



Route 161 Corridor Study Comprehensive Transportation Plan

Prepared for Southeastern Connecticut Council of Governments

August 2023



Town of East Lyme
Route 161 Corridor Study
State Project #044-0159
August 2023

COMPREHENSIVE TRANSPORTATION PLAN



BETA

1010 Wethersfield Avenue
Suite 305
Hartford, Connecticut 06114
860.513.1503
www.BETA-Inc.com

Route 161 Corridor Study
Town of East Lyme
State Project #044-0159

COMPREHENSIVE TRANSPORTATION PLAN

Prepared by: BETA GROUP, INC.
Prepared for: Southeastern Connecticut Council of Governments

August 2023

TABLE OF CONTENTS

1.0 Executive Summary	1
1.1 Volume I: Existing and Future Conditions Report	1
1.2 Volume II: Concept Plan.....	3
1.2.1 Segment 1 – Route 156 (Main Street) to Smith Street.....	4
1.2.2 Segment 2 – Smith Street to East Pattagansett Road	8
1.2.3 Segment 3 –East Pattagansett Road to Society Road	10
1.2.4 Segment 4 – Society Road to Industrial Park Road	16
1.2.5 Segment 5 – Industrial Park Road to Frontage Road.....	19
1.2.6 Segment 6 –Frontage Road to U.S. Route 1 (Boston Post Road)	21
1.2.7 Segment 7 –U.S. Route 1 (Boston Post Road) to East Lyme High School	25
1.2.8 Implementation.....	27
1.2.8.1 Near-Term Program.....	27
1.2.8.2 Mid-Term Program.....	28
1.2.8.3 Long-Term Program.....	31
1.2.8.4 Program Summary.....	32
2.0 Volume I: Existing and Future Conditions Report	
3.0 Volume II: Concept Plan	

LIST OF TABLES

Table 1 – Program Summary

LIST OF FIGURES

Figure 1 – Project Area

Figure 2 – Proposed Cross Section, Segment 1

Figure 3 – Proposed Improvements, Segment 1

Figure 4 – Rendering, Downtown Niantic Bike Lanes and Pocket Parking

Figure 5 – Proposed Cross Section, Segment 2

Figure 6 – Proposed Improvements, Segment 2

Figure 7 – Proposed Cross Section, Segment 3

Figure 8 – Proposed Improvements, Segment 3

- Figure 9 – Rendering, Sidewalk and Retaining Walls at Gorton Pond
- Figure 10 – Rendering, Scenic Outlook at Gorton Pond
- Figure 11 – Proposed Cross Section, Segment 4
- Figure 12 – Proposed Improvements, Segment 4
- Figure 13 – Proposed Cross Section, Segment 5
- Figure 14 – Proposed Improvements, Segment 5
- Figure 15 – Proposed Cross Section, Segment 6
- Figure 16 – Proposed Improvements, Segment 6
- Figure 17 – Rendering, Shared Use Path and Bus Pull Out, South of U.S. Route 1
- Figure 18 – Proposed Cross Section, Segment 7
- Figure 19 – Proposed Improvements, Segment 7

1.0 EXECUTIVE SUMMARY

The Southeastern Connecticut Council of Governments (SCCOG), in cooperation with the Town of East Lyme and the Connecticut Department of Transportation (CTDOT) initiated the Route 161 Corridor Study to develop a Comprehensive Transportation Plan for a 3.7-mile-long section of Route 161 extending from the intersection of Route 156 (Main Street) northerly to East Lyme High School. The transportation plan aims to improve the Route 161 corridor by alleviating traffic congestion during peak travel hours, improving mobility for pedestrians and bicyclists, promoting healthy and environmentally friendly modes of travel, enhancing transit ridership, and improving safety for all users.

1.1 VOLUME I: EXISTING AND FUTURE CONDITIONS REPORT

During the initial phase of the project, existing conditions were analyzed. This included a review of geometric characteristics, traffic volumes, travel speeds, vehicle classification, pedestrian and bicycle infrastructure, transit operations, crash history, environmental constraints, and traffic operations. Future traffic operations were also analyzed by forecasting peak hour traffic volumes for the year 2042 using CTDOT's Statewide travel demand model which estimates regional traffic demands based on anticipated changes in future land use and demographics throughout the region and state along with planned transportation projects impacting the corridor. These analyses were summarized in Volume I: Existing and Future Conditions Report. Key findings of the Existing and Future Conditions Report include:

- State Project #044-0156, which commenced in April 2023, will address vehicular safety on I-95 at Interchange 74 as well as traffic operational concerns and safety for all roadway users on Route 161 in the vicinity of the exit 74 interchange ramps. Improvements include replacement of the I-95 Bridge (No. 00250) over Route 161 due to its poor condition and to accommodate the widening of Route 161. Southbound ramps will be realigned to terminate on a new frontage road to form a signalized "T" intersection with a three-lane approach to Route 161. The terminus of the northbound I-95 exit 74 ramp will be located southerly to form a new signalized intersection with Route 161 and the Burger King driveway. To address safety and traffic operations on Route 161, improvements include full reconstruction and widening to provide turn lanes, wider shoulders, and closing several sidewalk gaps within the project limits.
- The speed limit on the Route 161 corridor is posted at 35 miles per hour (mph) north of Oswegatchie Hills Road and at 25 mph south of Oswegatchie Hills Road. Travel speeds were recorded using automatic traffic recorders (ATRs) over a 48-hour period at five locations within the study area. Average speeds along most of the study corridor were found to be generally below or consistent with the posted speed limits. The 10 mph pace ranges were also found to be generally in the range of the posted speed limits. The 85th percentile speeds, which represent the speeds at which 85% of vehicles are traveling at or below, were observed to be higher than the regulated speed limit at each count location.
- The 3.7-mile-long corridor includes approximately 2.5 miles of sidewalk on its west side (68% coverage) and approximately 1.4 miles of sidewalk on its east side (37% coverage). Sidewalks are

present along much of the west side of the corridor between East Lyme High School and the north end of Gorton Pond, although there are several gaps in this section of the sidewalk network. No sidewalks are present on either side of the roadway in the vicinity of Gorton Pond, leaving an approximately 0.45-mile gap in the sidewalk network. The gap can likely be attributed to the close proximity of the Pond on the west side of the corridor and steep grades along the east side of the corridor. Sidewalk is present along at least one side of the corridor between Oak Hill Drive and Route 156 (Main Street), with sidewalks provided on both sides of the corridor in areas including the south end of the Niantic commercial district.

- Bicycle facilities within the corridor are limited. No bicycle lanes, pavement markings, signage, or adjacent paths are provided for bicyclists.
- Transit service along the Route 161 project corridor is provided by two transit providers: the Southeast Area Transit District (SEAT) and Estuary Transit District. SEAT's Route 3 provides weekday bus service between New London's Union Station and areas of Groton and Niantic via Route 161. The Estuary Transit District's Route 643 provides weekday bus service between Old Saybrook and New London via Route 161. Both SEAT and the Estuary Transit District operate these routes as flag-down service where passengers can board or alight anywhere along the bus route. Within the study corridor both transit districts observed the highest number of passenger boardings and alightings at the U.S. Route 1 (Boston Post Road) intersection.
- A total of 141 crashes occurred within the study area between January 1, 2019 and December 31, 2021. About 74 percent of these crashes were property damage only and there were no fatalities during the three-year period. Angle and rear-end collisions were the most common crash types, accounting for 32 percent and 40 percent of the total crashes, respectively. There were three pedestrian collisions and one bicycle collision. Intersections with the highest total number of crashes included Route 161 at U.S. Route 1 (40 crashes), at the I-95 Northbound Ramps and King Arthur Drive (17 crashes), and at Laurel Hills Drive (11 crashes).
- Capacity analyses were conducted during the weekday afternoon and Saturday midday peak periods to assess the quality of traffic flow at each of the study intersections along Route 161 using Synchro Version 11 software. For intersections, six levels of service (LOS), "A"- "F" have been established with "A" representing very good operation and "F" representing very poor operation. Level of Service is D is generally considered the limit of delay acceptable to motorists. The capacity analyses show that all intersections within the study area currently operate with an overall LOS of C or better during the peak periods.
- Future traffic volumes were forecasted and used to evaluate the potential effects of vehicular traffic growth in the study area over a twenty-year horizon. Capacity analyses performed for the Design Year (2042) traffic conditions show that several intersections experience a degradation in LOS when compared to Existing Conditions. Still, all intersections within the study area operate with an overall LOS of D or better during the peak periods, with the lone exception of Route 161 at Roxbury Road which operates at LOS F during the weekday PM peak period.

1.2 VOLUME II: CONCEPT PLAN

Public input was critical to understanding the corridor’s challenges and opportunities. Throughout the study process a wide range of strategies were utilized to engage residents, commuters, businesses, and other stakeholders. These included regular meetings with a Project Advisory Committee consisting of staff from SCCOG, the Town, CTDOT, transit districts, and residents; a project website with an interactive mapping tool, a virtual meeting room, and two public meetings. Findings of the Existing and Future Conditions Report were presented at the first public meeting on October 27, 2022. At that meeting participants were invited to provide input on what features are working well along the corridor and what challenges they would most like to see addressed from the perspective of a driver, pedestrian, or bicyclist. At the second public meeting, held on April 27, 2023, the project team shared proposed improvements in draft format and solicited feedback from attendees which was then used to refine the proposed improvements discussed herein.

