COMMUNITY
connectivity program

Milford

Boston Post Road (Route 1), Cherry Street, River Street and Broad Street – Road Safety Audit

July 14, 2016

CONNECTICUT DEPARTMENT OF TRANSPORTATION

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Contents

Figures

Tables

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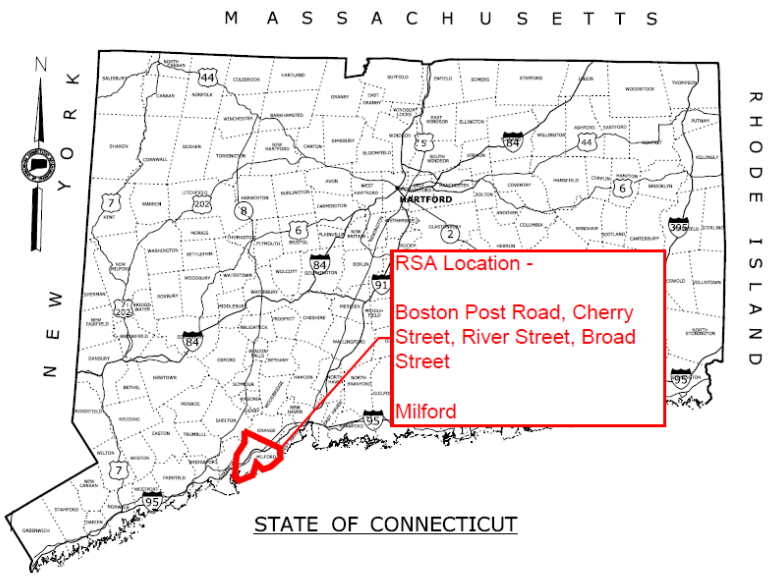
The Connecticut Department of Transportation (CTDOT) is undertaking a Community Connectivity Program that focuses on improving the state's transportation network for all users, with an emphasis on bicyclists and pedestrians. A major component of this program is conducting Road Safety Audits (RSA's) at selected locations. An RSA is a formal safety assessment of the existing conditions of walking and biking routes and is intended to identify the issues that may discourage or prevent walking and bicycling. It is a qualitative review by an independent team experienced in traffic, pedestrian, and bicycle operations and design that considers the safety of all road users and proactively assesses mitigation measures to improve the safe operation of the facility by reducing the potential crash risk frequency or severity.

The RSA team is made up of CTDOT staff, municipal officials and staff, enforcement agents, AECOM staff, and community leaders. An RSA Team is established for each municipality based on the requirements of the individual location. They assess and review factors that can promote or obstruct safe walking and bicycling routes. These factors include traffic volumes and speeds, topography, presence or absence of bicycle lanes or sidewalks, and social influences.

Each RSA was conducted using RSA protocols published by the FHWA. For details on this program, please refer to www.ctconnectivity.com. Prior to the site visit, area topography and land use characteristics are examined using available mapping and imagery. Potential sight distance issues, sidewalk locations, on-street and off-street parking, and bicycle facilities are also investigated using available resources. The site visit includes a "Pre-Audit" meeting, the "Field Audit" itself, and a "Post-Audit" meeting to discuss the field observations and formulate recommendations. This procedure is discussed in the following sections.



1 Introduction to Boston Post Road, Milford RSA

The City of Milford submitted an application to complete an RSA along the corridor of Boston Post Road, Cherry Street, River Street, and Broad Street to improve safety for pedestrians and bicyclists travelling through downtown Milford and Boston Post Road. This corridor is located within Bridgeport-Stamford Urbanized area, and experiences high traffic volumes, but also has high density of retail land uses and is served by a rail station, encouraging pedestrian and cyclist activity. This has resulted in concerns for pedestrians and cyclists through this area. The Milford Train Station is located adjacent to River Street at Railroad Avenue.

The City of Milford's application contained information on traffic volumes, crash data, and mapping of the corridor. The application and supporting documentation are included in Appendix A.

1.1 Location

The RSA site includes the sections of Boston Post Road, Cherry Street, River Street and Broad Street in the City of Milford (Figure 1). Figure 2 shows the study area in a regional context. Boston Post Road is a Principal Arterial and provides a northeast-southwest connection through Milford to the surrounding communities. The Average Daily Traffic (ADT) on Boston Post Road ranges between 22,000 and 35,000 vehicles per day (vpd). Boston Post Road consists of three lanes in each direction, with a paved central median separating both directions of traffic. Cherry Street is a Minor Arterial with ADT of 12,200 vpd and two lanes in each direction. River Street is a Minor Arterial with ADT of 9,400 vpd and one lane in each direction. Broad Street is one-way pair, one traveling westbound and another traveling eastbound. Broad Street westbound is classified as a Collector and Broad Street eastbound is classified as a Minor Arterial. ADT on Broad Street westbound ranges between 5,100 and 10,700 vpd and ADT on Broad Street eastbound ranges between 10,200 and 10,900 vpd. The audit corridor includes 13 signalized intersections.

This study area contains a significant number of driveways, adding complexity to walking and bicycling maneuvers through the area.

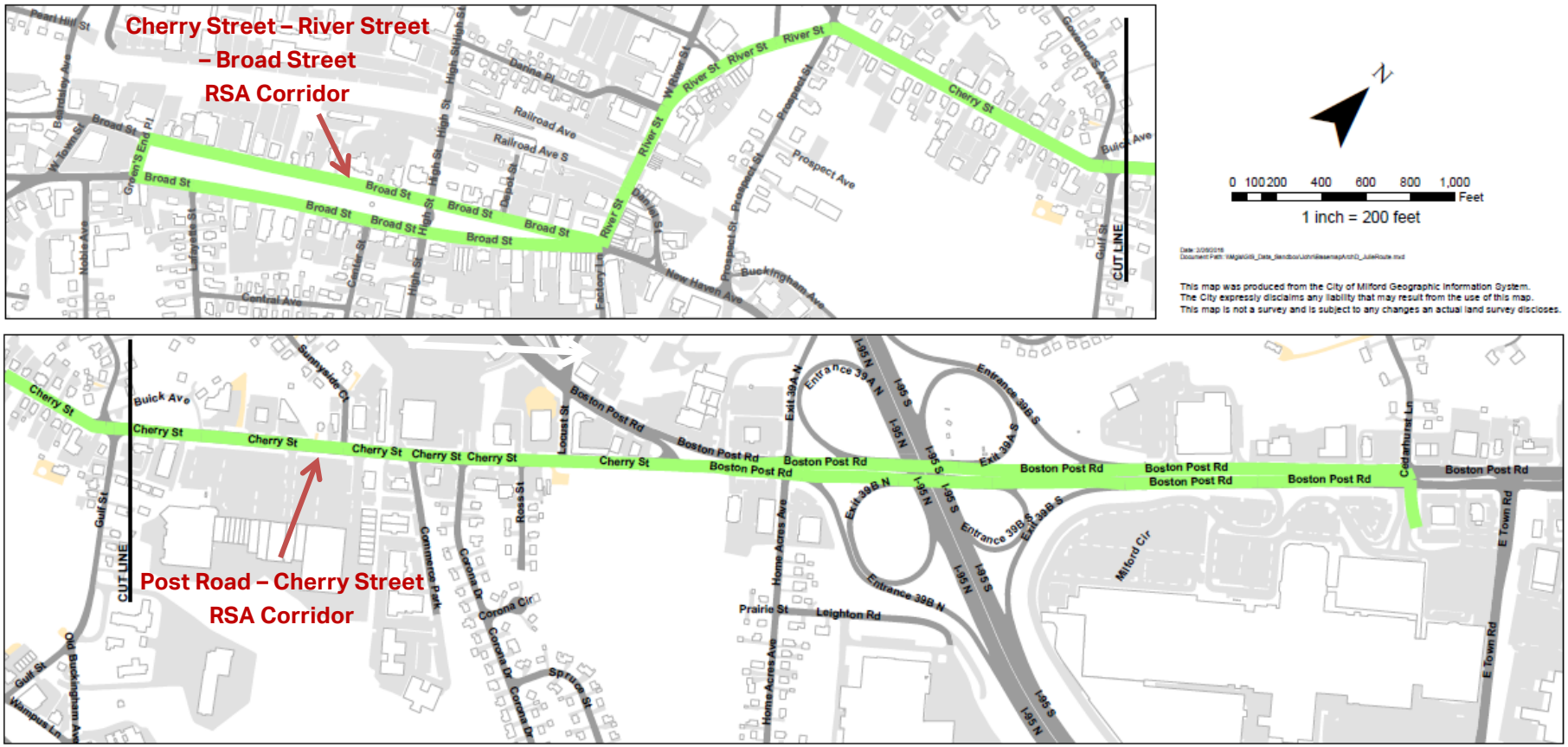


Figure 1. Post Road – Cherry Street – River Street – Broad Street (Milford)

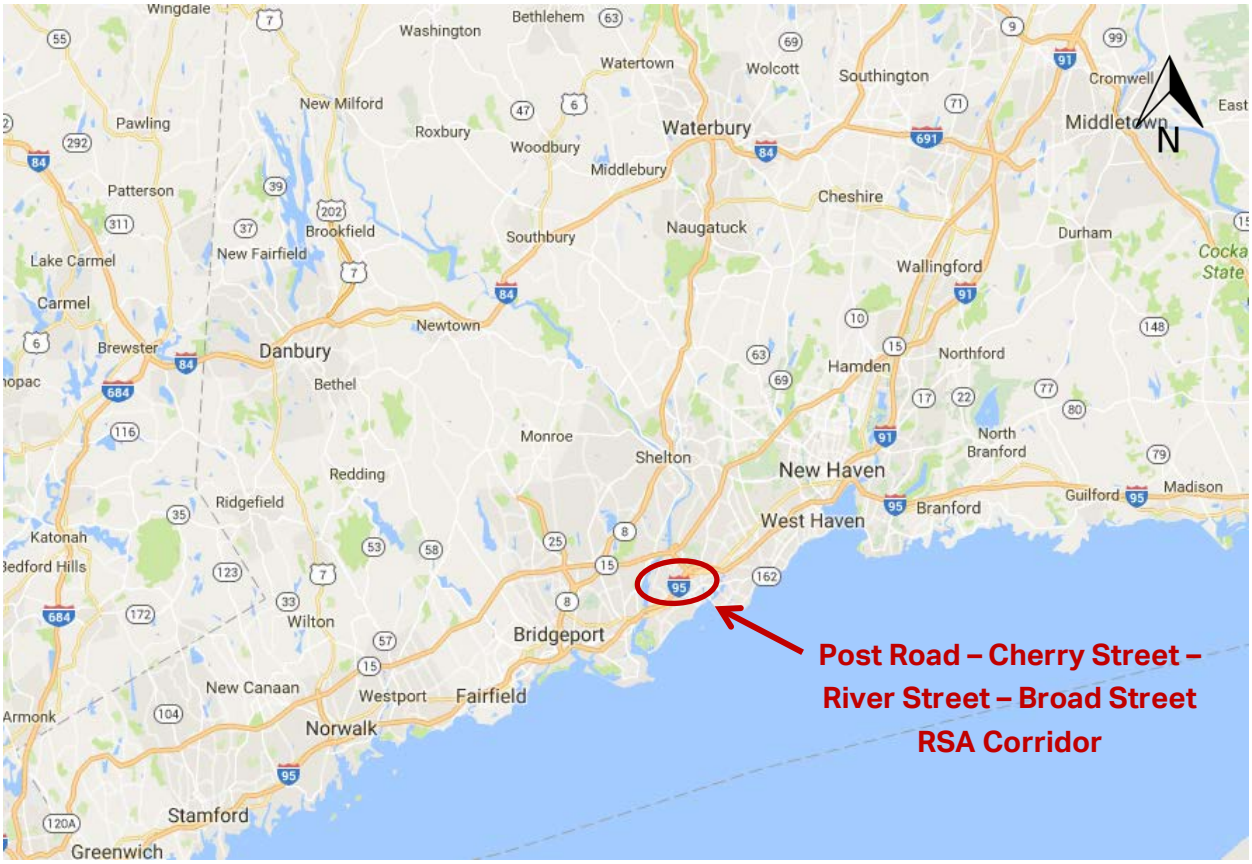


Figure 2. Study Area – Regional Context

Boston Post Road (US Route 1) is a State-owned and maintained facility and in general runs in a northeast/southwest direction through Milford connecting other communities in Connecticut such as Stratford, Orange and West Haven. Cherry Street is a City-owned road that runs between Boston Post Road and River Street in a northeast/southwest direction. River Street is a City-owned road and runs between Cherry Street and Broad Street in a north/south direction. Broad Street is a City-owned one-way pair, one traveling westbound and another traveling eastbound.

2 Pre-audit Assessment

2.1 Pre-audit Information

As noted above, traffic volumes are significant along this corridor because Boston Post Road (Route 1) and the Connecticut Turnpike intersect at the north portion of the RSA study area and the attractions located in the downtown area. The Connecticut Turnpike is the major parallel route in the region.

The crash history in this area is relatively high within the study corridor. Between 2012 and 2014 there were 125 crashes in the RSA area. A majority of crashes in this area were rear end collisions. Table 1 and Table 2 provide additional information on the type of collision as well as the severity of the crash. While a majority of crashes, 62%, resulted in property damage only, 47 crashes did result in injuries. There were three crashes involving a pedestrian, all of which resulted in an injury (no fatality) and one crash involving a bicyclist that resulted in an injury (no fatality) between 2012 and 2014.

Figure 3 through Figure 5 display crashes that occurred in this area during 2015.

