



## **APPENDIX TO SECTION 1**

### **City-wide Comprehensive Traffic Management Plan**

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- Members of the Consultant Team
- Members of the Transportation Advisory Group
- Meeting notes from the Orientation Tour
- Meeting notes from the Public Information Meeting
- Summary of Stakeholder Interview
- Matrix of Stakeholder Interview Comments
- Matrix of On-Line & Electronic Comments Received
- Traffic Calming Summary Matrix



## Consultant Team

### City-wide Comprehensive Traffic Management Plan

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#### List of Members on the Consultant Team

- VANASSE HANGEN BRUSTLIN, INC. (VHB)  
Vahid Karimi, Project Director  
Robert Nagi, Project Manger  
Ana Fill  
Nicolette Hastings  
David Giel
- FUSS & O'NEILL  
Ted DeSantos, Principal  
MMark Vertucci, Project Manager  
Tess Miklove
- WALKABLE AND LIVABLE COMMUNITIES INSTITUTE, INC.  
Dan Burden  
Sarah Bowman  
Kelly Morphy
- HELEN NEUHAUS & ASSOCIATES  
Helen Neuhaus





## Transportation Advisory Group

### City-wide Comprehensive Traffic Management Plan

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#### List of Members on the Transportation Advisory Group

- DEPARTMENT OF PUBLIC WORKS  
Harold Alvord, Director  
Michael Yeosock  
Fred Eshraghi  
Richard Linnartz
- COMMON COUNCIL  
Richard Bonenfant  
Kelly Straniti  
Laurel Lindstrom
- PLANNING AND ZONING  
Michael Greene
- POLICE DEPARTMENT  
Thomas Kulhawik, Deputy Chief
- REDEVELOPMENT AGENCY  
Timothy Sheehan
- CONNECTICUT DEPARTMENT OF TRANSPORTATION  
Carla Iezzi
- SOUTH WESTERN REGIONAL PLANNING AGENCY  
Sue Prosi



## City of Norwalk Orientation Tour

Friday December 17, 2010 10:00 AM - 2:00 PM  
City Hall Norwalk, CT

### City-wide Comprehensive Traffic Management Plan

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#### **Attendance**

##### ***City of Norwalk***

<b><u>Attendee</u></b>	<b><u>Department/Company</u></b>
Harold Alvord	Department of Public Works (DPW), Director
Richard Bonenfant	Common Council
Andrew Conroy	Common Council
Fred Eshraghi	DPW
John Frederick	DPW
Laurel Lindstrom	Common Council
Richard Linnartz	DPW
Thomas Kulhawik	Police Department, Deputy Chief
Timothy Sheehan	Redevelopment Agency
Michael Yeosock	DPW

##### ***Consultant Team***

<b><u>Attendee</u></b>	<b><u>Department/Company</u></b>
Dan Burden	Walkable Communities
Ted DeSantos	Fuss & O'Neill
Tess Milkove	Fuss & O'Neill
Rob Nagi	VHB, Consultant Team Project Manager
Nicolette Hastings	VHB
Vahid Karimi	VHB

#### **Meeting Summary**

This meeting was a bus tour intended to introduce the consultant team to the City of Norwalk. At the beginning of the tour everyone introduced themselves and the meeting was called to order.

Mr. Alvord served as the main narrator on the orientation tour, with input from other City representatives at strategic locations. At the beginning of the tour, route maps were distributed to meeting attendees (see attached) outlining the tour route, areas/roadway segments of interest, and points of interest.



### **Area A: East Norwalk Station/East Avenue**

The tour began at the Norwalk City Hall, travelled south on East Avenue, and made a stop near the East Norwalk MTA station. The following observations were made in this section of the tour.

#### *I-95 Exit 16 (East Norwalk)*

This interchange was noted as a long-time concern for the City, particularly during a recent incident on the I-95 mainline when traffic re-route through Norwalk. Previous studies were conducted to improve this interchange but there currently are not any concrete plans. Incident management plans were noted to be outdated (15+ years old) and in need of revision.

#### *East Avenue*

There is an undesignated portion of East Avenue which connects Route 53 to Route 136.

Ms. Lindstrom prefers to see context sensitive design (CSD) treatments as part of an East Norwalk village center and would like it to be walkable and pedestrian oriented.

#### *East Norwalk Train Station*

Mr. Alvord discussed the DOT/Metro North project currently underway for the railroad underpass. The existing 2-lane underpass will be replaced with a 4-lane underpass and the vertical clearance will be increased. Platforms will be extended to accommodate length of trains. Mr. Alvord went on to describe how the underpass itself is a bottleneck along East Avenue, especially during I-95 incidents where traffic exits the interstate and travels through City roads.

The station was noted as a pedestrian safety issue and Deputy Chief Kulhawik noted that pedestrian accidents are common and there have been fatalities near the station.

Mr. Alvord discussed the parking situation on the station. The parking on the south side closest to platform is privately-owned (~80 spaces). The Norwalk parking authority owns approximately 50 spaces furthest from the platform. Overflow parking is currently rented from St. Thomas Church.

Ms. Lindstrom noted that residents are concerned that there will be increased truck traffic through neighborhoods with the upgraded underpass. Today trucks use Fort Pt. Road but with increased clearance, they will be able to use the East Avenue underpass.

#### *Monroe Street underpass*

Mr. Alvord discussed that the state is reconstructing the Monroe Street underpass next summer. Today, trucks cannot get to South Norwalk. Under the proposed plan they will be able to either I-95 Exit 15 or Exit 16 to access South Norwalk.

### **Area B: Calf Pasture Beach/Strawberry Hill Avenue**

The tour continued south to Gregory Boulevard and Calf Pasture Beach. The following observations were made during this section of the tour.

#### *Gregory Boulevard*

Gregory Boulevard was recently repaved and striped as one 12-foot lane and one 10-foot shoulder. There is no current parking restriction. Mr. Eshraghi noted that this improvement resulted in a reduction in

average speed of approximately 5 MPH. One attendee questioned whether Gregory Boulevard could be a safe/appropriate route for bikes.

Mr. Burden noted the enhanced crosswalk markings along Gregory Boulevard. Mr. Linnartz stated that this treatment is standard practice in the City.

#### *Calf Pasture Beach*

This recreational area's primary use is during seasonal events/festivals, including the largest boat show in New England. Mr. Linnartz noted the complaints about speeding. The DPW installed a countermeasure where the signal will change to red if a vehicle is detected to be speeding.

#### *Strawberry Hill Avenue*

Mr. Alvord noted that the Strawberry Hill Avenue railroad underpass has clearance issues.

A concept for Strawberry Hill Avenue traffic calming plan was developed by Nordblom 14 years ago as part of an office development project. The DOT wants to reconstruct the roadway as part of safe routes to school (SRTS) project (there are three schools along this route).

It was noted that sidewalks in the area appear to be limited in width. A distinction between sidewalks and walking paths was made, but acknowledged that it is common for these paths to sometimes be as little as 2 feet in width. Participants were 'warned' that this is something that will be seen elsewhere in town as a means of addressing pedestrian needs while keeping in context with the surrounding environment.

Mr. Linnartz discussed speed warning signage installed by the City that had to be removed. The sign resulted in vehicles "racing" to see how fast they can go.

#### **Area C: Route 1 and "Uptown"**

The tour continued on Route 1 and travelled around Wall Street and the Uptown neighborhood. The following observations were made during this section of the tour.

#### *Route 1*

Mr. Alvord noted safety and operations issues at the intersection of Route 1 at Route 53. He noted that it is very difficult to cross this intersection as a pedestrian. There is a DOT project to add lanes on Route 1 that is approximately four years out. To improve the pedestrian accommodations along Route 1, the City wants to add exclusive ped phases to signals but is encountering resistance from the DOT.

It was pointed out that to add lanes along this corridor would, at best, have a visual/aesthetic impact on adjacent properties and, at worst, directly impact businesses on the abutting properties along Route 1.

#### *"Uptown"*

The Center of Norwalk is known locally as "Uptown". Mr. Sheehan discussed two proposed developments in the area: the Wall Street Place development (housing with ground floor retail) and the Head of the Harbor redevelopment project. He went on to describe that this section of the City is a special zoning district.

Intersections/Roadways in Uptown that were discussed include:

- West Avenue at Wall Street – State project planned so the City doesn't want to fund improvements.

- Wall Street at East Avenue – Ms. Lindstrom noted that this intersection is called “Washington Circle” and that it used to be a traffic circle. The intersection is a signal now and the potential of a roundabout was discussed.
- Main Street at Wall Street – There is a City project to reconstruct the intersection.
- The City is currently undertaking a West Avenue corridor project.

#### **Area D: West Rocks Road and Route 7**

The tour continued north on West Rocks Road, south on Route 7 and then north on “Super 7”. The following observations were made during this section of the tour.

##### *West Rocks Road*

Mr. Linnartz discussed the character of West Rocks Road. There are two schools along the roadway and speeding has been noted as an issue. Factors contributing to high speeds include the design speed of 40 MPH, but a posted speed limit of 25 MPH; and wide travel lanes (15 feet) and wide swaths of pavement (40 feet south of Merritt; 26-30 feet north of Merritt). The potential to add bike lanes along West Rocks Road was discussed.

##### *Route 7/Main Avenue*

The Route 7/Main Avenue cross-section north of the Merritt Parkway is four lanes. Along this stretch of road, Ms. Lindstrom noted that left-turns into private drives are difficult and cause congestion for through traffic. Queuing along Main Avenue southbound for the right turn onto Grist Mill Road was also noted as problematic.

Several problematic conditions were noted by Mr. Alvord and other City representatives at the Route 7/Main Avenue interchange with Route 15/Merritt Parkway (Exit 40A and 40B):

- Local road connections are problematic
- Creeping Hemlock stop sign causes issues
- Safety noted as an issue
- There has been a lot of focus by the DOT and the City on improvements to this interchange
- Numerous starts/stops for the project due to interchange spacing, wetlands, property impacts
- The proposed improvements faced a lot of opposition
- No final design developed/approved

Access management was noted by Mr. Linnartz as the #1 issue for Route 7/Main Avenue south of the Merritt Parkway. There is an access management study on the books for this roadway. It should be noted that the signals are under state control.

Route 7/“Super 7” is a limited access roadway and its northern terminus at Grist Mill Road has sight distance issues, particularly at night. Mr. Alvord described the City's desire for the signal to rest on green for Grist Mill Road at night so travelers NB on Route 7 see a red light to help prevent crashes.

#### **Area E: Silvermine Neighborhood/Norwalk Community College/Route 1**

The tour then continued west through the Silver Mine neighborhood and south on Silvermine Avenue/Riverside Avenue. The route next travelled through West Norwalk by continuing around the Municipal Golf Course via North Taylor Road, Fillow Street, and Richards Avenue. The tour passed the

Norwalk Community College and turned left on Route 1/Connecticut Avenue. The following observations were made during this section of the tour.

#### *Silvermine Neighborhood*

Mr. Alvord discussed that several roadways in the Silvermine neighborhood, including Perry Avenue and River Road are used as cut-through streets to New Canaan/Wilton.

#### *Riverside Avenue*

The Riverside Bridge was recently widened by the DOT.

Mr. Alvord noted that the eastern portion of Grandview Avenue is closed to traffic during school peak hours. Jefferson Elementary School (magnet) causes numerous vehicle/pedestrian conflicts and congestion with the parking lot located across the street from the school.

