

City of New Britain: Principles For Transit-Oriented Development

New Britain-Hartford Busway Station Area Planning Project

Prepared for the New Britain Station Area Planning Municipal Advisory Committee

Prepared by Crosby | Schlessinger | Smallridge, LLC and the Capitol Region Council of Governments

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Transit-Oriented Development Principles

What is Transit-Oriented Development and Why Consider It?¹

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 19th and early 20th 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.² 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. CROG 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 busway³, 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.

¹ 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.

² 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.

³ 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

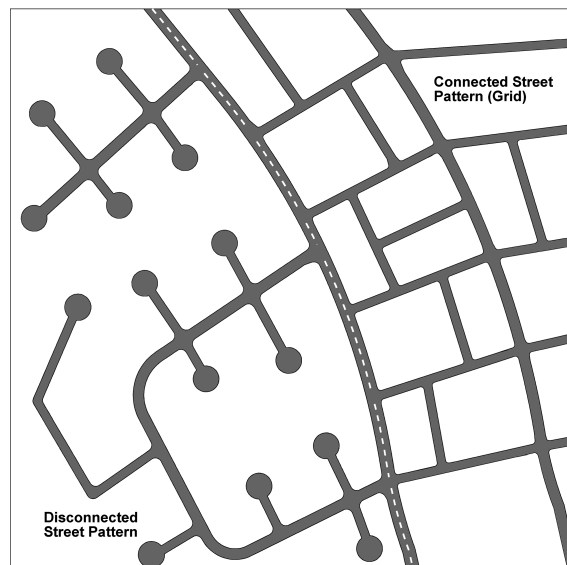
This Introduction section presents Transit-Oriented Development (TOD) principles generally applicable to the areas around rapid transit stations, such as the stations along the New Britain-Hartford Busway. There are two main categories of consideration in transit supportive assessments: Station Approach & 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

- Work towards providing 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.
- As capital budgets allow, consider prioritizing improvements that would create a safe walking environment (adequate sidewalk width, pedestrian scale lighting, designated crosswalks, 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.
- Work towards creating 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

The following pages provide some TOD ideas for specific station areas along the New Britain-Hartford Busway; these 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 Station Area Development Concept for vacant/underutilized land immediately adjacent to the station (East Main Street only)

Note: The package does not include Downtown New Britain. Design Principles for this station will be included in the full Station Area Plan to be developed in the next phase of this study.

Cedar/East Street

Existing Conditions

The future of the Cedar and East Street Stations is directly related to plans by Central Connecticut State University (CCSU). One or both of the stations, and/or a new station near the center of the CCSU development, could serve as the gateway to the University and a link to the existing and planned expanded campus. A significant concentration of university related residences and support commercial could take place on the undeveloped property between the Cedar and East Street Stations, potentially around a new station. The new station could serve as the gateway or entrance to the new campus and associated arena, student housing, conference or hotel space.

The University owns significant land (approximately 100 acres) to the east of the busway, between the two stations, which is being looked at for development of an “East Campus.” Therefore, the Cedar and East Street Stations are being looked at jointly in order to best serve university expansion plans and Newington and New Britain municipal development goals, as well as to optimize any joint development opportunities.

The **East Street Station** is located in New Britain, although much of the land immediately east of the station is in Newington. This station is located in the eastern portion of New Britain, southeast of CCSU. The immediate station area is proximate to a university maintenance yard and the Cedar Creek Apartments - a midrise apartment development - which the University may acquire. The area surrounding the station is generally light industrial and moderate density residential in character. The land in Newington is undeveloped and is zoned Industrial. The land in New Britain is zoned for Industrial and Multi-Family use.

There are significant access issues related to the undeveloped land east of the busway and traffic congestion around Route 9 and Cedar Street. Both access to undeveloped parcels and existing congestion must be addressed in order for TOD to be feasible. These access issues are being addressed in detail as part of this study.

