

STONINGTON ROAD SAFETY AUDIT

US Route 1 (Stonington Road): Hewitt Road / Masons Island Road
to Collins Road / Wamphassuc Point



NOVEMBER 2024

TABLE OF CONTENTS

1	ROAD SAFETY AUDIT PROGRAM	1
1.1	Program Background.....	1
1.2	Stonington RSA Study Area and Location.....	2
2	PRIOR EFFORTS IN STUDY AREA.....	5
2.1	2019 Southeastern Connecticut Regional Bike and Pedestrian Plan	5
3	PRE-AUDIT MEETING	5
3.1	Pre-Audit Information	5
3.2	Pre-Audit Discussion.....	11
4	RSA ASSESSMENT	12
4.1	US Route 1 (Stonington Road) at Masons Island Road / Hewitt Road.....	12
4.2	US Route 1 (Stonington Road) Near Mystic Cycle Center and the Big Y Plaza	13
4.3	US Route 1 (Stonington Road) at Cove Road / Wilcox Road	14
4.4	US Route 1 (Stonington Road) at Lords Hill Road.....	15
5	RECOMMENDATIONS	16
5.1	General Corridor Wide Recommendation.....	20
5.2	US Route 1 (Stonington Road) at Masons Island Road / Hewitt Road.....	20
5.3	US Route 1 (Stonington Road) Near Mystic Cycle Center and the Big Y Plaza	21
5.4	US Route 1 (Stonington Road) at Cove Road / Wilcox Road	22
5.5	US Route 1 (Stonington Road) at Lords Hill Road.....	22
6	SUMMARY	23
	APPENDICES	23

1 ROAD SAFETY AUDIT PROGRAM

1.1 Program Background

The Connecticut Department of Transportation (CTDOT) has created a Road Safety Audit (RSA) Program that focuses on improving the state's transportation network for all users. An RSA is a formal safety assessment of the existing roadway at selected locations. 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 are a collaborative effort led by a team of diverse professionals including CTDOT staff, consultants, municipal officials and staff, municipal police, the Local Traffic Authority (LTA), as well as local stakeholders 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 (i.e. signage, curbs, bicycle/pedestrian facilities, amenities, safety components), and sidewalks.

Each RSA is conducted using RSA protocols published by the Federal Highway Administration (FHWA). For details on this program, please refer to the CTDOT RSA Program [webpage](#).

Prior to the site visit, area topography, land use characteristics, intersection sight distance concerns, sidewalk locations, parking, and bicycle facilities are examined using available mapping and imagery. The site visit includes a pre-audit meeting, the field audit, and a post-audit meeting immediately following the field audit to discuss the observations and formulate recommendations. This procedure and the summary results are discussed in the following sections.

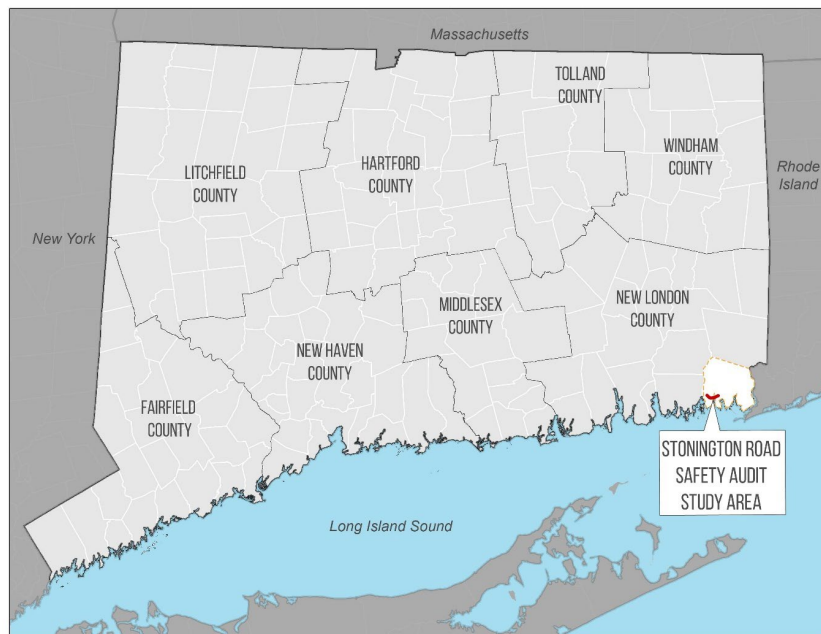
The summary results section of this report, Chapter 5: Recommendations, includes several recommendations and concepts that can be considered for implementation by the municipality, regional planning organization, and / or CTDOT. While many of these recommendations are less complex and easier to implement, many of the more complex ones will require further analysis to ensure that they are feasible to implement.

In addition, many of the more complex recommendations will likely be costly and require longer timeframes for further planning, design, and / or right-of-way (ROW) acquisition. This document does not replace future planning, design, and ROW work that may be necessary for project delivery. The more complex recommendations should be the subject of continued conversations amongst the LTA, regional planning organization, and CTDOT on planning, programming, and funding opportunities. Currently there is no dedicated funding available for construction through the RSA Program. The RSA Program [webpage](#) not only explains the RSA process but also provides information regarding potential State and Federal funding resources and guidance to help municipalities and their COGs implement RSA recommendations in the Final RSA Report.

1.2 Stonington RSA Study Area and Location

CTDOT sponsored an RSA for the Town of Stonington on US Route 1. The study stretches from US Route 1 between Hewitt Road / Masons Island Road and Collins Road / Wamphassuc Point. Exhibit 1 shows the study area in context to the State of Connecticut, and Exhibit 2 shows the study area in further detail.

Exhibit 1: Stonington RSA Regional Location



The purpose of the RSA is to observe and document existing concerns followed by recommendations for improvements to safety and operations within the study area, paying particular attention to the quality of travel for bicyclists and pedestrians. US Route 1 in Stonington is the main east-west connection through the town center and provides access to neighboring

towns of Westerly and Rhode Island to the east. Interstate 95 runs parallel to US Route 1 about 1.5 miles to the north. The most consistent source of congestion on US Route 1 is the combination of Mystic, an international tourist destination, and inadequate transit mode share. Traffic has a distinct seasonal peak which is exacerbated by drawbridge operations. To a lesser degree, traffic crashes or roadwork that require detours will send I-95 users to US Route 1, which can cause large sudden increases in traffic volumes and congestion.

The US Route 1 study area contains access to businesses, restaurants, residential areas, and recreation facilities, particularly Quiambaug Fire Department, car dealership, gas station, Mystic Cycle Center, the nearby Amtrak Station, and the Mystic YMCA. The YMCA facility is the only one in southeastern Connecticut and facilitates various programs and beach access. In addition, Avalonia Land Trust has extensive properties and trails, spanning both sides of the corridor which may contribute to pedestrian use in this area.

Stonington shows a high regional and local traffic due to the greater share of workers commuting into the area for work than the number who commute out of Town for work. Exhibit 3 displays points of interest located along the corridor.

US Route 1 is classified as a minor arterial roadway, which is typically used for vehicle trips of moderate distance and slower speeds. The study area intersects with several local roads, including Hewitt Road / Masons Island Road and Collins Road / Wamphassuc Point. The Stonington study area serves a wide variety of network users including pedestrians / bicyclists, vehicle commuters, business employees and patrons, delivery drivers, and seasonal tourists. Stonington is also served by SEAT HOP bus bus and micro transit.

Average Annual Daily Traffic (AADT) collected in 2017 in the study area ranges between 7,900 and 9,800 vehicles per day, with the highest volumes seen at US Route 1 east of Long Wharf Drive. It is likely that the AADT is above 9,800 to the west toward Hewitt Road / Masons Island Road because of the business activity near this intersection. Exhibit 4 displays AADT in the study area.

The study area contains a mix of signalized and unsignalized intersections as well as curb cuts and entrances in to and out of property parcels. This RSA focuses on major roadway segments and intersections where the safety concerns and pedestrian movements are most concentrated.

Exhibit 2: Stonington RSA Study Area

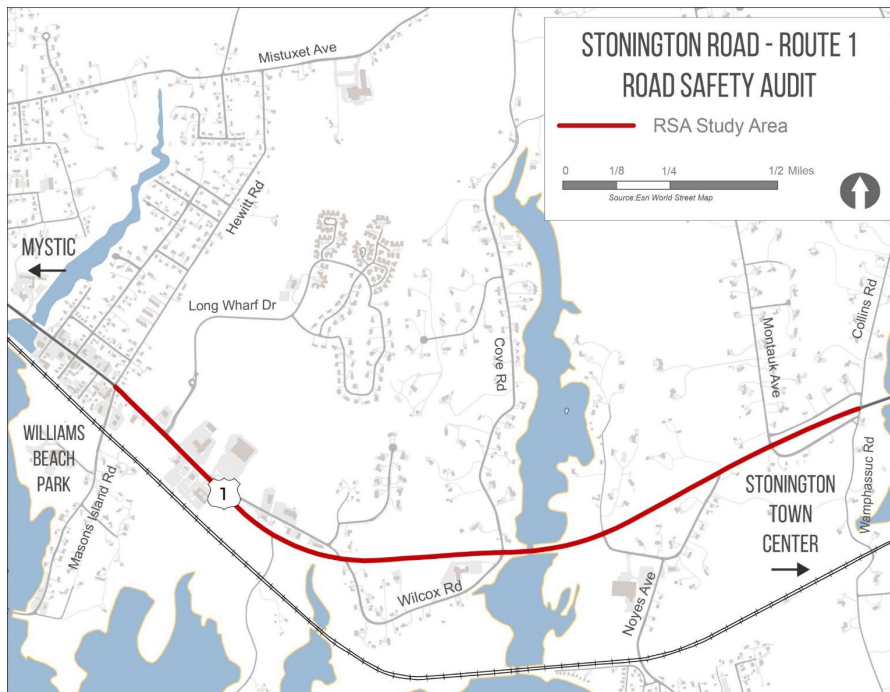


Exhibit 3: Study Area Points of Interest

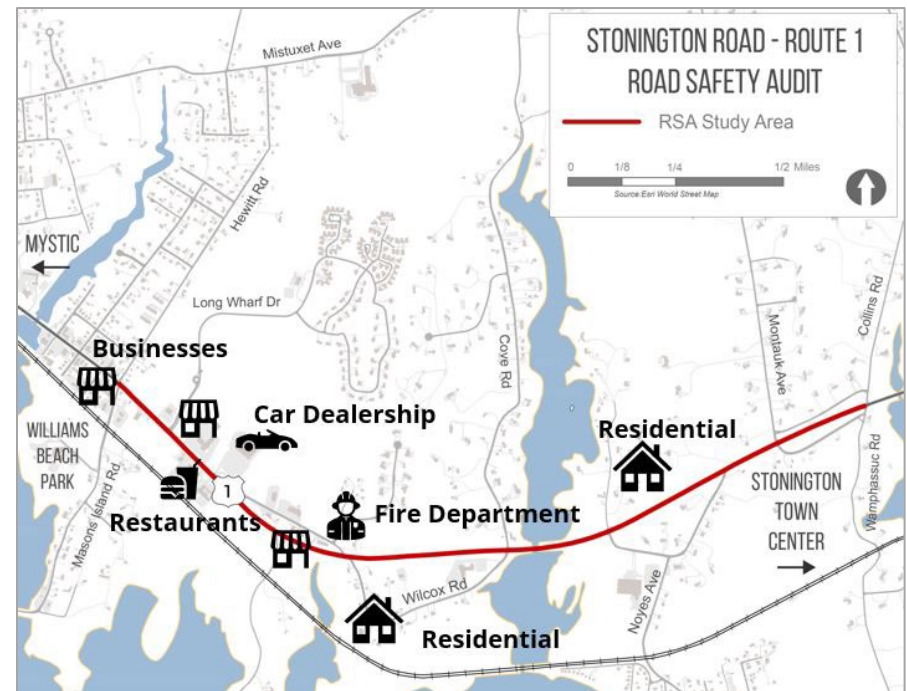
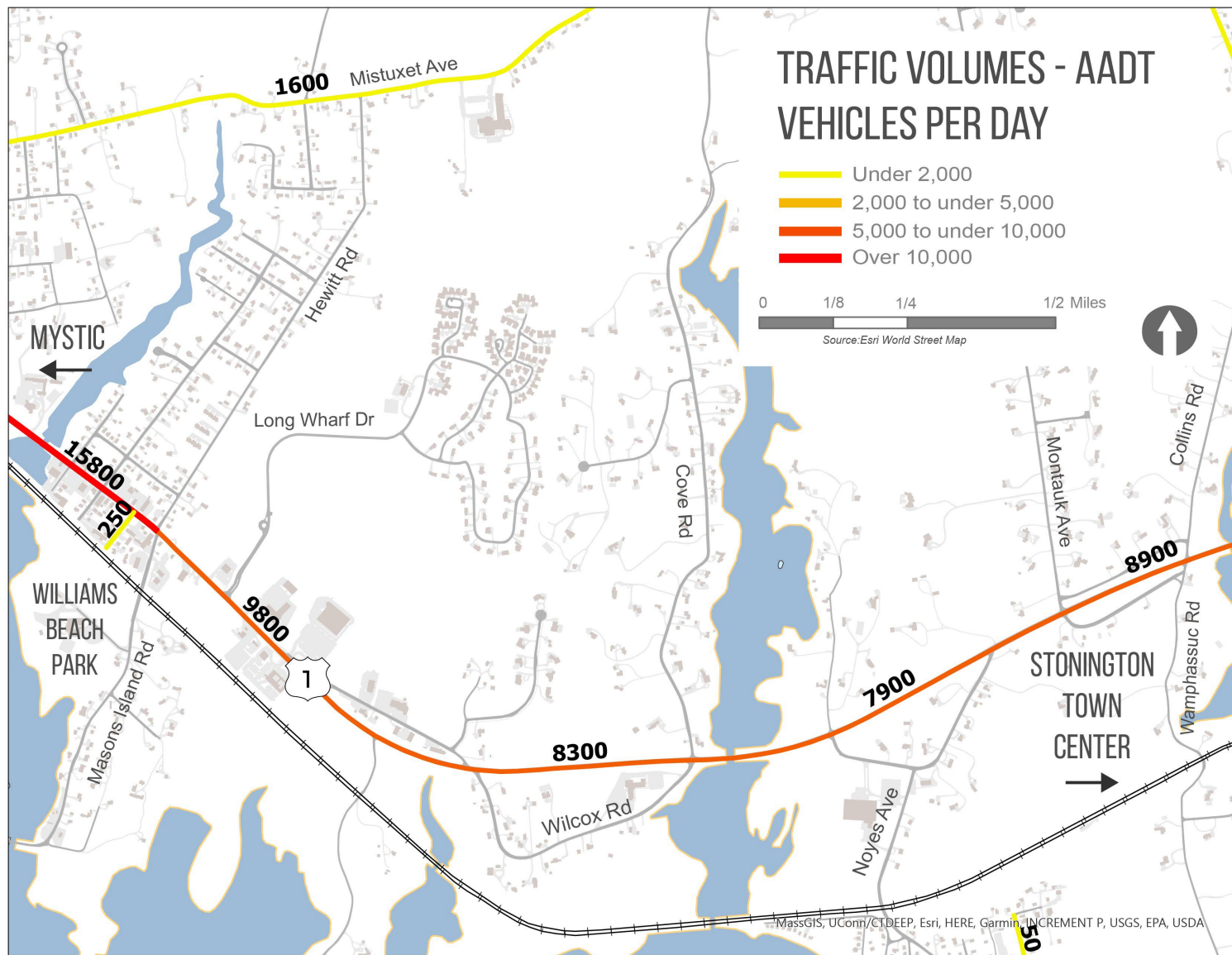


