# norwalk connectivity

## The Norwalk Connectivity Masterplan

APPROVED March 27, 2012

Prepared by Fitzgerald & Halliday, Inc.
for The Norwalk Redevlopment Agency

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**Connect Norwalk**

For updates and additional information, go to www.connectnorwalk.com .

# norwalk connectivity

## The Norwalk Connectivity Masterplan

Prepared by Fitzgerald & Halliday, Inc.
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for
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**Acknowledgments**

Project staff for the Norwalk Connectivity Masterplan gratefully acknowledge the contributions of time and talent provided by members of the Norwalk community in identifying and addressing the challenges and opportunities associated with better connecting Norwalk's urban corridor. The Connectivity Initiative had a "Working Group," a "Steering Committee," several "Stakeholder Groups," and design professionals who volunteered their time at the Community Workshop held at the beginning of the initiative in April of 2010. If this plan proves a success, it is a testament to their collective contributions across an extended series of meetings, presentations, and discussions.

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# executive summary

The Norwalk Connectivity initiative stems from a growing awareness of the significant challenges and opportunities presented by the adjacencies and aggregate scale of Norwalk's collection of downtown development projects. These projects include several approved redevelopment or urban renewal plan areas.

Following a long-established city policy to direct future development to its center, the constructed and planned developments are each located downtown and in such close proximity to one another that they would create, in aggregate if fully built out, a continuous two mile-long corridor of activity from South Norwalk to Wall Street.

The existing area, by contrast, is rather sparsely developed and disjointed. These projects will effectively double the volume of existing development. Additionally, an increase in downtown worker and residential populations will contribute to a denser urban environment, which although good and necessary for economic growth, comes with major implications for transportation mobility in the corridor.

The Norwalk Connectivity Plan will serve as an important component in realizing Downtown Norwalk's potential. The plan will be used to ensure that development of the Downtown provides the necessary transportation and visual linkages to unify separate developments and improve circulation overall, while building a regionally competitive, appealing destination.

This Executive Summary provides readers with a convenient layout of the Downtown Norwalk Connectivity Master Plan. Each initiative includes color-coded identifiers that can be cross-referenced with the more detailed information contained in the main report.

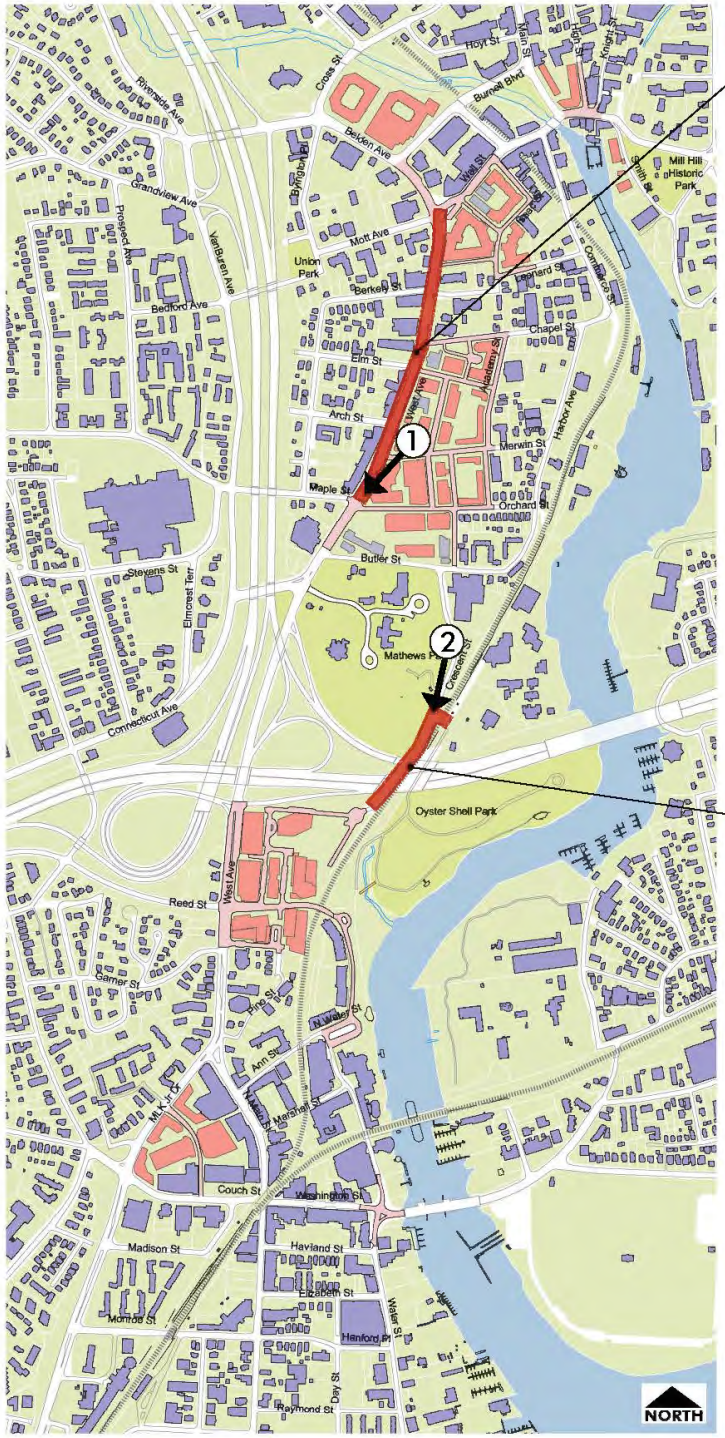
Waypointe (Source: Stanley M. Seligson Properties)

## Street Connectivity

### West Avenue Complete Street Project S1

The community's vision for West Avenue favors a Complete Streets approach. In some ways it already functions as a Complete Street, having users of all modes of travel including the car, truck, bus, bicycle, and pedestrian; however, other than its sidewalks, it provides no formal accommodation for any mode besides the automobile. This means that other users of the road may find locations of West Avenue difficult, dangerous, or uncomfortable to use. By balancing the priorities of multiple users, traffic can be managed more effectively and be an essential part of the urban environment without discouraging the use of the street by others.

Current traffic levels on West Avenue, north of Orchard Street, can be managed with three travel lanes (sometimes referred to as a "road diet"). Even with forecasted traffic resulting from a full-build-out of Downtown development, a three-lane road may be sufficient, provided space is made for all transportation modes to effectively encourage a change in travel behavior along the corridor.




## Street Connectivity

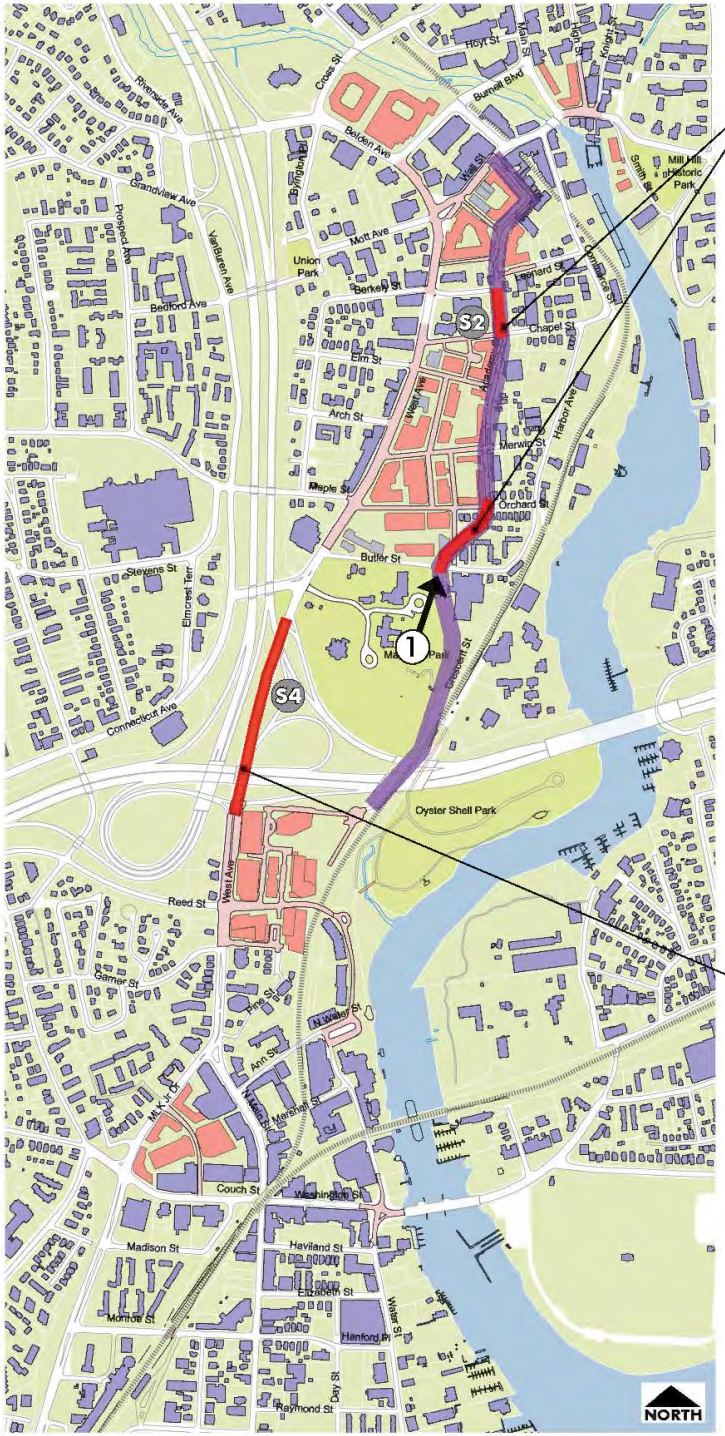
### West Avenue Complete Streets Project S1

West Avenue is the downtown's primary corridor and due to the variety of existing and planned destinations along the roadway it should include full accommodation for bicycles. Due to the public's perception of the safety hazards associated with bicycling along West Avenue, bike lanes on both sides of the street and along the entire length of upper West Avenue was preferred over sharrows as the best way to provide for bicyclists on this road.

### Crescent Street and Science Road Improvements S3

Similar to West Avenue, the community recommends that Crescent Street be widened to 30' and enhanced with softscape elements such as flowers, plants, shrubs, trees, flower beds to make it more walkable and aesthetically pleasing.

The Norwalk River Valley Trail/ Loop Trail crosses the railroad tracks at Science Road without the aid of a crosswalk or designated markings for non-vehicle users. A person traveling south on the path can easily 'lose the trail' at this point as no signage or obvious trail characteristics are in evidence until one crosses the railroad tracks and looks to the right. The poor visual characteristics of the area contribute to an environment that appears 'unsafe'.




## Street Connectivity

### Academy Street Extensions S2

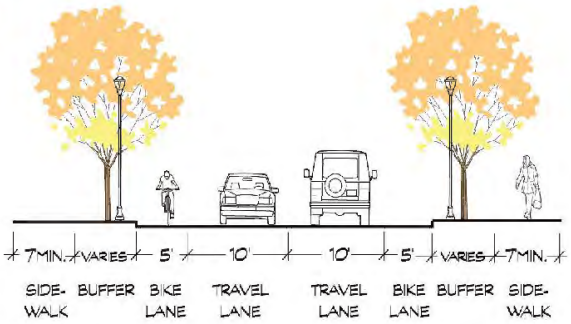
The Academy Street Extension will provide a critical link between the redevelopment sites along West Avenue and Wall Street and help to divert traffic that might use Harbor Avenue and be disruptive to residential neighborhoods.

The Academy Street "middle axis" route is recommended as a north-south bicycle route due to the ability to prioritize bicycles on the street through bicycle lanes in both directions. This route is recommended to be a supplemental route to West Avenue and may appeal to less advanced cyclists. A low to moderate level of vehicular traffic is anticipated for this street with full development build-out and therefore the road would be designed for lower speeds.

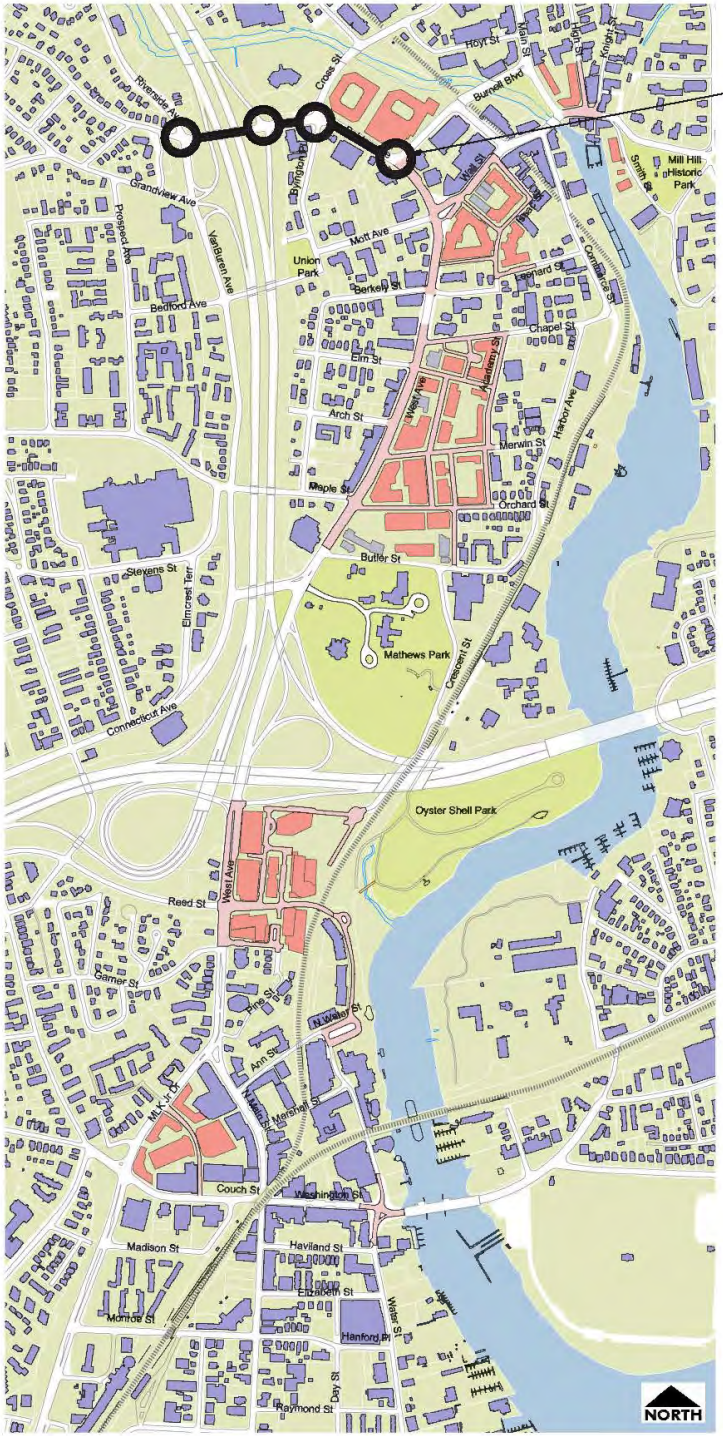
The recommended roadway configuration includes two lanes of traffic with reduced lane widths (10 to 11 feet) and 5-foot bicycle lanes on each side. This option is being successfully implemented in communities across the U.S. and provides the safety of a separated bicycle lane without significantly impacting vehicle traffic. The reduced widths can help reduce traffic speeds. The reduced speeds with decreased traffic on these streets promotes bicycle activity within the downtown.

### West Ave. Highway Overpass S4

Provide streetscaping, public art, and lighting to create a more hospitable pedestrian environment beneath the I-95 overpass.




*Academy Street Typical Section*




## Street Connectivity

### Cross Street - Belden Avenue Safety Improvements S5

The Belden Avenue and Cross Street intersection has been identified by bicyclists as unsafe due to the numerous vehicular lanes and poor sight distance on approaches to the intersection. Given the width of Belden Avenue and Cross Street, and numerous turn lanes required to progress traffic through a series of traffic signals, this area is not particularly compatible with bicycle travel. Study participants indicated a need for traffic calming through this area so that bicycle safety could be maximized.

One possible solution is to convert the signalized intersection at Cross and Belden to a single lane roundabout. Potentially, all four intersections along Belden Avenue from Burnell Boulevard to Riverside Avenue could be converted to single lane roundabouts. By replacing the existing intersections with modern roundabouts, many of the approach lanes could potentially be eliminated by providing more space for bicyclists while calming traffic at the same time.

*Cross Street - Belden Avenue Safety Improvemnts*

## Wayfinding

### District Concept W1

Cities are composed of unique neighborhoods and areas. Creating districts is a means of formalizing those associations. The creation of districts assists in the application of wayfinding signage for an area. Districts also provide a means of organizing an area at a pedestrian scale due to the nature of their geographic size. Several districts within the study area were identified by key stakeholders and are identified here. District names as outlined here are still in discussion, the selection of these names may present the opportunity for community participation.

### Wall Street District

The Wall Street District is roughly the geographic center of Norwalk. This is a place where the eastern and western halves of lower Norwalk converge.

### West Avenue District

The West Avenue District is an area of significant transition from industrial, commercial and marine use, towards the potential for a mixed-use environment on West Avenue.

### Med/Tech

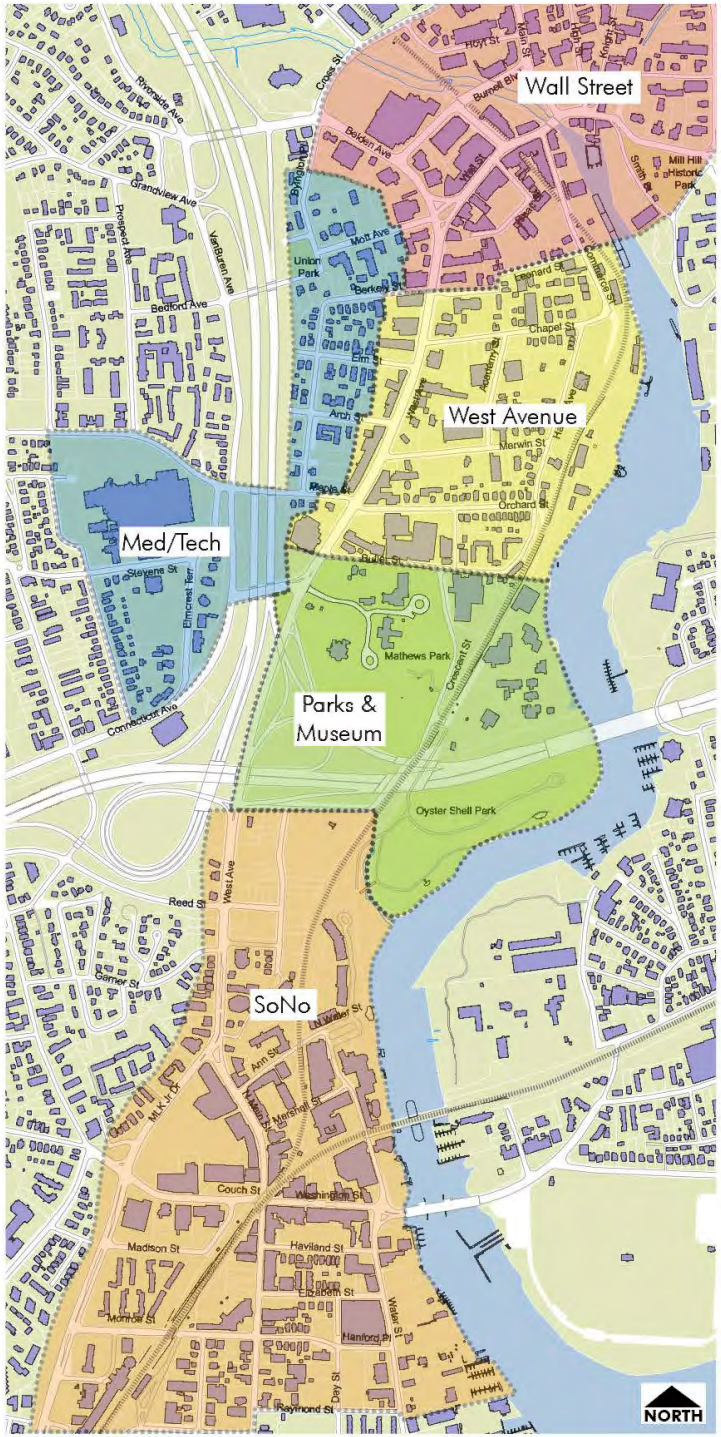
The Med/Tech area is characterized by the Norwalk Hospital at its core with medical offices and a residential neighborhood linking it across Route 7 to both Waypointe and Head of the Harbor.

### Parks & Museum

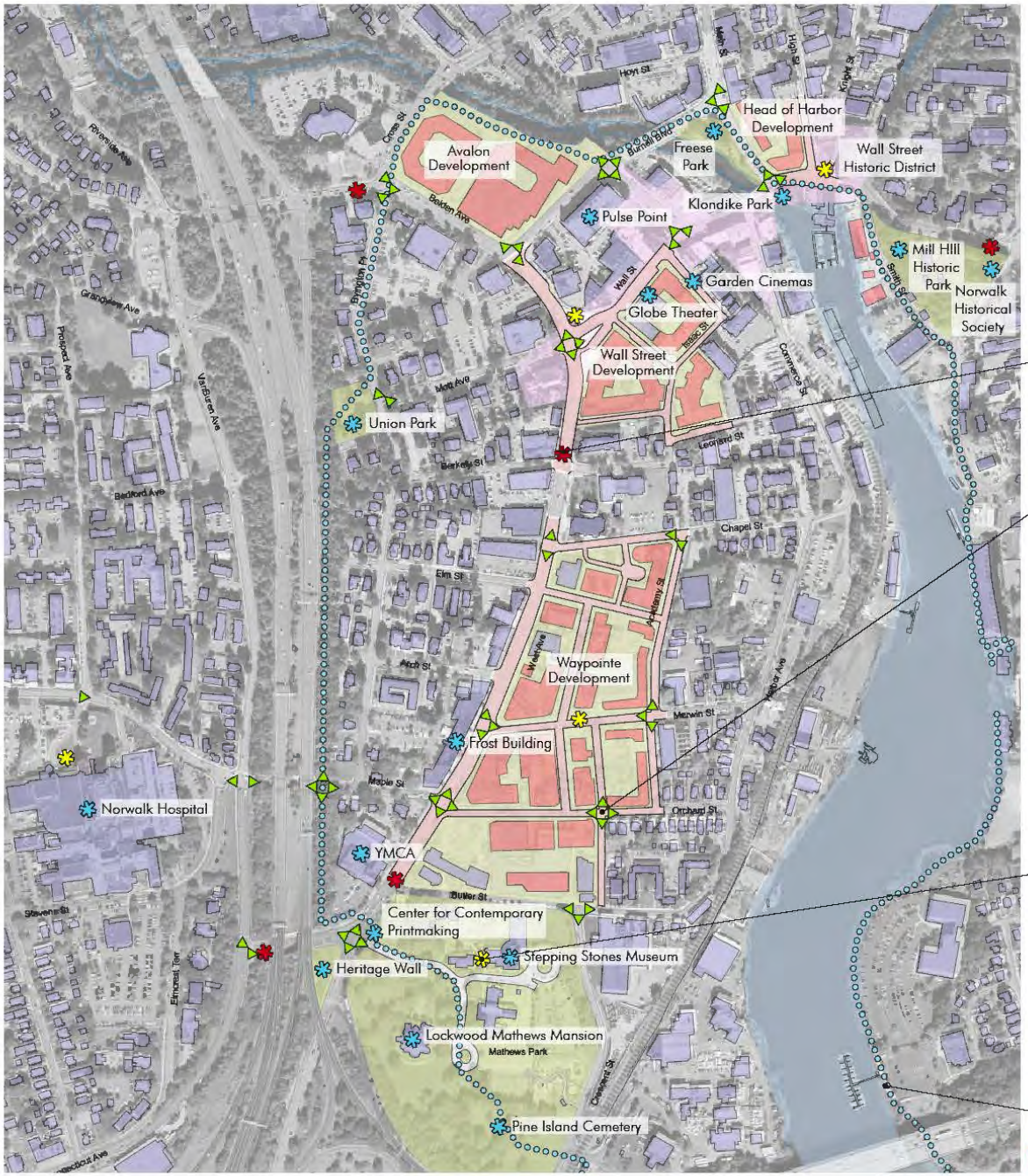
The Parks and Museum District has, at its core, Mathews and Oyster Shell Parks. This is an area that is primarily recreational with access to the Norwalk River Valley Trail and Harbor Loop Trail System. This District provides a soft transition between SoNo and Waypointe.