The Norwalk Multipurpose Trail parallels Route 7 to the east and there are plans to expand north to the Wilton Town Line.

It was noted that pedestrian 'paths' ranging in width from 2-3 feet were common in this area of the community and that there were some gaps in the pedestrian environment in and around the Silver Mine/Riverside area. It was suggested that these paths were better than having the children walk in the streets, but also acknowledged that they do not meet ADA definitions of accessible routes.

#### *Norwalk Community College*

Mr. Sheehan discussed that the Norwalk Community College currently has 6,000 students enrolled and the new School of Nursing is under construction. Mr. Alvord added that the campus is divided by Richards Avenue and this has created east-west pedestrian mobility issues. In-pavement lighting was previously installed on Richards Avenue but was not properly maintained by the College. Currently, a traffic officer is stationed at the main crosswalk. An elevated pedestrian walkway/bridge was noted as a potential option.

Mr. Alvord continued to discuss the existing parking crunch and issues with students parking in neighborhood. Deputy Chief Kulhawik added that the Norwalk Police Department regularly patrols the adjacent neighborhood and that issues with illegal parking have been reduced through enforcement of parking regulations.

#### *Route 1/Connecticut Avenue*

Route 1/ Connecticut Avenue is a retail corridor that has been improved by development projects over the years. However, pedestrian and safety issues still exist. The DOT has a project to add turning lanes/pedestrian accommodations along Route 1 and auxiliary lane between Exit 14 and Exit 15 on I-95.

#### **Area F: Rowayton**

The tour then continued west along Flax Hill Road, south on Rowayton Avenue, and east on Witch Lane. The following observations were made during this section of the tour.

Mr. Alvord described the major north-south connectors through the Rowayton area of Norwalk are used by cut-through traffic avoiding I-95 (up to 6,000 vehicles per day). He noted that the cross-section and character of Rowayton Avenue are different north and south of the Rowayton MTA station and the on-going bridge reconstruction/footbridge construction on Route 136.



Mr. Alvord discussed issues with the Highland Avenue at Witch Lane intersection, including difficult turning maneuvers for buses/trucks. He described how issues at the intersection have caused cut-through traffic through the Old Field Road neighborhood.

### **Area G: South Norwalk/“SoNo”**

The final leg of the tour travelled north on MLK Drive through South Norwalk and then through the SoNo district of the City prior to its conclusion at City Hall. The following observations were made during this section of the tour.

MLK Drive was repaved with ARRA funds last year to have a four-lane cross-section. The roadway has a speed limit of 40 MPH.

Mr. Alvord noted that the SoNo train station is the only station on MetroNorth owned by a municipality and that the station is used as a model MTA Station.

Mr. Alvord noted that the Washington Street drawbridge is raised 2-3 times per day for deliveries.

### **General Comments**

The following general comments were made throughout the tour.

- **Footpaths** – Mr. Alvord described the 45 miles of footpaths installed in the 1950s. The Board of Education extended these paths. He stated that many are very narrow (2 to 3 feet wide) and are in disrepair. Mr. Bonenfant noted that footpaths through the woods have been noted as a security issue. The City wants to rehab paths because there has been a rise in number of students walking to school.
- **Schools** – There are 19 schools in the City and the City recently obtained grant for Safe Routes to Schools (SRTS) program and some projects are being considered.
- **Functional Classification** – Mr. Alvord stated that there is a need to look at how roadways are classified. Yew Street is an example where the road is classified/operates as a collector but is not designed as such.
- **East Avenue** – Mr. Alvord asked that the team exclude East Avenue from our thinking because they have an active project.
- **Bicycle/Pedestrian Master Plan** – The Planning and Zoning Department is creating Bicycle/Pedestrian Master Plan – currently underway.
- **Landscaping** – The City adopted a spot program for island landscaping at 25 to 30 locations.
- **Paving** – There is currently a two year paving moratorium for utilities and companies can pave in emergencies only.
- **Pavement Markings** – The City prefers latex, epoxy markings as they have found thermoplastic markings to be too slippery.
- **Private Streets** – Mr. Alvord noted that there are over 140 private streets in Norwalk.
- **Parking** – The City has a parking authority. Parking can be congested in the SoNo area of the city at times as 50 Washington Street/8 screen movie theater were noted as primary generators of parking in the area. It was also noted that on residential neighborhoods, vehicles park on the sidewalks due to narrow street widths.

- **95/7 Development Project** – West Avenue is being widened for the 95/7 development project. The State contributed \$20 million and the City contributed \$5 million. The development project recently stalled.
- **SoNo Collaborative** – There is a positive focus on the SoNo Collaborative, a collection of owners of several of the district's restaurants.

The meeting concluded at approximately 2:00 PM at City Hall. Mr. Alvord thanked the representatives of the City for their contributions. Mr. Nagi, Mr. DeSantos, and Mr. Karimi thanked the City for the tour and stated that it was very informative and useful.



## City of Norwalk Public Informational Meeting #1

Monday March 28, 2011 6:00 PM - 8:00 PM  
Norwalk City Hall :: Community Room

### City-wide Comprehensive Traffic Management Plan

#### **Attendance**

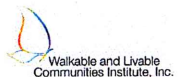
*Public (see attached sign-in sheet)*

#### **City of Norwalk**

<u>Attendee</u>	<u>Department/Company</u>
Hon. Richard Moccia	Mayor, City of Norwalk
Harold Alvord	Department of Public Works (DPW), Director
Richard Bonenfant	Common Council
Andrew Conroy	Common Council
Laurel Lindstrom	Common Council
Michael Yeosock	DPW
Fred Eshraghi	DPW
John Frederick	DPW
Richard Linnartz	DPW
Thomas Kulhawik	Police Department, Deputy Chief
Timothy Sheehan	Redevelopment Agency

#### **Consultant Team**

<u>Attendee</u>	<u>Department/Company</u>
Dan Burden	Walkable Communities
Craig Yannes	Fuss & O'Neill
Tess Milkove	Fuss & O'Neill
Rob Nagi	VHB, Consultant Team Project Manager
Ana Fill	VHB
Vahid Karimi	VHB
Helen Neuhaus	Helen Neuhaus & Assoc.
Anita Wright	Helen Neuhaus & Assoc.



## Break-out Station Summaries

### Automobiles & Trucks

General topics discussed at the Automobiles & Trucks station include:

- Re-evaluate truck routes to direct trucks around the city rather than through the city
- Enforce speed limits with consistency to improve safety and bring money in to Norwalk
- Aim for a more uniform traffic environment including improved signal coordination and standardized signage
- Provide the facilities and maintenance necessary for a walkable community
- Re-evaluate intersections and corridors to improve coordination in the traffic system
- On-going projects should be able to fit into the framework of the comprehensive plan that develops
- Lack of truck restrictions in the Flax Hill Road area; UPS fleet/construction vehicles use the road.
- Lack of police enforcement. One commenter believes that better enforcement in Danbury forces traffic into Norwalk.
- Lack of response from the City, particularly the DPW
- Lack of sidewalks on Keeler Avenue and Flax Hill Road. Resident was the victim in a pedestrian accident on Keeler Avenue. Although resident qualifies for transportation assistance, he can't get to the bus because there are no sidewalks
- Child was killed in front of the school nearby; two other pedestrian deaths in the area. (Keeler Avenue)
- Lack of parking in downtown Norwalk

The following outlines other problems, issues, and opportunities that were discussed at this station in greater detail.

### *Street Specific Issues*

- Main Street
  - Two-way center lanes for left turns were suggested to improve traffic flow and safety
- Wilson Avenue and Woodward Street
  - There is a high volume of trucks at this intersection
  - A recycling station may be located here and will further impact traffic and truck issues
- Fairfield Avenue
  - High volume of trucks on this road; suggestion: move truck traffic to Reed St.
  - Trucks are ruining the roadway
  - Garner Street between Fairfield Avenue and East Avenue is too narrow, likely due to on-street parking

- Martin Luther King Drive
  - This roadway should be developed into a major roadway as an alternative to East Avenue
  - East Avenue could be changed in terms of classification
  
- Wall Street and West Avenue
  - Parking is lacking at this location and it is not priced appropriately
  - The intersection is host to many destinations but the roadway is poorly defined
    - Post Office
    - Library
    - Court House
  
- East Avenue
  - The ConnDOT project to widen the southern portion of East Avenue is not supported by the residents; East Norwalk residents would like a moratorium on roadway projects until the Norwalk TMP is finished.
  - Lack of truck restrictions on the southern portion of East Avenue – UPS trucks, garbage haulers and landscapers use East Ave; residents think trucks should be routed to MLK Boulevard
  
- Route 1
  - A representative from SWRPA discussed three 3 corridor studies for Route 1 on the SWRPA website.
  - Although these studies are not in Norwalk, some of the recommendations address problems that are present on Route 1 in Norwalk

*Transit*

- Overall, transit is not accessible enough to be useful
- At the MBTA commuter rail station staircases are not usable due to safety concerns

**Walkways, Bicycling, & Transit**

General topics discussed at the Walkways, Bicycling, & Transit station include:

- Adopt a Complete Streets Policy, and create a Complete Streets Design Guide
- Provide a transportation equity policy
- Provide an ADA Master plan and policy
- Provide an updated sidewalk repair and replacement policy
- Provide an updated snow removal policy that works
- Adopt land use policies and practices that allow more people to walk
- Street design guidelines are needed in order to support new types of streets that are needed

The following outlines other problems, issues, and opportunities that were discussed at this station in greater detail.

*Bicycling Problems, Issues, and Opportunities*

- Motorists have low awareness of bicyclists
- A number of crossings were identified as being difficult and dangerous: crossings of I-95, Post Road, Connecticut Avenue (Route 1), West Avenue, Main Avenue, Route 7
- Use techniques that are proving successful in other places, especially Holland
- Provide incentives for added bicycling through many bicycle facilities tools
- A bicycle master plan is underway, and it will be folded into this project
- Calf Pasture is a 4-lane road with median, access control; this can serve as a good model for addressing bicycling, since it is a common destination
- Bike path connectivity is poor
- Loop Trail is underway and is 50-70% completed; need to focus on missing links
- Need more access to trail from many directions

*Pedestrian Problems, Issues, and Opportunities*

- A pedestrian master plan is needed
- Need for a Citywide Sidewalk Management Plan that recognizes and respects the need for different standards (greater flexibility) in sidewalk requirements in rural and urban parts of the City.
- Intersections are 'virtually uncrossable'
- Narrow sidewalks are almost universal
- Stroffolino Bridge is especially bad
- Sidewalks on only one side of many streets
- Many sidewalks are attached to the curb (no setback)
- Many motorists park on sidewalks
- Many sections of sidewalk with guard rail have the rail on the outside, creating danger and discomfort
- Missing sidewalks (many places, but especially)
  - Route 1
  - Roton Avenue
  - West Avenue
  - McKinley and other areas around the park
  - Highland Avenue (136)
  - Rowayton Avenue (missing on one side, attached and narrow on other side)
- Need new policies that do not punish people for improving sidewalks (overly restrictive rules)
- Couch Street (Golden Hill Neighborhood) (missing sidewalk portions)
- Fairfield avenue
- Need neighborhood vision for walking and bicycling priorities
- Need guidelines for various geographic areas (rural, versus, suburban versus urban locations)
- Street crossings (All roadways, but especially higher volume, multiple lane roadways need crossings)
  - Route 1
  - West Avenue
  - Route 7
  - Main Avenue
  - All other major roadways
  - As a general rule there are too few marked crossings