Recommended transportation improvements were developed for each of the seven segments shown in Figure 1 and presented in the Volume II: Concept Plan. The recommendations are separated into near-term (those that can be implemented within three-years), mid-term (three to seven year implementation timeline), and long-term (seven-plus year implementation timeline) improvements based on their complexity, cost, and benefit. Typical cross sections were developed for each segment. Conceptual plans and renderings were prepared for several key recommendations.

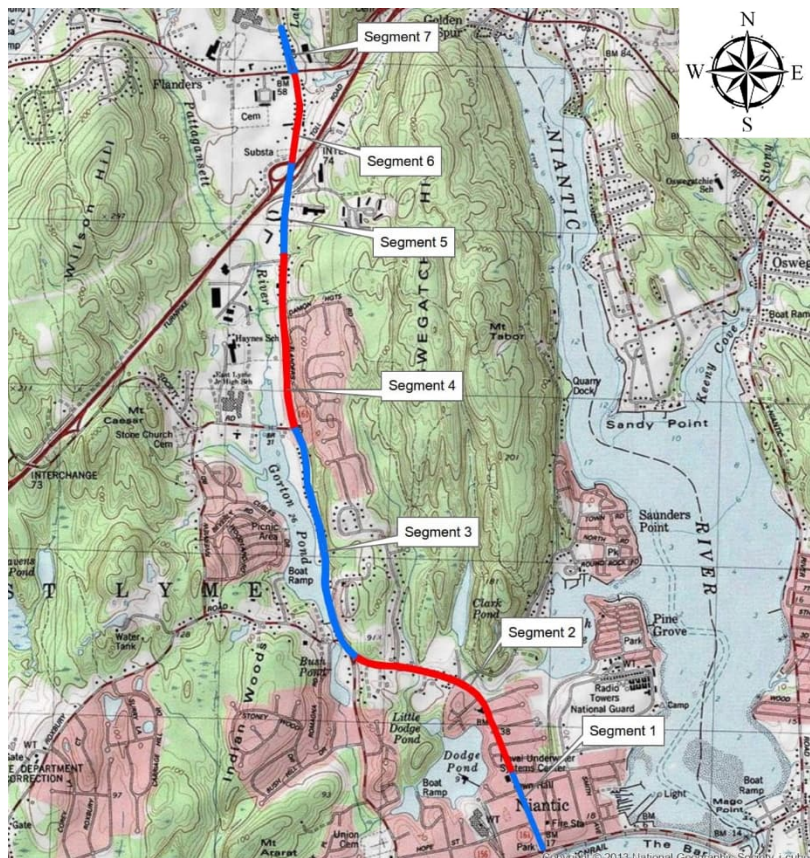


Figure 1: Project Area

1.2.1 SEGMENT 1 – ROUTE 156 (MAIN STREET) TO SMITH STREET

Figures 2 and 3 show the improvements developed for the Route 161 corridor segment between Route 156 (Main Street) and Smith Street. The improvements include:

Near-Term Improvements

- Stripe on-street parking spaces on Hope Street to better accommodate parking demand from visitors to local businesses.
- Install crosswalks across side streets with high pedestrian volumes including Grand Street, Hope Street, State Street, and Lincoln Street to enhance pedestrian safety.
- Install a new traffic signal at the Route 161 and Route 156 (Main Street) intersection. Incorporate retroreflective backplates to enhance visibility and mitigate rear end collisions, and accessible pedestrian signals to improve accessibility for visually impaired pedestrians.

Mid-Term Improvements

- Stripe bike lanes along both sides of Route 161 to promote bicycle use and enhance safety for bicyclists. (See Figure 4 for a rendering of the bike lanes)
- Construct a pocket parking area on the west of the corridor, just south of Hope Street, shifting the existing on-street parking outside of the existing curb line to accommodate the proposed bike lanes. The pocket parking area will also improve sight distances at the intersection and allow drivers to have a clearer view of oncoming traffic before executing left turns out of Hope Street. (See Figure 4 for a rendering of the pocket parking area.)



- Install pedestrian scale lighting between Smith Street and Hope Street to enhance pedestrian visibility and walkability.
- Widen the existing sidewalk on the west side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.
- Plant street trees within the public right-of-way to enhance the aesthetics of the downtown Niantic area and promote survival of local pollinators.
- Reconstruct pedestrian curb ramps at various locations in accordance with the U.S. Access Board's Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

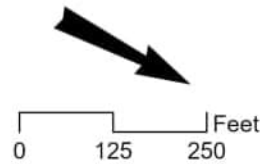


Figure 3
Segment 1 - Route 156 (Main Street) to
Smith Street

June 2023





Figure 4: Downtown Niantic Bike Lanes and Pocket Parking

1.2.2 SEGMENT 2 – SMITH STREET TO EAST PATTAGANSETT ROAD

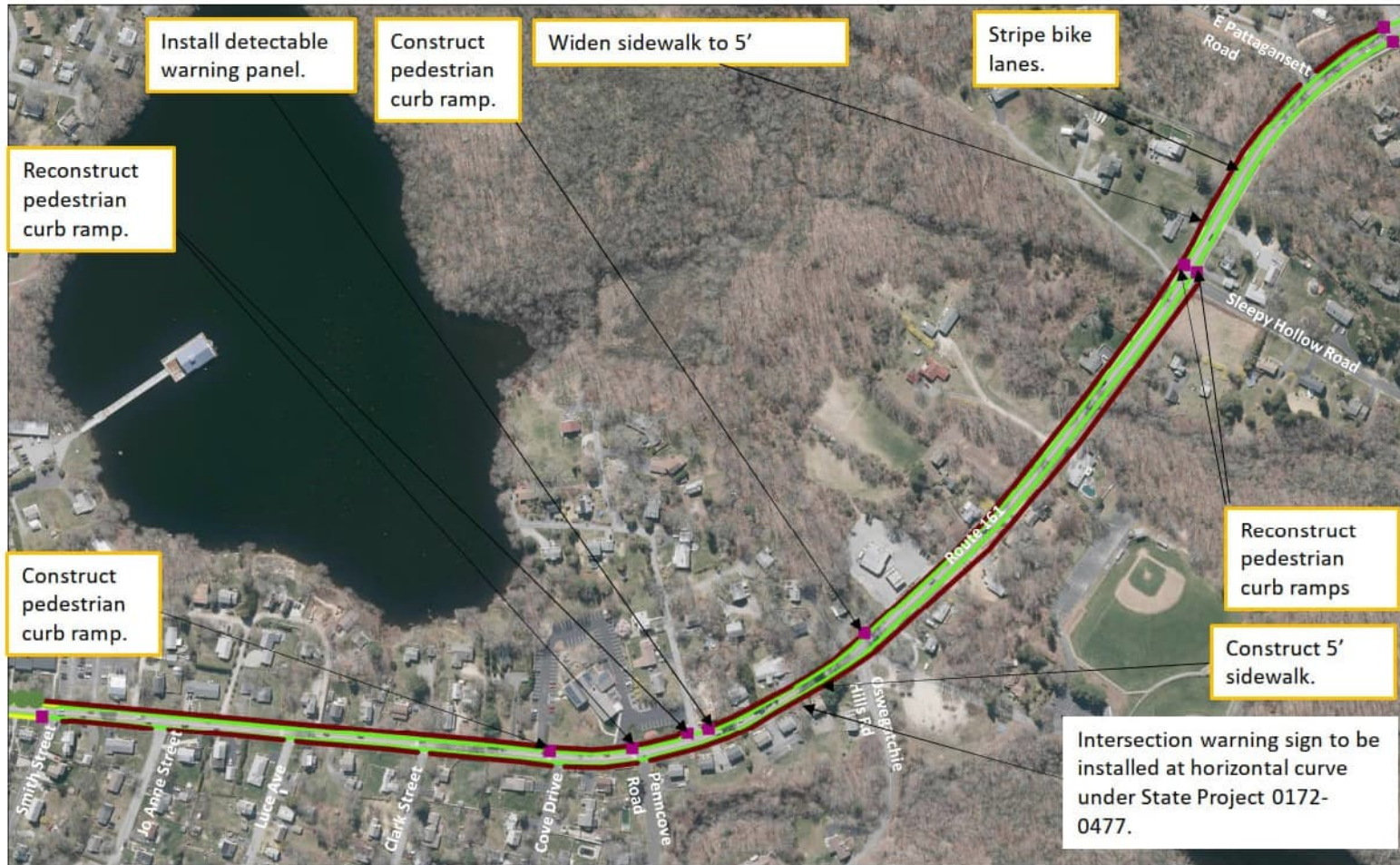
Figures 5 and 6 show the improvements developed for the Route 161 corridor segment between Smith Street and East Pattagansett Road. The improvements include:

Mid-Term Improvements

- Construct pedestrian curb ramps where none are provided including the Clark Street and Oswegatchie Hills Road crossings to improve mobility for all users.
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations in accordance with the U.S. Access Board’s Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.
- Stripe bike lanes along both sides of Route 161 to promote bicycle use and enhance safety for bicyclists.
- Construct new sidewalk along the east side of Route 161 between Smith Street and Sleepy Hollow Road to create an improved pedestrian connection between Veterans Memorial Field, Oswegatchie Hills Nature Preserve, and the downtown Niantic area.
- Widen the existing sidewalk along the west side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.



