only opportunity for transit oriented development around the station.

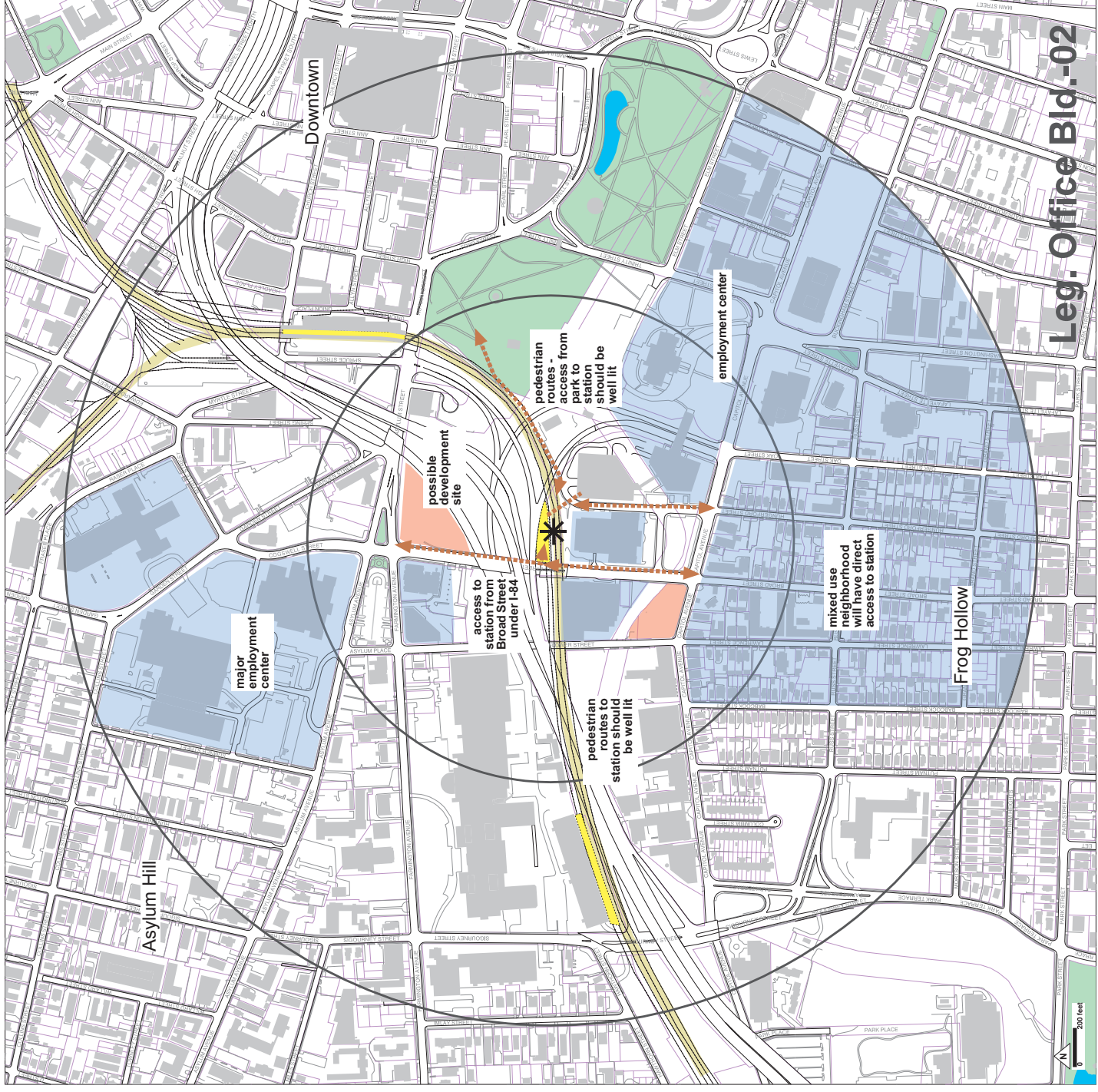
Pedestrian access to the site is limited to the Broad Street overpass, the LOB garage access road and the path connecting to Bushnell Park. These recommendations will improve the overall pedestrian environment, but will have limited impact on station access.

### *Design Principle Recommendations*

The following recommendations, specific to the LOB Station Area, are in addition to the general principles on pages 1 and 2, which apply to all of the stations:

1. Design the station to include a major presence at street level along Broad Street. To improve safety and security, pedestrian connections (both stairs and paths) from this entrance to the station below should be designed to be as visible as possible from the street, with no dead ends or blind corners (see attached station plan). Signage will also be very important to direct pedestrians to the station.
2. Improve the pedestrian environment along Broad Street to the west of the station with designated crosswalks, planting, and attractive sidewalks and lighting (see attached prototypical roadway sections).
3. Improve the pedestrian environment along the LOB entrance road from Capitol Avenue and from the well-used Bushnell Park pathway to the station and LOB garage with improved sidewalks and lighting.
4. Provide a pull-off on Broad Street to allow pick-up and drop-off space for private vehicles.
5. Encourage the implementation of the pedestrian improvements recommended in *A New Farmington Avenue* and the *Asylum Hill Neighborhood Strategic Plan* described above (under Union Station). These recommendations will improve the overall pedestrian environment, but will have limited impact on station access.
6. Provide a small park & ride lot at the station.

# Issues & Opportunities Legislative Office Building

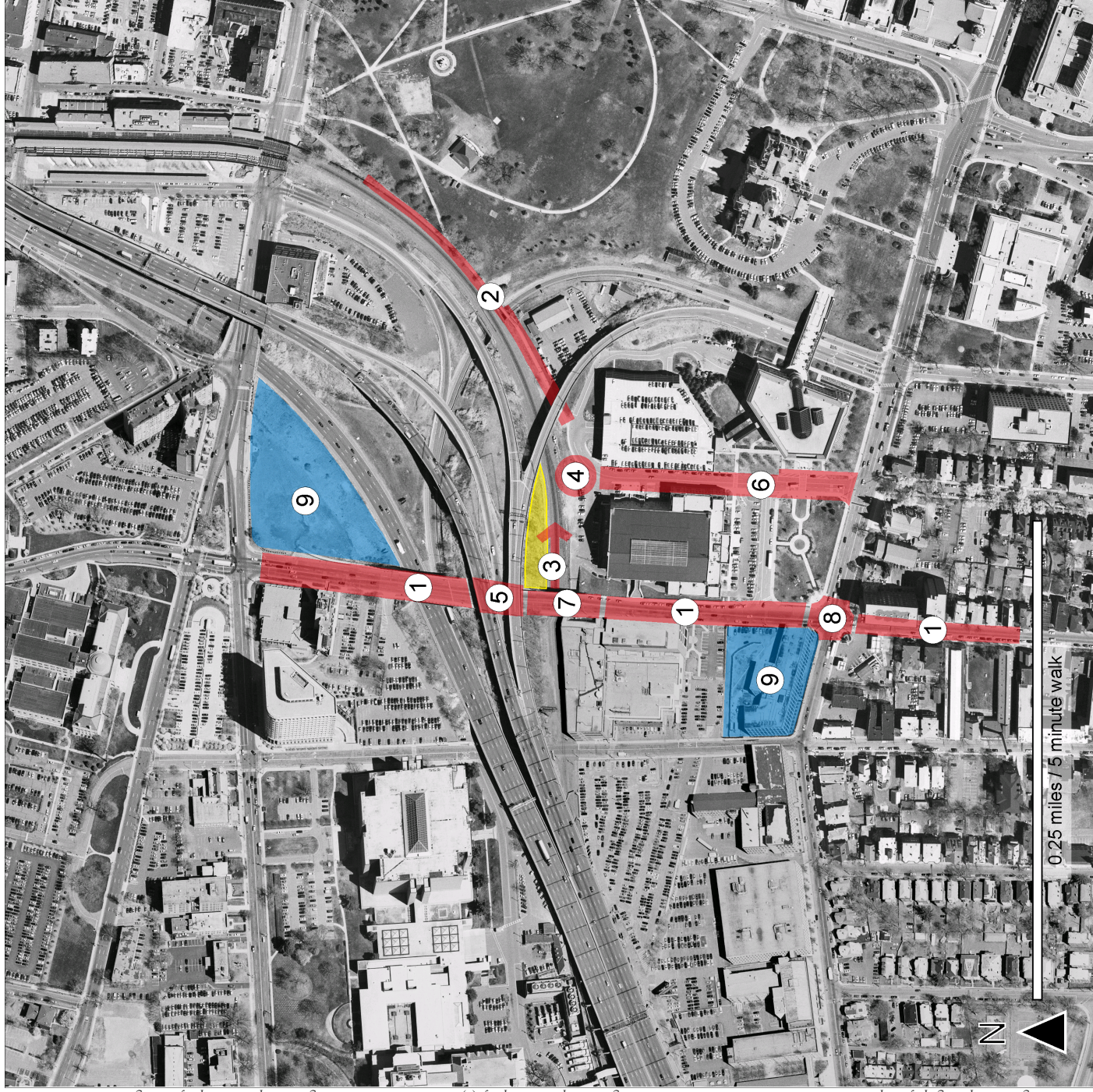


- quarter and half mile radius (5 & 10 minute walk)
- potential development opportunity
- transit patron origins and destinations
- key pedestrian routes to transit stations
- station site
- other issues or opportunities - see note