Exhibit 4: Average Annual Daily Traffic Volumes

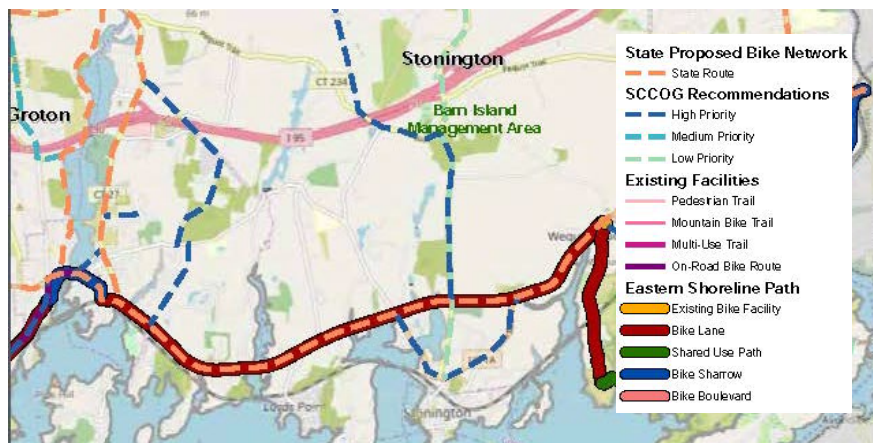


2 PRIOR EFFORTS IN STUDY AREA

2.1 2019 Southeastern Connecticut Regional Bike and Pedestrian Plan

The Southeastern Connecticut Council of Government's (SCCOG) Regional Bike and Pedestrian Plan was approved in 2019. One recommendation in the plan is an Eastern Shoreline Path from the East Lyme / Old Lyme border to the Rhode Island line. The plan calls for a bike lane along US Route 1 through the entire RSA area. In addition, this route is listed as a state route on the proposed bike network. In addition, SCCOG coordinated with CTDOT in early 2024 regarding CTDOT implementation of a buffered bike lane as an interim (safety/bike) project. A full build facility would require further planning and would likely, based on speeds/volumes require a separated facility for much of RT 1 thorough Stonington. Exhibit 5 displays the bike and pedestrian recommendations along US Route 1 in Stonington.

Exhibit 5: SCCOG Bike and Pedestrian Recommendations



3 PRE-AUDIT MEETING

3.1 Pre-Audit Information

The RSA team conducted a pre-audit virtual meeting on Tuesday, June 4, 2024. The RSA team presented a brief presentation that included an overview of the Stonington RSA goals and purpose, the study area, and key existing conditions findings. Key themes discussed during the pre-audit meeting are presented below.

Road Classification: The study stretches from US Route 1 between Hewitt Road / Masons Island Road and Collins Road / Wamphassuc Point. US Route 1 is classified as a minor arterial roadway, which is typically used for vehicle trips of moderate distance and slower speeds, as displayed in Exhibit 6. The study area intersects with local roads such as Hewitt Road / Masons Island Road and Collins Road / Wamphassuc Point. Exhibit 7 displays roadway geometry.

Speeds: Speed limits range from 35 miles per hour (MPH) near Williams Beach Park to 50 MPH near Stonington Town Center. 85th percentile speed in the middle of the corridor reveals speeds nearing 50 MPH despite 40 MPH limit. Additionally, 85th percentile speeds at the western end of the corridor are similarly high at about 10 MPH over the posted speed limit. Exhibit 8 displays speed limits in the study area.

Exhibit 6: Road Functional Classification

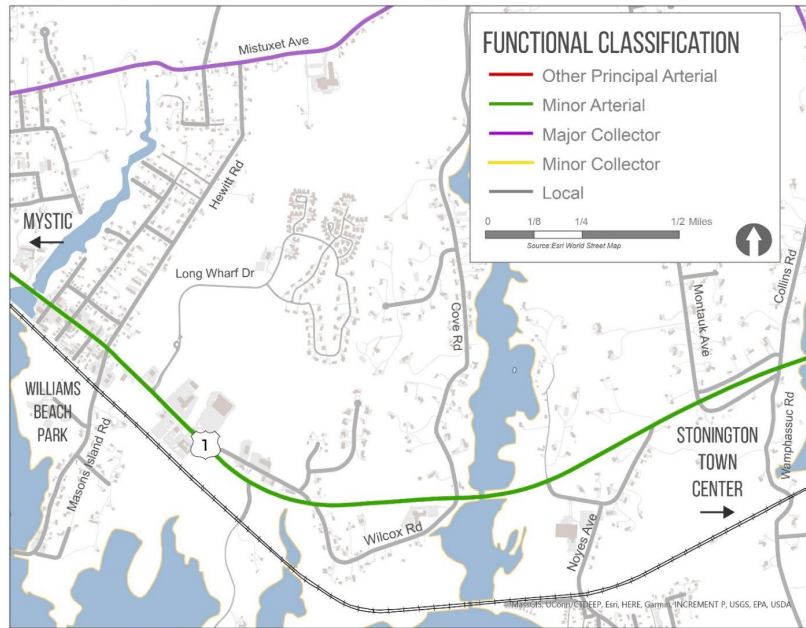


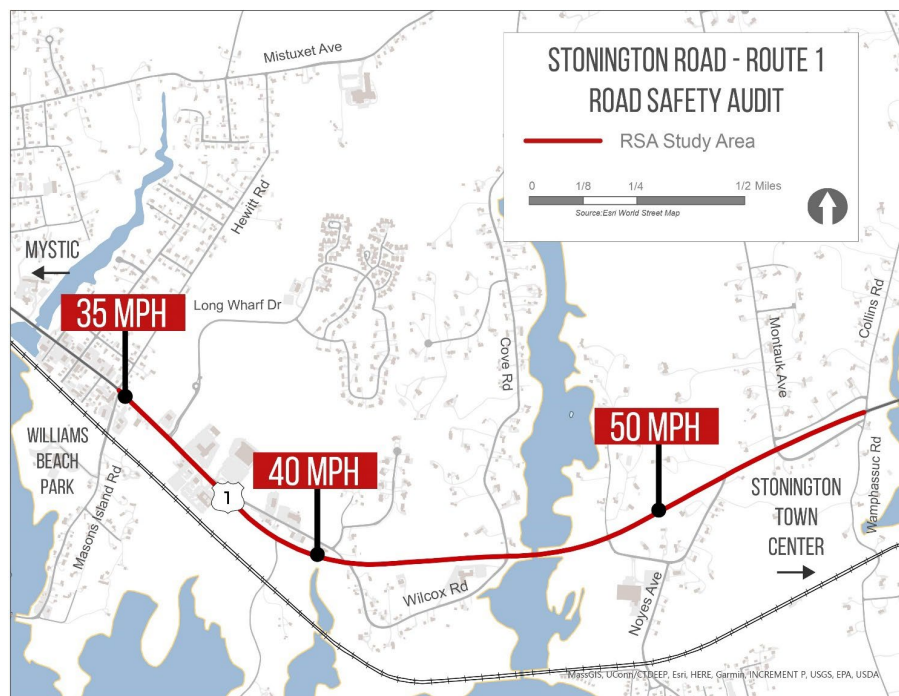
Exhibit 7: US Route 1 Roadway Geometry

Road	From	To	Distance	Functional Classification	Speed Limit (mph)	Direction	Lanes	Lane Width	Sidewalk			ADA Ramps		Curb	Parking	Shoulder	Notes
									Type	Width	Condition	Present	Compliant				
Route 1 (Stonington Rd)	Masons Island Rd	Long Wharf Rd	850 ft	Minor Arterial	35	NB	1	12'	N/A	N/A	N/A	No	N/A	N/A	No	6-10'	Variable shoulder width. Sidewalk gap west of bike shop
						SB	1	12'	Concrete	4'	Good	Yes	Yes	N/A	No	6'	
Route 1 (Stonington Rd)	Long Wharf Dr	Old Stonington Rd	1/4 mi	Minor Arterial	35-40	NB	1	12'	N/A	N/A	N/A	No	N/A	N/A	No	4'	20' lane width at Big Y exit. Cross section varies
						SB	1	12'	Concrete	4'	Good	Yes	Yes	N/A	No	6-10'	
Route 1 (Stonington Rd)	Old Stonington Rd	Wilbur Rd / Lords Hill Rd	1 mi	Minor Arterial	45-50	NB	1	12'	N/A	N/A	N/A	Yes	Yes	N/A	No	7'	
						SB	1	12'	N/A	N/A	N/A	No	N/A	N/A	No	9'	
Route 1 (Stonington Rd)	Wilbur Rd / Lords Hill Rd	Collins Rd / Wamphussac Rd	3/4 mi	Minor Arterial	50	NB	2	12	N/A	N/A	N/A	No	N/A	N/A	No	9'	Shoulder width reduction when 2 lanes start
						SB	2	12	N/A	N/A	N/A	No	N/A	N/A	No	9'	

*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.

Exhibit 8: Study Area Speed Limits



Crashes: Based on data retrieved from the Connecticut Crash Data Repository (CTCDR) for the five-year period between January 2018 through December 2022, there were a total of 54 crashes in the study area. Crash numbers were likely lower because of lower traffic volumes during COVID-19. Crashes were concentrated most at the intersection of Long Wharf Drive, Wilcox Road, Cove Road, and Montauk Avenue. Exhibit 9 displays the study area crash summary by year and Exhibit 10 displays a study area crash heatmap.

Exhibit 9: Study Area Crash Summary

Year	Fatality	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	TOTAL
2018			2	2	9	13
2019			4	1	5	10
2020			2		8	10
2021		1	1	2	5	9
2022		3	2	1	6	12
TOTAL	0	4	11	6	33	54

Crashes by Type: Most crashes were front-to-rear crashes. Front-to-rear crashes occur most commonly at intersections where cars are queued to make turning movements. Exhibit 11 displays a map of crashes by location and type in the corridor. Exhibit 12 displays a table of crashes by type and severity.

Crash Severity: Most crashes (33) were classified as property damage only. There were 11 minor injury crashes, six (6) possible injury crashes, four (4) serious injury crashes, and no fatal crashes reported. Exhibit 13 displays the severity of crashes and their locations.

Crashes by Involved Person: There were two crashes involving pedestrians or bicyclists in the five-year period of 2018-2022. Exhibit 14 displays the location of crashes involving pedestrians or bicyclists.