### SoNo

South Norwalk (SoNo) is the largest and most diverse district in the study area. SoNo is characterized by a healthy entertainment district, good access to and from East Norwalk and rail access via South Norwalk Station.



## Wayfinding




### Comprehensive Wayfinding W2

The need for wayfinding which connects Downtown attractions has been demonstrated by the fact that many tourists visiting the area come for one attraction and are unaware of the other things going on in Downtown Norwalk. While information about other attractions and how to get to them is being provided ad hoc as a customer service by many institutions, a more systematic approach would capitalize on the density of the Downtown's rich cultural resources.

**Gateway Signage:** Gateway signage is used to welcome travelers, whether they be local or first-time visitors. They reinforce sense of place within the City, and assist with orientation.

**Directional Signage:** Directional signage is used at strategic locations within an area to assist in finding key destinations and route choice. Directional signage is most effective when placed along key corridors within a district. This signage is especially valuable for first-time visitors, but may also be helpful to residents not familiar with certain areas of the city.

Directional signage can be tailored to vehicles or bicyclists and pedestrians. Vehicular signage may include mileage distances, while pedestrian signs may be measured in walking times to destinations.

**Maps/Kiosks:** Maps and/or Kiosks are placed at locations that have a high volume of pedestrians. They are placed at signficant nodes within a district, sometimes a gateway and at other times the center of a district. Beyond providing orientation, maps and kiosks are placemarkers for environments that are friendly to pedestrians.

**Loop Trail**

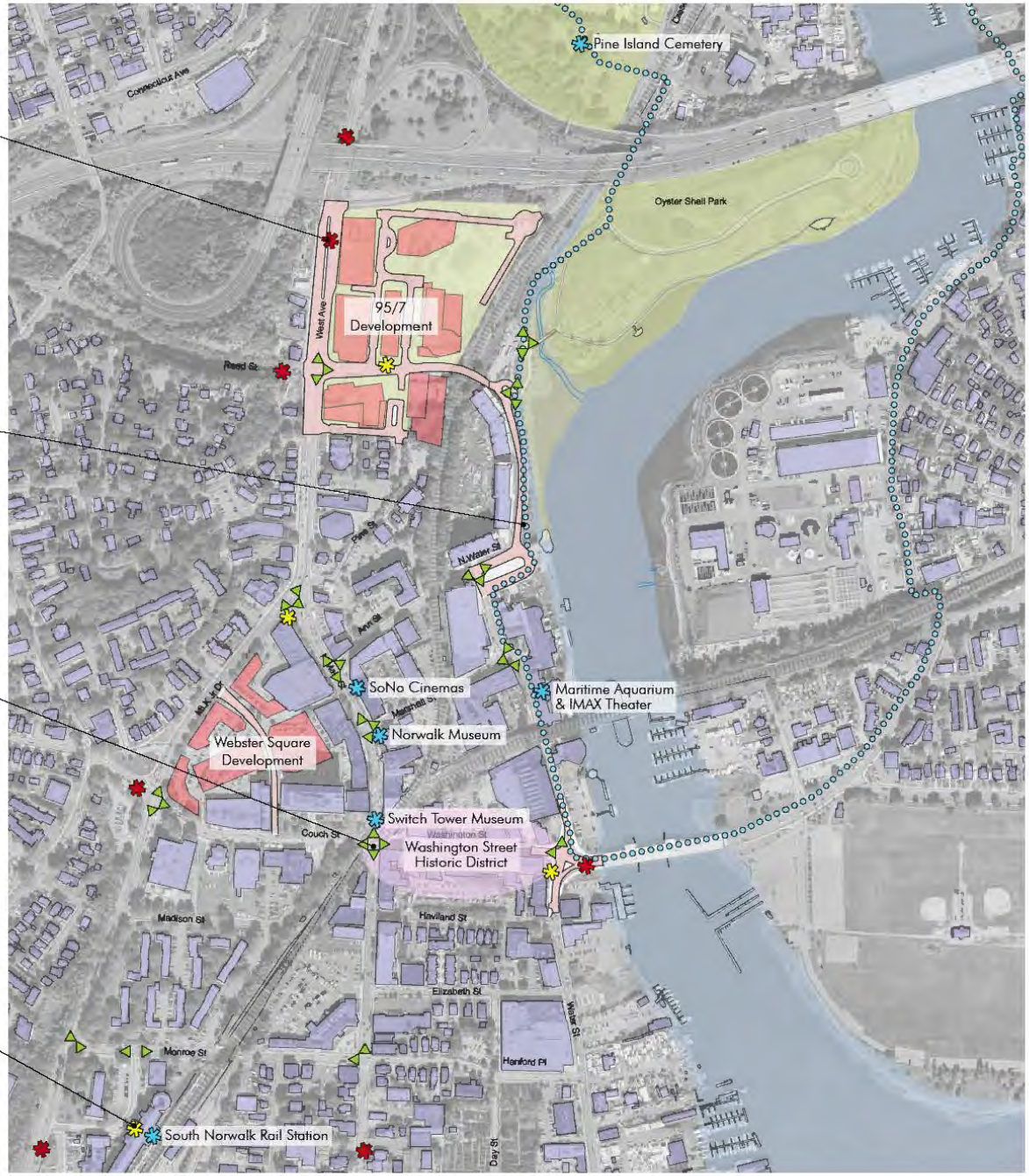
**Significant Destination**

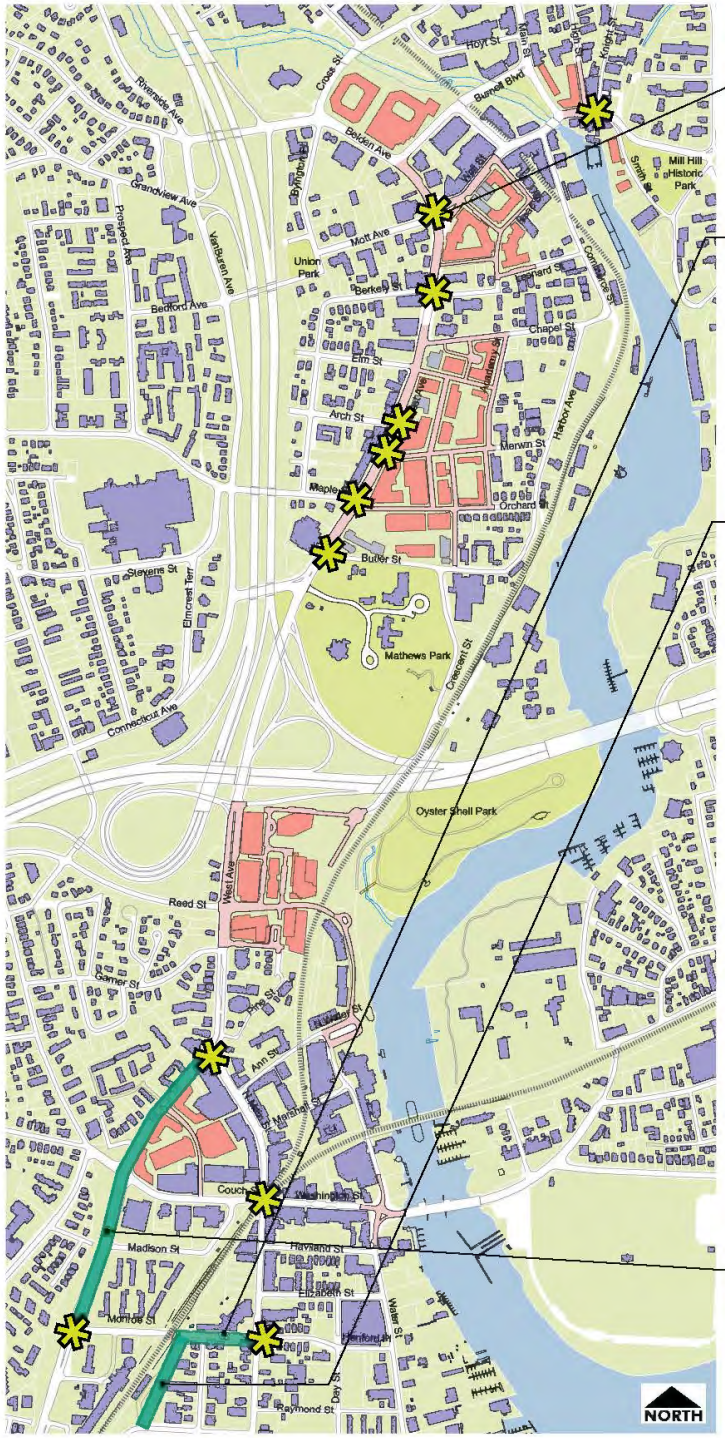
## Wayfinding

Gateway Signage

Directional Signage

Map/Kiosk






## Pedestrian Connectivity

### Enhanced Crosswalks P5

Crosswalks are a critical element necessary for pedestrian connectivity. Crosswalks should be 10-feet wide whenever possible and a minimum of six feet. Crosswalks should be well lit and boldly marked with bar stripes or textured surface.

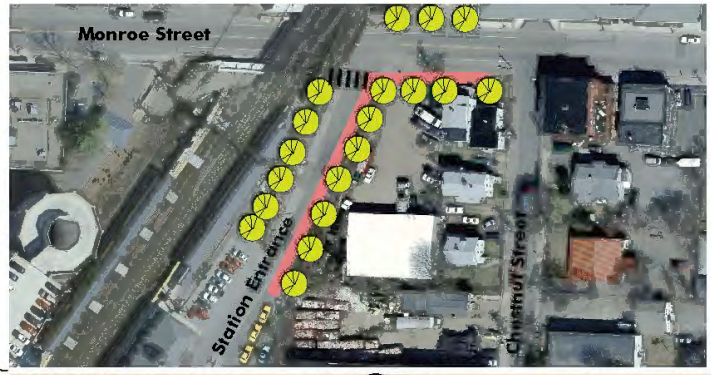
### Monroe Street Enhancements P1

On Monroe Street, between the Rail station and South Main Street, pedestrian conditions between the north and south side of the street are extremely unbalanced. On the south side of the street there are vacant lots and dilapidated storefronts while the north side of the street is dominated by the Norwalk Police Station. There is significant demand for pedestrian amenities on Monroe Street along this section because it is the most direct way to travel between SoNo and the rail station.

### Monroe Street Station Access Improvements P2

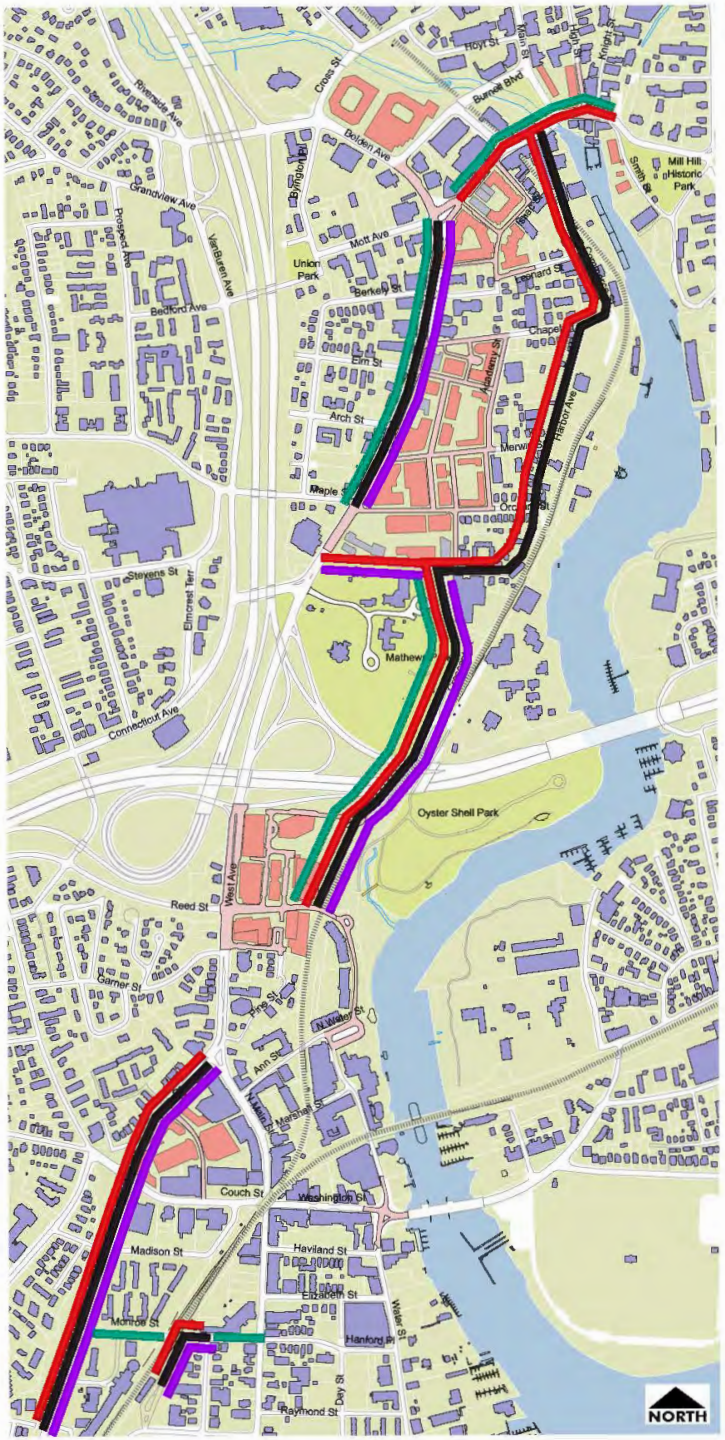
Monroe Street is the main link between the rail station and SoNo. The street plays a major role in how pedestrians will experience Downtown Norwalk. The Monroe Street pathway can be enhanced starting from the eastbound side of the Station which connects pedestrians to Monroe Street with a one-sided sidewalk that is devoid of streetscaping or wayfinding elements. This gateway can be improved through:

- Plantings along the sidewalk.
- Crosswalk at the mouth of the station entrance/exit.
- Integration of wayfinding elements.
- Add sidewalk to east side of entrance ramp.



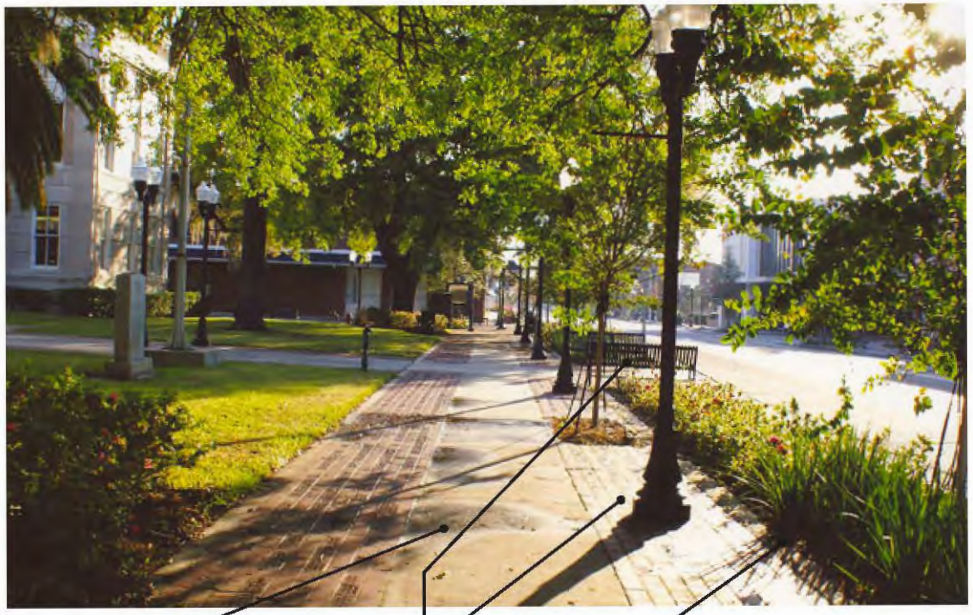

### MLK Drive Enhancements P3

This important pedestrian gateway connects the Flax Hill neighborhoods with the RR station. Provide lighting, sidewalk maintenance, and landscaping to support car-free commuting.




## Pedestrian Connectivity

### Pedestrian Amenities



**Improve Sidewalks** P4

Sidewalks are critical for pedestrian connectivity. Throughout the Downtown sidewalk widths should be 7-10' and free from obstruction or damage. Brick used to buffer concrete sidewalks in SoNo and elsewhere in the Downtown can be incorporated throughout to foster continuity in pedestrian pathways.

**Street Furniture** P7

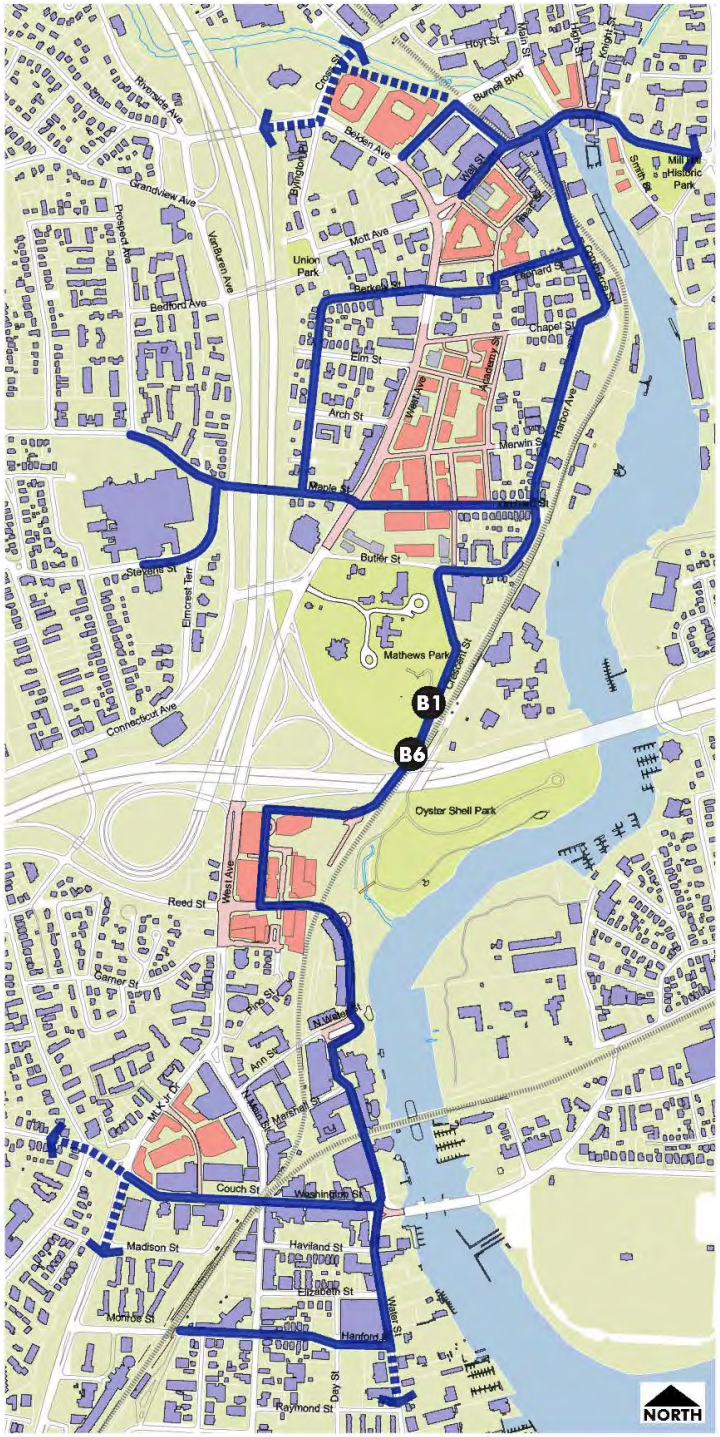
Street furniture encourages pedestrian activity. Features such as benches, trash cans, newspaper stands, transit stations, and public restrooms should be closely coordinated with the overall urban design and wayfinding elements of the Downtown. These elements can enhance the comfort of the street as well as make it more attractive.

**Landscaping** P8

Landscaping encourages pedestrian activity. Landscaping can greatly enhance the overall streetscape and may include street trees, planters, and plantings. In selecting appropriate plant species it is important to consider the necessary conditions and maintenance needed for healthy growth. In general water-thrifty, native or adapted plants, and a mix of evergreens and perennials should be used.

**Pedestrian-scale Street Lighting** P6

Lighting is critical for pedestrian connectivity. Lighting designed at a pedestrian scale will increase safety and security and encourage pedestrian travel throughout the Downtown in the evening and at night.

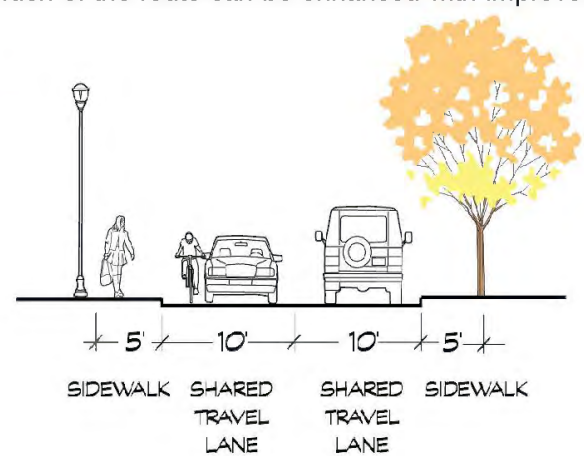


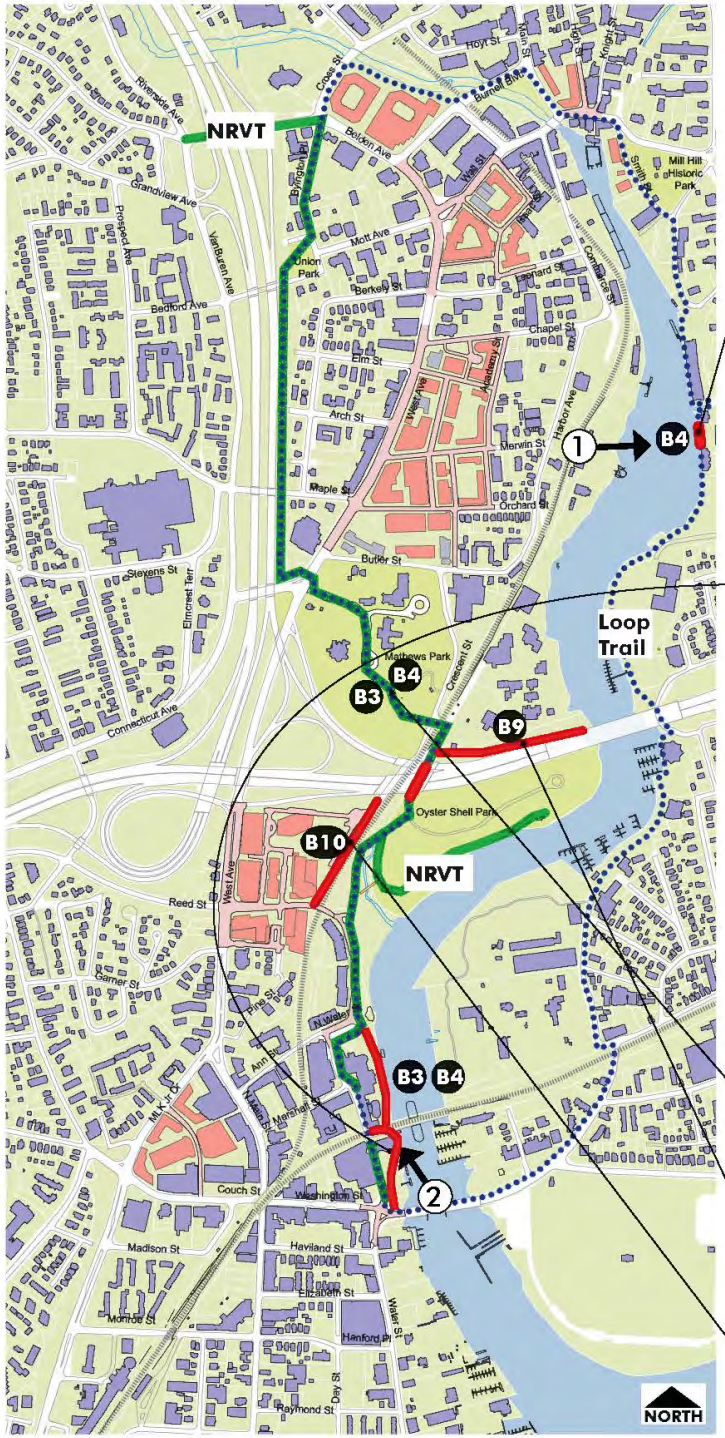

## Bicycle Connectivity

### Network of Shared Travel Lanes (Sharrows) B1

The Commerce Street/Harbor Avenue/Crescent Street route is recommended as a bicycle route due to it having low vehicular traffic and great aesthetic potential given its proximity to the harbor. Travel lanes should be reduced to 10' and sharrow markings should be included on the route. Much of the route can be enhanced with improved sidewalks and streetscaping.