- Many crossings are poorly marked
- Many important places for crossings do not exist
- Some crossings are very well marked (exemplary, and should be copied)
- ADA barriers (almost everywhere)
  - Lack of a master plan
  - Lack of training, audits or other means to prioritize and address needs
    - Driveways
    - Intersections
    - Old sidewalks that are up heaved
    - Lack of sidewalks
    - Semi-rural areas
    - Commercial areas
    - Freeways

*Access Issues*

- Lack of Access to Merritt 7 Train Station (Danbury Line)
- Lack of Access to Route 7
- West Avenue- Busy but a good place to walk. Comment came from a "commuter walker"

*Transit Problems, Issues, and Opportunities*

- Narrow sidewalks, if any sidewalks at all
- Snow is not removed around transit stops
- Poor/lack of sidewalks to transit
- Dangerous crossings, or lack of crossings
- Uncomfortable places to wait (cold, wet, windy)
- Poor access to trains by foot or bike (Danbury Line, Merritt Station)
- Cannot get across key roadways
  - Route 7
  - West Avenue
  - Freeways

*Schools Problems, Issues, and Opportunities*

- Improved street lamps
- Speeding in front of schools was noted as a serious issue. One person commented that schools in Norwalk are on 'straight routes' which encourages speeding.
- Poor access to Highland school and all others schools by foot (and bike)
- A master plan for Safe Routes to School is needed
- Strawberry Hill school has a grant for Safe Routes to School, but implementation is a problem

*Institutional and Technical Barriers*

- State super-charges for simple school improvements, making solutions impossible to implement
- Implementation of Master Plans (for neighborhoods)
- Funding is not identified or set aside for active transportation
- Route 1 changes; sidewalk money was dropped from current project (this may be corrected soon)

*Connectivity*

- Connectivity Plan is needed
- Connecting South Norwalk to the rest of the City was cited as a big issue; I-95 creates difficulty.
- It was noted that a successful connectivity plan for Route 1 just needs a few additional synchronized signals.
- Several persons questioned whether Crescent Street could be re-opened, noting that it runs parallel to and used to serve as an alternative to West Street. One person asked whether Crescent Street could be widened and reconnected to Reade Street. The area was cited as having serious safety issues. It was also noted that improvements might be difficult because of the proximity of an historic cemetery.

*Other Problems, Issues and Opportunities*

- Lack of bicycle parking at work centers, transit civic buildings, most retail
- Use techniques that are proving successful in other places, especially Holland
- Need for traffic calming in most neighborhoods
- Connectivity (especially South Norwalk with Norwalk)
- Crescent Street is an opportunity for connectivity
- West Avenue Transit Station
- Highland and all of the schools
- Signage and wayfinding
- Clear design guidelines that incorporate needs of all people, all modes
- Do not punish neighbors for efforts to use pavement as an immediate way to get walkways
- Pedestrian zones should be studied
- Poor lighting in many locations, and in many crossings

**Neighborhood Issues**

General topics discussed at the Neighborhood Issues station include:

- Commercial traffic impacting residential streets
- Provide for updated pedestrian sidewalk facilities, crosswalks, and handicap ramp (ADA compliance)
- Provide curbing repair and replacement policy
- Speed enforcement issues and development of traffic calming measures
- On-street parking policy and enforcement
- Provide bicycle facilities along residential routes





Issues at the following locations were discussed in greater detail.

#### *Meadow Street to Wilson Avenue*

- Significant commercial traffic using residential streets during all hours of the day
- Lack of sidewalks and narrow pedestrian paths at many locations; crosswalks and handicap ramps at many intersections are inadequate
- Broken street curbs, lack of snow shelf encouraging motorists to park on sidewalks
- mixed area (light industrial/residential)
- report that recycling company may be locating to area

#### *Fairfield Avenue to Reed Street*

- Extremely heavy truck traffic circulating through residential streets causing major wear and tear on street pavement
- Lack of weight limit restriction on trucks using local street; lack of enforcement is the major issue
- Poor drainage and pavement conditions on many local roads
- Excessive vehicle speeds during off-peak hours
- Lack of curbing, narrow sidewalks encouraging motorists parking on driveway aprons and sidewalks especially in the immediate area of Governor Street
- Lack of sidewalks along Golden Hill Road
- Motorists are not aware of bicyclists on the road

#### *East Avenue*

- The roadway is used by heavy commercial traffic as a connection to South Norwalk
- The East Avenue widening of the railroad bridge abutment to increase capacity (4-lane road) will further encourage more truck traffic to South Norwalk

#### *Steward/Stevens/Magnolia*

- There are no crosswalks at many locations
- Stop signs are missing at many intersections
- School bus drop off areas at many locations are inadequate

#### *Keeler Avenue*

- There is great concern for pedestrian safety along Keeler Avenue
- Poor sidewalk conditions and no crosswalks
- Blind roadway curve with a crest limits visibility
- Speed limit sign fell and has not been replaced
- High volume of cut through traffic and excessive speed of vehicles are major concerns

#### *East Avenue/Wall Street/Morgan*

- Great candidate for design of a roundabout configuration and a "gateway" to the neighborhood

#### *Golden Hill*

- Staircase from Flax Hills Avenue - good pedestrian connection, but afraid to use stairs. If sidewalks were fixed, more people would use stairs.
- Cedar Street (between Connecticut and Fairfield Avenues) - fixing two bridges over 1-95. Street (about 200') will be reconfigured, sidewalks fixed, merchants involved in project, neighborhood to take care of landscaped areas. Grant received to do work.
- Zoning enforcement issues
  - Several homes are overcrowded with 4-5 families per home generating significant amount of traffic and parking issues
  - Cars are parking in no-parking zones, on sidewalks, and in yards
  - The parking issues and lack of enforcement have led to reduced sight distance from driveways and side streets
  - A few years ago, the Golden Hill Neighborhood Association provided the City with photos of the 450 homes in the neighborhood with estimates on the number of families living within each

#### *Spring Hill/Hospital Area*

- Stuart Avenue/Stevens Street/Phillips Street/Magnolia Avenue intersection
  - 5 legged intersection with "Adopt-a-spot" in the center
  - School buses (serving multiple schools) drop children off at intersection (no crosswalks, no crossing guard); children disperse in all directions
  - Group of stores (deli, convenience store, liquor store) at intersection also draw pedestrian traffic to area
  - Lack of signs and confusing geometry leads to traffic traveling the wrong direction around the Adopt-a-spot
  - Adopt-a-spot has seating area with sidewalk, but no clear pedestrian connection to surrounding sidewalks
  - Adopt-a-spot group would be willing to lose location, if necessary, to improve safety at intersection.
- Stuart Avenue/Truman Street/Benedict Street intersection
  - 5-legged intersection
  - Truman Street changed to one way and stop sign added to intersection, which has improved safety in area
  - Difficult sight line (looking south on Stuart) due to stone wall and fencing. Several years ago road was reconfigured and stone wall built. Wooden fence sits atop wall.
  - Suggestion: dead end Truman Street at Stuart Avenue. Provide access to Truman Street via Magnolia Avenue. If adopt-a-spot location was removed from Stuart/Stevens/Phillips/Magnolia intersection, it could be relocated to this area if Truman Street becomes a dead end.

#### *Flax Hill*

- Concerns with pedestrian safety in the area
- In the past few years three pedestrian deaths have occurred
- Three local schools generate a significant amount of young pedestrians in the area
- The Flax Hill Association is in the process of setting up a meeting with the team to discuss these issues
- Flax Hill Road to Martin Luther King Drive – The stairway is a great pedestrian connection to the South Norwalk train station, but there is no lighting causing a safety concern

*Cedar Street (Connecticut Avenue to Fairfield Avenue)*

- In the process of creating a complete street along this stretch
- Modeled after similar streets in South Norwalk
- Could serve as a gateway to development in the area and spreading more context sensitive designs to the north

*South Norwalk*

- Prevailing complaint is that there is not enough parking
- One commenter believes that there is a sufficient amount of parking, but the connection between the parking and the retail centers is inadequate
- Suggested solution: add pedestrian passages through to the retail stores and reconstruct sidewalks to promote a safer and more pleasant experience for pedestrians

**Comment Sheets**

The following comments were recorded on Comment Sheets at the meeting.

*Station 1: Automobiles & Trucks*

- Fairfield Avenue truck traffic could be relocated to Reed Street
- Speeding is a common problem and is anticipated to worsen with SoNo development
- Crossing Rt. 1 or Rt. 7 is difficult
- Consider roundabouts, especially: East Ave/Wall St and West Ave/MLK/Main St.
- Consider road diets: Calf Pasture Beach Rd., Van Buren Ave, Main Ave between Merritt and Rt. 7

*Station 2: Bicycle, Pedestrian & Transit*

- Pedestrian Issues
  - Walking down steps from Golden Hill to the train station should feel safe
  - Sidewalks along all arterials (both sides for 4-lane roads)
  - Crosswalks at all 4 sides of intersections (The current standard is three sides)
  - Walk signals going green with traffic when possible (concurrent pedestrian phasing), minimizing long waits for exclusive phases
- Bike, Pedestrian Priority Corridors
  - Wall St.- SoNo- Calf Pasture Beach
  - Harbor Loop Trail
  - Commercial Corridors (US 1, Main St.)
  - Transit
    - Need sidewalks, shelters, and crosswalks at stops
    - Major routes should run two-way (eliminate one-way loops)
    - Connect Merritt 7 train station to adjacent office buildings
  - Top Priorities
    - Calf Pasture Beach Rd needs to be a recreational corridor to the beach
    - Stroffolino Bridge needs to serve Harbor Loop Trail and connect Liberty Square to SoNo; there is excess lane width and narrow sidewalks



*Station 3: Neighborhood Issues*

- Sidewalks in Golden Hill are treacherous; older people and young people have trouble getting around; no strollers can pass on them
- Too many people in houses meant for 2 or 3 families have 5-6; thus cars park on streets blocking site lines





## Summary of the Stakeholder Interviews

[Date/time]  
[Location]

### City-wide Comprehensive Traffic Management Plan

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#### **Meeting Summary**

The public outreach program for the Norwalk Transportation Management Plan included a Stakeholders' Interview component to obtain in-depth information on the concerns, visions, and specific recommendations of critical stakeholders and constituencies early in the planning process. Following the March 28, 2011 Public Meeting, Helen Neuhaus & Associates Inc. (HNA) contacted members of twelve organizations by telephone and/or email (see Attachment A) to arrange for in-person or telephone interviews. Potential interviewees included persons suggested by the Norwalk Department of Public Works; attendees at the January 24, 2011 Coalition of Norwalk Neighborhood Associations meeting; and individuals who requested an interview at the March 28th meeting. Although HNA made repeated email and telephone attempts to schedule interviews reflecting a broad cross-section of constituents, a number of persons did not respond and/or repeatedly postponed. HNA's outreach therefore resulted in the following:

- one community meeting (Flax Hill Neighborhood Association)
- one conference call (South Western Regional Planning Agency (SWRPA) - with four representatives of the agency, including the Executive Director)
- personal or telephone interviews with spokespersons of five additional groups
- individual emails from members of one organization (Harbor Shores) that indicated a preference for email communication

Attachment B lists the dates, names, and affiliations of all participants in the interview process.