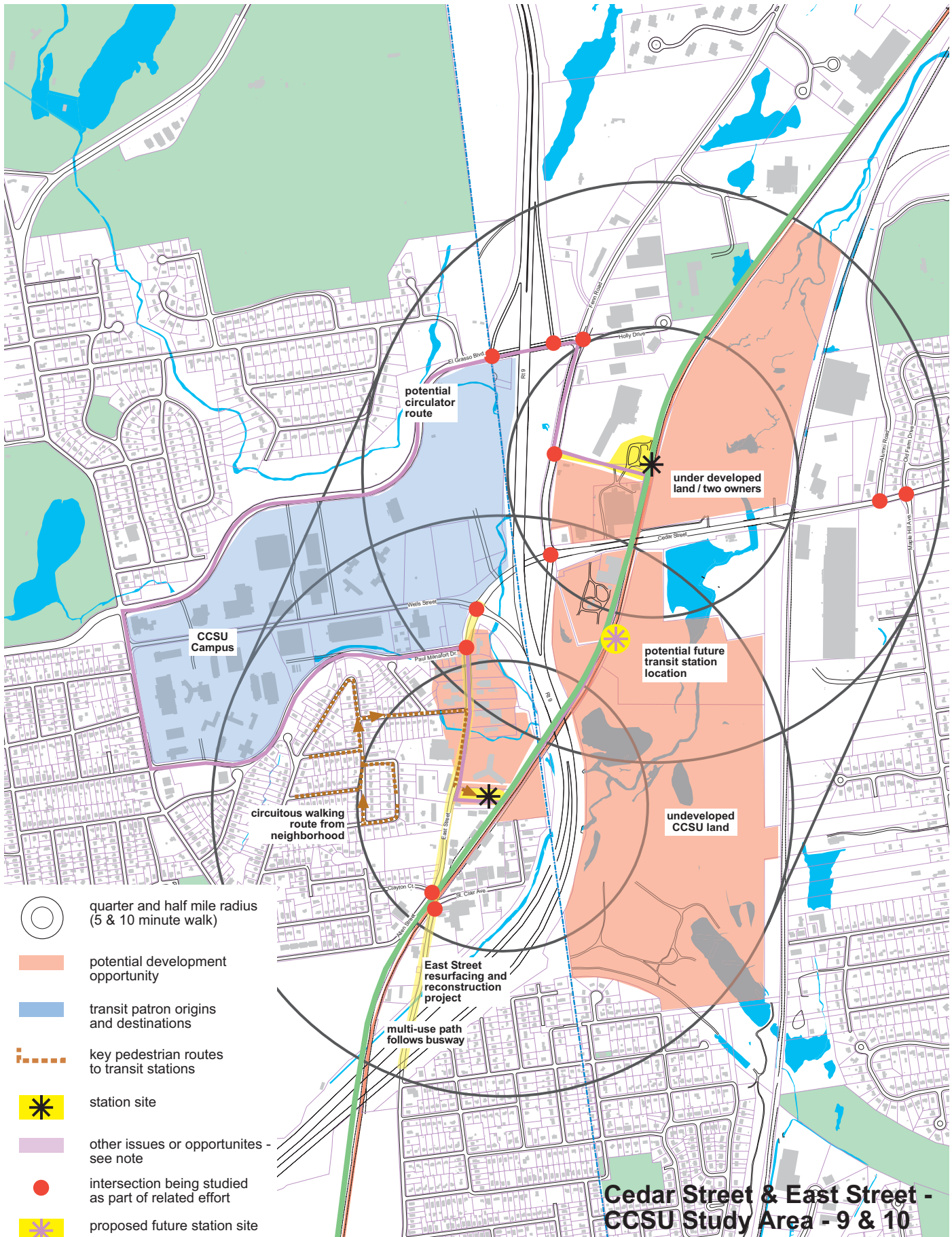
The **Cedar Street Station** area is characterized by auto-oriented uses along Fenn Road and large underdeveloped parcels east of the busway. Fenn Road and Cedar Street (Route 175) are not pedestrian friendly streets, although there are a few pedestrian oriented uses in the area. The station is located at the back of the large Stop and Shop plaza and the busway is at a significantly lower elevation than the shopping center. Because of its location in a relatively undeveloped area, this station is not likely to attract walk-in riders unless adjacent parcels between Stop and Shop and Cedar Street are developed to include housing. The station has excellent access to Route 9 but relatively limited visibility from the highway and is impacted by significant areas of wetlands. The station site and adjacent land to the south is a brownfield site and will require significant clean-up prior to any reuse. The Town of Newington Highway Department central repair facility and the Kohler storage warehouse are also proximate to the station. The Newington land within both the quarter and half mile radius is zoned Industrial; all of the land within the quarter mile radius is within Newington. The New Britain land on the west side of the half mile radius is zoned for office and public use with some multi-family areas. The station is located just to the northeast of the CCSU campus. The Cedar Street station itself presents relatively limited development opportunities given its present location, lack of visibility from major streets and nearby wetlands. The adjacent large parcel to the south provides development opportunities if access and environmental issues can be resolved.

Design Principle Recommendations

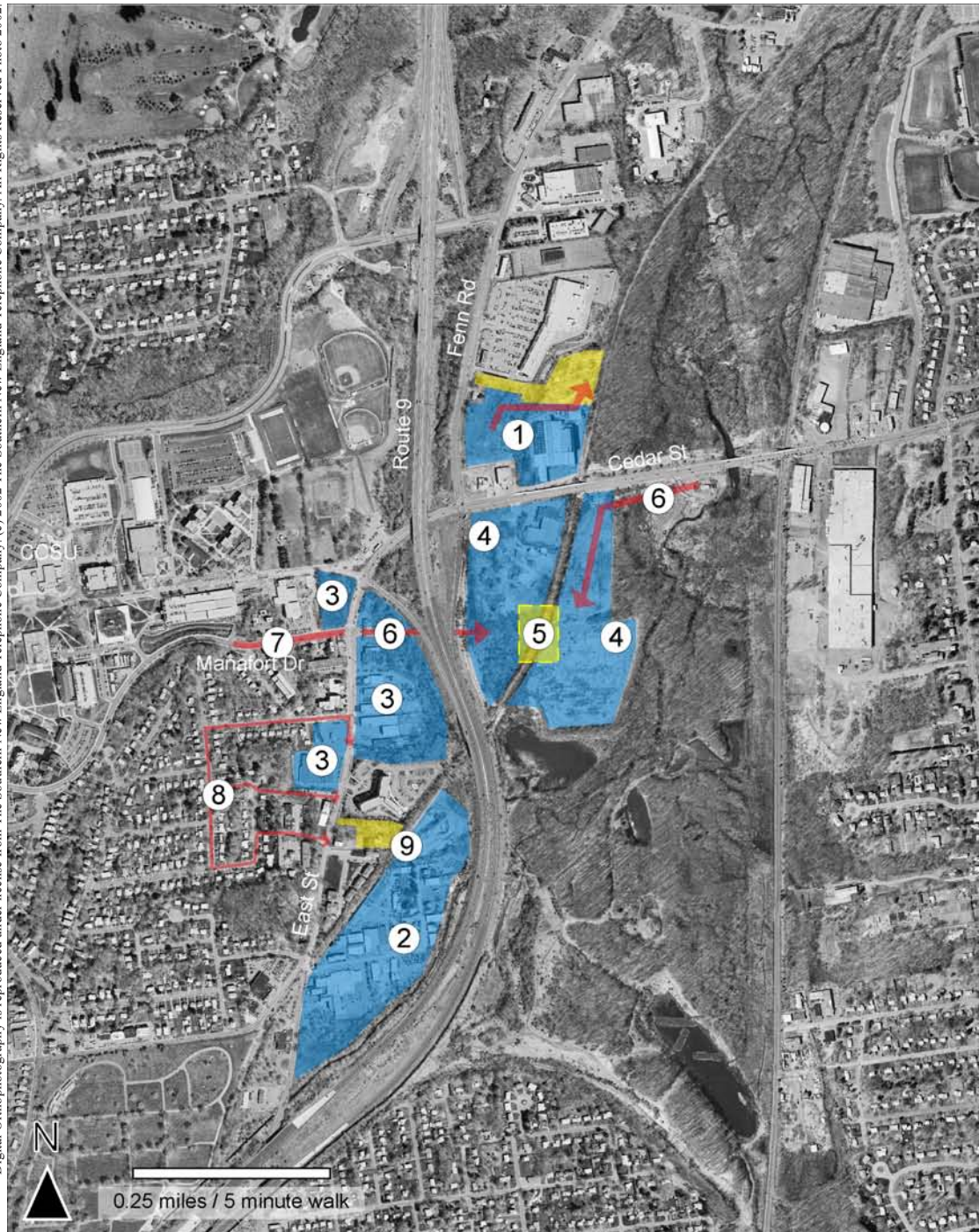
The following recommendations, specific to the East Street and Cedar Street Station Areas, are in addition to the general principles on pages 1 and 2, which apply to all of the stations:

1. Work with CCSU and other stakeholders to develop a master plan for the large undeveloped area east of Route 9 and south of Cedar Street, potentially adding a centrally located station near the middle of this future CCSU development (*this plan will be developed as part of the Station Area Plan in the next phase of this Station Area Planning Project*).
2. Encourage development of the parcel along the south side of the Cedar Street Station access road for TOD uses and create a sidewalk along the south side of the access road. Development along this access road should be designed to face the access road to enhance the pedestrian connection to Fenn Road.
3. Improve connections from multi-use path at the Cedar Street Station to Fenn Road; development of the parcel along the south side of the station access road would create a more pedestrian-friendly walkway from the station and path to Fenn Road.
4. Rezone land along both sides of the busway from Route 9 north to the Cedar Street Station to encourage TOD-related uses and discourage industrial and auto-related uses.
5. Encourage use of the New Britain industrial land immediately southeast of the busway at East Street Station for light industrial uses with higher employment densities (for example, more labor intensive light manufacturing versus trucking and warehousing)
6. Improve pedestrian connections to the East Street Station from the residential neighborhood west of East Street and from the industrial area southeast of the station. Coordinate with ConnDOT to explore opportunities for mid-block crossings along East Street. Explore opportunities to combine adjacent curbcuts and driveways on East Street.
7. Explore opportunities to incorporate sidewalks and other pedestrian amenities (see Prototypical Roadway Sections) into existing and proposed design plans (e.g., plans for the reconstruction of East Street).
8. Encourage development of TOD related uses along East Street in New Britain between CCSU campus and the East Street Station. Change existing Industrial and Residential zoning (potentially with a TOD overlay district) to allow retail uses and discourage more auto-related uses. With its proximity to the university and apartment buildings, in combination with the transit station, East Street could become a more active commercial district. The zoning should be changed to allow for retail and service-oriented businesses that would serve both pedestrians using the station and other residents or employees in the area.
9. Explore opportunities for providing a direct connection to the busway from Lester Street in the St. Clair Industrial Park to the southeast of the East Street Station. The City of New Britain's planned roadway improvements include providing sidewalks on Lester Street.
10. Explore traffic calming opportunities for roadways adjacent to the stations, to improve pedestrian safety and ensure efficient traffic circulation.

Issues & Opportunities CCSU, Cedar Street, and East Street



**Cedar Street & East Street -
CCSU Study Area - 9 & 10**



Cedar St / East St / CCSU

- 1 Encourage development for transit supportive uses, such as housing and retail related to existing shopping center and connected to the Cedar Street busway station.
- 2 Encourage long term change of use to industries with higher employment densities.
- 3 Encourage change of use to include higher density housing and pedestrian accessible retail. Provide pedestrian connections to busway station.
- 4 Work with CCSU to develop access to east campus and adjacent properties. Development plans should include a new (or replacement) busway station. Campus plan should provide good pedestrian access to station.
- 5 Explore potential for building new busway station and public space at center of proposed east campus development area.
- 6 Organize access and internal roads to provide convenient connections to busway station and maximize campus development sites.
- 7 Encourage improvements to streetscape, planting, and lighting along Paul Manafort Drive. Once East Street reconstruction is complete and East Street Station is opened Manafort Drive will be more active pedestrian route to campus.
- 8 Explore options for direct pedestrian access from neighborhood to East Street Station.
- 9 Explore provision of pedestrian connection from Lester Street in St. Clair Industrial Park to station.

East Main Street

Existing Conditions

The East Main Street station is located at the western edge of a brownfields parcel with a large vacant industrial building and unused parking lot. To the west of the station is a National Guard armory and to the east on East Main Street is a series of small auto-oriented uses. On the north side of East Main Street is a restaurant and other small commercial uses. Further north is a dense residential neighborhood. Immediately south of the busway there are several industrial uses, with a very dense residential neighborhood just south of the industrial uses. The homes in the area are relatively well maintained but are impacted by the proximity of light industrial and commercial uses. There is virtually no vacant land other than the industrial building at the station area and the parking facilities for the state armory.