Severity Type	Number of Accidents	
Property Damage Only	78	62%
Injury (No fatality)	47	38%
Fatality	0	0%
Total	125	

Table 1. Crash Severity 2012-2014

Source: UConn Connecticut Crash Data Repository

Manner of Crash / Collision Impact	Number of Accidents	
Unknown	0	0%
Sideswipe-Same Direction	14	11%
Rear-end	68	54%
Turning-Intersecting Paths	6	5%
Turning-Opposite Direction	7	6%
Fixed Object	18	14%
Backing	2	2%
Angle	4	3%
Turning-Same Direction	1	1%
Moving Object	0	0%
Parking	1	1%
Pedestrian	3	2%
Overturn	0	0%
Head-on	0	0%
Sideswipe-Opposite Direction	1	1%
Miscellaneous- Non Collision	0	0%
Total	125	

Table 2. Crash Type 2012-2014

Source: UConn Connecticut Crash Data Repository

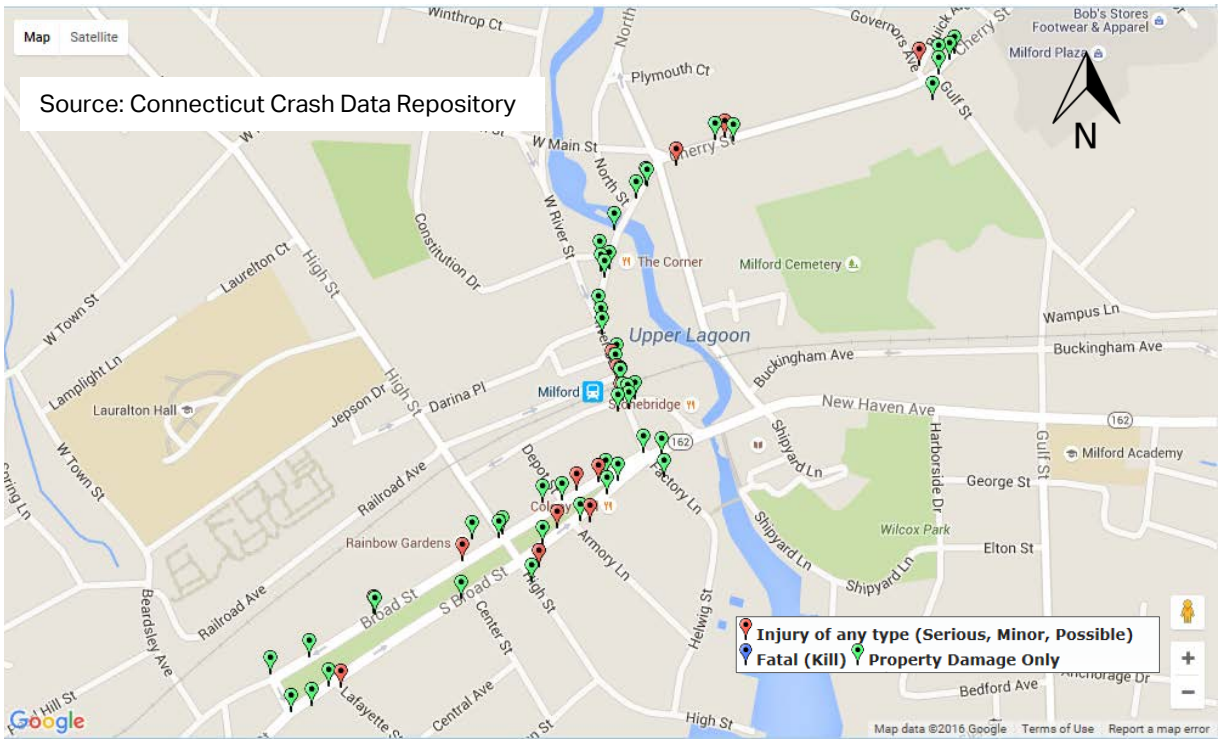


Figure 3. Crashes that Occurred on Cherry Street, River Street and Broad Street in 2015 (Connecticut Crash Data Repository)

Figure 3 displays crashes that occurred on River Street and Broad Street during 2015. Crashes are evenly dispersed throughout the RSA area with significant clusters of crashes along River Street, especially between Darina Place and Daniel Street. As shown in the figure, a relatively high proportion of crashes along Broad Street resulted in injuries.

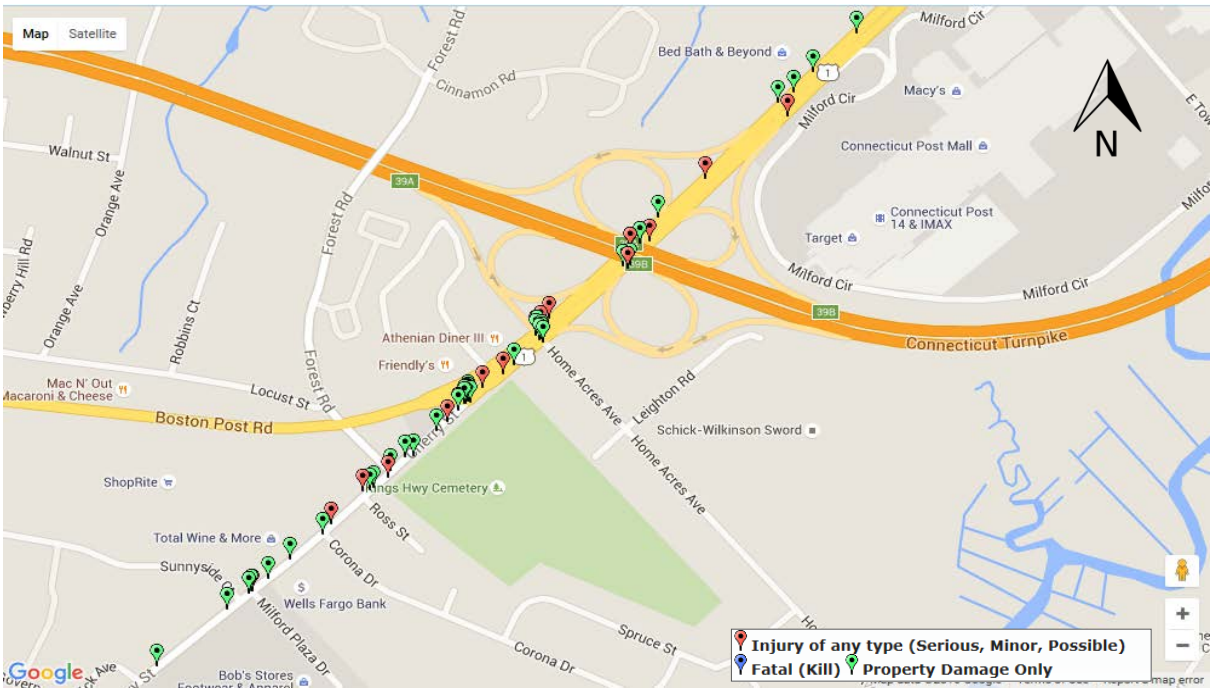


Figure 4. Crashes that Occurred on Cherry Street in 2015 (Connecticut Crash Data Repository)

Source: Connecticut Crash Data Repository

Figure 4 displays crashes that occurred on Cherry Street during 2015. Crashes are evenly dispersed throughout the RSA area on Cherry Street; however, there is a noticeable cluster of crashes at the intersection of Boston Post Road and Home Acres Avenue.

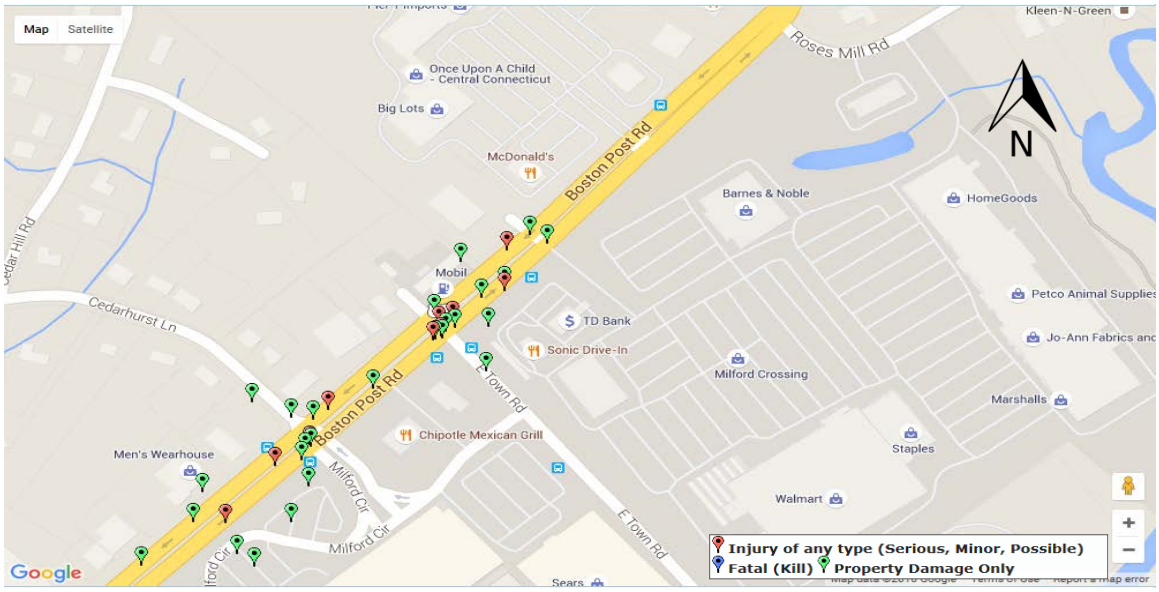


Figure 5. Crashes that Occurred on Boston Post Road in 2015 (Connecticut Crash Data Repository)

Figure 5 displays crashes that occurred on Boston Post Road during 2015. Crashes are evenly dispersed t Source: Connecticut Crash Data Repository ost Road. A noticeable cluster of crashes are seen at the intersection of Boston Post Road and E Town Road.

Street inventory, including roadway classifications, points of interest, signals, geometry, and speed limits, for the intersections and streets in the RSA area are briefly discussed below. Roadway geometrics for study area roadways and intersections are shown in Figure 6.

Red Bush Lane, Roses Mill Road and Boston Post Road Intersection Street Inventory

The intersection of Red Bush Lane, Roses Mill Road and Boston Post Road is a 4-way signalized intersection. Boston Post Road (US Route 1) is a Principal Arterial roadway and Red Bush Lane and Roses Mill Road are local roadways. Red Bush Lane is the southbound approach, Roses Mill Lane is the northbound approach and Boston Post Road is the eastbound/westbound approach to the intersection.

The Red Bush Lane has two approach lanes and one departure lane and four to five foot wide sidewalks along both sides. The Roses Mill Road has three approach lanes and one departure lane and a five-foot wide sidewalk along west side. There is no sidewalk on the east side of Roses Mill Road. The Boston Post Road westbound approach has three approach lanes and two departure lanes and four to five feet wide sidewalks on both sides. The Boston Post Road eastbound approach has four approach lanes and two departure lanes and a five foot wide sidewalk on north side. There are two-foot wide shoulders along both sides of Boston Post Road eastbound approach.

There is only one crosswalk (long) which crosses the Roses Mill Road approach. There are no pedestrian signals at this intersection. There is no parking on all approaches. The adjacent land use is primarily restaurants. An inventory of existing conditions of the intersection can be found in Table 3.

Turnpike Square Driveway and Boston Post Road Intersection Street Inventory

The intersection of Turnpike Square driveway and Boston Post Road is a three-way signalized intersection. Boston Post Road (US Route 1) is a Principal Arterial roadway and the eastbound/westbound approach to the intersection. Turnpike Square driveway provides access to the shopping center and is the southbound approach. The Turnpike Square driveway has two approach lanes and one departure lane and no sidewalks. The Boston Post Road westbound approach has three approach lanes and three departure lanes separated by a median. There is a 4-foot wide sidewalk on the north side and one-foot wide shoulders on both sides of Boston Post Road westbound approach. The Boston Post Road eastbound approach has four approach lanes and four departure lanes. There are 4-foot wide sidewalks and one-foot wide shoulders on both sides of Boston Post Road eastbound approach. There are no crosswalks at this intersection and no parking on any of the approaches. An inventory of existing conditions of the intersection can be found in Table 4.

East Town Road and Boston Post Road Intersection Street Inventory

The intersection of East Town Road, Dunkin' Donuts driveway, Mobil driveway and Boston Post Road is a four-way signalized intersection. The Dunkin' Donuts driveway is unsignalized and the Mobil driveway is signalized. Boston Post Road (US Route 1) is a Principal Arterial roadway and the eastbound/westbound approach to the intersection. Dunkin's Donuts driveway and Mobil driveway are private roadways and the southbound approaches to the intersection. East Town Road is a local roadway and the northbound approach to the intersection.

Dunkin' Donuts driveway has one lane for entry and one right turn only lane for exit. There is a wide median between the entry and exit lanes. The Mobil driveway has two lanes for exit. The Dunkin' Donuts driveway and Mobil driveway are separated with a median and parking spaces along the median for Dunkin' Donuts customers. The sidewalk on the north side of Boston Post Road continues through the Dunkin' Donuts driveway. The East Town Road has four approach lanes and two departure lanes and four-foot wide sidewalk on the east side. The Boston Post Road westbound approach has five approach lanes and three departure lanes. The Boston Post Road eastbound has four approach lanes and three departure lanes. There are four-foot wide sidewalks and one-foot wide shoulders on both sides of Boston Post Road westbound and eastbound approaches.

There is only one crosswalk (long) which crosses the Boston Post Road westbound approach. There are pedestrian signals at both ends of the crosswalk. The adjacent land uses are primarily restaurants and financial businesses. There is no parking on any of the approaches. An inventory of existing conditions of the intersection can be found in Table 5.

I-95 On-and-Off Ramps at Boston Post Road Inventory

The pedestrian crossing distances across I-95 on-and-off ramps are long and vary from 23 feet across I-95 southbound off-ramp to 49 feet across I-95 northbound on-ramp. There is a three-foot wide sidewalk between Home Acres Avenue and I-95 northbound on-ramp. The sidewalk continues between the I-95 ramps. However, there are no crosswalks at the I-95 ramps that provide connection with the Home Acres Avenue or the sidewalks between the ramps. There are no pedestrian crossing signs at the ramps. Shoulders on I-95 on-and-off ramps vary from two to nine feet. An inventory of existing conditions of the intersection can be found in Table 6.

Cherry Street at Corona Drive and Shoprite Driveway Intersection Street Inventory

The intersection of Cherry Street, Corona Drive and ShopRite driveway is a four-way signalized intersection. A new signal was recently installed at this intersection. Cherry Street is a Minor Arterial roadway and the eastbound and westbound approaches to the intersection.

ShopRite driveway is a private roadway and the southbound approach to the intersection. Corona Drive is a local roadway and the northbound approach to the intersection.

The ShopRite driveway has two approach lanes and one departure lane. The sidewalk on the north side of Cherry Street continues through the ShopRite driveway. Corona Drive is the northbound approach and has one lane for all movements and one departure lane. Cherry Street westbound has three approach lanes and two departure lanes and Cherry Street eastbound has three approach lanes and one departure lane. There are 4-foot wide sidewalks on both sides of Cherry Street and Corona Drive. Cherry Street westbound approach has one-foot wide shoulders on both sides. Cherry Street eastbound has a 10-foot wide shoulder on the north side and one-foot wide shoulder on the south side.

There is only one crosswalk across Cherry Street on the north side of the intersection with a pedestrian signal. No pedestrian signals or crosswalk are provided across Corona Drive. Adjacent land use is primarily commercial. There is no parking on any of the approaches. An inventory of existing conditions of the intersection can be found in Table 7.