Based on the 26 persons with whom we communicated and on the consistency with which specific issues and locations were noted by a range of participants, we are confident that our Summary provides a credible account of neighborhood and citywide interests, concerns, and visions. Significantly, we were able to make some general observations based on themes and issues that emerged as being of interest to multiple stakeholders and constituencies. Prominent among them were safe access to schools, with lack of sidewalks, poor crossing situations, and inadequate safe crosswalks noted by virtually all respondents. Connectivity and bicycle/ pedestrian improvements were on almost all participants' list of priorities. Concerns about the City's sidewalk policy and specific recommendations to make "sidewalk requirements reflect the character of the community" were voiced by a number of people. And almost everyone noted

traffic and safety problems on Flax Hill Road in particular and throughout the Flax Hill community in general as being among the most serious traffic issues requiring attention.

A summary of issues, problems, potential short-term improvements, and more visionary long-range plans is provided below. All comments are attributed to interview session or participant, as noted in parentheses.

## **Intersections**

Numerous intersections were noted as being unsafe and difficult to maneuver by vehicles and/or pedestrians and bicyclists. These included the following:

### **Soundview and Highland Avenues** (Flax Hill)

*\*Cited as one of the three worst intersections in community*

- Issues:*
1. Unsafe condition attributed to speeding on Soundview Avenue and 'invisible stop sign' because of trees and sharp bend of road.
  2. Traffic jams on Soundview Avenue.

*Suggested Solutions:* Adding a stop sign on the 'left' side of Soundview Avenue at Highland Avenue (where it would be more visible).

Installing a flashing sign alerting people to 'Stop Sign Ahead.'

Installing cameras to flag speeders.

### **Flax Hill Road and Richards Avenue** (at Costco) (Flax Hill)

*Issue:* Dangerous intersection, with particular problem relating to left-turn movement from Richards Avenue to Flax Hill Road.

### **Flax Hill Road and Keeler Avenue** (Flax Hill, Julie Burton)

*\*Cited as one of three worst intersections in community*

- Issues:*
- Speeding traffic.
  - Blind spot in front of 3 Keeler Avenue.

*Suggested Solutions:* Request for a four-way stop sign as a traffic calming measure (acknowledged that this would back up traffic).

Traffic calming measure is needed (but not speed bumps) - perhaps installation of cobblestones to slow traffic.

**Flax Hill Road and Highland Avenue** (Flax Hill, Julie Burton)

*Issue:* Difficult turning movement; triangle is not working out.

*Suggested*

*Solution:* The T intersection proposed by the Department of Public Works should be further examined.

*Related*

*Question:* Could a Roundabout be installed?

**Flax Hill Road and Taylor Avenue** (Flax Hill)

*Issue:* Difficult left-turn movement from Taylor Avenue (which connects Flax Hill Road to Connecticut Avenue) onto Flax Hill Road (partially attributed to stop sign on Taylor Avenue without comparable sign on Flax Hill Road). Results in lengthy back-ups.

*Possible*

*Solution:* Install a stop sign for each direction of traffic on Flax Hill Road at the intersection.

**Flax Hill Road and Michael Street** (Flax Hill)

*\*Cited as one of three worst intersections in community*

*Issue:* Difficulty of exiting Flax Hill Road onto Michael Street during 8-9am and 3-4 pm periods. Comment that traffic light in front of Photo Farm (1 block away) does not solve back-up problem.

*Suggested*

*Solution:* Installation of a stop sign or traffic light at the Michael Street/Flax Hill Road intersection.

**Route 7/15 Interchange** (SWRPA)

*Issue:* Noted importance of completing interchange and making related improvements

**Main Street/Route 15 Interchange** (SWRPA)

**Glover Avenue/Main Avenue Interchange** (SWRPA)

**Burritt Avenue and Woodward Avenue** (Harbor Shores)

*\*Cited as worst intersection in community*

*Issue:* Dangerous intersection because parking cuts down on visibility.

*Suggested Solutions:* 1) Eliminate or limit parking around the intersection.

2) Investigate whether traffic light would alleviate situation or exacerbate it.

3) Investigate possibility of installing three-way stop sign.

**'Mega-intersection' of Martin Luther King Drive, Flax Hill Road, Couch Street, Fairfield Avenue, and Washington Street**

**Scribner and Connecticut Avenues** (Harbor Shores)

*Issue:* Problematic left-turn movement at Scribner Avenue northbound onto Connecticut Avenue.

**West Avenue at Lockwood Mansion** [part of North River Trail] (Ray Rauth)

*Issue:* Difficult crossing for pedestrians and bicyclists because of speeding vehicles exiting Routes 7 and 9.

**Strawberry Hill Avenue and Tierney Street** (Julie Burton)

*Issue:* 'Nasty' intersection with three or four schools in the immediate vicinity.

**Route 7 and Main Avenue** (Silvermine)

*Issue:* Unsafe crossing for pedestrians and bicyclists.

**Silvermine and Perry Avenues** (Silvermine)

*Issue:* Speeding creates an unsafe situation.

**Perry and Main Avenues** [near CVS] (Silvermine)

*Issue:* Safety – numerous accidents (attributed to poor planning by CVS).





**Richards and Connecticut Avenues** [Norwalk Community College] (SWRPA)

*Issue:* Crosswalk needed, and cross street needs repair.

**Belden and Mott Avenues** [Near Norwalk Courthouse, Post Office, and Public Library] (Julie Burton, Silvermine)

*\* Cited as top priority intersection by Julie Burton)*

- Issues:*
- 1) Poor pedestrian access – difficult for elderly, disabled, and those with strollers to cross Belden Avenue.
  - 2) Parking garage is on other side of Belden Avenue, making access for motorists difficult as well.

*Suggested*

*Solution:* Provide better parking for Courthouse, Post Office, and Library.

As a general comment, SWRPA suggested that locations where bulb-outs or neckdowns would improve intersections should be examined.

Ray Rauth voiced an overall concern about bike safety at problematic intersections.

## **Specific Roadways / Corridor Sections**

**Keeler Avenue** (Flax Hill)

*Issue:* Speeding.

*Related*

*Question:* Can 35mph speed limit on Keeler Avenue be reduced?

**Flax Hill Road** (Flax Hill, Julie Burton, SWRPA, Golden Hill)

*\*\*Numerous persons (Flax Hill, Golden Hill, Julie Burton) emphasized the importance of developing a comprehensive plan for Flax Hill Road, noting than an intersection by intersection 'fix' would be inadequate. One person (Julie Burton) stated that Flax Hill should be put at the top of the list of Norwalk communities needing help.*

- Issues:*
- 1) Speeding.
  - 2) Use of road as a short-cut by commuters (particularly from Darien) in order to avoid having to use Route 1.
  - 3) Shifting of UPS traffic out of Rowayton has turned Flax Hill Road into an alternate truck route.
  - 4) Commercial traffic formerly on Route 136 now uses Flax Hill Road.
  - 5) Congestion and volume of trucks.

*Suggested Solutions:* Traffic Lights – perhaps long traffic lights would discourage people from racing down Flax Hill Road.  
Traffic Calming – Related Question: Could cobblestones be installed between the traffic lights. (but not on the hill down to Keeler Avenue) to discourage people from speeding?

**Flax Hill Road between Oak Hill and Keeler Avenues** (Flax Hill)

*Issue:* Unsafe condition because of dangerous curve and hill.

**Scribner Avenue, between Flax Hill Road and Route 1** (Flax Hill)

*Issue:* Very deep potholes.

**Keeler Avenue** (Flax Hill)

- Issues:*
- 1) Dangerous for pedestrians and motorists as a result of greatly increased traffic (especially truck traffic) without implementation of corresponding safety measures; has become major connector for Route 1 and Flax Hill Road.
  - 2) No safe pedestrian crossings, sidewalk on only one side of road, no crosswalk at four-way stop on Keeler Avenue and Flax Hill Road (noted as being the only logical place for a painted crosswalk).
  - 3) Speeding; reference to a 'missing' speed limit sign.
  - 4) Many blind driveways.
  - 5) Poor visibility because of significant grade differential from Flax Hill Road to Keeler Avenue.

*Suggested*

*Partial Solution:* Installation of "Hidden Driveways" and "Slow" signs both vertically and painted on roadway surface.

**Highland Avenue** (Flax Hill, Julie Burton)

*Issues:* Unsafe conditions and limited pedestrian access resulting from lack of sidewalks. Problem is particularly acute because there are three schools along the Avenue, and there is no safe convenient crosswalk for children, who tend to cross at the nearest point, not necessarily the safest.

**Grist Mill Road to Grist Mill Road/Main Avenue Interchange** [Motor Vehicle Building] (SWRPA)

*Issue:* Gap in roadway needs to be filled in to alleviate considerable safety issues, including high volume of accidents on Main Avenue north of Grist Mill Road.

**Cross Street, between Main Street and East Avenue** (Harbor Shores)

**Route 136 Bridge Crossing of Norwalk River from Fort Point Street to North Water Street** (Ray Rauth)

*Issue:* Intimidating crossing for bicyclists, because of width of intersection, high speeds of vehicles and dangerous turning radius.

**East Avenue** [at City Hall] (Ray Rauth)

*Issue:* Concern that plans for a rebuilt East Avenue under the railroad tracks at this location do not include adequate provisions for bicyclists. Noted that plan was part of the Old Legacy Plan, before the Complete Streets Program was adopted.

**Connecticut Avenue** [vicinity of Big Box stores] (Ray Rauth)

*Issue:* Area is a challenge for bicyclists and is not pedestrian-friendly (includes only small sections of sidewalk that do not provide access from one shopping area to another).

**Signage and Signalization** (Where Not Referenced in Other Categories of Summary)

**Flax Hill** (Flax Hill)

*Issue:* Lack of adequate signage throughout community.

*Suggested*

*Solution:* Provide better parking for Courthouse, Post Office, and Library.

**Reed Street** (Golden Hill)

Request for signage to direct trucks to Reed Street from Fairfield Avenue.

**Citywide** (SWRPA)

Emphasized need for better signage and wayfinding for pedestrians. (This was noted as one of the Agency's priorities.)

**Connecticut Avenue** (SWRPA)

Request for investigation of progressive signalization of traffic lights on Connecticut Avenue

**SoNo District** (SoNo Collaborative)

*\*Improvement of signage was identified as SoNo's major issue*

*Issue:* Signage critical in terms of getting customers to parking lots. Comment that there are too few signs and that those that are up are pretty rather than useful.

*Suggested Solution:*

- 1) Install sign on I-95 reading "SoNo is Here" or "Historic SoNo," similar to signs directing motorists to museums. [interviewee is aware that I-95 is a federal highway]
- 2) Install large sign upon exiting highway that points to SoNo and smaller signs once in SoNo directing visitors to Main Street (comment that, in absence of signs, many people erroneously go onto Martin Luther King Drive).
- 3) Install overhead directional signs within District.
- 4) Provide better directional marking for customers coming over drawbridge from East Norwalk.

## **Pedestrian/Bicycle** (Where Not Referenced in Other Categories of Summary)

### **Silvermine Community** (Silvermine)

Neighborhood is easy to walk (not a great deal of through traffic). There is a great deal of walking, biking, and dog-walking throughout the community.