Exhibit 10: Study Area Crash Heatmap

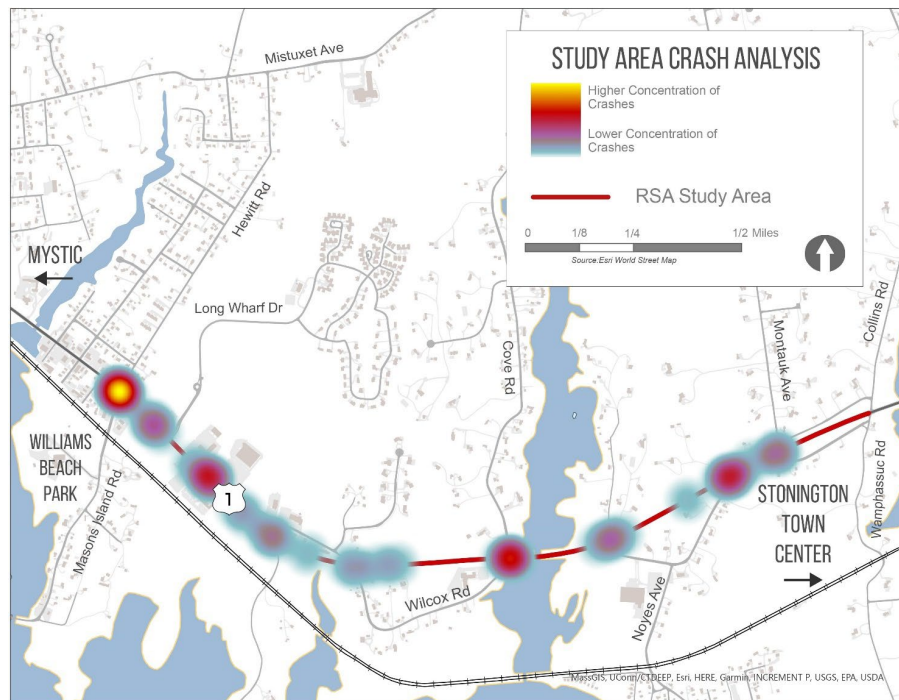


Exhibit 11: Crashes by Type

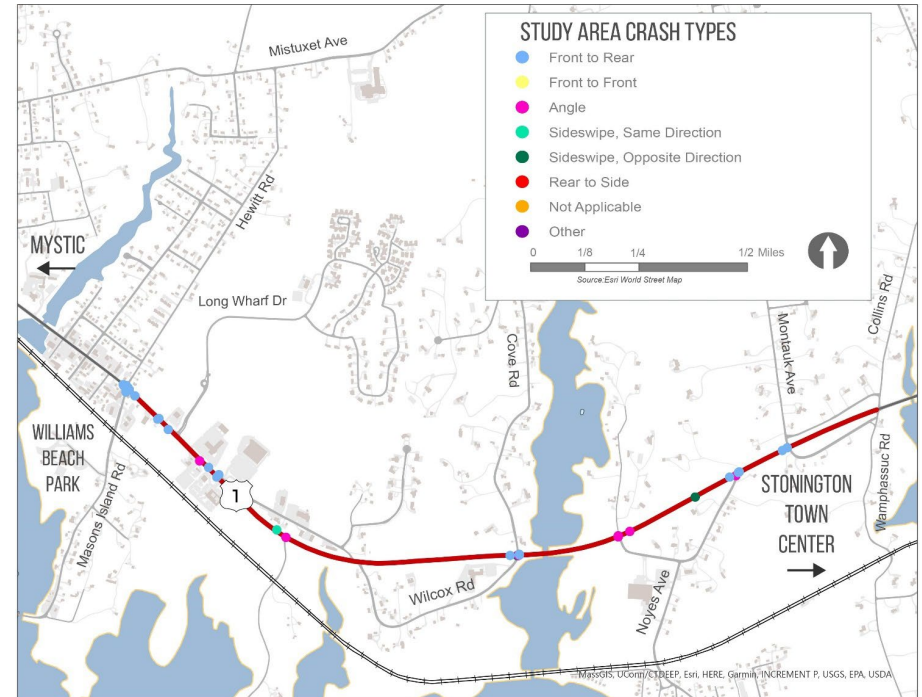


Exhibit 12: Crashes by Type

	Fatality	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	TOTAL
Angle		3	3	2	4	12
Front to rear			4	3	16	23
Sideswipe, opposite direction			1		1	2
Sideswipe, same direction					2	2
Rear to Side					1	1
Not Applicable		1	3	1	9	14
TOTAL	0	4	11	6	33	54
Crashes Involving Pedestrians			1			1
Crashes Involving Pedalcycles/ Pedalcyclist			1			1

Exhibit 13: Crash Severity by Location

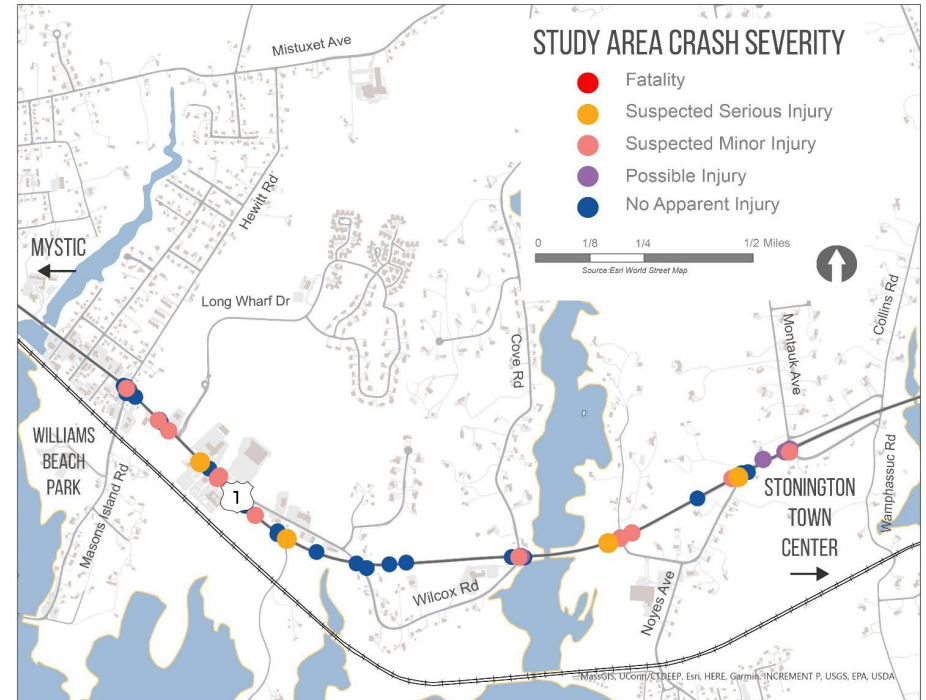
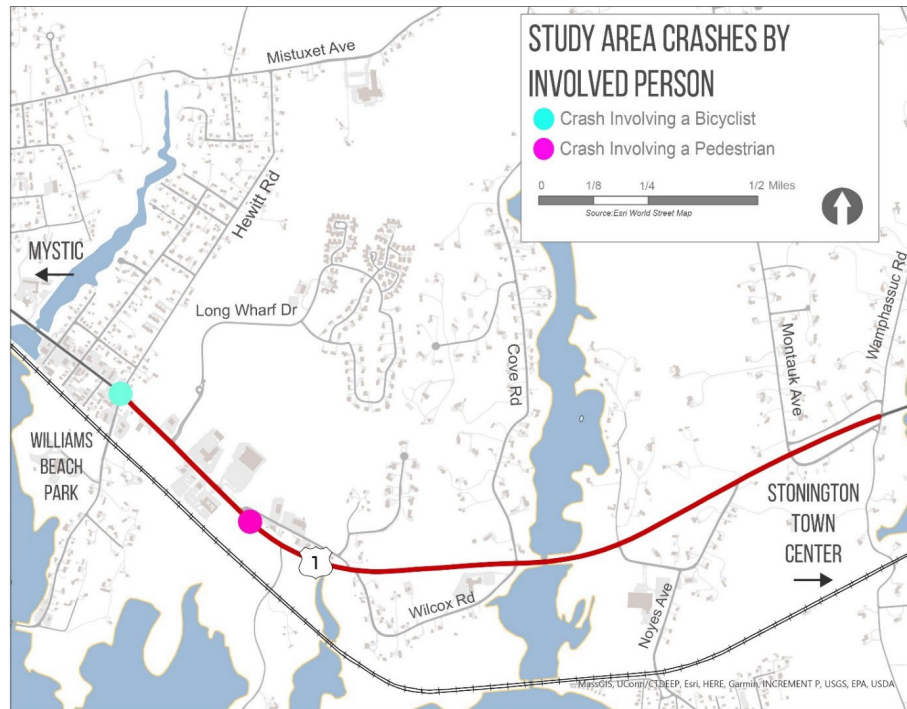


Exhibit 14: Crash Involving Pedestrians



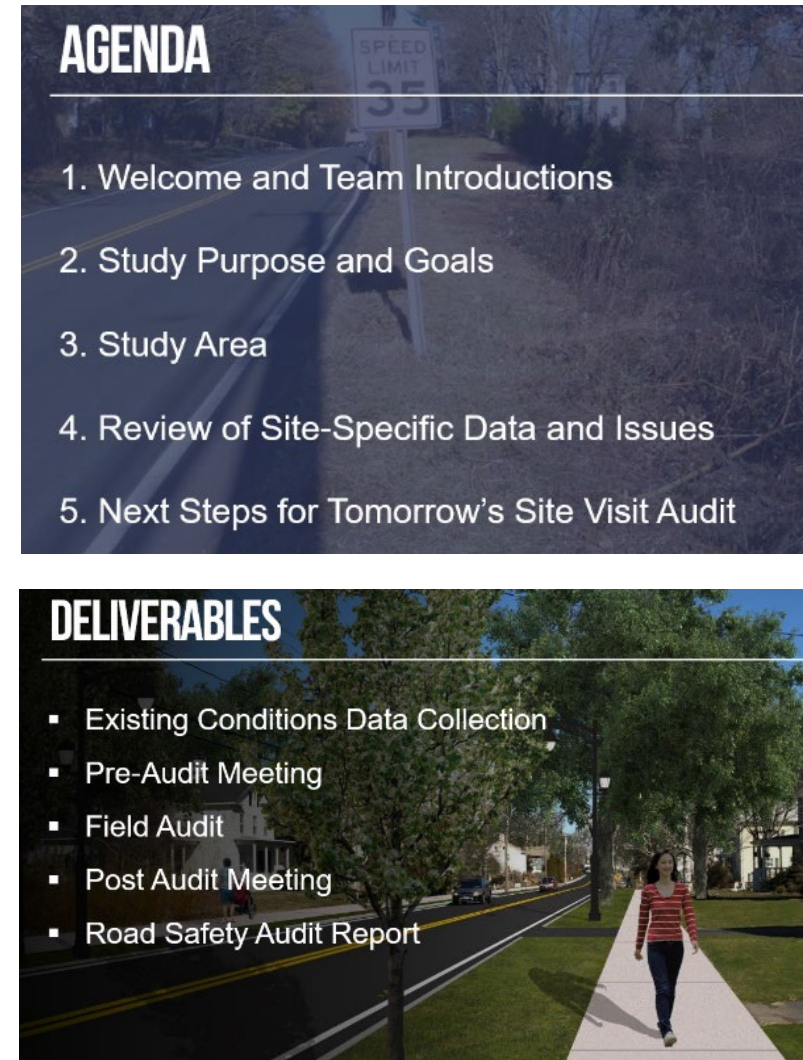
3.2 Pre-Audit Discussion

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

- Town officials note that US Route 1 carries local, regional, and interstate travel.
- Town officials note that I-95 diversion causes heavy congestion at unpredictable times.
- The period from May-September is busiest and sees the greatest spike in both vehicle traffic and movements by pedestrians and bicyclists.
- There are many low-visibility driveways and property curb cuts due to horizontal, vertical alignments, and vegetation.
- Transit service is present but amenities for passengers are severely lacking.
- There are very few sidewalks, crosswalks, and other pedestrian facilities that encourage walking.
- Town officials noted that speeds in the corridor are a concern.
- Town officials discussed the need for roadway improvements to better accommodate cyclists as well as pedestrians.

Sample slides from the pre-audit presentation are shown in Exhibit 15.

Exhibit 15: Sample slides from Pre-Audit Presentation



4 RSA ASSESSMENT

A summary of the team's findings from documenting conditions seen in the field, along with comments by stakeholders from the Town, is presented below. Exhibit 16 shows RSA participants conducting a safety briefing and route review at the beginning of the walk.

Exhibit 16: RSA Participants During Safety Briefing / Route Review



4.1 US Route 1 (Stonington Road) at Masons Island Road / Hewitt Road

- The intersection of US Route 1 (Stonington Road) at Masons Island Road / Hewitt Road (Intersection 137-205) is a signalized intersection that has a concurrent pedestrian signal with a leading pedestrian interval (LPI).
- The intersection is misaligned and skewed.
- The YMCA is a popular destination located off Masons Island Road.
- Intersection backups are an issue, especially when making left turns. While there is an advance signal phase for the US Route 1 eastbound approach, there are no dedicated turn lanes.
- Grade / elevation changes across the intersection cause visibility issues.
- In particular, the crosswalk on the west side of intersection is not visible when traveling southbound on US Route 1, from the east of the intersection.
- The sidewalk is narrow sidewalk at this location.
- The sidewalks and crossing infrastructure are not Americans with Disabilities Act (ADA)-compliant.
- There is no sidewalk on US Route 1 on the northeast leg. Vegetation is overgrown. Exhibit 17 displays the team walking in this area. The Town stated that the owner of property at the northeast corner of the intersection is willing to work with the Town to improve the pedestrian / bicycle infrastructure.
- The study team observed several pedestrians and bicyclists moving through the intersection, as shown in Exhibit 18.

Exhibit 17: No Sidewalk and Overgrown Vegetation on US Route 1



Exhibit 18: Bicyclist Using the Pedestrian Crossing Facilities



4.2 US Route 1 (Stonington Road) Near Mystic Cycle Center and the Big Y Plaza

- This intersection (Intersection 137-228) is a signalized intersection that has a side street green.
- The overgrown vegetation continues into the shoulder on the northside of US Route 1.
- The sidewalk on the north side of US Route 1 is more than 30 years old and in poor condition, as displayed in Exhibit 19. As a result, the sidewalk is not ADA- compliant.

- There is no sidewalk on the south side of US Route 1, except for a small section of sidewalk in front of the Veteran's of Foreign Wars building.
- This area is at sea level elevation. There are flooding issues particularly at high tides, full moons, and weather events. It is the worse on the south side of US Route 1.
- The sidewalk in front of the Mystic Cycle Center curves inward to avoid drainage ditch and does not run parallel to US Route 1.
- There are no crosswalks across the business driveways, as displayed in Exhibit 20.
- There is a need for pedestrian scale lighting.

Exhibit 19: Sidewalk Condition on North Side of US Route 1



Exhibit 20: No Crosswalk at Big Y Plaza Driveway



- 4.3 US Route 1 (Stonington Road) at Cove Road / Wilcox Road
- This area has a higher speed limit (45-50 MPH), and many drivers were observed to be traveling above it.
 - It is difficult to make a left turn out of Cove Road because of high speeds and limited visibility.
 - The shoulders are wide (more than six feet) at this location, as displayed in Exhibit 21.
 - There are no sidewalks or bicycle facilities in this area.
 - The number and location of culverts and drainage create challenges for a consistent sidewalk and bicycling network. The [Hazard Mitigation & Climate Adaptation Plan](#) provides additional information on this topic.

- The Town reported that many pedestrians walk between Cove Road and Wilcox Road.

Exhibit 21: High Speeds and Wide Shoulders Approaching Wilcox Road



4.4 US Route 1 (Stonington Road) at Lords Hill Road

- Motorists travel at high speeds, especially heading eastbound down the hill.
- US Route 1 has centerline rumble strips in this location.
- There is a westbound climbing lane at this location.
- Visibility is poor for motorists. When turning onto US Route 1, the sightlines are poor from the side streets.
- The Town reported that many pedestrians cross US Route 1 at this location. A pedestrian crossing US Route 1 is displayed in

Exhibit 22. Additional information is available at the Avalonia [trail finder map](#).

- There are no crosswalks or pedestrian amenities.
- There is a need for pedestrian scale lighting.
- There is no bike infrastructure despite riders being on the road.