## Legislative Office Building

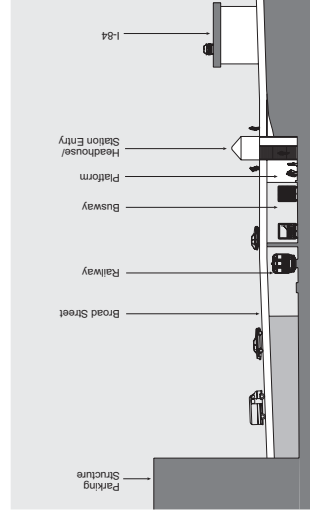
- 1 Improve pedestrian environment, set sidewalk back from roadway and provide planted buffer between sidewalk and Broad Street.
- 2 Improve environment along path to preserve view of transit operations yet eliminate aesthetically harsh conditions.
- 3 Provide signature element at station entry to signify presence of station along Broad Street. Provide direct and safe access from street and avoid dead ends and areas not visible from street and/or station.
- 4 Construct surveillance tower at pedestrian bridge that provides visual oversight to both platforms, Broad Street, and the Hungerford Street approach. Capitol police could man tower to provide additional station security.
- 5 Improve the pedestrian environment at underpasses.
- 6 Redesign station approach to provide sidewalks, lighting, and crossings. Urge ConnDOT to consider Park and Ride lot.
- 7 Improve pedestrian environment; ensure safety of crossing at Broad Street between Station and Hartford Courant Building
- 8 Provide crosswalks and adequate phasing for pedestrian crossing.
- 9 Encourage development of mid to high density housing, retail, and/or office uses.



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Hand-drawn site plan of the proposed 1-84 WB interchange. The plan shows the interchange structure with ramps labeled "1-84 WB" and "1-84 EXIT RAMP". A "PLAZA" area is marked with a red square. A "TOWER WITH CLEAR VIEW OF BOTH RAMPWAYS" is indicated by a red square and a line pointing to the interchange. The plan also shows existing structures: "PARKING GARAGE (EXISTING)" and "STATE OF CONN. MEMORY (EXISTING)". A "BROAD STREET" is shown at the bottom. The plan is divided into sections "A" and "B".



## section B

## Sigourney

### *Existing Environment*

The Sigourney Street station is sandwiched between the existing Aetna parking garage, and the I-84 highway viaduct. Because Sigourney Street is elevated in this location, the station is below street grade. The surrounding environment is dominated by the Aetna campus to the northeast and the highway and surface parking lots to the south and west. Sigourney Street is extremely wide from the station south, and accommodates on and off ramps from I-84. The width, fast moving traffic and I-84 underpass make this southern section of Sigourney Street unfriendly and unsafe for pedestrians. Pedestrians on Capitol Avenue to the south must climb a stairway (or walk south on Park Terrace and double back) to access Sigourney Street. The station is separated from residential neighborhoods further west and further south by the parking lots and highway.

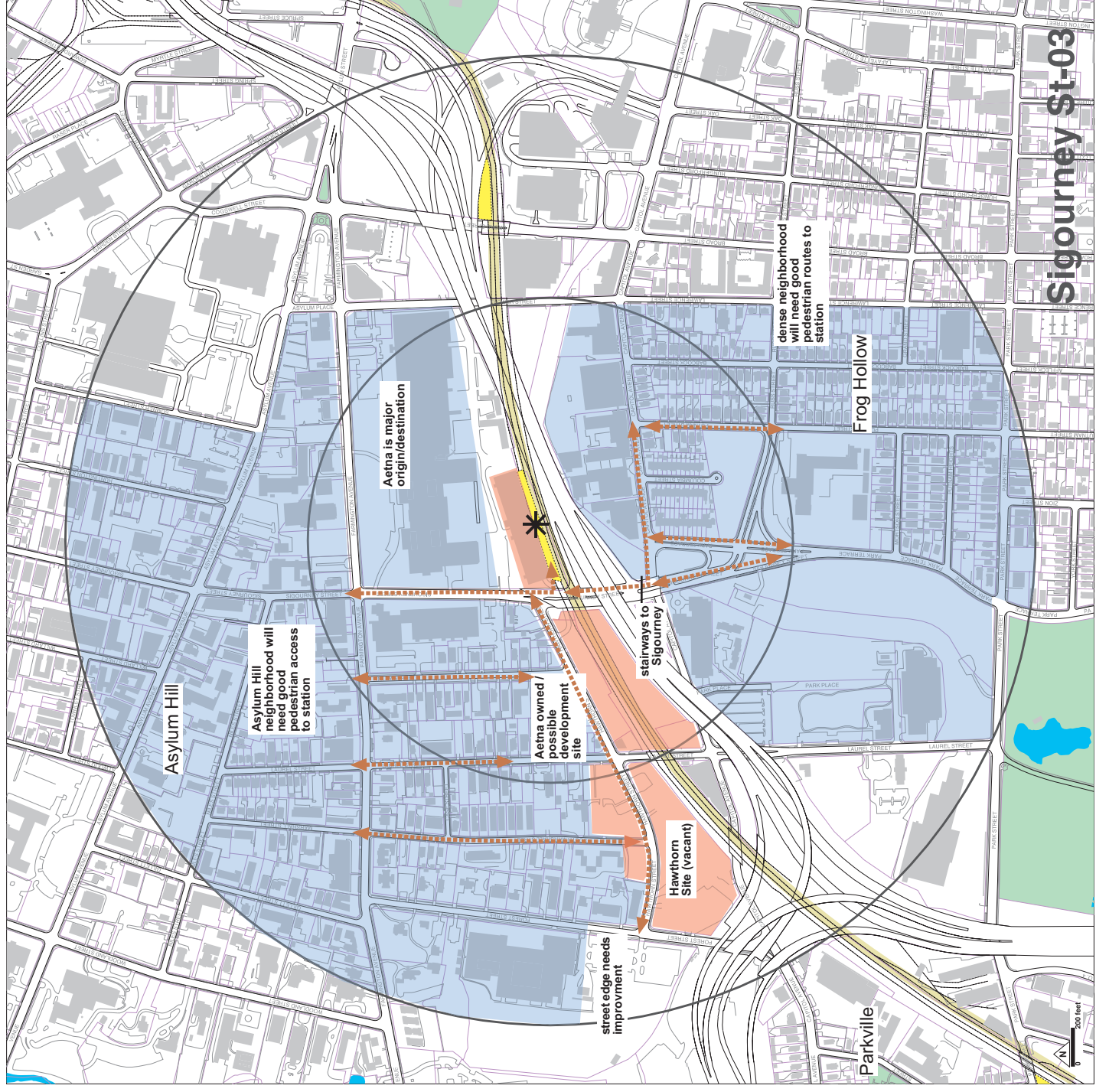
West of the station, across Sigourney Street there is a large surface parking lot and other parking and/or vacant lots that offer the opportunity for a significant future development with frontage along Hawthorn Street.

### *Design Principle Recommendations*

The following recommendations, specific to the Sigourney Station Area, are in addition to the general principles on pages 1 and 2, which apply to all of the stations:

1. Integrate the station into the proposed new Aetna garage. The pedestrian entrance from Sigourney Street should be a prominent feature at street level, providing both a very visible entrance to the station and an attractive addition to the streetscape.
2. Improve pedestrian connections to the station from Frog Hollow to the south, with a direct connection from Capitol Avenue across the at-grade parking lots, and an improved streetscape along Sigourney Street and under the I-84 overpass. Pedestrian improvements along Sigourney Street should include ensuring that the stairway from Capitol Avenue is well-lit and that the entire length is visible from Sigourney Street to enhance security.
3. Improve connections to the west along Hawthorn Street with streetscape improvements such as street trees.
4. Improve pedestrian safety adjacent to the station with crosswalks and pedestrian signal phases at the Sigourney/Hawthorn Street intersection. Examine the potential for reducing roadway width or providing a median to provide a pedestrian refuge.
5. Encourage development of Aetna's large surface parking lot on Hawthorn Street and the adjacent former factory site, as well as other vacant and/or parking lots along both sides of Hawthorn Street, for transit supportive use. Development of these parcels would help to improve the pedestrian environment along the south side of the street and provide destinations from the station.
6. Provide a pull-off on Sigourney Street to allow pick-up and drop-off space for private vehicles.
7. Encourage the implementation of the pedestrian improvements recommended in *A New Farmington Avenue* and the *Asylum Hill Neighborhood Strategic Plan* described above (under Union Station).

# Issues & Opportunities Sigourney



- quarter and half mile radius (5 & 10 minute walk)
- potential development opportunity
- transit patron origins and destinations
- key pedestrian routes to transit stations
- station site
- other issues or opportunities - see note



# Design & Development Principles



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## Sigourney

- 1 Work with Aetna to design new garage that incorporates busway station. Station should have strong presence on Sigourney Street and provide good access to Aetna campus.
- 2 Work with Aetna to develop parking garage that is integrated with transit station access and improves intersection of Sigourney Street and Hawthorn Street.
- 3 Encourage development of Hawthorn Street site for transit supportive use.
- 4 Improve streetscape along Hawthorn Street to provide better walking environment. Plant street trees and consider on-street parking.
- 5 Provide sufficient crosswalks and pedestrian phase for crossing large intersection.
- 6 Improve streetscape along Capitol Ave. to provide better walking environment.
- 7 Provide direct connection from Capitol Ave. to station. Insure pedestrian safety with adequate lighting and transparency of surroundings.
- 8 Improve pedestrian environment at underpass and stairways.
- 9 Improve streetscape along Sigourney Street. Provide planted buffer between sidewalk and vehicular lanes, and provide pedestrian scale lighting.
- 10 Implement Farmington Ave. design recommendations

## **Parkville**

### *Existing Environment*

The Parkville Station is located in a lively neighborhood with densely developed housing to the north and south of Park Street. There is also an active commercial district that is particularly active lining Park Street west of the station. Recent planning activity in the area has resulted in a proposal to improve the pedestrian environment along Park Street and New Park Avenue with the Park Street project soon to advance to final design. Other planning activity has also included the recent completion of an economic development plan for the neighborhood and an industrial corridor study.