### **Merritt 7 Railroad Station** (Silvermine, SWRPA, Golden Hill)

*Issues:*

- 1) Underutilized because pedestrians and bicyclists cannot walk or bike across Route 7 to access the station.
- 2) Motorists also have poor accessibility, because the parking lot is on the other side of Route 7.

*Suggested Solution:* Construct a walkway/bikeway along the Merritt Parkway.

- 3) Comment that Merritt 7 should not have been built in Silvermine but in a more urbanized area of the City.

### **South Norwalk** (Silvermine)

*Issue:* Pedestrian Safety and Accessibility.

*Suggested Solution:* South Norwalk would be a more pedestrian-friendly area if there were wider sidewalks, which would provide a greater sense of safety.

\*SWRPA cited comprehensive bicycle planning and improvements as a priority. Specific issues included:

- 1) Need for comprehensive citywide bicycle study .
- 2) Completion of the West Harbor Route Trail and the North River Valley Trail.

- 3) Accommodation of bicycle facilities on multi-use trails – e.g., Route 15.
- 4) Provision of missing sidewalks and improved bicycle/pedestrian access along Connecticut and Main Avenues (emphasized as a top priority).
- 5) Provision of bicycle markings on streets near West Avenue in South Norwalk and the Wall Street area.

\*Bicycle and pedestrian issues were discussed in detail with Ray Rauth, a bicycle advocate who is very familiar with the city, although not a resident of Norwalk. Mr. Rauth presented both a Vision for biking in the future and specific comments related to current conditions.

## Vision

Mr. Rauth articulated a vision for expanding cycling for recreation and as a mode of transportation. His vision is based on available funding to provide a confluence of multi-use trails, including the Merritt Parkway portion of the East Coast Trail (east/west link between Stamford and Westport) and the North River Valley Trail from Danbury to Calf Pasture Road. He indicated that the latter, which he described as an essential New York State link to Danbury, could be used for recreation and commuting to the Downtown area.

### **Bicycle Accessibility** (Ray Rauth)

*Issue:* Inadequate provisions for bicyclists at transit stations

*Suggested Solutions:* Accessibility for pedestrians and bicyclists should be provided at every transit stop, including bicycle racks and measures to increase pedestrian safety (sidewalks, lighting, ramps for elderly, handicapped, and those with carriages)

*Issue:* Bicycle Parking at South Norwalk Train Station

*Related*

*Question:* Is the area for bicycle parking within a sheltered location adequate for the future?

*Issue:* Concern that provision of 8000 new parking spaces in the Redevelopment Area will overwhelm what is presently a suitable area for bicyclists and pedestrians.

*Issue:* Bicycle Accessibility to Recreational Areas

*Suggested Solutions:* 1) Enhance bike access to all recreational areas, especially to Cranbury Park Beach areas.  
2) Provide bicycle storage facilities and security at all garages in parks

## **Sidewalks** (Where Not Referenced in Other Categories of Summary)

\*The need for sidewalks in the vicinity of schools was addressed by virtually every interviewee and deemed the most critical safety and accessibility issue in Norwalk by many of the persons with whom we communicated.

\*\*Numerous persons expressed the need for a Citywide Sidewalk Management Plan that recognizes the need for different standards (greater flexibility) in sidewalk requirements in rural and urban parts of the City. It was also noted that there is much confusion among property owners about specifications for sidewalk repair or replacement.

In addition, Heather Dunn mentioned that although sidewalks are not an issue in the Silvermine community, they are a serious issue in Rowayton and Golden Hill. The Golden Hill representative (Jim Del Greco) noted that there are good sidewalks in South Norwalk and Center City, as well as along Martin Luther King Drive and Fairfield Avenue to Route 1. He also recommended that an infrastructure program focusing on sidewalks be considered.

### **Safe Access to Schools** (Where not Referenced in Other Categories of Summary)

\*This issue was identified as Silvermine's top priority and cited as a critical issue by virtually all other stakeholders who were interviewed.

#### **McKinley Street** (Julie Burton)

*Issue:* Large convoys of UPS trucks in area of school at critical school crossing times.

*Suggested Solution:* Reroute trucks to Martin Luther King Drive, which was built to accommodate commercial vehicles.

#### **Citywide** (with emphasis on Silvermine) (Silvermine)

*Issue:* Speeding in vicinity of schools, which all seem to be on straightaways.

*Suggested Solution:* Narrow roadways in vicinity of schools or put in curbs.

### **Parking** (Where Not Referenced in Other Categories of Summary)

\*This issue was identified as SoNo's top priority.

#### **Vicinity of Wall Street and West Main Street** (Julie Burton)

*Issue:* Lack of parking, exacerbated by transfer of Pathmark lot to Avalon and loss of Isaac lot. Yankee Doodle Garage is the only remaining lot on the block.

*Suggested Solution:* Provide better lighting and paint other lots in area, which are currently underused because they are dark and dingy.

#### **South Norwalk** (Silvermine)

*Issue:* Inadequate parking throughout community.

**SoNo** (SoNo Collaborative)

*Issues:* 1) Inadequate distinction between private and public parking.

*Suggested Solution:* Install sign under railroad structure directing people to public parking on Haviland Street

2) Lack of use of Maritime Garage by people destined for SoNo restaurants and shops because of safety issues Provide better lighting and paint other lots in area, which are currently underused because they are dark and dingy.

*Suggested Solution:* Establish a shuttle or trolley loop that would continuously go from the Garage to SoNo.

3) Safety issues are also deterring people from walking to SoNo shops and restaurants from South Norwalk train station.

*Suggested Solution:*

**SoNo "Vision"** (SoNo Collaborative)  
Free Parking

**Other**

- Need for greater enforcement of traffic and parking regulations throughout City (Flax Hill)
- Requests for investigation of possible replacement of traffic triangles with roundabouts to facilitate safe traffic movements (Flax Hill, Julie Burton, Silvermine – Cedar Street given as an example)
- Emphasis on significance of governance and jurisdictional issues (SWRPA)
- Emphasis on need for supportive technology for diversions when I-95 is shut down. Noted that there are not enough Police to handle the situation. (SWRPA)
- Emphasis on importance of adequate lighting for businesses, including lighting in areas surrounding parking lots. Noted that situation is improving. (SoNo Collaborative)
- Noted concern about safety at I-95 Exit 14 at Taylor Place (near Klaff's) resulting from inadequate differentiation between sidewalk, roadway, and curb (Golden Hill)
- Connectivity – Public Transit: Comment that South Norwalk Train Station, a link to both ends of West Avenue, is easily accessible to pedestrians and bicyclists. It is a good commuter walk to Wall Street and from I-95. Past safety problems have largely been resolved, and ample parking is provided by





shuttle service to an overflow lot. Remaining issues were cited as being lack of cleanliness (trash-filled area between train station and parking lot); need for beautification around lot; and difficulty of access by elderly, handicapped, and those with carriages. (Golden Hill)

## Overall Vision

Jim Del Greco articulated a Grand Vision for connecting Norwalk's resources to achieve a truly inter-modal City using trains; the Merritt Parkway; I-95; the Inner Harbor Area (boating); a trolley from Merritt 7 down Route 7 to South Norwalk; a water taxi from South Norwalk to the head of the Harbor using waste oil from restaurants (noting that this green transport could help develop the Wall Street area); and a green trail accomplished by developing bicycle trails to Danbury and hooking into bikeways in the Inner Harbor area.

In elaborating on future mass transit, he speculated that the 400-500 new railroad cars that will be put into service, along with 15-minute schedules, will encourage modal transfer from cars to trains, thereby alleviating congestion on I-95.

Mr. Del Greco also emphasized Norwalk's need to define itself more clearly as a City, rather than as a suburb or extension of neighboring cities. To illustrate his point, he noted that Rowayton 'thinks of itself' as Darien, West Norwalk as New Canaan, Silvermine as Wilton, and Cranbury as Westport. He added that the City would benefit from clearly delineating its town versus city portions, specifying that downtown needs bigger buildings and a more urbanized footprint ("big inner city development"), balanced by recognition of the small town nature (and substantially different infrastructure requirements) of outlying waterfront areas. He identified Cranbury, Silvermine, Broad River and West Norwalk as woodsy areas that want to preserve their tree-lined character and not have sidewalks.



## Summary of the Stakeholder Interviews

### City-wide Comprehensive Traffic Management Plan

#### Attachment B

##### Norwalk Transportation Management Plan Interviews

April 1, 2011	Golden Hill Association	Jim Del Greco
April 4, 2011	Norwalk Association of Silvermine Homeowners	Heather Dunn
April 6, 2011	Flax Hill Neighborhood Association	Margaret Bonenfant Paul Bonenfant Michel Capece Terry Carlo Tony Carlo Maureen DeNunzio Bill Dunne Georgianna Hanrahan Tom Hanrahan Karyn Hernandez Mike McGough Karen Michaels Judy Rivas (email – April 21, 2011)
April 7, 2011	Coalition of Norwalk Neighborhood Associations/ Rowayton Civic Association	Julie Burton
April 8, 2011	South Western Regional Planning Agency	Alex Carmen, AICP – Senior Transportation Planner Craig Lader – Senior Transportation Planner Dr. Floyd Lapp, FAICP – Executive Director Sue Prosi- Senior Regional Transportation Coordinator
April 14, 2011	Harbor Shores Association	John Moehling John Hamlin Judith Bacal
April 15, 2011	Sound Cyclists	
April 27, 2011	SoNo Collaborative	Matt Storch