Credit: Streetmix



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

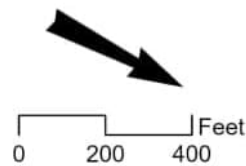


Figure 6
Segment 2 - Smith Street to East
Pattagansett Road

1.2.3 SEGMENT 3 –EAST PATTAGANSETT ROAD TO SOCIETY ROAD

Figures 7 and 8 show the improvements developed for the Route 161 corridor segment between East Pattagansett Road and Society Road. The improvements include:

Mid-Term Improvements

- Install speed feedback signs to discourage speeding.
- Restripe the existing shoulder with 6"-wide shoulder markings to mitigate crashes involving pedestrians, bicyclists and older drivers, and to discourage speeding.
- Reconstruct pedestrian curb ramps at various locations in accordance with the U.S. Access Board's Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.
- Install new traffic signals at the Route 161/East Pattagansett Road and Route 161/Roxbury Road intersections. Provide separate traffic signal controllers at each intersection allowing each signal to operate independently, improving traffic operations, and reducing delay. Incorporate Leading Pedestrian Interval (LPI) phasing and accessible pedestrian signals at each intersection to enhance pedestrian safety and improve mobility for all users. At the Roxbury Road signal install a dedicated northbound left turn lane and a bicycle box to facilitate transition from the bicycle lanes south of the intersection to the shared use path north of the intersection.
- *A roundabout was also considered for the Route 161/East Pattagansett Road intersection to improve operations, reduce speeds, and create a gateway into downtown Niantic. Traffic signal improvements were selected, however, as the preferred alternative in part due to concern that the roundabout would eliminate metering created by the traffic signal and result in fewer gaps where residents downstream of the intersection could safely make a left turn maneuver out of their driveways.*

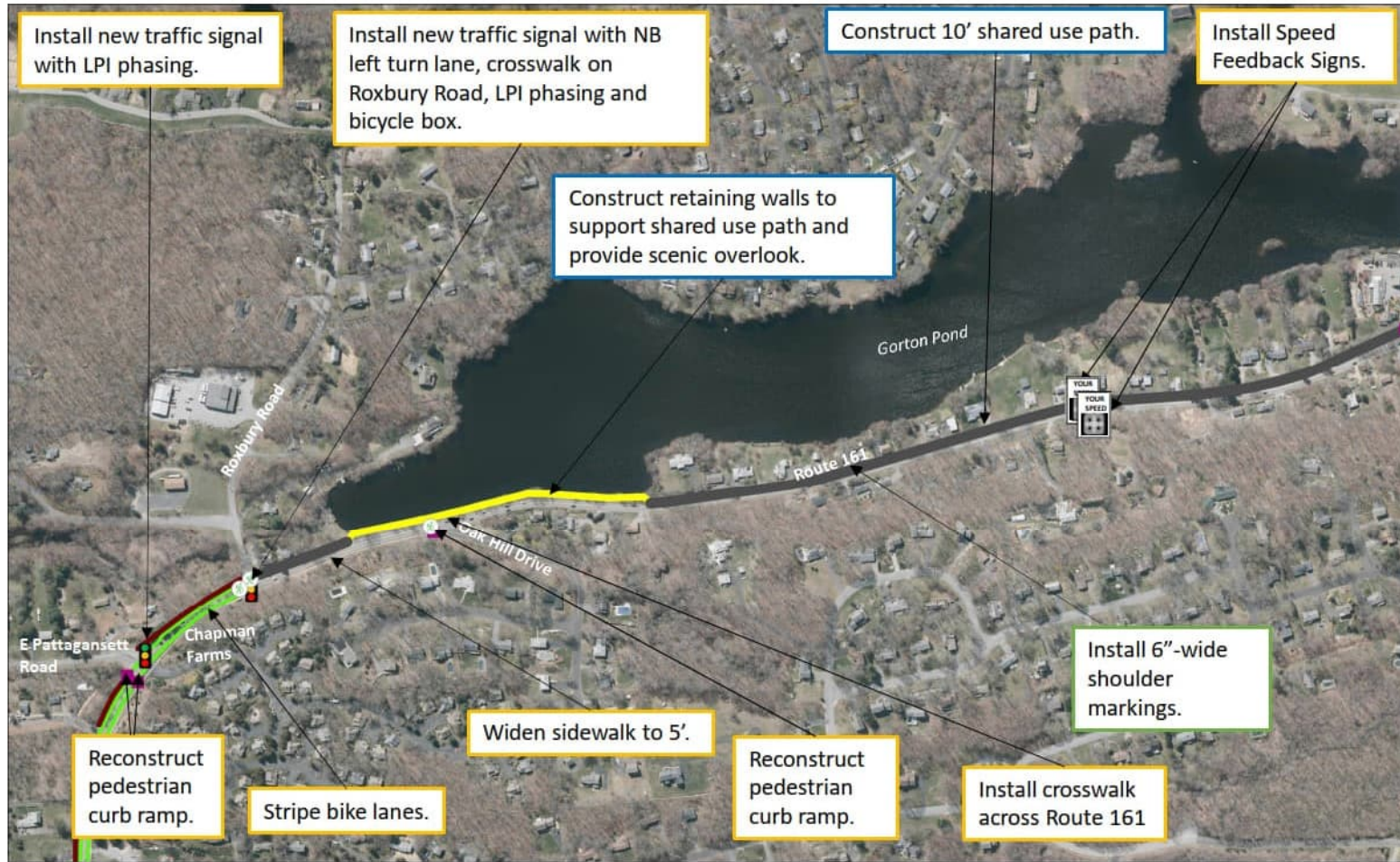


Credit: Streetmix

- Install crosswalks across both roadways at the intersection of Route 161 and Roxbury Road to enhance pedestrian safety.
- Install a crosswalk across Route 161 at Oak Hill Drive to improve access to the proposed sidewalk and overlook area at Gorton Pond.
- Widen the existing sidewalk along the east side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.

Long-Term Improvements

- Install a 10'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. Retaining walls will be necessary to support the shared use path along the south end of Gorton Pond. An overlook area is recommended to accommodate fishing, sight-seeing, or other recreational activities. (See Figures 9 and 10 for renderings of the proposed shared use path.)



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

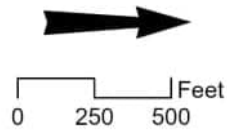


Figure 8
Segment 3 - East Pattagansett Road to Society Road

June 2023





Figure 9: Shared Use Path at Gorton Pond



Figure 10: Scenic Overlook at Gorton Pond

1.2.4 SEGMENT 4 – SOCIETY ROAD TO INDUSTRIAL PARK ROAD

Figures 11 and 12 show the improvements developed for the Route 161 corridor segment between Society Road and Industrial Park Road. The improvements include:

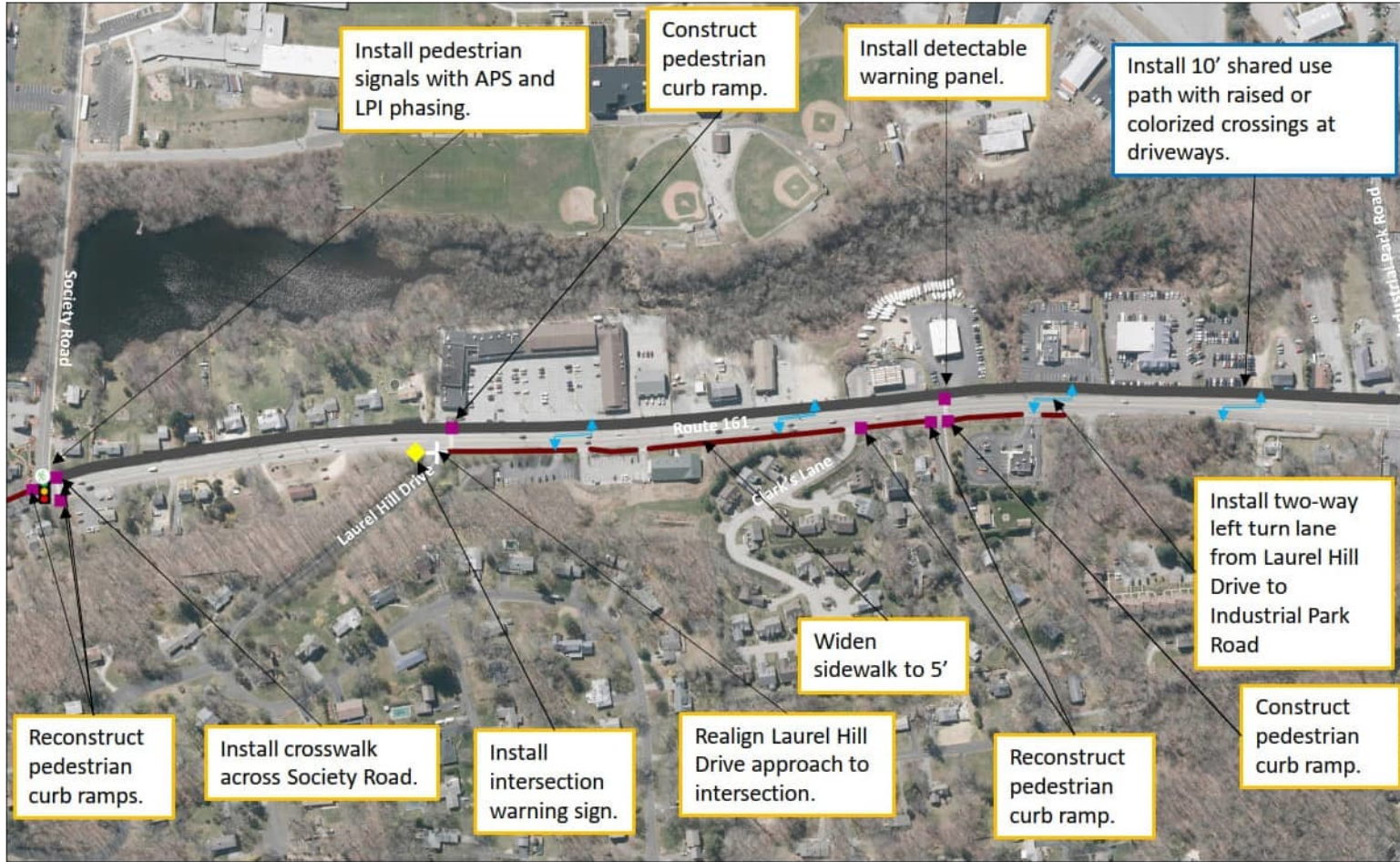
Mid-Term Improvements

- At the intersection of Route 161 and Society Road install accessible pedestrian signals, implement Leading Pedestrian Interval (LPI) phasing, and stripe a crosswalk across Society Road to improve pedestrian safety and mobility for all users.
- Construct pedestrian curb ramps where none are provided including the Laurel Hill Drive and Damon Heights Road crossings to improve mobility for all users.
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations in accordance with the U.S. Access Board’s Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.
- Install an intersection warning sign on the northbound approach to Laurel Hill Drive to alert drivers to the presence of an intersection with limited sight distances and improve safety.
- Restripe the roadway to incorporate a two-way left turn lane to improve flow and reduce crashes.
- Realign the Laurel Hill Drive approach to Route 161 approximately 150 feet southward to reduce the skewed angle, improve sight distance, and mitigate crashes.
- Widen the existing sidewalk along the east side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.

Long-Term Improvements



- Install a 10'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. Replace the existing culvert south of Dunkin' to accommodate the shared use path.



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

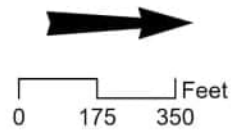


Figure 12
Segment 4 - Figure 12 to Industrial
Park Road

June 2023



1.2.5 SEGMENT 5 – INDUSTRIAL PARK ROAD TO FRONTAGE ROAD

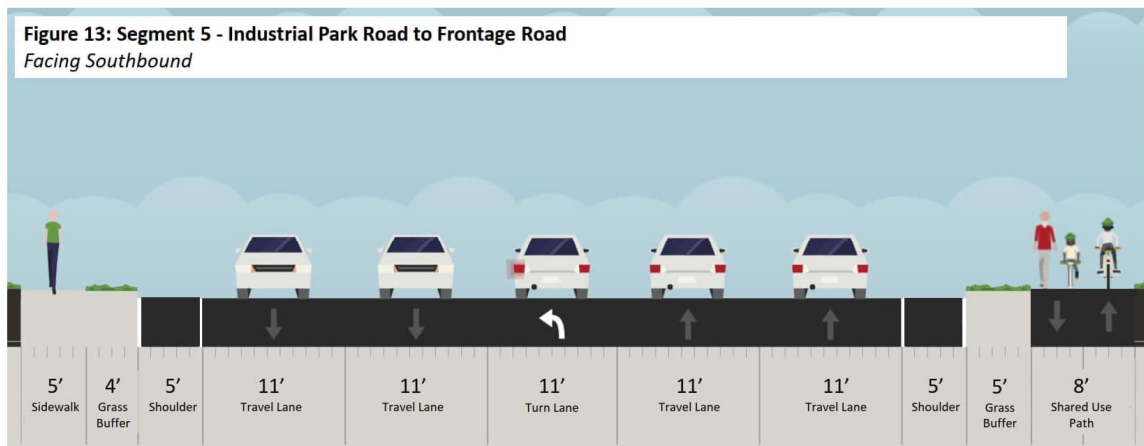
Figures 13 and 14 show the improvements developed for the Route 161 corridor segment between Industrial Park Road and Frontage Road. The improvements include:

Mid-Term Improvements

- Install a crosswalk with pedestrian signals across Industrial Park Road and implement concurrent pedestrian phasing to improve pedestrian safety.
- Incorporate adaptive signal control at the new traffic signals to be installed at Industrial Park Road, the Exit 74 Off Ramp, and King Arthur Drive under the I-95 Interchange 74 Improvement project. Adaptive signal control can allow the signals to better respond to changing traffic volumes and reduce delay on the Route 161 corridor when traffic volumes increase due to incidents on I-95 or seasonal tourism.
- Install a bus shelter northeast of Chapman Wood Road to promote transit use.

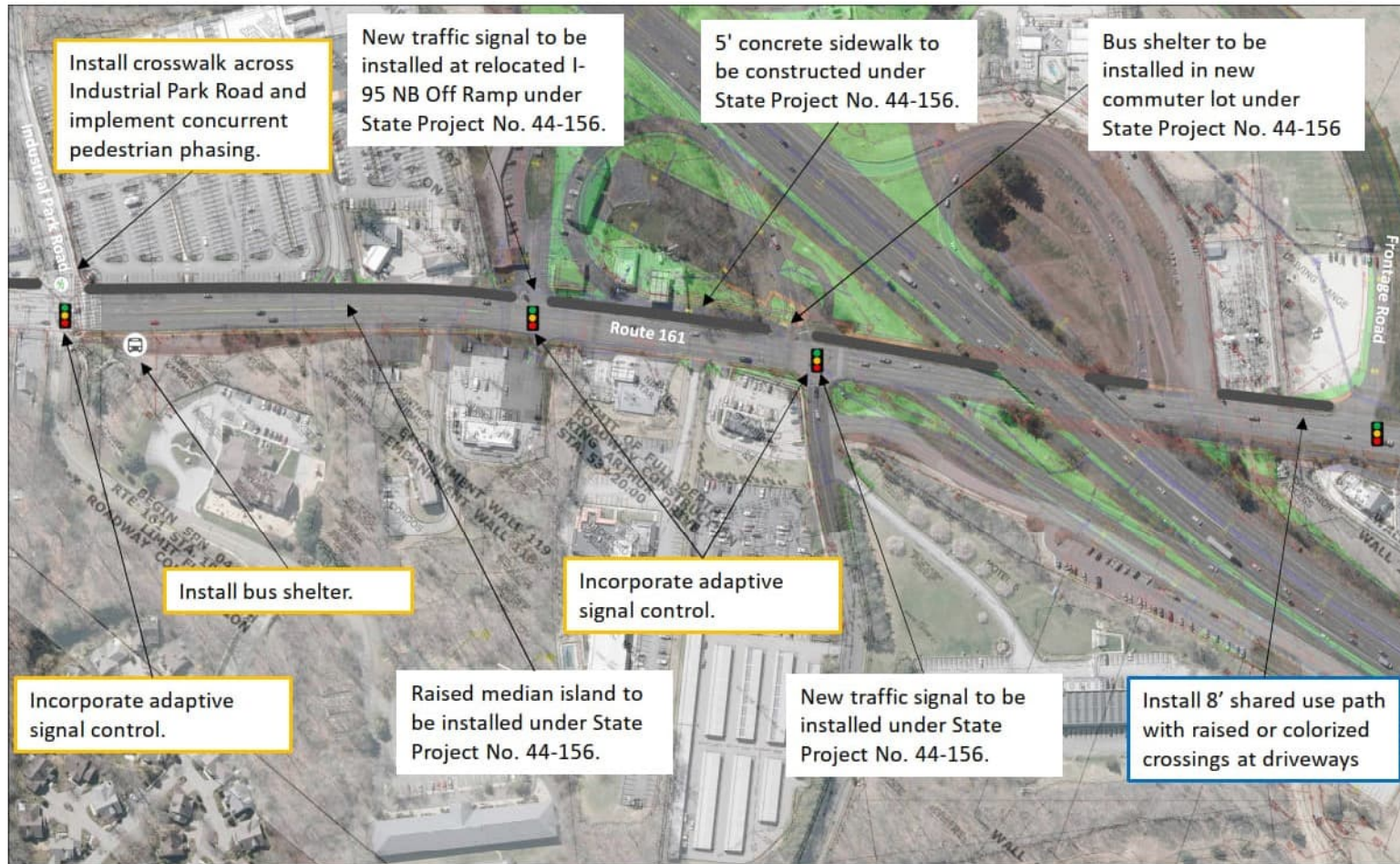
Long-Term Improvements

- Install an 8'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. A narrower shared use path is recommended within this segment due to limited width below the I-95 bridge and to minimize impacts to commercial parking areas.