### Bicycle Signage Program B6



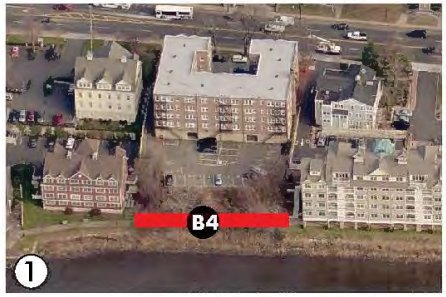



## Bicycle Connectivity

### Norwalk River Valley Trail & Harbor Loop Trail Designation and Improvements B3 B4

The Harbor Loop Trail shares a common route with the Norwalk River Valley Trail (NRVT). The NRVT will eventually extend north and south beyond the study area while the Harbor Loop Trail is contained within the Downtown, East Norwalk, and SoNo areas of Norwalk. The trail forms a complete loop, hence its name.

There is a noteable gap in the loop trail system at this location due to vegetation and steep grade on the back side of a parking area. Clearing and grading improvements would be necessary to connect the pathway.




Another gap in the trail is at the Maritime Aquarium. Building a short waterfront esplanade around the aquarium would provide a continuous link from North Water Street to the Washington Street intersection.

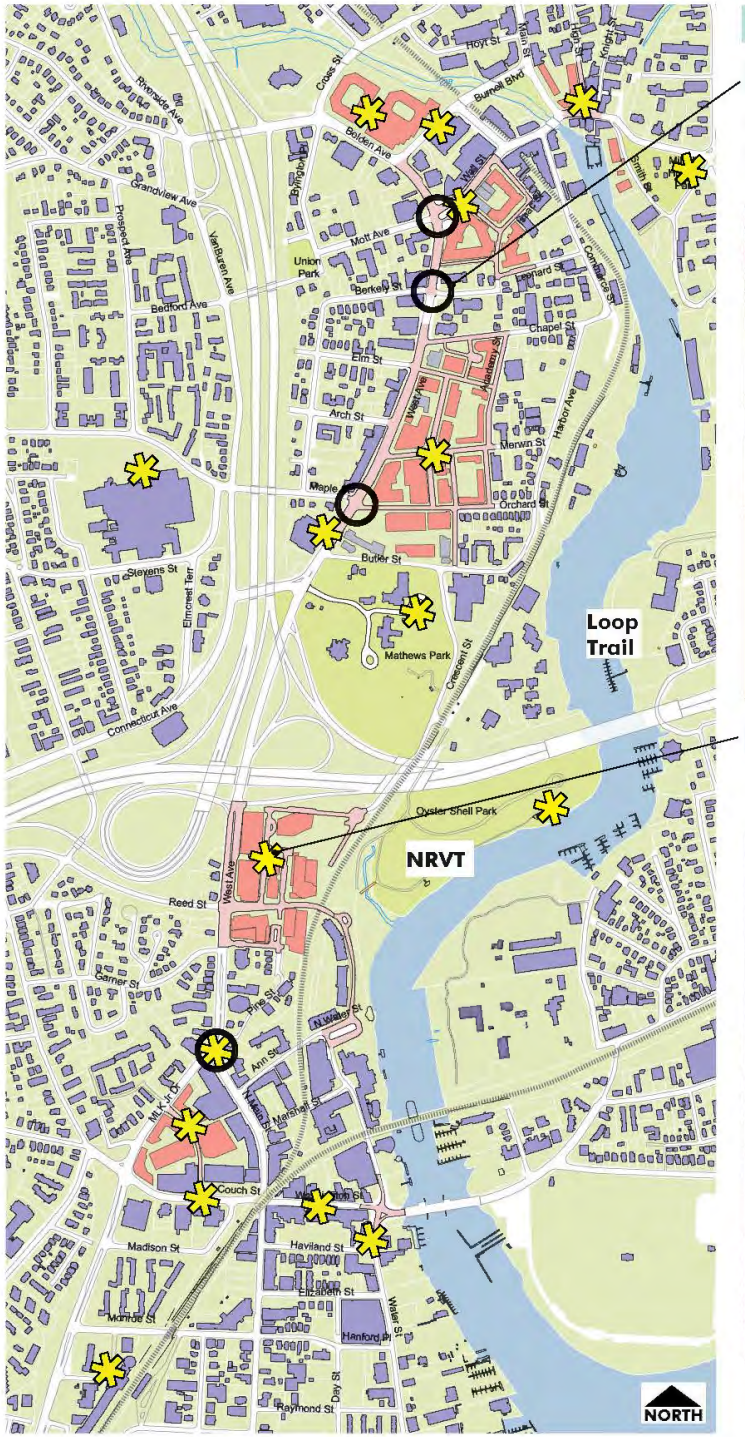
In conjunction with improvements to Crescent Street and Science Road (S-3), improve the NRVT under the I-95 overpass with lighting and landscaping.

### Norwalk River Valley Trail & Harbor Loop Trail Connection from I-95 Bridge B9

Constructing a path from the pedestrian walkway on the I-95 bridge, down a steep embankment would provide a direct connection to the trail.

### Crescent Street/North Water Street Trail B10

Provide a direct link from Crescent Street to North Water Street just west of the railroad.



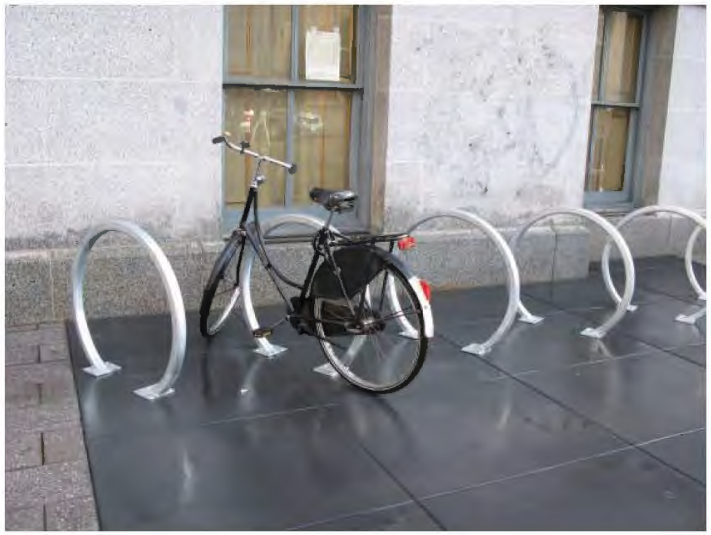

## Bicycle Connectivity

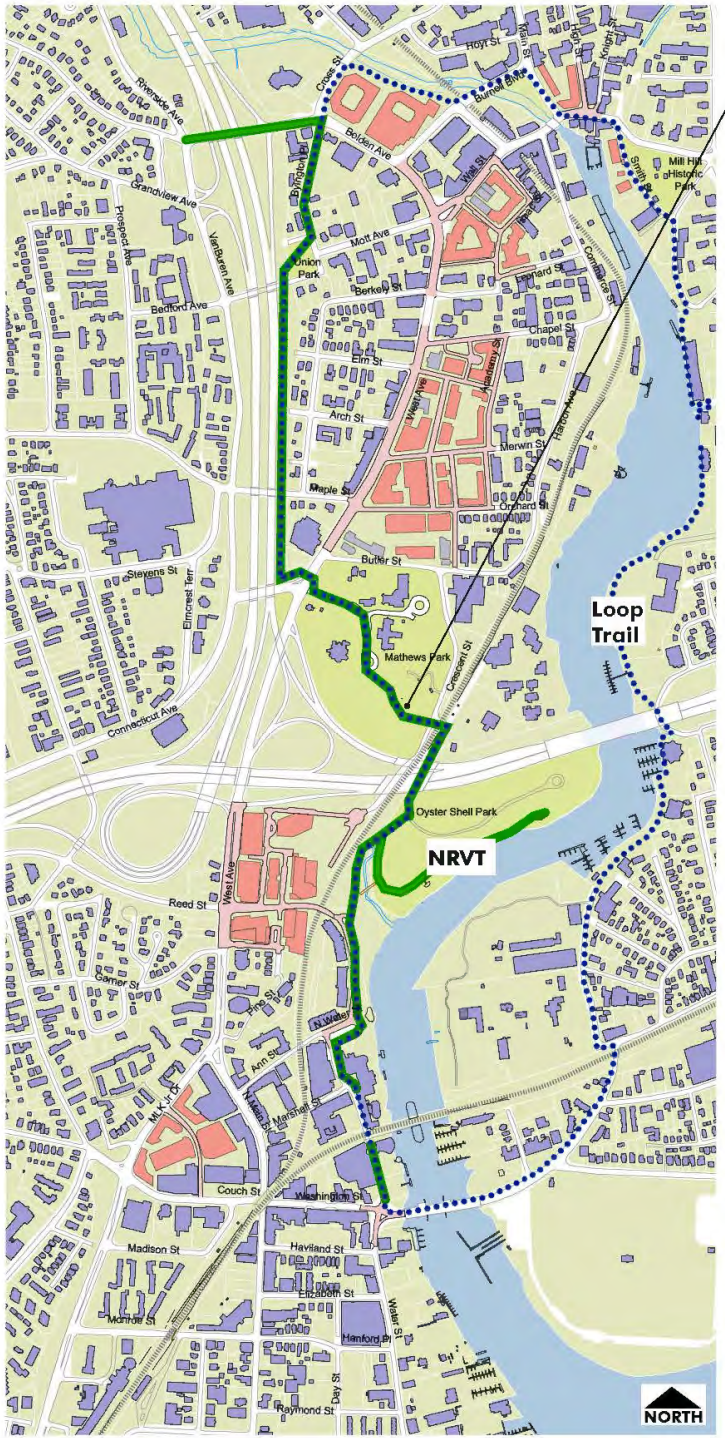
### Bicycle Accommodations at Intersections B5

A bike box is an intersection design treatment that allows bicyclists to move in front of motor vehicles that are stopped at signalized or stop-controlled intersections.

### Bicycle Racks B7

Bicycle parking needs to be visible, accessible, easy to use, convenient, and plentiful.

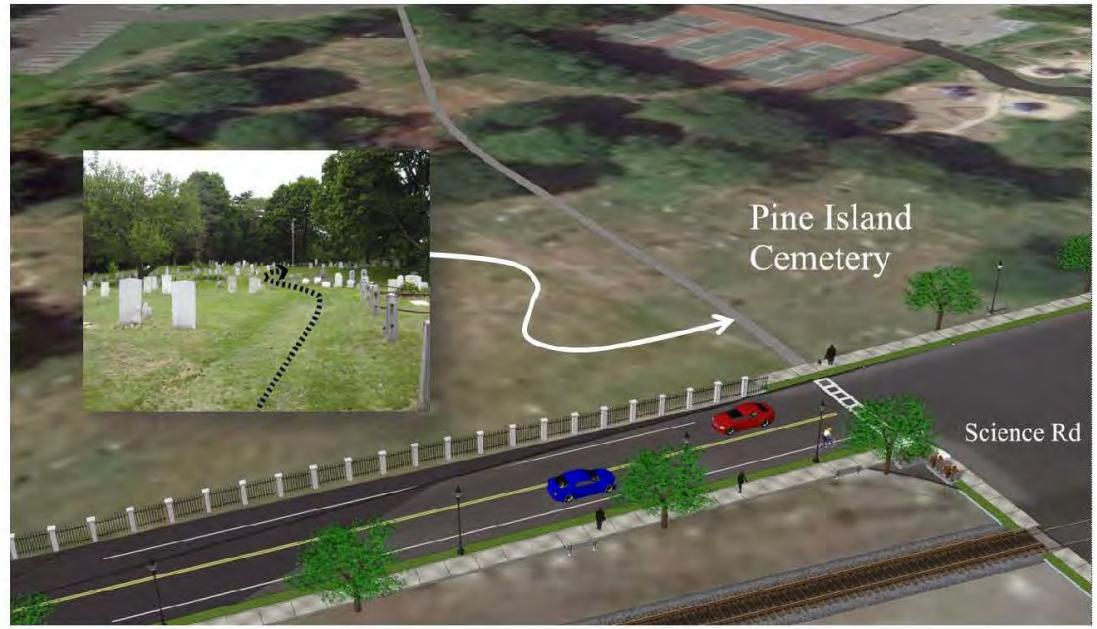





## Bicycle Connectivity

### Pine Island Cemetery Trail B2

The Norwalk River Valley Trail/Loop Trail currently winds through the "Devon's Place Boundless Playground" amidst playing children, a mutual inconvenience and potential hazard for all concerned. An alternative routing of the trail as it emerges from Oyster Shell Park circumvents Devon's Place by traveling through the Pine Island Cemetery. An additional benefit to routing the path through the cemetery would be to bring more visitors to this historical asset.

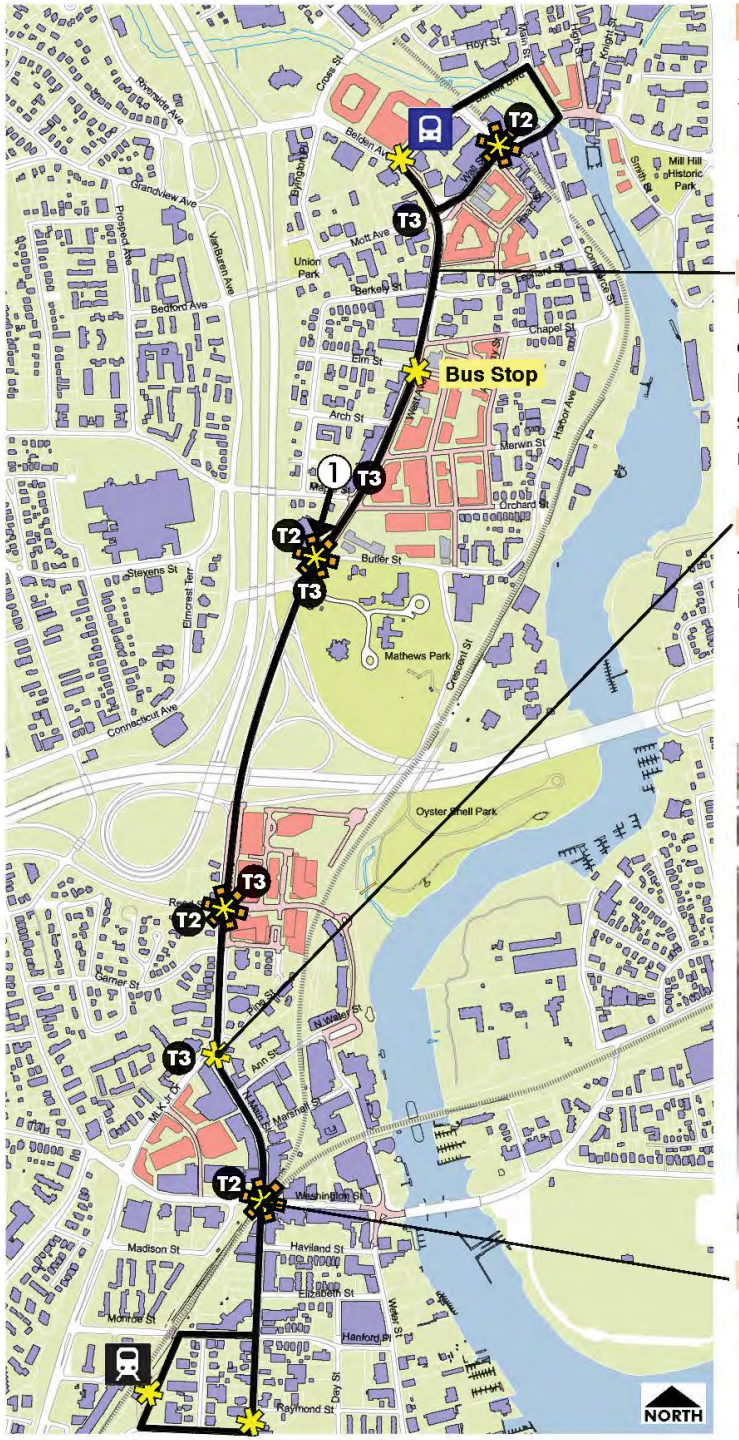



### Public Education Campaign B8

The improvement of bicycle facilities as recommended in this plan should be joined by promotion of bicycling and bicycle safety education opportunities. Use local media outlets to educate public and city officials about the benefits and responsibilities of bicycling in Norwalk.

### Foster a Norwalk Bicycle Advocacy Group B11

Capitalize on Norwalk's bicycling community by helping with the creation of a local advocacy group.




## Transit Connectivity

Advancing Norwalk's economic development will require significant additional density, which will only be possible with higher transit utilization, improved conditions for bicyclists and pedestrians. Without quality transit, the propagation of a familiar outcome will continue: more driving, less street life, higher levels of pollution, and increased cost of providing and maintaining transportation infrastructure.

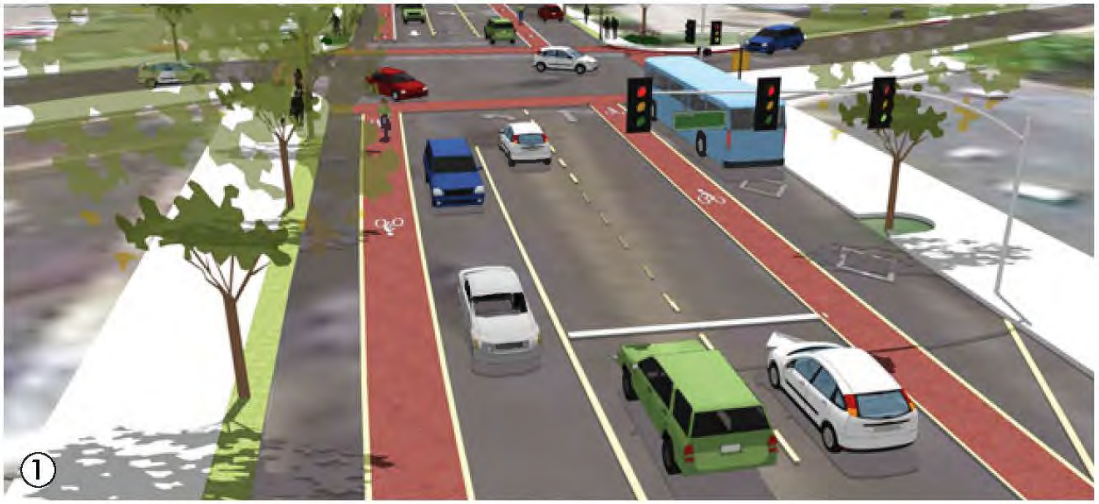
### Transit Circulator Route T1

Urban transit circulator systems are suitable in downtown cores where automobile independence and a vibrant, pedestrian-scale environment are desireable. Such an environment is becoming increasingly attractive to developers who understand that long-term economic success depends on a balance between transportation options, density, integration of land uses, and the recognition that the desired use is not simply an address, but part of a place.

### Bus Prioritization - Queue Jump Lanes T3

There are a number ways to give buses priority over other traffic on main roads. The aim is to:

- Make travel by bus more attractive and more reliable
- Encourage people to leave their cars at home and take a bus
- Protect buses from the effects of growing traffic congestion.

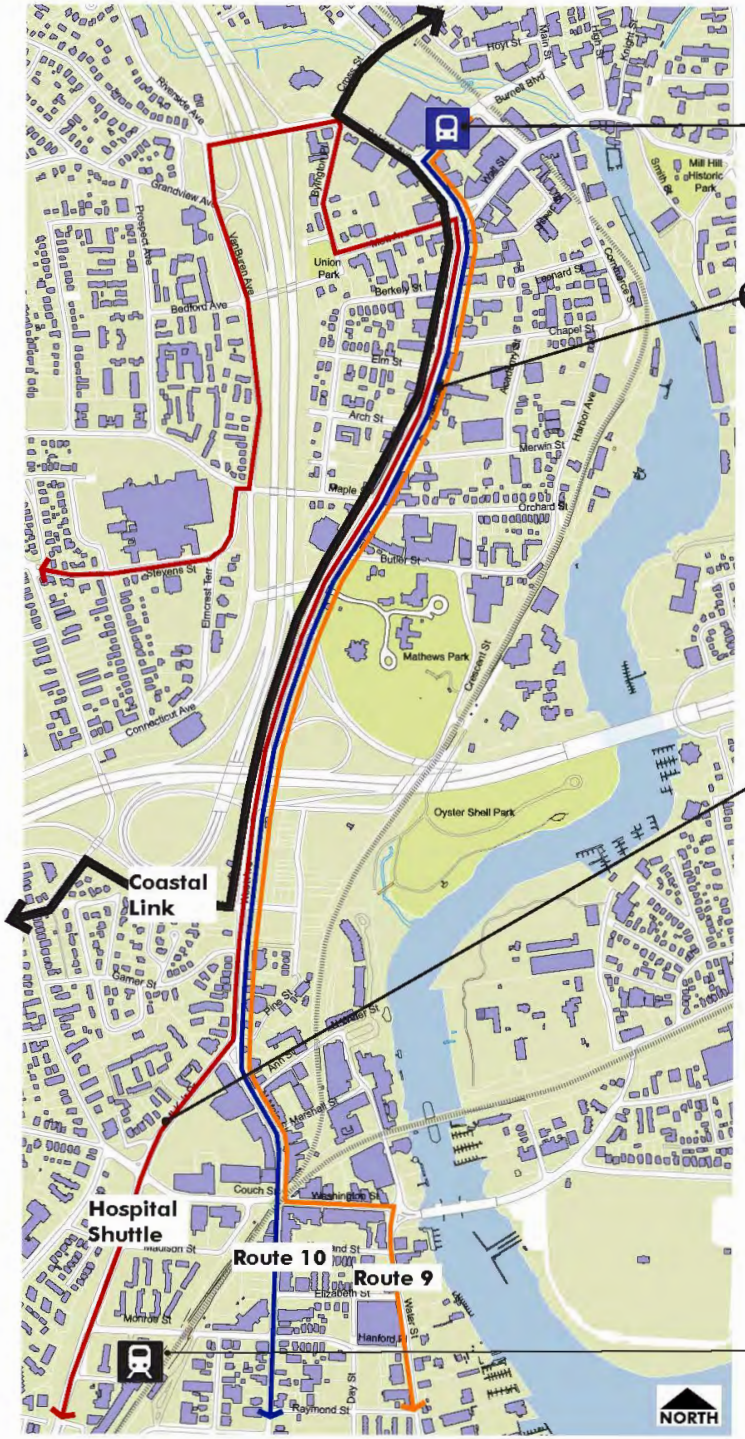



### Enhanced Bus Stops T2

At four significant transit stops along the proposed Circulator Route, provide heated shelters and real-time scheduling/route information via outdoor video displays.

## Transit Connectivity

### Hospital Shuttle and Norwalk Transit District Route Enhancement



**T5 Potential Fixed Route Enhancements**

Explore staggering schedules for Routes 9 and 10 to provide 10-minute peak hour frequencies along West Avenue. Add a stop at the SoNo train station in both directions of the Route.

**Coastal Link T5**

Reroute the Coastal Link Service operated by CTTransit along West Avenue from Reed Street to Cross Street.

**Hospital Shuttle T4**

Enrich existing fixed-route bus service with smaller shuttles servicing the Norwalk Hospital. This service would add more frequency to transit along West Avenue and provide improved access to a major employer disconnected from the downtown.

# introduction

The Norwalk Connectivity initiative stems from a growing awareness of the significant challenges and opportunities presented by the adjacencies and aggregate scale of Norwalk's collection of downtown development projects. These projects include several approved redevelopment or urban renewal plan areas.

Following a long-established city policy to direct future development to its center, the constructed and planned developments are each located downtown and in such close proximity to one another that they would create, in aggregate if fully built out, a continuous two-mile-long corridor of activity from South Norwalk to Wall Street. The existing area, by contrast, is rather sparsely developed and disjointed. These projects will effectively double the volume of existing development. Additionally, an increase in downtown worker and residential populations will contribute to a denser urban environment, which although good and necessary for economic growth, comes with major implications for transportation mobility in the corridor.