Exhibit 22: Pedestrian Crossing US Route 1 at Lords Hill Road



5 RECOMMENDATIONS

Based on the discussion and follow up work of the pre-audit and site visit of the RSA, the study team compiled a set of recommendations for the study area. These recommendations are organized by study area location. The RSA team traveled the length of the corridor starting at Hewitt Road / Masons Island Road and ending at Collins Road / Wamphassuc Point. The sections below are not intended to reduce the importance of other aspects of the corridor, but rather to organize the recommendations in a coherent way. One of the key recommendations identified by the RSA team applicable to the entire corridor is listed first. Other areas are groups by location from west to east. A table of recommendations organized by location is presented in Exhibit 23.

All recommendations are categorized by their complexity of implementation:

- **Least Complex Recommendations:** These are typically low-cost recommendations such as striping and signage, and generally do not require extensive engineering or construction costs. More extensive recommendations which have funding previously committed may be included.
- **Moderately Complex Recommendations:** These are improvements that may require more substantial engineering than those generally included as least complex recommendations. These may require establishment of funding in capital improvement plans, or a dedicated funding item. However, these recommendations fall between the least complex and most complex, requiring some level of design and funding, but typically do not include ROW acquisitions, extensive environmental permitting, etc.

- **Most Complex 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.

Any work within the State ROW to be done by non-State forces will require an encroachment permit from the District 2 Permit Office and/or an official request from the Stonington LTA.

Exhibit 24 provides a concept design for the intersection at Hewitt Road / Masons Island Road. Exhibit 25 provides a concept design for the eastern portion of the corridor. Further detail on recommendations is provided in the section below.

Exhibit 23: US Route 1 Corridor Summary Recommendations

Recommendation	Corridor Wide	Masons Island Rd/Hewitt Rd	Mystic Cycle Center/Big Y Plaza	Cove Rd/Wilcox Rd	Lords Hill Rd
Least Complex					
Install pedestrian scale lighting		•	•		
Install ADA/PROWAG compliant crosswalks, curb ramps, signal push buttons		•	•		
Provide consistent 11' travel lanes and buffered bike lanes		•	•		
Provide consistent 11' travel lanes and separated bike lanes				•	•
Stripe bike boxes at intersection approach		•			
Trim vegetation on north side of Route 1		•	•	•	
Investigate feasibility of speed limit reduction throughout corridor	•				
Moderately Complex					
Complete sidewalk on north side of Route 1		•	•		
Repair sidewalk on north side of Route 1, west of intersection		•			
Most Complex					
Add new sidewalk on south side of Route 1		•	•		
Add raised island east of Masons Island Rd		•			
Realign intersection and reconfigure ROW to allow for buffered bike lanes		•			
Raise elevation of Route 1 to reduce flooding			•		
Add new sidewalk on south side of Route 1		•	•		

Exhibit 24: Representative Concept at Hewitt Road / Masons Island Road



Exhibit 25: Representative Concept for Eastern Portion of Corridor



5.1 General Corridor Wide Recommendation

The general recommendation for the entire length of the corridor focuses on improving safety for all users by reducing vehicular speeds.

Least Complex Recommendation

- 1) Consider a speed limit study / analysis to investigate the feasibility to lower posted speed limits on U.S. Route 1. A reduction in the posted speed limit may be most feasible in the western half of the corridor between Masons Island Road and Cove Road. However, the municipality and region may choose to examine the entire length of the corridor.
 - **Next Step:** LTA to contact DOT.OSTA@CT.Gov

5.2 US Route 1 (Stonington Road) at Masons Island Road / Hewitt Road

The recommendations for the segment of US Route 1 at Masons Island Road / Hewitt Road focus on creating a safer, more coherent, and more aesthetic experience for non-motorized users. This intersection has challenging roadway geometry due to the grades and angles of the approaches. It is recommended to create clear, visible designated spaces for vehicles, bicyclists, and pedestrians.

Least Complex Recommendations

- 1) Install appropriate ADA- and Public Right-of-Way Accessibility Guidelines (PROWAG)-compliant pedestrian accommodations such as crosswalks across all legs of the intersection, sidewalks, curb ramps, and signal push buttons.
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)

- 2) Trim vegetation on north side of US Route 1.
 - **Next Step:** Contact adjacent property owners to request maintenance of overgrown areas.
- 3) Provide consistent 11' travel lanes and buffered bike lanes.
 - **Next Step:** LTA to contact DOT.TrafficEngineering@ct.gov
- 4) Strip bike boxes at intersection approach
 - **Next Step:** LTA to contact DOT.TrafficEngineering@ct.gov

Moderately Complex Recommendations

- 1) Repair or replace sidewalk on north side of US Route 1, west of Masons Island Road / Hewitt Road.
 - **Next Step:** Municipality to contact [Southeastern Connecticut Council of Governments](#) (SCCOG) for potential funding sources
 - **Next Step:** Municipality to check available ROW for feasibility
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)
- 2) Complete sidewalk on north side of US Route 1, east of Masons Island Road / Hewitt Road.
 - **Next Step:** Municipality to contact [SCCOG](#) for potential funding sources
 - **Next Step:** Municipality to check available ROW for feasibility
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)

Most Complex Recommendations

- 1) Add a new sidewalk on south side of US Route 1, east of Masons Island Road / Hewitt Road.
 - **Next Step:** Municipality to contact [SCCOG](#) for potential funding sources
 - **Next Step:** Municipality to check available ROW for feasibility
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)
- 2) Add a raised island east of Masons Island Road / Hewitt Road to reduce speeds and better channelize traffic heading toward Mystic.
 - **Next Step:** Municipality to contact [SCCOG](#) for potential funding sources
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)
- 3) Realign intersection and reconfigure ROW to allow for buffered bike lanes
 - **Next Step:** Municipality to contact [SCCOG](#) for potential funding sources
 - **Next Step:** Municipality to check available ROW
 - **Next Step:** Municipality to coordinate with CTDOT for feasibility

5.3 US Route 1 (Stonington Road) Near Mystic Cycle Center and the Big Y Plaza

This area has existing yet minimal pedestrian accommodations. Thus, recommendations focus on improving the visibility and safety of vulnerable users.

Least Complex Recommendations

- 1) Install appropriate ADA- and PROWAG-compliant pedestrian accommodations such as crosswalks across all legs of the intersection, sidewalks, curb ramps, and signal push buttons.
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)
- 2) Trim vegetation on north side of US Route 1.
 - **Next Step:** Contact adjacent property owners to request maintenance of overgrown areas
- 3) Install pedestrian-scale lighting to improve visibility and streetscape for vulnerable road users.
 - **Next Step:** Municipality to apply for [Encroachment Permit](#)
- 4) Provide consistent 11' travel lanes and buffered bike lanes.
 - **Next Step:** LTA to contact DOT.TrafficEngineering@ct.gov

Moderately Complex Recommendations

- 1) Complete sidewalk on north side of US Route 1.
 - **Next Step:** Municipality to contact [SCCOG](#) for potential funding sources
 - **Next Step:** Municipality to check available ROW for feasibility
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)

Most Complex Recommendations

- 1) Add a new sidewalk on south side of US Route 1.

- **Next Step:** Municipality to contact [SCCOG](#) for potential funding sources
 - **Next Step:** Municipality to check available ROW for feasibility
 - **Next Step:** Municipality to research and consider need for [Encroachment Permit](#)
- 2) Raise elevation of US Route 1 to reduce flooding. Project No. 0172-0525, with final design plans scheduled for 5/21/2025, will be replacing the traffic control signal at the intersection.
- **Next Step:** Municipality to coordinate with Nicholas C. Welsh at Nicholas.Welsh@ct.gov if any other improvements can be accomplished under the project.
 - **Next Step:** Municipality to contact [SCCOG](#) for potential funding sources
 - **Next Step:** Municipality to apply for [Encroachment Permit](#)

5.4 US Route 1 (Stonington Road) at Cove Road / Wilcox Road

The entire eastern area of the corridor sees higher motorist speeds. Recommendations at this intersection focus mainly on enhanced bicycle facilities and improved sight lines.

Least Complex Recommendations

- 1) Provide consistent 11' travel lanes and flex post separated bike lanes.
 - **Next Step:** LTA to contact DOT.TrafficEngineering@ct.gov
- 2) Trim vegetation on north side of US Route 1 east of Cove Road.
 - **Next Step:** Contact adjacent property owners to request maintenance of overgrown areas

5.5 US Route 1 (Stonington Road) at Lords Hill Road

This area sees higher motorist speeds. Recommendations focus mainly on enhanced bicycle facilities.

Least Complex Recommendations

- 1) Provide consistent 11' travel lanes and flex post separated bike lanes.
 - **Next Step:** LTA to contact DOT.TrafficEngineering@ct.gov

6 SUMMARY

This report documents the observations, discussions, and recommendations developed during the completion of the Town of Stonington's RSA. It provides the Town with an outlined strategy to improve the transportation network for all users in the study area, particularly focusing on pedestrians and cyclists. Moving forward, the Town of Stonington and CTDOT may use this report to prepare strategies for funding and implementing the improvements. This report provides Stonington with a toolkit to plan for including these multi-modal recommendations into future development within the study area.

This RSA Report is an objective review intended for the municipality to 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.

APPENDICES

- A: Pre-Audit Presentation
- B: Walk Audit Materials
- C: Walk Audit Notes

STONINGTON ROAD SAFETY AUDIT

Route 1 (Stonington Road) – Between Hewitt Road/Masons Island Road and Collins Road/Wamphassuc Road



JUNE 2024

INTRODUCTIONS

Stonington Rd

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 Stonington
- FHI Studio is conducting the Road Safety Audit reporting

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.

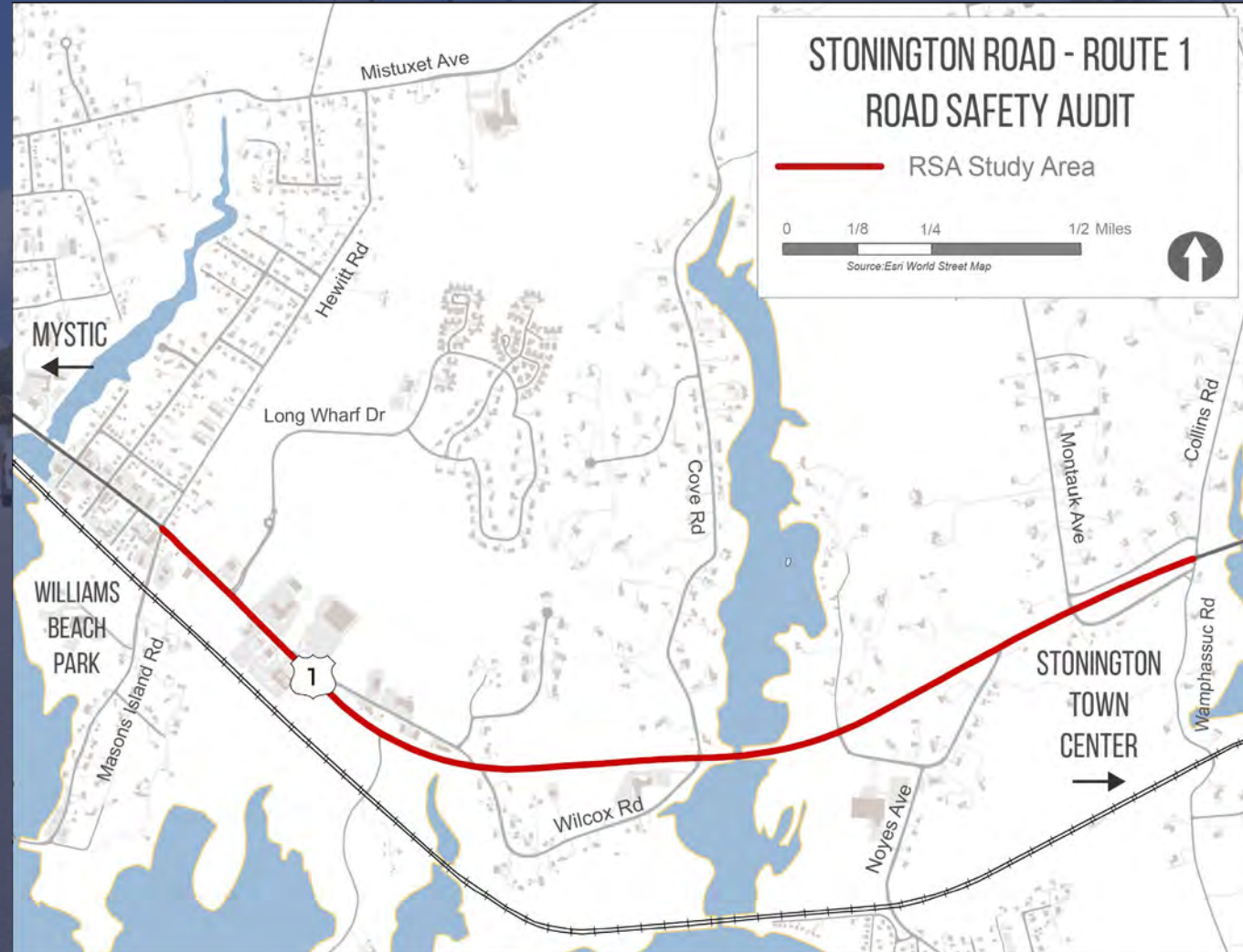
DELIVERABLES

- Existing Conditions Data Collection
- Pre-Audit Meeting
- Field Audit
- Post Audit Meeting
- Road Safety Audit Report