## Stakeholder Interview Comments

### Issues Located on Map

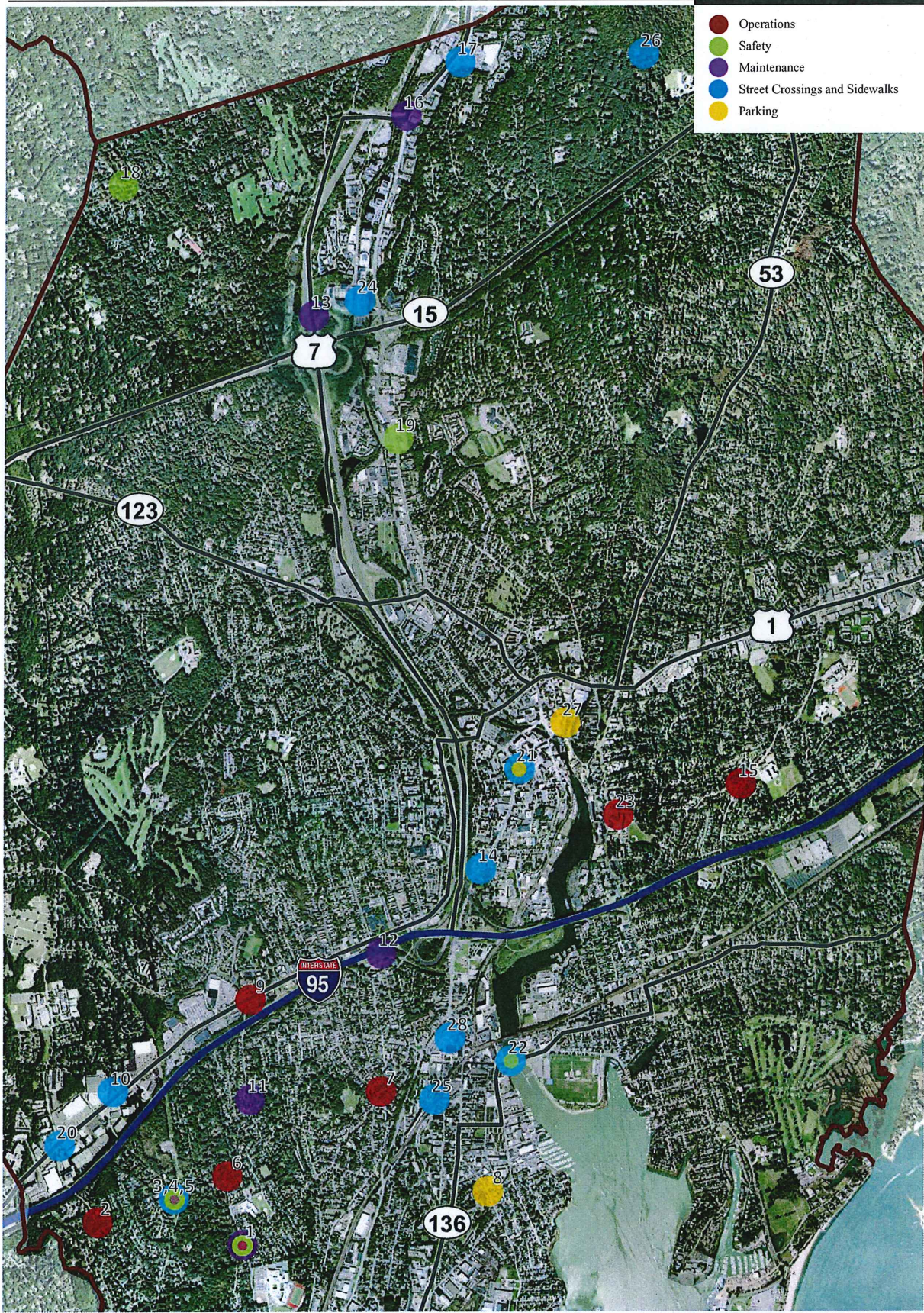
Location	Issue	Suggested Solution
<b>1</b> Intersection of Soundview Ave and Highland Ave	'invisible stop sign' because of trees and sharp bend of road	-Add a stop sign on the left side of Soundview Ave (where it would be more visible) -Install a flashing sign alerting people to 'Stop Sign Ahead'
	Causes traffic jams on Soundview Ave	
	Unsafe condition attributed to speeding	Install cameras to flag speeders
<b>2</b> Intersection of Flax Hill Road and Richards Ave (at Costco)	Dangerous intersection, particularly relating to left-turn movement from Richards Ave to Flax Hill Road	
<b>3</b> Intersection of Flax Hill Road and Keeler Ave	Speeding traffic	-Request a four-way stop sign as a traffic calming measure -Install cobblestones to slow traffic
	No crosswalk at four-way stop	Add printed cross walks
<b>4</b> 3 Keeler Ave	Blind Spot	
<b>5</b> Flax Hill Road between Oak Hill Ave and Keeler Ave	Unsafe Condition because of dangerous curve and hill	
<b>6</b> Intersection of Flax Hill Road and Highland Ave	Difficult turning movement; triangle is not working out	-The T intersection proposed by the Department of Public Works should be further examined -Install a roundabout
<b>7</b> Intersection of Flax Hill Road and Taylor Ave	Difficult left-turn movement from Taylor Ave onto Flax Hill Road (partially attributed to stop sign on Taylor Ave without comparable sign on Flax Hill Road), results in lengthy backups	Install a stop sign for each direction of traffic on Flax Hill Road at the intersection
	Traffic light in front of Photo Farm does not solve back-up problems	
<b>8</b> Intersection of Burrit Ave and Woodward Ave	Dangerous because parking cuts down visibility	-Eliminate parking around the intersection -Investigate whether a traffic light would alleviate the situation -Investigate possibility of installing a three-way stop sign
<b>9</b> Intersection of Scribner Ave and Connecticut Ave	Problematic left-turn movement at Scribner Ave NB onto Connecticut Ave	
<b>10</b> Connecticut Ave near Big Box Stores	Area is a challenge for bicyclists and is not pedestrian-friendly (includes only small sections of sidewalk that do not provide access from one shopping area to another)	
<b>11</b> Scribner Ave between Flax Hill Road and Route 1	Very deep potholes	
<b>12</b> Intersection of Reed Street and Fairfield Ave		Add signage to direct trucks to Reed Street
<b>13</b> Route 7/15 Interchange	Need to complete the interchange and make related improvements	
<b>14</b> West Ave at Lockwood Mansion	Difficult crossing for pedestrians and bicyclists because of vehicles exiting Routes 7 and 9	
<b>15</b> Intersection of Strawberry Hill Ave and Tierney Street	'Nasty' intersection with three or four schools in the immediate vicinity	

Location	Issue	Suggested Solution
16 Grist Mill Road to the interchange of Grist Mill Road and Main Ave	Gap in roadway needs to be filled in to alleviate considerable safety issues, including high volume of accidents on Main Ave north of Grist Mill Road	
17 Intersection of Route 7 and Main Ave	Unsafe crossing for pedestrians and bicyclists	
18 Intersection of Silvermine Ave and Perry Ave	Speeding creates an unsafe situation	
19 Intersection of Perry Ave and Main Ave (near CVS)	Numerous accidents (attributed to poor planning by CVS)	
20 Intersection of Richards Ave and Connecticut Ave (at Norwalk Community College)	Crosswalk needed	
	Cross Street needs repair	
21 Intersection of Belden Ave and Mott Ave (near Norwalk Courthouse, Post Office, and Public Library)	Poor pedestrian access – difficult for elderly, disabled, and those with strollers to cross Belden Ave	
	Parking garage is on other side of Belden Ave making access for motorists difficult	Provide better parking for Courthouse, Post Office, and Library
22 Route 136 Bridge Crossing of Norwalk River from Fort Point Street to North Water Street	Intimidating crossing for bicyclists, because of width of intersection, high speeds of vehicles and dangerous turning radius	
23 East Ave at City Hall	Concerned that plans for the rebuilding of East Ave under the railroad tracks at this location does not include adequate provisions for bicyclists.	
24 Merritt 7 Railroad Station	Underutilized because pedestrian and bicyclists cannot walk or bike across Route 7 to access the station	
	Motorists have poor accessibility because the parking lot is on the other side of Route 7	Construct a walkway/bikeway along the Merritt Parkway
25 South Norwalk Train Station	Concerned that the area for bicycle parking within a sheltered location is not adequate for the future	
26 Cranbury Park Beach Area	Bicycle accessibility	-Enhance bike access to all recreational areas -Provide bicycle storage facilities and security at all garages in parks
27 Vicinity of Wall Street and West Main Street	Lack of parking, exacerbated by transfer of the Pathmark lot to Avalon and loss of the Issac lot. Yankee Doodle Garage is the only remaining lot on the block	Provide better lighting and paint other lots in area, which are currently underused because they are dark and dingy
28 I-95 Exit 14 at Taylor Place (near Klaff's)	Inadequate differentiation between sidewalk, roadway, and curb	

### Additional Issues Not located on Map

Location	Issue	Suggested Solution
Keeler Ave	Speeding	Can 35 mph speed limit on Keeler Ave be reduced?
	Dangerous for pedestrians and motorists as a result of greatly increased traffic (especially truck traffic) without implementation of corresponding safety measures	
	'missing' speed limit sign	
	Many blind driveways	Installation of "Hidden Driveways" and "Slow" signs both vertically and painted on roadway surface
	Poor visibility because of significant grade differential from Flax Hill Road to Keeler Ave	
Flax Hill Road	Speeding	-Traffic lights: perhaps long traffic lights would discourage people from racing down Flax Hill Road -Traffic Calming: could cobblestones be installed between the traffic lights to discourage people from speeding?
	Congestion and volume of trucks	
	Need to develop a comprehensive plan for Flax Hill Road, an intersection by intersection 'fix' would be inadequate	
Highland Ave	Unsafe conditions and limited pedestrian access resulting from lack of sidewalks. Problem is particularly acute because there are three schools along the Ave, and there is no safe convenient crosswalk for the children, who tend to cross at the nearest point, not necessarily the safest.	
Connecticut Ave	Need to investigate the idea of progressive signalization of traffic lights on the ave	
	Need to look into missing sidewalks and improve bicycle/ pedestrian access along the ave	
Main Ave	Need to look into missing sidewalks and improve bicycle/ pedestrian access along the ave	
I-95	Need for supportive technology for diversions when I-95 is shut down. There are not enough Police to handle the situation	
SoNo District	Signage Critical in terms of getting customers to parking lots. There are too few signs and those that are up are pretty rather than useful	-Install sign on I-95 reading "SoNo is Here" or "Historic SoNo" similar to signs directing motorists to museums -Install large sign upon exiting highway that points to SoNo and smaller signs once in SoNo directing visitors to Main Street -Install overhead directional signs within District -Provide better directional marking for customers coming over drawbridge from East Norwalk
	Inadequate distinction between private and public parking	Install sign under railroad structure directing people to public parking on Haviland Street
	Lack of use of Maritime Garage by people destined for SoNo restaurants and shops because of safety issues	Establish a shuttle or trolley loop that would continuously go from the Garage to SoNo
	Safety issues are also deterring people from walking to SoNo shops and restaurants from the South Norwalk train station	

Location	Issue	Suggested Solution
South Norwalk Community	Pedestrian safety and accessibility	Widen sidewalks to provide a greater sense of safety
	Need to look into bicycle markings on streets near West Ave and Wall Street area	
	Inadequate parking throughout the community	
Flax Hill Community	Lack of adequate signage throughout	Paint "slow" on pavement (that has been effective in Darien)
Citywide	Need better signage and way finding for pedestrians	
	Need to perform a comprehensive citywide bicycle study	
	Need to perform a Citywide Sidewalk Management Plan that recognizes the need for different standards (greater flexibility) in sidewalk requirements in rural and urban parts of the City. There is much confusion among property owners about specifications for sidewalk repair or replacement	
	Need sidewalks in the vicinity of schools	
	Speeding in vicinity of schools, which all seem to be on straight-aways	Narrow roadways in vicinity of schools or put in curbs
	Need for great enforcement of traffic and parking regulations throughout the City	
	Need to look into the investigation of possible replacement of traffic triangles with roundabouts to facilitate safe traffic movements	
	Governance and jurisdictional issues	
	Need to have adequate lighting for businesses, including lighting in areas surrounding parking lots (situation seems to be improving)	
	Need to define itself more clearly as a city, rather than as a suburb or extension of neighboring cities	



Vanasse Hangen Brustlin, Inc.