Cherry Street (from Gulf Street to River Street) Inventory

Cherry Street is a Minor Arterial roadway. This section of Cherry Street is approximately one-quarter mile long and has one 17-foot wide lane in each direction. The sidewalk is four feet wide on the north side and five feet wide on the south side of Cherry Street. The posted speed limit on Cherry Street is 25 MPH. There is no parking and no shoulders on both sides of Cherry Street. This section of Cherry Street is characterized by residential properties with some businesses with many driveways on both sides of Cherry Street. An inventory of existing conditions of the intersection can be found in Table 8.

River Street, Daniel Street, and Railroad Avenue Intersection Inventory

The intersection of River Street, Daniel Street and Railroad Avenue is a four-way unsignalized intersection. River Street is a Minor Arterial roadway and the southbound approach to the intersection. North of Daniel Street, River Street is two-way and has two southbound approach lanes and one departure lane. South of Daniel Street, River Street is one-way with three southbound departure lanes. Daniel Street is a one-way roadway with two westbound lanes controlled with a stop sign. Daniel Street has one dedicated shared right turn and through lane and one dedicated left turn lane. Railroad Avenue is also a one-way roadway with one westbound departure lane.

There are three crosswalks at the intersection: on River Street north of Daniel Street, Daniel Street and Railroad Avenue. The flashing beacon on River Street north of Daniel Street has only one beacon and is positioned very close to the bridge. There are no pedestrian crossing signs at the intersection. Sidewalks on River Streets are up to 12 feet wide. Under the bridge,

sidewalks on River Street are approximately five feet wide. Sidewalks on River Street continue along Daniel Street and Railroad Avenue and vary from four to six feet wide. On-street parking is available on the east side of River Street and south side of Railroad Avenue. A short section on the north side of Daniel Street is used for parking. Land uses around this intersection consist of train station and parking spaces associated with the station, restaurants and other commercial uses. An inventory of existing conditions of the intersection can be found in Table 9.

River Street, Broad Street, Factory Lane and New Haven Avenue Intersection Inventory

The intersection of River Street, Broad Street, Factory Lane and New Haven Avenue is a four-way signalized intersection. River Street is a one-way roadway with three southbound approach lanes and has a dedicated lane for each movement. Broad Street is one-way pair, one traveling westbound and another traveling eastbound. Broad Street has two eastbound approach lanes and one westbound departure lane. New Haven Avenue is a one-way roadway with two eastbound departure lanes. Factory Lane is a two-way roadway with one lane in each direction.

There are crosswalks and pedestrian crossing signals at all the approaches. Sidewalks on River Street are up to 12 feet wide. Sidewalks from River Street continue along Broad Street and New Haven Avenue and are 12 feet on Broad Street and vary from six to eight feet on New Haven Avenue. On Factory Lane, sidewalk varies from four to five feet. There are on-street parking spaces on the east side of River Street and south side of Broad Street. There is a five-foot wide shoulder on north side of Broad Street. This intersection is characterized by commercial land uses with restaurants and offices. An inventory of existing conditions of the intersection can be found in Table 3 through Table 10.

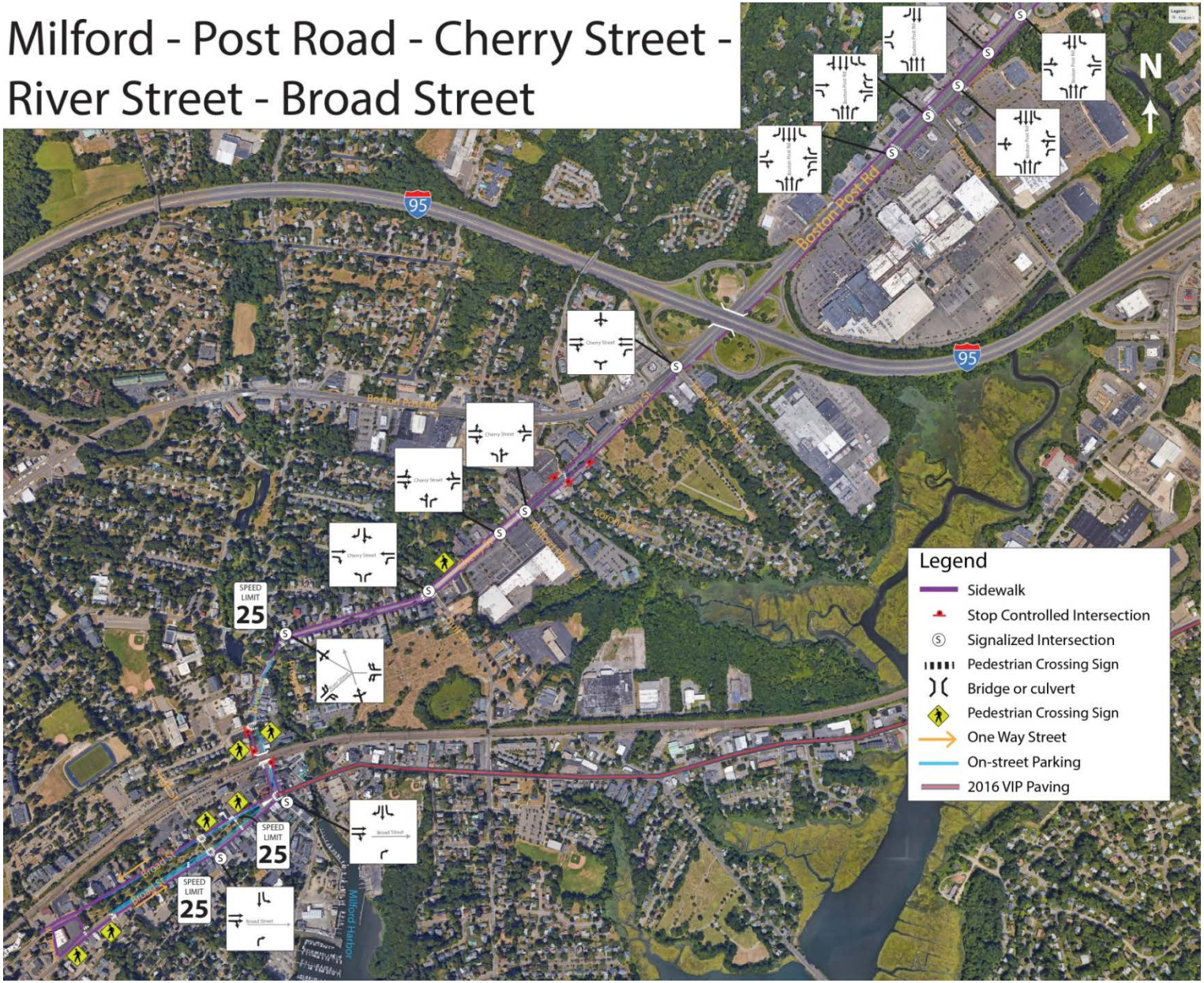


Figure 6. Post Road – Cherry Street – River Street – Broad Street Road Geometrics

Milford - Red Bush Lane, Roses Mill Road and Boston Post Road

Intersection Street Inventory

Street	Route	Approach	Travel Direction	Width	Sidewalk				Curb	Parking	Shoulder	Ramps	
					Side	Type	Width	Condition *				Exist	Compliant
Red Bush Lane	Local	Southbound	2 Way	RT, 1 Thru/LT	East	Concrete	5'	Good	Concrete	No	No	Yes	No
				1 Departure	West	Concrete	4'	Good	Concrete	No	No	Yes	No
Roses Mill Road	Local	Northbound	2 Way	RT, Thru, LT	East	None	None	None	Paver	No	No	Yes	No
				1 Departure	West	Concrete	5'	Good	Concrete	No	No	Yes	No
Boston Post Road	US 1	Westbound	2 Way	Thru/RT, Thru, LT	North	Concrete	5'	Good	Concrete	No	Np	Yes	No
				2 Departure	South	Concrete	4'	Good	Concrete	No	No	Yes	No
Boston Post Road	US 1	Eastbound	2 Way w/Median	RT, 2 Thru, LT	North	Concrete	5'	Good	Concrete	No	2'	Yes	No
				2 Departure	South	None	None	None	Concrete	No	2'	No	No

Table 3. Red Bush Lane, Roses Mill Road and Boston Post Road Intersection Street Inventory

*CONDITION – "Good" is Serviceable Condition that meets current design standards. "Fair" is generally serviceable, but may need minor repairs, or may not completely align with current design standards. "Poor" is not serviceable, and generally inadequate for continued long-term use.

Milford - Turnpike Square Driveway and Boston Post Road

Intersection Street Inventory

Street	Route	Approach	Travel Direction	Width	Sidewalk				Curb	Parking	Shoulder	Ramps	
					Side	Type	Width	Condition *				Exist	Compliant
Turnpike Square Driveway	Private	Southbound	2 Way	RT,LT	East	None	None	None	Concrete	No	No	No	No
			w/ median	1 Departure	West	None	None	None	Concrete	No	No	No	No
Boston Post Road	US 1	Westbound	2 Way	RT, 2 Thru	North	Concrete	4'	Fair	Concrete	No	1'	Yes	No
			w/ median	3 Departure	South	None	None	None	Concrete	No	1'	No	No
Boston Post Road	US 1	Eastbound	2 Way	3 Thru, LT	North	Concrete	4'	Fair	Concrete	No	1'	Yes	No
			w/ median	4 Departure	South	Concrete	4'	Fair	Concrete	No	1'	No	No

Table 4. McDonald's Driveway and Boston Post Road Intersection Street Inventory

Milford - East Town Road and Boston Post Road

Intersection Street Inventory

Street	Route	Approach	Travel Direction	Width	Sidewalk				Curb	Parking	Shoulder	Ramps	
					Side	Type	Width	Condition *				Exist	Compliant
Dunkin' Donuts Driveway	Private	Southbound	2 Way	1 Entry Lane	East	None	None	None	Concrete	No	No	Yes	No
			w/ median	1 RT Turn only Exit Lane	West	Concrete	5.5'	Good	Concrete	No	No	Yes	No
Mobil Driveway	Private	Southbound	1 Way	2 Exit Lanes	East	None	None	None	Concrete	No	No	Yes	No
			w/median		West	None	None	None	Concrete	No	No	Yes	No
East Town Road	Local	Northbound	2 Way	2 RT, Thru, LT	East	Paver	4'	Fair	Paver	No	No	Yes	No
				2 Departure	West	None	None	None	Concrete	No	No	Yes	No
Boston Post Road	US 1	Westbound	2 Way	Thru/RT, 2 Thru, 2 LT	North	Concrete	4'	Fair	Concrete	No	1'	Yes	No
			w/median	3 Departure	South	Concrete	4'	Fair	Concrete	No	1'	Yes	No
Boston Post Road	US 1	Eastbound	2 Way	Thru/RT, 2 Thru, LT	North	Concrete	4'	Fair	Concrete	No	1'	Yes	No
			w/ median	3 Departure	South	None	4'	Fair	Concrete	No	1'	No	No

Table 5. East Town Road and Boston Post Road Intersection Street Inventory

Milford - I-95 On-and-Off Ramps at Boston Post Road

Street Inventory

Street	Direction	Pedestrian Crossing Distance	Sidewalk				Curb	Parking	Shoulder	Ramps	
			Side	Type	Width	Condition *				Exist	Compliant
I-95 On-Ramp	Northbound	49'	North	Concrete	3'	Fair	None	No	3'	Yes	No
			South	Concrete	3'	Fair	Bituminous	No	4'-7'	Yes	No
I-95 Off-Ramp	Northbound	25'	North	Concrete	3'	Fair	None	No	7'	No	No
			South	Concrete	3'	Fair	Concrete	No	2'	No	No
I-95 On-Ramp	Southbound	37'	North	Concrete	3'	Fair	None	No	3'	No	No
			South	Concrete	3'	Fair	Bituminous	No	4'-9'	Yes	No
I-95 Off-Ramp	Southbound	23'	North	Concrete	3'	Fair	None	No	7'	No	No
			South	Concrete	3'	Fair	Deteriotated	No	2'	No	No

Table 6. I-95 On-and-Off Ramps at Boston Post Road Intersection Inventory

Milford - Cherry Street at Shoprite Driveway and Corona Drive

Intersection Street Inventory

Street	Route	Approach	Travel Direction	Width	Sidewalk				Curb	Parking	Shoulder	Ramps	
					Side	Type	Width	Condition *				Exist	Compliant
Shoprite Driveway	Private	Southbound	2 Way	RT, Thru/LT	East	Concrete	5'	Good	Concrete	No	No	Yes	Yes
				1 Departure	West	None	None	None	Concrete	No	No	Yes	Yes
Corona Drive	Local	Northbound	2 Way	RT/Thru/LT	East	None	4'	Good	Concrete	No	No	Yes	Yes
				1 Departure	West	Concrete	4'	Good	Concrete	No	No	Yes	Yes
Cherry Street	Local	Westbound	2 Way	RT, Thru, LT	North	Concrete	4'	Good	Concrete	No	1'	Yes	Yes
				2 Departure	South	Concrete	4'	Good	Concrete	No	1'	Yes	Yes
Cherry Street	Local	Eastbound	2 Way	Thru/RT, Thru, LT	North	Concrete	4'	Good	Concrete	No	10'	Yes	Yes
				1 Departure	South	None	4'	Good	Concrete	No	2'	Yes	Yes

Table 7. Cherry Street at Shoprite Driveway and Corona Drive Intersection Street Inventory

Milford - Cherry Street

Street Inventory

From	To	Distance	Lane width	Sidewalk				Curb	Parking	Shoulder	Ramps	
				Side	Type	Width	Condition				Exist	Compliant
Gulf Street	River Street	.26 mi	17'	North	Concrete	4'	Good	Concrete	No	None	Yes	No
			17'	South	Concrete	5'	Good	Concrete	No	None	Yes	No

Table 8. Cherry Street Inventory

Milford - River Street at Daniel Street and Railroad Avenue

Intersection Street Inventory

Street	Route	Approach	Travel Direction	Width	Sidewalk				Curb	Parking	Shoulder	Ramps	
					Side	Type	Width	Condition *				Exist	Compliant
Daniel Street	Local	Westbound	1 Way	RT/Thru, LT	North	Concrete	6'	Good	Concrete	Yes	No	Yes	No
					South	Concrete	5'-6'	Good	Concrete	No	No	Yes	No
Railroad Avenue	Local	Westbound	1 Way	Thru	North	Concrete	4' - 5'	Good	Concrete	No	No	Yes	No
					South	None	None	None	Concrete	Yes	No	Yes	No
River Street	Local	Southbound	2 Way	RT/Thru, Thru	East	Concrete	5' - 11'	Good	Concrete	Yes	No	Yes	No
				1 Departure	West	Concrete	12'	Good	Concrete	No	1'	Yes	No
River Street	Local	Southbound (South of Daniel Street)	1 Way	RT, Thru, LT	East	Concrete	9'-12'	Good	Concrete	Yes	None	Yes	No
					West	Concrete	10'-12'	Good	Concrete	No	None	Yes	No

Table 9. River Street and Daniel Street Intersection Inventory

Milford - River Street, Broad Street, Factory Lane and New Haven Avenue

Intersection Street Inventory

Street	Route	Approach	Travel Direction	Width	Sidewalk				Curb	Parking	Shoulder	Ramps	
					Side	Type	Width	Condition *				Exist	Compliant
Broad Street	Local	Eastbound	2 Way	RT, Thru	North	Concrete	12'	Good	Concrete	No	5'	Yes	Yes
			(w/ Median)	1 Departure	South	Concrete	12'	Good	Concrete	Yes	No	Yes	Yes
New Haven Avenue	Local	Eastbound	1 Way	Thru, LT	North	Concrete	6'	Good	Concrete	No	No	Yes	No
		Departure			South	Concrete	8'	Good	Concrete	Yes	No	Yes	Yes
Factory Lane	Local	Northbound	2 Way	Thru	East	Concrete	4' - 5'	Good	Concrete	No	No	Yes	Yes
				1 Departure	West	Concrete	5'	Poor	Concrete	No	No	Yes	Yes
River Street	Local	Southbound	1 Way	RT, Thru, LT	East	Concrete	9'-12'	Good	Concrete	Yes	No	Yes	No
					West	Concrete	10'-12'	Good	Concrete	No	No	Yes	Yes

Table 10. River Street and Broad Street Intersection Inventory

2.2 Prior Successful Effort

The City of Milford recently was awarded approximately 5 million dollars by the State of Connecticut to acquire four properties along River Street. The City plans to redevelop these properties with a more transit-oriented focus including increasing parking, transportation access and housing with mixed use developments.