To the east of the busway is an older industrial district with some large underutilized parcels and buildings that provide significant opportunities for transit oriented development. Several old mill buildings have been rehabilitated for industrial and commercial use and the rehabilitation of other industrial buildings for mixed use is currently underway.

Park Street crosses under both a railroad viaduct and the I-84 highway viaduct to the east of the station. A conceptual restoration plan has been prepared for the segmented portion of Pope Park between the neighborhood and I-84. Restoration of this park parcel will support the redevelopment of parcels along Pope Park Highway.

Parking lots and curbcuts along Francis Avenue and Bartholomew Avenue reduce the quality of pedestrian environment around the station.

### *Design Principle Recommendations*

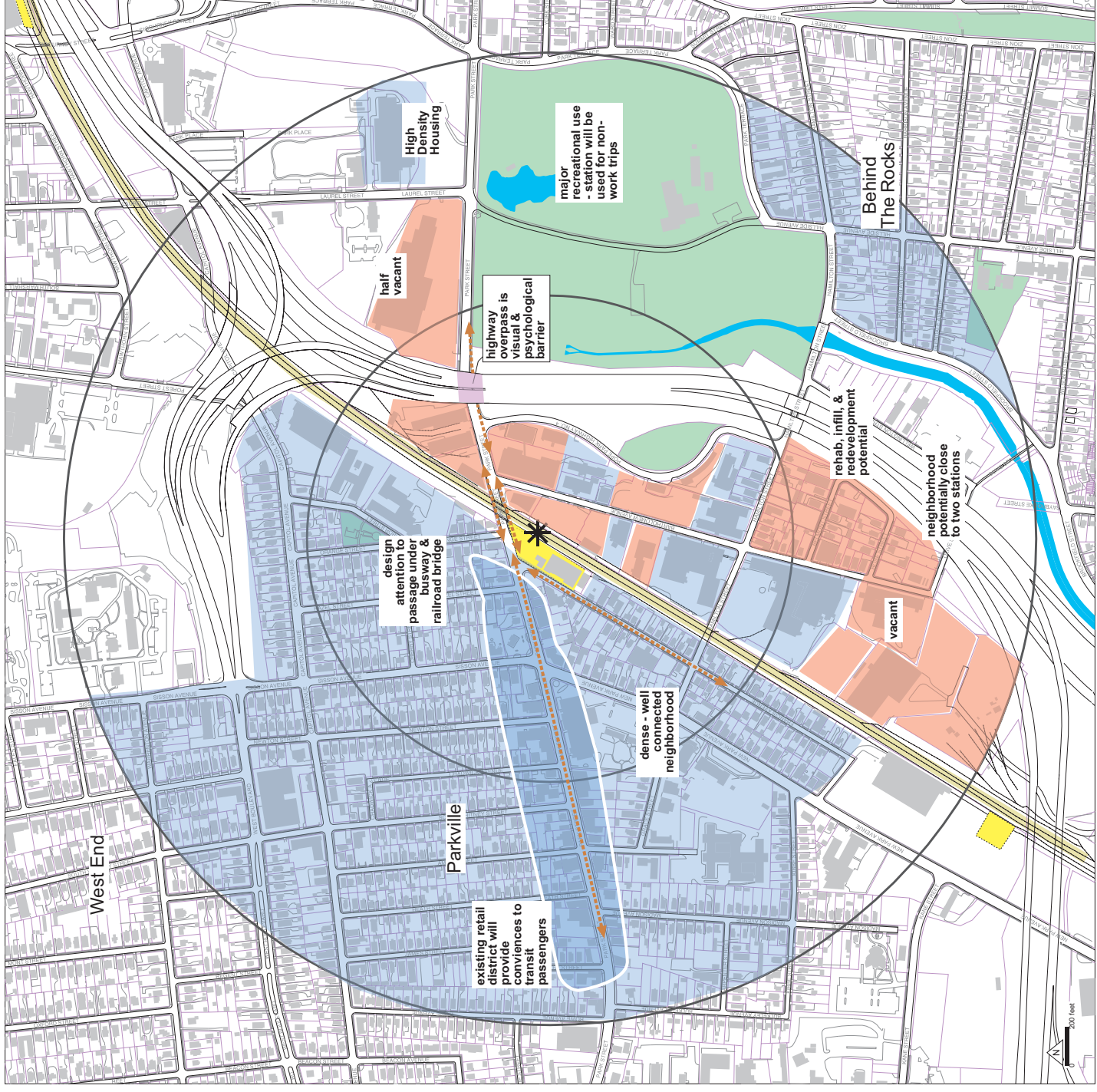
The following recommendations, specific to the Parkville Station Area, are in addition to the general principles on pages 1 and 2, which apply to all of the stations:

1. Reconfigure the station site plan, with the station moved south, to create a transit plaza immediately north of the station and a joint development site at the corner of Francis Avenue and Park Street. The site plan shows the plaza between the station and the joint development parcel, directly across from the small open area on the west side of Francis Avenue. The plaza and station are sited to enhance visibility from Park Street and the corner development parcel creates a prominent building to hold the street edge at this important corner. The plaza and landscaping along Park Street and Francis Avenue are used to create a new civic amenity to attract development, enhance the existing community vitality and create a pleasant and very visible waiting area for transit riders. The relocation of the station to the south maintains the community's goal to create a visible station and plaza, while also providing adequate space for potential development of an attractive building on the corner. The preferred use of either new development or a larger plaza for the corner parcel will be determined during the next phase of the project.
2. Encourage continued redevelopment of adjacent underutilized parcels for medium to high density housing, retail, office and light industrial (with high employment density) uses.
3. Rezone the district to discourage auto-oriented uses.



4. Improve the pedestrian environment along Francis Street, New Park Avenue, Park Street and Bartholomew Avenue, minimizing curbcuts and providing attractive sidewalks and lighting (see attached prototypical roadway sections).
5. Provide a direct pedestrian connection over the busway to link to development east of the busway along Bartholomew Avenue. This pedestrian bridge would also cross the active Amtrak line; although such a crossing would have to be negotiated with Amtrak, there are pedestrian crossings at many Amtrak stations around the country.
6. Create mid-block connections from Bartholomew Avenue to Pope Park Highway to improve pedestrian access to the station and adjacent development.
7. Explore opportunities for shared and/or structured parking to allow higher density development in the industrial corridor and on Park Street and New Park Avenue as outlined in the *Parkville Urban Design & Transportation Plan – Picture It Better Together*.
8. Improve the entrance to the neighborhood from the east by using the railroad viaduct to create a gateway to Parkville (currently underway).
9. Encourage redevelopment of the vacant former big box store on Park Street east of I-84 for transit supportive use.
10. Implement plans for streetscape improvements for Park Street and New Park Avenue as outlined in the *Parkville Urban Design & Transportation Plan – Picture It Better Together*.
11. Provide signage and streetscape improvements to Real Artways, an important neighborhood destination.