Increased density and inter-project activity as a result of the projects' proximity and scale presents an opportunity to redefine this area in its totality as Norwalk's Downtown. The private and public investment associated with these projects is unprecedented in Norwalk and their success will likely set the course for economic development in Norwalk for generations to come.

But, to-date, planning and development has been mostly project-focused, rarely zooming out to survey the big picture of Downtown Norwalk's combined totality. This approach will not yield an economically and physically unified Downtown. For example, each project is developing its own, large, parking supply. In the aggregate, this amounts to the possibility of over 8,000 new, publicly-financed public parking spaces in a corridor which ostensibly is encouraging a pedestrian-oriented environment.

With economic shifts in recent years, it is now more necessary than ever to evaluate development to ensure a future Downtown where a unified whole is greater than the sum of its parts.

Washington Street, SoNo

Planning a safer and more efficient pedestrian, bicycle, car, and transit–friendly environment will provide the opportunity to comprehensively transform the various segmented areas in Norwalk's core into one vibrant Downtown and unlock the true economic potential of a denser urban center.

Connectivity in Norwalk's Downtown will improve access to goods and services needed by area residents and workers, increase the area's potential as a regional destination, and enhance economic development within Norwalk's Downtown. To achieve these synergies, infrastructure, transportation, and urban design improvements are needed to address the existing physical and visual barriers.

The Norwalk Connectivity Plan will serve as an important component in realizing Downtown Norwalk's potential. The plan will be used to ensure that development of the Downtown provides the necessary transportation and visual linkages to unify separate developments and improve circulation overall, while building a regionally competitive, appealing destination.

# connectivity goals

Given the character and objectives of the various development plans proposed for Downtown Norwalk, the question of "how people will travel to, from, and between these developments other than by car" must be answered. With a portfolio of development projects characterized by their mixed uses, high density, and pedestrian-friendly qualities, Norwalk seeks to ensure that the fabric which connects those developments takes on those same qualities and does not hinder or obstruct their establishment throughout downtown. The importance of success can be summed up simply by recognizing the reality that Norwalk's economic development depends on greater downtown density, and that cars, along with the facilities to move and park them, act as a constraining force on such density. Space — and how it gets used — is ultimately a zero sum game. The following core goals have been identified by plan stakeholders who have been instrumental in planning for connectivity in Downtown Norwalk.

### Develop a Better & More Efficient Dynamic Between Traffic, Transit, and Parking

Improvements to each of these can positively affect one another. The linkages, and how best to take advantage of them, will be a major focus of the plan.

### Promote Bicycling in the Downtown Core

To-date, other than the Norwalk River Valley Trail, downtown Norwalk has no formal bicycling facilities. The plan will offer ways to help make bicycling in Downtown a more viable option, as this increasingly popular travel mode comes of age with $4/gallon gasoline, the home-

CEOs for Cities, an organization made up of civic and business leaders, recently commissioned a study to examine the changing residential patterns of college educated young people. That study determined that ten years ago, young adults with four-year degrees were about 61% more likely to live in an urban neighborhood than their peers who had less education.

Today, the study reports that educated young adults are about 94% more likely to live in urban neighborhoods. Data for this report are taken from the 2005-2009 American Community Survey and reflect changes in population distribution patterns since Census 2000.

Historical Wall Street

office economy, and ever stronger encouragement from state and federal governments.

### Improve Pedestrian Experience, Wayfinding, and Heritage Tourism

Just as each of the redevelopment projects seeks to promote pedestrian activity within the project, Norwalk would like to promote pedestrian activity between and among the various development projects. Streetscaping, signage, and marketing will be discussed as ways of bringing appeal to downtown walking.

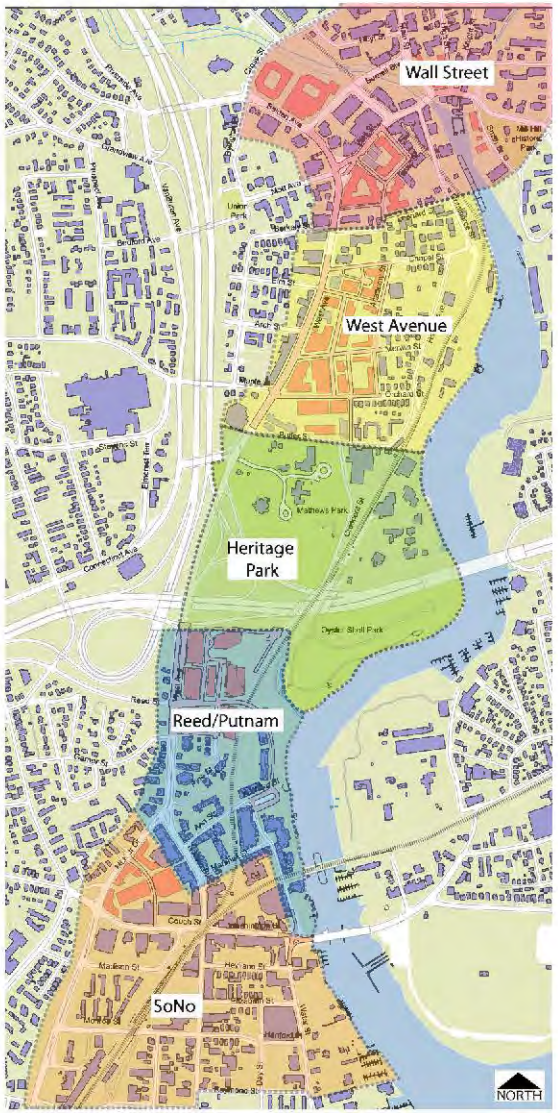
The outcome of the Connectivity Plan will serve to inform citizens on the importance of planning Downtown Norwalk in a way that promotes not only a better experience for its residents and visitors, but also long-term economic growth. With finite developable land, and a bold downtown development agenda, Norwalk is at a critical crossroads where imminent decisions about streets, parking, and the public realm will set the city on a path to success or ever more daunting challenges. This plan will help to identify those decisions and advise on their execution by detailing the themes and specific ideas generated during stakeholder outreach activities, and refined by the planning team.

Historical South Norwalk

# baseline conditions

For the purpose of the Downtown Norwalk Connectivity Plan, the study area is approximately two miles long and comprised of five districts: Wall Street, West Avenue, Heritage Park, Reed/Putnam, and SoNo. Taken as a whole this area will herein be referred to as Downtown Norwalk. The Downtown Norwalk area is anchored by two historic districts - Wall Street Area to the north and SoNo to the south – which are connected by a span of West Avenue about a mile and a half long.

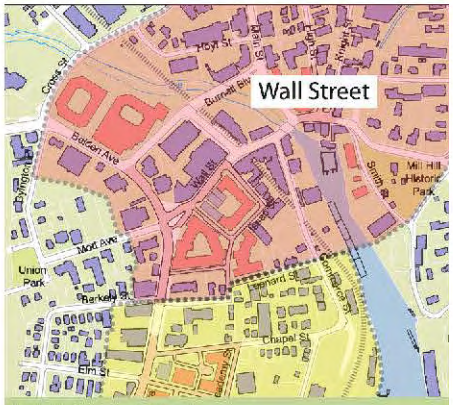
Both new and prospective large-scale development within the study area will meaningfully transform its character, making it both more urban, and, under the aegis of this plan, a more consolidated destination. The development will be referred to as "baseline development".



## Downtown Districts

### Wall Street District

The Wall Street District features concentrated storefront shops and restaurants as well as a growing residential population. The new developments of Head of the Harbor and Wall Street Place, and the recently completed Avalon Norwalk will play an important role in increasing the residential population of Downtown Norwalk and achieving the goal of the Wall Street Redevelopment Plan to restore the Wall Street area to a vibrant and energetic center of urban life.



Wall Street District

The Head of the Harbor project includes two parcels: the North Parcel between Main Street and High Street north of Wall Street, and the South Parcel between Smith Street and the Norwalk River south of Wall Street and adjacent to the Mill Hill Historic Park. The North Parcel would include 93 residential units, including a mix of apartments, townhouses, and live/work spaces, with ground floor retail, while the South Parcel will comprise roughly 60 residential units, including condominiums and townhouses, with a combined 16,000 square feet of office and retail space. This project presents the potential for connecting to the Norwalk Harbor, especially on its eastern edge which is less constrained by industrial zones and developments. In particular, Head of the Harbor's placement at the water's edge reinforces the Norwalk Harbor as a focal point of the area.

Wall Street Place is located on a 6.3-acre site between Wall and Isaacs Streets adjacent to West Avenue. This proposed mixed-use development includes approximately 380 residences and 60,000 square feet of retail. The visual character of Wall Street Place will be consistent with the existing character of the Wall Street district and will incorporate a series of newly constructed and renovated buildings and different types of residential typologies including condominiums, and townhouses. Developments in the Wall Street district will occur with minimal changes to the street grid and are largely in keeping with the existing pedestrian-friendly scale of the area.

## West Avenue District

South of the Wall Street area, and within a few blocks of I-95, the proposed Waypointe development is expected to be a major regional retail destination with ample parking and national-brand anchor tenants. While there is a residential component of this project, this regionally-scaled magnet will rely on large floor plans and fluid vehicular traffic along West Avenue to and from the I-95 access ramps to build a largely retail-oriented project. The project's northern edge is within close distance of residential development at Avalon Norwalk, Wall Street Place, and Head of the Harbor in the Wall Street District. Waypointe's southern edge at Butler Street has the potential to engage and celebrate the adjoining asset of Mathew's Park and the Stepping Stones Museum.

West Avenue District

Despite the infusion of residential and retail development provided by Waypointe, it is important to note that the proposed design of this development is oriented inward. It is critical to the area's connectivity that this development both engage neighborhood streets and create an activated streetscape along West Avenue.

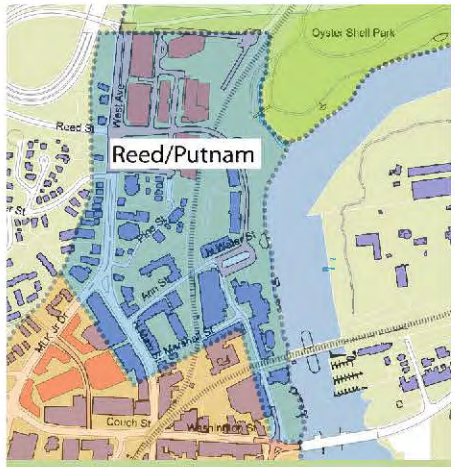
## Heritage Park District

The Heritage Park District lies at the heart of Downtown Norwalk and is home to a number of the Downtown's historic and cultural assets. This area includes Mathews Park, Oyster Shell Park, and portions of the Norwalk River Valley Trail. The former police building located within Mathews Park has been demolished and converted into open space. The main entrance to Mathews Park located on West Avenue is the most clearly defined link between the Park area and surrounding areas. Other entrances to the area from Butler Street, Crescent Street, Reed/Putnam (currently under construction), and the Maritime Aquarium area in SoNo are not clearly marked.

Heritage Park District

## Reed/Putnam District

South of the Heritage Park Area, largely separated by I-95 and Route 7 highway infrastructure, lies the Reed/Putnam area. The proposed 95/7 development within the district is a mixed-use office complex aptly-named for its adjacency to the two regional highway arteries. Like Waypointe, its design assumes that most regional workers and visitors to 95/7 will rely on these strategic highway connections to arrive at and depart from the area by car. Unlike Waypointe, 95/7 fills up the entire east-west zone between West Avenue and the rail tracks along the harbor. This makes the 95/7 development itself an important element in creating north-south connections beneath I-95. Improvement to the Reed Street railroad underpass will provide better access into SoNo, Oyster Shell Park, the Norwalk riverfront and the Maritime Aquarium, while simultaneously providing traffic relief for West Avenue.

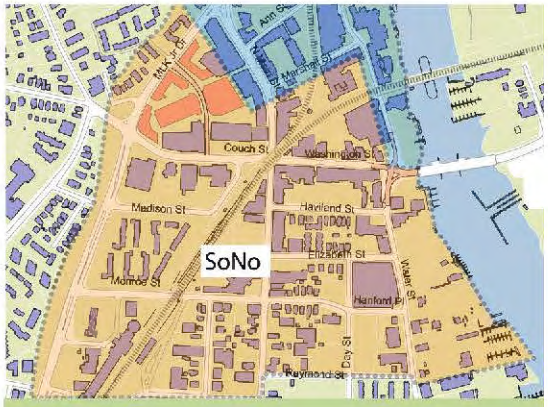


Reed/Putnam District

The 95/7 development also proposes improvements for new and wider sidewalks. Under baseline conditions the West Avenue entrance to Crescent Street will be eliminated. The Reed Street connection to North Water Street and SoNo has been reinforced by a separated railroad crossing. While the 95/7 development is oriented inward, the recently completed Maritime Yards development in the southern portion of the district, similar to the Maritime Aquarium, uses the Norwalk Harbor as its focal point.

## SoNo District

The SoNo area serves as the southern anchor of Downtown Norwalk and is made up of four distinct areas: Maritime Aquarium, Washington Street, and the South Norwalk Rail Station TOD (Transit Oriented Development), which includes the Webster Block development. The majority of SoNo is characterized by historic buildings, many of which have been restored or are being creatively reused. An exception to the scale and character of SoNo, but an important part of the area, is the Webster Block. Urban renewal efforts in the 1960's shaped the area into a super block, however, proposed development at the site aims to connect the block to its historic surroundings while preserving parking supply.



SoNo District

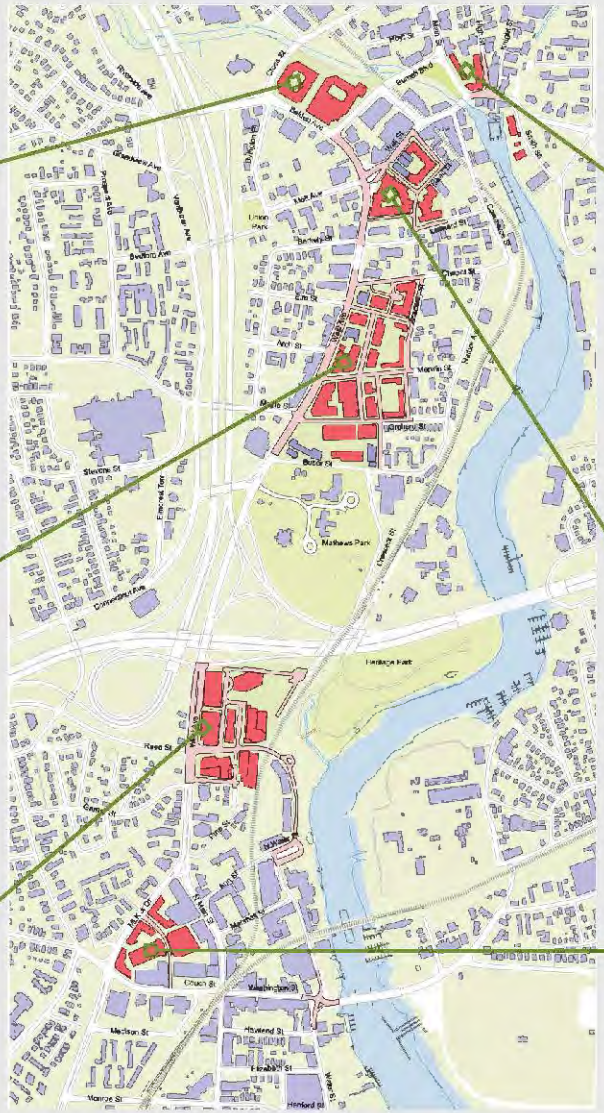
The opportunities for walking to work will be dramatically increased when the Reed/Putnam office project comes on line in the future. Residents of the Webster Block would also be within walking distance of metropolitan train service. At the same time, additional parking in the Study Area will clearly help to support the continuing revitalization of the SoNo district and leverage potential improvements to existing properties.

## Development Projects

Avalon

Waypointe

Webster Block

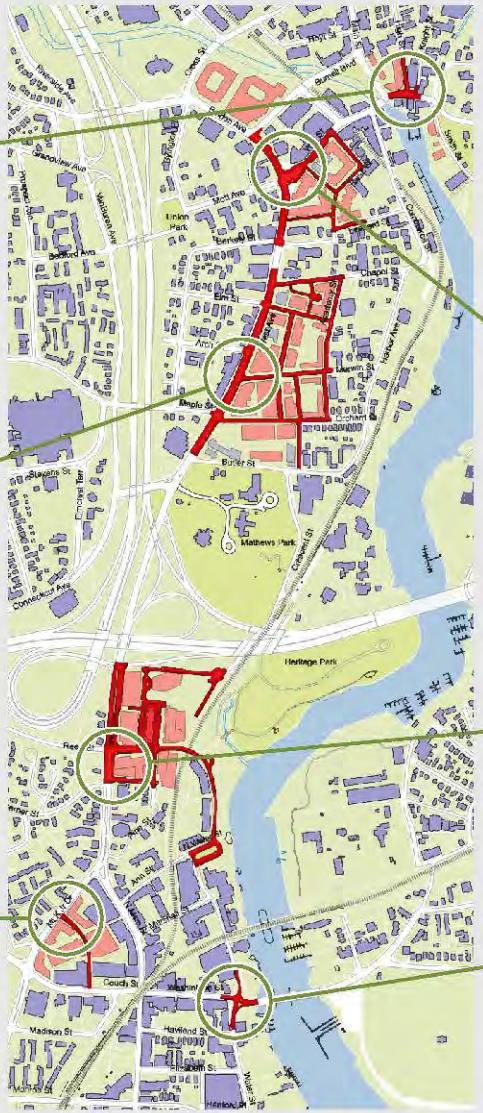


Head of the Harbor

Wall Street Place

95/7

## New Street Connections



New street connections are components of several of the planned development projects. Additional street modifications are ongoing. The Connectivity Plan strives to leverage the positive impact of these roadway projects by providing additional enhancements to other parts of the Downtown street network.

## Future Development Impact

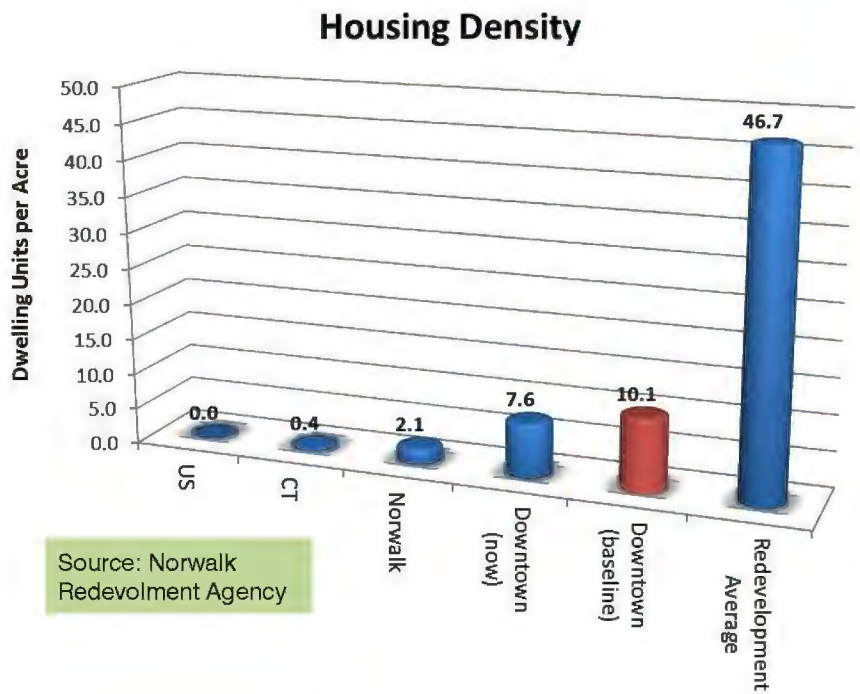
Downtown Norwalk is today four times as dense as the rest of Norwalk with 7.6 dwelling units per acre ("du/acre") , and under baseline conditions will be denser still, at 10 du/acre, or five times the Norwalk average. Downtown Norwalk's development projects, if fully realized, will average still higher densities, topping 45 du/acre, or more than twenty times the Norwalk average.

Density is just one of the ways in which Norwalk's downtown distinguishes itself from the rest of the city and demands a different analysis and approach to its planning than Norwalk's more suburban areas. Different sections of the Downtown corridor also possess disparate characteristics, lacking both visual coherence and physical continuity, and the I-95/Route 7 interchange presents an enormous challenge to the connectivity of Norwalk's "uptown" & "downtown" sections.

The figures to the right illustrate the existing and proposed increases in land use density stemming from the full build-out of each city-approved development.

| Land Use Category | Existing | Net Total | Percent Change |
|---|---|---|---|
| | | | |
| Residential Units | 1,500 | 3,900 | 157% |
| Retail Space (S.F.) | 1,040,700 | 1,549,700 | 49% |
| Office/Institutional (S.F.) | 1,717,300 | 2,427,300 | 41% |
| Warehouse/Storage (S.F.) | 462,900 | 462,900 | 0% |
| Industrial (S.F.) | 507,000 | 507,000 | 0% |
| Hotel Rooms | 0 | 145 | |
| Public Parking Spaces | 3,600 | 10,500 | 188% |

Source: Norwalk Redevolment Agency




Source: Norwalk Redevolment Agency

### Future Development Expectations

It is obvious to the economic observer that the market for these projects today is dramatically different than it was at the time they were planned. Nevertheless, these plans – or some approximation of them – are still expected to materialize in due course.

It is, in fact, a good thing that Norwalk's infrastructure planning will precede the ground-breaking of those plans rather than chase after them. Traditionally, public infrastructure development goes first, "setting the table" for the private development to follow. If there is a silver lining to these projects' delay, it is that the sequence is back in the correct order.

Some components and phases of each plan are moving forward, while others undergo modifications to their plan. At the writing of this plan, how exactly the original vision will change is yet unclear, but the assumption is that, by and large, the broad outlines of the original vision will remain, but that the time horizon for reaching that vision will extend out by some number of years. Therefore, this plan takes as a premise the eventual build-out of the development projects according to how they were most recently officially presented.

95/7 development site (Source: Google - Image Date: 8/30/2010)

## Movement and Circulation

The ways in which people enter Downtown Norwalk and move around is the essence of connectivity. Whether they take the train in and walk, drive and park, or bike is largely influenced by the quantity and quality of accommodations for each of those trip modes.

The table below lists Census 2000 journey-to-work data for the study area, the City of Norwalk, Fairfield County, and the State of Connecticut. This table shows that Downtown Norwalk is a unique sub-area that experiences a significant amount of transit, bicycle and pedestrian travel. This data indicates that about 15 percent of workers in the Downtown Norwalk study area use transit to get to work; significantly higher than the city, county or state as a whole. High rates of carpooling and walking also contribute to lower rates of 'drive-alone' vehicle use that are 20 percent lower in Downtown Norwalk than the city overall.

How people travel to work

| Mode | Study Area | City of Norwalk | Fairfield County | State of CT |
|---|---|---|---|---|
| Drove Alone | 54% | 74% | 75% | 80% |
| Carpooled | 21% | 11% | 10% | 9% |
| Public Transit | 14.5% | 8.5% | 8.1% | 4.0% |
| Walked | 7% | 2% | 2% | 3% |
| Other Means | 1% | 1% | 1% | 1% |
| Worked at Home | 3% | 4% | 5% | 3% |
| *Total* | 100% | 100% | 100% | 100% |

Source: U.S. Census Bureau, Census 2000 Summary File 3, ESRI BIS 2010

Almost half of all workers who live in Downtown Norwalk are accustomed to making their commute in ways other than driving themselves. The new development projects should seek ways to build upon that trend for its residents and its workers.

### Traffic

To say that Downtown Norwalk – located within the center of Fairfield County at the nexus of I-95, US1, and Route 7 with connections to the Merritt Parkway – is convenient via car to is to put it mildly. With the exception of the Merritt Parkway and two exits off Route 7, Norwalk's highway infrastructure is entirely concentrated in its downtown; for a vast majority of people, getting to or from greater Norwalk means departing from or arriving in the downtown. In fact, according to counts taken in 2005 by CTDOT, 17,500 cars get on and 14,400 get off the highways in Norwalk's Downtown each day. While it may be easy – even unavoidable – to get to Downtown Norwalk via car, the planning to-date has perhaps been less proactive than it could be around the experience of drivers within the Downtown.