The commercial corridor along Cherry Street is currently under development with a 36,000 square foot grocery store along with four pad sites for restaurants and a gas station. Cherry Street will be re-paved in the near future. The City's Plan of Conservation of Development encourages more density and housing along Cherry Street.

The City is focused on making the most out of the downtown. The train station gives commuters access to the Metro North and Shoreline East commuter train lines. In addition, they have recently installed a "Welcome to Milford" sign at the train station as a way of welcoming visitors off the train into the downtown.

2.3 Pre-Audit Meeting

The RSA was conducted on July 14, 2016. The Pre-Audit meeting was held at 8:30 AM in the Town Hall located at 70 W. River Street in Milford.

The RSA Team was comprised of staff from CTDOT and AECOM, as well as representatives from several Milford departments and organizations including The CT Post Mall, Milford Public Schools, Police Department, Public Transportation. The complete list of attendees can be found in Appendix B. Materials distributed to the RSA Team, including the agenda, audit checklist, ADT counts, crash data and road geometrics, can be found in Appendix C.

RSA Team members from Milford presented relevant information for the audit, including:

- There are more crashes in the lower traffic volume downtown than on the high traffic volume Boston Post Road.
- The corridor, specifically Boston Post Road, is a very high volume area especially on holidays and weekends.
- At the Connecticut Post Mall, many employees ride the bus. The meeting participants from the City recognized that there are not enough bus shelters and are concerned with how riders cross Boston Post Road.
- Pedestrian trips are mostly short purpose trips such as walking from a bus stop to a destination.
- There are three transit routes that service the Connecticut Post Mall.
- Norwalk Transit provides a bus route from Westport to Milford.
- A survey found that 41% of mall employees take the bus to work.
    - Employees commute from New Haven, West Haven, Bridgeport, etc.

- There is housing and the train station in the downtown. The City would like to increase connections for people living in and commuting to the Milford downtown.
- The train station area is not well lighted.
- SCRCOG has $45,000 for Milford's Complete Streets Plan. The City is very supportive of developing complete streets.
- The ShopRite was moved across Cherry Street:
    - Two traffic signals were added on Cherry Street with the relocation of ShopRite. Cherry Street is a city owned road.
- Boston Post Road is on the 2016 VIP list to mill, repave and restripe.
    - A question was asked whether there is room for bike lanes.
- The traffic flow is not optimal along the corridor. This could be due to outdated traffic signal and detection equipment. The signals should be evaluated to determine whether they should be upgraded.
- During congested periods vehicle speed is not an issue due to the density of traffic signals on Post Road.
- The buses that service the area have bike racks.
- The majority of bicycle trips along the corridor are purposeful trips such as commuting to work.
- There is concern that Boston Post Road does not accommodate bicyclists. A bike facility on this road would need to be a dedicated and separate bike facility due to vehicle speeds and volumes.
- A member of the City of Milford proposed the idea of constructing a dedicated bike lane in the center median on Boston Post Road with trees acting as a buffer.
    - Providing bikes safe means to turn in intersections would be challenging.
- There are some commercial driveways onto Route 1 that are right-turn only.
- In the vicinity of the SBC restaurant, there is a crosswalk with poor lighting and it is difficult to see pedestrians in this area. There are many pedestrians in this area due to the train station.
- A study by a Yale Urban Design group was completed in 2012. It recommended that Daniel Street be closed to vehicles and opened as a pedestrian walkway and that New Haven Avenue should be converted from one-way to two-way travel.
- Street signs are needed in the downtown area.

3 RSA Assessment

3.1 Field Audit Observations

Intersection of Red Bush Lane, Roses Mill Road and Boston Post Road:

- There is only one crosswalk (long) that crosses the Roses Mill Road approach.
- There are no pedestrian signals.
- The two lanes on the Red Bush Lane approach are striped for a short distance before tapering into one lane.
- The Red Bush Lane approach has non-ADA compliant handicap ramps and no crosswalk (Figure 7).
- A "push button for green light" on a pedestal activates a green phase for the side streets so that pedestrians can cross Boston Post Road (Figure 8).
- Roses Mill Road and Red Bush Lane are not well aligned.
- Red Bush Road has an advance green signal phase. This may create confusion between vehicles on each side street regarding who has the right of way when both approaches have green signals.
- The vehicle loop detectors at this intersection are new.

Figure 7. No Crosswalk and Non ADA Compliant

Figure 8. Push for Green Button

Boston Post Road at Turnpike Square (Milford Crossing) Intersection:

- Pedestrian activity:
    - One pedestrian alighted a bus and crossed all lanes of traffic on Boston Post Road (Figure 9).
    - Another pedestrian crossed at the intersection.

Figure 9. Pedestrian Crossing Mid-block

- There is a concern with vehicles turning right out of the Turnpike Square driveway not seeing pedestrians waiting on the sidewalk to cross.
- There are no signs directing pedestrians where to safely cross once they get off the bus.
    - The sidewalks in this area are four feet wide including the curb. In some spots the effective sidewalk width is narrower due to vegetation overgrowth.

Figure 10. Wide Median

Boston Post Road near Starbucks and East Town Road

- There is only one crosswalk (long) which crosses Boston Post Road on the north side.
- The bus route serves a stop on the corner of Boston Post Road and East Town Road as well as one further down East Town Road on Post Mall property.
    - Eliminating the northbound stop on Boston Post Road would move pedestrians away from this intersection and off Boston Post Road.

Figure 11. Room for Possible Multi-use Path

- The median is very wide in this location (Figure 10).
- There may be room on the Post Mall side for a multi-use bike and pedestrian path (Figure 11).
- Can low-level plants be added to the center median as a traffic calming measure? This could reduce the highway feel of Boston Post Road.
- The driveway to Starbucks is 24 feet wide.

Boston Post Road: Cedarhurst Lane/Milford Circle

- There is only one crosswalk (long) which crosses Boston Post Road on the north side. Pedestrian signals are provided.

- There are no crosswalks or pedestrian signals across the side streets.

Boston Post Road near Home Acres Avenue, Walgreens and I-95 Interchange

- The stop bar on Home Acres Avenue westbound approach is set back 55 feet from the intersection.
- There are no crosswalks or pedestrian signs at the I-95 ramps (Figure 12).
- The pedestrian crossing distance across the I-95 northbound on-ramp is 49 feet.
    - The north corner of the on-ramp could be extended to occupy the shoulder striping which would reduce the pedestrian crossing distance to about 22 feet.
- The sidewalk between I-95 ramps is three feet wide. The sidewalk has room to be widened (Figure 13).

  There are pushbuttons and vehicle signals for pedestrians across Boston Post Road south of Home Acres Avenue. However, there is no crosswalk or pedestrian signal heads. It does not appear that there is enough time for pedestrians to cross Boston Post Road concurrently with traffic.

Cherry Street: Intersection at ShopRite with Corona Drive

- A new signal was recently installed at this intersection.
- There is only one crosswalk across Cherry Street on the north side of the intersection with a pedestrian signal.
    - The pedestrian signal is exclusive.

Figure 12. I-95 Ramp Crossing

Figure 13. Sidewalk Between I-95 Ramps

Figure 14. No Pedestrian Crosswalk and Signal at Corona Drive

- No pedestrian signals are provided on the side street approaches. There is no crosswalk at Corona Drive (Figure 14).
- The sidewalk continues across the ShopRite plaza driveway.
- There are ADA compliant ramps on three corners at this intersection.
- The previous Stop sign on the Corona Drive approach is still in place (Figure 15).
- The sidewalks are four feet wide at this development.

Figure 15. Stop Sign not Removed When Signal Installed at Corona Drive

Cherry Street: Milford Plaza Drive

- A suggestion was made to provide bus pull-outs and add shelters on both sides of Cherry Street.

Cherry Street: Gulf Street and Governors Avenue

- Cherry Street is wide in this area with no parking. Bike lanes could be considered.

River Street near the Train Station:

- There is on street parking on the east side of River Street.
- There is gateway signing to the Milford Downtown on the railroad bridge (Figure 16).
- River Street is one-way southbound south of the train station.
- Pedestrian amenities are provided on the sidewalk (Figure 17).
- There is a mid-block crosswalk on River Street north of Daniel Street.
- The sidewalks around Broad and River Streets are up to 12 feet wide. North of the railroad bridge on River Street the sidewalk is five feet wide.

Figure 16. Downtown Gateway Signing

Figure 17. Pedestrian Amenities

- The flashing beacon on southbound River Street at the crosswalk just south of the railroad bridge has only one beacon and is positioned very close to the bridge. It may be hard to see from a distance. The northbound beacon has two lights, but should be angled to better face approaching traffic from Daniel Street.

3.2 Post Audit Workshop - Key Issues

- The intersection of Roses Mill Road and Red Bush Lane intersection with Boston Post Road only has one crosswalk and no pedestrian signals. This creates a challenging intersection for pedestrians to navigate. Without crosswalks across Boston Post Road pedestrians on one side of the road cannot easily access the other side of the road.
- Pedestrians will cross mid-block on Boston Post Road when getting off at bus stops. Pedestrians have to cross eight lanes of traffic on a high volume road.
- Crosswalks and bus stops are not located within a convenient distance of each other.
- There are many access driveways that pedestrians must cross on Boston Post Road. Some, such as McDonalds, are very wide and difficult to cross. The City expressed concern that motorists turning right out of driveways during a red light may not be looking for pedestrians about to cross.
- There are some locations on Boston Post Road where the median is very wide and has a guiderail. This could give drivers the feeling that they are driving on a highway. This may create an uninviting environment to pedestrians and bikes.
- Most signalized intersections in the corridor lack crosswalks, pedestrian signals and ADA compliant ramps on one or multiple approaches.
- There are no crosswalks or signs at the I-95 on- and off-ramps.
- Sidewalks are less than five feet wide in some areas. Between I-95 on- and off-ramps on the east side of Boston Post Road the sidewalk measures three feet wide. By the McDonald's, the sidewalk is four feet wide. The effective widths on some parts of these sidewalks are even narrower due to mud and vegetation overgrowth.

4 Recommendations

From the discussions during the Post-Audit meeting, the RSA team compiled a set of recommendations that are divided into short-term, mid-term, and long-term categories. For the purposes of the RSA, **Short-term** is understood to mean modifications that can be expected to be completed very quickly, perhaps within six months, and certainly in less than a year if funding is available. These include relatively low-cost alternatives, such as striping and signing, and items that do not require additional study, design, or investigation (such as right-of way acquisition). **Mid-term** recommendations may be more costly and require establishment of a funding source, or they may need some additional study or design in order to be accomplished. Nonetheless, they are relatively quick turn-around items, and should not

require significant lengths of time before they can be implemented. Generally, they should be completed within a window of eighteen months to two years if funding is available. **Long-term** improvements are those that require substantial study and engineering, and may require significant funding mechanisms and/or right-of-way acquisition. These projects generally fall into a horizon of two or more years when funding is available.

4.1 Short Term

1. At the Intersection of Roses Mill Road, Red Bush Lane and Boston Post Road:
    a) Stripe white dashed lines within the intersection to help direct traffic turning through this large intersection (Figure 18).
    b) Extend two lane striping on the Red Bush Lane approach to separate vehicle queues.
2. At the I-95 northbound and southbound on and off ramps on the east side of Boston Post Road:
    a) Stripe crosswalks;
    b) Install pedestrian crosswalk signs (Figure 19);
    c) Install advance pedestrian crossing signs.
3. Remove the Stop sign at the Corona Drive approach to the signalized intersection with Cherry Street.
4. Evaluate removing the northbound CT Transit stop on Boston Post Road at E. Town Road.
5. Analyze signal timing at the intersection of Home Acres Avenue to provide adequate time for pedestrians to cross Boston Post Road.
6. Re-position yellow flashing beacon on River Street northbound to face Daniel Street and install second yellow flashing beacon facing River Street southbound south of the rail road bridge.