# Issues & Opportunities Parkville





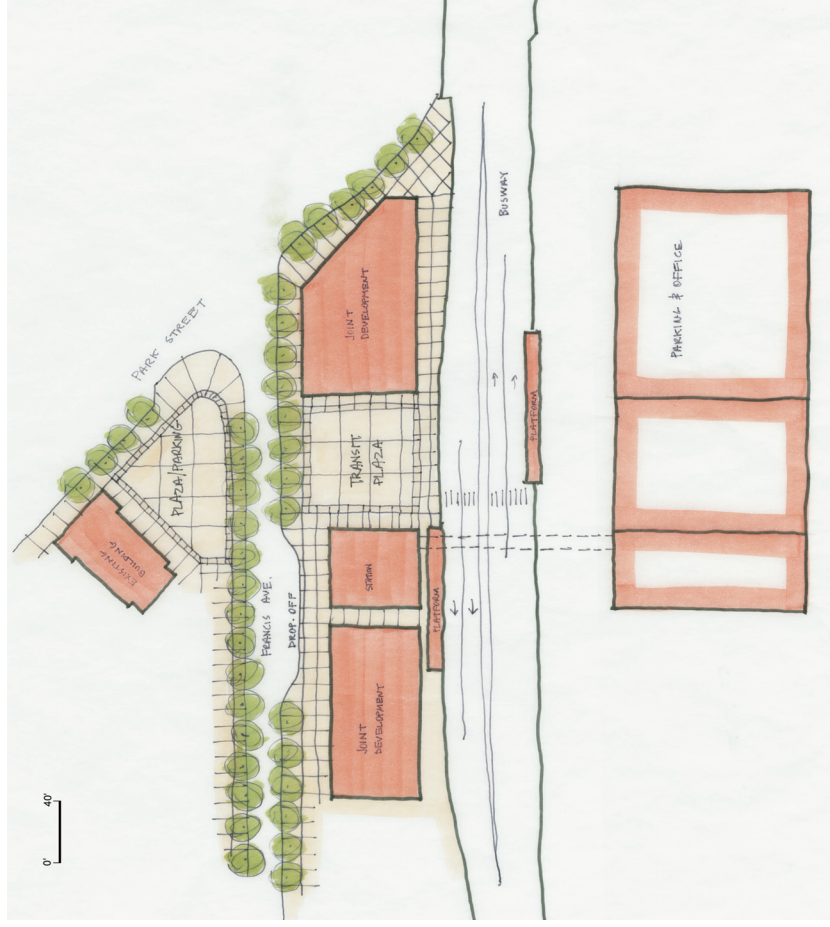
## Parkville

- 1 Encourage development of mid to high density housing, retail, office uses. Encourage development of transit related parking structure. Discourage new industrial or auto-oriented uses. Use new buildings to create consistent street edge. Implement shared and coordinated parking plan outlined in the Parkville Urban Design and Transportation Plan (also applies to 4 & 5).
- 2 Provide direct pedestrian connection over busway.
- 3 Provide pedestrian connection at mid-block to facilitate access to and from station.
- 4 Encourage development of mid to high density housing, retail, office uses. Use new buildings to create consistent streetedge.
- 5 Encourage redevelopment for mid to high density housing, retail, office, and light industrial uses. Discourage new heavy industrial or auto-oriented uses.
- 6 Create amenities to attract new transit oriented-development (plaza, open space, streetscape improvements).
- 7 Create a safe walking environment. Minimize curb cuts and provide designated crosswalks, pedestrian scale lighting, and adequate sidewalk width.
- 8 Improve street lighting.
- 9 Explore opportunities to improve road intersections to provide better circulation.
- 10 Explore opportunities to change street patterns to provide better parcels.
- 11 Improve pedestrian environment at underpass; create gateway (currently under way) at bridge.
- 12 Explore joint development opportunities.
- 13 Create station plaza to enhance transit station appearance and utility (see station site plan).
- 14 Create a safe walking environment (adequate sidewalk width, pedestrian scale lighting, designated crosswalks, limited curb cuts), as illustrated in the Parkville Urban Design and Transportation Plan.

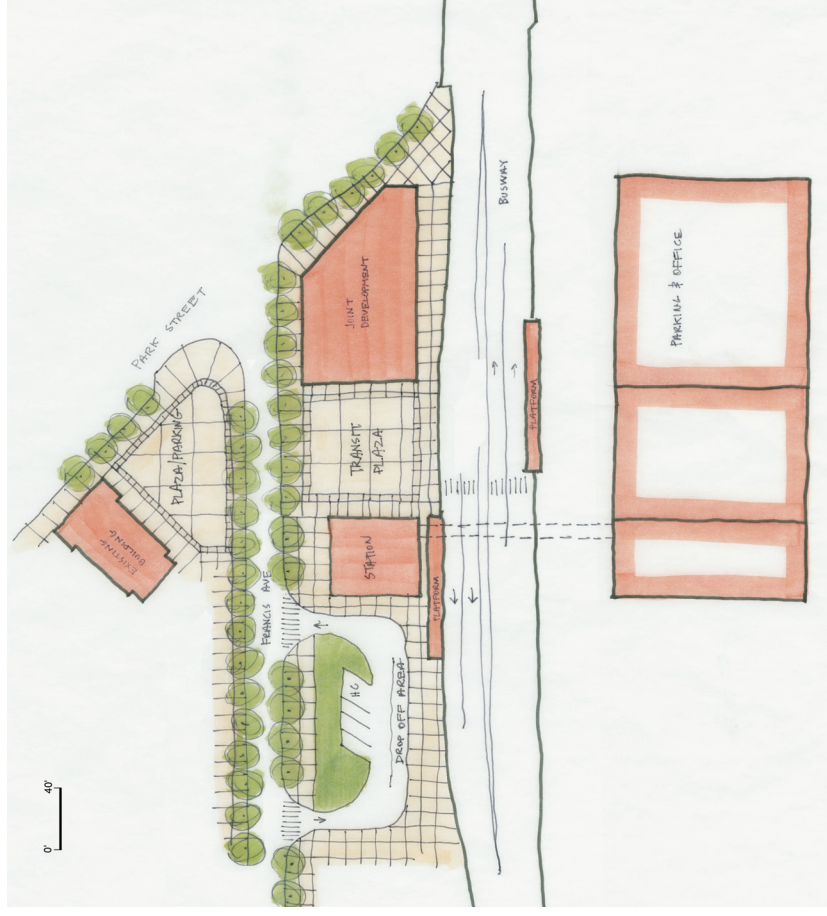




# Busway Station Concept Parkville



option 1 with new joint development to west of station



option 2 with on-site parking

Note: additional design work for the station and station area will occur during subsequent project phases

## New Park

### *Existing Environment*

The New Park Avenue Station area is located at the southern end of Stop and Shop supermarket parking lot. To the south of the station is a large undeveloped parcel that contains some wetland area. Further south along New Park Avenue is a large cinema complex and associated parking area. East of the busway is a large underutilized scrap metal yard and other industrial properties that provide a significant redevelopment opportunity. Development directly across New Park Avenue to the west of the station includes auto-oriented uses with large parking areas and numerous curbcuts.

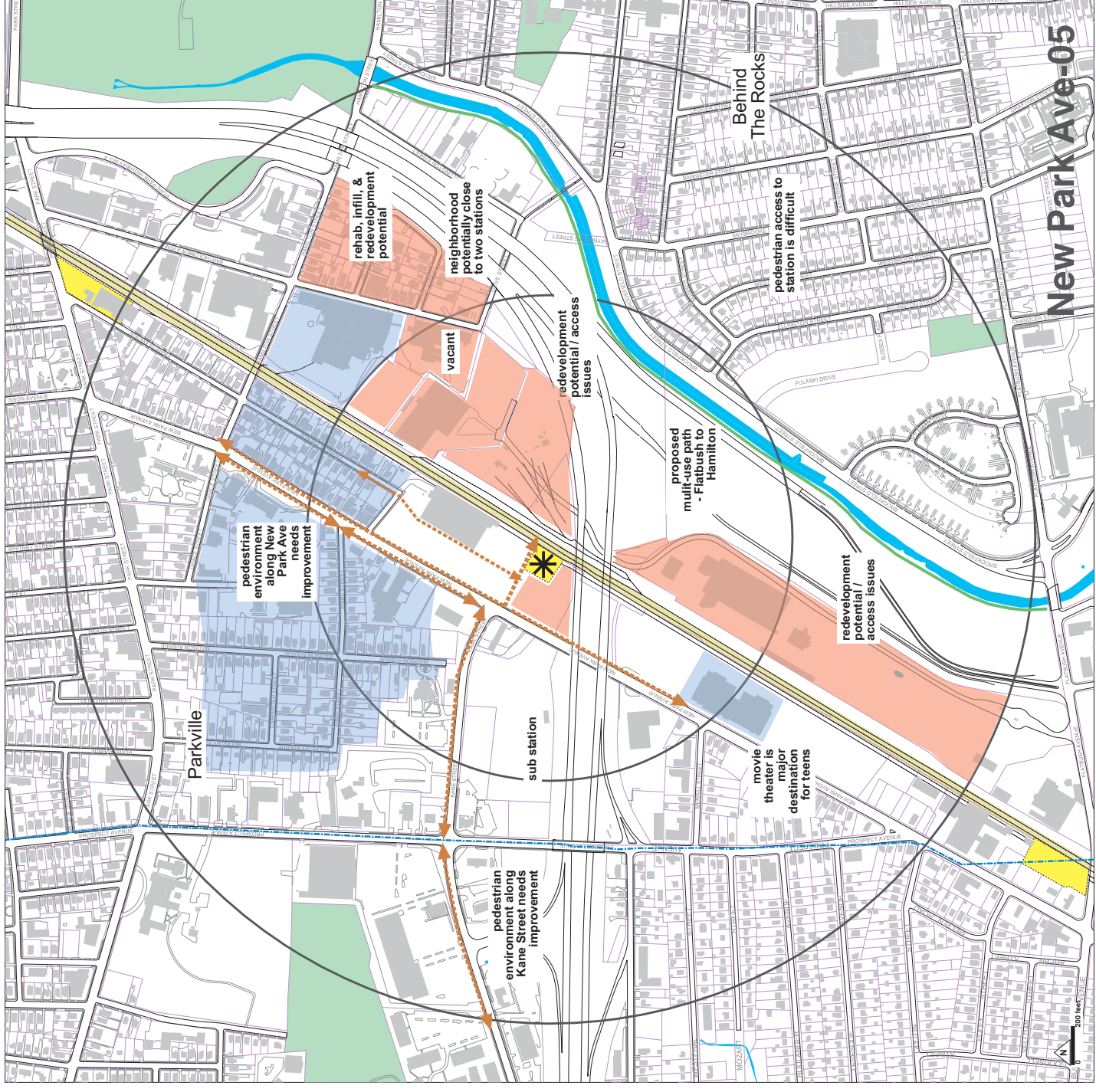
North and west of the station is a dense residential neighborhood.