Stakeholder Interview Comments  
Norwalk, Connecticut

## Online Interview Comments

### Issues Located on Map

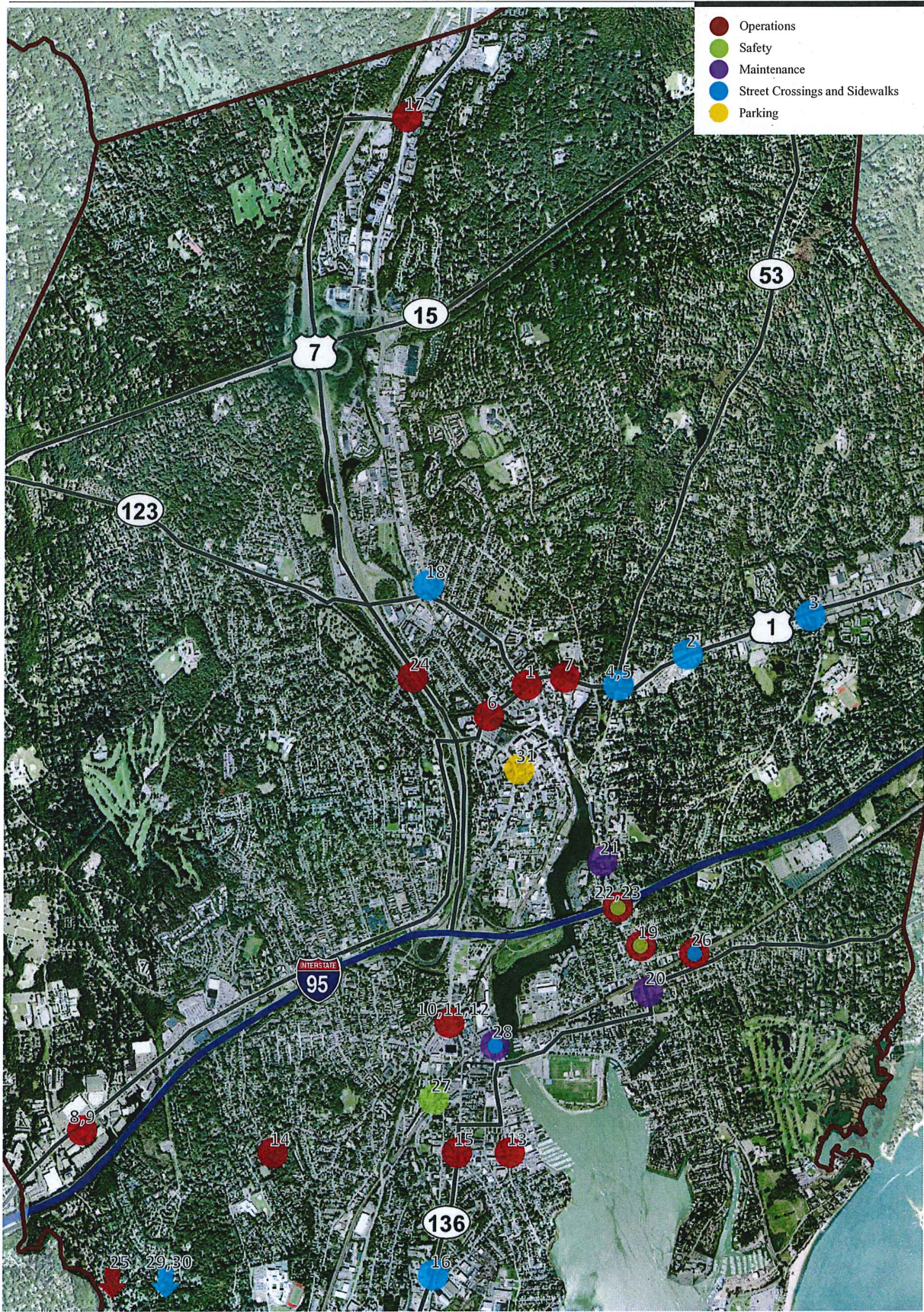
	Location	Issue	Suggested Solution
1	Intersection of Route 1/ Route 7 and Main Street	A left turn coming from Cablevision onto Route 7 is impossible during the day	Should not attempt to widen the roadway, however a different traffic light pattern would be a great help (perhaps some left turn arrows)
2	Intersection of Route 1 and George Street	You have to be on a particular corner to access the walk button, but if you are on the wrong side you can't do it	
3	Intersection of Strawberry Hill and Route 1	The lights only work from particular corners of the intersections, and the sidewalk doesn't continue westward on the south side.	
4	Intersection of France St and Route 1	Only one side has a sidewalk and the crossing light is not available on all corners	
5	Route 1 between East Ave and West Rocks/ France Street	Crossing lights don't work properly	
6	Route 1 between Wall Street and Westport	Traffic is way too slow	
7	Route 1 between Main Street and East Ave	Intersection is nightmarish	
8	Route 1 between the hospital and Richards Ave	Intersection is nightmarish	
9	Route 1 by the box stores	The box stores were badly conceived. The entire theory of cars prowling from store to store is bad	A California model should have been implemented. A centralized parking area with access to stores via trams is more civilized
		You have to get in your car to go to a store in the next shopping center	The Home Depot and Wal Mart lots should be connected internally, instead it just adds to the congestion on the post road. Also a cross walk should be added from Stop and Shop to Boarders Books
10	Intersection of Main Street and Martin Luther King Drive	There are a few choke points	
11	Intersection of Martin Luther King Drive and West Ave	Traffic lights	
12	West Ave between Martin Luther King Drive and Main Street	Poor traffic flow	
13	Water Street near the boat marina	Light is a total waste of money	
14	Intersection of Scribner Ave and Flax Hill Road	Light is a waste of money	
15	Intersection of Route 136 and Woodward Ave	Is an abomination	
16	Route 136 from South Norwalk to Rowayton	Major street with heavy traffic and no real safe passageway for cyclists	
17	Intersection of Main Street and Route 7	Awful intersection	
18	Main Street between Wall Street and the Wilton town line	Major street with heavy traffic and no real safe passageway for cyclists	



Location	Issue	Suggested Solution
19 Intersection of Fort Point Street and East Ave	A nightmare in busy traffic and many times people shove their way out into traffic while attempting to turn left onto East Ave because they have gotten tired of waiting for a break in the traffic. This is an accident waiting to happen	
20 East Ave under rail road bridge	Unsafe street conditions	
21 East Ave between Exit 16 and the water	Horrible roadway	
22 East Ave south of I-95	Seriously congested during the morning and evening rush hours	
	The need to switch lanes repeatedly while traveling either way is confusing and leads to numerous accidents	
23 I-95 Exit 14	SB entrance is a bad intersection	
	The entrance NB has an overload of traffic extending into Route 1	Perform a traffic study
24 Merrit 7 South to I-95	Huge bottleneck during rush hour	
25 Intersection of Rowayton Ave and Cudlipp Street	Treacherous intersection	
26 East Norwalk Train Station	Suffers from lack of access from the commuters that use them. One person has already been killed crossing East Ave to get from the NB to the SB platforms due to the poorly designed system which forces them to cross under the East Ave overpass to get from one side to the other	Build a tunnel from the SB platform under the tracks which would exit behind the Shell Station on the NB side
	Very confusing traffic pattern, people are almost never in the correct lane	There should be a traffic light and a walk signal near the train station
	The sidewalks under the railroad tracks are ridiculously narrow	
27 South Norwalk Train Station	Train station suffers primarily from being in a dangerous neighborhood	Could be located closer to SoNo so more people could use the rail for a night out
		Needs to be more fully integrated into the transportation network in every way, shape, and form...buses, taxis, peds, and cars. It should be a hub and a focal point for the city not just for transit.
28 Oyster Shell Park Trail between Maritime Aquarium and Mathews Park	Lacks any charm or significant safety-insuring measures as an incentive for pedestrians or bicycles	<ul style="list-style-type: none"> <li>-Finnish the park and give people a reason to go there.</li> <li>-Make the trails feel safe by patrolling with bicycle police or install video surveillance</li> <li>- Do something with the I-95 overpass area that insures that pedestrians or bicyclists don't feel threatened. Lighting will help</li> <li>-Improve the path that crosses the street by Pine Island Cemetery and continues up the sidewalk to Devon's place entering Mathews park and put up directional signage so people know where to go</li> </ul>
29 Bayley Beach	No footpaths	Construct footpaths along Roton Ave on the way to the beach
30 Rowayton School and Library	No footpaths	Construct footpaths along Wilson Ave coming out of the School
31 Main Library	Parking: The library is hugely under parked. There is an underutilized parking lot off of wall street but you cannot walk from the lot to the library because of a chain link fence around the postal trucks.	The street should be made a one way street with angled parking, we would get more spaces.

**Additional Issues Not Located on Map**

Location	Issue	Suggested Solution
Route 1	No designated paths or sidewalks on main road, sidewalks are inconsistent. Walking and biking anywhere using Route 1 is almost impossible	
	Congestion, turning traffic holds up through traffic	
	Lights along Western Ave strip are a headache because they aren't timed well and people sometimes hit every single one when driving from Rowaton to Wall Street. They are too long (over 60 seconds), it makes people want to run them rather than getting held up	<ul style="list-style-type: none"> <li>-Find a way to address traffic control at lights controlled both by the City and the State at every major intersection on Route 1. This could make an immediate, cost-effective improvement in traffic flow at these intersections</li> <li>-The longer term plan should be to apply technology for dynamic traffic control based on actual traffic</li> </ul>
	Speeding	Maybe this is where roundabouts might help to slow down traffic
Martin Luther King	No sidewalks or footpaths	
Wall Street	The traffic once the Wall Street projects get under way	<ul style="list-style-type: none"> <li>-Reopen the back way through the District 95 area to allow more access to Wall Street</li> <li>- Consider closing off and making Wall Street a pedestrian mall at the base of Mill Hill, as per one of the early DiScala Head of the Harbor proposals</li> </ul>
	Not a lot of parking	Look into creating a whistle stop on the Danbury line at Wall Street and 95/7 into the POKO partner's plan to accommodate the people who will be working there
	People have to have a reason to want to spend any time in the Wall Street are, and so far there is very little reason to do so	<ul style="list-style-type: none"> <li>-If the redevelopment projects ever come to fruition, serious consideration needs to be given to providing a welcoming environment to pedestrians, including sufficiently wide sidewalks, medians with greenery, traffic-calming solutions, and proper lighting so that they feel safe at night</li> <li>-Add attractive landscaping and enhanced street-scaping to the stretch of Wall Street Across Belden Ave and incorporate the Library into that.</li> </ul>
Water Street	Needs more crosswalks	
Flax Hill Road	Speeders	
Scribner Ave	Disgraceful street conditions	Re-pave road
Route 136	No footpaths	Construct footpaths along the McKinley side
Main street	Seriously congested during the morning and evening rush hours	There should be central lanes devoted to people needing to turn off, like there are on Route 1
Main Ave	No walkways	
Hemlock Drive	There is a big hill there where visibility is low for cars and there is no walkway	
East Ave	The City's insistence on widening East Ave as part of the deal struck with the state to improve railroad overpass on east Ave completely shoves any concerns by residents to the side in order to comply with the conditions of receiving money	Include street-scaping and improve the sidewalks if the widening is still going to happen
	Turning traffic holds up through traffic	
	Speeding	Maybe this is where roundabouts might help to slow down traffic
I-95	In the future concerning the District 95 Project: How are all those people going to access I-95 in that area without causing huge traffic jams?	



Vanasse Hangen Brustlin, Inc.