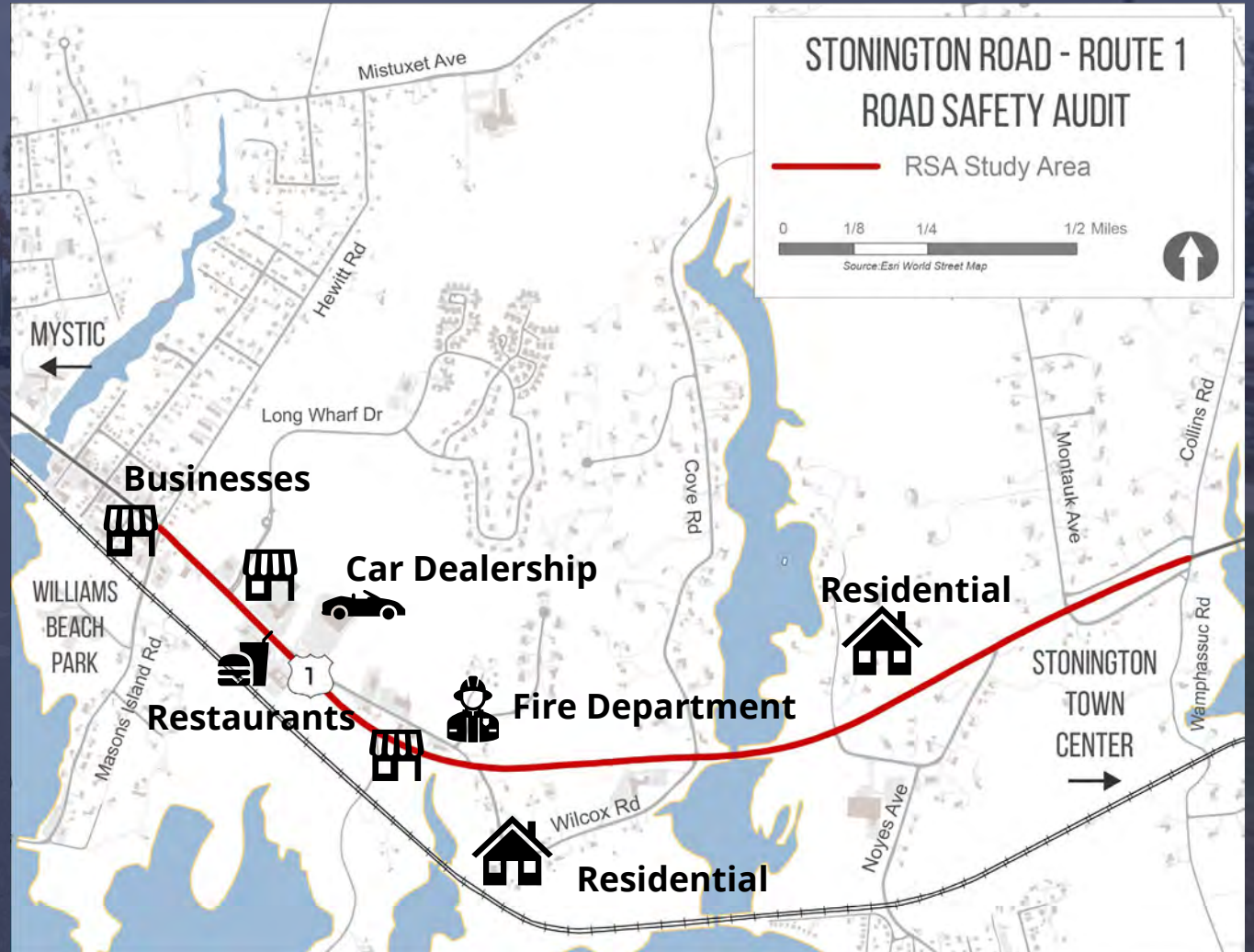
STUDY AREA

- Route 1 (Stonington Road) between Hewitt Road/Masons Island Road and Collins Road/Wamphassuc Road



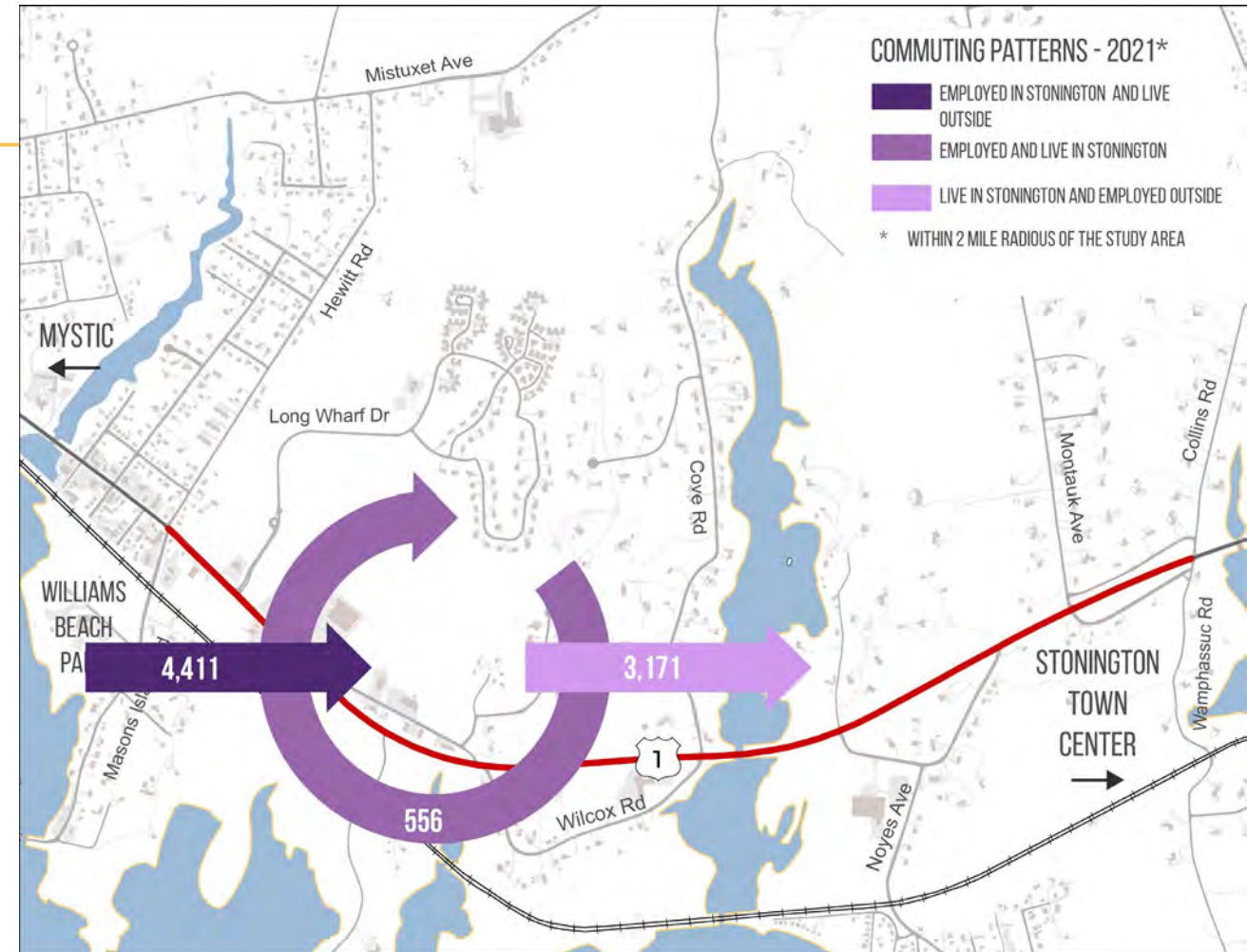
POINTS OF INTEREST

- Businesses
- Restaurants
- Residential Neighborhoods
- Quimbaug Fire Dept.
- Car Dealership
- Gas Station
- Mystic Cycle Center
- Amtrak Station within 1 Mile



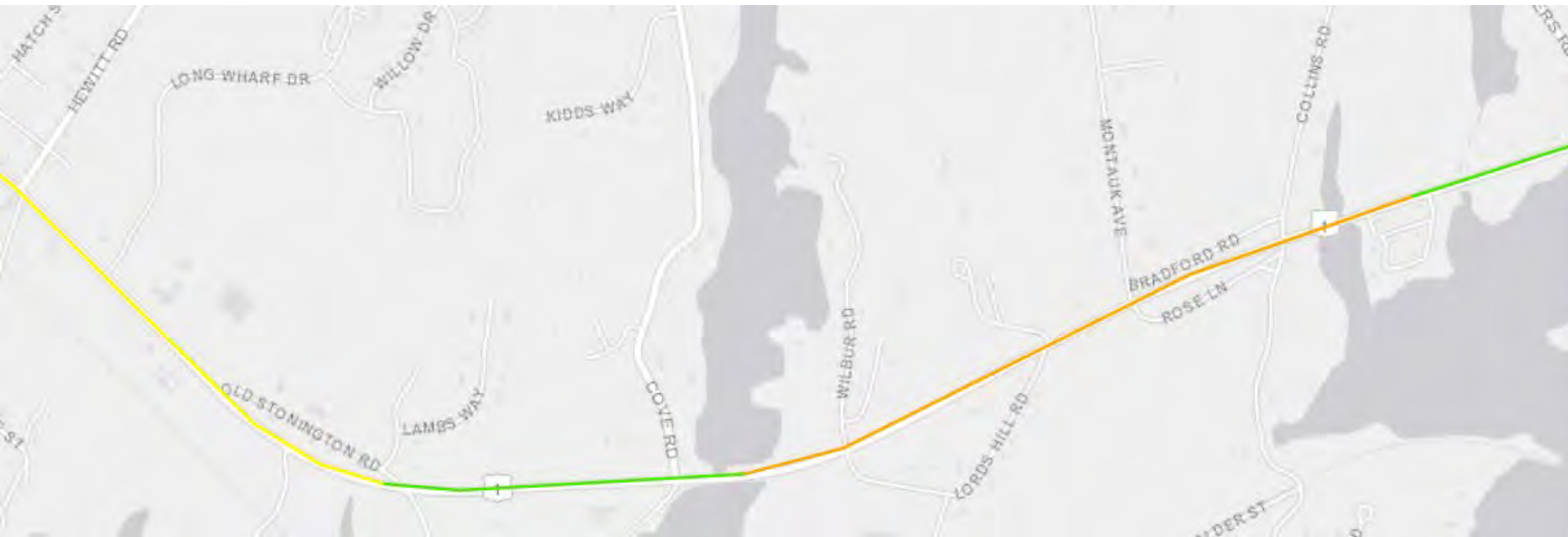
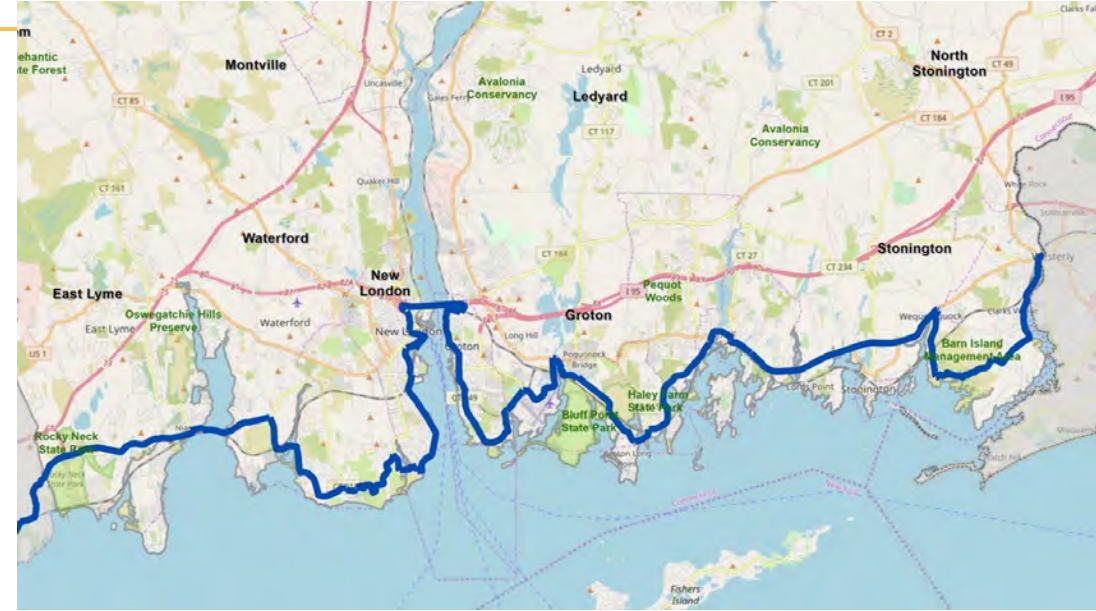
EMPLOYMENT AND COMMUTER PATTERNS

- Greater share of workers commute into the study area for work than the number who and commute out of Stonington for work
- Few people both live and work in Stonington



REVIEW OF PAST/CURRENT WORK

- Future Eastern Shoreline Path Route potentially as identified in the 2019 Southeastern Connecticut Regional Bike and Pedestrian Plan
- Part of CTDOT's Bicycle Planning Network