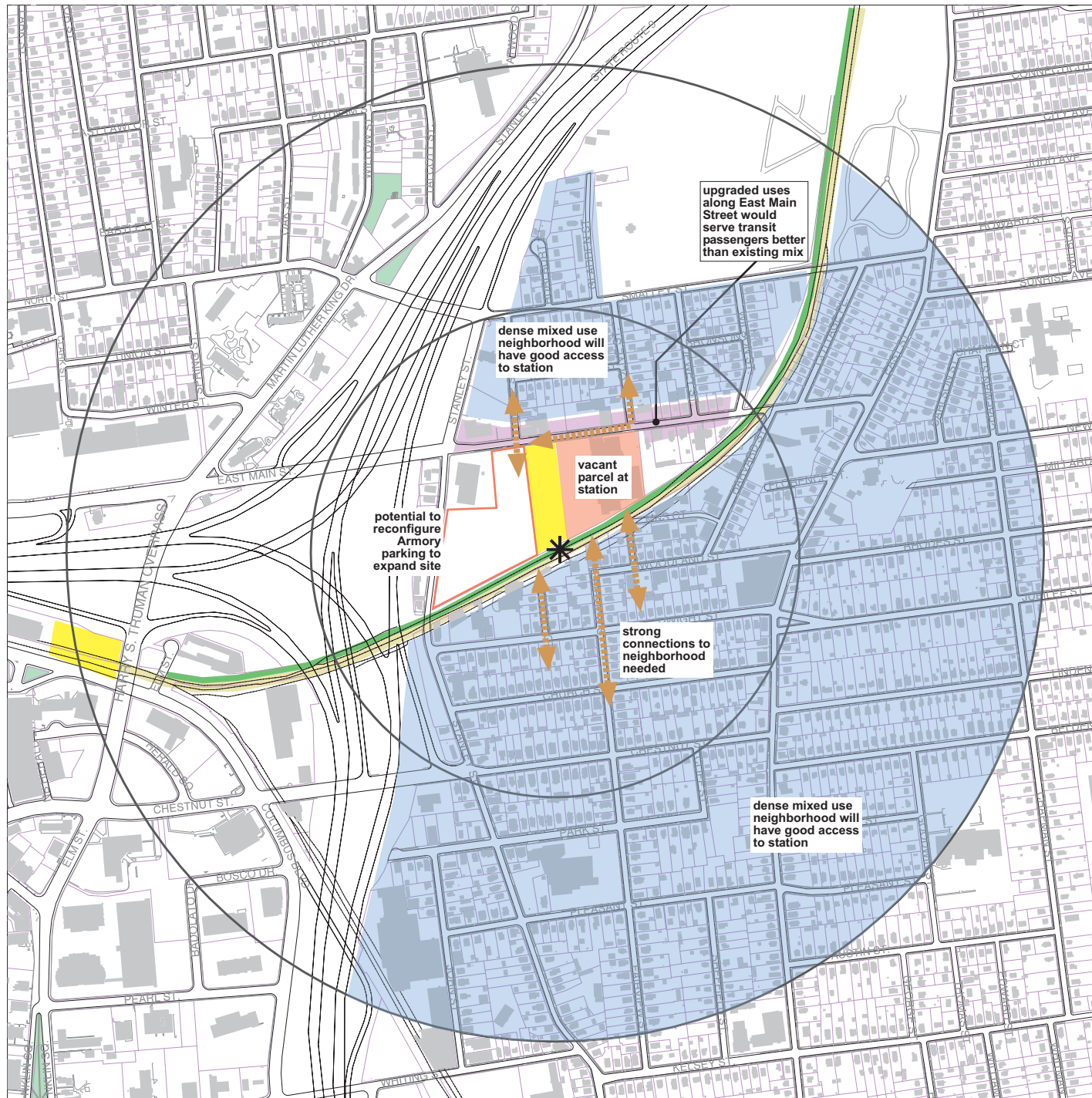
This station is likely to serve the existing relatively high-density residential neighborhood and would have modest development impacts. There may be opportunity for a joint development project incorporating the immediate station area and the vacant industrial facility and parking lot. The market here would be strongest for a housing development although the city prefers to preserve this land for industrial use.

Within the quarter mile radius along the busway, the area is zoned for industrial use. The southern portion of the quarter mile radius is zoned for one and two-family residential use at densities of seven units per acre.

Design Principle Recommendations

1. Explore rezoning the land on the north side of the busway along East Main Street to allow transit friendly development such as medium to high density housing and commercial use.
2. Encourage redevelopment of the vacant industrial parcel adjacent to the station (former ITT Cannon site) for use as medium to high density residential, office or commercial, or light industrial with high employment densities. Because of the site's location between two relatively dense residential neighborhoods, its great access to the station, and market conditions, it is recommended that the site be developed for higher-density residential use. Site layouts should include direct pedestrian connections to the station as well as buildings along the East Main Street frontage to create a more interesting and pleasant pedestrian connection to the residential neighborhood to the north (see Station Area Development Concept). A new road from East Main Street, bisecting the site, would provide an organizing element for redevelopment of the site.
3. Explore using Fairview rather than Yale to create a more direct pedestrian connection to the station from the neighborhood south of the busway.
4. Encourage infill development along East Main Street. This development along with streetscape improvements and designated pedestrian crossings would help to improve the pedestrian environment and encourage walk-in use of the station from the surrounding neighborhood.