Credit: Streetmix

Route 161 Corridor Study
Town of East Lyme



Imagery from 2019 Spring Aerial Imagery by UConn CTECO and Interchange 74 Plan Set

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

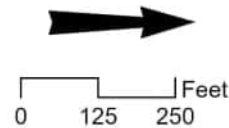


Figure 14
Segment 5 - Industrial Park Road to Frontage Road

June 2023



1.2.6 SEGMENT 6 –FRONTAGE ROAD TO U.S. ROUTE 1 (BOSTON POST ROAD)

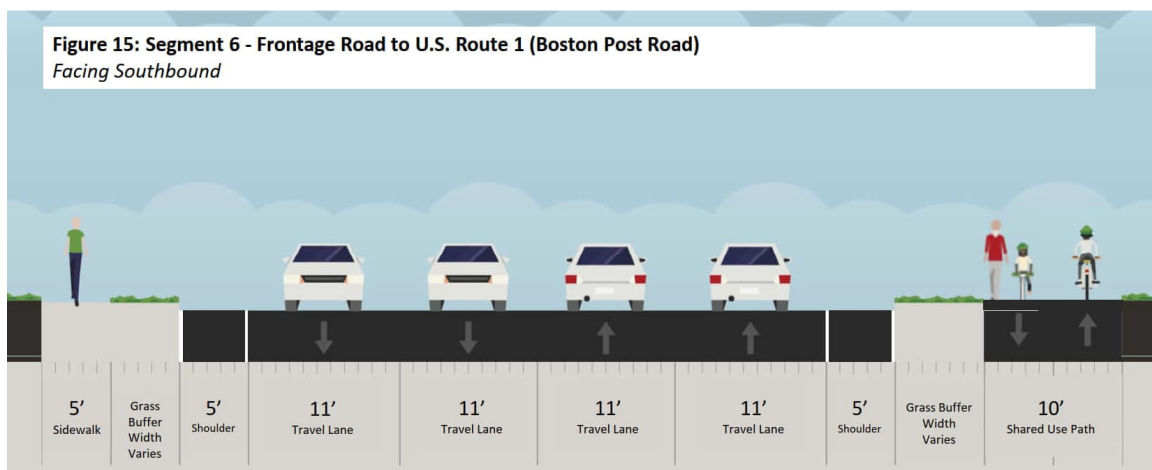
Figures 15 and 16 show the improvements developed for the Route 161 corridor segment between Frontage Road and U.S. Route 1 (Boston Post Road). The improvements include:

Mid-Term Improvements

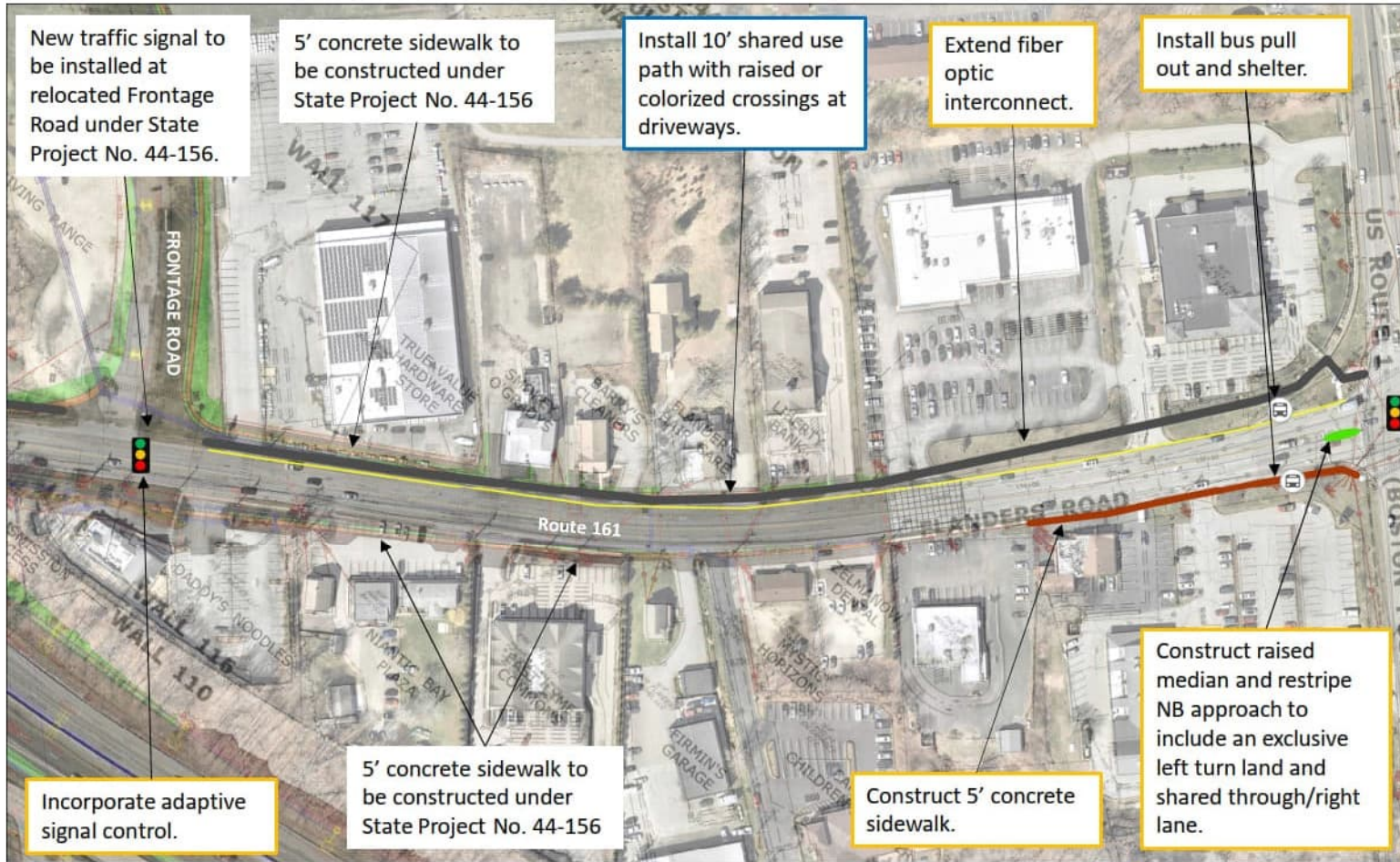
- Incorporate adaptive signal control at the new traffic signal to be installed at Frontage Road under the I-95 Interchange 74 Improvement project. Adaptive signal control can allow the signal to better respond to changing traffic volumes and reduce delay on the Route 161 corridor when traffic volumes increase due to incidents on I-95 or seasonal tourism.
- Install fiber optic interconnect to facilitate communication between the traffic signal at U.S. Route 1 (Boston Post Road) and the signals at Frontage Road, King Arthur Drive, the I-95 Exit 74 Off Ramp, and Industrial Park Road.
- Construct a new 5'-wide concrete sidewalk on the east side of the corridor in front of Latimer Brook Commons to fill a gap in the existing sidewalk network and improve connectivity.
- Install bus pull outs on both sides of the corridor just south of U.S. Route 1 (Boston Post Road) where buses can pick up and drop off passengers without impeding the flow of traffic. Install a bus shelter at each pull out to promote transit use. (See Figure 17 for a rendering of the proposed bus pull outs and shelters.)
- Construct a raised median island on the southern leg of the Route 161/U.S. Route 1 (Boston Post Road) intersection to enhance pedestrian safety between the proposed bus shelters. Restripe the northbound approach to include an exclusive left turn lane and shared through/right turn lane to accommodate the median island.

Long-Term Improvements

- Install a 10'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. (See Figure 17 for a rendering of the shared use path.)



Credit: Streetmix



Imagery from Nearmap and Interchange 74 Plan Set

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

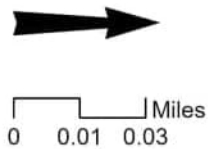


Figure 16
Segment 6 – Frontage Road to U.S.
Route 1 (Boston Post Road)

June 2023





Figure 17: Shared Use Path and Bus Pull Out, South of U.S. Route 1 (Boston Post Road)

1.2.7 SEGMENT 7 –U.S. ROUTE 1 (BOSTON POST ROAD) TO EAST LYME HIGH SCHOOL

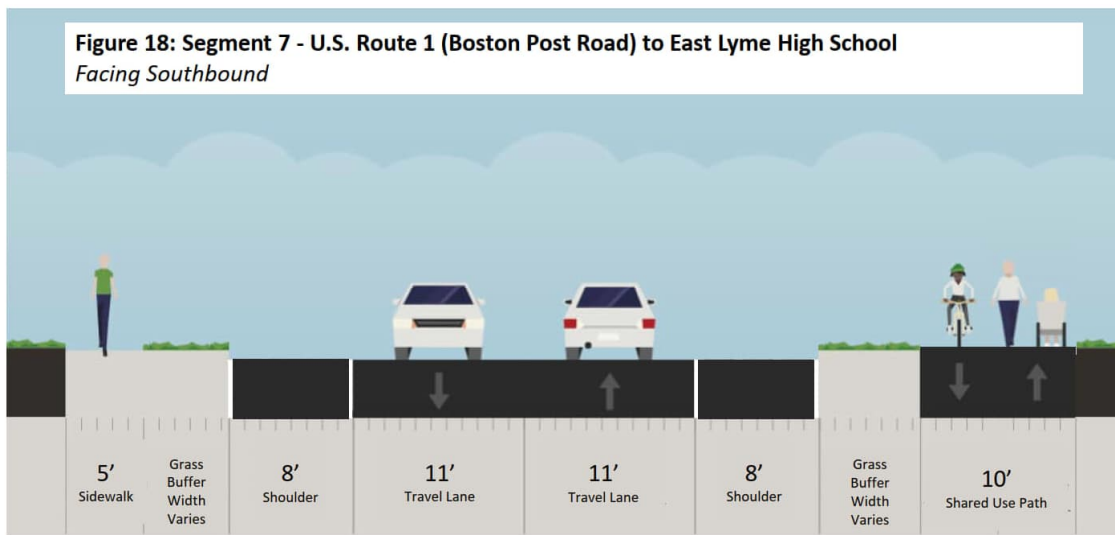
Figures 18 and 19 show the improvements developed for the Route 161 corridor segment between U.S. Route 1 (Boston Post Road) and East Lyme High School. The improvements include:

Mid-Term Improvements

- Implement a left-turn lane on the northbound approach to East Lyme High School to mitigate delay and enhance safety during the morning arrival period.
- Incorporate adaptive signal control at the Route 161/U.S. Route 1 (Boston Post Road) traffic signal. Adaptive signal control can allow the signal to better respond to changing traffic volumes and reduce delay on the Route 161 corridor when traffic volumes increase due to incidents on I-95 or seasonal tourism.

Long-Term Improvements

- Install a 10'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking.



Credit: Streetmix



- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement



Figure 19
Segment 7 –U.S. Route 1 (Boston
Post Road) to East Lyme High School

1.2.8 IMPLEMENTATION

The proposed improvements may be implemented through a series of ten potential projects. An implementation timeline has been developed based on the complexity, cost, and benefit of each project with each project being categorized as near-term, mid-term, or long-term.

Approximate construction costs have been identified for each project based on comparable projects and similar work. The planning-level construction costs are reported in 2023 dollars.

1.2.8.1 NEAR-TERM PROGRAM

The near-term program includes two projects that could be implemented within a three-year timeline. A summary of the project including lead agency and approximate construction cost is provided below.

Project 1 – Traffic Signal Improvements – Route 156 (Main Street)	Mid-term
Summary: Traffic signal improvements at the intersection of Route 161 and Route 156 (Main Street).	Lead Agency: CTDOT Cost: \$320,000

This project includes:

- Installing a new traffic signal at the Route 161 and Route 156 (Main Street) intersection. The existing traffic signal is scheduled to be replaced under State Project #0172-0501 during the 2024 and 2025 construction seasons. Retroreflective backplates will be installed to enhance visibility and mitigate rear end collisions. Accessible pedestrian signals to improve accessibility for visually impaired pedestrians.

Project 2 – Pavement Marking and Signing Improvements – by the Town of East Lyme	Near-term
Summary: Various pavement marking and signing improvements implemented and maintained by the Town of East Lyme.	Lead Agency: Town of East Lyme Cost: \$45,000

This project includes:

- Striping crosswalks across side streets with high pedestrian volumes including Grand Street, Hope Street, State Street, and Lincoln Street to enhance pedestrian safety.
- Striping on-street parking spaces on Hope Street to better accommodate parking demand from visitors to local businesses.
- Installing speed feedback signs between Roxbury Road and Society Road to discourage speeding.

The approximate cost assumes that pavement markings will be installed in conjunction with routine pavement rehabilitation. Milling, paving, and related costs are therefore not included.

1.2.8.2 MID-TERM PROGRAM

The mid-term program includes seven projects that could be implemented within a three to seven-year timeline. A summary of each project including lead agency and approximate construction cost is provided below.

Project 3 – Bus Facility and Pocket Parking Improvements	Mid-Term
Summary: Modify existing curb geometry to accommodate bus pull outs and pocket parking. Install bus shelters and pedestrian refuge island between shelters.	Lead Agency: Town of East Lyme/CTDOT Cost: \$700,000

This project includes:

- Constructing a pocket parking area on the west of the corridor, just south of Hope Street to accommodate bike lanes and improve sight distance.
- Installing a bus shelter northeast of Chapman Wood Road.
- Installing bus pull outs on both sides of the corridor just south of U.S. Route 1 (Boston Post Road) where buses can pick up and drop off passengers without impeding the flow of traffic.

Constructing a raised median island on the southern leg of the Route 161/U.S. Route 1 (Boston Post Road) intersection to enhance pedestrian safety between the proposed bus shelters and restriping the northbound approach to include an exclusive left turn lane and shared through/right turn lane.

Project 4 – Pavement Marking and Signing Improvements – by CTDOT	Mid-term
Summary: Various pavement marking and signing improvements implemented and maintained by CTDOT.	Lead Agency: CTDOT Cost: \$75,000

This project includes:

- Striping bike lanes along both sides of Route 161 between Route 156 (Main Street) and East Pattagansett Road to promote bicycle use and enhance safety for bicyclists.

- Restriping the existing shoulder between Roxbury Road and Society Road with 6" - wide shoulder markings to mitigate crashes involving pedestrians, bicyclists, and older drivers and to discourage speeding.
- Installing a crosswalk across Route 161 at Oak Hill Drive to improve access to the proposed sidewalk and overlook area at Gorton Pond.
- Restriping the roadway between Laurel Hill Drive and Industrial Park Road to incorporate a two-way left turn lane to improve traffic flow and reduce crashes.
- Installing an intersection warning sign on the northbound approach to Laurel Hill Drive to alert drivers to the presence of an intersection with limited sight distances and improve safety.
- Implementing a left-turn lane on the northbound approach to East Lyme High School to mitigate delay and enhance safety during the morning arrival period.

The proposed pocket parking area south of Hope Street identified as part of Project 2 should be constructed prior to restriping to accommodate installation of the bike lanes.

The approximate cost assumes that pavement markings will be installed in conjunction with routine pavement rehabilitation. Milling, paving, and related costs are therefore not included.

Project 5 – Traffic Signal Improvements – East Pattagansett Road to Society Road	Mid-term
Summary: Various upgrades to traffic signals between East Pattagansett Road and Society Road.	Lead Agency: CTDOT Cost: \$730,000

This project includes:

- Installing new traffic signals at the Route 161/East Pattagansett Road and Route 161/Roxbury Road intersections. Provide separate traffic signal controllers at each intersection allowing each signal to operate independently, improving traffic operations, and reducing delay. Incorporate Leading Pedestrian Interval (LPI) phasing and accessible pedestrian signals at each intersection to enhance pedestrian safety and improve mobility for all users. At the Roxbury Road signal install a dedicated northbound left turn lane and a bicycle box to facilitate transition from the bicycle lanes south of the intersection to the shared use path north of the intersection.
- At the intersection of Route 161 and Society Road install accessible pedestrian signals, implement leading pedestrian interval (LPI) pedestrian phasing, and stripe a crosswalk across Society Road to improve pedestrian safety and mobility for all users.

Project 6 – Traffic Signal Improvements – Industrial Park Road to U.S. Route 1 (Boston Post	Mid-term
---	----------

Road)	
Summary: Various upgrades to traffic signals between Industrial Park Road and U.S. Route 1 (Boston Post Road).	Lead Agency: CTDOT Cost: \$300,000

This project includes:

- Install a crosswalk with pedestrian signals across Industrial Park Road and implement concurrent pedestrian phasing to improve pedestrian safety.
- Incorporate adaptive signal control at the new traffic signals to be installed at Industrial Park Road, the Exit 74 Off Ramp, King Arthur Drive, and Frontage Road under the I-95 Interchange 74 Improvement project.
- Install fiber optic interconnect to facilitate communication between the traffic signal at U.S. Route 1 (Boston Post Road) and the signals at Frontage Road, King Arthur Drive, the I-95 Exit 74 Off Ramp, and Industrial Park Road.
- Incorporate adaptive signal control at Route 161/U.S. Route 1 (Boston Post Road) traffic signal.

Project 7 – Pedestrian Connectivity Improvements	Mid-Term
Summary: Provide new sidewalk facilities to improve connectivity and create a more walkable corridor.	Lead Agency: Town of East Lyme/CTDOT Cost: \$900,000

This project includes:

- Constructing new sidewalk along the east side of Route 161 between Smith Street and Sleepy Hollow Road to create an improved pedestrian connection between Veterans Memorial Field, Oswegatchie Hills Nature Preserve, and the downtown Niantic area.
- Construct new sidewalk on the east side of the corridor in front of Latimer Brook Commons to fill a gap in the existing sidewalk network and improve pedestrian connectivity.

Project 8 – Upgrade Existing Sidewalk Facilities	Mid-Term
Summary: Install sidewalk ramps at locations where they are missing, replace existing sidewalk ramps with PROWAG-compliant ramps as required, and widen narrow sidewalks to 5—feet. Provide additional streetscape amenities.	Lead Agency: Town of East Lyme/CTDOT Cost: \$1,600,000

This project includes:

- Construct pedestrian curb ramps where none are provided.
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations in accordance with the U.S. Access Board’s Proposed Public Rights-of-Way Accessibility Guidelines.
- Widen the existing sidewalk along the west side of the corridor between Hope Street and East Pattagansett Road, along the east side of the corridor between Sleepy Hollow Road and Oak Hill Drive, and along the east side of the corridor between Laurel Hill Drive and Dunkin’ Donuts.
- Installing pedestrian scale lighting between Smith Street and Hope Street to enhance pedestrian visibility and walkability.
- Plant street trees within the public right-of-way to enhance the aesthetics of the downtown Niantic area and promote survival of local pollinators.