> If the development of Downtown's transportation network fails to provide compelling bicycle, pedestrian & transit options to driving, Downtown Norwalk can be assured of a future characterized by traffic congestion, diminished space for new development, and inhospitable conditions for those who choose not to drive.

Enhanced connectivity within the roadway environment can potentially reduce congestion and optimize automotive – and non-automotive – mobility and accessibility so that the Downtown's vibrancy is not negatively impacted by baseline proposed development.

West Avenue serves as the primary north-south arterial road linking SoNo with the Wall Street District. The road is generally 4-lanes wide,

with turn-lanes at major intersections. A major interchange with I-95 and Route 7 is located midway between the SoNo and Wall Street Districts of the city, which significantly alters the character of the road at that location. West Avenue is maintained by the City of Norwalk; however, the CTDOT has mandated capacity expansion south of the interchange to accommodate forecasted traffic generated by the 95/7 redevelopment project.

Within the study area, there is no competing north-south route to West Avenue, which is bounded by Route 7 on the west and the Norwalk River on the east. A north-south route utilizing sections of Commerce Street, Harbor Avenue, and Crescent Street is an incomplete alternative to West Avenue and one with numerous disadvantages including a curvy alignment, poor sight lines, neighborhood traffic impacts, indirect routing, and lane width restrictions.

North of I-95, a number of east-west streets intersect with West Avenue providing a kind of 'ladder' network serving the corridor. Only a few of these east-west routes, however, connect to areas west of Route 7 or east of the Norwalk River, and are vital to downtown's connectivity to

Crescent Street under the I-95 bridge

Downtown street network (N-S and E-W links)

BASELINE

other parts of Norwalk. A number of these east-west routes serve as connections to areas west of Route 7 and east of the Norwalk River and are vital to Downtown Norwalk's connectivity to other parts of Norwalk.

At the Crescent Street underpass, passage is restricted to one-way traffic and no sidewalks. This 'pinch point' wedges the street between the railroad tracks and an historic cemetery. If not addressed, the situation will become less and less satisfactory as new development emerges and north-south traffic has no alternative to West Avenue. While the traffic implications are considered, allowance also needs to be made for pedestrian travel along this unfriendly stretch of road.

**Pedestrians**

There is an ease of movement and a pedestrian friendly scale within the SoNo and Wall Street Districts, and each of the major planned developments propose pedestrian-friendly design. There is, however, an overall lack of a continuous pedestrian environment between the districts.

Walkable communities encourage pedestrian activity, expand transportation options, and have safe and inviting streets that serve people with different ranges of mobility.[1] Communities with an excellent system of sidewalks and crosswalks that are clearly delineated and separated from vehicular traffic foster greater pedestrian activity. Urban design features such as street trees, streetscape elements, and dense street front development have also been proven to calm traffic through corridors, which contributes to more appealing walking environments.

1 U.S. Department of Transportation. (2008). A Resident's Guide for Creating Safe and Walkable Communities.

Once pedestrians leave SoNo travelling north along West Avenue in the Reed/Putnam District, there is a markedly different pedestrian scale resulting from the lack of development fronting West Avenue, high-speed vehicles, and the presence of the highway overpass. The area around the I-95/Route 7 interchange has a sidewalk which passes beneath I-95 along the leftover space around the entry and exit ramps from the transportation infrastructure. This area is the most challenging in the study area for pedestrian movement. However, West Avenue improves north of the overpass at the Heritage Park District. From here northwards to Wall Street, there is a more acceptable pedestrian environment, with wider sidewalks and buildings closer to the street; however, street trees are sparse and small and numerous wide curb-cuts keep it from being a comfortable experience.

The new development that is planned for Downtown Norwalk presents the opportunity to address improvements in movement and circulation for pedestrians. Failure to connect the new development through compelling, pedestrian-friendly streetscapes that persuade residents and visitors to walk instead of drive will lead to a landscape

West Avenue under the I-95 Bridge

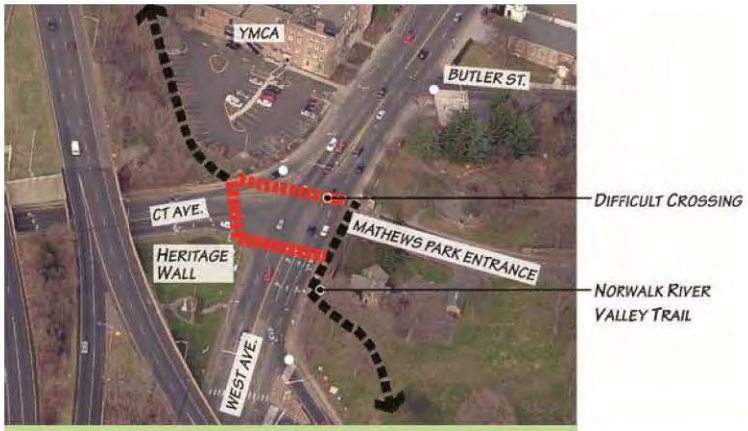
of more parking lots, parking garages, and traffic congestion that will erode the visual character of Downtown Norwalk and hazard the success of the city's major economic development projects.

### Bicycles

Bicyclists who are not comfortable on West Avenue can travel north/south through the downtown using local roads, the Norwalk River Valley Trail (NRVT), or some combination of both. Local roads are fairly easy to ride on as they have low traffic volumes due to having less destinations or being less direct. The NRVT has two challenging areas that present potential safety hazards. The first is the intersection at West Avenue and Connecticut Avenue. This intersection does not have crosswalks, pedestrian signals, or signs alerting motorists about an intersection path. This area is a virtual "Grand Canyon" for local cyclists. The second area is located on Cross Street where the Norwalk River Valley Trail travels along Route 7 ramps and beneath the Route 7 overpass.

The NRVT adjacent to West Avenue

Neither the West Avenue widening project south of I-95 nor planned developments will be adding any designated bicycle lanes; however, they will include repaved or additional sidewalks, along with the installation of audible and countdown pedestrian signals at the highway on- and off-ramps.



The NRVT as it crosses West Avenue

Bicycle-specific infrastructure is limited to the Norwalk River Valley Trail (NRVT) running from the Maritime Center through Oyster Shell Park terminating at Union Park. Preliminary efforts to extend the trail northwards from Union Park along Riverside Avenue to Route 123 have been undertaken by the Norwalk River Watershed Association in collaboration with the NRVT Committee, CTDOT, Norwalk Public Works Department, Broad River Neighborhood Association, and Recreational Equipment Inc. (REI). Proposals have also been made to better connect the NRVT to East Norwalk and Calf Pasture Beach. Public bicycle parking facilities are located at the unsheltered racks on the east-bound side of the South Norwalk Rail Station and sheltered bicycle racks within the parking structure on the west-bound side of the station.

## Transit

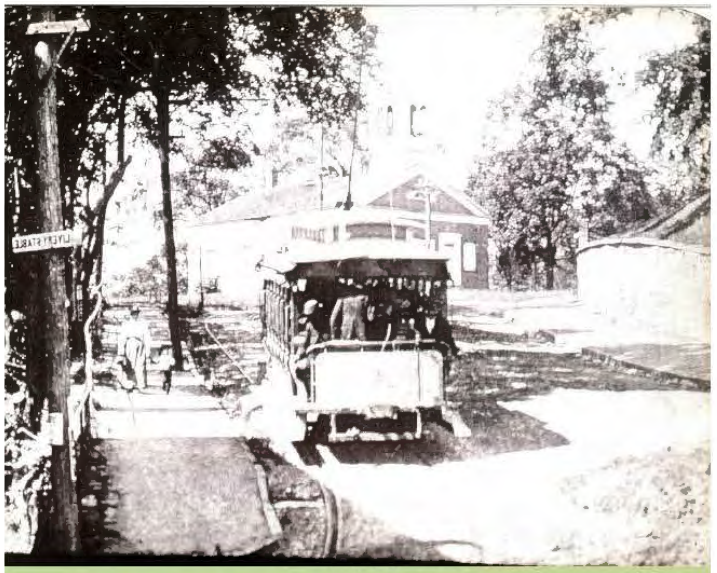
In the 19th century and early part of the twentieth century, Downtown Norwalk was served by trolley service. This service, originally horsedrawn, was electrified and connected Norwalk with South Norwalk via West Avenue. The West Avenue line known as the "Red Line" was one of several street car routes in the region at the turn of the century. While the tracks have long since been paved over, the need for a fast and frequent alternative to driving through the Downtown remains.

> Without quality transit, the propagation of a familiar outcome will continue: more driving, less street life, higher levels of pollution, and increased cost of providing and maintaining transportation infrastructure.

Currently Downtown Norwalk is anchored in the south by the South Norwalk Rail Station – an express station on the Metro North New Haven Line and terminus of the Danbury Branch line. The South Norwalk Rail Station allows for travel between Downtown Norwalk and Manhattan in about an hour and travel to Stamford in as little as ten minutes.

To the north, Downtown Norwalk is anchored by the WHEELS bus hub providing intra- and inter-city bus service. Numerous buses serve both the railroad station and bus hub; however, of these only WHEELS Route 10 connects the SoNo Rail Station with the WHEELS bus hub via the West Avenue corridor. The WHEELS bus service is operated throughout Norwalk by the Norwalk Transit District (NTD) on a pulse system where one bus from each route meets at the pulse point on Burnell Boulevard for a free and immediate transfer. The two WHEELS routes that traverse the study area are Routes 9 and 10. Bus service provided on these routes operate at frequencies of 20 minutes. Bus service along these two routes ends at 7 pm; however, they continue to offer hourly service as "The Evening Shuttle" until 10 pm. On Saturdays, the pulses are at 40-minute intervals from 6:30 am - 7:00 pm. On both routes boarding and alighting are permitted only at designated WHEELS stops.

Planned development along West Avenue is expected to bring thousands of new residents, workers, and shoppers to Downtown Norwalk. This additional traffic, in the absence of alternative modes of transportation, could easily lead to congestion. Focusing purely on street capacity means more cars, more parking, and all of the associated inefficiencies that are traditionally attributed to suburban sprawl.



Trolley on Mill Hill circa 1900

## Concurrent Plans

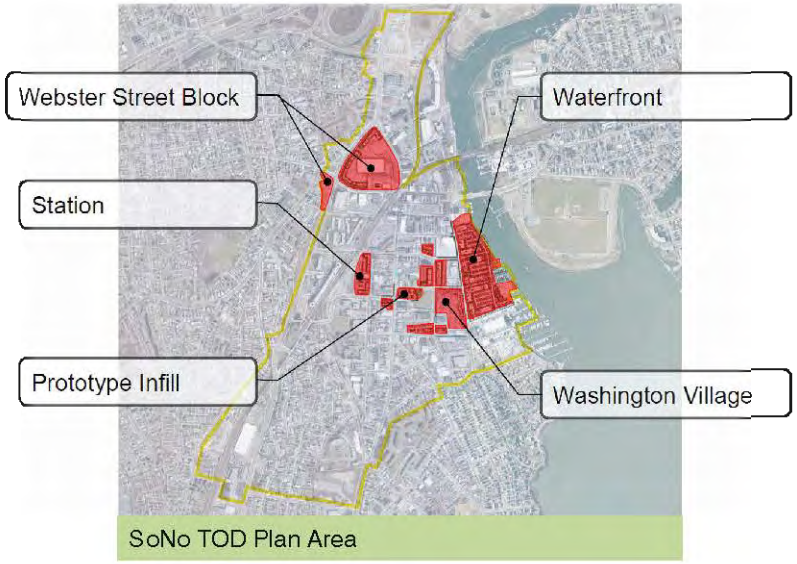
Several planning efforts are underway which are relevant to the Connectivity planning effort. These concurrent initiatives will incorporate input, as it relates to Downtown Norwalk, from this Connectivity Plan.

### SoNo TOD Plan

The Norwalk Redevelopment Agency, working with a variety of elected officials, community stakeholders and social service providers, recently developed a Transit-oriented Development (TOD) Master Plan that seeks to leverage the land resources within a quarter-mile radius of the South Norwalk Train Station to revitalize that neighborhood. Among the strategies recommended to implement the policy objectives in the Master Plan are:

- Development of city-owned and under-utilized properties
- Preservation and reinforcement of existing housing plans
- Investment in existing businesses while encouraging new enterprises
- Public improvements to facilitate pedestrian connections to the train station and the utilization of public open space
- Enhanced public safety and enforcement

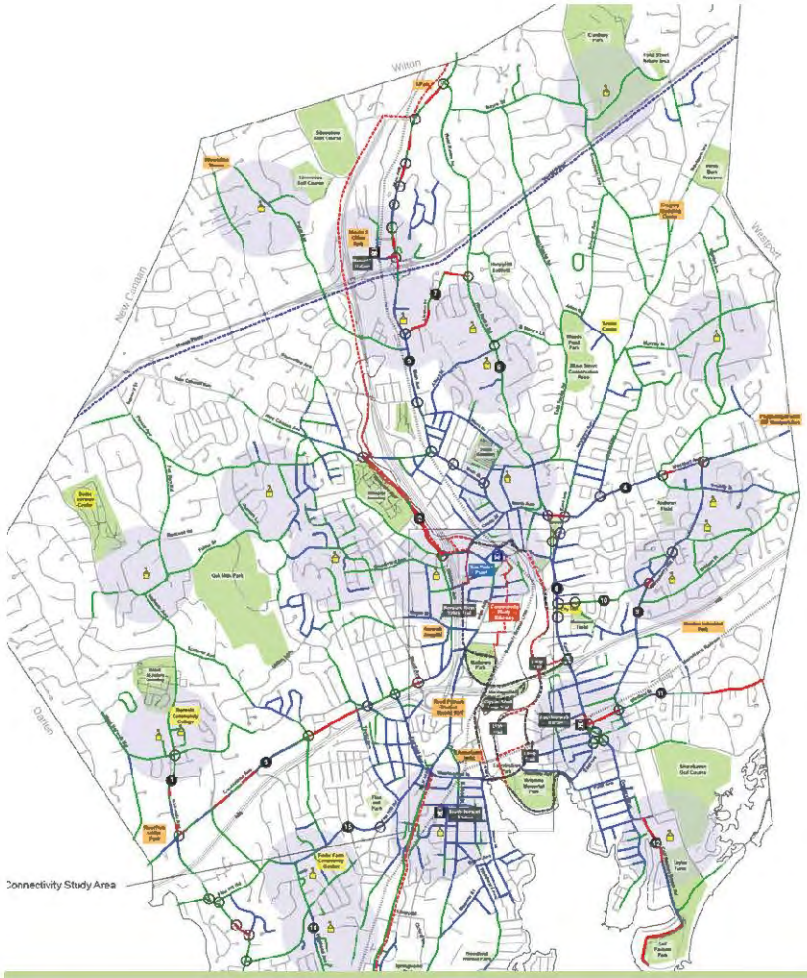
The SoNo TOD study area is within the overall study limits covered by the Connectivity Plan. Of particular relevance, the TOD plan has recognized that the connections from the train station to the Washington Street Historic District, the Webster Street Block, and the North Main Street corridor are challenging for pedestrians and must be improved.



SoNo TOD Plan Area

## Norwalk Pedestrian and Bikeway Transportation Plan

The 2010 City of Norwalk Pedestrian and Bikeway Transportation Plan will serve the City of Norwalk by providing direction on improving and expanding pedestrian and bicycle facilities. The Plan is being produced for the City's Planning Commission. The ultimate goal of the Plan and the planning process is to advance the transportation network to include a more connected system of bikeways and walkways throughout the City. The Plan will include a review of the overall planning process and analysis of the existing transportation network to assist in determining what improvements are necessary to support a more connected system of sidewalks and footpaths, on-road dedicated bicycle lanes, and off-road bicycle and walking trails. The final Plan will provide recommendations as well as specific plans and drawings to illustrate the recommended improvements.



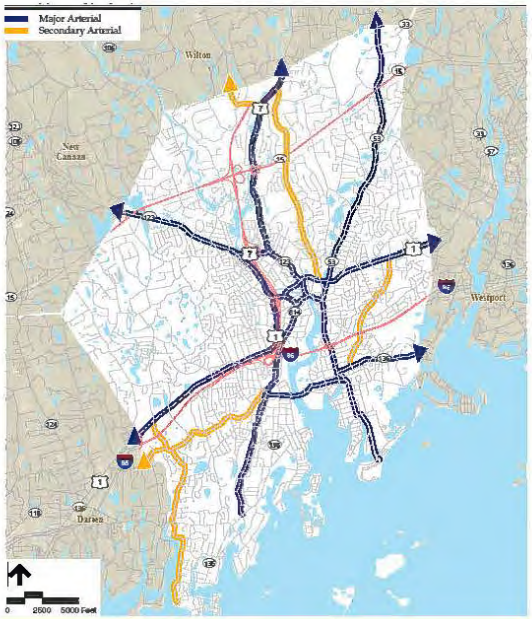

City of Norwalk Pedestrian and Bicycle Transportation Plan

## Transportation Management Plan

This city-wide plan will reach across all modes of transportation (bus, rail, bike, pedestrian, auto, etc.) and seek to make modal connections and improvements consistent with sound land use planning - all in an effort to increase overall mobility, modal choice, and safety for residents, businesses, employees, and visitors while decreasing traffic congestion and its negative impacts on our environment, economy and quality of life. The study will draw upon previous studies and plans as well as consider future development and plans within the region to craft a clear set of guidelines to be used for future investment within the City.

The study will include recommendations to:

- Increase the efficiency and safety along Norwalk arterials, roads and connectors
- Update city construction standards and details to be in line with current 'state of the art' practices
- Identify access management techniques that manage vehicular circulation among adjacent land uses
- Strengthen and provide clear guidance on transportation policies and goals for the City as it relates to future growth and traffic volumes
- Determine multi- and intermodal alternatives throughout the City of Norwalk




Transportation Management Plan
Source: Vanasse Hangen Brustlin, Inc.

# connectivity initiatives

In the interests of Norwalk's economic development and a better quality transportation experience for its residents and visitors, the Connectivity Plan is focused on ensuring that all modes of travel downtown are given due consideration and offers the blueprint of this Plan for a balanced transportation system that provides appealing choices for users of Norwalk's urban environment. Revitalizing Norwalk's urban core depends on creating a strong synergy between transportation and land development, and attracting enough residents and workers to maintain positive economic growth.

In particular, Norwalk needs to attract the young and talented knowledge worker to remain economically competitive. These talented young adults are increasingly choosing to settle in the close-in neighborhoods of the nation's metropolitan areas. Since 2000, the number of college-educated 25 to 34 year-olds has increased twice as fast in the close-in neighborhoods of the nation's large cities as in the remainder of these metropolitan areas. The trend to close-in living is apparent in almost every metropolitan area. Urban cores attracted increased numbers of young adults even in metropolitan areas that were losing population and hemorrhaging talented young workers.[1]

One disturbing trend for Norwalk is the decline of this talented and educated age cohort. As

Average age of Norwalk's population (Source: US Census)

| Norwalk's Population | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age Cohort | 1990 Pop. | 1990% | 2000 Pop. | 2000% | 2010 Pop. | 2010% | Pop. Change 1990-2010 | % Change 1990-2010 |
| 5 years and under | 6,253 | 6.80% | 6,559 | 6.90% | 3,872 | 4.50% | -2,381 | -38.10% |
| 6 to 17 | 9,519 | 13.30% | 11,649 | 15.20% | 10,824 | 12.60% | 1,305 | 13.70% |
| 18 to 34 | 24,090 | 30.90% | 19,966 | 24.70% | 18,157 | 21.20% | -5,933 | -24.60% |
| 35 to 49 | 16,966 | 21.40% | 21,239 | 24.70% | 21,342 | 24.90% | 4,376 | 25.80% |
| 50 to 64 | 11,739 | 14.90% | 12,892 | 15.70% | 18,533 | 21.60% | 6,794 | 57.90% |
| 65 years and over | 9,764 | 12.60% | 10,646 | 12.80% | 13,065 | 15.20% | 3,301 | 33.80% |
| Total (All Ages) | 78,331 | 100.00% | 82,951 | 100.00% | 85,793 | 100.00% | 7,462 | 9.50% |

Norwalk population by age cohort (Source: US Census)

1 CEOs For Cities: Young and Restless 2011

the table on the facing page indicates, approximately 25% of the 18-34 year old population has disappeared since 1990.[1]

Connectivity in Downtown Norwalk is the key to providing greater density, more and better transportation choices, and a lifestyle that is preferable to this valuable age group. On the opposite end of the age spectrum, Norwalk's population is getting older. Coincidentally, the elderly also prefer (and in many cases require) greater accessibility to their daily activities, and a lifestyle that affords convenient mobility options such as walking and public transportation.

The following paragraphs briefly introduce the initiatives of the Downtown Norwalk's Connectivity Plan.

1 U.S. Census data



## Streets

Current planning discourse includes much discussion about "Complete Streets." Complete Streets is the idea that streets should be designed and operated to enable safe access for all users including pedestrians, bicyclists, motorists, and transit riders regardless of age and ability.

West Avenue, which serves as the backbone of Downtown Norwalk's transportation network, currently dysfunctions as a Complete Street; that is, users representing each major mode can be found on West Avenue (pedestrians, bicyclists, cars, and transit), but the street design clearly gives short shrift to every mode except the car.

Each redevelopment project has been designed to provide a pleasing pedestrian environment within its respective project area. It is just as important to extend that experience beyond the confines of the development projects to ensure that bicyclists and pedestrians enjoy safe and comfortable mobility throughout the Downtown. Likewise, transit riders should be prioritized accordingly. Comfortable shelters and clean bus stops, with safe pedestrian links to adjacent destinations is an essential component to the street design.

Photo: Santa Barbara, CA (Dan Burden, Walkable and Livable Communities Institute, Inc.)

Perhaps the major impediment to making Downtown Norwalk's streets friendly to all users is the I-95 highway infrastructure. The highway overpass and associated interchange ramps create an environment that is repellent to bicyclists and pedestrians. Improving the connections under the highway is essential to unifying the north and south halves of the corridor into a cohesive urban environment.

## Pedestrians

Pedestrian circulation in the project area is problematic in a number of areas, due to expansive curb cuts, encroaching vehicles, intrusions of infrastructure onto sidewalks, or sidewalks that disappear altogether. Many improvements are being made to West Avenue, where the problem spots are most conspicuous and infrastructure funding associated with the 95/7 project is available to address them. In addition to West Avenue, other streets are just as important in establishing a hospitable pedestrian environment in Downtown Norwalk; however, they too are often insufficiently equipped to comfortably accommodate people.

Pedestrian Conditions under I-95

While Norwalkers have grown accustomed to many of the shortcomings of Downtown's pedestrian environment, in the context of Connectivity and downtown's baseline anticipated development, such flaws take on a greater significance, preventing the establishment of a pedestrian environment with sufficient appeal to persuade motorists not to add their car to downtown's traffic.

Designing a compelling pedestrian experience is an important goal of the Norwalk Connectivity Plan because as the Downtown grows in size and density, increasing the percentage of persons walking will be necessary to preserve mobility and accessibility across all modes.

These concepts can be used to enhance the pedestrian environment in a way that will promote overall connectivity in Downtown Norwalk by encouraging park-once trips, providing last-leg connections to transit service, and fostering economic vitality through street-level activity and by fostering heritage tourism.

### Encourage Park-Once Trips

Throughout the corridor the pedestrian network should be focused on enabling travel between attractions without having to get back into one's car. In particular, pedestrian linkages are needed between recreational, historic, and entertainment sites to encourage visitors to park once and visit multiple destinations.

### Provide Last-Leg Transit Connections

Pedestrian linkages are crucial to transit connectivity because they provide the last-leg connection from transit service to a final destination. Being able to conveniently access one's destination from transit stops is one of the primary determinants of whether or not people will use transit to get to and from the Downtown and travel within it. At the South Norwalk Rail Station pedestrian pathways exist but are missing linkages and in need of improvements as discussed later in this plan.

### State and Federal Bicycle & Pedestrian Legislation

The significance of pedestrian mobility and bicycling as a means of transportation is reinforced by both state and federal legislation. First, there is the State of Connecticut, which passed Public Act No. 09-154, "An Act Improving Bicycle and Pedestrian Access." The act requires that any state — or municipal — street expenditures set aside funds to provide facilities for other modes, including bikeways and sidewalks. It stipulates a minimum 1% set aside.