Issues & Opportunities East Main Street



East Main Street

- 1 Explore potential for upgrading streetscape on East Main Street, including creating consistent sidewalks; where possible planting street trees between moving traffic and sidewalk; and installing pedestrian level lighting.
- 2 Encourage provision of direct connection from neighborhood to platforms at end of Fairview Street
- 3 Encourage infill development along East Main Street.
- 4 Encourage reuse of the ITT/Cannon site for mid to high density housing, office, pedestrian accessible retail, and /or industrial uses with high employment density.
- 5 Explore long term potential for redevelopment of the Armory site with transit oriented uses.
- 6 Explore opportunities to improve safety and convenience at pedestrian crossings.
- 7 Encourage creation of well landscaped pedestrian access to station, or integrate pedestrian access into new development on ITT/Cannon site.



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Busway Station Concept East Main Street



proposed station plan



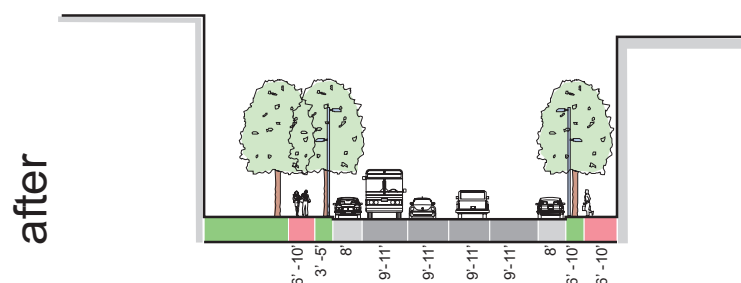
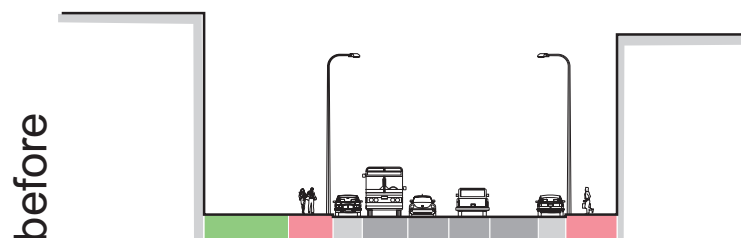
development option 1



development option 2

Typical Roadway Cross Sections

Urban Roadway - (e.g. north end of New Park Ave.)

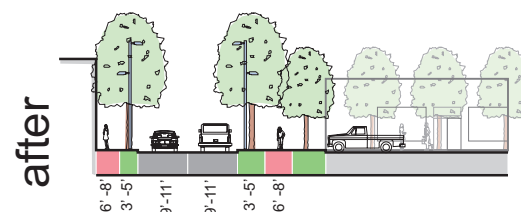
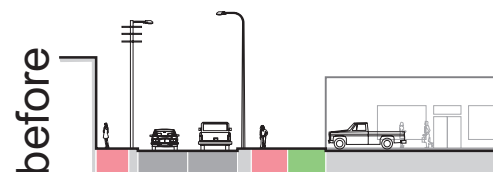


Replace cobra lighting with pedestrian scaled lights. Where possible put utilities underground.

travel lanes
 parking / shoulder
 grass / planting strip
 sidewalk

40 ft

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



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:

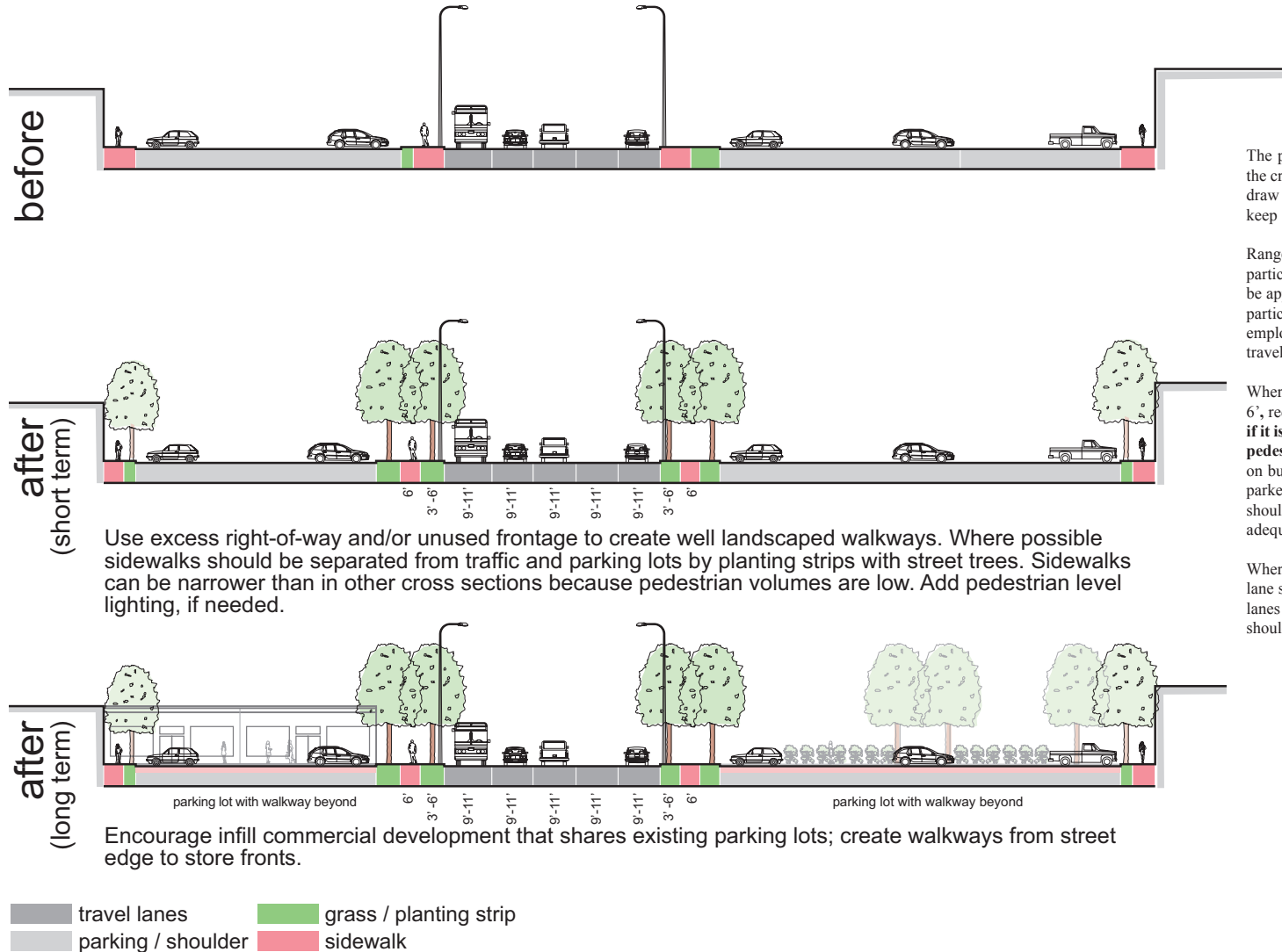
Ranges for cross-section components provide flexibility for particular situations or local protocols. However, it may not be appropriate to use the lowest number for each component, particularly on heavily traveled streets. Furthermore, to employ some narrower travel lanes may require that other travel lanes are 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)