Project 9 – Laurel Hill Drive Realignment	Mid-Term
Summary: Realign the Laurel Hill Drive approach to Route 161.	Lead Agency: Town of East Lyme/CTDOT Cost: \$215,000

This project includes:

- Realigning the Laurel Hill Drive approach to Route 161 approximately 150 feet southward to reduce the skewed angle, improve sight distance, and mitigate crashes.

1.2.8.3 LONG-TERM PROGRAM

The long-term program includes one project that could take seven years or longer to implement. A summary of the project including lead agency and approximate construction cost is provided below.

Project 10 – Shared Use Path – Roxbury Road to East Lyme High School	Long-term
Summary: Install a shared use path along the west side of Route 161 from Roxbury Road to East Lyme High School	Lead Agency: Town of East Lyme/CTDOT Cost: \$5,400,000

This project includes:

- Installing a shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. Construct retaining walls to support the shared use path along the south end of Gorton Pond. Provide an overlook area to accommodate fishing, sight-seeing, or other recreational activities. Extend the existing culvert south of Dunkin’ to accommodate the shared use path.

1.2.8.4 PROGRAM SUMMARY

Time frame, lead agency, approximate construction cost, study segments, right-of-way acquisitions, utility relocations, and permitting requirements for each of the projects are summarized in Table 1.

Table 1 – Program Summary

Project	Time Frame	Lead Agency	Approximate Construction Cost	Study Segments	ROW Acquisition	Utility Relocation	Permits
1 - Traffic Signal Improvements - Route 156 (Main Street)	Near	CTDOT	\$320,000	1	-	-	NDDB Habitat, Upland Review Area, Coastal Management Area
2 - Pavement Marking and Signing Improvements - by the Town of East Lyme	Near	Town	\$45,000	1,3	-	-	Wetlands and Watercourses, Upland Review Area, NDDB Habitat, Floodplain, Aquifer Protection Area
3 - Bus Facility and Pocket Parking Improvements	Mid	Town/CTDOT	\$700,000	1,6	-	-	Upland Review Area
4 - Pavement Marking and Signing Improvements - by CTDOT	Mid	CTDOT	\$75,000	1,2,3,4,7	-	-	Wetlands and Watercourses, Upland Review Area, NDDB Habitat, Floodplain, Aquifer Protection Area, Coastal Management Area
5 - Traffic Signal Improvements - East Pattagansett Road to Society Road	Mid	CTDOT	\$730,000	3,4	-	-	Wetlands and Watercourses, Upland Review Area, NDDB, Floodplain, Aquifer Protection Area

Route 161 Corridor Study
Town of East Lyme

Project	Time Frame	Lead Agency	Approximate Construction Cost	Study Segments	ROW Acquisition	Utility Relocation	Permits
6 - Traffic Signal Improvements - Industrial Park Road to U.S. Route 1 (Boston Post Road)	Mid	CTDOT	\$300,000	5,6,7	-	-	Upland Review Area, Aquifer Protection Area
7 - Pedestrian Connectivity Improvements	Mid	Town/CTDOT	\$900,000	1,2,6	✓	✓	Wetlands and Watercourses, Upland Review Area, NDDB Habitat
8 - Upgrade Existing Sidewalk Facilities	Mid	Town/CTDOT	\$1,600,000	1,2,3,4	-	-	Wetlands and Watercourses, Upland Review, NDDB Habitat, Floodplain, Aquifer Protection Area, Coastal Management Area
9 - Laurel Hill Drive Realignment	Mid	Town/CTDOT	\$215,000	4	✓	✓	Wetlands and Watercourses, Upland Review, Aquifer Protection Area

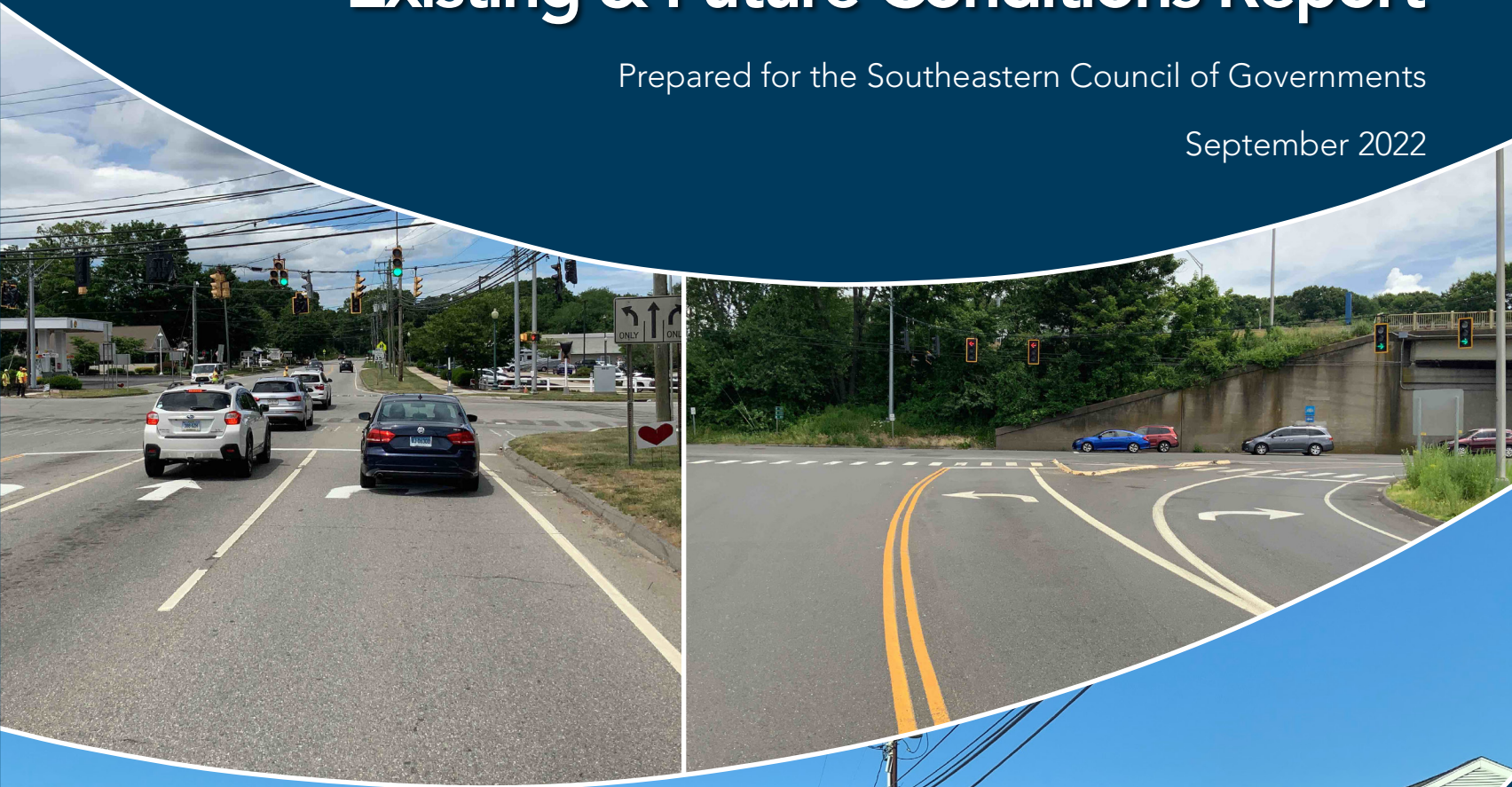
Route 161 Corridor Study
Town of East Lyme

Project	Time Frame	Lead Agency	Approximate Construction Cost	Study Segments	ROW Acquisition	Utility Relocation	Permits
10 - Shared Use Path - Roxbury Road to East Lyme High School	Long	Town/CTDOT	\$5,400,000	3,4,5,6,7	✓	✓	Wetlands and Watercourses, Upland Review, NDDB Habitat, Floodplain, Aquifer Protection Area

Route 161 Corridor Study Volume I Existing & Future Conditions Report

Prepared for the Southeastern Council of Governments

September 2022



BETA

SCCOG



Town of East Lyme
Route 161 Corridor Study
Project #044-0159
September 2022

EXISTING AND FUTURE CONDITIONS REPORT



Route 161 Corridor Study
Town of East Lyme
Project #044-0159

EXISTING AND FUTURE CONDITIONS REPORT

Prepared by: BETA GROUP, INC.
Prepared for: Southeastern Connecticut Council of Governments