Layers

☒ Implementation Tiers

Tier I

Tier II-1 to Tier II-5

Tier II-6 to Tier II-8

Tier III-1 to Tier III-2

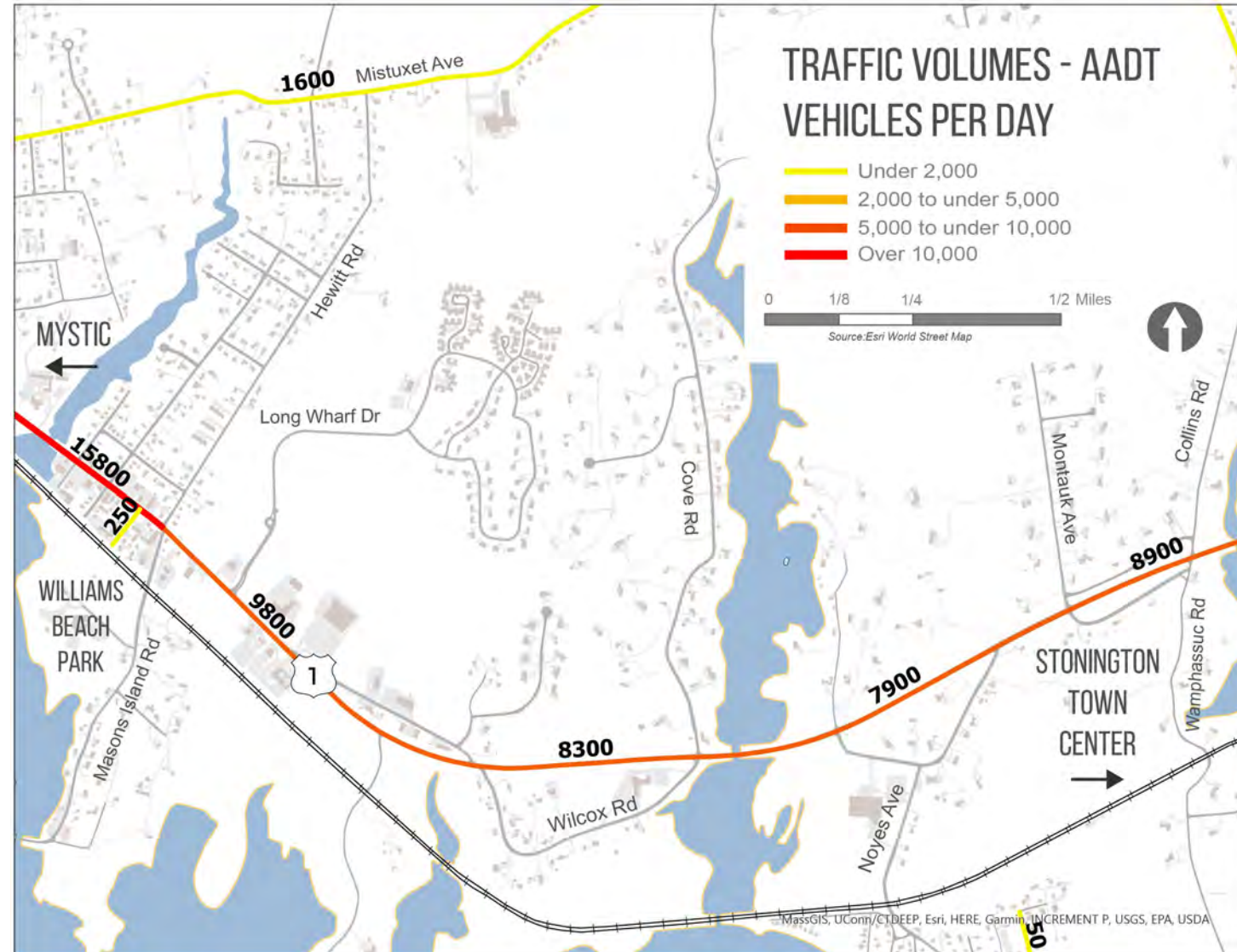
Tier III-3

☐ On Road Bicycle Planning Network

☐ Statewide Multiuse Trails

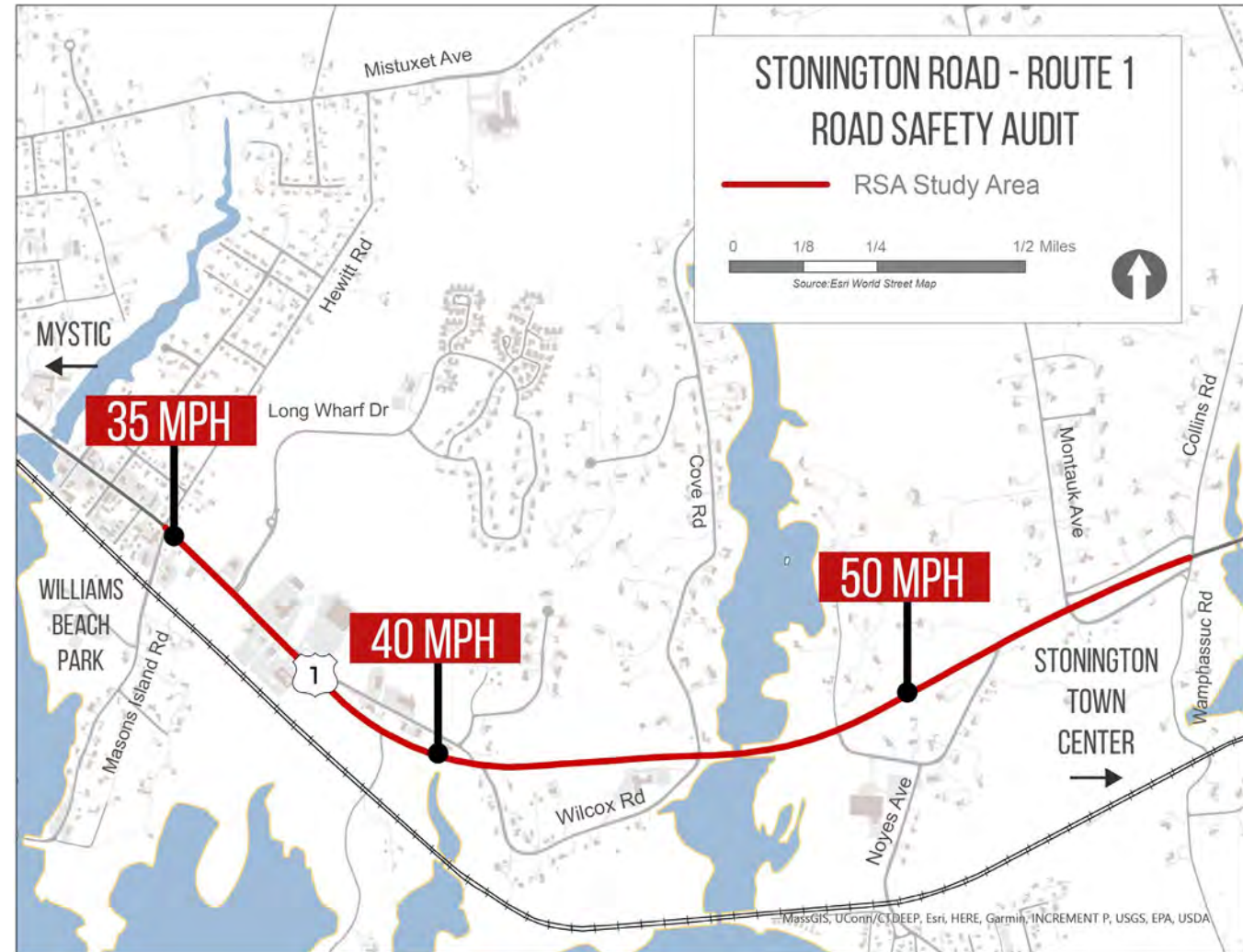
TRAFFIC VOLUMES

- Highest traffic volumes found on Route 1 east of Long Wharf Drive
- And west of the Collins Road/ Wamphassuc Road intersection



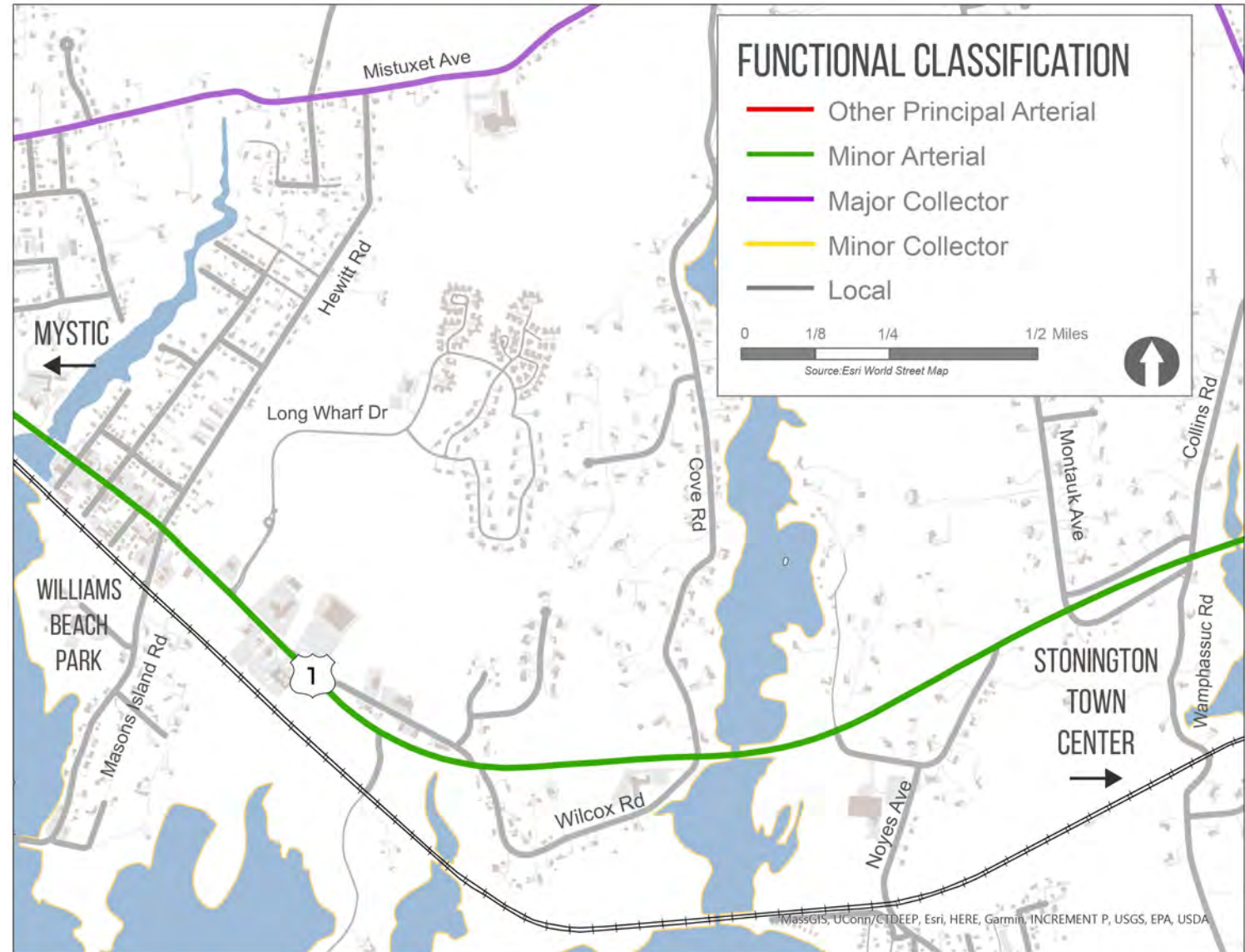
TRAFFIC SPEED LIMITS

- Speed limit ranges from 35 MPH to 50 MPH
- 85th percentile speeds in the middle of the corridor reveal speeds nearing 50 MPH despite the 40 MPH speed limit
- 85th percentile speeds at the western end of the corridor are similarly high at about 10 MPH over the posted speed



FUNCTIONAL CLASSIFICATION

- Route 1 is a Minor Arterial
- Local roads intersect the corridor
- Mistuxet Avenue to the north is a Major Collector



ROADWAY GEOMETRY

Stonington - RSA - Route 1 Street Inventory

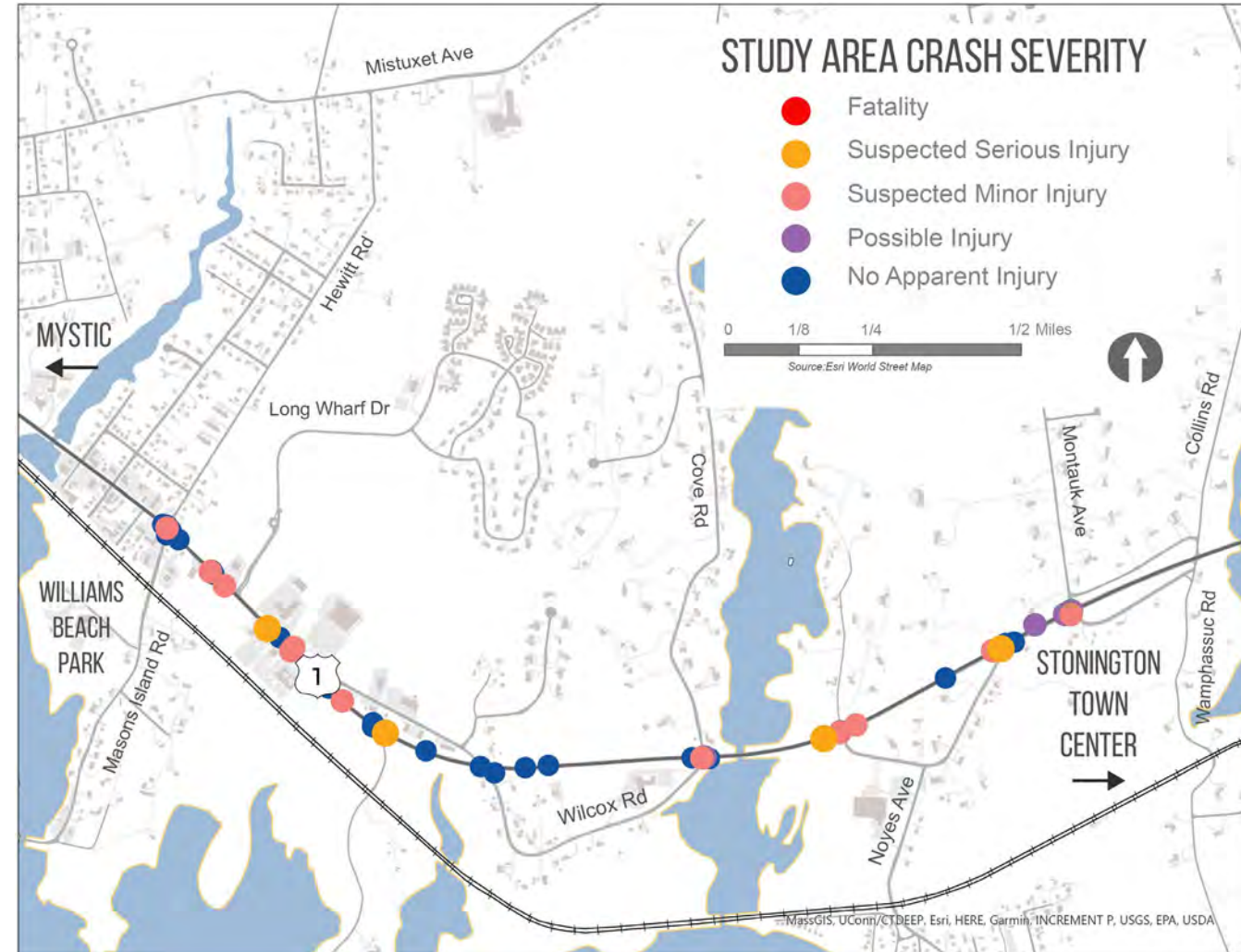
Road	From	To	Distance	Functional Classification	Speed Limit (mph)	Direction	Lanes	Lane Width	Sidewalk			ADA Ramps		Curb	Parking	Shoulder	Notes
									Type	Width	Condition	Present	Compliant				
Route 1 (Stonington Rd)	Masons Island Rd	Long Wharf Rd	850 ft	Minor Arterial	35	NB	1	12'	N/A	N/A	N/A	No	N/A	N/A	No	6-10'	Variable shoulder width. Sidewalk gap west of bike shop
						SB	1	12'	Concrete	4'	Good	Yes	Yes	N/A	No	6'	
Route 1 (Stonington Rd)	Long Wharf Rd	Old Stonington Rd	1/4 mi	Principal Arterial	35	NB	1	12'	N/A	N/A	N/A	No	N/A	N/A	No	4'	20' lane width at Big Y exit Cross section varies
						SB	1	12'	Concrete	4'	Good	Yes	Yes	N/A	No	6-10'	
Route 1 (Stonington Rd)	Old Stonington Rd	Wilbur Rd/Lords Hill Rd	1 mi	Principal Arterial	40	NB	1	12'	N/A	N/A	N/A	Yes	Yes	N/A	No	7'	
						SB	1	12'	N/A	N/A	N/A	No	N/A	N/A	No	9'	
Route 1 (Stonington Rd)	Wilbur Rd/Lords Hill Rd	Collins Rd/ Wamphussac Rd	3/4 mi	Principal Arterial	50	NB	2	12	N/A	N/A	N/A	No	N/A	N/A	No	9'	Shoulder width reduction when 2 lanes start
						SB	2	12	N/A	N/A	N/A	No	N/A	N/A	No	9'	

*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.