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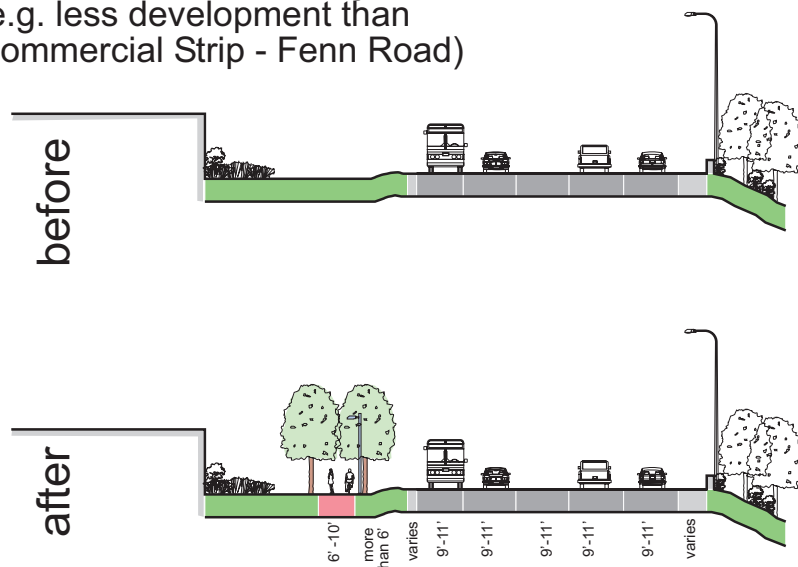
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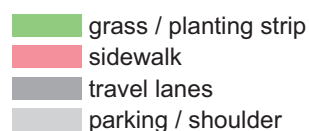
40 ft

Typical Roadway Cross Sections

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.