Then there is the federal government provision under 23 USC 217(g) about providing "due consideration" for bicycles and pedestrians "where appropriate" in State and MPO transportation plans. In 2007, the DOT issued a directive with guidance which states, in relevant part:

"While these sections stop short of requiring specific bicycle and pedestrian accommodation in every transportation project, Congress clearly intends for bicyclists and pedestrians to have safe, convenient access to the transportation system and sees every transportation improvement as an opportunity to enhance the safety and convenience of the two modes. "Due consideration" of bicycle and pedestrian needs should include, at a minimum, a presumption that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities. In the planning, design, and operation of transportation facilities, bicyclists and pedestrians should be included as a matter of routine, and the decision to not accommodate them should be the exception rather than the rule. There must be exceptional circumstances for denying bicycle and pedestrian access either by prohibition or by designing highways that are incompatible with safe, convenient walking and bicycling."

### Provide Last-Leg Connections from Parking Garages

There are several parking garages proposed in the baseline development scheme. Strong pedestrian connections between these facilities and Norwalk's street and pedestrian network will be critical in encouraging motorists to venture beyond the development area itself. Furthermore, a safe and inviting pedestrian environment is needed if parking management strategies aimed at better utilizing parking supply are to be successful. North Water Street, which connects the underutilized Maritime Garage to the busy Washington Street in SoNo, is a prime example of this need.

Norwalk Maritime Parking Garage

### Foster Economic Vitality

Pedestrian connectivity will positively impact the Downtown's economic vitality by creating a vibrant downtown area that is an attraction unto itself. Pedestrian-focused wayfinding and infrastructure linkages focused on connecting cultural and historic sites, combined with vibrant street level activity, will enhance the visitor experience and encourage tourism in the Downtown. As pedestrian connectivity diminishes car usage, car ownership, and parking demand, it will also influence the amount of space that must be devoted to parking on public streets at redevelopment sites.

"The U.S. is on the verge of a seismic shift in labor markets, and fault lines will emerge to threaten a city's economic future unless it succeeds in attracting the young, college-educated workers who propel today's knowledge-based economy.

It is difficult to overstate the impact that the college-educated 25 to 34 year-olds we call the Young and Restless will have on a city's future prosperity. They are well-educated, adaptable, mobile and relatively inexpensive, comprising an important part of the so-called creative class. With rising demand for their skills and with competition for them now on a global scale, cities must be magnets for these highly-coveted workers or they will fail, because in the knowledge economy, it is the creativity and talent inherent in a city's workforce that will shape its economic opportunities." CEOs for Cities

## Bicycles

Norwalk cannot be considered a very bikeable city in most parts of the downtown, as street design is mostly geared towards providing maximum throughput for cars. Inadequate bicycle and pedestrian facilities create barriers to travel between Downtown's districts despite the proximity of one district to the next. As Downtown Norwalk grows in size and density there will be unprecedented opportunity and need to increase the number of persons bicycling and walking. As the number of persons working, living, and shopping in the downtown grows, alternatives to driving which prevent congestion will play an increasingly important role in the downtown's viability. Increased demand for travel in the downtown also creates an opportunity for the critical mass of bicyclists and pedestrians needed to enhance the downtown as an urban center with street-level activity.

Source: NACTO Urban Bikeway Design Guide – April 2011 Edition

For safe and convenient bicycle access in Downtown Norwalk, it is important to provide cyclists with a complete network of bikeways. Due to the various sections of downtown and numerous intersections, it is also important to provide appropriate signage and wayfinding to facilitate safe bicycle circulation.

Connecticut ranks 26th in the nation with respect to bicycling and walking as a means of transportation. Bicycling in particular has about 0.3% of the overall mode share in the state. Norwalk, with a total population of about 85,000 people, is even lower with a mode share of about 0.1%.

| Geography | Bicycle Mode Share |
|---|---|
| Norwalk, CT | 0.1% |
| Connecticut | 0.3% |
| Massachusetts | 0.6% |
| New Haven, CT | 2.3% |
| Cambridge, MA | 9.0% |
| Copenhagen | 37.0% |

Sources: US Census, ACS, Wikipedia, and DesignNewHaven

Conversely, seventeen percent of Davis, CA's residents commute to work on bicycles. The small city of Davis (population 65,000) is about 70 miles northeast of San Francisco and has over 100 miles of bike lanes and bike paths. Davis was one of the first cities in the U.S. to actively start planning for and incorporating the bicycle into its transportation infrastructure. Davis residents enjoy an extensive

network of bike lanes, bike paths, and grade-separated bicycle crossings. City residents voted to get rid of public school busses many years ago, so many children walk or bike to school. Davis has more bikes than cars and is the only place to earn platinum status on Bicycle Friendly Community's list of top cities.

On a much larger scale (but in the same climate zone as Norwalk), the NYC Department of Transportation reported a 14 percent increase in commuter bike riders between 2010 and 2011, continuing the trend of significant growth in the number of New Yorkers choosing to commute via bicycle. Commuter cycling has increased by 62 percent when compared to spring of 2008 and by 262 percent overall since 2000. The City has installed more than 390 lane-miles of bicycle routes since 2002. From 2000 to 2010, the average risk of a serious injury to bike riders declined by 72 percent.

Overall, Downtown Norwalk has great potential to become a bustling, bicycle-friendly community. Greater Norwalk also offers many desirable recreational bicycle destinations to which downtown routes should connect. This Connectivity Initiative provides guidance for future bicycle-related projects and improvements in Downtown Norwalk, as well as recommended programs and policies that will improve local biking conditions. The goal is to create a safe, accessible bicycle system that includes bicycles and encourages residents and visitors alike to walk and bike, rather than drive, around downtown.



## Wayfinding

Wayfinding describes the basic methods by which people orient themselves. In urban contexts, landmarks and salient natural features, such as water or topographic changes, provide the most readily accessible visual anchors that can be used as geographic points of reference. Wayfinding nodes help people to navigate efficient paths of movement. Neighborhoods that are distinct and well defined create a sense of orientation and identity. A strong sense of identify usually equates with feelings of belonging, civic ownership, and pride which contribute to a strong community character.

Part of creating a cohesive downtown environment is helping people orient themselves and navigate from one attraction to another. While each of the five districts are in close proximity to the next, people will have no reason to travel between them if they don't know what there is in each, and how to get from one to another. Area residents and workers can get to know Downtown Norwalk over time, but for visitors and tourists wayfinding will have a more significant influence on their perceptions and experience of the Downtown.

In addition to physical wayfinding elements, technology presents new opportunities for integrating visitor information with traffic, directions, and parking. The SFPark app, Pocket Tour Guide™ and other destination location applications which can be accessed from cell phones can provide an enormous amount of information to the Downtown's visitors.

## Transit

The issue of parking and transit can generally be summed up as follows: Downtown Norwalk currently cannot be considered a 'car-optional' environment and abundant automobile parking is a necessity. In the future, however, advancing Norwalk's economic development goals will require significant additional density, which will only be possible with higher transit utilization and improved conditions for bicyclists and pedestrians. Under these future conditions it is less certain what the optimum amount of parking will be along the corridor.

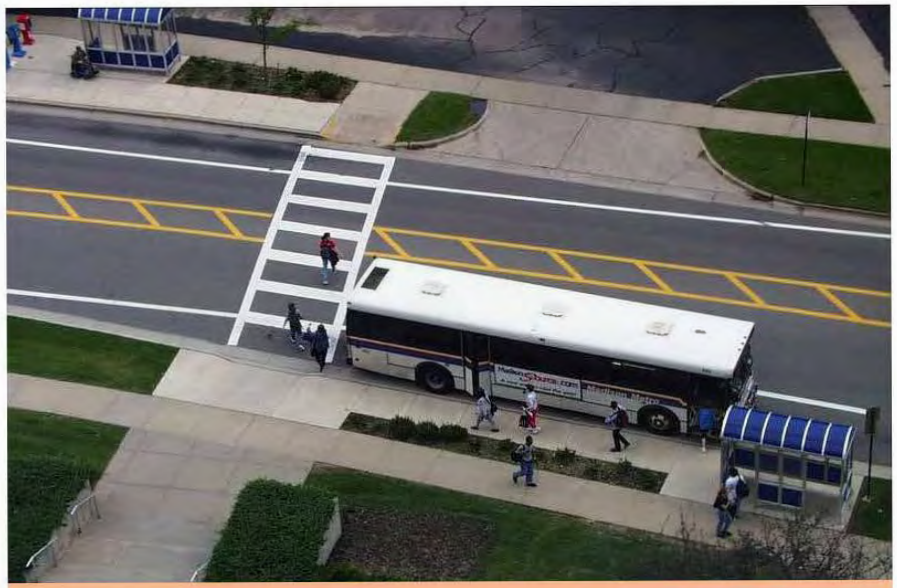


Photo: (John LaPlante) – National Complete Streets Coalition – Introduction to Complete Streets

Financing and building parking is a major hurdle that requires the devotion of significant land and financial resources. As available land becomes more scarce, the development of parking will increasingly come at the expense of land that could be dedicated to housing, office, or retail space. In short, Norwalk is approaching a point in its development where parking and the development of parking are coming at the expense of development overall and the creation of a pedestrian- and transit-friendly environment.

Additional parking to accommodate increased development within the downtown represents a tremendous investment estimated at $195 million, and the consumption of a large amount of developable land. Past attempts to provide developers with parking relief have been rejected by their lenders who have applied their own parking standards, applicable to commercial real estate markets devoid of transit and other urban characteristics.

In order to create downtown transportation choices, it is necessary to ensure that valuable development resources and public monies are not exhausted on developing a parking system that will undercut other efforts to encourage trip linking, and the use of other modes of transportation within the downtown. Rather than let parking requirements constrain connectivity improvements, the design, pricing, and location of parking should be considered an important opportunity to promote many modes of transportation (multimodal transportation) and encourage connectivity between different modes of transportation (intermodal transportation) in Downtown Norwalk.

Access to public transit is an important feature in an urban environment and a necessary component in the parking-reduction equation. One of the major factors for people who have a choice in using transit is the frequency of service. When a person can be assured that a vehicle will pick them up and take them to their destination with a minimum of wait time, they are more likely to use the service. Fast and reliable service that links parking lots and garages provides the potential for shared parking opportunities and lower overall space requirements.

The over-arching sentiment from Norwalkers who participated in the study was there is too much parking and not enough transit service in the downtown. This is leading to an environment that might work for single destination travel, but is counterproductive to creating sustainable transportation options or a cohesive, well connected downtown.

There is a growing recognition that young, educated professionals nation-wide favor a more urban lifestyle, and they don't want to own multiple cars; in fact, they prefer immediate access to jobs, shopping and entertainment.[1] Conventional wisdom equates convenience with speed of travel. A more contemporary approach to transportation engineering considers accessibility as a critical factor in a person's measure of convenience. So while travel speeds within cities may be slower than in other areas, the proximity of land uses to one another reduce a person's overall travel time.

Recent planning by the Norwalk Redevelopment Agency focused on a circulator service as a means of providing frequent transit in the downtown corridor. The purpose of the Circulator is to increase accessibility to various destinations within Downtown Norwalk quickly and efficiently.

1 CEOs for Cities

Transportation investment historically has been a powerful tool for the inducement of land development. Transit, particularly rapid transit such as light rail and high-frequency/speed bus service, can result in significant return-on-investment (ROI) in terms of development dollars following the initial cost of the system.

To put ROI into perspective, the Portland Streetcar cost $56.9 million for a 2.4 mile segment. Additional segments were subsequently built, equating to a total capital cost of $103 million for a 4.0 mile alignment. Since 1997 when the original Portland Streetcar alignment was identified, properties along its length have experienced significant changes, including:[2]

- $3.5 billion has been invested within two blocks of the streetcar alignment.
- 10,212 new housing units and 5.4 million square feet of office, institutional, retail and hotel construction have been constructed within two blocks of the alignment.
- Real estate within one block of the streetcar has attracted 55% of all CBD development since 1997, and properties located closest to the line more closely approach the zoned density potential than properties situated farther away.
- Developers are building new residential buildings with significantly lower parking ratios than anywhere else in the region.

2 Source: ED Hovee & Company, Portland Streetcar Development Impacts, October 2005.

Another example of strong ROI on a transit investment is evident with the Healthline Bus Rapid Transit system that runs along the Euclid Avenue corridor in Cleveland, OH. Despite the challenging financial climate, the $197 million renovation of Euclid Avenue has become an economic development engine for the city. More than $3.3 billion worth of projects are in the works or recently finished along five miles of the vital artery. [1]

Through stakeholder meetings conducted as part of this Connectivity Plan, a preferred Circulator route utilizing West Avenue and circulating around the SoNo train station to the south and the Wheels bus hub to the north was established. Plan stakeholders also recommended that although a streetcar system would be more beneficial to economic development, a 'rubber-tired' vehicle is more appropriate given the flexibility it has to adapt to service changes in the future. Stakeholders also indicated a preference for a more distinctively styled bus to differentiate the service from the existing fixed-route bus service provided by the Norwalk Transit District.

1 Cleveland's Euclid corridor project has paved the way to economic development, Michelle Jarboe, The Plain Dealer November 29, 2009

# downtown norwalk connectivity masterplan

This chapter details the specific strategies that make up the Downtown Norwalk Connectivity Master Plan. Each strategy is provided a unique identifier that can be keyed to figures and tables following the chapter. The development of each strategy was a direct result of continuous stakeholder input throughout the development of the plan. Some of the concepts were suggested by plan participants, while others were created to achieve desired results as stated during various community meetings.

## Streets

The two-mile Downtown corridor from Washington Street to Wall Street is mainly devoted to car-carrying capacity. Conventional traffic engineering responses to future land development, which usually involve road widening and expansion of intersection capacity, will eventually be unable to both satisfy a growing automobile demand and create a place in which people are comfortable moving between downtown destinations - the road is a finite element and becomes less and less efficient as it becomes saturated with vehicular flow. Street Connectivity is a term that encompasses the need for additional links in the street network as well as the need to provide opportunities for a wide range of travel modes on those streets. By resisting the temptation to widen roads and intersections, and instead offering more travel choices, Downtown Norwalk will be better equipped to keep pace with development for years to come.

Complete Streets accommodate all modes and users. Conceptual rendering of West Avenue at Maple Street and Orange Street

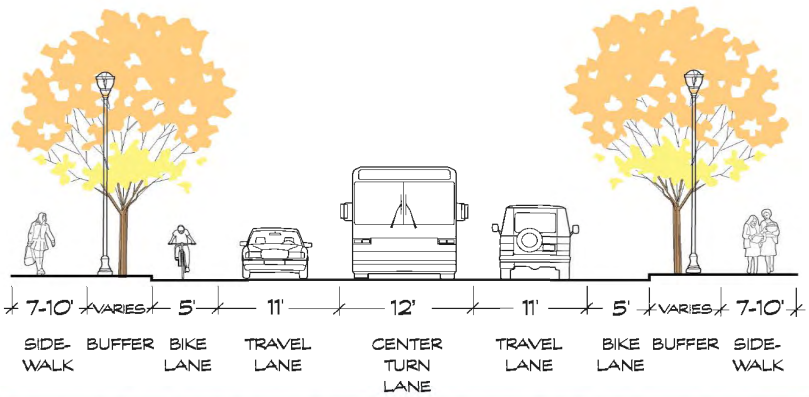
### West Avenue Complete Streets Project (S-1)

It is recommended that West Avenue from Orchard Street to Wall Street be converted from a four-lane undivided urban street to a three-lane street with a two-way left-turn lane (i.e., one lane in each direction and a two-way left turn lane in the middle). Numerous four to three-lane conversions, also known as "road diets," have been successfully implemented across the country. Accident rates for such conversions generally decrease while corridor and intersection levels of service remain acceptable.

The three-lane configuration can vary in design. The Two-Way Left Turn Lane (TWLTL) can be a continuous left turn lane or it can include a raised median with dedicated left turns at intersections, which is desirable where there are no driveways between intersections. The exact configuration of this improvement will need to be determined during its design phase.

The TWLTL recommendation is premised on a development future for the corridor that will be more urban in character, have a more prominent presence of pedestrians and cyclists, and a flow of traffic that has demonstrated its ability to adjust to those changes accordingly. Should this premise prove unfounded at the time the city is ready to move forward with a West Avenue lane reconfiguration (anticipated in this plan to be around 2017), a boulevard configuration with pedestrian refuges at key crossing areas, or a configuration with a center, two-way protected bicycle lane are alternative options in keeping with Complete Streets principles. Under these alternatives, left-turns would be eliminated along upper West Avenue. In any case, the optimal

Bicycle lanes along West Avenue




Proposed West Avenue lane dimensions between Orchard Street and Wall Street

configuration for conditions present at the time should be explored with a more detailed study focused on this specific issue, taking into account recent and prospective changes in surrounding development.

There was acknowledgement by plan stakeholders that West Avenue is the downtown's primary transportation corridor, and due to the variety of existing and planned destinations along the roadway, that full accommodation for bicycles was a logical objective. Due to the public's perception of the safety hazards associated with bicycling along West Avenue, shared-lanes ("sharrows") were rejected in favor of bike lanes on both sides of the street and along the entire length of West Avenue as the most desirable way to provide for bicyclists on this road.

A bike lane would also greatly benefit pedestrians using the sidewalk as they would have a buffer between themselves and motor vehicle traffic. Bicycle lanes can be installed adjacent to the outside travel lanes or to the right of on-street parking, thereby protecting the bicyclist from the sudden swinging open of the driver's car door.

The figure to the left illustrates a section of West Avenue (between Orchard Street and Wall Street) consisting of two 11' travel lanes and a 12' TWLTL. Five-foot bicycle lanes and on-street parking along one side of the street are included. Finally, generous sidewalks, with minimum 7', unobstructed widths, consistently throughout the avenue (not to include banding or tree grates) should be provided.

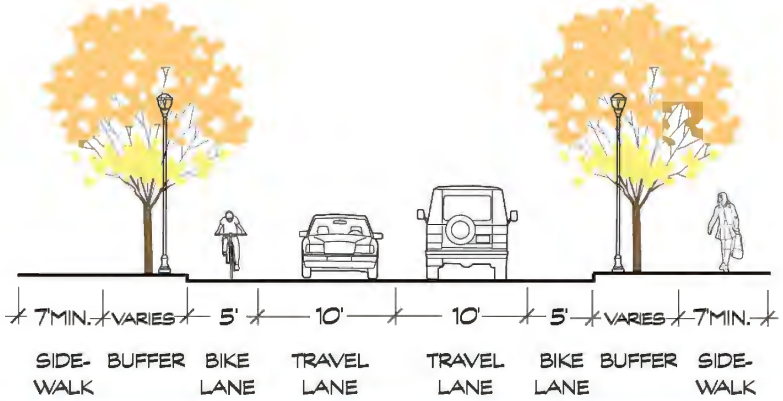
South of Orchard Street, the expansion of West Avenue was a condition for the approval of the 95/7 redevelopment project. It is possible that over time, with the successful implementation of a transit circulator, demand for automobile traffic may diminish. If and when that happens, the City should revisit the lane configuration with the CTDOT to explore options to better accommodate transit and bicycles.

### Academy Street Extension (S-2)

This initiative requires extending Academy Street from Chapel Street to Leonard Street at the northern end, and Merwin Street to Crescent Street at the southern end to provide the final links in the 'Middle Axis' from Crescent Street to Wall Street.

The Academy Street route was designated as the most viable north-south bicycle route in the downtown due to the ability to prioritize bicycles on the street through bicycle lanes in both directions. This route was discussed as a supplemental route to West Avenue due to the potential to create a safer and more comfortable bicycling environment while still providing close proximity to major activity centers. A low to moderate level of vehicular traffic is anticipated for this street serving a portion of inter-project traffic at full build-out, and the road would be designed for lower speeds.

The proposed bicycle route is recommended to begin on Isaacs




Proposed Academy Street lane dimensions between Chapel Street and Leonard Street

Street at the Wall Street intersection and connect to the northern extension of Academy Street. Isaacs Street is a 30-foot roadway with two lanes of bidirectional traffic and on-street parking on the east side. Academy Street has a road width of 30-32 feet with two lanes of bidirectional traffic and on-street parking. The recommended roadway configuration includes two lanes of traffic with reduced lane widths (10 to 11 feet) and 5-foot bicycle lanes on each side. This option is being successfully implemented in communities across the U.S. and provides the safety of a separated bicycle lane without significantly impacting vehicle traffic. The reduced widths can act as a form of traffic calming and may reduce traffic speeds. The reduced speeds with decreased traffic on these streets supports the prioritization of bicycle activity within the downtown.

### Crescent Street and Science Road Improvements (S-3)

Plan stakeholders addressed the Crescent Street underpass and recommended a comprehensive improvement program to make this area safe, visually appealing, and attractive as a pedestrian and bicycle route that connects the downtown. Different factors

Widening of Crescent Street near Pine Island Cemetary

that discourage non-vehicle travel were explored and stakeholders brainstormed a range of improvements to address these factors. Success was deemed critical in the context of the Connectivity Plan's mission, i.e., to connect the many projects and neighborhoods into a more cohesive downtown.

Crescent Street should be widened to two travel lanes north of the I-95 overpass. At its furthest encroachment, the widening will reach 15' into the Pine Island Cemetery. Between 8-10 burials will have to be relocated under this configuration. The widening has not been finalized or approved and would require a state archeologist to survey the site using ground-penetrating radar to determine the exact number of burials that will have to be moved. The conversion of ancient burial ground for public use will require support from the Norwalk Historical Commission with approval from the Norwalk Common Council, as well as the Connecticut General Assembly. Approvals are needed from the General Assembly because the widening includes 1) taking of an ancient burial ground for public use, and 2) moving ancient grave markers. The street should include sidewalks and be enhanced with softscape elements such as flowers, plants, shrubs, and trees to make it more walkable and aesthetically pleasing.

### West Avenue Highway Overpass Barrier/Gateway (S-4)

In general, West Avenue should be enhanced with softscape elements such as flowers, plants, shrubs, trees, and street furniture to make it more walkable and aesthetically pleasing.

Artwork or rotating exhibits could be added along the route thematically connecting the passerby to corridor attractions, such as the Stepping Stones Museum for Children. Under the overpasses, banners and LED lighting should be used to enhance pedestrian

West Avenue under the I-95 Bridge

experience and safety.

Specific design recommendations for such improvements might best be developed by a task group as an adjunct initiative to the larger Connectivity initiative. The following guiding recommendations should be followed:

1. Recognize the location as an important gateway and introduce gateway features where possible. Even if only for visual effect, consider using the insides of the interchange "clover leaves" for installations.

2. Introduce lighting displays that create both visual appeal and a level of illumination that increases the sense of safety under the overpasses. Also introduce banners along the corridor.

3. Use Art Park for rotating exhibits involving corridor attractions.

4. Apply generous landscaping to soften both the look and feel of the overpasses on West Avenue. A number of medians, traffic islands, and "snow shelves" exist along the stretch of West Avenue that leads to and passes beneath the overpass. By

being especially generous and vigilant about the landscaping of these green spaces, the harsh pedestrian environment that exists there today can be ameliorated and perhaps even made appealing. Address this strategy via a dedicated, adjunct task group.

5. Utilize distinctive surface treatments for pedestrians in concert with the wayfinding system to provide visual consistency and effectively pull pedestrians onwards to experience more of the downtown, leaving their car in its parking place.

### Cross Street - Belden Ave Safety Improvement (S-5)

The Belden Avenue and Cross Street intersection has been identified by bicyclists as unsafe due to the numerous vehicular lanes and poor sight distance on approaches to the intersection. Belden Avenue is also a potential alignment for the proposed Norwalk River Valley Trail. Given the width of Belden Avenue and Cross Street, and numerous turn lanes required to progress traffic through a series of traffic signals, this area is not particularly compatible with bicycle travel. Study participants indicated a need for traffic calming through this area so that bicycle safety could be maximized.

If balancing bicycle and pedestrian safety with traffic flow is a priority for Downtown Norwalk's future, then more significant attention must be placed on reducing the pavement width required for the storage of vehicles at traffic signals. One possible solution is to convert the signalized intersection at Cross and Belden to a single lane roundabout. Potentially, all four intersections along Belden Avenue from Burnell Boulevard to Riverside Avenue could be converted to single lane roundabouts. By replacing the existing intersections with modern roundabouts, many of the approach lanes could potentially be eliminated providing more space for bicyclists while calming traffic at the same time.

The Federal Highway Administration provides design guidance on modern roundabouts and cites studies which conclude that this form of traffic control is safer for all modes of transportation, although proper design for bicycles is needed to ensure that the roundabout accommodates them appropriately.

