







MAY 21, 2021

EASTON ROAD SAFETY AUDIT

Findings and Recommendations Report

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1 COMMUNITY CONNECTIVITY PROGRAM

1.1 Program Background

The Connecticut Department of Transportation (CTDOT) has created a Community Connectivity Program that focuses on improving the state's transportation network for all users. A major component of this program is conducting Road Safety Audits (RSAs) at selected locations. An RSA is a formal safety assessment of the existing roadway. 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 and/or severity. RSAs in this program are fully funded by CTDOT at no cost to municipalities.

The RSA team includes CTDOT staff, municipal officials and staff, municipal police, the Connecticut Metropolitan Council of Governments (MetroCOG), local stakeholders, FHI Studio staff, and community leaders. The 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, roadway geometrics, crash data, roadway inventory (ie signage, curbs, bike/ped facilities, amenities, safety components), and sidewalks.

Each RSA is 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 and the summary results are discussed in the following sections.

Figure 1: Easton RSA Regional Location



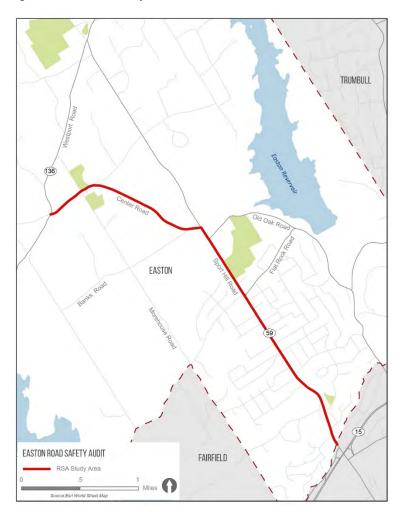
1.2 Easton RSA Study Area and Location

CTDOT performed an RSA for the Town of Easton on Route 59 (Sport Hill Road) between the Easton/Fairfield town line and Center Road. The Study Area also extends along Center Road, between Route 59 and Route 136 (Westport Road). See Figure 2. The purpose of the RSA is to address any safety concerns while discussing possible safety improvements for pedestrians and bicyclists travelling along the study area corridor. The southern end of the study area, on Route 59, to Old Oak Road is in the Bridgeport-Stamford urbanized area. The corridor serves many purposes including local and regional truck traffic, residential and business access, employment commuting, access to farms, Equestrian School, and access to the Merritt Parkway and points further south. See Figure 3.

Route 59 is a state route that provides a north to south connection from the Merritt Parkway and points south (Bridgeport) to points north (Monroe). Center Road is a local route that connects Route 59 to Easton's municipal center (schools, fire and police departments, local businesses). Route 59 is classified as a minor arterial, while Center Road is a minor collector roadway. This corridor experiences low to moderate traffic volumes and possible high speeds. The study area does not have any sidewalks. Easton is a relatively small town in area with limited businesses and commercial areas, the Town lacks multi modal connectivity. Connectivity in this area would create and expand a more vibrant use of the roadway that would also maintain the Town's rural character. The Town's main goal is to provide connectivity on this corridor between the residential neighborhoods and many of Easton's amenities located along Center Road.

¹ Connecticut Urbanized Areas, 2020. https://portal.ct.gov//media/DOT/documents/dpolicy/policymaps/ref/CTUrbanizedAreasp df.pdf?la=en

Figure 2: Easton RSA Study Area



Average Daily Traffic (ADT) in the study area ranges between 9,800 vehicles per day at the southern end (near the Merritt Parkway interchange) to 3,500 vehicles per day on Center Road near Route 136. See Figure 4. The corridor has single lanes in each direction and all intersections throughout the study area are controlled by stop signs with two intersections including flashing beacons; 1) the intersection of Center Road and Route 136, and 2) the intersection of Route 59 and Flat Rock Road

Figure 3: Study Area Points of Interest

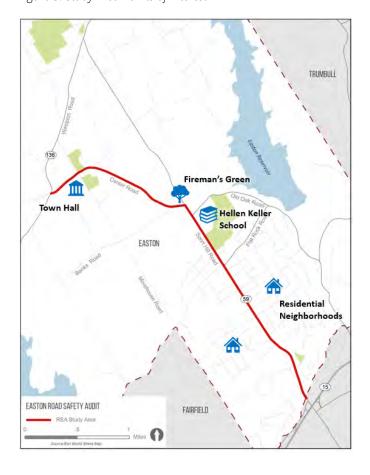
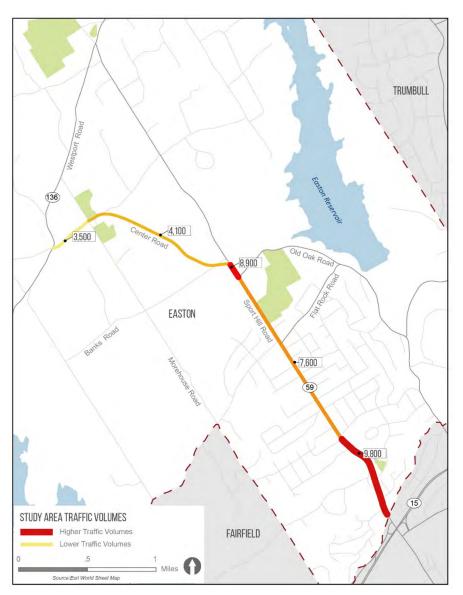


Figure 4: Average Daily Traffic Volumes



2 PRE-AUDIT MEETING

The RSA team conducted a pre-audit meeting on the afternoon of Thursday, March 1, 2021. The RSA team presented a brief presentation that included an overview of the Easton RSA goals and purpose, the study area, and key existing conditions findings. Key themes discussed during the pre-audit meeting are presented below.

Prior Efforts in Study Area: In November 2019, a charrette was held that was focused on an area of Sport Hill Road, between the Hellen Keller School and Silverman's Farm. Meetings were conducted with stakeholders, local agencies, and the public. The charrette led to the development of a series of concepts. These concepts included:

- 10-foot sidepath on the east side of Sport Hill Road
- Traffic island to calm traffic and serve as gateway near Silverman's Farm and Hellen Keller School
- Crosswalks at Fireman's Green
- Connections to Hellen Keller School

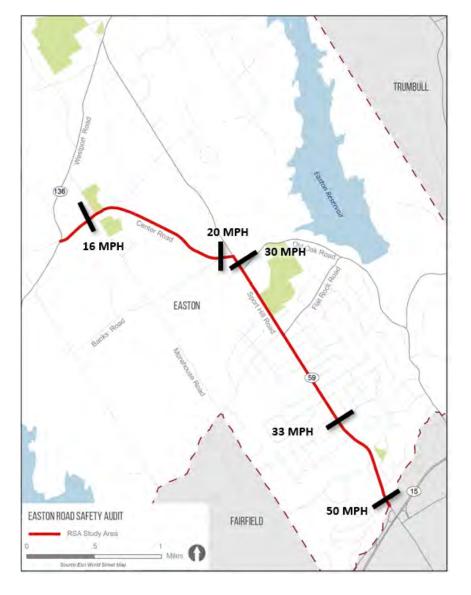
These concepts represent the findings and recommendations of a prior effort and do not represent the recommendations of this RSA. These are provided to ensure consistency with prior efforts.

Figure 5: Charrette Concept Plan at Fireman's Green



Speeds: The speed limit in the study area is 35 mile per hour (mph), except for Center Road in the vicinity of Morehouse Road where the speed limit is 25 mph, as approved by OSTA. However, field review shows that this approved speed limit is missing speed limit signage. CTDOT 85th percentile speed data from December of 2020, recorded speeds between 30-50 mph on Route 59 and between 16 and 20 mph on Center Road. However, speed recorders located near intersections (such as on Route 59 near Center Road) produce slower speed records and are likely slower than areas of the corridor further away from intersections. Easton police and attendees of the RSA observed that speeds often exceed the 35 mph posted speed. See Figure 6.

Figure 6: Study Area 85th Percentile Speeds



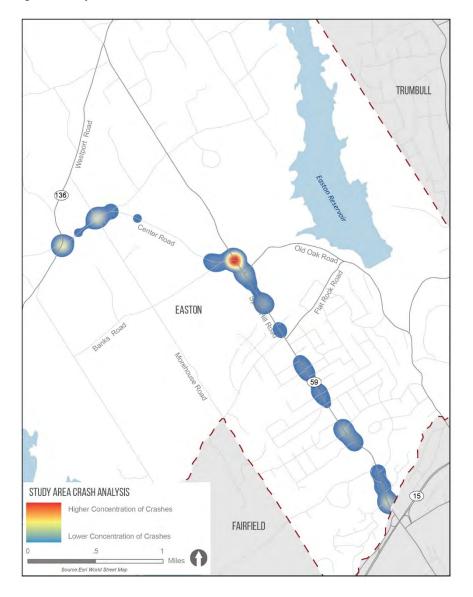
Crashes: Based on data retrieved from the Connecticut Crash Data Repository (CTCDR) for the four-year period between January 2017 and December 2020, there were a total of 130 crashes in the Easton RSA study area. Crashes were concentrated near the intersection of Sport Hill Road and Center Road. Other crash hotspots include:

- Sport Hill Road and:
 - o Center Road
 - Old Oak Road
 - o Streets between Marsh Road and Southfield Road
 - o Tersana Drive
 - o Glovers Lane
- Center Road and Westport Road and Morehouse Road

Table 1: Study Area Crash Summary

	Crash Severity					
	Fatal Injury	Serious Injury	Minor Injury	Possible Injury	No Apparent Injury, Property Damage Only	TOTAL
Front to Rear			3	7	42	52
Front to Front			1			1
Angle		1	3	4	12	20
Sideswipe, Same Direction					4	4
Sideswipe, Opposite Direction					1	1
Rear to Side					2	2
Not Applicable / Single Vehicle		1	5	8	33	47
Other				1	2	3
TOTAL	0	2	12	20	96	130
Crashes Involving Pedestrians	0	0	0	0	0	0
Crashes Involving Bicyclists	0	0	0	0	0	0

Figure 7: Study Area Crash Locations



Crashes by Type: On Sport Hill Road, there is a high volume of single vehicle crashes (33). These can be attributed to the rural nature of the roadway, as many are collisions with deer. At the intersection of Sport Hill Road and Center Road, there is a high volume of rear end crashes, most of which occur on Center Road.. These crashes could be the result of confusion between drivers exiting and entering Center Road due to the large curb radius at the intersection and patrons exiting or entering the Easton Village Store. Near the curve on Center Road, there have been several instances of vehicles running off the road. See Table 2.

Table 2: Crashes by Type

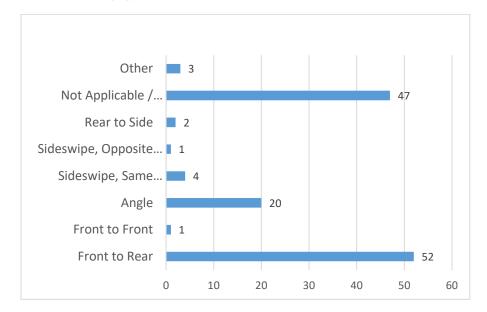
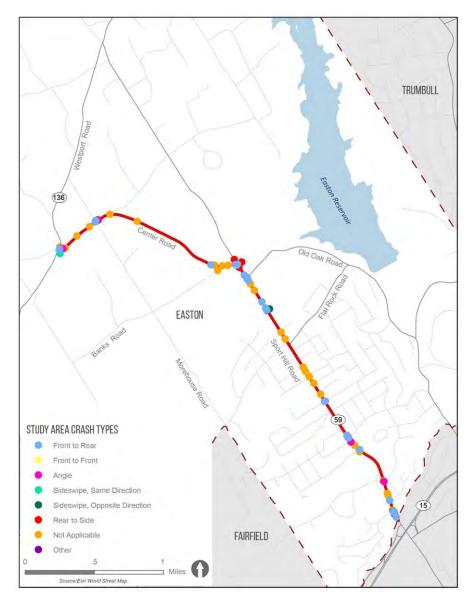


Figure 8: Crashes by Type



Crash Severity: There were two serious injury crashes in the study area between 2017 and 2020. Most crashes (96) are classified as property damage only. This is typical for rear end, "fender-bender "type crashes that are prevalent in the study area. There were no crashes involving pedestrians and bicyclists and there were no fatalities. Refer to Table 3.