### *Design Principle Recommendations*

The following recommendations, specific to the New Park Station Area, are in addition to the general principles on pages 1 and 2, which apply to all of the stations:

1. Discourage plans to move the station to the parcel under the I-84 underpass.
2. Explore the potential of joint development for transit-supportive uses on the south side of the station access road. Development along this access drive would greatly improve the pedestrian environment for neighborhood residents walking to the station.
3. Provide a direct pedestrian connection from Francis Avenue through the Stop and Shop parking lot to the station to improve access from the residential neighborhood to the north.
4. Rezone the industrial property east of the busway to encourage long-term redevelopment for medium to high density residential or office use. Design the station to accommodate a future pedestrian connection over the Amtrak line to provide access from this parcel to the station.
5. Improve the pedestrian environment along New Park Avenue, limiting curb cuts and providing designated crosswalks, pedestrian scale lighting and sidewalks (see attached prototypical roadway sections). These improvements will improve pedestrian access to the station from the neighborhood and could encourage moviegoers to use the busway. These improvements are outlined in the recently completed *Parkville Urban Design and Transportation Plan*.
6. Encourage ConnDOT to work with Stop and Shop and Crown Theater on a plan for shared parking.
7. Continue to explore funding for a redevelopment plan for properties east of the busway.

# Issues & Opportunities New Park Ave



- quarter and half mile radius (5 & 10 minute walk)
- potential development opportunity
- transit patron origins and destinations
- key pedestrian routes to transit stations
- station site
- other issues or opportunities - see note



# Design & Development Principles

## New Park Avenue



- 1 Explore joint development opportunities. Encourage commuter and neighborhood uses immediately adjacent to the station.
- 2 Discourage new auto-oriented uses, encourage change of use. Encourage infill development to fill gaps in street edge. Site buildings at street edge to enliven pedestrian environment.
- 3 Encourage development of mid to high density housing and office uses. Work with ConnDOT to ensure station design will allow for future pedestrian bridge over railroad tracks.
- 4 Create a safe walking environment (adequate sidewalk width, pedestrian scale lighting, designated crosswalks, limited curb cuts as shown in the Parkville Urban Design and Transportation Plan).
- 5 Provide direct pedestrian connection from residential neighborhood to station.
- 6 Provide pedestrian connection from Madison Avenue to Kane Street.
- 7 Improve pedestrian crossing at intersection of Grace Street and New Park Avenue.
- 8 Improve pedestrian environment at underpass.
- 9 Station and parking access integrated with potential development (note 1)
- 10 Encourage shared commuter parking with the Crown Plaza Theater, and Stop & Shop.

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This aerial map illustrates the proposed Light Rail Station and Transit Center at the intersection of I-10 and I-25 in Denver, Colorado. The station layout includes a 'Local Bus Pullout' area, 'Retail' spaces, a 'Station' platform, and 'Wayland' wetland. The map also shows the 'Ramp' for the 'Subway to Metro' and the 'Ramp' for the 'Subway to Metro'.



## Flatbush

### *Existing Environment*

The Flatbush Station is located within West Hartford although much of the quarter mile station area is located within Hartford. The east side of the busway is characterized by large underutilized parcels and industrial development. The quarter mile radius includes the large recently cleared parcel designated for development of a WalMart. The development of WalMart and adjacent outparcels along Flatbush Avenue create the potential for significant improvements to the pedestrian environment in this area. New Park Avenue in the vicinity of the station area is dominated by auto-dependent uses with numerous curbcuts. Overall, the area is not pedestrian friendly.

East of New Park Avenue, the land in West Hartford is zoned General Industrial. The west side of New Park Avenue is zoned General Business, with much of the remainder of the quarter mile radius zoned for multi-family use at densities consistent with TOD (approximately 10-30 units per acre allowed based on required square footage/unit; parking, lot coverage, open space and FAR requirements would reduce the actual achievable densities). As described above, both of these West Hartford zones exclude residential development and are designed to accommodate auto-oriented, pedestrian unfriendly uses such as motor vehicle sales, service and repair, wholesale business and store warehouses, and industrial/manufacturing uses. In Hartford, east of Newfield Avenue, the land south of Flatbush is zoned B-3 Linear Business District to approximately the back of the proposed WalMart; south of the proposed WalMart, the land is zoned for Industrial Use. West of Newfield Ave., the land is zoned CI Commercial, allowing uses such as warehouses, wholesalers, laboratories, auto repair, construction storage and printing. North of Flatbush, the land is zoned I-2 Industrial, allowing medium to heavy industry.

### *Design Principle Recommendations*

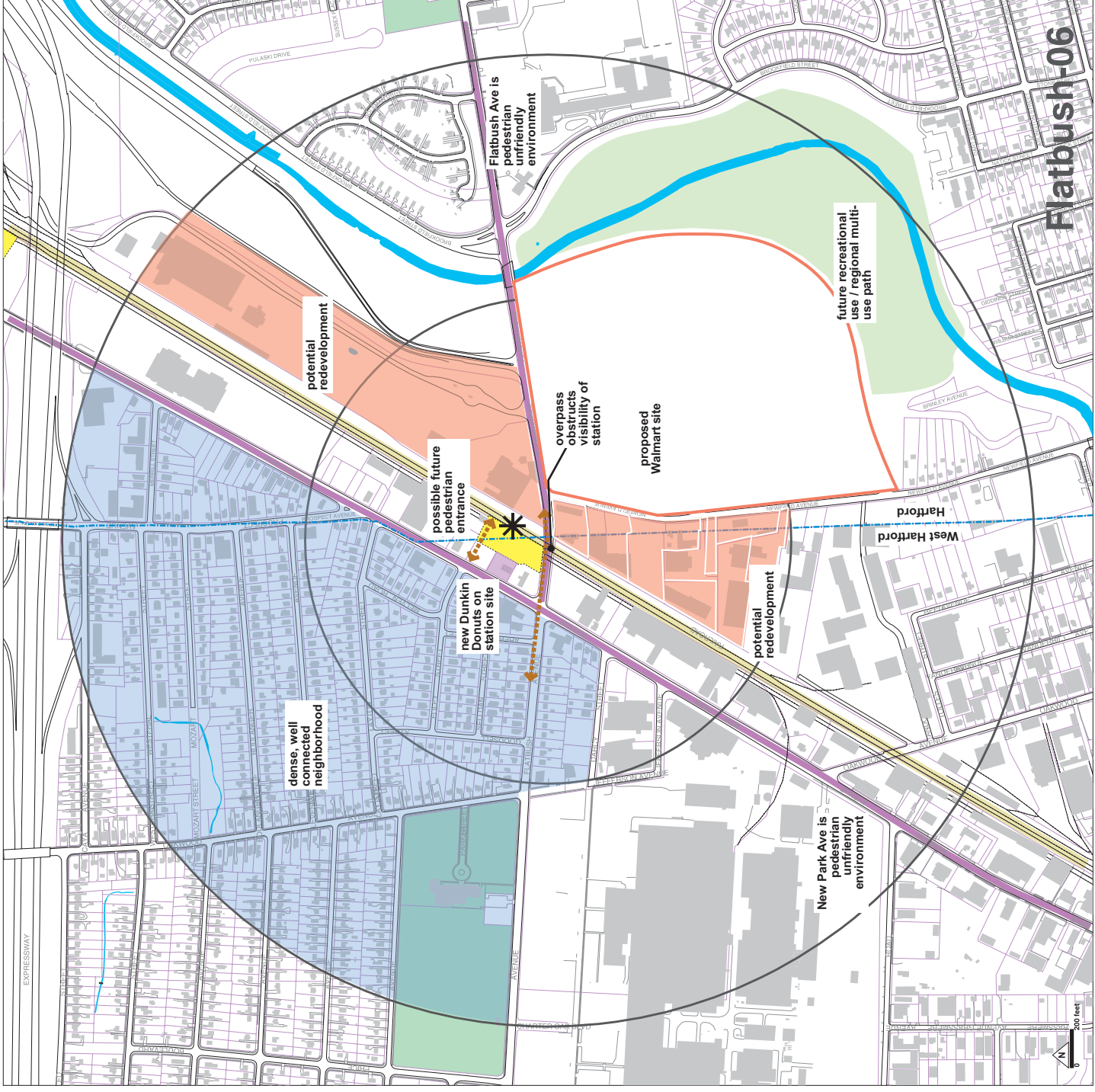
The following recommendations, specific to the Flatbush Station Area, are in addition to the general principles on pages 1 and 2, which apply to all of the stations:

1. Encourage West Hartford and Hartford to work together to develop a master plan for the station area parcels focusing on high density, transit-related land uses.
2. Use the prominence of the new busway viaduct to create a gateway into the Flatbush area.
3. Improve pedestrian access along Flatbush Avenue from the east, with particular attention to the environment under the new viaduct.
4. Improve pedestrian access from the neighborhoods west of the station across New Park Avenue.
5. Reconfigure the station site plan to provide attractive pedestrian connections from Flatbush Avenue and New Park Avenue. Because the station will be behind other uses on New Park Avenue, it should be designed as a prominent vertical architectural element among primarily one-story structures to provide visibility from the street. A building on a new development parcel at the intersection of New Park Avenue and Flatbush Avenue will help to anchor the corner.
6. Rezone both sides of New Park Avenue to encourage long-term TOD uses and discourage/prohibit auto-oriented uses.\*

7. Rezone the land west of Newfield Avenue (in both Hartford and West Hartford) to encourage long-term TOD uses and discourage auto-oriented uses.\*
8. Rezone the land north of Flatbush Avenue (in Hartford) to encourage long-term TOD uses and discourage auto-oriented uses. These uses could include medium to high density office or retail; the parcels could also be developed for industrial use with higher employment densities.\*

\*More detailed recommendations for parcel usage and related zoning changes will be developed during the next phase of the project.