Modern roundabouts along Belden Avenue

Because Belden Avenue is also Route 1 along this stretch, the CTDOT would need to approve this concept. Efficient vehicle progression, truck and bus movement, and many other factors will need to be analyzed in greater depth to prove feasibility. It is recommended that a detailed traffic engineering analysis be undertaken to arrive at a concept that is acceptable to all stakeholders.

## Wayfinding

Pedestrian wayfinding signs typically give directional cues to pedestrians navigating a dense central business district or downtown area by foot. These signs include general directional information to major cultural, civic, institutional or historic landmarks, and sometimes include distances to those destinations (by mile or by block). Wayfinding signs can also indicate local "districts" or neighborhoods via specialized color-schemes or other symbolic gateway décor. Pedestrian wayfinding signs can be in the form of gateway banners, kiosks or maps, placed in the "furniture zone" of the walkway, out of the way of pedestrian traffic and at a height of 7ft or more for appropriate clearance but within legible distance of the reader. Associated hardcopy maps are often used to complement these signs.

Typical Wayfinding Sign Hierarchy, Source: Novato, CA

The need for wayfinding which connects downtown attractions has been demonstrated by the fact that many tourists visiting the area come for one attraction and are unaware of the other things going on in Downtown Norwalk. While information about other attractions and how to get to them is being provided ad hoc as a customer service by many institutions, a more systematic approach would capitalize on the density of the Downtown's rich cultural resources. To provide this information to the greatest number of visitors, wayfinding efforts should be focused on key points of entry to the downtown. The South Norwalk Rail Station, WHEELs hub, and parking garages all represent critical gateways where visitors arrive in Downtown Norwalk and begin their experience. The Maritime Aquarium, as a regional destination, is also an important wayfinding hub because of the volume of visitors that come to visit it.

Wayfinding Theme Example from Philadelphia, PA

### Develop a "Theme" (W-1)

One challenge in developing a wayfinding system is deciding upon an organizational framework for what the wayfinding signage should focus on. The Connectivity initiative has identified Downtown's cultural and heritage attractions as central to a future wayfinding system, and vice versa. Downtown Norwalk has a high concentration of historic and cultural assets which, collectively, draw a large number of annual visitors, but those visitors are often unaware of the other

nearby attractions or how to find them, although they lie in a mostly continuous line along the downtown corridor. If these landmark attractions were better connected, visitors might be enticed to explore and enjoy a greater overall share of the downtown. The Norwalk River, a natural landmark, also connects many of them visually, if not directly, and possesses a wayfinding function as well.

Cultural heritage tourism, or heritage tourism, is defined as "traveling to experience the places and activities that authentically represent the stories and people of the past and present. It includes historic, cultural and natural attractions" (www.culturalheritagetourism.org). These cultural landmarks provide a historical narrative to a place and provide visitors and residents with a sense of place and orientation.

Downtown Norwalk's cluster of cultural assets present a unique opportunity for heritage tourism. These assets are concentrated in the Downtown's two designated historic districts and within the Heritage Park district and include: the Norwalk Town Green, the Mill Hill Historic Park, the Stepping Stones Museum for Children, Lockwood Mathews Mansion, the Center for Contemporary Printmaking, Pine Island Cemetery, SoNo Switch Tower Museum, the Norwalk Museum, and the Maritime Aquarium.

In addition to providing economic opportunities and strengthening community identity, heritage tourism also provides an inherent wayfinding system as these

Gateway signage

Directional signage

Map/Kiosk

cultural landmarks are easily identifiable visual features. The First United Methodist Church is a good example of a cultural landmark that is also a salient visual feature in Downtown Norwalk.

It is recommended that the City determine a naming convention to identify its Downtown Districts and an appropriate icon that is symbolic of the area.

### Design a comprehensive wayfinding system (W-2)

Connectivity stakeholders identified a number of wayfinding elements that could enhance orientation and visual consistency in the project area including directional signage, high-tech and low-tech maps, and illumination.

Directional Signage is what most people think of when they think of wayfinding. Wayfinding signage should be:

- Standardized
- Visually attractive, utilizing distinctive colors, shapes, and symbols to establish a consistent, unifying theme to associate with the entirety of the downtown
- Include/incorporate information kiosks at a minimum of five plazas throughout the project area

Other wayfinding criterion identified by plan stakeholders include:

- Heritage Tourism should be at the core of downtown's wayfinding content, to which categories for parks &

open space, shopping & entertainment, and public facilities can be added.

- The system should be designed with ease-of-upgrading & adjustment in mind, as things do change over time.
- Signage design should anticipate and encourage a multimodal downtown, and contain consistent thematic elements to foster a unified sense of the whole area.
- The wayfinding system should emanate from five core downtown plazas with information kiosks and connect to a larger network of ancillary locations, to be determined.
- Besides wayfinding signage, hi- and low-tech maps and lighting initiatives should be deployed in the service of wayfinding and connecting the districts.

It is recommended that the City of Norwalk engage a consulting firm with specific expertise in planning and design a comprehensive wayfinding system for Downtown.

### Initiate low and high-tech wayfinding programs (W-3)

Norwalk's wayfinding system should take advantage of emerging web-based technologies and cell-phone/GPS-based mapping programs that could enhance visitor experience, including podcasts, and cell phone 'bump' applications that would perform wayfinding functions through wi-fi networks. Plan stakeholders discussed low-tech approaches including partnerships with local establishments that would build strengthened connectivity among each other. One example: local restaurants utilizing place-mat maps with sponsors funding the effort through advertising. Other 'low-tech' maps could be theme-based and distributed at appropriate locations, such as maps of historic resources or arts, placed at downtown galleries and museums. An example would be Norwalk's Art-Walk map.

Illumination should also be used to help connect downtown assets and help people find their way among them. Historic buildings, churches, trestles, overpasses, and other significant structures should be illuminated in ways that emphasize their significance and draw people through downtown's many attractions. Local electric providers should be approached to partner in this strategy. Plan stakeholders also recommended that lighting fixtures as well as traffic light poles be painted black so that they "disappear" at night and become less obtrusive elements in the streetscape.

### Remove existing ad-hoc wayfinding signage (W-4)

To avoid duplication and reduce sign clutter, eliminate all existing wayfinding signage once new system is implemented. Signage jurisdictions (e.g. state, city, private) should be clarified prior to any removal effort. Ideally, agreements between the various signage authorities should be made to ensure that future sign clutter is kept under control, sign standards are adhered to, and maintenance and upkeep of the signage system is shared by all parties.

# Pedestrians

To make Downtown Norwalk the type of place that can compete with suburban retail developments will require the type of enjoyable walking environment that is part of an 'out in downtown' experience. Achieving a pedestrian-friendly environment is also important to the rail station and efforts to capitalize on Transit-Oriented Development opportunities. While many of the blocks in SoNo have pedestrian infrastructure, there are sections which lack the safety, convenience, and walk-appeal necessary to make the larger SoNo District a bustling and pedestrian friendly area.

Several pedestrian-oriented design features were recommended by plan stakeholders. The focus was on the primary connections to the SoNo Rail Station, but these recommendations will provide a model for other areas of the downtown which are missing linkages or require an upgraded streetscape environment to enhance connectivity. The primary design elements for enhancing the pedestrian experience which together comprise the streetscape are: sidewalks, crosswalks, signage, lighting, street furniture, and landscaping.

Pedestrians share the streets in New Haven, CT

An important consideration for streetscape improvements is the cost and level of maintenance associated with those improvements. While the value added to the community in terms of enhanced property values and a higher quality of life should greatly exceed the cost of maintaining streetscape improvements, there should remain a focus on materials that are lasting, sustainable, and relatively low maintenance. More specifically, ameneties should be:

- Composed of durable, long-lasting materials
- Unique to Norwalk, reinforcing a sense of place
- Simple and comfortable
- Visible, safe, and accessible

### Monroe Street Enhancements (P-1)

Upgrade south side of Monroe Street between the east station entrance and Chestnut Street to include recommended sidewalk dimensions, streetscaping, and pedestrian amenities.

The influence of pedestrian design elements in SoNo and connecting to the rail station is of particular importance because of the City's intentions for Transit-Oriented Development in the area, and because of the Station's role as a gateway to and from Downtown Norwalk. Pedestrian connectivity, however, is an issue throughout Downtown

Norwalk and will be of increasing necessity as the number of persons working, living, and shopping in the downtown grows. Alternatives to driving will play an important role in the downtown's viability, and will help foster the critical mass of pedestrians needed to enhance the Downtown as an urban center with street-level activity.

On Monroe Street itself, between the Rail station and South Main Street, pedestrian conditions between the north and south side of the street are extremely unbalanced. On the south side of the street there are vacant lots and dilapidated storefronts while the north side of the street is comprised of the new Norwalk Police Station. There is significant demand for pedestrian amenities on Monroe Street along this section because it is the most direct way to travel between SoNo and the rail station.

Monroe Street Enhancements

Improving the south side of the street with design elements that are similar to the north side of the street, while preserving existing street-fronting retail, will enhance the pedestrian environment and perceptions of South Norwalk at this critical gateway. The police station side of Monroe Street is generally well maintained and includes streetscaping elements such as lighting and brick pavers; however, its exclusive use as a police station generates limited pedestrian activity. Infrastructure amenities on the Police Station side of the street nevertheless creates a comfortable pedestrian environment despite the fact that there is nothing for people to see or do on this side of the street. Storefront retail on the south side should theoretically encourage pedestrian activity; however, dilapidated storefronts, the poor condition of sidewalks, and a lack of lighting discourage many people from walking on what they perceive to be an unsafe block.

On this stretch of Monroe Street the south side of the street can be improved through:

- Sidewalk repaving to improve the pedestrian infrastructure. Sidewalks should incorporate the brick and concrete elements used elsewhere throughout SoNo.

- Increased lighting at a pedestrian scale is necessary to increase safety and security on the street. Some of the existing lighting on the street is crooked and in need of repair and scaled for vehicle rather than pedestrian traffic. Lighting should be reflective of the area's visual identity and designed to minimize light pollution.

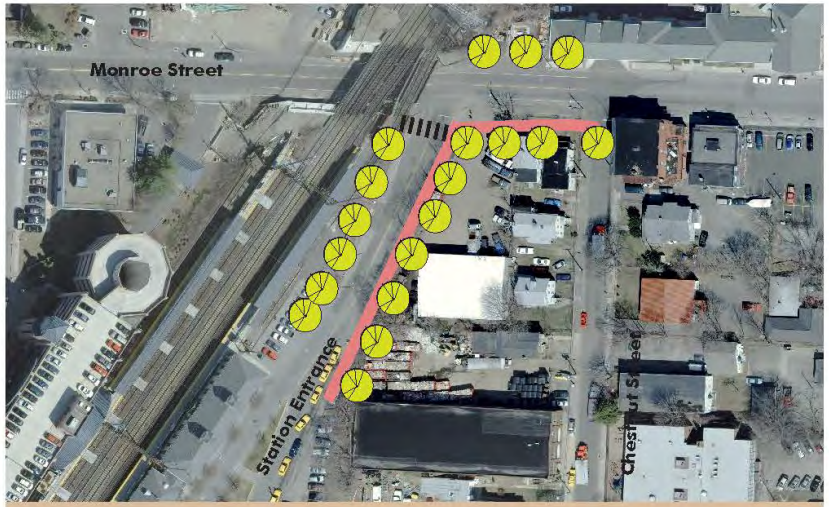
- Infill of retail uses and improvements to existing business façades will help create a vibrant pedestrian environment of activity that fosters pedestrian travel. The existing conditions merely accommodate pedestrian travel which occurs out of a necessity to travel to and from the station.

### Monroe Street Station Access Improvements (P-2)

Monroe Street is the main link between the rail station and SoNo and the street plays a major role in how pedestrians will experience Downtown Norwalk. The Monroe Street pathway can be enhanced starting from the eastbound side of the Station which connects to pedestrians to Monroe Street with a one-sided sidewalk that is devoid of streetscaping or wayfinding elements.

This gateway can be improved through:

- Plantings along the sidewalk. Narrow strips of earth adjacent to pedestrian pathways can be challenging to plant but benefit the pedestrian experience. Appropriate plants for this area of sidewalk are low, slow, and vertically growing; water-thrifty; native or adapted to the local environment; and a mix of evergreen plants and perennials that go dormant in winter.



Train station access improvements

- Crosswalk at the mouth of the station entrance/exit. Currently the drive does not have a stop sign, light, or crosswalk. Traffic from the rail station and on Monroe Street is one lane in each direction. A striped crosswalk across the drive to enable pedestrians to travel east towards South Main Street would make crossing easier and safer for pedestrians.

- Integration of wayfinding elements that will be visible to those going to or coming from the station. In addition to a crosswalk enabling pedestrians to travel towards SoNo, signage is needed directing them where to go. When pedestrians currently reach the end of the existing sidewalk, there is no indication of where the Downtown area's attractions are located. While maps within the rail station provide some information, a continuation of an integrated wayfinding strategy (discussed in a separate section) is much needed at this critical pedestrian intersection.

### MLK Drive Enhancements (P-3)

Martin Luther King Drive to the west of the Station was identified as an important pedestrian gateway because it serves as the primary pathway for residents of the Flax Hill neighborhoods walking to/from the rail station. Both the staircases connecting to Martin Luther King Drive, and Martin Luther King Drive itself were identified by plan stakeholders as in need of improvements to support car-free commuting from this area. Improvements identified were lighting, sidewalk maintenance, and landscaping.

These improvements can be used not only to enhance the visual appeal of Martin Luther King Drive, but also as traffic calming elements. Martin Luther King Drive is about 65 feet wide north of the rail station with four lanes and an alternating turn lane. The street

is known by locals as a fast alternative to driving through SoNo and rarely experiences congestion. Where the street is adjacent to the rail station, surrounding uses are primarily residential with some industrial and office spaces. A lack of street-level activity, minimal congestion, and wide configuration combine to encourage speed on what many consider a great street to drive on. Martin Luther King Drive's proximity to the rail station makes it an important pedestrian link in Downtown Norwalk and for future Transit-Oriented Development. Streetscape improvements were suggested by plan stakeholders as well as crosswalk improvements to create visual cues that make drivers want to slow down to avoid potential conflicts – without restricting vehicle access.

Residents of the Golden Hill area and other neighborhoods to the station's west use stairs leading down to the Drive and regularly must cross this challenging local highway. These neighborhoods are separated from Martin Luther King Drive by a steep grade. Other than the stairs, there are only limited access points from the west to the Drive, and no sidewalk exists on the western side of the Drive. Crossing Martin Luther King Drive from the stairway near Madison Street is relatively safe and easy because of a signalized crosswalk and 16' median; however, moving south along the Drive, there are no further crosswalks between Madison Street and Lowe Street, a distance of over one thousand feet. Pedestrians are routinely observed crossing the MLK Drive in this section indicating a demand for additional crosswalks, as well as the inclusion of a sidewalk.

The pedestrian environment on Martin Luther King Drive can be improved through:

- Addition of a west side sidewalk to enhance linkages to nearby residential neighborhoods and generally contribute to traffic calming.
- Crosswalks on either side of State Street to link the additional sidewalk and discourage dangerous crossing.
- Lighting to enhance safety and security, especially on the stairway.

Stairway from MLK Drive

## Improve Sidewalks (P-4)

Sidewalks are a critical element necessary for pedestrian connectivity. Throughout the Downtown sidewalk widths vary and are 4-10' in most places when not obstructed or damaged. It is recommended that all sidewalks on important pedestrian routes be brought to at least a 7' minimum while minimizing or eliminating any obstacles that obstruct pedestrian movement. Additionally, brick used to buffer concrete sidewalks in SoNo and elsewhere in the Downtown should be incorporated throughout to foster continuity in pedestrian pathways.

Improve/widen sidewalks at the following locations:

- Crescent Street from Putnam St to Butler St
- MLK Drive from West Ave to Hamilton Ave stairway
- SoNo RR Station drive at Monroe St
- Harbor Ave
- Commerce from Chapel to Wall
- West Avenue from Orchard St to Wall St
- Butler Street between Stepping Stones and West Ave

## Enhanced Crosswalks (P-5)

Crosswalks are a critical element necessary for pedestrian connectivity. Crosswalks should be 10-feet wide whenever possible and a minimum of six feet in order to comply with the Manual on Uniform Traffic Control Devices Section 7C.03. Crosswalks should be well lit and boldly marked with bar stripes or textured surface such as what Norwalk has used at the aquarium or in the City Hall parking lot. Where crossing is difficult in congested areas, and on wide streets (such as Martin Luther King Drive), crosswalks should include pedestrian refuges with a minimum width of 6 feet (corresponding with the crosswalk width) and length of twelve feet. To shorten the crossing distance and increase visibility crosswalks may also include bulb outs or curb extensions, as well as in-street signage.

Textured crosswalk

Improve crosswalks to provide enhanced visibility and minimize crossing distances where possible at the following locations:

- MLK Dr and Monroe St
- S. Main and Monroe St
- N. Main St and Washington St
- West Ave and N. Main St
- West Ave and Butler St
- West Ave and Orchard
- West Ave and Merwin St
- West Ave and Arch St
- West Ave and Chapel St
- West Ave and Leonard St
- West Ave and Wall St
- Landmark Square (Wall, Knight, and High Streets)

In-street pedestrian crossing sign (Source: Peter Speer, pedbikeimages.org)

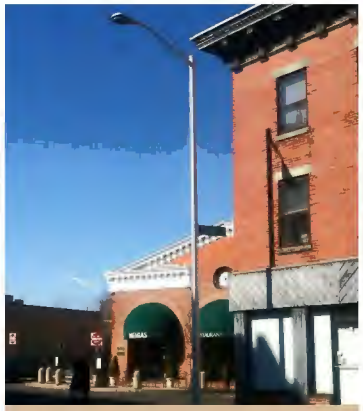
The stretch of Main Street between Wall and Cross Streets is the longest in that vicinity without a pedestrian crossing. Following an appropriate investigation by traffic engineers, a new pedestrian crossing for Main Street should be considered in that stretch, presumably at either the Burnell Boulevard or Hoyt Street intersections.

### Pedestrian-Scale Street Lighting (P-6)

Lighting is a critical element necessary for pedestrian connectivity. Lighting designed at a pedestrian scale will increase safety and security and encourage pedestrian travel throughout the Downtown in the evening and at night. Light poles should be 10-18 feet high and compatible with the surrounding structures, and incorporated at regular intervals along pedestrian pathways.

Improve lighting at the following locations:

- Wall St
- Crescent St
- Commerce St
- Harbor Ave
- Monroe St
- MLK Drive
- SoNo Rail Station Drive



Automobile-scale "cobra-head" lighting in Wall Street area

Pedestrian-scale lighting in SoNo area

### Street Furniture (P-7)

Street furniture is a supportive element that encourages pedestrian activity. Features such as benches, trash cans, newspaper stands, transit stations, and public restrooms should be closely coordinated with the overall urban design and wayfinding elements of the Downtown. These elements can enhance the comfort of the street as well as make it more attractive. Street furniture placed throughout the Downtown will contribute to intuitive wayfinding by reinforcing the Downtown's image at regular intervals.

Provide street furniture at the following locations:

- West Avenue
- Commerce Street
- Harbor Avenue
- Crescent Street
- Monroe Street
- Wall Street

### Landscaping (P-8)

Landscaping is a supportive element that encourages pedestrian activity. Landscaping can greatly enhance the overall streetscape and may include street trees, planters, hanging baskets and plantings. In selecting appropriate plant species it is important to consider the necessary conditions and maintenance needed for healthy growth. In general water-thrifty, native or adapted plants, and a mix of evergreens and perennials should be used. The Norwalk Tree Advisory Committee has developed a preferred street tree planting list for the City of Norwalk which should be consulted in selecting appropriate trees that will provide the optimum canopy cover for the streetscape.

The preferred street tree planting list ensures the most suitable species are placed in specific areas to enhance the green infrastructure in Downtown Norwalk and provide the optimum canopy cover for the streetscape. The guidelines also ensure visual enhancement of public streets, rights of way, and public places with minimal impacts to subsurface infrastructure due to root zones.

Provide landscaping and street trees at the following locations:

- Crescent St
- Commerce St
- Harbor Avenue
- Monroe Street
- West Avenue



## Bicycles

Norwalk has numerous origins and destinations, ranging from cultural institutions to the Norwalk Hospital; however, with full build-out of the planned development, the following origins and destinations are expected to generate the majority of the bicycle traffic:

- Avalon
- POKO/Wall Street Place
- Waypointe
- Head of the Harbor
- 95/7
- 55-77 Water
- SoNo
- East Norwalk via Stroffolino Bridge
- Norwalk River Valley Trail
- S. Norwalk Train Station
- Libraries
- Post offices

The specific lane configurations of different routes within the study area will need to vary at different segments due to limited roadway width. Bicycle lanes should be included within existing right-of-ways wherever feasible. This improvement was recommended by plan stakeholders because of the additional safety that separate lanes provide bicyclists. Additionally, a separate lane increases the perception of safety for bicyclists of all ability ranges and therefore encourages more riders. In locations where bicycle lanes cannot be provided, sharrows with appropriate roadway improvements would be sufficient in such cases.

### Sharrows (B-1)

On smaller roads where there is less traffic volume, the concept of "shared-lanes" is recommended. Shared lanes operate on the simple premise that bicycles are already allowed on most streets, but adds a reminder to cars by way of signage. Shared lanes may be marked with a pavement marking symbol. The symbol, known as the shared lane marking, or "Sharrow", is useful in locations where there is insufficient width to provide bike lanes. The marking also alerts road users to the lateral position bicyclists are likely to occupy within the traveled way, therefore encouraging safer passing practices. Shared lane markings may also be used to reduce the incidence of wrong-way bicycling.

Example of a "sharrow" pavement marking

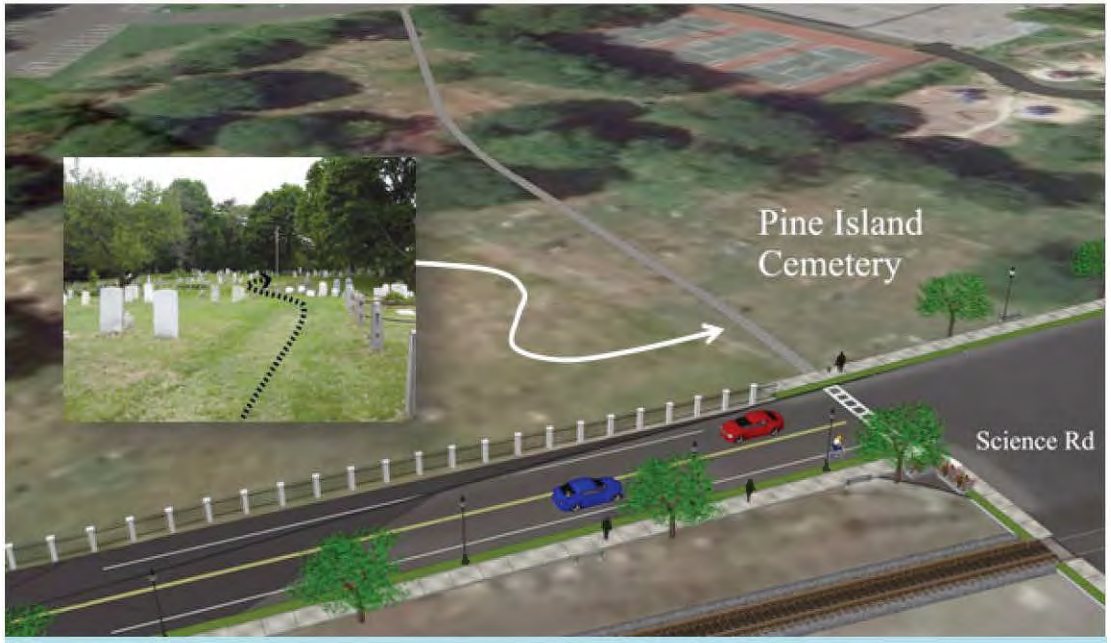
The Commerce Street/Harbor Avenue/Crescent Street route was identified as a potential shared-lane bicycle route due to it having less vehicular traffic and great aesthetic potential given its proximity to the harbor. The route was identified as a viable scenic and recreational route.