CRASH ANALYSIS

2018 – 2022

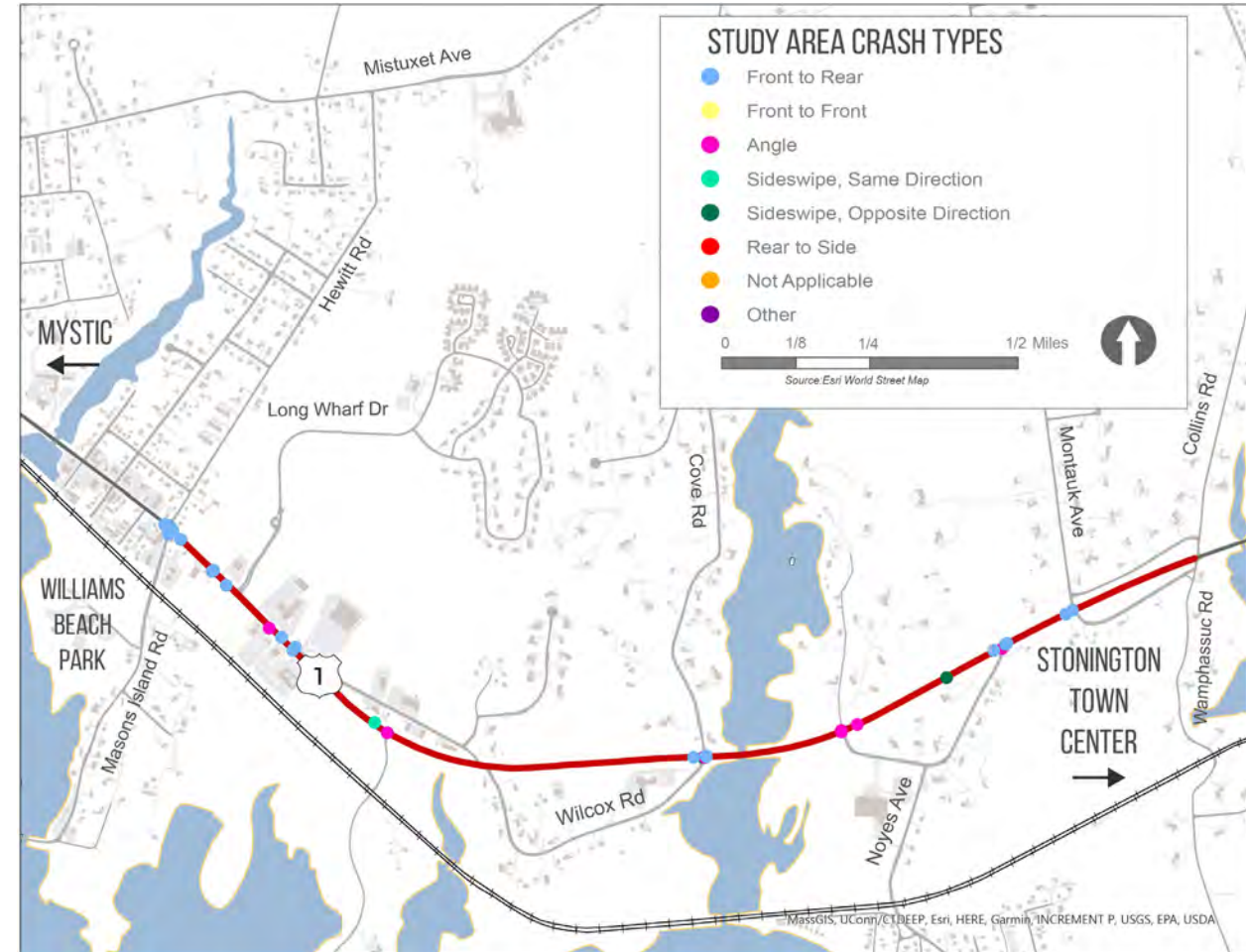
Year	Fatality	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	TOTAL
2018			2	2	9	13
2019			4	1	5	10
2020			2		8	10
2021		1	1	2	5	9
2022		3	2	1	6	12
TOTAL	0	4	11	6	33	54



CRASH ANALYSIS

2018 – 2022

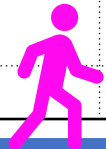
	Fatality	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	TOTAL
Angle		3	3	2	4	17
Front to rear			4	3	16	1
Sideswipe, opposite direction			1		1	1
Sideswipe, same direction					2	3
Rear to Side					1	1
Not Applicable		1	3	1	9	8
TOTAL	0	4	11	6	33	54
Crashes Involving Pedestrians			1			1
Crashes Involving Pedalcycles/ Pedalcyclist			1			1



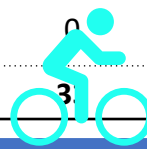
CRASH ANALYSIS

2018 – 2022

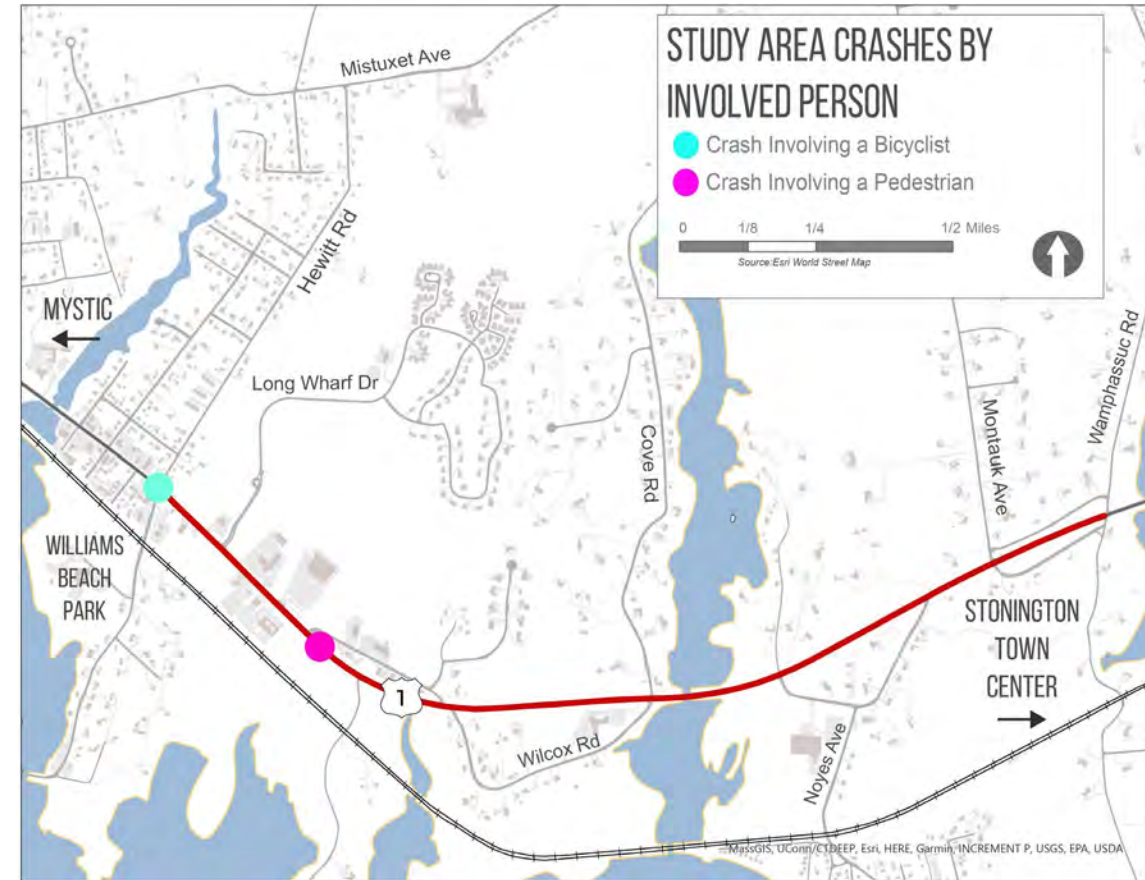
	Fatality	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	TOTAL
Angle		3	3	2	4	17
Front to rear			4	3	16	1
Sideswipe, opposite direction			1		1	1
Sideswipe, same direction					2	3
Rear to Side					1	1
Not Applicable					0	8
TOTAL					3	56



Crashes involving vulnerable users

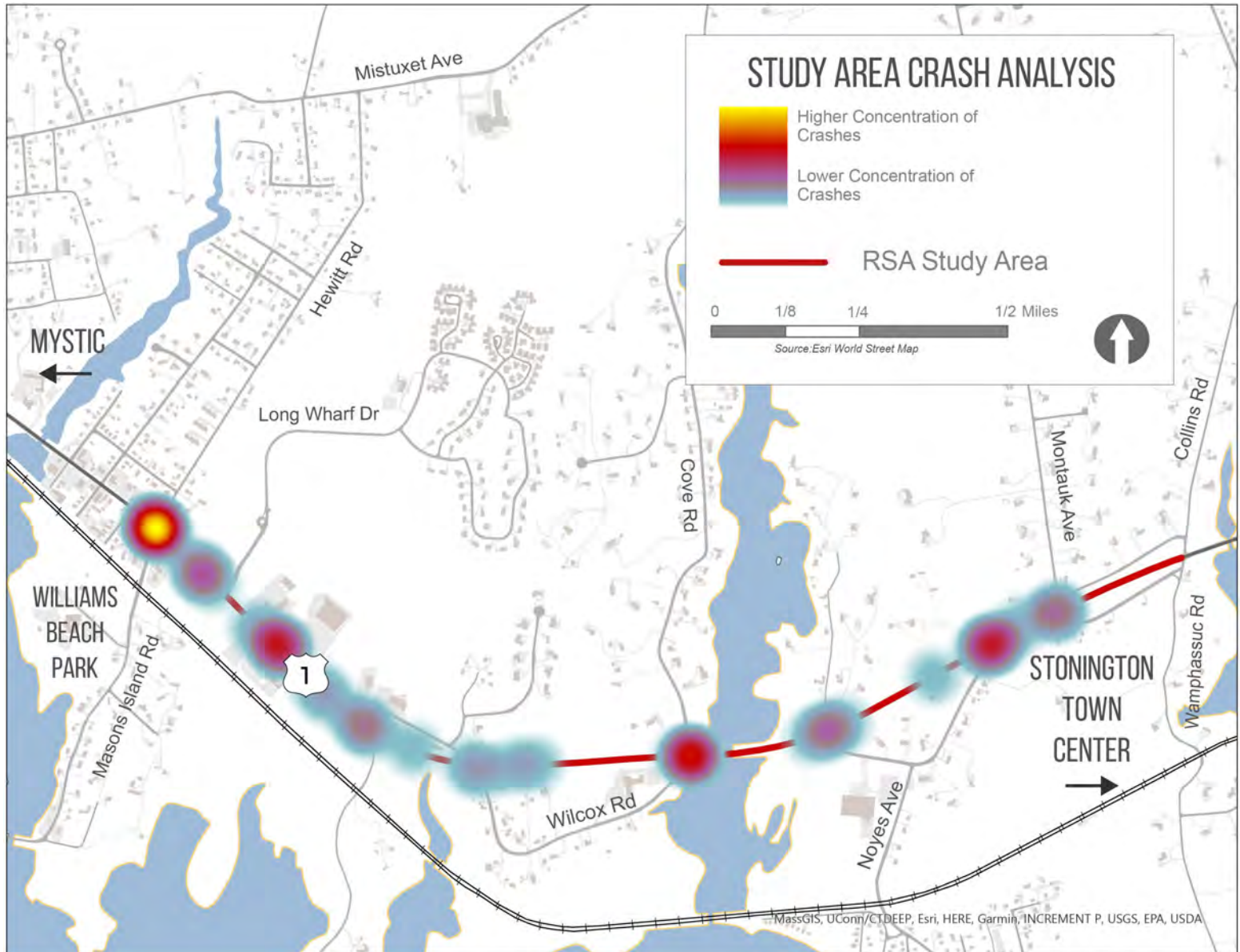


Crashes Involving Pedestrians			1			1
Crashes Involving Pedalcycle/ Pedalcyclist			1			1



CRASH ANALYSIS

Crash Hotspots
(5 Year Crash Total approx.)