Table 3: Crash Severity

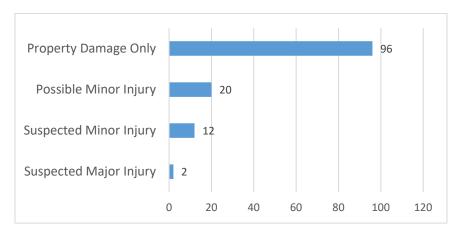
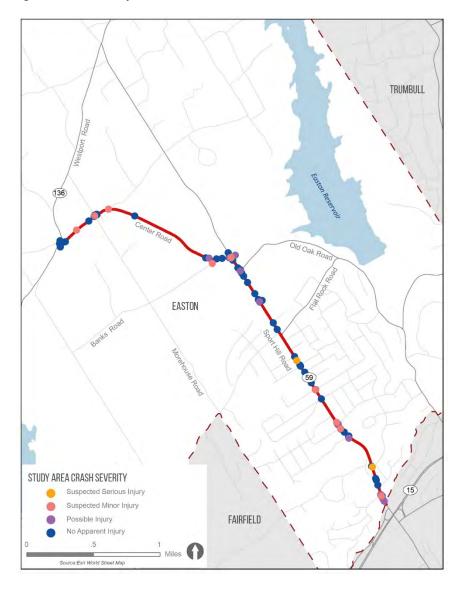


Figure 9: Crash Severity



2.1 Pre-Audit Discussion

Immediately following the pre-audit presentation, a discussion followed that highlighted comments and notes regarding the Easton RSA study area. Highlights from this discussion are presented below:

- From the middle school to the town center, there are many children walking away from the school at the end of the day. The neighborhoods in the south are divided by Sport Hill Road. There are no crossings. Parents are uncomfortable with children crossing the street. At the Route 136 intersection there is a nursery school, church, shops, post office, and a coffee shop, but there are no crosswalks and no sidewalks or pedestrian facilities.
- At the time of this report, a trail is being considered that would span from the middle school driveway to the driveway at Easton Village store, 8-10-foot asphalt bi-directional path, then change to 6-foot concrete sidewalk up to Silverman's Farm.
- The Town is split into two residential zones: three-acre zoning north of Center Road and one-acre zoning to the south. Thus, the study area to the south has a greater population density.
 Sport Hill Road is difficult to cross, particularly for children traveling to / from school and the neighborhoods.
- There has been an increase in the number of people walking and bicycling since COVID-19. It is difficult to get around town without a car. Many people walk in the study area, but it is difficult to cross Sport Hill Road. Experienced bicyclists also avoid Sport Hill Road.
- MetroCOG offered to set out speed counters to get accurate speed data throughout the study area corridor.

- There are several intersections that have site line issues because
 of overgrown vegetation. A resident planted arborvitaes within
 the State right-of-way, that block the site lines. There is a location
 near Old Sport Hill Road where ledge encroaches into the line of
 site. The study team should consider T-ing up the intersection of
 Sport Hill Road and Center Road. The intersection of Route 136
 and Center Road is a congested area.
- Route 136 and Center Road has been highlighted in the Transportation Safety Document- there are major concerns with high travel speeds.

A full meeting summary, including a list of pre-audit meeting attendees is included in the Appendix.

Figure 10: Sample slides from Pre-Audit Presentation



3 RSA ASSESSMENT

The following summary describes observations and discussion regarding issues and concerns throughout the Easton RSA study area. Discussions were held at each of the noted locations below.

3.1 Intersection of Route 136 (Westport Road) and Center Road

- Large corner radiuses at intersection
- No crosswalks or pedestrian amenities
- Lack of overhead street lighting
- Coffee shop generates a lot of traffic, limited parking is challenging
- Patrons of coffee shop need to back out into travel lanes
- Vehicles park in the roadway in front of the coffee shop
- Vehicles park on Route 136 (Westport Road) for when there are events held at Greiser's Market
- Stonewall located on 276 Westport road poses as a sightline concern for vehicles approaching the intersection of Center & Westport Road.
- Steep grades at approach to four-way intersection
- Narrow shoulders east of intersection
- Utility poles close to the road on north side of Center Road
- Sightline concerns (topography, roadway geometry, vegetation)
- Intersection contains a flashing light beacon
- No shoulder lineson Center Road approaches

Figure 11: Intersection of Route 136 and Center Road



Figure 12: Greiser's Coffee & Market Parking Area



Figure 13: East of Intersection of Route 136 and Center Road



3.2 Intersection of Center Road and Morehouse Road

- No existing shoulder pavement markings Prevalence of vehicles running the stop-signs from Easton Police
- No pedestrian facilities or crosswalks
- Vegetation creates sightline concerns (trees and brush)
- Minimal to no street lighting in the corridor

Figure 14: Intersection of Center Road and Morehouse Road



Figure 15: View of the Center Road and Morehouse Road Intersection



Figure 16: Debris from Crash at Intersection of Center Road and Morehouse Road



3.3 Center Road between Route 136 (Westport Road) and Route 59 (Sport Hill Road)

- No existing shoulder pavement markings Curve on Center Road is a crash hot spot west of Easton Volunteer Fire Company (5 crashes)
- Sediment at catch basin indicates there may be pooling or a drainage concern
- No street lighting

3.4 Intersection of Route 59 (Sport Hill Road) and Center Road

- Intersection is a crash hot spot (26 crashes)
- Large curve radius in conjunction with lack of compliance with existing stop sign resulting in higher speeds than desired for turning vehicles and in some instances resulting in rear end crashes. Approach angle is offset from Route 59
- Confusion between vehicles exiting the Easton Village Store driveway and Route 59/ Center Road intersection
- Appears to be high speeds on Route 59

Figure 17: Intersection of Route 59 and Center Road



Figure 18: Wide Corner Radius at Intersection of Route 59 and Center Road



Figure 19: Runner Crossing Intersection of Route 59 and Center Road



3.5 Route 59 (Sport Hill Road) between Center Road and Flat Rock Road

- 42 children counted by police on audit day (3/12/2021) at 1:00 PM (because of early dismissal) on road at the convenience store had arrived from the middle school by foot or on bikeNarrow roadway shoulders, steep embankments, and ledge outcroppings
- No pedestrian
- Minimal street lighting in the corridor

3.6 Intersection of Route 59 (Sport Hill Road) and Flat Rock Road

- Location of observed pedestrian crossings between Flat Rock Road and Beers Road
- Poor site lines south on Sport Hill Road because of hill
- Beginning of denser residential neighborhood area of Easton
- Poor sightlines looking north because of vegetation
- Intersection contains a flashing beacon

Figure 20: Intersection of Route 59 and Flat Rock Road



3.7 Route 59 (Sport Hill Road) between Flat Rock Road and Marsh Road

- Pedestrian crossings observed at Austin drive and are known to cross at other locations
- Shoulders begin to widen
- Pedestrian traffic between neighborhoods east and west of Sport Hill Road

3.8 Intersection of Route 59 (Sport Hill Road) and Marsh Road

- Intersection connects to many residential streets to both east and west of Sport Hill Road
- Potential location for additional crosswalk
- Poor sightlines looking north because of vegetation

Figure 21: Pedestrians Crossing Route 59 at Austin Drive



4 RECOMMENDATIONS

Based on the findings discussed during the RSA, the RSA team compiled a set of recommendations for the study area. These recommendations are organized by study area location. Participants of the RSA identified two locations focus-areas, which are shown in greater detail in the recommendations section. The specific focus areas for this study include:

- Focus Area 1: Route 136 (Westport Road) and Center Road
- Focus Area 2: Route 59 (Sport Hill Road) and Center Road

Other recommendations outside these areas are displayed on an illustrative map of recommendations for the remainder of the corridor. The remaining areas of the study area are discussed in three sections. These sections are defined as follows:

- Map 1: Center Road (between Route 136 and Route 59)
- Map 2: Route 59 North (between Center Road and Harvest Moon Road)
- Map 3: Route 59 South (between Harvest Moon Road and the Easton / Fairfield town line)

Furthermore, all recommendations for all locations are divided into short-term, medium-term, and long-term recommendations.

• Short-term recommendations: These are improvements that are simpler and could be completed on a quick timeline. These recommendations are low-cost alternatives such as striping and signage. These recommendations generally do not require extensive engineering or construction costs. More extensive

- recommendations which have funding previously committed may be included. These projects are defined as those that may be complete within two years.
- Medium-term recommendations: These are improvements that may require more substantial engineering than those generally included as short-term recommendations. These may require establishment of funding in capital improvement plans, or a dedicated funding item. However, these recommendations are generally simpler than long-term recommendations and generally do not include right-of-way acquisition etc. These projects are defined as those that may be completed in two-tofive years.
- Long-term recommendations: These are improvements that require substantial study and engineering. These recommendations generally require significant funding for implementation and may require several years of planning to budget. These projects are defined as those recommendations that may take five years or longer to complete.

It should be noted that any work within the State ROW to be done by non-State forces will require an encroachment permit from the District 3 Permit Office and/or an official request from the Easton Local Traffic Authority.

Figure 22: Study area index map



4.1 Focus Area 1: Intersection of Route 136 (Westport Road) and Center Road

Short-term

- 1) Add street lighting to two utility poles identified on Center Road near store and in the vicinity of the Easton Congregational Church complex on Westport Road
- 2) Upgrade existing stop signs with 36-inch stop signs on Center Road approaches
- 3) Shift Center Road centerline to north. Maintain 10-foot lane and three-foot shoulder to edge of pavement
 - a) Remove existing centerline rumble strip
- 4) Install edgelines on Center Road to create uniform 10-foot travel lanes. This creates an approximate three-foot shoulder in both direction.
- 5) Remove illegible "No Thru Trucks on Route 136" sign. There is existing "No Thru Truck" signage on Route 136 entrances.
- 6) Relocate and install new pedestrian warning signage to east to avoid signage clutter with stop-ahead sign. Examples of this signage is provided in Figure 23. Include new fluorescent yellow pedestrian warning sign (W11-2)
 - a) Include new fluorescent yellow "ahead" advisory plaque (W16-9P)

Medium-term

- 1) Install bulb-out on southeast corner of intersection
- 2) Install sidewalk between parking lot on northwest corner of intersection and general store
- 3) Stripe crosswalks on northbound and eastbound approaches to intersection
 - a) Add streetlighting at crosswalk locations
- 4) Increase curb radii on northeast corner
- 5) Install mountable surface to delineate travel lanes form parking area.

Long-term

1) Extend 10-foot shared use path between Route 59 and Route 136

Figure 23: Example of pedestrian warning signage to be installed



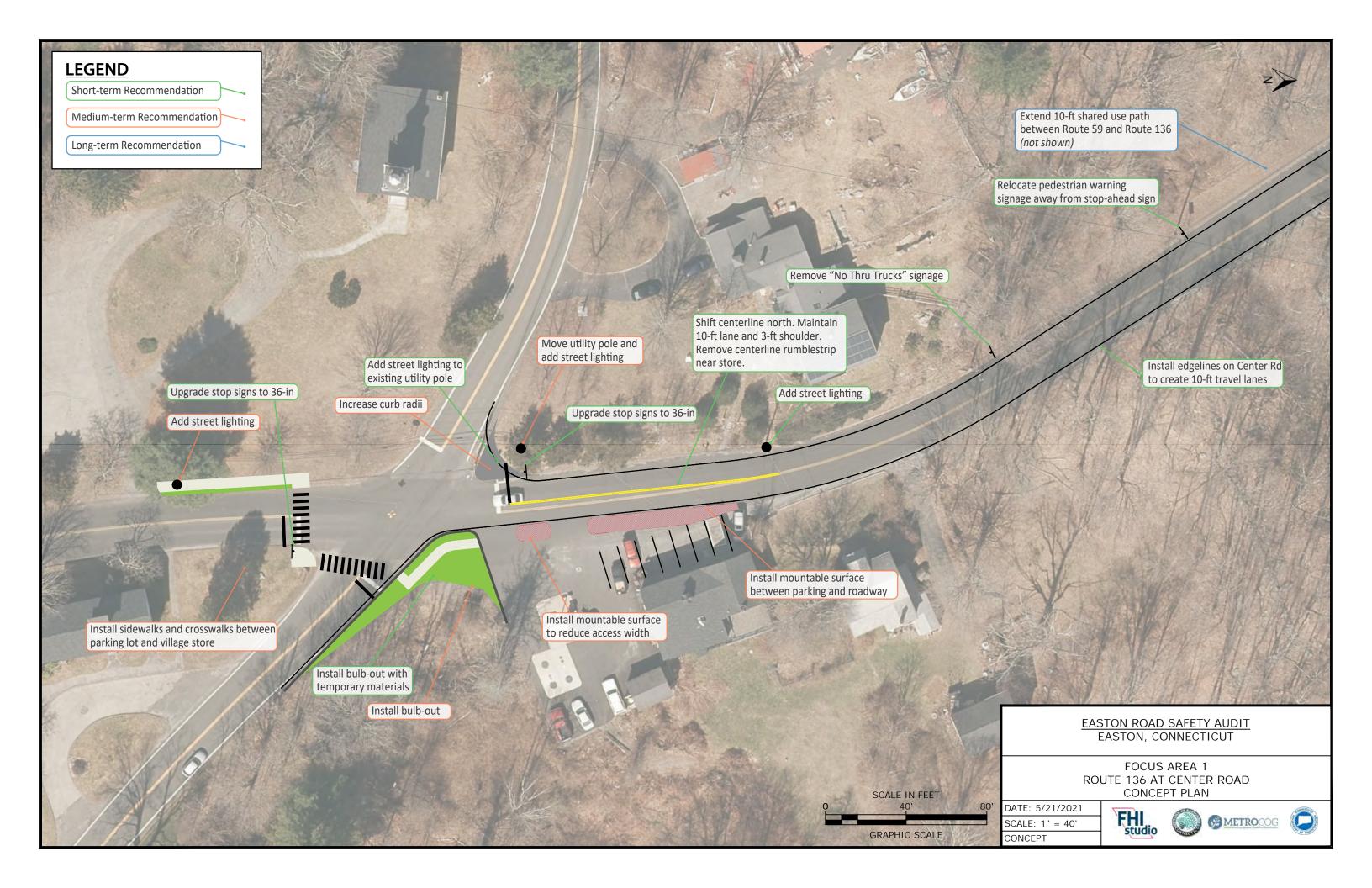
Figure 24: Example of various mountable surfaces