# Issues & Opportunities Flatbush





# Design & Development Principles

## Flatbush

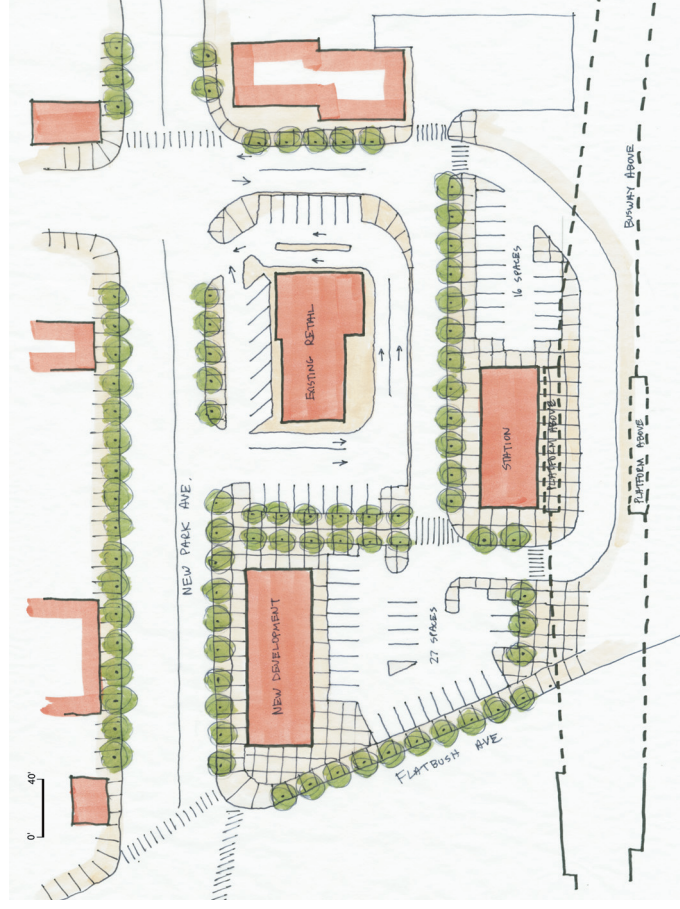
- 1 Create safe, landscaped pedestrian environment along Flatbush. Use new development (#2) to create walkable street edge. Build consistent, well-lit sidewalks.
- 2 Develop proposed Walmart site out parcels with transit accessible frontage and pedestrian friendly streetscape.
- 3 Consolidate ownership to provide attractive development site adjacent to Flatbush Station for office or high density retail.
- 4 Encourage change of use over time, with opportunities for commuter and neighborhood uses at or near station. Intersection of Flatbush and New Park Ave. could become transit friendly node on commercial strip.
- 5 Encourage change of use from industrial to high density retail and/or office. Large underutilized site is owned by only two parties and has potential for good access from I-84 exit ramp.
- 6 Sidewalks under new overpass should be wide and well lit. Under bridge environment should be attractive and safe.
- 7 Provide sufficient pedestrian phase for crossing large intersection. Pedestrian traffic will increase with introduction of busway stop at Flatbush.
- 8 Improve walking environment on major approaches to station by providing planted buffer between traffic and sidewalk. Consolidate curb cuts and where possible create pedestrian walkways across parking lots to store fronts.
- 9 Create pedestrian friendly street to provide transit patrons safe access to Walmart and other proposed stores.
- 10 Improve streetscape and lighting on residential portion of Flatbush Ave. Where possible plant street trees to buffer sidewalks from traffic.
- 11 Provide safe crossing to station at Foley Street.
- 12 Encourage redevelopment of vacant properties for housing. May require consolidation of 5 parcels.



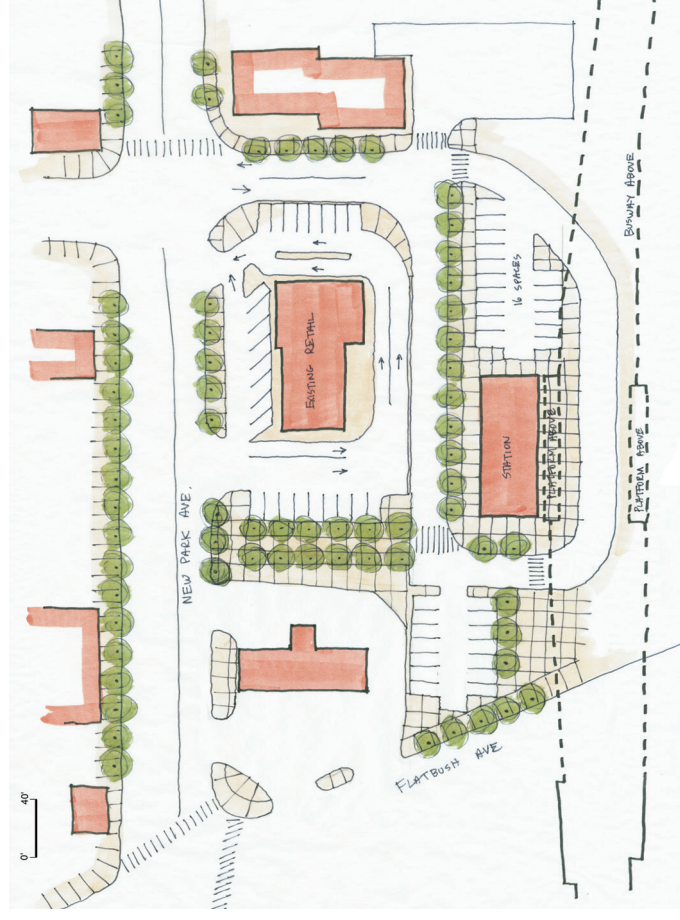
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# Busway Station Concept Flatbush



option 1 with new building in place of gas station

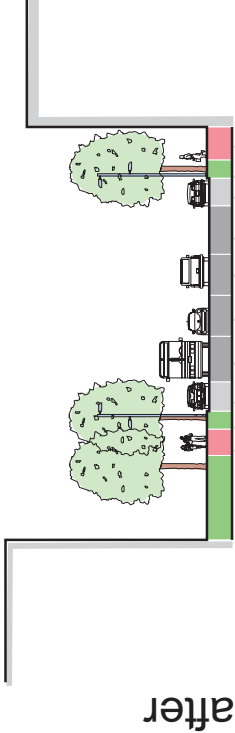
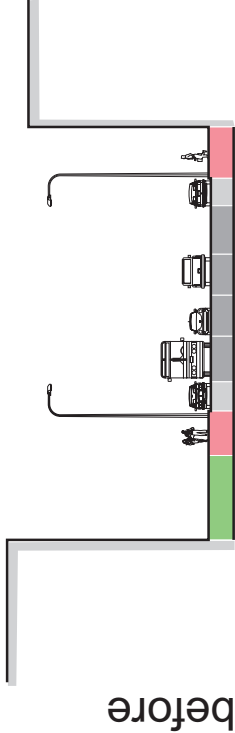


option 2 with existing gas station remaining

Note: additional design work for the station and station area will occur during subsequent project phases

Corridor-wide  
Typical Roadway Cross Sections

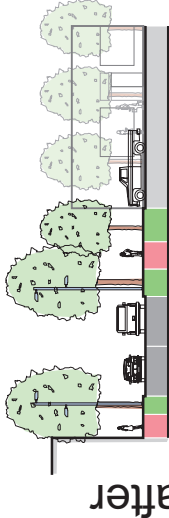
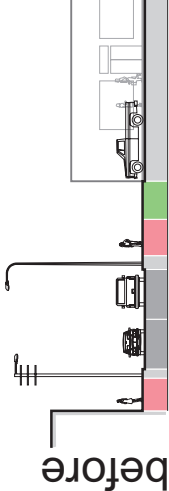
Neighborhood Commercial  
Street (e.g. East Main Street)



Replace cobra lighting with pedestrian scaled lights. Where possible put utilities underground.

- travel lanes
- parking / shoulder
- grass / planting strip
- sidewalk

40 ft



Replace cobra lighting with pedestrian scaled lights. Where possible put utilities underground.

Create pedestrian routes from sidewalk to storefront in locations where stores do not front on sidewalk.