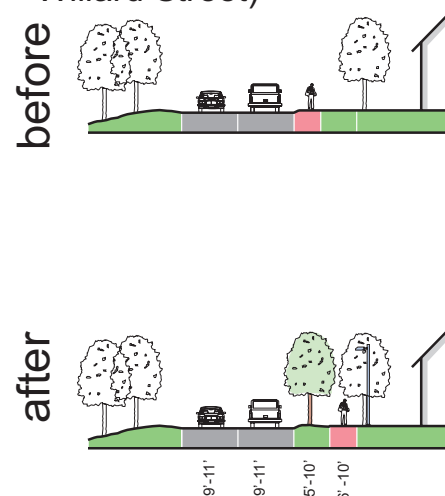
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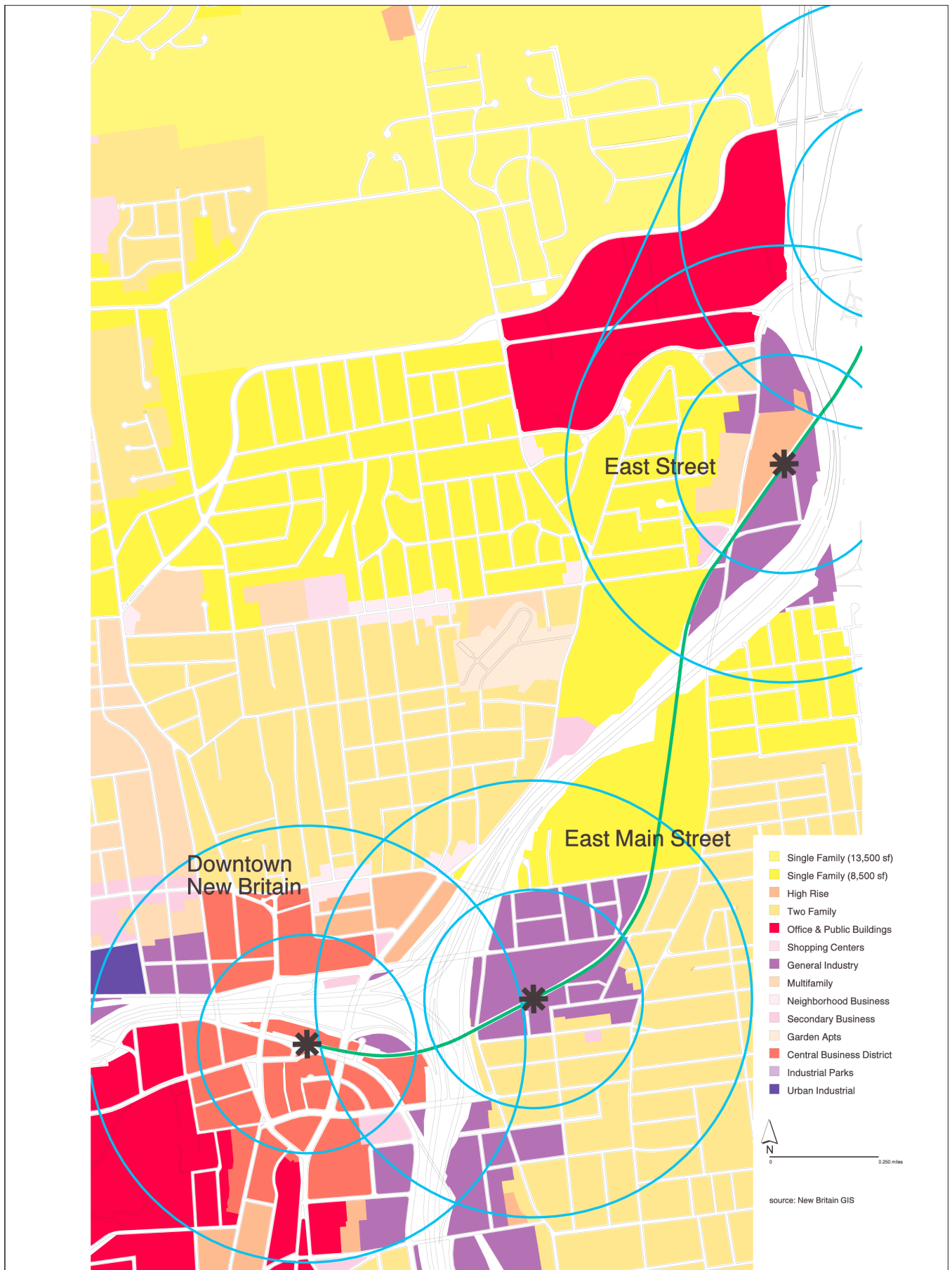
Suburban Roadway - (e.g. low density residential - Willard Street)



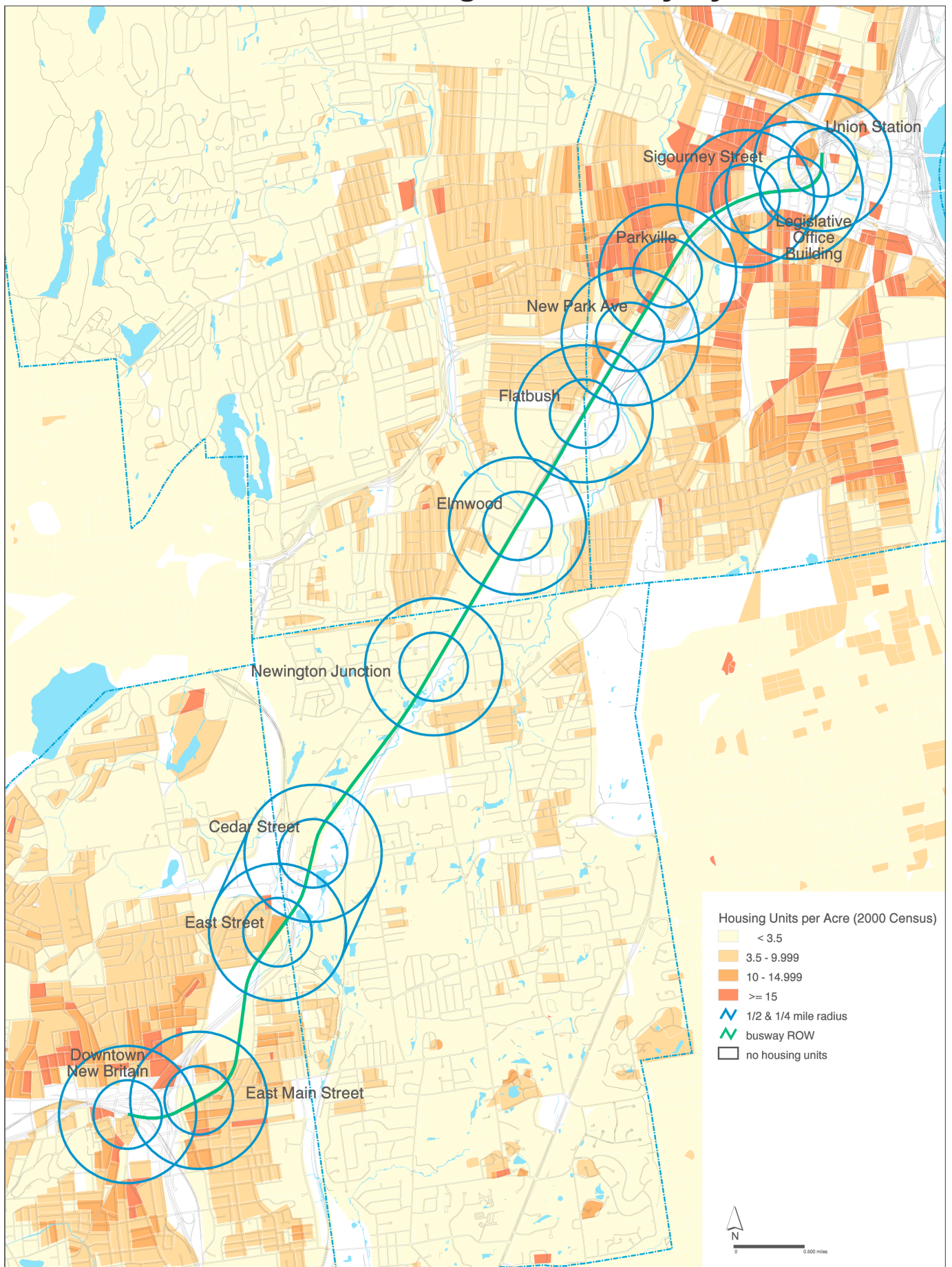
Where possible, move sidewalks away from travel lane and provide generous planting strip; landscape to separate sidewalks from fast moving traffic; and provide pedestrian level lighting. Because pedestrian volumes are low, sidewalk only needs to be 5 feet. If sidewalk will also be used as a segment of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