Permeable interlocking paver installation at Joint Military Base Lewis-McChord (JBLM) in Washington State. Source: https://www.estormwater.com/bmps/military-base-installs-permeable-pavers-main-street



Stamped pavement on roadway next to the Hartford Convention Center. Source: Google Earth



4.2 Focus Area 2: Intersection of Route 59 (Sport Hill Road) and Center Road

Short-term

- 1) Upgrade street lighting
- 2) Install shoulder pavement markings on Center Road to create uniform 10-foot travel lanes. This creates an approx. three-foot shoulder in both directions
- 3) Install stop-ahead sign on both sides of Center Road (W3-1)
 - a) Supported as a Federal Highway Administration Proven Safety Countermeasure
- 4) Upgrade stop sign to 36-inch and relocate closer to stop bar for improved visibility
- 5) Install left-side 36-inch stop-sign
- 6) Install intersection warning sign on Route 59 (W2-2)
- 7) Install Do Not Enter signage to exit from convenience store
- 8) Install street lighting on existing utility pole at intersection
- 9) Restripe Center Road centerline to realign Center Road and T-up with Route 59 within existing curb-to-curb width
- 10) Install painted curb extension on southwest corner
- 11) Install flex posts on painted bump out to enforce painted curb extension
- 12) Support Transportation Alternatives Program (TAP) grant to install a 10-foot shared use path between Center Road and Helen Keller

Middle School and a sidewalk between Center Road and Silverman's Farm

Medium-term

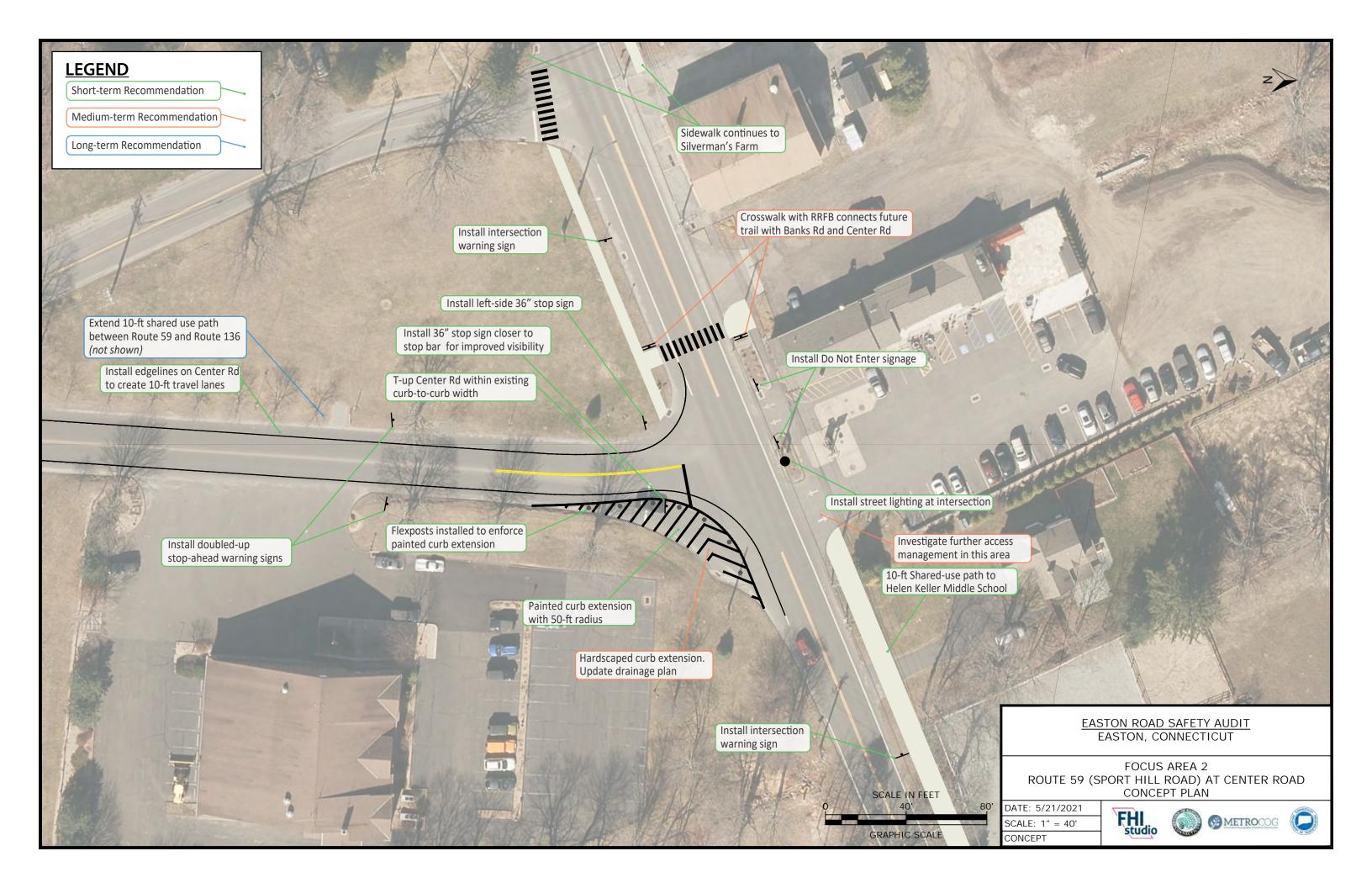
- 1) Install crosswalk and RRFB across Route 59 at Center Road
- 2) Hardscape painted curb extension with curbing and landscaping
- 3) Relocate stop-sign to new location near stop bar
- 4) Investigate further access management near Center Road

Long-term

1) Extend 10-foot shared use path between Route 59 and Route 136

Figure 25: Example of signage to be installed





4.3 Map 1: Center Road

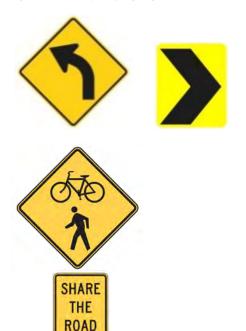
Short-term

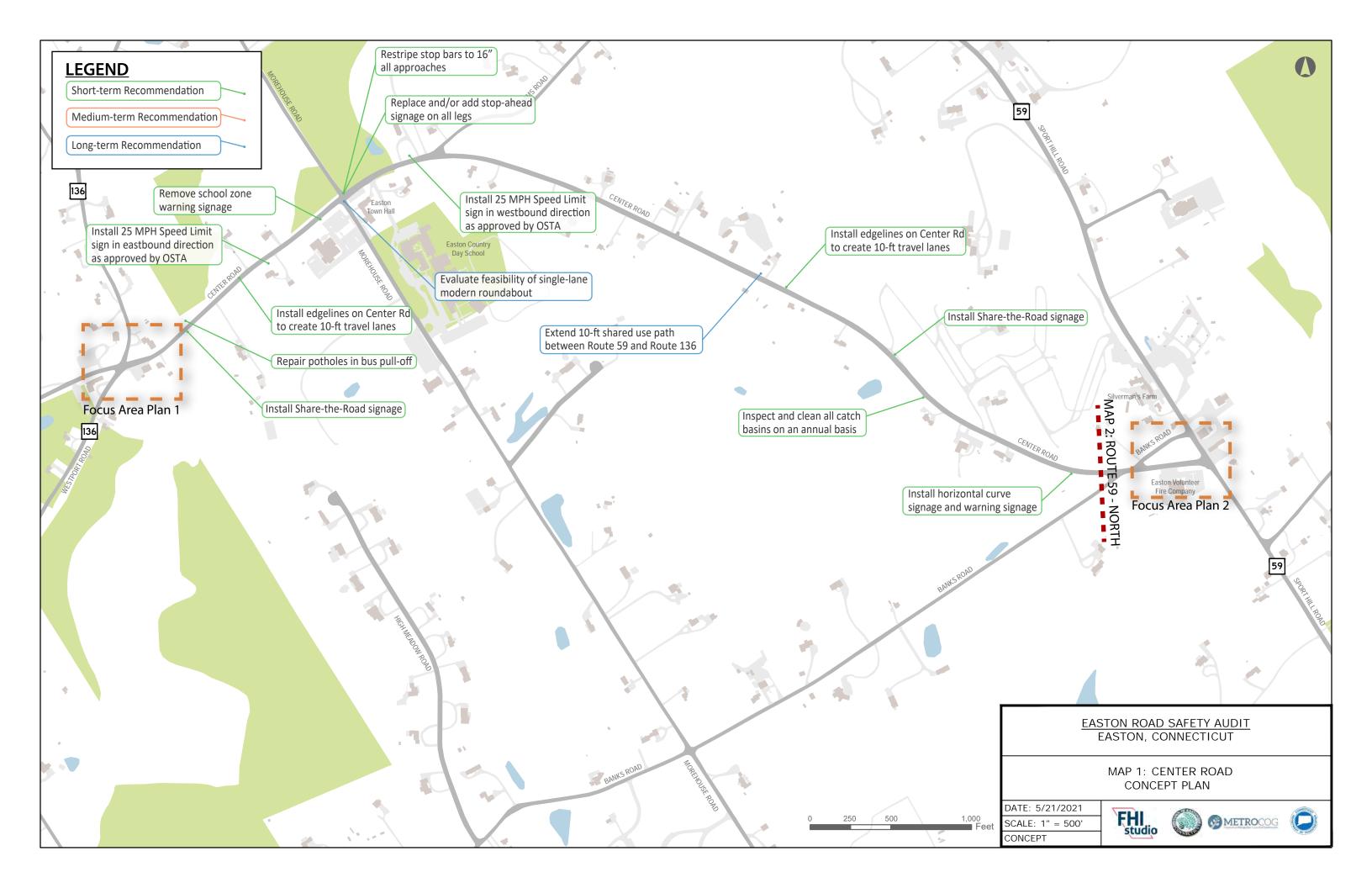
- 1) Install edge lines on Center Road to create uniform 10-foot travel lanes. This creates an approx. 3-foot shoulder in either direction.
- 2) Replace and/or install new stop-ahead signage on all approaches to the intersection of Center Road and Morehouse Road.
- 3) Remove school zone warning signage on Center Road west of Morehouse Road.
 - a) Signage conflicts with existing stop signage and proposed stopahead warning signage. School property is located on Morehouse Road.
- 4) Restripe stop bars to 16 inches on all approaches at the intersection of Center Road and Morehouse Road.
- 5) Install horizontal curve signage and warning signage on the horizontal curve immediately to the west of Banks Road on Center Road per Manual on Uniform Traffic Control Devices (MUTCD) guidance.
- 6) Inspect and clean all catch basins on annual basis
- 7) Install share-the-road signage
- 8) Install 25 MPH speed signs on Center Road between Banks Road and 255 Center Road
 - a) Speed limit is legal speed limit set by the Office of the State Traffic Administration at CTDOT

Long-term

- 1) Evaluate the feasibility of installing a single-lane modern roundabout at the intersection of Center Road and Morehouse Road.
- 2) Extend 10-foot shared use path between Route 59 and Route 136

Figure 26: Example of signage to be installed





4.4 Map 2: Route 59 – North

Short-term

- 1) Establish 25 mph school speed limit with Office of the State Traffic Administration at CTDOT
- 2) Post school zone speed limit with light emitting Diode (LED) flashing assembly 200 feet prior to school ground
- 3) Remove vegetation in state right-of-way on the northeast corner of the intersection of Route 59 and Flat Rock Road
- 4) Rotate town-owned speed feedback sign on existing speed limit signage on Route 59
- 5) Remove vegetation in state right-of-way on the northeast corner of the intersection of Route 59 and Marsh Road
- 6) Install crosswalk and warning signage at three locations:
 - a) Intersection of Route 59 and Flat Rock Road
 - i) Locate crosswalk south of Flat Rock Road. Stopping sight distance for northbound approach is approximately 650-feet. Confirm adequate stopping sight distance and intersection sight distance in field prior to installation.
 - b) Intersection of Route 59 and Austin Drive
 - c) Intersection of Route 59 and Blanchard Road
- 7) Support Transportation Alternatives Program (TAP) grant to install a 10-foot shared use path between Center Road and Helen Keller Middle School and a sidewalk between Center Road and Silverman's Farm

Medium-term

- 1) Construct 10-foot shared-use path between Helen Keller Middle School and Flat Rock Road
- 2) Reduce curb radius and install crosswalk landing on southwest corner of the intersection of Route 59 and Flat Rock Road
- 3) Install rectangular rapid flashing beacon (RRFB) at crosswalk at Flat Rock Road
- 4) Install sidewalk between crosswalk at Flat Rock Road and Beers Road

Long-term

- 1) Install 10-foot shared-use path between Flat Rock Road and Tersana Drive
- 2) Install 5-foot sidewalk on west side of Route 59 between Soundview Drive and Harvest Moon Road to connect to crosswalk
- 3) Relocate utility poles close to street corner at three locations if warranted:
 - a) Intersection of Route 59 and Old Orchard Road
 - b) Intersection of Route 59 and Manor Lane
 - c) Intersection of Route 59 and Austin Drive