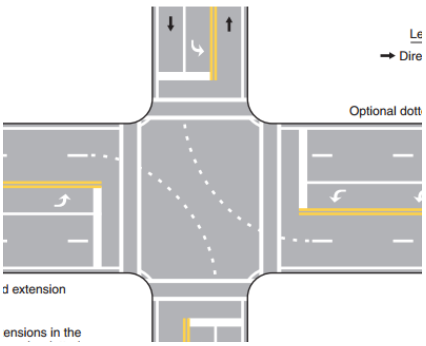
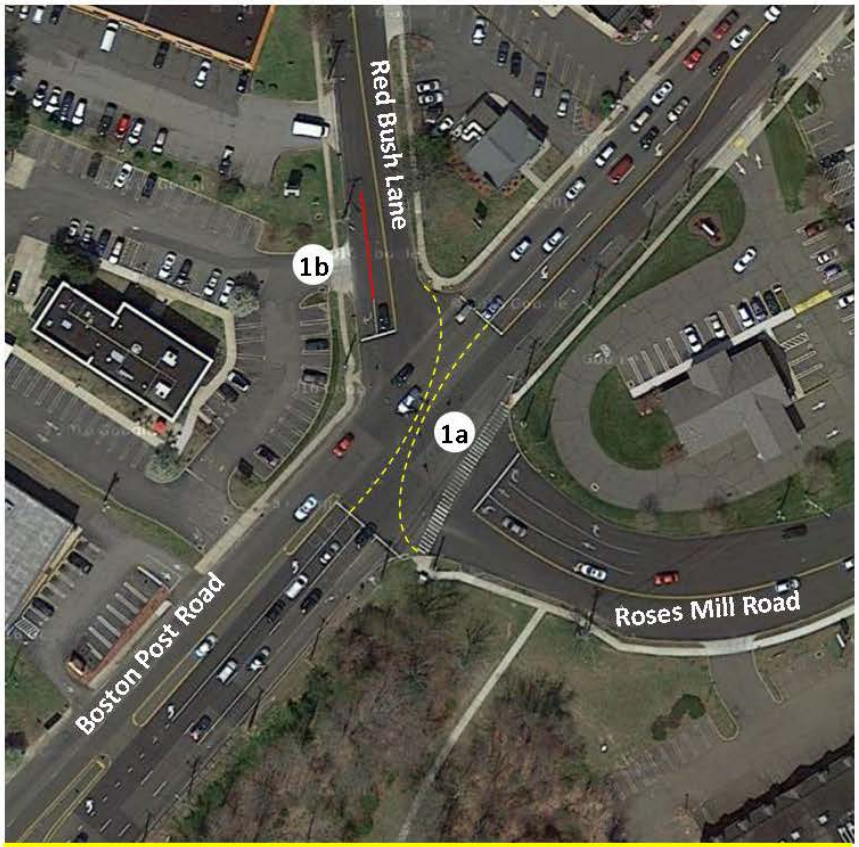


Figure 18. Typical White Line Pavement Extensions

Figure 19. Pedestrian Crossing Sign

Figure 20 and Figure 21 depict these recommendations.



1a. Stripe white extension lines to help direct left turns

1b. Extend two lane striping for the Red Bush Lane approach

2a. Stripe Crosswalk

2b. Install pedestrian crosswalk signs

2c. Install advance pedestrian crossing signs

5. Stripe a crosswalk and analyze signal timing to provide adequate time for pedestrians to cross Boston Post Road.

Figure 20. Short Term Recommendations Map 1

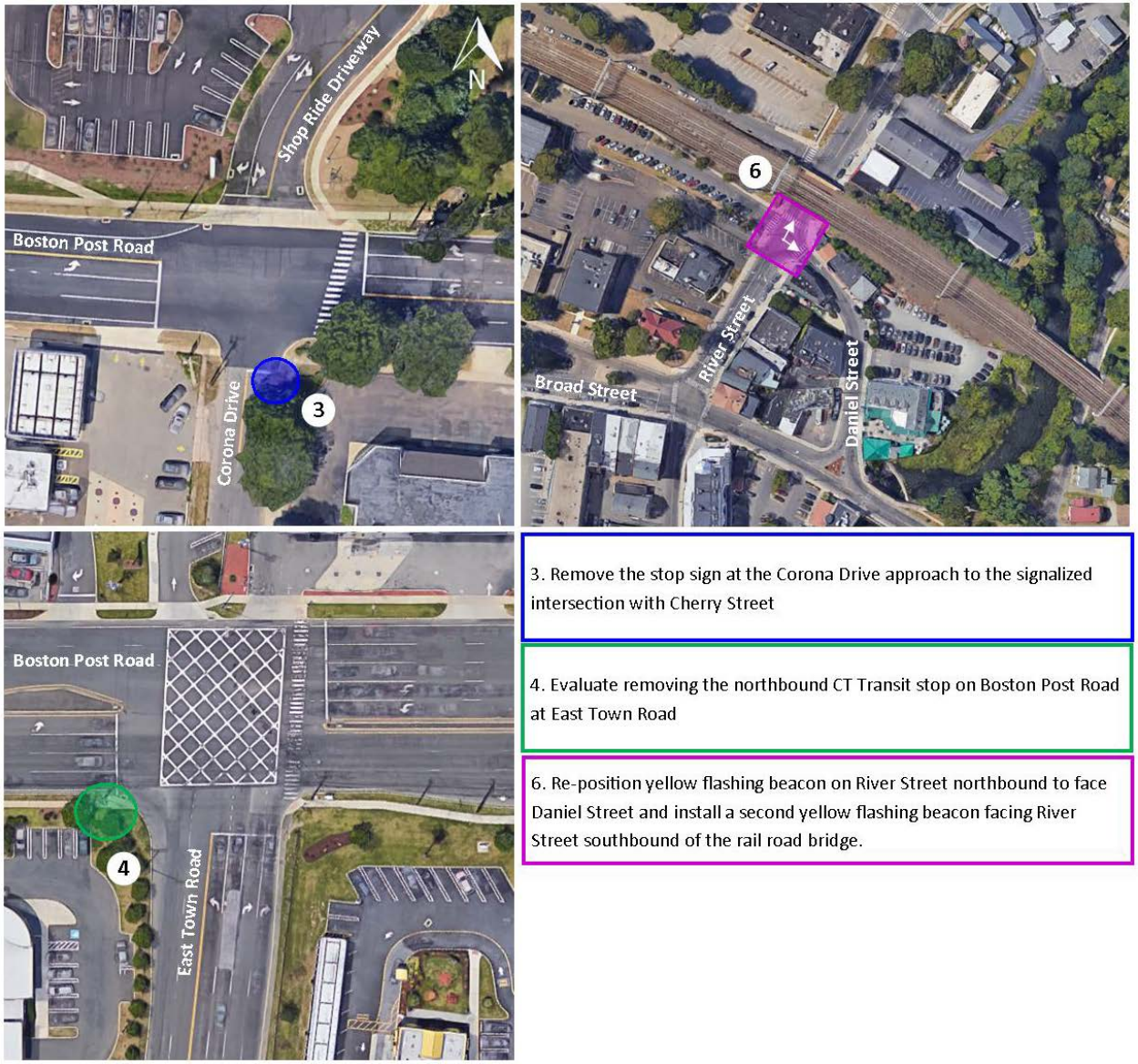


Figure 21. Short Term Recommendations Map 2

4.2 Medium Term

1. Consider changing pedestrian crossings at signalized intersections from concurrent to exclusive signal phases.

2. Upgrade the crosswalks, ramps and pedestrian signals to current ADA standards, including pedestrian detectable warning strips (Figure 22):
    a. At the Red Bush Lane and Roses Mill Road.
    b. At Turnpike Square's intersections with Boston Post Road.
    c. At ShopRite and Corona Drive on Cherry Street.

Figure 22. Detectable Warning Strip

3. Consider providing pedestrian signals crossing Cedarhurst Lane and Milford Circle at the signalized intersection with Boston Post Road.

4. Request CT Transit to evaluate bus stops along the Boston Post Road corridor in order to determine where bus stops can be consolidated or relocated. Consider a bus shelter on southbound Boston Post Road across form Barnes and Noble. Evaluate need for bus pullouts and shelters.

Figure 23. Landscaped Center Median

5. Request CTDOT to consider landscaping the center median on Boston Post Road in the vicinity of East Town Road as a traffic calming measure (Figure 23).

6. Evaluate current local parking regulations in order to determine whether it is possible to reduce the parking requirements for developments in order to decrease parking at future developments.

7. Consider requesting developments to share access driveways in order to consolidate

driveways in the corridor to improve access management.

8. Consider striping a dedicated bike lane on Cherry Street to begin bicycle facility improvements in the corridor (Figure 24).

9. Use temporary striping and signing to, as a pilot program, convert Daniel Street to one lane. This may create room for more on street parking on the south side of the road.

10. Consider testing River Street between Daniel Street and Broad Street with two way travel.

11. Provide street name signs in the downtown area to improve visitor wayfinding.

12. Improve lighting in the train station area.

Figure 24. Urban Bike Lane

Figure 25 and Figure 26 depict some of the recommendations along Main Street.

2. Upgrade crosswalks, ramps and pedestrian signals to current ADA standards including pedestrian detectable warning strips at:

a. Boston Post Road at Red Bush Lane and Roses Mill Road

b. Boston Post Road at Turnpike Square

c. Cherry Street at Shop Rite and Corona Drive

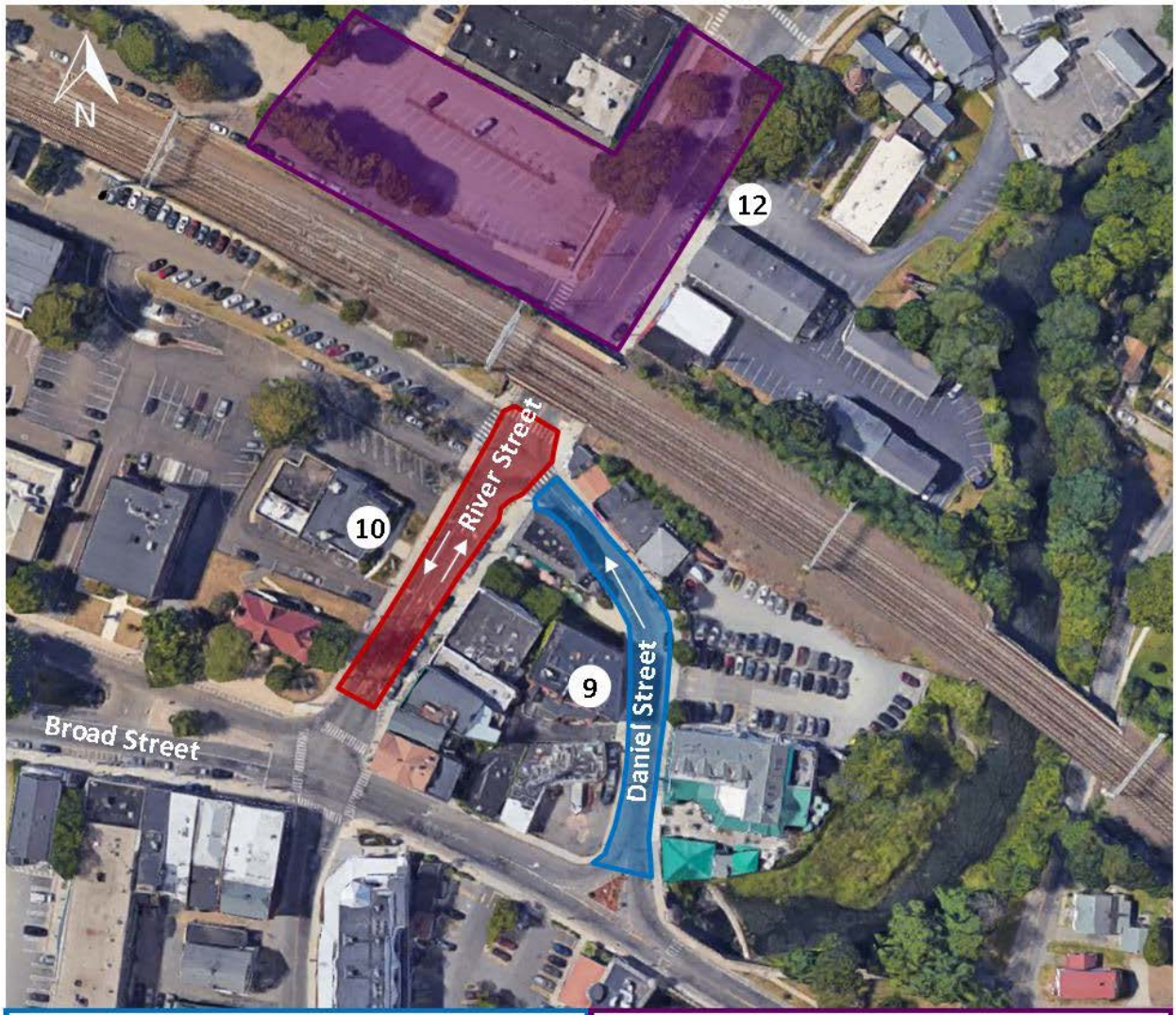
3. Consider providing pedestrian signals crossing Cedarhurst Lane and Milford Circle.

4. Consider a southbound bus shelter on southbound Boston Post Road across from Barnes and Noble.

5. Request CTDOT to consider landscaping the center median on Boston Post Road in the Vicinity of East Town Road.

8. Consider striping a dedicated bike lane on Cherry Street.

Figure 25. Medium Term Recommendation Map 1



9. Use temporary striping to convert Daniel Street to one lane with on street parking on the south side.

12. Improve lighting in the train station area

10. Consider testing River Street between Daniel Street and Broad Street with two way travel.

Figure 26. Medium Term Recommendation Map 2

4.3 Long Term

1. Realign the intersection of Roses Mill Road, Red Bush Lane and Boston Post Road.

2. Evaluate whether a dedicated cycle track in the center lane median of Boston Post Road is feasible.

3. Install rectangular rapid flashing beacons at the I-95 ramp crossings (Figure 27).

4. Extend the curb at the I-95 northbound on-ramp on the east side of Boston Post Road to shorten the crossing distance.

5. If the temporary one lane of travel on Daniel Street is successful, then consider installing permanent pavement markings and signing.

6. Request the CTDOT to complete a traffic signal analysis along the entire audit corridor. Determine whether the side streets of Roses Mill Road and Red Bush Lane should be given separate approach signal phases.

Figure 27. Rectangular Rapid Flashing Beacon

Figure 28 depicts some of these recommendations.

1. Realign Roses Mill Road and Red Bush Lane's intersection with Boston Post Road

2. Evaluate a dedicated cycle track in the center lane median of Boston Post Road

3. Install rectangular rapid flashing beacons at the I-95 ramp crossings

4. Extend the curb at the I-95 North on ramp crossing to shorten crossing distance

5. If the temporary one lane of travel on Daniel Street is successful, then consider installing permanent pavement markings and signing

Figure 28. Long Term Recommendation Map

4.4 Summary

This report documents the observations, discussions and recommendations developed during the successful completion of the City of Milford RSA. It provides Milford with an outlined strategy to improve the transportation network for all road users on Boston Post Road, Cherry Street, River Street and Broad Street, particularly focusing on pedestrians and cyclists. Moving forward, Milford may use this report to prepare strategies for funding and implementing the improvements, and as a tool to plan for including these recommendations into future development along this corridor.