The philosophy behind these cross-sections is to emphasize the creation of public spaces that feel comfortable and safe, draw more people, and attract development. Some points to keep in mind are listed below:

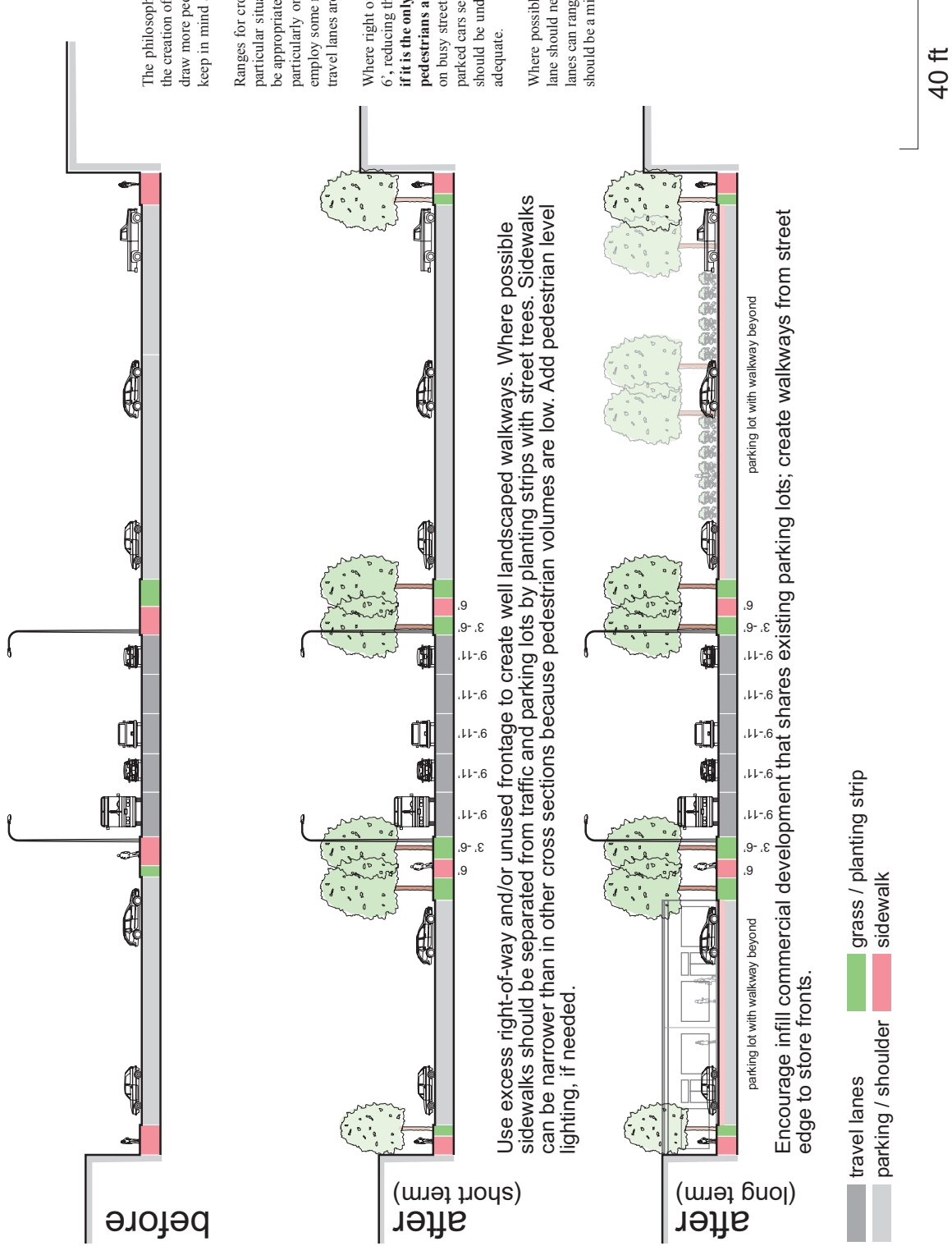
Ranges for cross-section components provide flexibility for particular situations or local protocols. However, it may not be appropriate to use the lowest number for each component, particularly on heavily traveled streets. Furthermore, to employ some narrower travel lanes may require that other travel lanes be wider (e.g. a 12' center turn lane).

Where right of way is limited and sidewalks are wider than 6', reducing the sidewalk to 5' may be a necessary trade-off **if it is the only way to provide a buffer between pedestrians and traffic**. Pedestrians feel safer, particularly on busy streets, when a planted strip, street trees, or parallel-parked cars separate the sidewalk from travel lanes. This should be undertaken with caution, as 5' is generally not adequate.

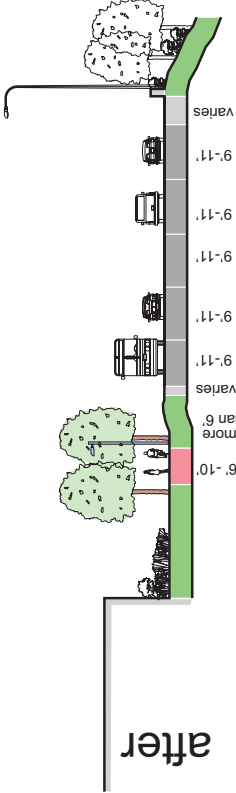
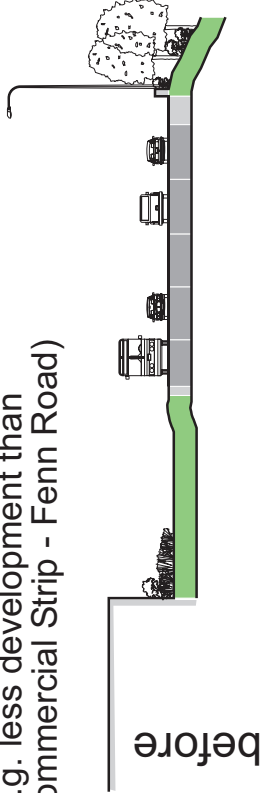
Where possible, provide bike lanes along all streets; a bike lane should never be placed on just one side of a street. Bike lanes can range from 4' - 8', although a lane next to a curb should be a minimum of 5'.

# Corridor-wide Typical Roadway Cross Sections

## Commercial Strip - (e.g. New Park Ave. south of Flatbush)



Suburban Roadway -  
(e.g. less development than  
Commercial Strip - Fenn Road)



Make use of unused frontage land to provide well landscaped and well lit sidewalks that make pedestrian connections between important land uses. Add pedestrian level lighting along sidewalk.

- grass / planting strip
- sidewalk
- travel lanes
- parking / shoulder

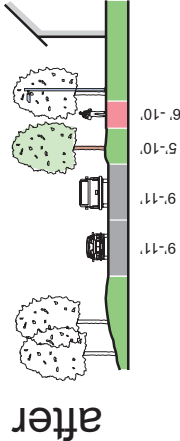
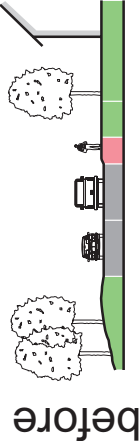
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Where possible, provide bike lanes along all streets; a bike lane should never be placed on just one side of a street. Bike lanes can range from 4'-8', although a lane next to a curb should be a minimum of 5'.

Suburban Roadway -  
(e.g. low density residential -  
Willard Street)

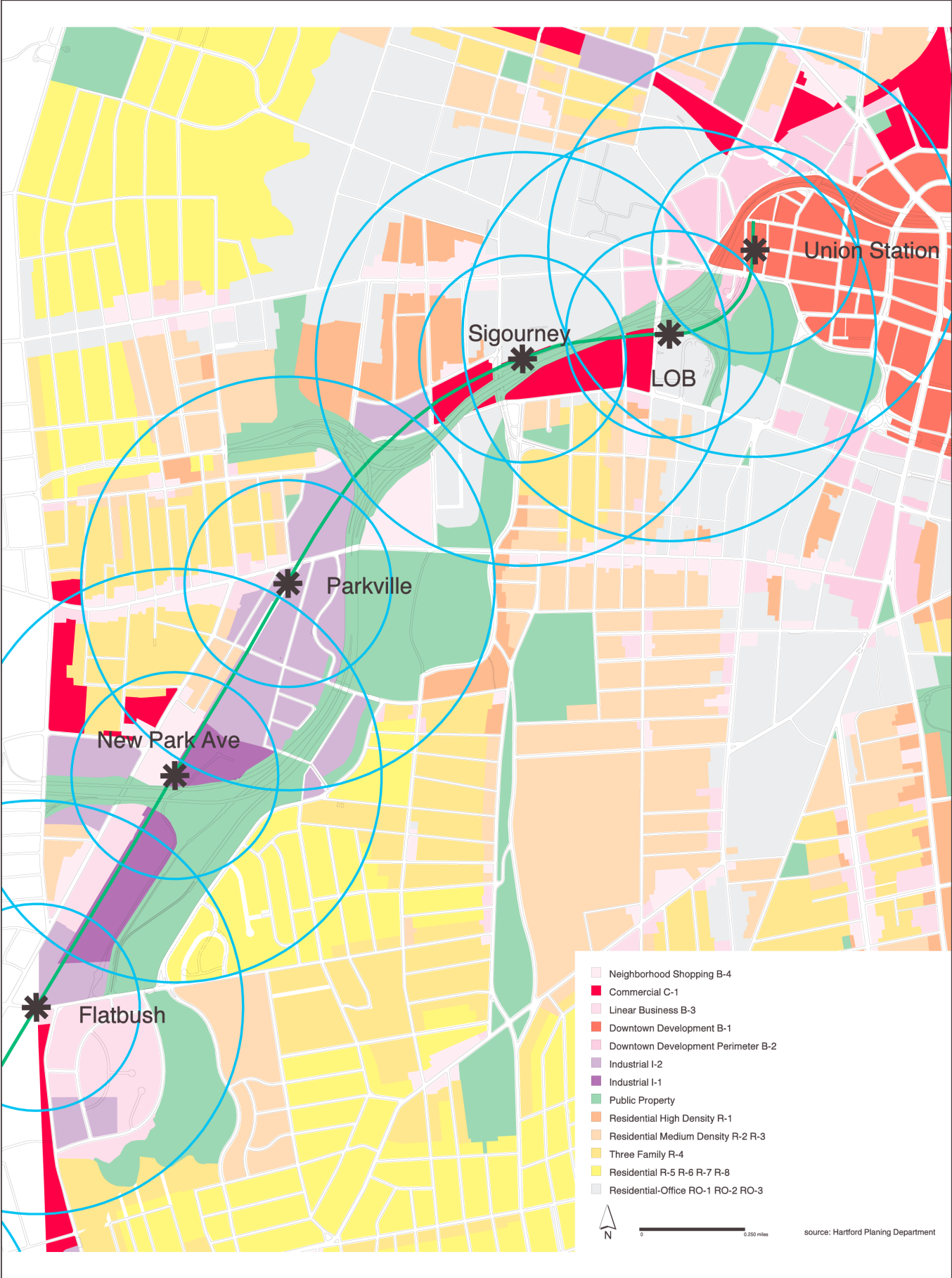


Where possible, move sidewalks away from travel lane and provide generous planting strip; landscape to separate sidewalks from fast moving traffic; and provide pedestrian level lighting. Because pedestrian volumes are low, sidewalk only needs to be 5 feet. If sidewalk will also be used as a segment of the multi-use path, it should be at least 10 feet wide.