Figure 27: Example of signage to be installed

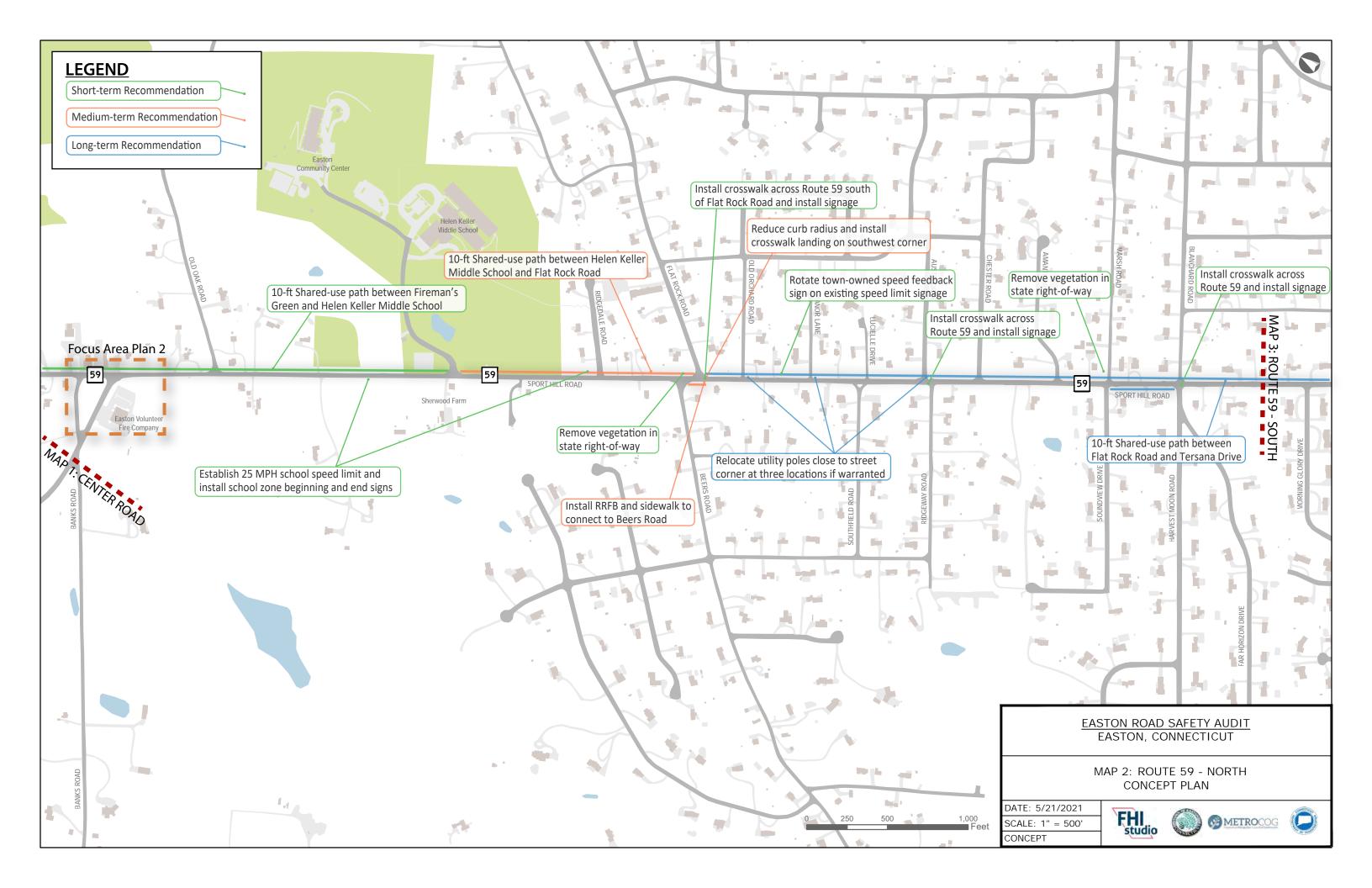












4.5 Map 3: Route 59 – South

Short-term

1) Remove vegetation in state right-of-way on the southeast corner of Route 59 and Sport Hill Parkway

Medium-term

1) Realign the intersection of Route 59 and Old Sport Hill Road (southern intersection)

Long-term

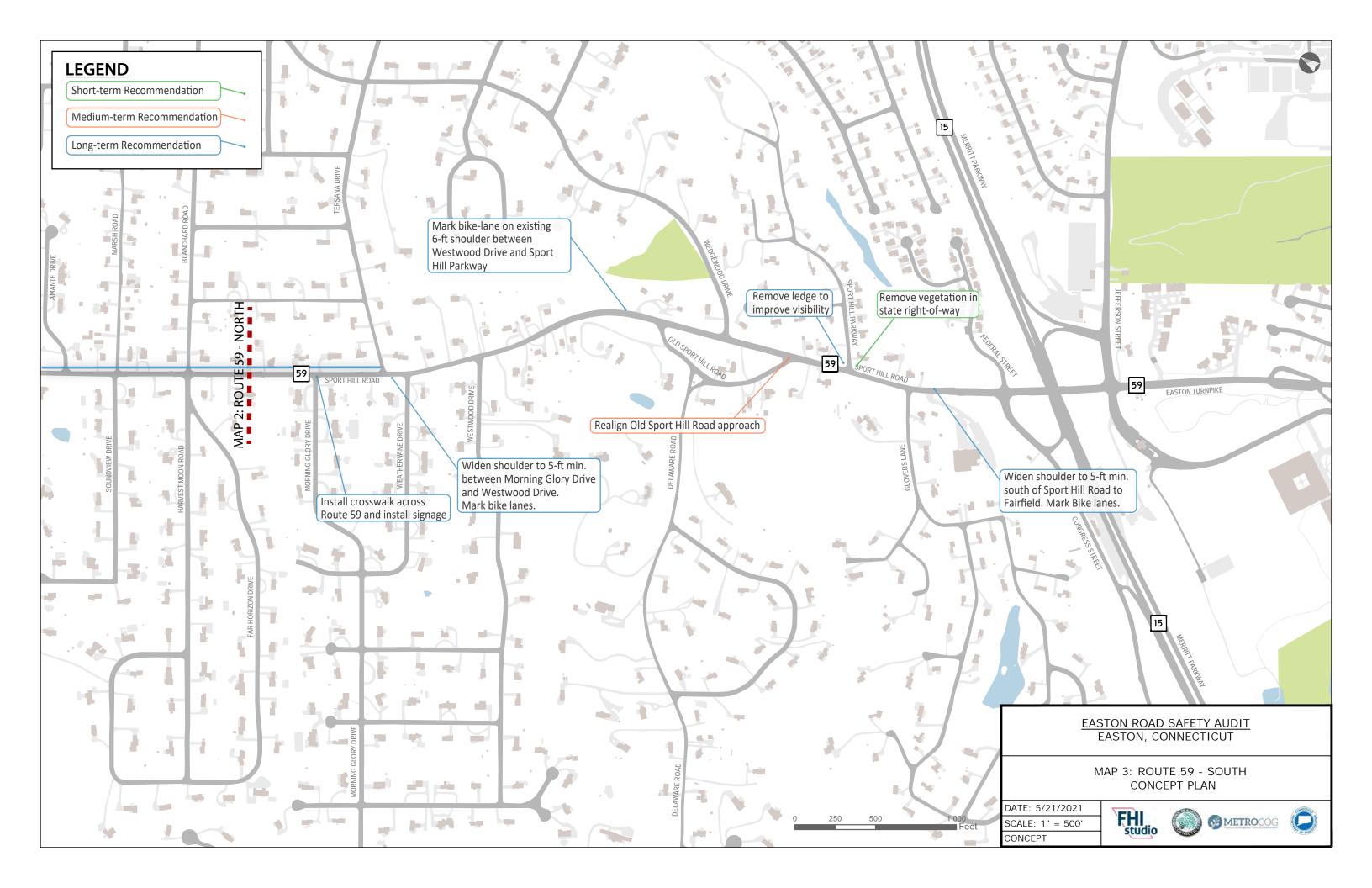
- 1) Install 10-foot shared-use path between Flat Rock Road and Tersana Drive
- 2) Install crosswalk across Route 59 at Morning Glory Drive
 - a) Include crosswalk warning signage
 - b) Check against DOT sightline requirements and intersection sight distance requirements for pedestrians to see vehicles
 - i) Controlling sightline is approximately 550-feet to south. This is more than the 250-feet stopping sight distance required at 35 mph.
- 3) Widen shoulder to 5-feet (minimum) between Morning Glory Drive and Westwood Drive. Mark bike lanes
- 4) Widen shoulder to 5-feet (minimum) between Sport Hill Parkway and Fairfield Town Line. Mark bike lanes
 - a) Advocate for bike lanes to extend past Merritt Parkway and points further south

- 5) Mark bike lane in existing 6-foot shoulder between Westwood Drive and Sport Hill Parkway
- 6) Remove ledge to improve visibility at the intersection of Sport Hill Road and Sport Hill Parkway

Figure 28: Example of signage to be installed







5 SUMMARY

This report documents the observations, discussions, and recommendations developed during the completion of the Town of Easton's RSA. It provides the Town with an outlined strategy to improve the transportation network for all users on Sport Hill Road (Route 59) and Center Road, particularly focusing on pedestrians and cyclists. Moving forward, Easton may use this report to prepare strategies for funding and implementing the improvements. This report provides Easton with a toolkit to plan for including these multi-modal recommendations into future development within the study area. The study area connects many of the Town's residential neighborhoods to Easton's amenities which include convenience stores, restaurants, petting zoo, florist, antique stores, schools, playgrounds, the Easton Town Hall campus, Easton Police and Fire/EMS stations.

It should be noted that any work within the State ROW to be done by non-State forces will require an encroachment permit from the District 3 Permit Office and/or an official request from the Easton Local Traffic Authority.

The aforementioned Community Connectivity Program: Road Safety Audit Report is an objective review intended for the municipality use to help assess the existing conditions within a predetermined area of town selected by the municipality. The conclusions of this report are advisory and intended for general planning purposes to help identify bicycle, pedestrian and non-motorized transportation needs that encourage walking and bicycling, as well as assists in developing recommendations to improve the existing conditions. The contents of this report are not intended to be legally binding, but rather offer recommendations to

improve safety in the vicinity of the audit location and create a more appealing transportation alternative.

Figure 29: Cyclist Bicycling on Center Road



Figure 30: Existing Signage in the Study Area



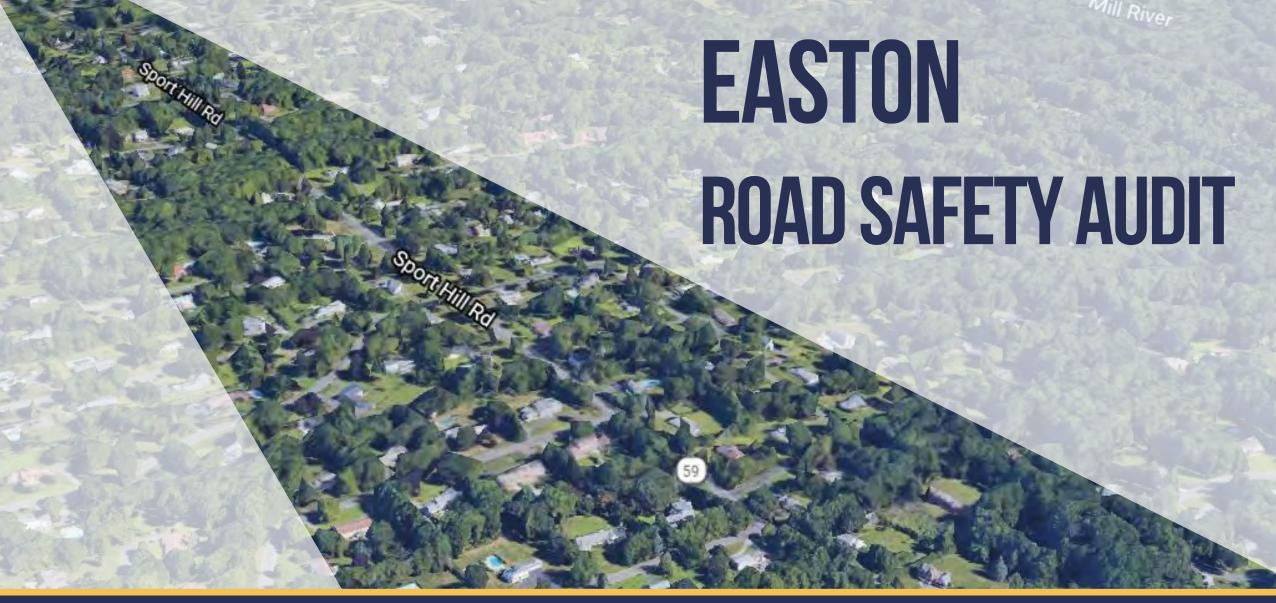
APPENDICES

A: Pre-Audit Presentation

B: Pre-Audit Notes

C: Field Audit Packet

D: Additions Study Area Photos











FHI PRESENTATION



AGENDA

- 1. Welcome and Team Introductions
- 2. Study Purpose and Goals
- 3. Study Area
- 4. Review of Site-Specific Data and Issues
- 5. Next Steps for Tomorrow's Site Visit Audit