COMMUNITY
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Appendix A

CONNECTICUT DEPARTMENT OF TRANSPORTATION

AECOM
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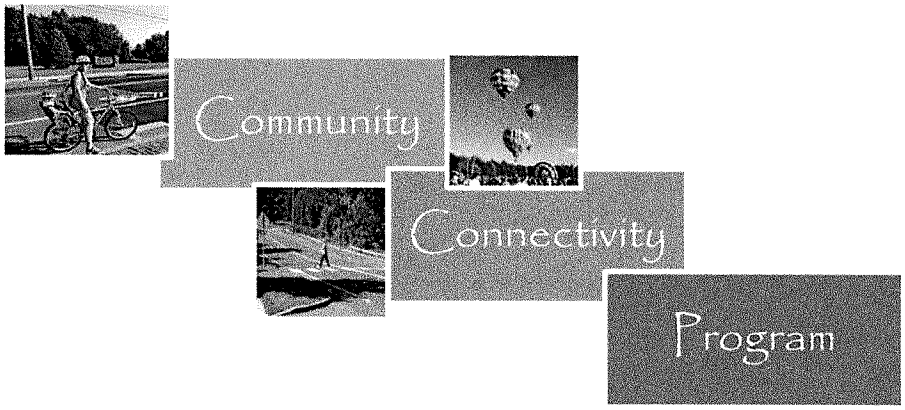
Welcome to the Community Connectivity Program Application



Please fill in the following information to provide the Audit team leaders with a comprehensive description of the area contained in this application.

1. Applicant contact information

Name	Julie Nash
Title	Director, Economic and Community Development
Email Address	jnash@ci.milford.ct.us
Telephone Number	(203) 783-3230

2. Location information

Address	Post Road-Cherry Street-River Street-Broad Street
Description	Major high traffic artery connecting the mall to downtown
City / Town	Milford

3. Roadway type
(Please select all that apply)

- [x] State road
- [x] Local road
- [ ] Private Road
- [ ] Other (please specify)

4. Zoning
(Please select all that apply)

- [ ] Industrial
- [ ] Residential
- [x] Commercial
- [ ] Mixed Use
- [ ] Retail
- [ ] N/A (not applicable)
- [ ] Other (please specify)

5. Approximate mile radius around the location

¼ mile

Other (Please Specify)

6. Community Sites
(Please select all that apply)

- [x] Community Centers
- [x] Business Districts
- [x] Restaurant/Bar Districts
- [x] Churches
- [x] Housing Complexes
- [x] Proximity to Schools
- [x] Tourist Locations (examples – Casino, Malls, Parks, Aquarium, etc...)
- [ ] N/A (not applicable)
- [ ] Other (please specify)

7. Employment Facilities
(Retail, Industrial, etc...)

- [x] Yes
- [ ] No

If Yes please describe (please specify)

Restaurants, medical offices, law offices, mall, retail

8. Educational facilities
(Please select all that apply)

- [x] Public, Parochial, Private Schools (more than 1 school within a ½ mile)
- [ ] University / Community Colleges
- [ ] N/A (not applicable)
- [ ] Other (please specify)

9. Transit facilities
(Please select all that apply)

- [x] Bus
- [x] Rail
- [ ] Ferry
- [ ] Airport
- [ ] Park and Ride Lot
- [ ] N/A (not applicable)
- [ ] Other (please specify)

10. Safety Concerns
(Please select all that apply)

- [x] Traffic (volumes & speed)
- [x] Collisions
- [x] Sidewalks
- [x] Traffic Signals
- [ ] Traffic Signs
- [ ] Parking Restrictions / Additions
- [ ] Drainage
- [x] ADA Accommodations
- [ ] Agricultural & Live Stock crossing
- [ ] Maintenance issues (cutting grass, leaves, snow removal)
- [ ] N/A (not applicable)
- [ ] Other (please specify)

11. Are there any past, current or future transportation/economic development projects near this location (i.e. Federal, State or local projects)?

Yes

If Yes please describe and list all projects.

The City of Milford was recently awarded close to $5million dollars by the State of Connecticut to acquire four properties along this route in a transit oriented area. We intend to increase parking, transportation access and housing with a mixed use development.

The commercial corridor along Cherry Street is currently under major development with a 36,000 sq ft grocery store along with four pad sites for restaurants and a gas station. We will also be re-paving the road in the near future.

12. Environmental Concerns:

If Yes please describe and list.

13. Please explain why this location should be considered for an RSA

This area should be considered for a road but because it is the gateway to our downtown. It is a high volume, high trafficked area that lacks connectivity to our downtown which offers additional transport modes. Essentially, the Post Rd is a limited access highway with high pedestrian and vehicular activity. There are currently no designated bike lanes and a lack of bus shelters. with three mass transit systems running through this route it is essential this route meet the demands of its user.

14. Are there plans to expand the area?
(Transportation Oriented Development, Economic Development, housing, etc...)

Yes

The City is currently underway with a major TOD project. The properties at River Street were purchased in December 2015. There is a demand for additional parking, housing and an anchor for downtown. The City intends on prepping the site for a mixed use development with the intention to start construction in 2018. Preparing this route for connection to this project will make the City, the project and the alternative modes of transportation more desirable.

In addition, the City's Plan of Conservation of Development does cite the desire for more density and housing along the Cherry Street corridor further increasing the need for connectivity.

15. Any other pertinent information that is unique to this location?

Yes

The City of Milford is fortunate to have a fantastic downtown - a downtown that acts as a hub for the judicial, economic, transportation and recreational needs of the entire region. Downtown Milford boasts the second longest green in New England and Connecticut's largest single day event, the Milford Oyster Festival. With more entrances and exits off of I-95 than any other municipality in Connecticut, the City of Milford, particularly its downtown, is easily accessible to those wishing to board Metro North, conduct courthouse business, shop world-class boutiques, dine at renowned eateries, or trailer boats to the most utilized recreational boat ramp in the state. Milford has an excellent downtown infrastructure in which to support TOD with easy access to rail, water, housing, shops, restaurants and schools.

The Milford train station in the heart of downtown and on this route provides an excellent commuter option to other cities including New Haven, Stamford, New York, and even New London via the Shoreline East connection in New Haven. While already a highly utilized platform, the City of Milford in conjunction with other local stakeholders has just completed a beautification project to further enhance the platform with iconic scenes of Milford through a local photography competition. Additionally, the city recently installed a new "Welcome to Milford" sign on the train trestle, welcoming residents to the downtown area while connecting the two sides of downtown with the train station. The CT Post Mall is a major regional destination and employer attracting and employing thousands.

Milford is a prosperous community with a 2015 median household income over $89,000, which itself is significantly above the Connecticut median of nearly $68,000. The City is home to approximately 52,800 residents and it enjoys quick access to New Haven. Milford is only 61 miles to New York City and less than 31 miles to Stamford. The City has a well-educated population which would be expected with the high median household income. The predominant form of housing is single family, with a significantly higher percentage than the state average.

Thank you for completing the Community Connectivity application.

Please click on the "submit button" below and include the following attachments

1. Location map (google, GIS) **(Required)**
2. Collision data (If available)
3. Traffic data (ADT or VMT) (If available)
4. Pedestrian/bicycle data (If available)

Submit Application

COMMUNITY
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Appendix B

Built to deliver a better world

Road Safety Audit

Town: Milford
RSA Location: Post Road - Cherry Street - River Street - Broad Street
Meeting Location: Parson's Government Center
Address: 70 W River Street
Date: 7/14/2016
Time: 8:30am

Participating Audit Team Members

Audit Team Member	Agency/Organization
Audit Team Member	Agency/Affiliation
Dan Kiley	CT Postmall/Milford Cham
Jay Kranyak	Police Department
Anna Bergeron	CTDOT
Julie Nash	COM
Henry Jadach	Milford Transit
Patrick Bradburg	Milford Public Schools
Kristin Hadjstylianos	AECOM
Jeff Maxtutis	AECOM

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Appendix C

Built to deliver a better world

Road Safety Audit – Milford

Meeting Location: Parson's Government Center
Address: 70 W River Street
Date: 7/14/2016
Time: 8:30 AM

Agenda

Type of Meeting: **Road Safety Audit – Pedestrian Safety**

Attendees: **Invited Participants to Comprise a Multidisciplinary Team**

Please Bring: **Thoughts and Enthusiasm!!**

8:30 AM **Welcome and Introductions**

- Purpose and Goals
- Agenda

8:45 AM **Pre-Audit**

- Definition of Study Area
- Review Site Specific Data:
  - Average Daily Traffic
  - Crash Data
  - Geometrics
- Issues
- Safety Procedures

10:00 AM **Audit**

- Visit Site
- As a group, identify areas for improvements

12:00 PM **Post-Audit Discussion / Completion of RSA**

- Discussion observations and finalize findings
- Discuss potential improvements and final recommendations
- Next Steps

2:30 PM **Adjourn for the Day – but the RSA has not ended**

Instruction for Participants:

- Before attending the RSA, participants are encouraged to observe the intersection and complete/consider elements on the RSA Prompt List with a focus on safety.
- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, but are reminded that the synergy that develops and respect for others' opinions are key elements to the success of the overall RSA process.
- After the RSA meeting, participants will be asked to comment and respond to the document materials to assure it is reflective of the RSA completed by the multidisciplinary team.

Audit Checklist

Pedestrians and Bicycles	Comment

Pedestrian Crossings
• Sufficient time to cross (signal)
• Signage
• Pavement Markings
• Detectable warning devices (signal)
• Adequate sight distance
• Wheelchair accessible ramps
  o Grades
  o Orientation
  o Tactile Warning Strips
• Pedestrian refuge at islands
• Other	

Pedestrian Facilities
• Sidewalk
  o Width
  o Grade
  o Materials/Condition
  o Drainage
  o Buffer
• Pedestrian lighting
• Pedestrian amenities (benches, trash receptacles)
• Other	

Bicycles • Bicycle facilities/design • Separation from traffic • Conflicts with on-street parking • Pedestrian Conflicts • Bicycle signal detection • Visibility • Roadway speed limit • Bicycle signage/markings • Shared Lane Width • Shoulder condition/width • Traffic volume • Heavy vehicles • Pavement condition • Other	

Roadway & Vehicles	
• Speed-related issues o Alignment; o Driver compliance with speed limits o Sight distance adequacy o Safe passing opportunities	
• Geometry o Road width (lanes, shoulders, medians); o Access points; o Drainage o Tapers and lane shifts o Roadside clear zone /slopes o Guide rails / protection systems	

• Intersections o Geometrics o Sight Distance o Traffic control devices o Safe storage for turning vehicles o Capacity Issues	

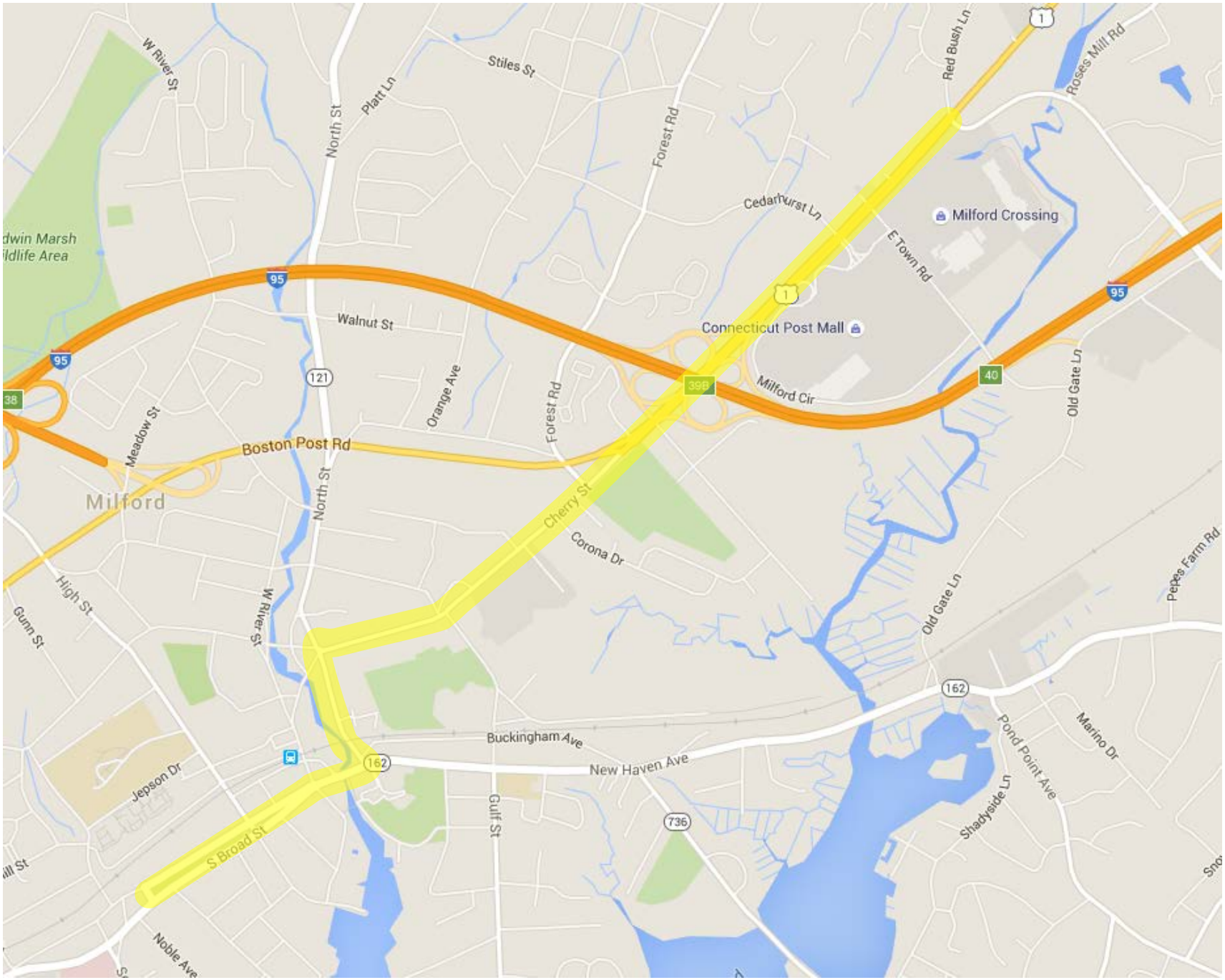
• Pavement
  o Pavement Condition (excessive roughness or rutting, potholes, loose material)
  o Edge drop-offs
  o Drainage issues
• Lighting Adequacy	

• Signing
  • Correct use of signing
  • Clear Message
  • Good placement for visibility
  • Adequate retroreflectivity
  • Proper support	

• Signals
  o Proper visibility
  o Proper operation
  o Efficient operation
  o Safe placement of equipment
  o Proper sight distance
  o Adequate capacity	

• Pavement Markings
  o Correct and consistent with MUTCD
  o Adequate visibility
  o Condition
  o Edgelines provided	