Online Survey Comments  
Norwalk, Connecticut

**Table 1: Traffic Calming Summary Matrix**

Measure	Description	Issue	Best For	Not Used For	Costs	Considerations
Speed Hump	Raised area of roadway typically 12 to 22 feet in length	Speed Reduction	<ul style="list-style-type: none"> <li>Neighborhood streets</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways</li> </ul>	\$1,000 - \$12,000 each	Can interfere with transit, snow plow, and emergency vehicle operations. Speed humps increase roadway noise and wear on vehicle suspensions. Highly visible warning signage required.
Speed Table	Elongated speed hump 22 feet in length or greater	Speed Reduction	<ul style="list-style-type: none"> <li>Neighborhood streets</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways</li> </ul>	\$2,000 - \$15,000 each	Can interfere with transit, snow plow, and emergency vehicle operations. Speed tables increase roadway noise and wear on vehicle suspensions. Highly visible warning signage required.
Raised Crosswalk	Elongated speed hump which features a flat top at the same elevation as adjacent sidewalks	Pedestrian Safety Speed Reduction	<ul style="list-style-type: none"> <li>Areas where pedestrian traffic takes priority over vehicular traffic</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways</li> </ul>	\$2,000 - \$15,000 each	Raised crosswalks can decrease pedestrian caution before stepping into roadway.
Raised Intersection	Similar to raised crosswalks, except the entire intersection is at sidewalk grade	Pedestrian Safety Speed Reduction	<ul style="list-style-type: none"> <li>Areas with heavy pedestrian traffic, such as shopping areas and college campuses.</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways</li> </ul>	\$50,000 - \$200,000 each	Raised intersections provide a barrier-free crossing for pedestrians and slow all vehicles, including emergency vehicles and transit buses.
Rumble Strip	Raised buttons or grooves closely spaced on the roadway travel lane or shoulder surface to create noise and vibration	Speed Reduction	<ul style="list-style-type: none"> <li>Transitions between higher-speed and lower-speed sections of a roadway</li> </ul>	<ul style="list-style-type: none"> <li>Areas that are highly noise sensitive</li> </ul>	\$7 - \$10/foot	Only effective through the noise and vibration they create. They are not favored in residential areas due to noise impacts.
Textured and Colored Pavement	Used to delineate an area with high pedestrian activity	Pedestrian Safety Speed Reduction	<ul style="list-style-type: none"> <li>Areas with heavy pedestrian traffic, such as neighborhood shopping areas and college campuses</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways</li> </ul>	Moderate to high	Maintenance and life cycle should be considered when selecting materials. Only certain techniques allowed on state roads with municipal - state agreement.
On-Street Parking	Parallel and angled parking can be used to narrow travel lane width and provide a buffer between motorists and pedestrians	Pedestrian Safety Speed Reduction	<ul style="list-style-type: none"> <li>Village environments</li> <li>Wide roadways</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, and other main roadways</li> </ul>	Low	Angled parking creates more right-of-way impacts than parallel parking, but also accommodates more parked vehicles per block. Drivers have reduced visibility backing out of angled parking spots, posing a greater accident risk.
Modern Roundabout	A modern roundabout is a large raised island in the center of an intersection. All entering traffic circles to the right and yields to vehicles already in the roundabout. Left-turning movements are eliminated. They are used in place of traffic signals at high volume arterials.	Crash Reduction	<ul style="list-style-type: none"> <li>Intersections on high volume arterials with a history of high crash rate or long queues</li> <li>Intersections with more than 4 approaches</li> <li>Intersections with heavy left-turn volume</li> </ul>	<ul style="list-style-type: none"> <li>Smaller or low-volume intersections</li> <li>Intersections with disproportionate volume on approaches</li> </ul>	\$80,000 - \$800,000 each, depending on diameter, right-of-way, number of lanes, landscaping	Modern roundabouts require more right-of-way than traditional intersections. This additional right-of-way may require eliminating existing on-street parking. They require more maintenance than traditional intersections, and are more difficult to navigate for large vehicles such as fire trucks and transit buses.
Traffic Circle	Much smaller than modern roundabouts, traffic circles are installed inside existing intersections and require motorists to slow down to navigate around them.	Speed Reduction	<ul style="list-style-type: none"> <li>Neighborhood streets that have a history of high speeds and high crash rates at intersections</li> </ul>	<ul style="list-style-type: none"> <li>Multi-lane roadways</li> </ul>	\$6,000 - \$12,000 each	Can provide a gateway or neighborhood identity.
Narrowed Lane	Roadway lanes are narrowed from typical cross-sections of 12-15 feet to 11 or fewer feet per lane through the use of painted lane markers, new parking lanes, new bicycle lanes, or relocated curbing.	Speed Reduction	<ul style="list-style-type: none"> <li>Minor arterials</li> <li>Collectors</li> <li>Local roads</li> </ul>	<ul style="list-style-type: none"> <li>Heavily traveled or high speed roadways</li> </ul>	\$1,000 - \$10,000/mile	Narrowing traffic lanes make slower speeds seem more natural to drivers and less of an artificial imposition compared to other physical calming treatments. Adequate width for emergency vehicle access must still be provided.

Measure	Description	Issue	Best For	Not Used For	Costs	Considerations
Neckdown/ Bulb Out/Curb Extension	Briefly narrow the roadway by extending the curb at intersections or mid-block locations	Pedestrian Safety Speed Reduction	<ul style="list-style-type: none"> <li>Areas with pedestrian traffic and wider roadway cross-sections</li> <li>Village environments</li> </ul>	<ul style="list-style-type: none"> <li>Arterials</li> <li>Narrow streets</li> </ul>	\$2,000 - \$20,000 each, depending upon size and material	May require eliminating some on-street parking and may hinder street plowing and sweeping operations
Chicane	Sets of two or more alternating curb bulb outs or extensions that narrow and realign the roadway	Speed Reduction and Cut-Through Traffic	<ul style="list-style-type: none"> <li>Neighborhood streets that experience high speeds or heavy cut-through traffic volume</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways</li> </ul>	\$10,000 - \$30,000	Concrete chicanes complicate street maintenance and drainage and may require additional right-of-way to construct. Chicanes created through pavement striping are cost-effective and easy to implement. On-street parking can be alternated from side-to-side along the street.
Traffic Islands and Medians	Concrete or landscaped islands and medians slow travel speeds by narrowing lanes and also improve pedestrians accommodation by providing a pedestrian refuge at crossings.	Pedestrian Safety Speed Reduction	<ul style="list-style-type: none"> <li>Roadways with wide rights-of-way that would benefit from slower speeds and improved pedestrian safety</li> </ul>	<ul style="list-style-type: none"> <li>Already narrow roads, or roadways with frequent driveways</li> </ul>	Varies depending on length, materials, and right-of-way availability	Islands and medians can provide a visual enhancement or gateway to promote neighborhood identity. They may reduce parking and driveway access and may increase motor vehicle conflicts with bicycles.
Landscaping	The use of plantings such as trees to visually alert drivers to slow down	Speed Reduction	<ul style="list-style-type: none"> <li>Residential or village environments</li> </ul>		Moderate to high	Maintenance requirements
Gateway	Signage, landscaping, or art that alerts drivers of upcoming village, neighborhood, or danger	Speed Reduction	<ul style="list-style-type: none"> <li>Residential or village entrances</li> </ul>	<ul style="list-style-type: none"> <li>Highways</li> </ul>	Varies	An excellent opportunity to add character or identity to a community.
Stationary Radar Sign/ Speed Display Board	Dynamic signs that advise motorists of their speed and the posted speed limit	Speed Reduction	<ul style="list-style-type: none"> <li>Any roadway from neighborhood street to limited-access freeway where observed speeds consistently exceed the speed limit - they are particularly popular in school zones.</li> </ul>		\$5,000 - \$15,000 each	Radar signs have proven to slow down traffic, even years after their initial installation. They are particularly effective on high volume arterials and highways, where physical measures would restrict traffic flow.
Pavement Marking	Painted markings or warnings on roadway surface	Speed Reduction	<ul style="list-style-type: none"> <li>Areas where signage alone can benefit from additional warning reinforcement</li> </ul>		Low	Easily wears off and requires regular maintenance
Signage	Standard or customized signs alerting drivers; often complements other traffic calming tools.	Speed Reduction	<ul style="list-style-type: none"> <li>Areas where inadequate signage is present</li> </ul>		Low (varies depending on type and amount of signage)	Limited traffic-calming effect when used alone - complements other traffic-calming strategies
Edge Treatment	Raised curb installations signal a lower design speed to drivers	Speed Reduction	<ul style="list-style-type: none"> <li>Areas with adequate right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>Highways or anywhere the curbing would create a hazard.</li> </ul>	Moderate to high	Raised curbs allow placing trees and street furniture closer to the roadway, producing an additional calming effect.
Reduced Corner Radii	Corner curb is squared off requiring motorists to slow to navigate a tighter turn with a smaller radius.	Pedestrian Safety Speed Reduction	<ul style="list-style-type: none"> <li>Typically used in conjunction with other calming methods in areas with high pedestrian activity.</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways</li> </ul>	\$2,000 - \$20,000	The reduced turning radius can limit truck and bus turning, complicating emergency vehicle, delivery truck, and transit operations. Careful design is required.

Measure	Description	Issue	Best For	Not Used For	Costs	Considerations
Roadway Closure	The most extreme form of traffic diversion, roadway closures interrupt the traffic grid pattern by creating dead-end or cul-de-sac street segments.	Cut-Through Traffic	<ul style="list-style-type: none"> <li>Neighborhood streets where all other calming attempts have failed</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways, transit routes, and anywhere street continuity is desired</li> </ul>	Low, varies depending on materials, landscaping	Street closures divert all through traffic onto other nearby roadways in the network.
Diverter	Several types of diverters, such as semi-diverters and diagonal diverters, may be used to restrict traffic flow and discourage cut-through traffic	Cut-Through Traffic	<ul style="list-style-type: none"> <li>Neighborhood streets that experience high cut-through traffic volume</li> </ul>	<ul style="list-style-type: none"> <li>Arterials, highways, other main roadways and transit routes</li> </ul>	\$15,000 - \$45,000	Diverters reduce through traffic without preventing pedestrian access. They can also be designed to allow bicycle traffic.
Turn Restriction	Restricting certain turns at intersections to influence travel patterns	Cut-Through Traffic	<ul style="list-style-type: none"> <li>Low-volume turning movement</li> </ul>	<ul style="list-style-type: none"> <li>High-volume intersections and turning movements</li> </ul>	Low	Can be difficult to enforce
One-way Street/Circulation Change	Used to reduce traffic volume on specific roads within a network. Strategies include changing one or more segments of two-way roads to one-way and restricting certain turning movements at intersections.	Cut-Through Traffic	<ul style="list-style-type: none"> <li>Low volume neighborhoods with comprehensive grid network</li> <li>High cut-through neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>Isolated higher-volume arterials</li> <li>Transit routes or major emergency response routes</li> </ul>	Varies - relatively low	Circulation changes will have secondary impacts on adjacent roadways that must be considered.
In-pavement Lighting	Crosswalk with embedded lights along its length that is activated by a pedestrian	Pedestrian Safety	<ul style="list-style-type: none"> <li>High pedestrian activity areas</li> <li>School campuses</li> <li>Transit centers</li> </ul>	<ul style="list-style-type: none"> <li>Rural or highway settings</li> </ul>	\$35,000	Snow-covered roads can cover lights and/or activation sensors.
Bike Lane	Designating a portion of the roadway cross-section exclusively for bicycle use	Speed Control	<ul style="list-style-type: none"> <li>Urban arterials</li> <li>Collectors</li> <li>Local roads</li> </ul>	<ul style="list-style-type: none"> <li>Highways</li> </ul>	Low	Requires regular paint maintenance