PROJECT TEAM

- Connecticut Department of Transportation (CTDOT) is sponsoring
- Town of Easton
- Fitzgerald & Halliday, Inc. (FHI) is conducting the Road
 Safety Audit reporting
- Support from MetroCOG

PURPOSE AND GOALS OF THE ROAD SAFETY AUDIT

Safety assessment of existing walking and biking routes

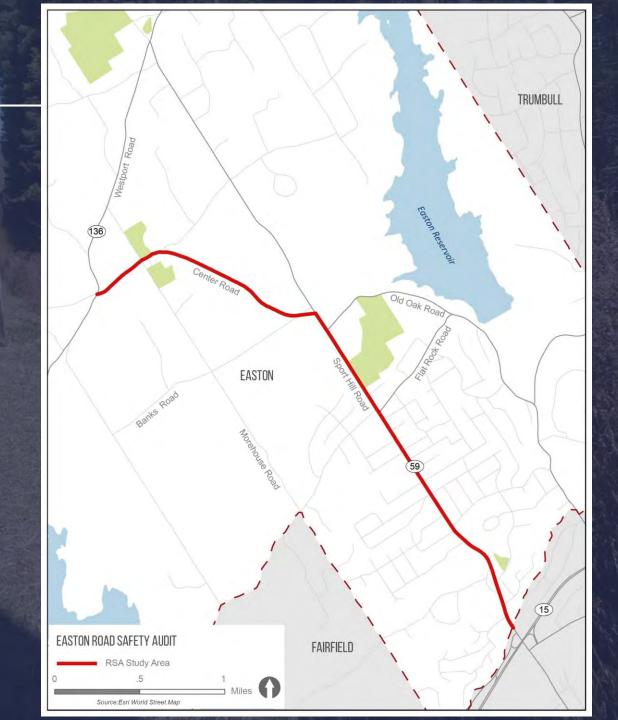
Improve transportation network for all users by making conditions safer and more comfortable for pedestrians and cyclists

Identify the issues that may discourage or prevent walking and bicycling

Identify next steps, evaluate feasibility of proposed improvements, and potential funding sources.

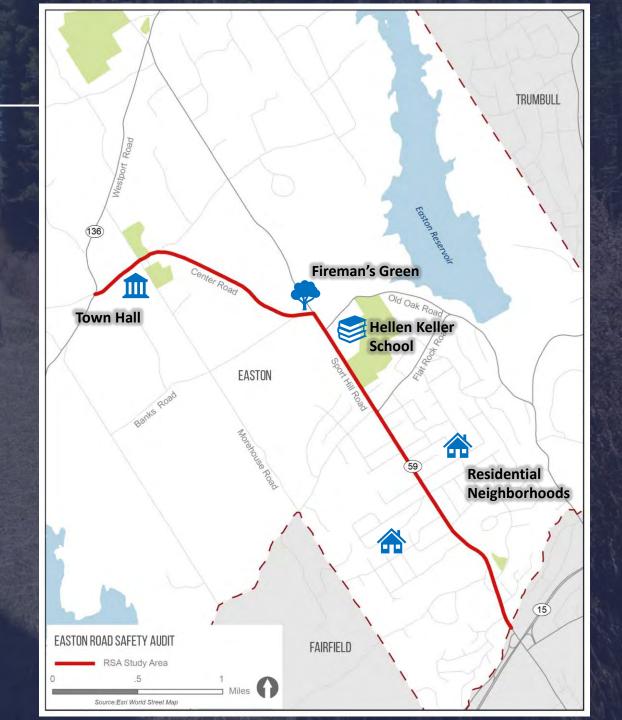
STUDY AREA

- Sport Hill Road (RT 59)– 2.18 Miles
- Center Road– 1.45 Miles



POINTS OF INTEREST

- Town Hall, Library, Easton Country Day School
- Fireman's Green / Silverman's Farm
- Hellen Keller School,
 Community Center
- Easton's Residential Center
 - Approx: 2,800 (2010)
 - vs. Easton Pop: 7,490





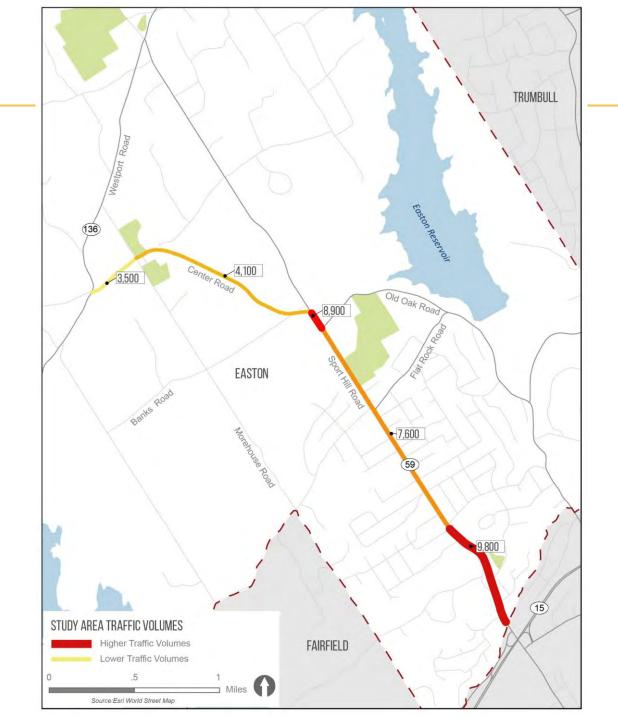
EXISTING CONDITIONS FINDINGS

Route 59 (Sport Hill Road) serves many purposes including:

- Local and regional truck traffic
- Local residential access
- Employment commuting
- Local business access
- Farms
- Equestrian School
- Access to Merritt Parkway and points further south
- Pedestrian movement to serve local neighborhood

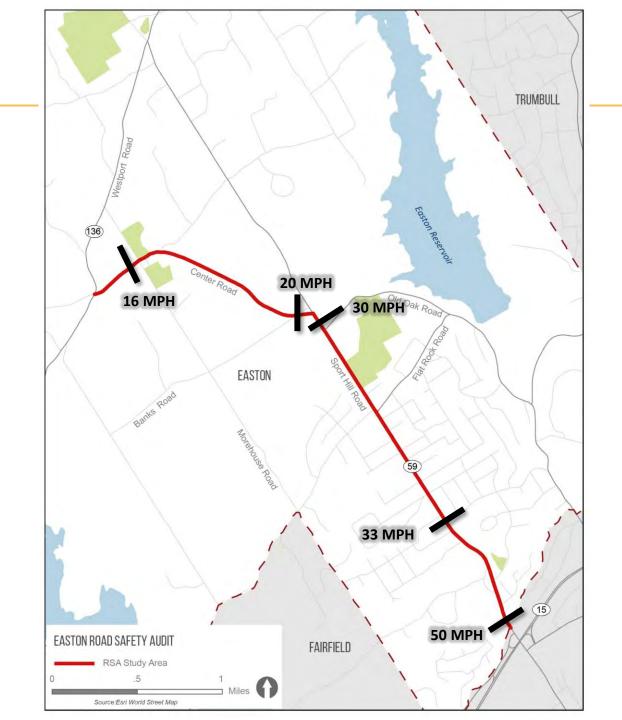
TRAFFIC VOLUMES

- Higher traffic volumes at the southern end of the Study Area, near the Merritt Parkway interchange
 - Higher volumes between Old Oak Road and Center Road
 - Center Road sees about half of the traffic volumes of Sport Hill Road (Route 59)



85TH PERCENTILE SPEEDS

- Based on CTDOT data collected December 2020
- Recorders located near intersection result in slower speeds
- Speed limit in Study Area is 35 (except for school zone on Sport Hill Road)



ROADWAY GEOMETRY

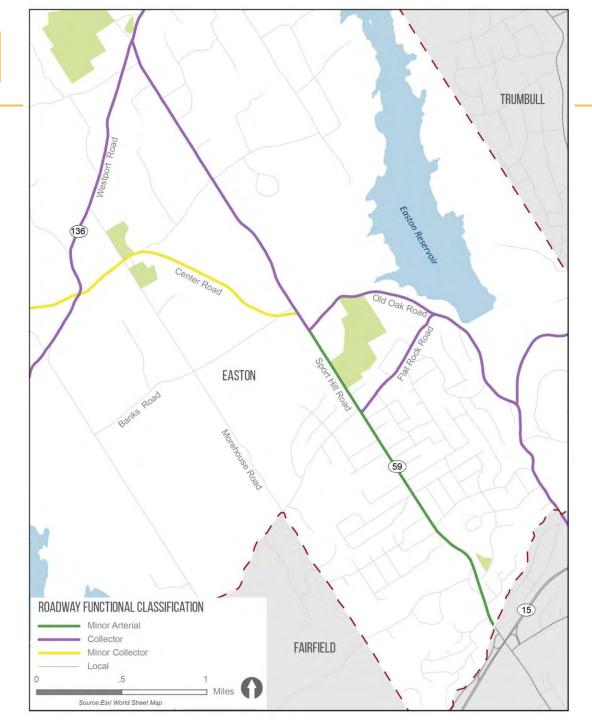
Easton - RSA - Route 59 Street Inventory

Road	From	To	Distance	Direction	Lamas	Lane		Sidewalk	,	ADA	Ramps	Curb	Daulina	Chauldan
Roua	From	То	Distance	Direction	Lanes	Width	Туре	Width	Condtion	Present	Compliant	Curb	Parking	Shoulder
Sport Hill Road (Route 59)	Mill River Bridge	Glovers Lane	350'	NB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	7'
				SB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	7'
Sport Hill Road (Route 59)	Glovers Lane	Sport Hill Parkway	400'	NB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	3'
				SB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	3'
Sport Hill Road (Route 59)	Sport Hill Parkway	Westwood Drive	2400'	NB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	6'
				SB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	6'
Sport Hill Road (Route 59)	Westwood Drive	Soundview Drive	2300'	NB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	2'
				SB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	2'
Sport Hill Road (Route 59)	Soundview Drive	Ridgeway Road	1100'	NB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	4'
				SB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	4'
Sport Hill Road (Route 59)	Ridgeway Road	Ridgedale Road	2100'	NB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	3'
				SB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	3'
Sport Hill Road (Route 59)	Ridgedale Road	Center Road	3000'	NB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	2'
				SB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	2'
Center Road	Sport Hill Road (Route 59)	Banks Road	450'	WB	1	15'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				EB	1	15'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Center Road	Banks Road	Westport Road (Route 136)	7,200'	WB	1	13'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				EB	1	13'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

^{*}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.

FUNCTIONAL CLASSIFICATION

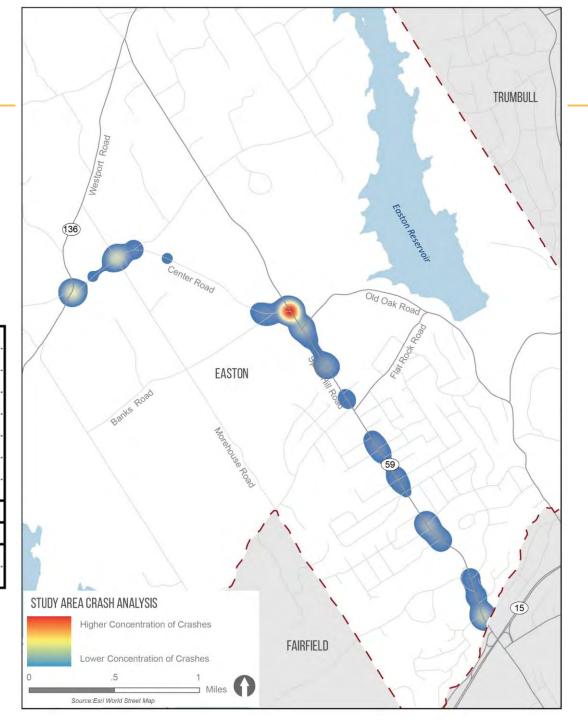
- Sport Hill Road (Route 59)
 - Minor Arterial
- Center Road
 - Minor Collector