40 ft

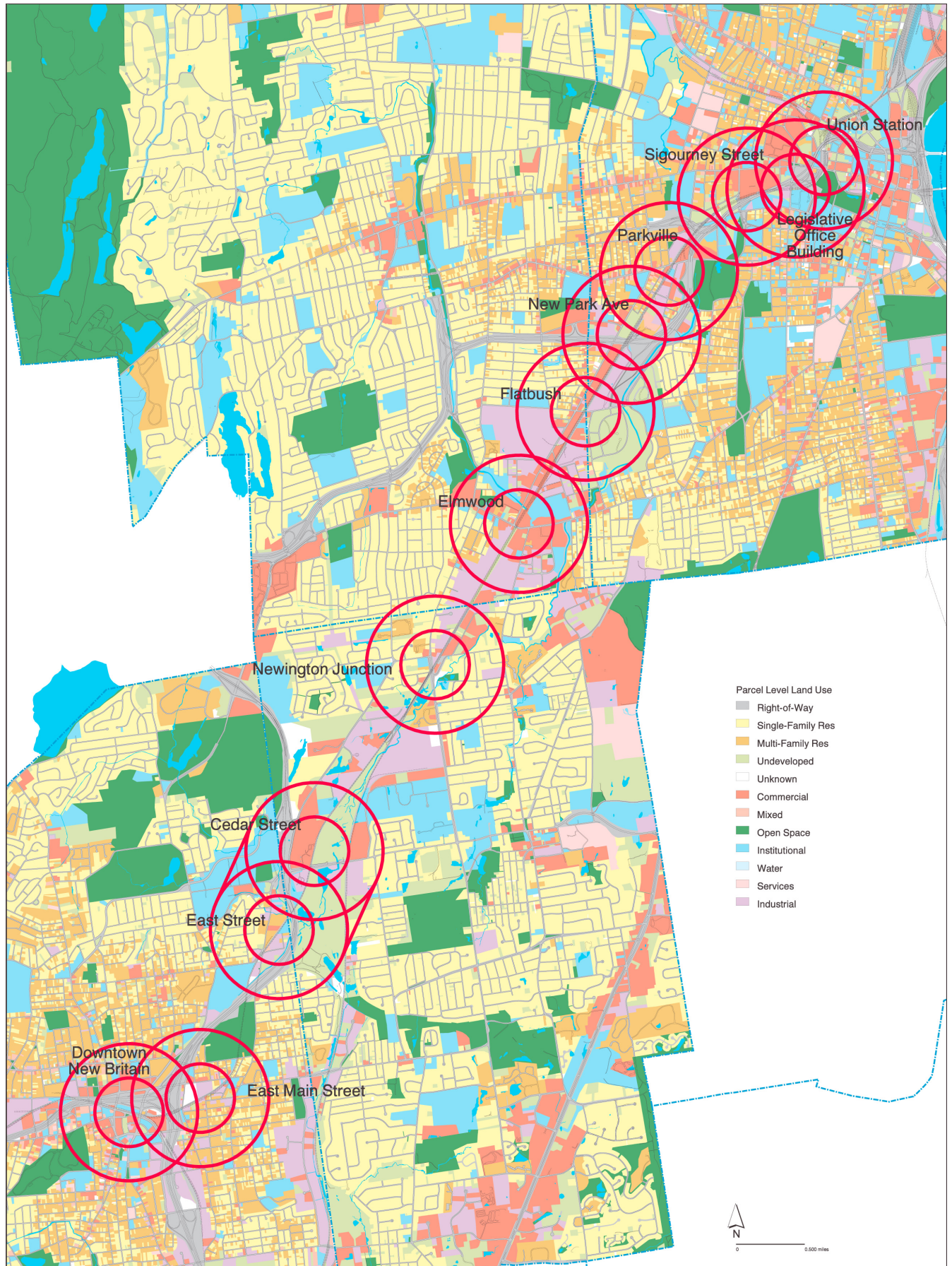
Corridor-wide New Britain Station Area Zoning



Corridor-wide Housing Unit Density by Census Block



Corridor-wide Land Use by Parcel



(data from CRCOG and the City of New Britain)