The following roads are recommended for the inclusion of marked shared-lanes:

- Commerce Street
- Harbor Avenue
- Crescent Street
- N. Water Street
- Leonard Street
- Orchard Street
- Washington Street
- Monroe Street/Hanford Place
- Wall Street
- Burnell Blvd
- Berkeley St

### Pine Island Cemetery Trail (B-2)

The NRVT currently winds through the "Devon's Place Boundless Playground" amidst playing children, a mutual inconvenience and potential hazard for all concerned. An alternative routing of the trail as it emerges from Oyster Shell park circumvents Devon's Place by traveling through a former service road within the Pine Island Cemetery. An additional benefit to routing the path through the cemetery would be to bring more visitors to this historical asset.




Pine Island Cemetery Trail

### Norwalk River Valley Trail (NRVT) Improvements (B-3)

South of I-95 the NRVT becomes especially separated from activity on the west side of the train tracks, and the isolation is perceived as a safety issue particularly at night. The route does not penetrate any of the new planned developments and therefore does not offer optimal access to the major origins and destinations.

In order to improve the sense of safety and security of the NRVT from Science Road to southern side of the underpass, it is recommended that the overall aesthetics of the area be improved through landscaping, wayfinding signage, trail markings, and improved lighting. Properties adjacent to the trail that are currently used for storage of construction materials and old railroad equipment create a poor visual environment, discouraging pedestrian and bicycle use on the path. This could be mitigated by installing a high-quality fence and landscaped features that block views of these properties. Lighting is perhaps the most important element as the path goes under the highway. A well-lit environment along with strategically placed emergency callboxes can offer a greater sense of security, especially at night. Additionally, the NRVT is missing a link on the river-side of the Maritime Aquarium. Constructing a boardwalk-style esplanade at this location will complete a waterfront connection from Heritage Park to Washington Street.

### Harbor Loop Trail (B-4)

Support efforts to complete the 3-mile Harbor Loop Trail that links Downtown Norwalk to East Norwalk. Currently, one final link remains to complete the system of on-street and off-road segments that make up this continuous loop. There is one short segment of trail that will need to be built across the undeveloped embankment of an existing property. It is recommended that the City pursue an easement along that piece of property and set aside funding for wayfinding signage and paint for the on-street segments.

### Bicycle Accommodations at Intersections (B-5)

A bicycle box is an intersection design treatment that allows bicyclists to move in front of motor vehicles that are stopped at signalized or stop-controlled intersections. It consists of an advanced stop bar for motorists, a bike lane for approaching bicyclists and an attached special waiting area for bicyclists. Bike boxes are used to make bicyclists more visible at intersections and to reduce the risk of conflicts between bicyclists and motorists. They are especially important for left-turning bicycles, since their usual travel zone is on the other side of one or more traffic lanes.

Install bicycle boxes on West Avenue at the following signalized

Bicycle boxes at signalized intersections along West Avenue

intersections: North Main Street, Orchard Street, Leonard Street and Wall Street.

### Bike Signage Program (B-6)

The presence of signage could encourage bicyclists to ride in the roadway, rather than on the sidewalk, and also educate motorists to share the roadway safely. On streets designated with sharrows, or shared lane pavement markings, inclusion of 'Share the Road' signs will promote and encourage safer bicycling. Install bike route markers and bike warning signs along these streets, as listed in B-1 on page 48.

### Bike Racks (B-7)

Bicycle parking needs to be visible, accessible, easy to use, convenient, and plentiful. Racks need to support the whole bike (not just one wheel) and enable the user to lock the frame and wheels of the bike with a cable or U-shaped lock. Parking should preferably be covered, well lit, and in plain view without being in the way of pedestrians or motor vehicles. Experience elsewhere has shown that if any of these criteria aren't met, there's a good chance cyclists won't use what is provided and will park wherever they think their bike will be safe.

The pedestrian and bicycle interface is also important to the success of the transit system. Having bicycle storage at stations and the ability for the transit vehicle to carry bicycles is essential to fostering multimodal access and intermodal transport throughout Downtown Norwalk.

Bike racks at the SoNo train station

Install well-designed bike racks near the following corridor destinations:

- 55-77 Water Street
- SoNo (Washington Street)
- Libraries in SoNo & Wall Street Districts
- Post Offices in SoNo & Wall Street Districts
- All new development sites

### Public Education Campaign (B-8)

Potential push-back against bicycle lanes and sharrows should be preemptively addressed with public education initiatives involving outlets such as Channel 12, radio, PTO Council (families), print and electronic media. It may be possible to feature different sections of bicycle routes on separate episodes or editions. Politically, information on bike lanes should be provided early on to the Planning Committee of the Common Council and also brought to the Health, Safety, and Welfare Council Committee to help advocate for use of biking to increase health, lower obesity, and decrease car trips. An additional step is to pass a requirement that before any local street is paved, the feasibility of bicycle lanes, sharrows and pedestrian infrastructure is examined. This would

provide a systematic approach to approving, funding, and integrating these facilities into the downtown's streets.

### NRVT/Loop Trail Connection from I-95 Bridge (B-9)

Within the one-mile distance between the I-95 and Wall Street bridges over the Norwalk River, there is only one pedestrian crossing: a walkway on the north side of the I-95 overpass. Currently, this walkway has an indirect connection to Mathews Park and the Loop/NRVT Trail as pedestrians and cyclists must walk or ride past the park and enter the park from West Avenue, whereas a direct connection to Mathews Park and the Loop/NRVT Trail via a sloped trail along the embankment at the south end of the park would significantly improve the connection such as that called for in Norwalk's 2005 Mid-Harbor Plan (pg. 36).

Norwalk River Valley Trail / Loop Trail Connection (Source: Google)

### Crescent-N. Water Trail Extension (B-10)

Provide a direct link between Crescent Street and North Water Street just west of the railroad tracks. This would be a bicycle and pedestrian connection only and would require coordination with the owners of the District 95/7 redevelopment property and the railroad right-of-way.

Crescent-N. Water Trail Extension (Source: Google)

### Foster a Norwalk Bicycle Advocacy Group (B-11)

Norwalk has a number of passionate bicyclists whose experience contributed to the Connectivity Plan. Currently, however, no formal bicycling group exists in Norwalk to hold events or provide input on the development of policies affecting bicycling in Norwalk. Such a group could be of service to the community as the bicycle-related goals of this plan advance. Elm City Cycling in New Haven has worked constructively with that city's department of transportation and may prove a useful model.

# Transit

Advancing Norwalk's economic development will require significant additional density, which will only be possible with higher transit utilization and improved conditions for bicyclists and pedestrians. Without quality transit, the propagation of a familiar outcome will continue: more driving, less street life, higher levels of pollution, and increased cost of providing and maintaining transportation infrastructure.

A high-frequency transit service in Downtown Norwalk can provide the linkage that the corridor is currently lacking. The "circulator" would be frequent enough to encourage people to leave their cars parked and traverse the downtown by bus. Building a transit-supportive environment is becoming increasingly attractive to developers who understand that long-term economic success depends on a balance between transportation options, density, integration of land uses, and the recognition that the desired use is not simply an address, but part of a place.

While the transit circulator can be considered the ultimate transit goal for Downtown Norwalk, there are many things that can be accomplished in the more immediate time-frame. Existing fixed-route bus service, and employer shuttles utilize West Avenue and can be modified to provide more perceived frequency in the corridor and better accessibility to the SoNo train station. As a more Complete Streets transformation occurs in the corridor, prioritization should be made for buses…something that both existing service and a new circulator can both benefit from.

### Transit Circulator (T-1)

Implement a high frequency (10-minutes or less) electric or low-emitting transit circulator service along West Avenue. Vehicles should also be relatively quiet so that the pedestrian environment along West Avenue is not negatively impacted by the presence of the circulator. The Circulator system should connect to SoNo rail station and Wheels bus hub, and circulate around each area prior to making the return trip.

Bus/bike lane, Chestnut Street, Philadelphia, PA

A high-frequency bus circulator, to be effective, will need to maintain a reliable schedule. Increased delay that could result from a reconfiguration of West Avenue (Connectivity initiative S-1) could threaten the ability of the transit vehicle to stay on-time in a consistent manner. Bus priority lanes at intersections (described in T-3) or even fully dedicated transit lanes could make a substantial improvement to the speed and reliability of bus service; however, these features must be carefully considered in light of other Connectivity goals that also prioritize bicycles and pedestrians. For instance, dedicated transit lanes would likely remove on-street parking and preclude sidewalk extensions

at key intersections. In some cities, such as Philadelphia, bicycles and transit vehicles share an exclusive lane. While there are many options available, the ultimate configuration of West Avenue must carefully consider all modes of travel and what makes the most sense for economic and community development in Downtown Norwalk.

Recent planning by the Norwalk Redevelopment Agency demonstrated the feasibility of a bus circulator for Downtown and developed a range of costs for various service options and amenities. This work should be expanded to include more detailed engineering system design to establish exactly how the service will operate, and the specific infrastructure needs to make it work.

### Enhanced Bus Stops (T-2)

At four significant transit stops along the proposed Circulator Route, provide heated shelters and real-time scheduling/route information via outdoor video displays. These stops are envisioned at the following locations:

- Washington Street
- Reed Street
- Between Butler and Orchard Street
- Wall Street

When these transit stops are designed, their potential to also serve additional connectivity purposes, such as wayfinding or covered bicycle parking, should also be explored.

### Bus Prioritization (T-3)

For the Circulator route, the transit vehicle will share a lane with regular traffic, but could be given priority over cars at key locations. For example, traffic intersections that cause large delays for buses may be candidates for queue jump lanes. These are auxiliary bus-only right hand lanes of a relatively short length (200'-500') which enable buses to bypass delayed traffic and wait for a green signal at the stop line. In many cases, the inclusion of a queue jump lane would require the removal of some on-street parking to provide the necessary space for the lane.

Queue jump lanes can also used for right turning traffic and are often

Bus queue jump lane

combined with Bus Signal Priority (BSP) so that the traffic signal knows to allow the bus through the intersection before the general traffic is given the green light.

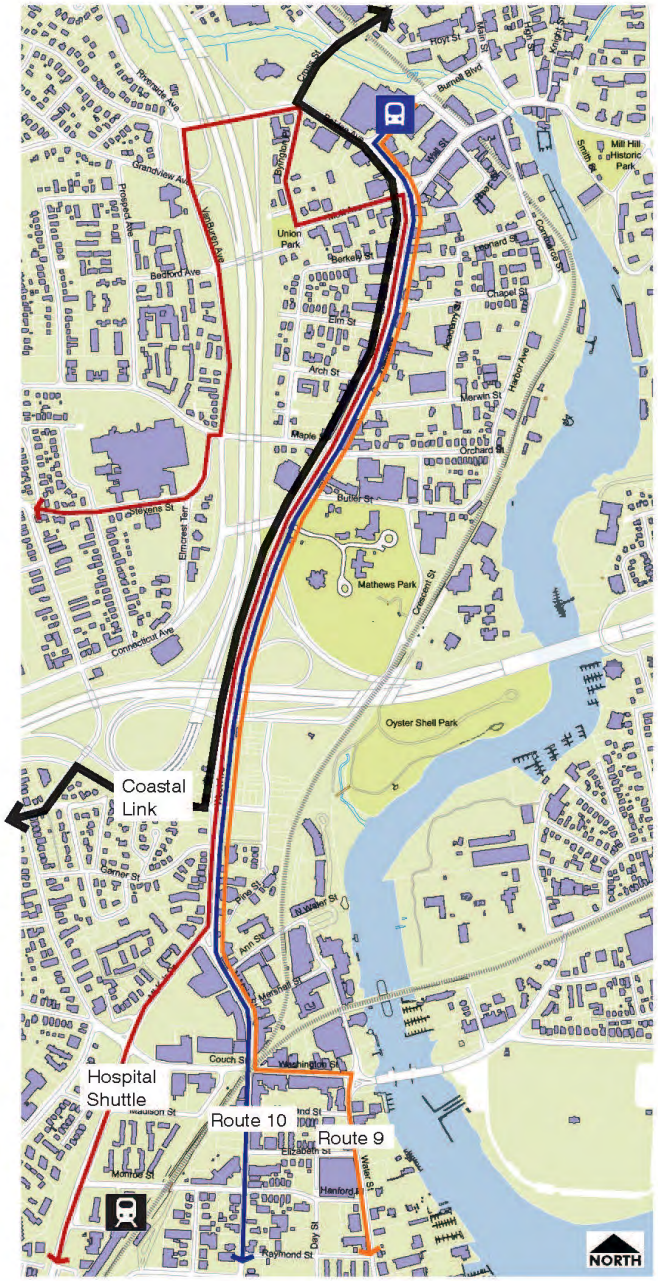
### Hospital Shuttle (T-4)

Enrich existing fixed-route bus service with smaller shuttles servicing the Norwalk Hospital. This service would add more frequency to transit along West Avenue and provide improved access to a major employer disconnected from the downtown by Route 7. Discussions with the Norwalk Transit District indicated that they may be able to refurbish some older buses that can be put into service. Supplementing the existing fixed route services on West Avenue with additional shuttles is a short-term step to achieving a transit circulator system as it can help build ridership in the corridor over time.

### Potential Fixed-Route Enhancements (T-5)

Downtown Norwalk is anchored by the WHEELS bus hub to the north and the SoNo Rail Station to the south, with WHEELS providing intra- and intercity bus service along the corridor. Numerous buses serve both the railroad station and bus hub; however, of these only WHEELS Route 10 connects the SoNo Rail Station with the WHEELS bus hub via the West Avenue corridor. The WHEELS Route 9 service overlaps with Route 10 along the West Avenue segment, and operates on a similar schedule so that both buses traverse the corridor at approximately the same time.

Regular users of the transit service have suggested that by staggering the schedules of these two routes, bus frequencies that are currently at 20-minute intervals, can effectively be reduced to 10-minute intervals. This unfortunately cannot be easily accomplished because buses operate on a pulse system; that is, all buses arrive and



leave the WHEELS hub at approximately the same time in order to facilitate transfers efficiently. Pulses are the best way to provide short connection wait times for lower frequency bus service.

It is recommended that future bus operations planning commissioned by the Norwalk Transit District take a look at opportunities to modify the Route 9 and 10 bus schedules to achieve greater bus frequency along West Avenue. It is also recommended that the Coastal Link service consider a route modification that brings it along West Avenue via Reed Street. This concept, which was advanced in the Coastal Corridor Bus Study performed by SWRPA, will also have the effect of creating greater overall bus frequencies within the corridor.



## Policy

### Design Guidelines (R-1)

Plan stakeholders recommended the development of design guidelines to improve the overall aesthetic character and visual unity of the Downtown as a whole. Particular emphasis for the design guidelines should be placed on the pedestrian, wayfinding, and streetscape elements of the Connectivity Plan. The design guidelines will ensure that an integrated design approach is followed that creates a desirable sense of place and reflects the appropriate scale, image, functionality and integration of each improvement within the context of Downtown Norwalk.

It is recommended that the City begin a process of developing and adopting design guidelines for the various initiatives outlined in this plan. There are many good models to follow, and an overview of the Quincy, Massachusetts Design Guidelines are provided as an example in the appendix of this report. It is anticipated that the Norwalk DPW will be establishing street design guidelines as an outcome of the City's Traffic Management Plan, but those will focus more on the transportation function of the streets.

### Parking Parking (R-2)

These sections will be completed after the Parking Study is completed

### Event Programming (R-3)

An important cause and consequence of well-connected downtowns is outdoor events. Norwalk's downtown possesses a number of parks and open spaces, many of which have been the beneficiaries of good planning work over time, but few of which have become active places of real interest to the community. An often-overlooked aspect of such spaces that is nevertheless critical to their success is programming and events.

Beyond the physical design for how such spaces could be used,

the community must plan for their actual use – identifying and cultivating user groups for regular week-in and week-out usage, and also monthly, semiannual, and annual events throughout the four seasons. Accomplishing this will need to begin as a deliberate, cold-start initiative, tapping the expertise and resources of the city's arts and cultural organizations to animate what is too often 'dead' space; however, as the corridor grows into baseline conditions, the issue may become one of fairly and efficiently managing the process whereby individual performers, concerts, and other events seek to utilize downtown's public space so as to evenly distribute activity throughout the corridor and avoid conflicts.

Norwalk Seaport Association's Oyster Festival

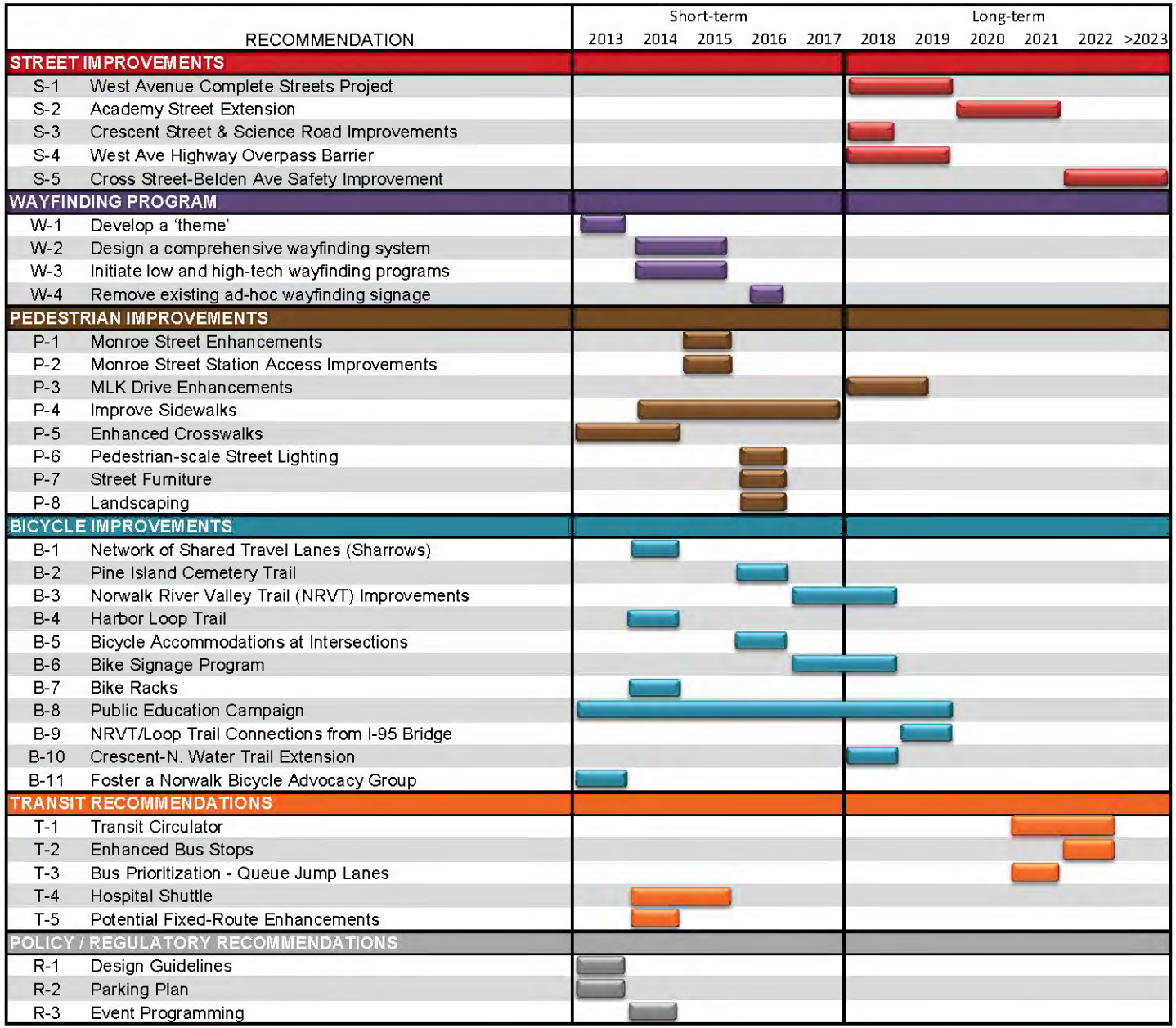
# prioritization of recommendations

The Connectivity Plan process, which included a broad stakeholder and public outreach component, developed a list of recommended improvements for Downtown Norwalk. The elements of the plan have been organized by Connectivity Initiative; however, a number of the elements are inter-related and are dependent on one another for implementation. The Initiative Timeline illustrated to the right provides a conceptual implementation schedule that spans the next 10 years. The short-term and long-term prioritization of initiatives was decided during a meeting of the Steering Committee and members of the public. Improving the pedestrian environment, establishing a comprehensive wayfinding system, and developing a set of design guidelines for transportation improvements were identified as initiatives that should be implemented first, while the remaining initiatives should be advanced over the more intermediate and long-term timeframes.

The Norwalk Redevelopment Agency is committed to overseeing and leading the collaborative effort necessary to move these recommendations forward on a local, regional, or state level. They will be working in coordination with the existing local agencies (Planning and Zoning, City Staff, Parking Authority, DPW, regional transit agencies, etc.) to facilitate implementation. These agencies should use this master plan to continue local support, pursue funding sources, and work with implementing agencies, including CTDOT, to forward elements of the plan. The NRA will also convene an annual meeting of key representatives to review the status of the various plan elements with respect to their implementation.

The following pages tabulate each recommended element of the plan along with a conceptual cost estimate for implementation. Conceptual cost estimates reflect a planning level of detail and will likely be different after more rigorous engineering design of the improvements is conducted. To be conservative, a 40% contingency has been added to all capital costs. Right-of-way and environmental costs (where applicable) are not included in the estimates. Costs for additional planning or engineering are estimates based on similar efforts conducted elsewhere.

## Initiative Timeline



## Conceptual Cost Estimate

| | RECOMMENDATION | ORDER-OF-MAGNITUDE COST |
|---|---|---|
| | STREET IMPROVEMENTS | |
| S-1 | West Avenue Complete Streets Project | $745,000 |
| S-2 | Academy Street Northern Extension<br>Academy Street Southern Extension Additional<br>Utility Infrastructure Costs | $389,000<br>$1,266,000<br>$1,133,000 |
| S-3 | Crescent Street & Science Road Improvements | $263,000 |
| S-4 | West Ave Highway Overpass Barrier | Needs additional study |
| S-5 | Cross Street-Belden Ave Safety Improvement | Needs additional study |
| | WAYFINDING PROGRAM | |
| W-1 | Develop a 'theme' | Needs additional study |
| W-2 | Design a comprehensive wayfinding system | Needs additional study |
| W-3 | Initiate other low and high-tech wayfinding programs | Needs additional study |
| W-4 | Remove existing ad-hoc wayfinding signage | Needs additional study |
| | PEDESTRIAN IMPROVEMENTS | |
| P-1 | Monroe Street Enhancements | $525,000 |
| P-2 | Monroe Street Station Access Improvements | $48,000 |
| P-3 | MLK Drive Enhancements | $351,000 |
| P-4 | Improve Sidewalks | $865,000 |
| P-5 | Enhanced Crosswalks | $1,418,000 |
| P-6 | Pedestrian-scale Street Lighting | $633,000 |
| P-7 | Street Furniture | $36,000 |
| P-8 | Landscaping | $301,000 |

| | RECOMMENDATION | ORDER-OF-MAGNITUDE COST |
|---|---|---|
| | **BICYCLE IMPROVEMENTS** | |
| B-1 | Network of Shared Travel Lanes (Sharrows) | $68,000 |
| B-2 | Pine Island Cemetery Trail | $14,000 |
| B-3 | Norwalk River Valley Trail (NRVT) Improvements | $173,000 |
| B-4 | Harbor Loop Trail | $14,000 |
| B-5 | Bicycle Accommodations at Intersections | $15,000 |
| B-6 | Bike Signage Program | $96,000 |
| B-7 | Bike Racks | $12,000 |
| B-8 | Public Education Campaign | Needs additional study |
| B-9 | NRVT/Loop Trail Connection from I-95 Bridge | $140,000 |
| B-10 | Crescent-N. Water Trail Extension | $25,000 |
| B-11 | Foster a Norwalk Bicycle Advocacy Group | Needs additional study |
| | **TRANSIT RECOMMENDATIONS** | |
| T-1 | Transit Circulator | $3.2 million for vehicles<br>$284,000 for stations<br>$1.5 million/yr operations |
| T-2 | Enhanced Bus Stops | $1.5 million |
| T-3 | Bus Prioritization - Queue Jump Lanes | $750k-$1.5 million |
| T-4 | Hospital Shuttle | Needs additional study |
| T-5 | Potential Fixed-Route Enhancements | Needs additional study |
| | **POLICY / REGULATORY RECOMMENDATIONS** | |
| R-1 | Design Guidelines | Needs additional study |
| R-2 | Parking Plan | Needs additional study |
| R-3 | Event Programming | Needs additional study |