CRASH ANALYSIS

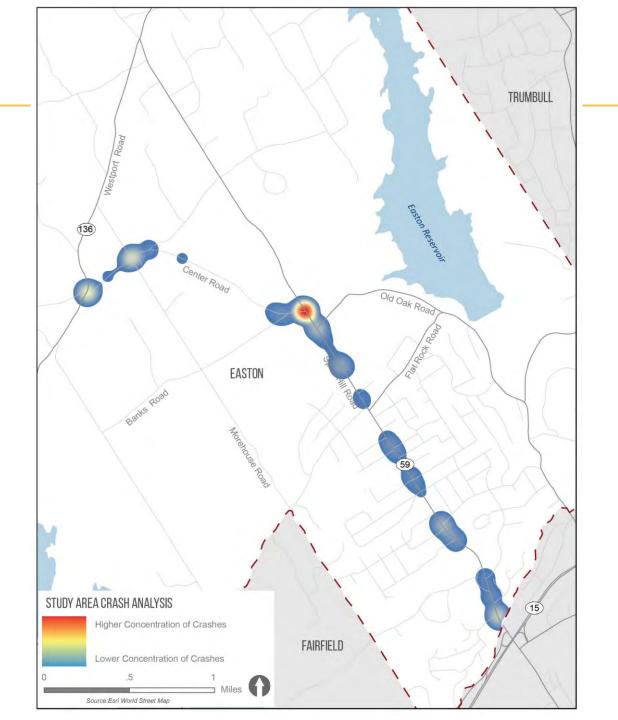
2017 - 2020

	Crash Severity							
	Fatal Injury	Serious Injury	Minor Injury	Possible Injury	No Apparent Injury, Property Damage Only	TOTAL		
Front to Rear			3	7	42	52		
Front to Front			1			1		
Angle		1	3	4	12	20		
Sideswipe, Same Direction					4	4		
Sideswipe, Opposite Direction					1	1		
Rear to Side					2	2		
Not Applicable / Single Vehicle		1	5	8	33	47		
Other				1	2	3		
TOTAL	0	2	12	20	96	130		
Crashes Involving Pedestrians	0	0	0	0	0	0		
Crashes Involving Bicyclists	0	0	0	0	0	0		



CRASH ANALYSIS

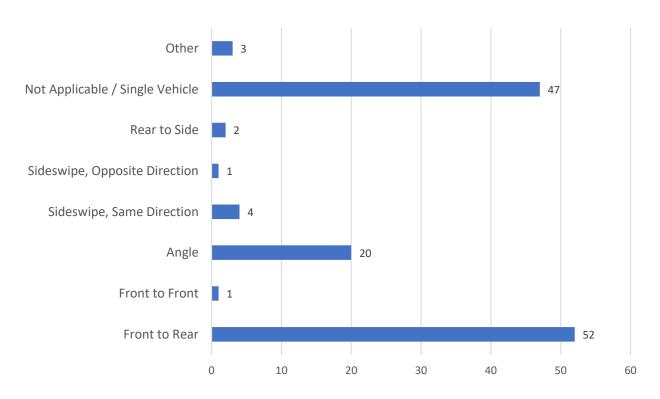
- Crashes are most concentrated at the intersection of Center Road and Sport Hill Road
- Other crash hotspots include:
 - Sport Hill Road (Route 59) and
 - Center Road
 - Old Oak Road
 - Streets between Marsh
 Road and Southfield Road
 - Tersana Drive
 - Glovers Lane
 - Center Road and
 - Morehouse Road
 - Westport Road (Route 136)

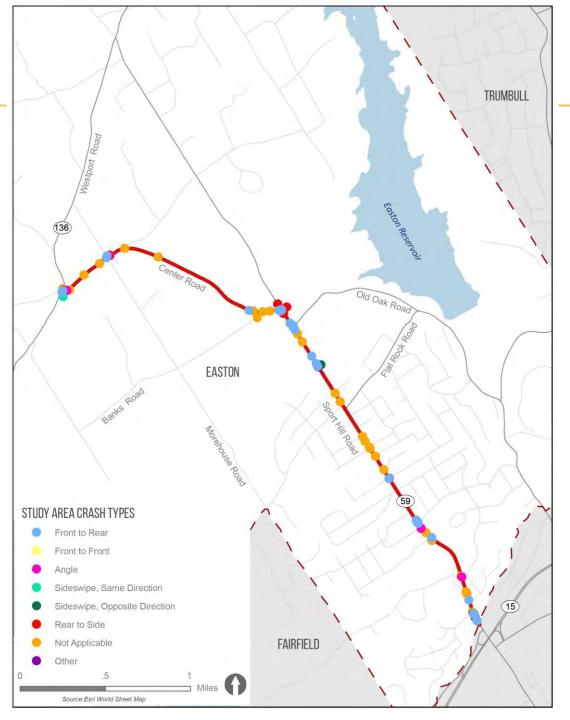


CRASH TYPE

- On Sport Hill Road Many single vehicle crashes (Mostly Deer)
- At Sport Hill / Center Road Many rear end collisions on Center Road, Confusion with Store
- At Center Road Curve Run-off-Road

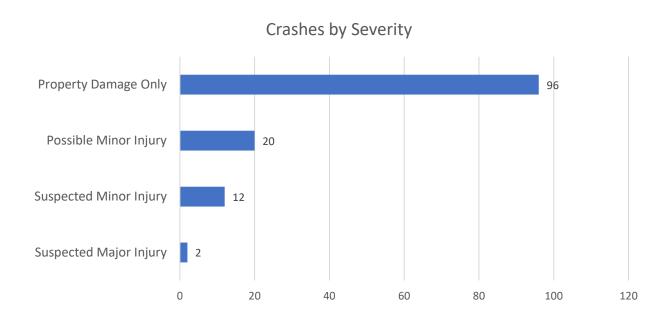


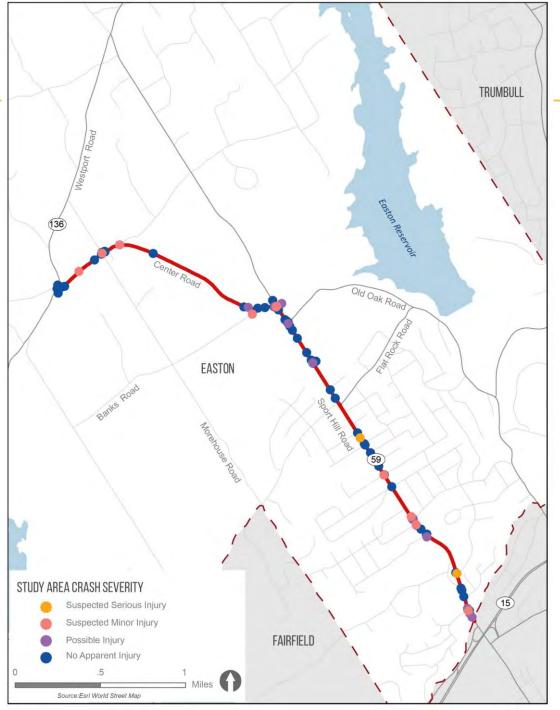




CRASH SEVERITY

- Majority of crashes are classified as No Apparent Injury- Property Damage Only and Suspected Minor Injury
- There were two Serious Injury Crashes and no Fatalities





REVIEW OF PAST/CURRENT WORK

- November 2019 Charette
- Focus on Sport Hill Road (Route 59) between Hellen Keller school and Silverman's Farm
- Meetings with stakeholders, agencies, and public
- Led to development of concept plans

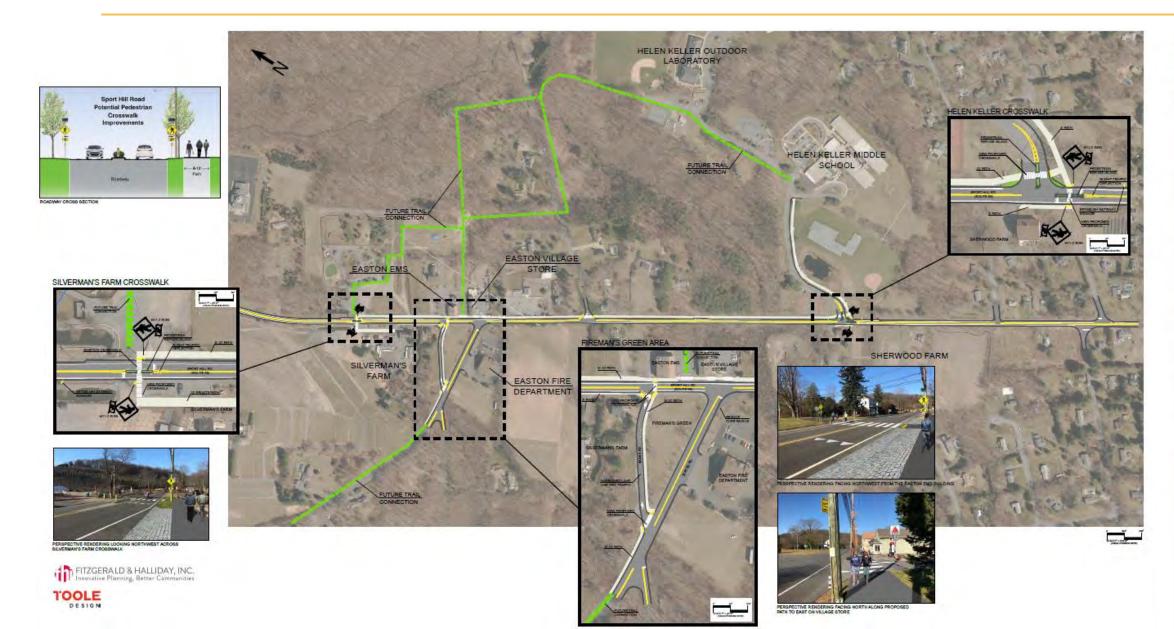


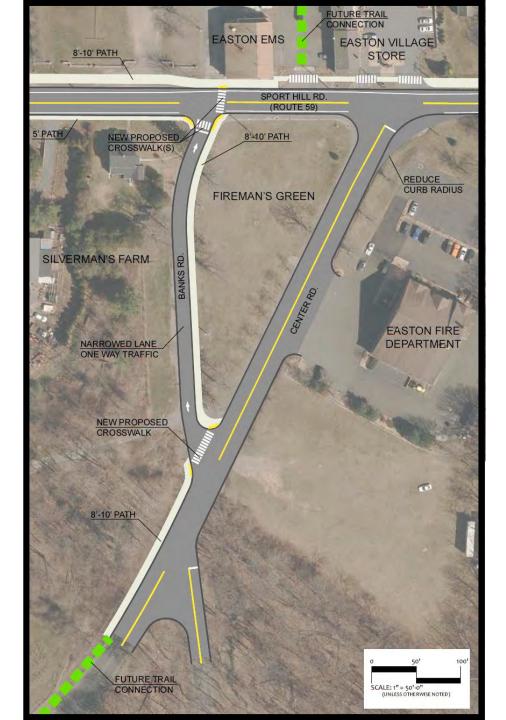
REVIEW OF PAST/CURRENT WORK

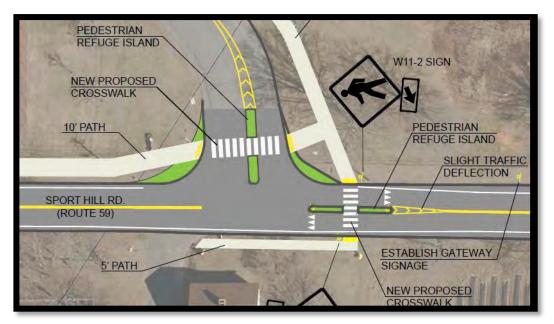
- Concepts included:
 - 10' sidepath on east side
 - Traffic island to calm traffic and serve as gateway near Silverman's and Hellen Keller School
 - Crosswalks at Fireman's Green
 - Connections to Hellen Keller School

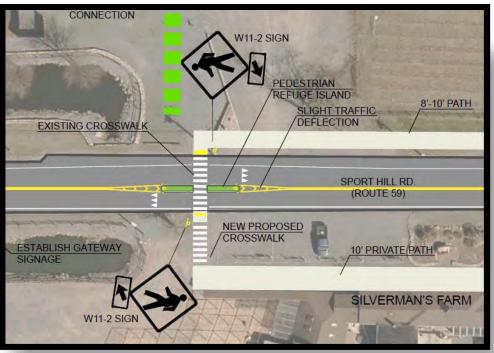


CONCEPT PLAN



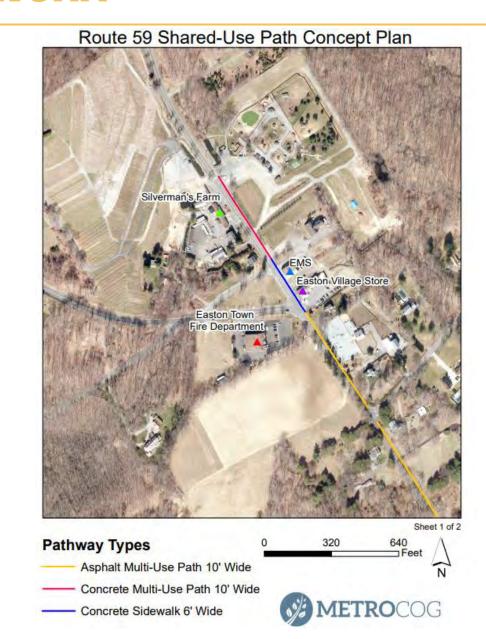






REVIEW OF PAST/CURRENT WORK

- VHB/ CTDOT is in preparatory stages of initiating the design phase of a multi-use path on Route 59 while the Town considers funding mechanisms
- Easton applied for
 Transportation Alternatives
 Program to design and construct a multi-use path along Route 59
 (Sport Hill Road) from the Helen Keller Middle School to the Easton Village Store/Gas Station.