EXISTING CONDITIONS FINDINGS

Route 1 (Stonington Road) between Hewitt Road/Masons Island Road and Collins Road/Wamphassuc Road

- Regional and local traffic
- Access to points east and west
- Curb cuts, intersecting roads, and high speeds
- Tourism and seasonal traffic



SAMPLE IMPROVEMENTS TO IMPROVE SAFETY IN THE STUDY AREA

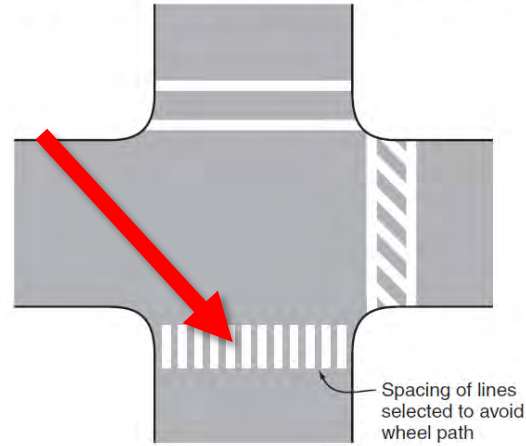
Some countermeasures may not be appropriate on certain facilities

PEDESTRIAN COUNTER MEASURES



Sidewalks

Figure 3B-19. Examples of Crosswalk Markings



Crosswalks



RRFB



Pedestrian Refuge Islands



Raised Crosswalks



Sidepaths

BICYCLIST COUNTER MEASURES



Sharrows



Bike Lanes



Buffered Bike Lanes



Sidepaths

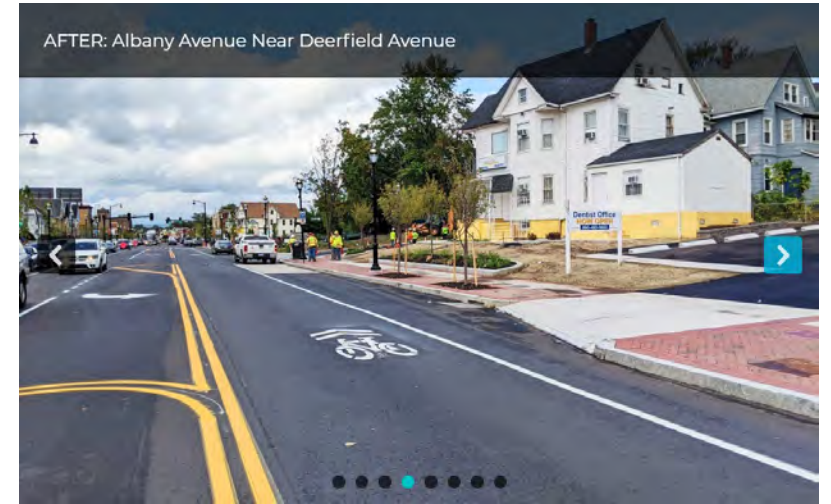
SPEED REDUCTION — CROSS SECTION AND OTHER



Lane Narrowing



On Street Parking



Streetscape



Median Island



Street Trees



Dynamic Speed Signs

SPEED REDUCTION — HORIZONTAL TREATMENTS



Short Medians /
Lateral Shift



Roundabout

A photograph of a two-lane asphalt road stretching into the distance, flanked by dense green trees and foliage. The sky is blue with scattered white clouds. The road has a white center line and yellow edge lines. The text is overlaid in the lower half of the image.

DISCUSSION ON ISSUES IN THE STUDY AREA AND OPPORTUNITIES

TOMORROW'S WALK AUDIT

- Review safety protocols, reflective vests, etc.
- Meeting Location
- Walk the Study Area corridor and assess existing conditions and identify areas for improvement
- Post Audit discussion immediately following

A photograph of a residential street. A silver car is driving away from the camera in the center lane. To the left, there are white houses and a utility pole with many wires. To the right, there are large green trees and a grassy area. In the distance, there are more houses and a hill. The sky is blue with some clouds. The text "THANK YOU!" is overlaid in the center of the image.

THANK YOU!

Route 1 Corridor – Stonington Road Safety Audit (RSA)

Site Walk / Visit

Stonington, CT

Wednesday, June 5th, 2024

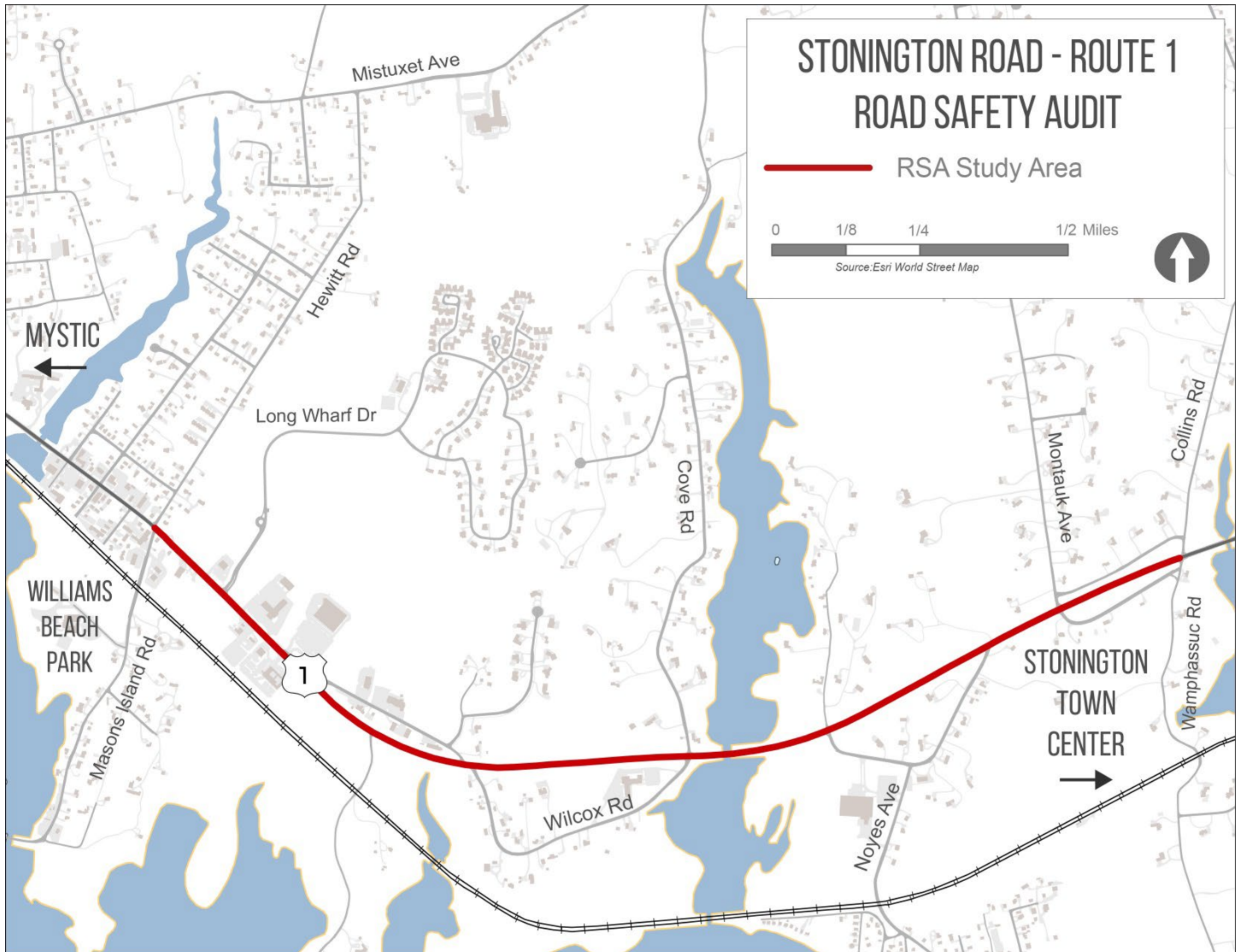
AGENDA

- 1. Welcome and Introductions**
- 2. Route Review**
- 3. Safety Reminders**
- 4. Site Walk**
 - Distribute and discuss field packets
 - Suggestions for adding feedback
 - Identify issues and improvement opportunities (all participants)
- 5. Post-Audit Recap**
 - Discuss observations and potential improvements
 - Next steps

Participant Expectations

All participants should plan to be actively involved during the entire RSA process. Participants are encouraged to share their ideas, concerns, and comments with the study team at the pre-audit meeting and during the site visit. In addition, after the RSA site visit, participants will be asked to review and comment on the draft report to assure it is reflective of the RSA completed by the multidisciplinary team. Stakeholders' opinions are key elements to the success of the RSA.

Overall Study Area
Route 1 (Stonington Road) between Hewitt Road/Masons Island Road and
Collins Road/Wamphassuc Road



RSA Field Sheet

Location 1: RT 1 (Stonington Road) at the Masons Island Road and Hewitt Road Intersection

For each noteworthy feature that you observe along the walking route, write a number at the location on the map below. Write a brief description of your observation for that number under the Notes section. See the attached RSA Field Considerations list for suggested items to observe.



Image Credit: Google Earth Pro, accessed on May 30th, 2024

Notes:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____
- 11) _____
- 12) _____

RSA Field Sheet

Location 2: RT 1 (Stonington Road) at Big Y Plaza

For each noteworthy feature that you observe along the walking route, write a number at the location on the map below. Write a brief description of your observation for that number under the Notes section. See the attached RSA Field Considerations list for suggested items to observe.



Image Credit: Google Earth Pro, accessed on May 30th, 2024

Notes:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____
- 11) _____
- 12) _____

RSA Field Sheet

Location 3: RT 1 (Stonington Road) at the Cove Road and Wilcox Road Intersection

For each noteworthy feature that you observe along the walking route, write a number at the location on the map below. Write a brief description of your observation for that number under the Notes section. See the attached RSA Field Considerations list for suggested items to observe.



Image Credit: Google Earth Pro, accessed on May 30th, 2024

Notes:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____
- 11) _____
- 12) _____

RSA Field Sheet

Location 4: RT 1 (Stonington Road) at Lords Hill Road

For each noteworthy feature that you observe along the walking route, write a number at the location on the map below. Write a brief description of your observation for that number under the Notes section. See the attached RSA Field Considerations list for suggested items to observe.



Image Credit: Google Earth Pro, accessed on May 30, 2024

Notes:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____
- 9) _____
- 10) _____
- 11) _____
- 12) _____

RSA Field Considerations

Pedestrian Facilities

- Sidewalk - width, slope, condition, drainage, obstruction
- Bus shelter - wheelchair access, boarding area
- Shared use path - width, slope, detectable warning surface

Pedestrian Crossings

- Crosswalks - marked crosswalk, striping, width
- Curb ramps - width, slope, orientation, detectable warning surface, wheelchair accessible grade
- Pedestrian signals - push button height, reach distance
- Crossing time
- Signage
- Sight distance
- Pavement marking
- Refuge island - width, slope, detectable warning surface

Pedestrian Accommodations

- Illumination
- Amenities - benches, trash receptacles

Bicycle Accommodations

- Bicycle facility / design
- Separation from traffic
- Roadway speed limit
- Traffic volume
- Truck / heavy vehicle %
- On-street parking conflict
- Pedestrian conflict
- Visibility
- Bicycle signage / marking
- Shared lane width
- Shoulder condition / width
- Pavement condition
- Debris

Road Facilities

- Access point
- Drainage
- Taper / lane shift
- Roadside clear zone / slope
- Guide rail / barrier
- Capacity issue
- Curbing

Road Surface Condition

- Pavement - roughness or rutting, potholes, loose material
- Edge drop-off
- Drainage

Intersections

- Geometry
- Sight distance
- Traffic control device
- Turning vehicle storage
- Through vehicle bypass width

Signals

- Visibility
- Sight distance
- Operation
- Equipment placement
- Lane capacity

Signage

- MUTCD complaint
- Visibility / placement
- Retro-reflectivity
- Clear / consistent messaging

Pavement Markings

- MUTCD compliant
- Visibility
- Condition
- Snow storage
- Edgeline

Driver Behavior

- Speed limit compliance
- Safe passing
- Distraction
- Unaware of pedestrians / cyclists
- Sight distance

Miscellaneous

- Landscaping / vegetation
- Seasonal events
- Weather impacts

Route 1 Corridor – Stonington Road Safety Audit (RSA):

- Location 1: RT 1 (Stonington Road) at the Masons Island Road and Hewitt Road Intersection:
 - Intersection is misaligned and skewed
 - Intersection backups are an issue, especially when making left turns. There are no dedicated turn lanes
 - Visibility issues due to grade changes across intersection
 - The crosswalk on the west side of intersection is not visible when traveling southbound on Route 1, east of the intersection. The grade causes this
 - Narrow sidewalk at this location
 - ADA compliance issues
 - Owner of property (with large Maple Tree) at the northwest corner of the intersection is willing to work with the Town and would consider bike/ped infrastructure
 - YMCA is a popular destination located off of Masons Island Road
 - Multiple bicyclist and pedestrians were observed in the area
- Location 2: RT 1 (Stonington Road) at vicinity of Mystic Cycle Center:
 - Overgrown vegetation hanging into the shoulder on the northside of Route 1
 - Sidewalk in very poor condition with weeds growing up through it- 30+ years old
 - ADA compliance issues
 - Flooding issues particularly at high tides, full moons, weather events – elevation at sea level
 - Sidewalk in front of Mystic Cycle Center curves inward to avoid drainage ditch, does not run parallel to Route 1
 - Wide roadway right-of way
 - No sidewalk on the south side of Route 1
- Location 3: RT 1 (Stonington Road) at Big Y Plaza:
 - No Crosswalks- ADA compliance issues
 - No pedestrian scale lighting
 - Long crossing distances if you were to cross
 - Heavy flooding on south side of Route 1
 - Pedestrian buttons need to be upgraded- old design with no beacon indicating when it is safe to cross
- Location 4: RT 1 (Stonington Road) at the Cove Road and Wilcox Road Intersection:
 - Difficult to make a left turn out of Cove Road – visibility issues and high speeds
 - Very wide shoulders at this location – 6+ feet
 - Multiple culverts create challenges to creating a consistent sidewalk network
 - Many pedestrians walk between Cove Road and Wilcox Road
 - High speed limit with many drivers observed to be traveling above it
 - No sidewalks or bicycle facilities

- Location 5: RT 1 (Stonington Road) at Lords Hill Road:
 - No crosswalks or pedestrian amenities
 - Poor visibility
 - High speeds, especially heading eastbound down the hill
 - Route 1 has centerline rumble strips
 - No pedestrian scale lighting
 - Many pedestrians cross Route 1 at this location
 - No bike infrastructure despite riders being on road
 - Limited sight lines from the side streets
 - Climbing lanes at this location