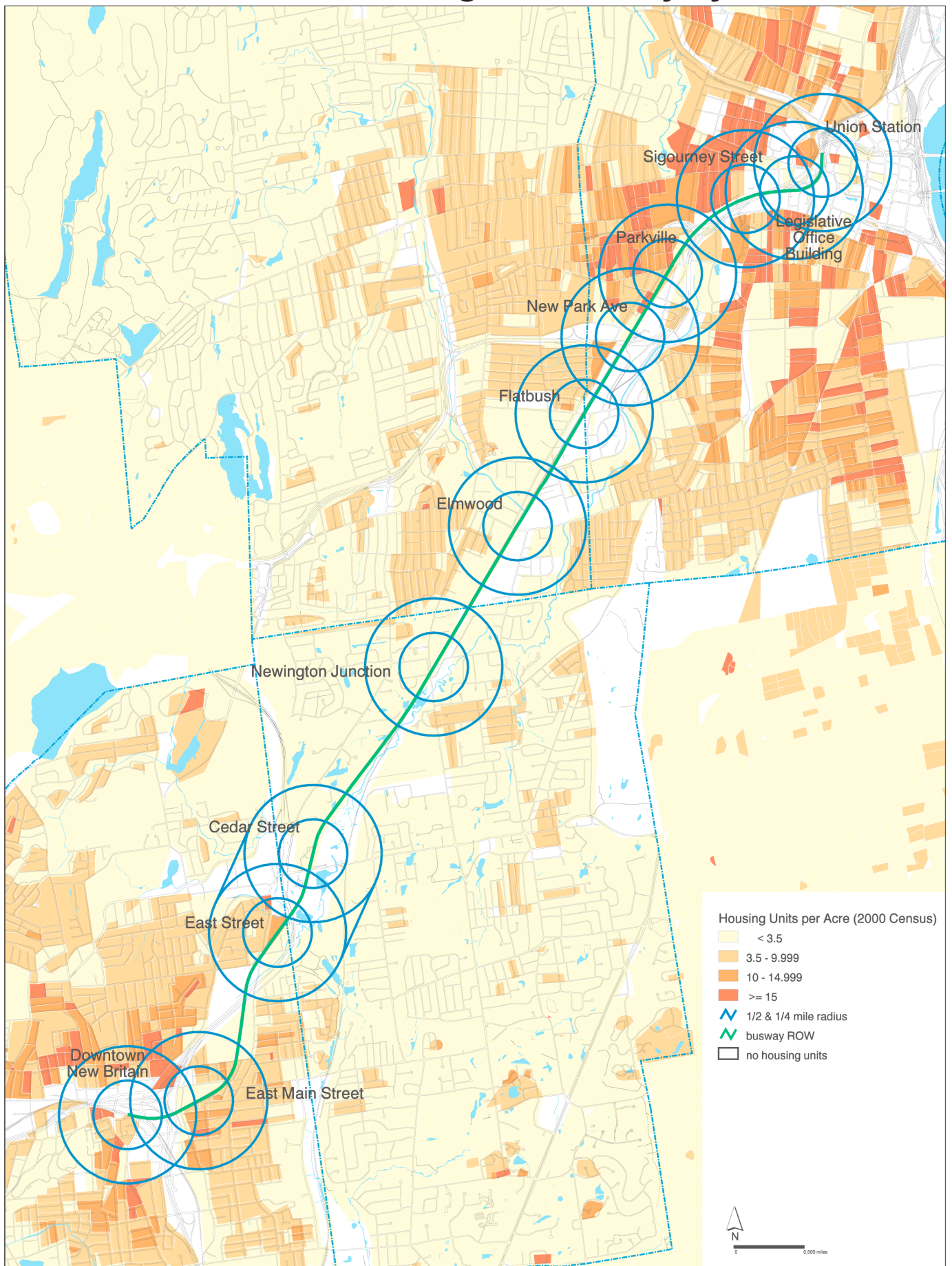
40 ft



Corridor-wide  
Hartford Station Area Zoning

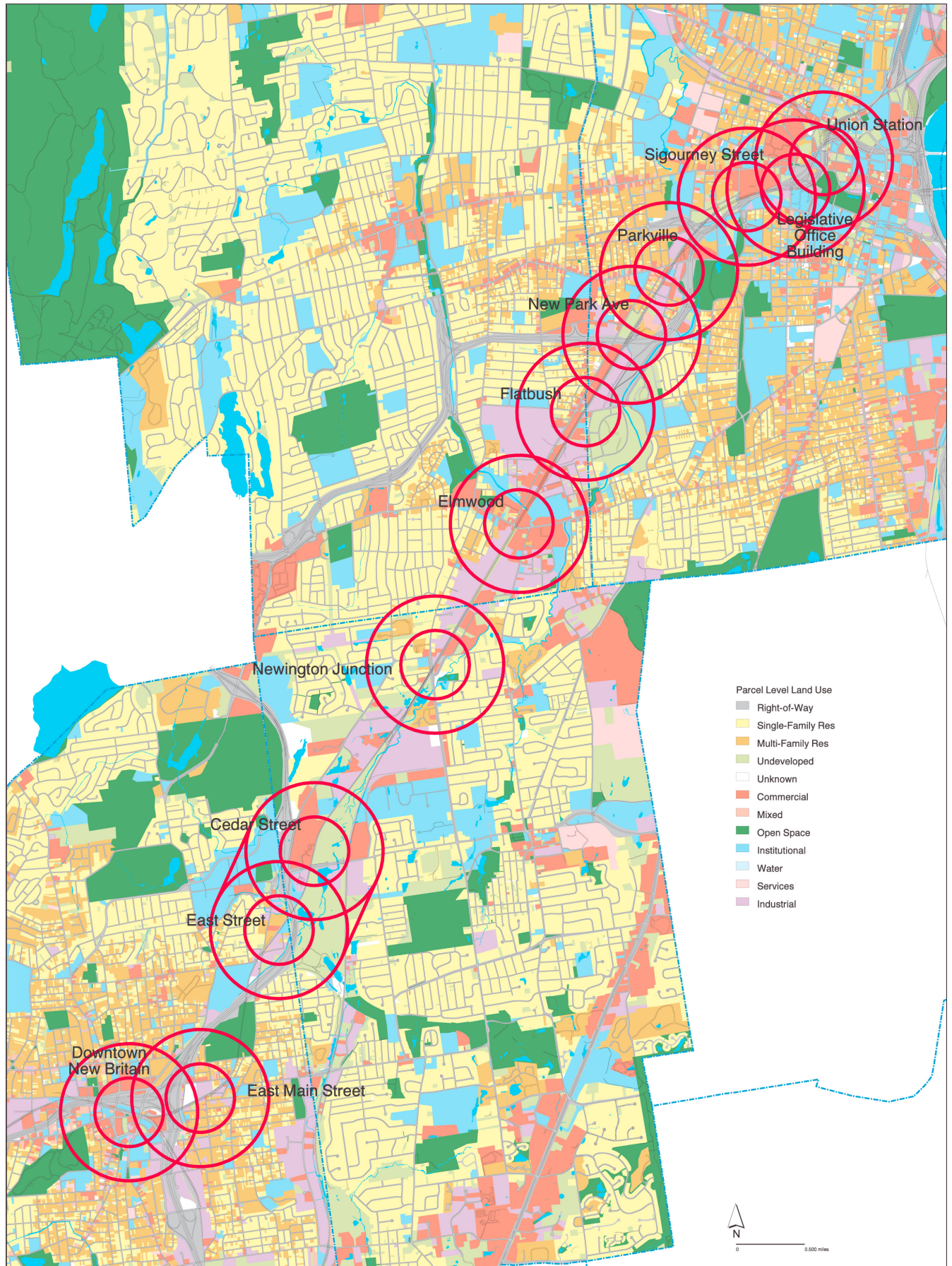


# Corridor-wide Housing Unit Density by Census Block





# Corridor-wide Land Use by Parcel



(data from CRCOG and the City of New Britain)