• Miscellaneous
  o Weather conditions impact on design features.
  o Snow storage	


W River St
Stiles St
North St
Platt Ln
Forest Rd
Red Bush Ln
Roses Mill Rd
Cedarhurst Ln
Milford Crossing
E Town Rd
dwin Marsh
ildlife Area
95
Walnut St
Connecticut Post Mall
121
Orange Ave
Forest Rd
Milford Cir
40
Old Gate Ln
Meadow St
Boston Post Rd
Milford
North St
Cherry St
Corona Dr
High St
Gunn St
W River St
Old Gate Ln
Pepes Farm Rd
162
Buckingham Ave
New Haven Ave
Jepson Dr
Gulf St
736
Pond Point Ave
Marino Dr
Shadyside Ln
S Broad St
Noble Ave

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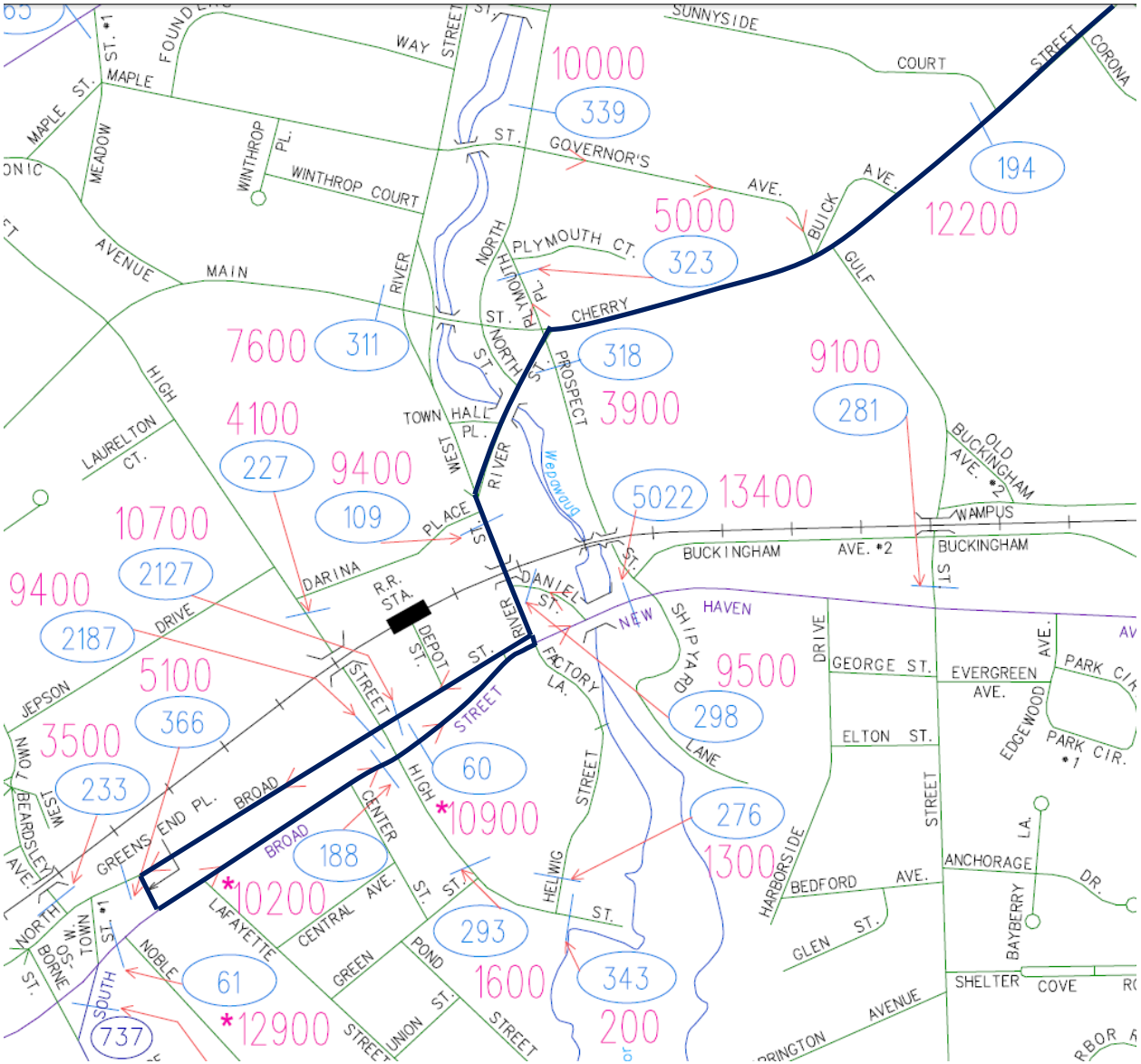
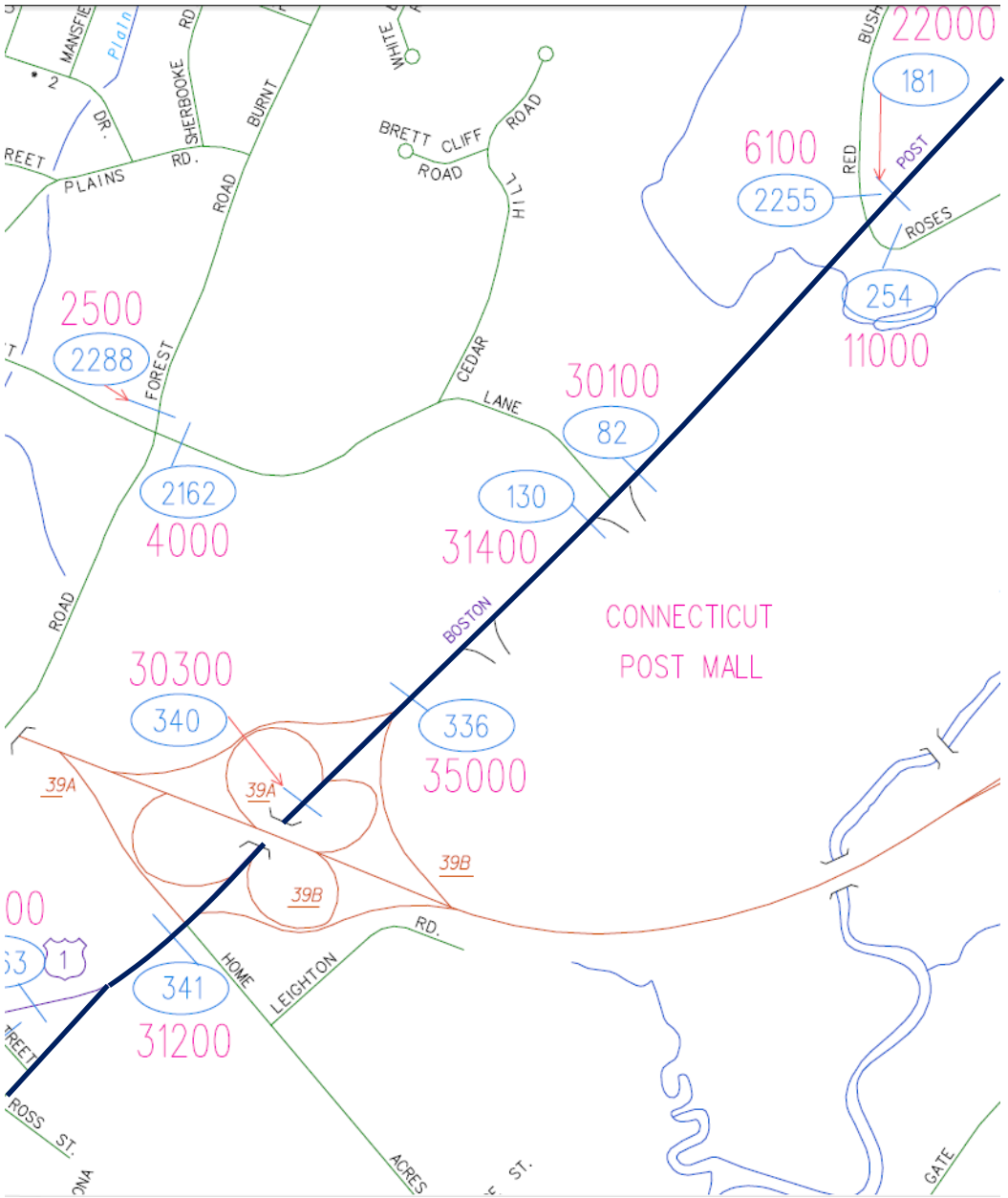
Average Daily Traffic (ADT)



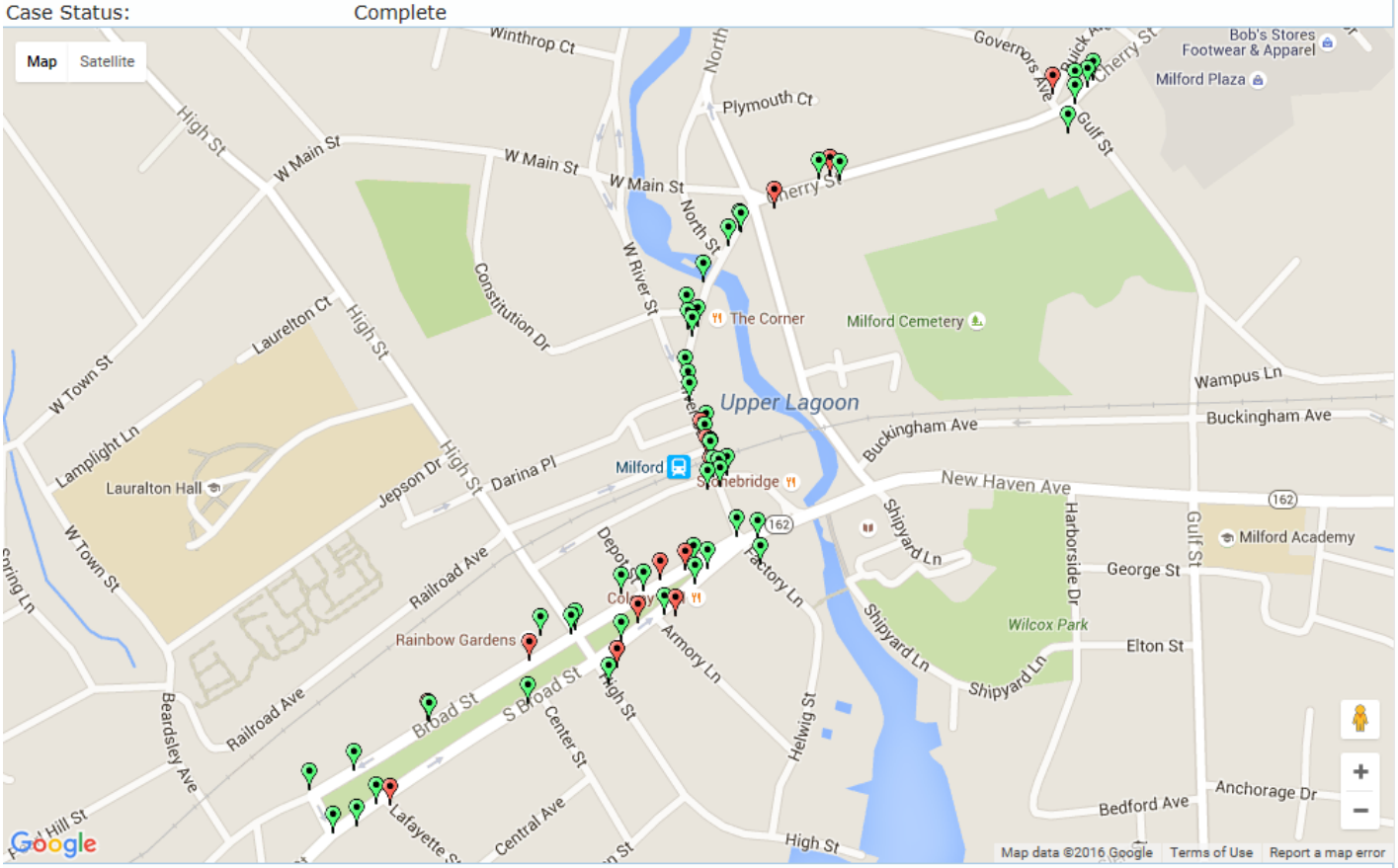

22000
181
6100
2255
RED
POST
ROSES
254
11000
BRETT CLIFF
ROAD
HILL
WHITE
BURNT
ROAD
SHERBOOKE
RD.
PLAINS
RD.
2500
2288
FOREST
ROAD
CEDAR
LANE
30100
82
2162
4000
130
31400
ROAD
BOSTON
CONNECTICUT
POST MALL
30300
340
336
35000
39A
39A
39B
39B
RD.
HOME
LEIGHTON
341
31200
ROSS ST.
ACRES
GATE

2015 Crashes

UCONN Connecticut Crash Data Repository

Search Criteria:

Dataset:	mmucc
Towns:	Milford
Crash Severity:	Injury of any type (Serious, Minor, Possible), Fatal (Kill), Property Damage Only
Case Status:	Complete



Markers | Heatmap | Crashes By Route | Select & Query

Query Selection

Injury of any type (Serious, Minor, Possible)
Fatal (Kill) Property Damage Only
Route Segment Scale
0 0

Select All

Deselect All

This web site is exempt from discovery or admission under 23 U.S.C. 409.