RAISED CROSSWALKS

- Improves pedestrian safety by causing motorist speeds to decrease at the crossing.
- Typically between 3 and 6 inches above street level. It is common for a raised crosswalk to be level with the street curb.
 - Height increases the visibility of a pedestrian in a crosswalk to a motorist.



SPREED HUMP

- Typically 3 inches in height and 12 feet in length along the vehicle travel path axis.
- Encourages the motorist to travel at a slow speed.



CORNER EXTENSION/BULBOUT

- A curb extension is a horizontal extension of the sidewalk into the street resulting in a narrower roadway.
- Slows automobile turning speeds, shortens pedestrian crossing distance, and increases pedestrian visibility



MEDIAN ISLAND

- Raised island located along a street centerline.
- Narrows the travel lanes at that location
 - Visual appearance of narrowed lanes encourages a motorist to slow.





TOMORROW'S WALK AUDIT

- Review safety protocols, reflective vests, etc.
- Meet at Easton Town Hall/Library Parking lot at 10:30 AM
- Walk the Study Area corridor and assess existing conditions and identify areas for improvement
- Post Audit discussion immediately following









Meeting Location: Virtual Meeting

Date and Time: Thursday, March 11th at 3:00 – 4:00 PM

Agenda

- 1. Welcome and Introductions
- 2. Pre-Audit Presentation and Discussion
 - o Definition of Study Area
 - o Review Site Specific Data
 - Average Daily Traffic
 - Crash Data
 - Geometrics
- 3. Walk Audit Procedures and Safety

Notes for Participants

- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, as stakeholders' 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.

Pre-Audit Meeting Notes

March 11, 2021

3:00 PM - 4:00 PM

Participants:

Patrick Zapatka- CTDOT

Ross Ogden - Resident, Planning and Zoning Commission Member

Lazarus Pittman- CTDOT Traffic

Joseph Lombardi – CTDOT Traffic Engineering and Operations

Erika Lindeberg – CTDOT Traffic Engineering and Safety

Fred Kulakowski – CTDOT Traffic Engineering

Justin Giorlando – Planning and Land Use Director- Town of Easton

Hannah Reichle - Regional Planner with MetroCOG

Ed Nagy - Town Engineer- Town of Easton

Devin Clarke - Transportation Planner at MetroCOG

Jonathan Corilla – CTDOT Highway management unit, project development

William Champagne – CTDOT intermodal planning

Captain Jon Arnold - Captain of Easton Police

Emin Basic - CTDOT traffic and highway engineering

Matt Fulda – Executive Director, MetroCOG

Gina Hicks – President, Easton Parent Teacher Organizations

TAP multi-use path has funding for mult-use path on RT 59

General Notes-Major Issues

- From the Middle school to the Easton Village Store/Gas Station, many kids walking from the school at the end of the day- all the neighborhoods in the south are split in half by Sport Hill Road- no crossings, parents don't like to have kids crossing the street. At RT 136 intersection there is a nursery school, church, shops, post office, coffee shop- no direction for pedestrians or crosswalks to go.
- From the middle school driveway to driveway at Easton Village store, 8-10' asphalt bi-directional path, then change to 6' concrete sidewalk up to Silverman's Farm.

- If you look at a map of the Town, it's split in two residential zones- 3 acre zoning 1000 feet north of Beers Road/Flat Rock Road. In the study area, 1 acre zoning, so much greater population density. Sport Hill Road is difficult to cross for kids in the neighborhoods. Would love to see cross walks in the area.
- People on western side of sport hill road have no way to get across- need to have crossings for residents to get back and fourth.
- Explosion of people walking and biking since Covid. Very difficult to get around town without a
 car. Many people walk in the area, but difficult to cross. Experienced bikers also avoid Sport Hill
 Road.
- MetroCOG could set out their speed counters to get accurate speed data.
- There are a couple intersections that have site line issues with vegetation. A resident planted arborvitaes on the state ROW, that block the site lines. Also a location near Old Sport Hill Road where ledge encroaches into the site line. Look at T-ing up intersection with Old Sport Hill Road. Center Road and RT 136 intersection, congested area.
- RT 136 and Center Road has been highlighted in the Transportation Safety Document- major concerns with high travel speeds.







Meeting Location: Virtual Meeting

Date and Time: Thursday, March 11th at 3:00 – 4:00 PM

Agenda

- 1. Welcome and Introductions
- 2. Pre-Audit Presentation and Discussion
 - Definition of Study Area
 - o Review Site Specific Data
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Meeting Location: Easton Town Hall Parking Lot

Address: 225 Center Road, Easton CT 06612

Date and Time: Friday, March 12th at 10:30 AM

<u>Agenda</u>

- 4. Welcome and Introductions
- 5. Review of Road Safety Audit Route
- 6. Audit
 - o Visit Study Area
 - o Complete Audit Checklist
 - o Identify issues and opportunities for improvements

7. Post-Audit Discussion

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

Notes for Participants

- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, as stakeholders' 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.







Easton 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 Grades Orientation Tactile Warning Strips Pedestrian refuge at islands Other	
Pedestrian Facilities	





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	

Speed-related issues	
 Geometry Road width (lanes, shoulders, medians); Access points; Drainage Tapers and lane shifts Roadside clear zone /slopes Guide rails / protection systems 	

•	nters	ections	
	0	Geometrics	
	0	Sight Distance	
	0	Traffic control devices	
	0	Safe storage for turning vehicles	
		Capacity Issues	





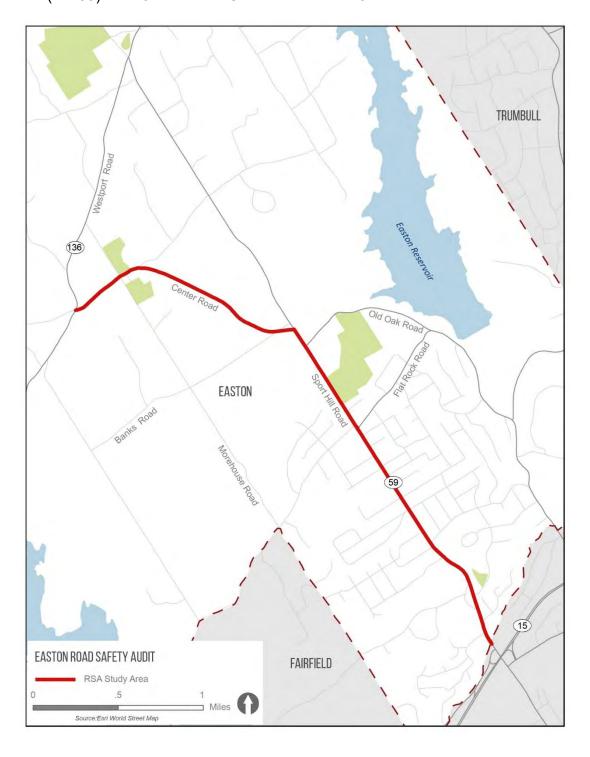
 Pavement Pavement Condition (excessive roughness or rutting, potholes, loose material) Edge drop-offs Drainage issues Lighting Adequacy 	
 Signing Correct use of signing Clear Message Good placement for visibility Adequate retroreflectivity Proper support 	
 Signals Proper visibility Proper operation Efficient operation Safe placement of equipment Proper sight distance Adequate capacity 	
 Pavement Markings Correct and consistent with MUTCD Adequate visibility Condition Edgelines provided 	
Miscellaneous Weather conditions impact on design features. Snow storage	





Easton Road Safety Audit - Study Area

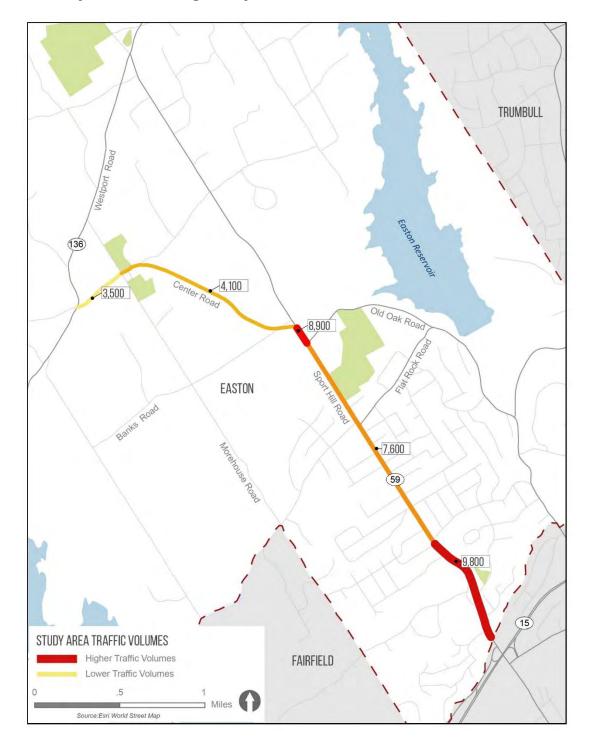
Sport Hill Road (RT 59) - 2.18 Miles and Center Road - 1.45 Miles







Easton Road Safety Audit - Average Daily Traffic Volumes

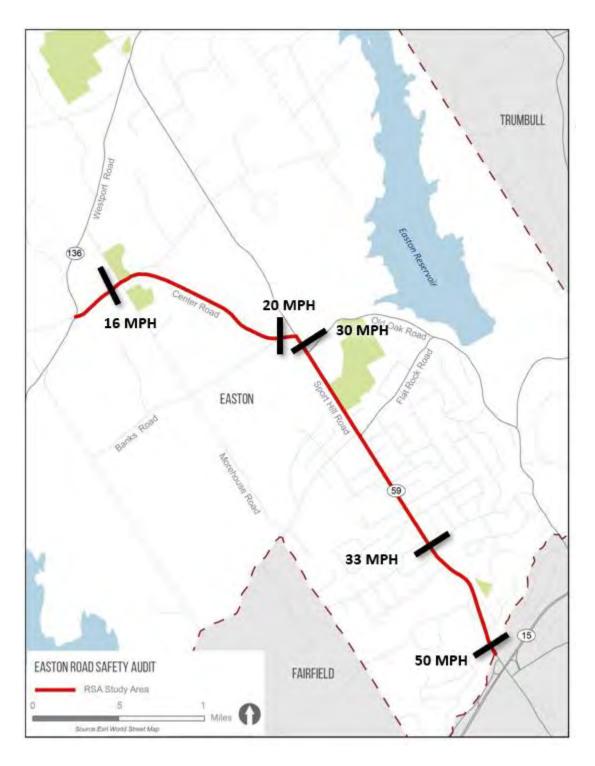






Easton Road Safety Audit - 85th Percentile Speeds

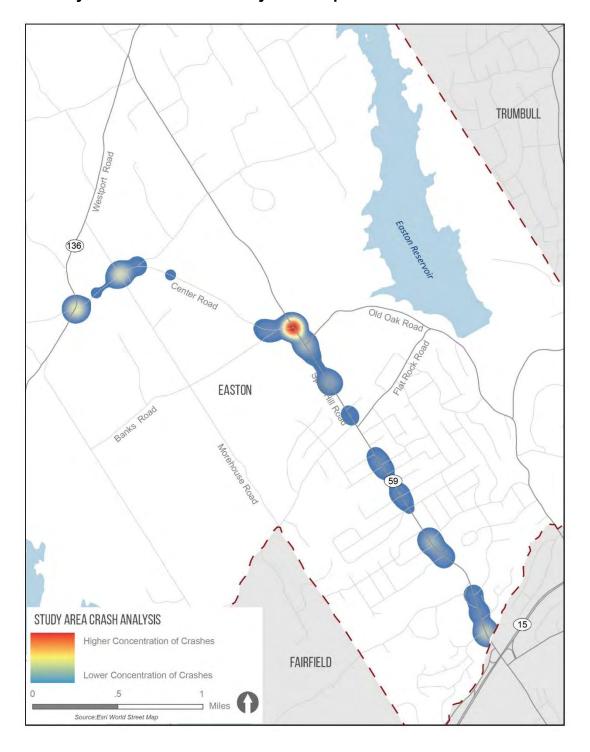
Based on CTDOT data collected December 2020, posted speeds limits vary between 25-35 mph







Easton Road Safety Audit - Crash Summary Heat Map







Easton Road Safety Audit - Crash Summary

Years: 2017 - 2020

Manner of Impact

	Crash Severity					
	Fatal Injury	Serious Injury	Minor Injury	Possible Injury	No Apparent Injury, Property Damage Only	TOTAL
Front to Rear			3	7	42	52
Front to Front			1			1
Angle		1	3	4	12	20
Sideswipe, Same Direction					4	4
Sideswipe, Opposite Direction					1	1
Rear to Side					2	2
Not Applicable / Single Vehicle		1	5	8	33	47
Other				1	2	3
TOTAL	0	2	12	20	96	130
Crashes Involving Pedestrians	0	0	0	0	0	0
Crashes Involving Bicyclists	0	0	0	0	0	0

Summary Analysis:

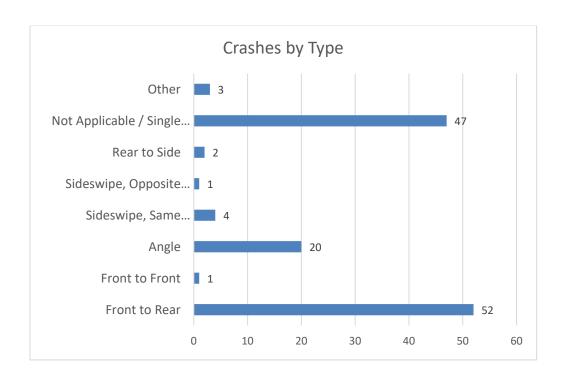
- Crashes are most concentrated at the intersection of Center Road and Sport Hill Road
- Other crash hotspots include:
 - o Sport Hill Road (Route 59) and
 - o Center Road
 - o Old Oak Road
 - o Streets between Marsh Road and Southfield Road
 - o Tersana Drive
 - o Glovers Lane
 - o Center Road and
 - o Morehouse Road
 - o Westport Road (Route 136)





Easton Road Safety Audit Crash Summary - Crashes by Type

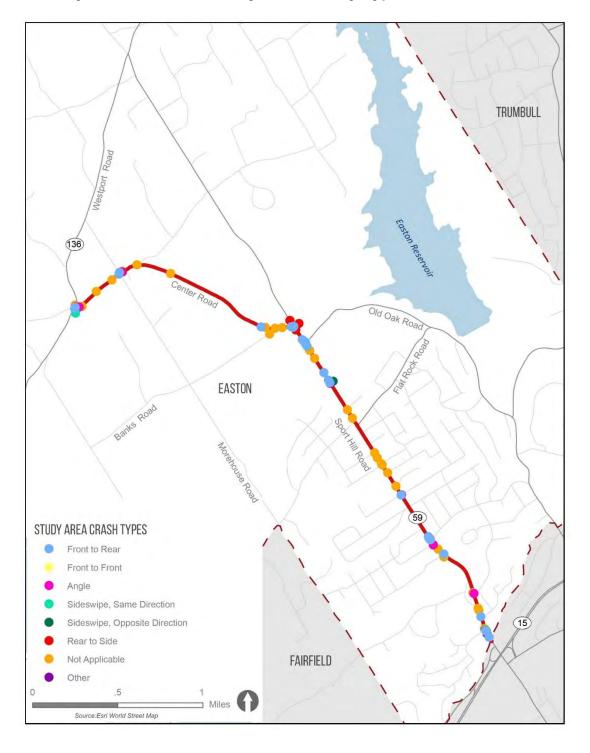
- On Sport Hill Road Many single vehicle crashes (Mostly Deer)
- At Sport Hill / Center Road Many rear end collisions on Center Road, Confusion with Store
- At Center Road Curve Run-off-Road







Easton Road Safety Audit Crash Summary - Crashes by Type

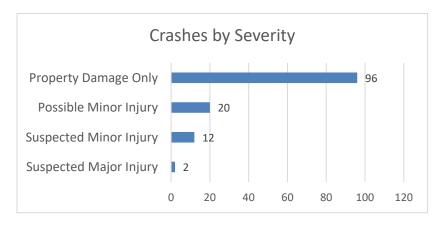


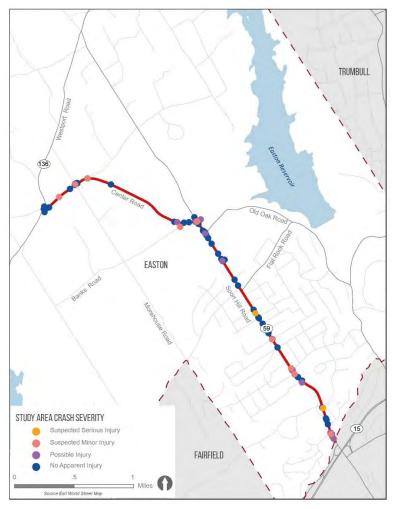




Easton Road Safety Audit Crash Summary - Crash Severity

- Majority of crashes are classified as No Apparent Injury- Property Damage Only and Suspected Minor Injury
- There were two Serious Injury Crashes and no Fatalities









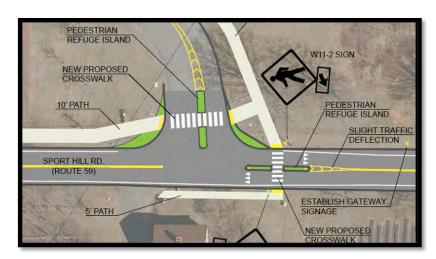
Easton Road Safety Audit Crash Summary - Review of Past and Current Work

A Charette was held in November 2019 that focused on Sport Hill Road (Route 59) between Hellen Keller school and Silverman's Farm. It included meetings with stakeholders, agencies, and the public and led to development of concept plans.

Concepts included:

- 10' sidepath on east side
- Traffic island to calm traffic and serve as gateway near Silverman's and Hellen Keller School
- Crosswalks at Fireman's Green
- Connections to Hellen Keller School

Easton applied for Transportation Alternatives Program to design and construct a multi-use path along Route 59 (Sport Hill Road) from the Helen Keller Middle School to the Easton Village Store/Gas Station. This project has been tentatively accepted for funding pending minor revisions. Additionally, VHB/ CTDOT is in the preliminary stages of designing a Multi-use Path on Sport Hill Road (Route 59).









Easton Road Safety Audit - Post Audit Discussion Guide

Safety Issues:

• Confirmation of safety issues identified during the pre-audit meeting and the walk audit

Potential Recommendations to Address Issues:

• Short Term Recommendations

• Medium Term Recommendations

• Long Term Recommendations

Next Steps

• Discussion involving implementation strategies and responsibilities and funding sources

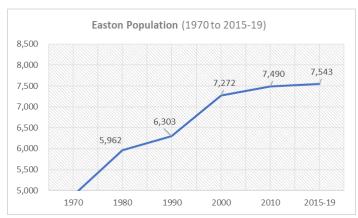


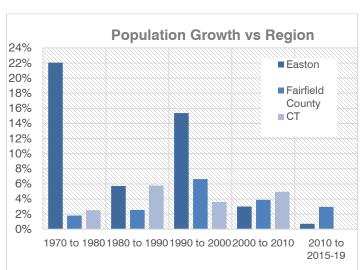


Easton Road Safety Audit – Easton Fact Sheet

Demographic Highlights¹:

- Total population in Easton is 7,543.
- Easton outpaced Fairfield County and the State in population growth between 1970 and 2000, but has fallen behind the County and the State in growth since 2000.
- There are approximately 264 residents per square mile in Easton, making it less dense than both the County and State.
- The median age in Easton is 50.2, which is nearly ten years older than that of Fairfield County, and about nine years older than the State's median age.
- Easton's non-white population makes up just under 5% of the total population, this is far less than Fairfield County's non-white population (37%) and the State's non-white population (31.7%).
- The poverty rate in Easton is 2.2%, which is well below Fairfield County's 8.9% and the State's 9.9%

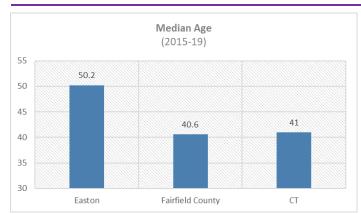


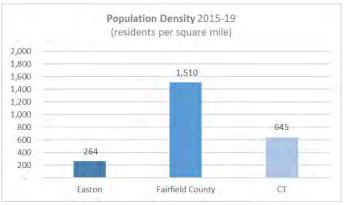


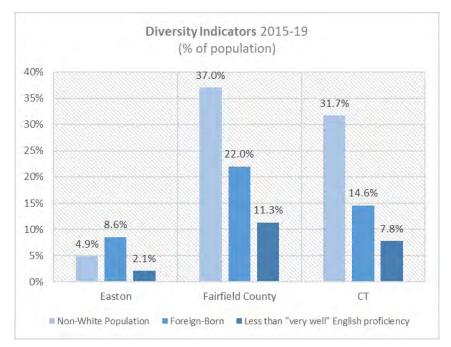
¹ 2015- 2019 American Community Survey, 5- year estimate table DP05, Accessed on 3/5/2021 at https://data.census.gov/cedsci/

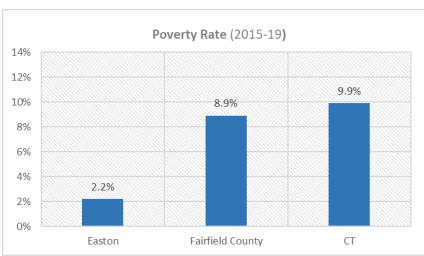












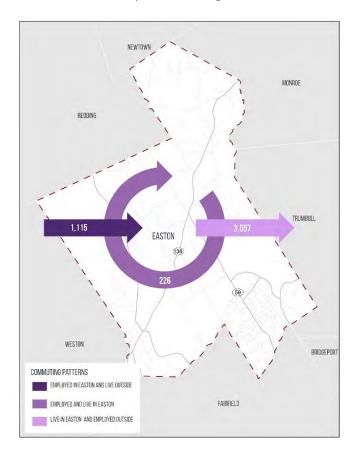


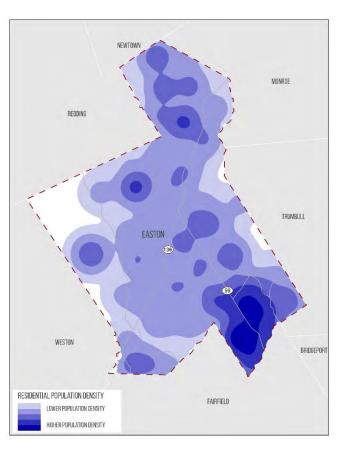


Easton Road Safety Audit – Easton Fact Sheet

Employment Highlights²:

- There were approximately 1,115 workers commuting into Easton for employment in 2018.
 Approximately 226 residents of Easton are also employed in Easton and 3,057 Easton residents commuted out of town for employment. (2018)
- The top five employment destinations for Easton's residents include:
 - Stamford
 - o Bridgeport
 - Norwalk
 - New York City
 - Westport
- The southern end of the Study Area (Sport Hill Road, north of Fairfield town line) has the highest residential population density in Easton. The Center Road area (between Route 136 and Route 59) has the highest concentration of jobs in Easton.





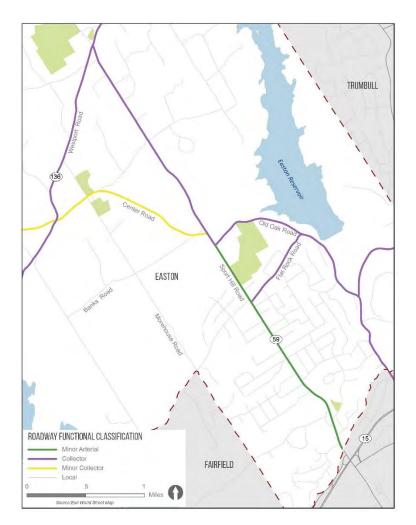
² U.S. Census Bureau. (2021). LEHD Origin-Destination Employment Statistics (2002-2018) All Jobs. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on March 8,2021 at https://onthemap.ces.census.gov. LODES 7.5





Easton Road Safety Audit - Location Highlights

- Roadway functional classifications in the Study Area are as follows:
 - Sport Hill Road (Route 59) south of Old Oak Road is a minor arterial.
 - o Sport Hill Road between Old Oak Road and Center Road is a collector.
 - Center Road between Sport Hill Road and Westport Road (Route 136) is a minor collector.
- Traffic volumes in the Study Area vary between 3,500 vehicles per day on Center Road to 9,800 vehicles per day on Sport Hill Road, north of the Fairfield town line.
- The southern end of the Study Area, on Sport Hill Road, up to Old Oak Road is part of the Bridgeport-Stamford urbanized area.³



³ Connecticut Urbanized Areas, 2020. https://portal.ct.gov//media/DOT/documents/dpolicy/policymaps/ref/CTUrbanizedAreaspdf.pdf?la=en

EASTON ROAD SAFETY AUDIT

Site Visit Photograph Appendix

Figure 1: View east on Center Road and intersection with Westport Road (RT 136)



Figure 2: Parker area of Greiser's Coffee and Market, on Center Road



Figure 3: View east on Center Road



Figure 4: View east on Center Road, west of Morehouse Road



Figure 5: Intersection of Center Road and Morehouse Road



Figure 6: Intersection of Center Road and Morehouse Road



Page 2 Site Visit Photographs

Figure 7: Intersection of Center Road and Sport Hill Road



Figure 8: Stop sign at Center Road/Sport Hill Road intersection



Figure 9: Wide turning radius at Center Road/ Sport Hill Road intersection



Figure 10: View towards driveways at Easton Village Store



Page 3 Site Visit Photographs

Figure 11: Narrow section of roadway on Sport Hill Road



Figure 12: Sport Hill Road

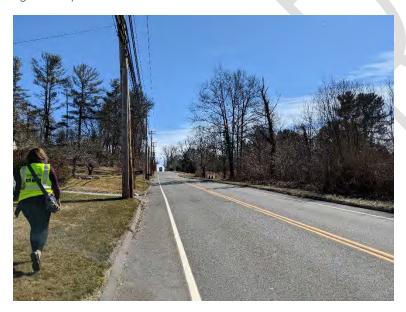


Figure 13: Sport Hill Road at Flat Rock Road



Figure 14: Sport Hill Road at Austin Drive



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