Connecticut Crash Data Repository · User Guide · Contact Us

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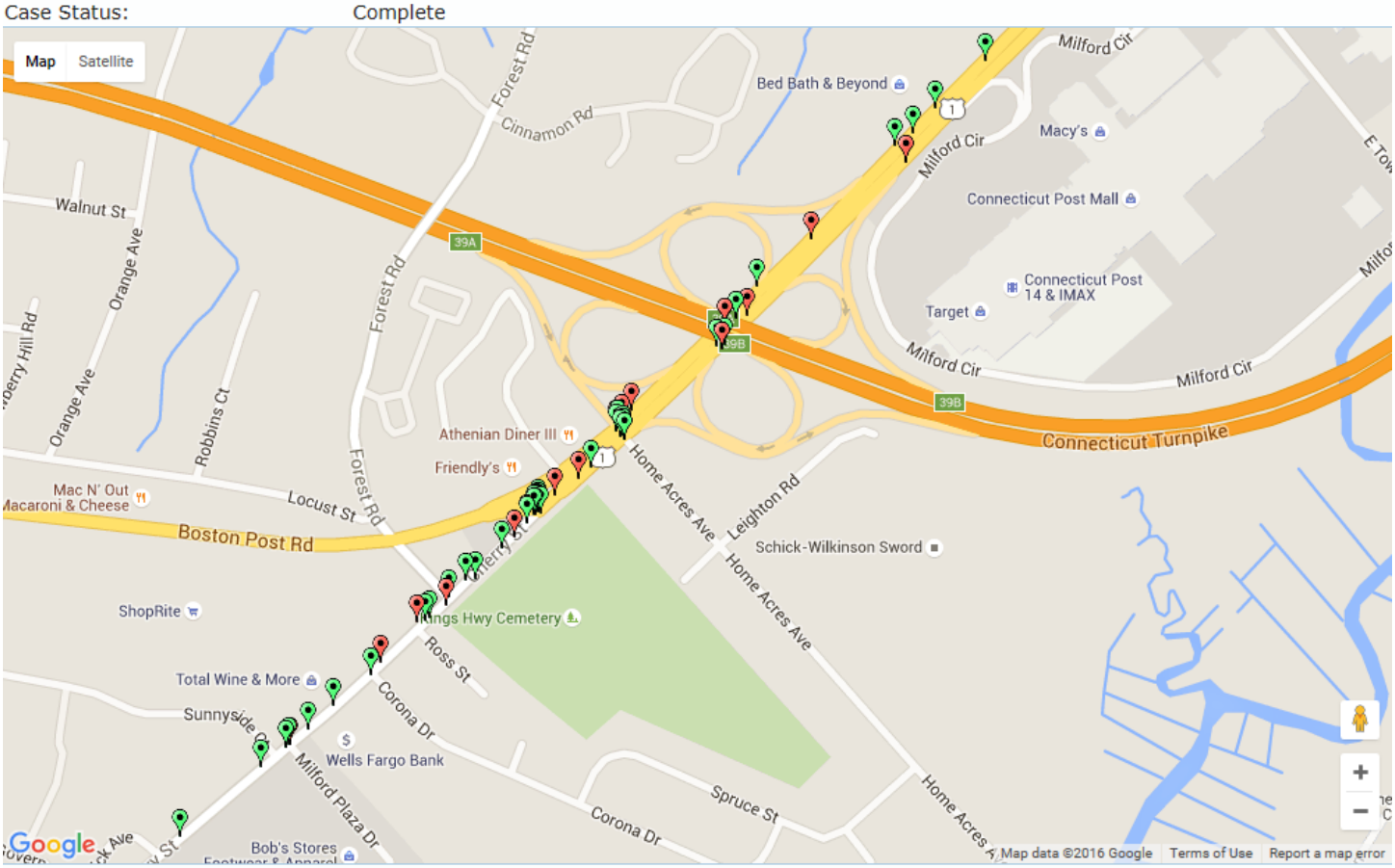

Markers | Heatmap | Crashes By Route | Select & Query

Query Selection

Injury of any type (Serious, Minor, Possible)
Fatal (Kill) **Property Damage Only**

Route Segment Scale
0 0

Select All

Deselect All

UCONN Connecticut Crash Data Repository

Search Criteria:

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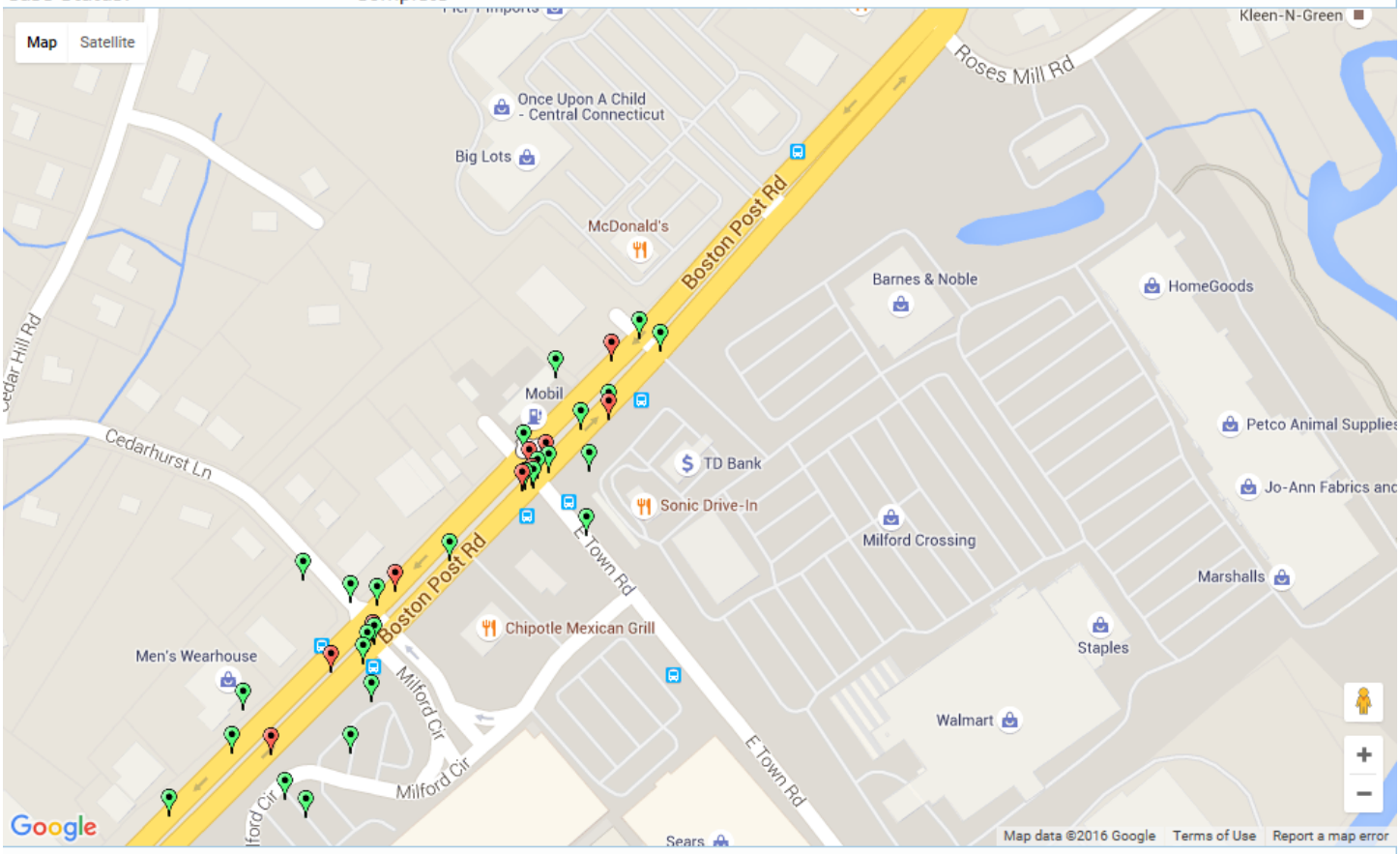


Markers | Heatmap | Crashes By Route | Select & Query

Query Selection

Injury of any type (Serious, Minor, Possible)
Fatal (Kill) **Property Damage Only**
Route Segment Scale
0 0

Select All

Deselect All

Road Safety Audit – Milford

Crash Summary

Data: 3 years (2012-2014)

There was one crash involving a bicycle that resulted in an injury (no fatality).

There were three crashes involving a pedestrian, all of which resulted in an injury (no fatalities).

Severity Type	Number of Crashes	
Property Damage Only	78	62%
Injury (No fatality)	47	38%
Fatality	0	0%
Total	125	

Manner of Crash / Collision Impact	Number of Crashes	
Unknown	0	0%
Sideswipe-Same Direction	14	11%
Rear-end	68	54%
Turning-Intersecting Paths	6	5%
Turning-Opposite Direction	7	6%
Fixed Object	18	14%
Backing	2	2%
Angle	4	3%
Turning-Same Direction	1	1%
Moving Object	0	0%
Parking	1	1%
Pedestrian	3	2%
Overturn	0	0%
Head-on	0	0%
Sideswipe-Opposite Direction	1	1%
Miscellaneous- Non Collision	0	0%
Total	125	

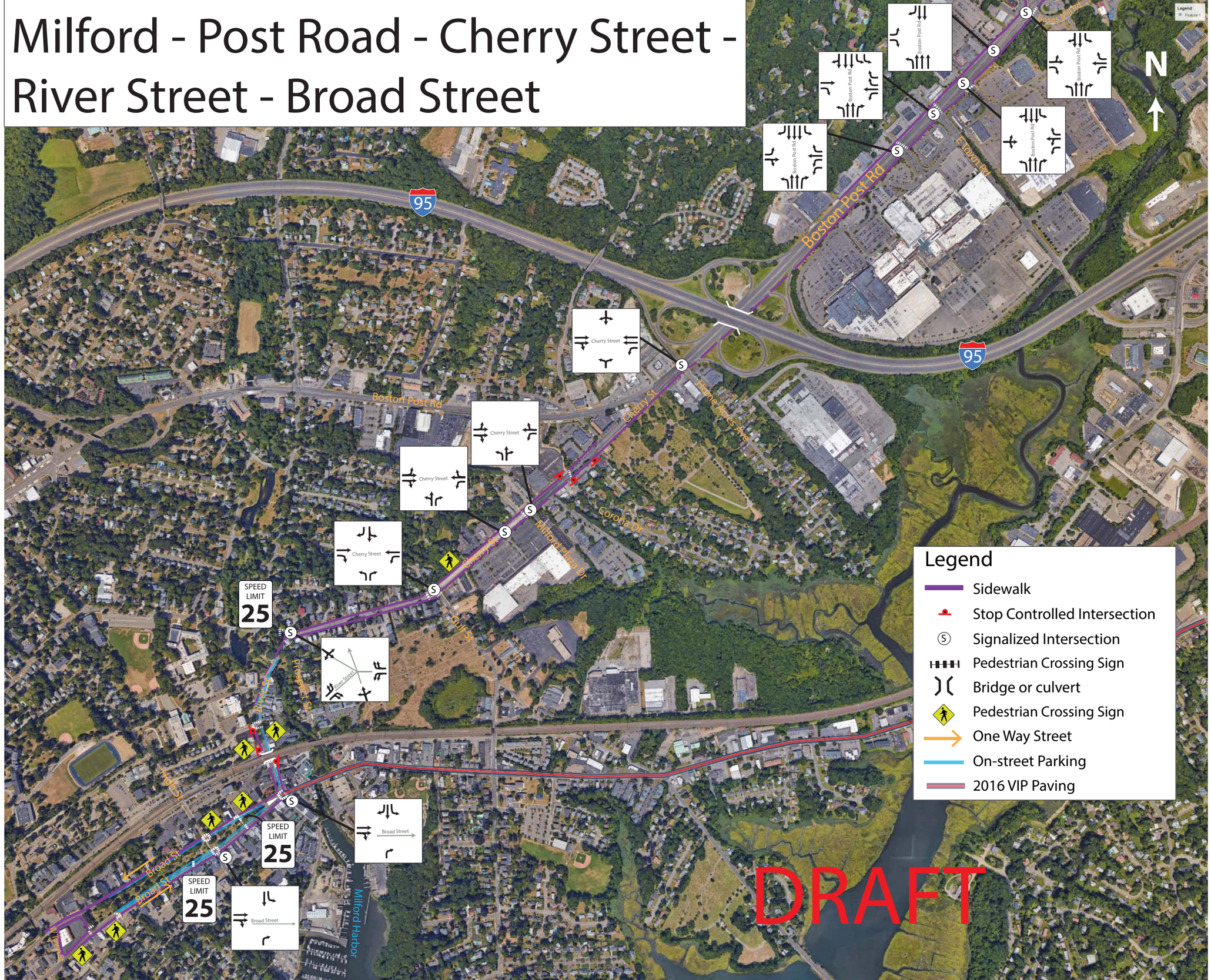
Weather Condition	Number of Crashes	
Snow	1	1%
Rain	18	14%
No Adverse Condition	105	84%
Unknown	1	1%
Blowing Sand, Soil, Dirt or Snow	0	0%
Other	0	0%
Severe Crosswinds	0	0%
Sleet, Hail	0	0%
Total	125	

Light Condition	Number of Crashes	
Dark-Not Lighted	0	0%
Dark-Lighted	35	28%
Daylight	87	70%
Dusk	1	1%
Unknown	1	1%
Dawn	1	1%
Total	125	

Road Surface Condition	Number of Crashes	
Snow/Slush	1	1%
Wet	20	16%
Dry	101	81%
Unknown	1	1%
Ice	2	2%
Other	0	0%
Total	125	

Time		Number of Crashes	
0:00	**0:59**	3	2%
1:00	**1:59**	4	3%
2:00	**2:59**	5	4%
3:00	**3:59**	1	1%
4:00	**4:59**	2	2%
5:00	**5:59**	2	2%
6:00	**6:59**	1	1%
7:00	**7:59**	3	2%
8:00	**8:59**	1	1%
9:00	**9:59**	1	1%
10:00	**10:59**	8	6%
11:00	**11:59**	7	6%
12:00	**12:59**	14	11%
13:00	**13:59**	8	6%
14:00	**14:59**	9	7%
15:00	**15:59**	15	12%
16:00	**16:59**	15	12%
17:00	**17:59**	5	4%
18:00	**18:59**	9	7%
19:00	**19:59**	1	1%
20:00	**20:59**	3	2%
21:00	**21:59**	6	5%
22:00	**22:59**	1	1%
23:00	**23:59**	1	1%
Total		125	

Milford - Post Road - Cherry Street - River Street - Broad Street



Post-Audit Discussion Guide

Safety Issues

- Confirmation of safety issues identified during walking audit

Potential Countermeasures

- Short Term recommendations

- Medium Term recommendations

- Long Term recommendations

Next Steps

- Discussion regarding responsibilities for implementing the countermeasures (including funding)

Road Safety Audit – Milford

Fact Sheet

Functional Classification:

- Broad Street (Westbound) is classified as a Collector
- Broad Street (Eastbound) is classified as a Minor Arterial
- River Street is classified as a Minor Arterial
- Cherry Street is classified as a Minor Arterial
- Post Road is classified as a Principal Arterial (Other)

ADT

- ADT on Broad Street Westbound is 5,100 – 10,700
- ADT on Broad Street Eastbound is 10,200 – 10,900
- ADT on River Street is 9,400
- ADT on Cherry Street is 12,200
- ADT on Post Road is 22,000 – 35,000

Population and Employment Data (2014):

- Population: 53,039
- Employment: 28,303

Urbanized Area

- Milford is in the Bridgeport-Stamford Urbanized Area

Demographics

- The statewide average percentage below the poverty line is 10.31%. There are no areas in Milford that exceed the state average.

- The statewide average percentage minority population is 30.53%. There are no areas In Milford that exceed the state's average.

Air Quality

- Milford's CIPP number 513
- Milford is within the NY/NJ/CT Marginal Ozone Area and $PM_{2.5}$ Attainment/Maintenance Area
- Milford is within a CO Maintenance Area