September 2022

TABLE OF CONTENTS

1.0 Introduction	1
1.1 Study Area.....	1
1.2 Study Process	1
1.3 Study Team	3
1.4 Review of Previous and Ongoing Studies and projects	3
1.4.1 I-95 Interchange 74 Improvement at Route 161 and Replacement of Bridge No. 00250 (State Project No. 44-156)	3
1.4.2 Gateway Commons Mixed Use Development	4
1.4.3 I-95 Corridor Branford to Rhode Island Feasibility Study	4
1.4.4 Installation and Revision of Traffic Control Signals in Various Towns in District 1 and 2 (State Project No. 172-471)	4
1.4.5 Traffic Signal Safety and Technology Enhancements in District 2 (State Project No. 172-485) ..	4
1.4.6 SCCOG Congestion Management Process Report.....	5
1.4.7 SCCOG Regional Bike and Pedestrian Plan	5
1.4.8 Connecticut Active Transportation Plan.....	6
1.4.9 SCCOG Regional Transportation Safety Plan.....	6
1.4.10 SCCOG Metropolitan Transportation Plan (2019-2045)	7
2.0 Existing Conditions.....	7
2.1 Roadway Characteristics.....	7
2.2 Intersection Characteristics	9
2.3 Route 161 Relative to Current standards	13
2.4 Traffic Conditions	17
2.4.1 Daily Traffic Volumes.....	17
2.4.2 Travel Speeds	19
2.4.3 Peak Hour Volumes	20
2.4.4 Heavy Vehicle Volumes	23
2.5 Pedestrian and Bicycle Facilities.....	23
2.5.6 Bike and Pedestrian Volumes	30
2.6 Transit Service	32
2.6.1 Southeast Area Transit District (SEAT).....	32
2.6.2 Estuary Transit District (ETD)	34
2.6.3 Park and Ride Facilities	35
2.7 Crash History	35
2.8 Access Management.....	45

2.9 Environmental Conditions 46

 2.9.1 Surface Water Resources..... 47

 2.9.2 Groundwater Resources 47

 2.9.3 Wetlands and Watercourses..... 47

 2.9.4 Floodplains and Floodways..... 51

 2.9.5 Hurricane Surge Inundation..... 51

 2.9.6 Threatened and Endangered Species and Critical Habitats..... 51

2.10 Zoning 51

2.11 Utilities..... 54

3.0 Traffic Operations Analysis 55

 3.1 Existing Traffic Operations..... 55

 3.2 Future Traffic Forecast..... 59

 3.3 Design Year Traffic Operations..... 61

4.0 Next Steps 66

LIST OF TABLES

Table 1: Design Standards..... 14

Table 2: Existing Geometric Deficiencies..... 16

Table 3: Existing Traffic-Volume Summary 17

Table 4: Historical Traffic Counts 18

Table 5: Speed Data Summary 20

Table 6: Overall Crash Summary for Route 161 23

Table 7: Pedestrian Accommodations at Signalized Intersections..... 28

Table 8: Pedestrian Volumes on Route 161..... 31

Table 9: Bike Volumes on Route 161 31

Table 10: SEAT Ridership 34

Table 11: Overall Crash Summary for Route 161 36

Table 12: Overall Crash Summary by Intersections..... 40

Table 13: Detailed Crash Summary by Intersection 41

Table 14: Overrepresented Crash Types 44

Table 15: Route 161 Corridor Zoning Summary..... 54

Table 16: Level of Service Criteria for Unsignalized Intersections 55

Table 17: Level of Service Criteria for Signalized Intersections 55

Table 18: Existing Conditions Capacity Analysis Results..... 56

Table 19: Future Traffic Growth 61
Table 20: Design Year (2042) Conditions Capacity Analysis Results 61

LIST OF FIGURES

Figure 1: Study Area 2
Figure 2: Roadway Characteristics 8
Figure 3: Existing Geometric Deficiencies..... 15
Figure 4: Historical Traffic Counts 18
Figure 5: Hourly Traffic Volumes..... 19
Figure 6: Existing (2022) Traffic Volumes 22
Figure 7: Existing Sidewalks and Crosswalks..... 25
Figure 8: Sidewalk and Pedestrian Ramp Condition..... 27
Figure 9: SEAT and Estuary Transit District Bus Routes 33
Figure 10: Roadway Crashes 37
Figure 11: Crash Analysis 38
Figure 12: Water Resources, Wetlands, and Threatened Species 48
Figure 13: Floodplains and Floodways 49
Figure 14: Hurricane Surge Inundation 50
Figure 15: Zoning Districts 53
Figure 16: Existing Conditions Level of Service 58
Figure 17: Future (2042) Traffic Volumes 60
Figure 18: Future (2042) Conditions Level of Service..... 64

LIST OF APPENDICES

- Appendix A – Public Engagement Plan
- Appendix B – I-95 Interchange 74 Improvement Plan
- Appendix C – Automatic Traffic Recorder Reports
- Appendix D – Intersection Turning Movement Count Reports
- Appendix E – Sidewalk and Curb Ramp Assessment Reports
- Appendix F – Synchro Reports

1.0 INTRODUCTION

The Southeastern Connecticut Council of Governments (SCCOG), in cooperation with the Town of East Lyme and the Connecticut Department of Transportation (CTDOT), have initiated the Route 161 Corridor Study (the Study) to assess existing and forecasted conditions on the corridor and develop a comprehensive plan to guide future transportation improvements along the corridor.

The corridor study offers an opportunity to:

- Alleviate traffic congestion levels during peak travel hours
- Improve pedestrian and bicycle mobility
- Promote use of healthy and environmentally friendly modes of transportation
- Enhance transit ridership
- Improve safety for all users
- Integrate climate resilience

1.1 STUDY AREA

The Study Area includes an approximately 3.7-mile-long section of Route 161 extending from the East Lyme High School to the intersection of Route 156 (Main Street). Route 161 is also known as Chesterfield Road (north of U.S. Route 1 (Boston Post Road)), Flanders Road (between U.S. Route 1 (Boston Post Road) and East Pattagansett Road), and Pennsylvania Avenue (between East Pattagansett Road and Route 156 (Main Street)). Fourteen key intersections within the study area were selected for additional traffic operations analysis based on roadway classification, traffic control type, available volumes, and initial field observations. Figure 1 on the following page shows the Route 161 study area and study intersections.

1.2 STUDY PROCESS

The Study is comprised of four tasks:

Task 1 – Community Involvement – Stakeholders are invited to provide input and feedback throughout the course of the project. Mechanisms for involving the community include project advisory committee meetings, public information meetings, direct mailings, project website, interactive mapping tool, and virtual meeting room.

Task 2 - Existing and Future Conditions Report – Existing conditions data including roadway characteristics, traffic volumes, and crash history are collected and analyzed. Traffic models are developed to analyze existing capacity at study intersection. Future traffic volumes are forecasted and used to develop future conditions traffic models and quantify anticipated operational issues.

Task 3 – Draft Conceptual Alternatives Plan – Based on the findings of the Existing and Future Conditions Report recommendations are made for physical improvements along the length of the corridor. Accompanying construction cost estimates are developed and an implementation plan is developed to prioritize the proposed improvements.

Task 4 – Final Conceptual Plan – The conceptual plan is finalized based on feedback provided by the public and the project advisory committee.

Figure 1: Study Area



1.3 STUDY TEAM

The development of the Route 161 Final Conceptual Plan will be a collaborative effort which will include regular meetings with a Project Advisory Committee consisting of representatives from SCCOG, the Town of East Lyme, and CTDOT in addition to the consultant team. The consultant team is led by BETA Group Inc. (BETA), with VN Engineers as a subconsultant assisting with crash analysis.

Local stakeholders are also a key component of the study team as they will be crucial in ensuring that the project addresses the community’s concerns and vision. A Public Engagement Plan was developed to educate and inform as many public and private stakeholders as possible about the study process through a variety of media in in order to provide maximum opportunity for input and consensus building. A copy of the Public Engagement Plan is included in Appendix A.

Two public meetings will be held. The first public meeting will be to present the project and its purpose and need to the public along with the findings of the Existing and Future Conditions Report. The second public meeting will be held later in the project development to engage the public for feedback on the conceptual alternatives under review.

Project Advisory Committee	
<i>James Butler</i>	<i>SCCOG</i>
<i>Kate Rattan</i>	<i>SCCOG</i>
<i>Tyler Roth</i>	<i>CTDOT</i>
<i>Marissa Pfaffinger</i>	<i>CTDOT</i>
<i>Anna Bergeron</i>	<i>CTDOT</i>
<i>Gary Sojka</i>	<i>CTDOT</i>
<i>Fred Kulakowski</i>	<i>CTDOT</i>
<i>Claudiel Meronnis</i>	<i>CTDOT</i>
<i>Todd Hiller</i>	<i>CTDOT</i>
<i>Joe Comerford</i>	<i>Estuary Transit</i>
<i>Michael Carrol</i>	<i>Southeast Area Transit</i>
<i>Kevin Seery</i>	<i>East Lyme</i>
<i>Chris Lund</i>	<i>East Lyme</i>
<i>Joe Bragaw</i>	<i>East Lyme</i>
<i>Gary Goeschel</i>	<i>East Lyme</i>
<i>Michael Finkelstein</i>	<i>East Lyme</i>

1.4 REVIEW OF PREVIOUS AND ONGOING STUDIES AND PROJECTS

A review of previously completed and ongoing reports and plans was conducted. The purpose of this effort was to identify available information and to determine conflicts and synergies with planned transportation projects. A summary of reviewed reports and plans is provided below.

1.4.1 I-95 INTERCHANGE 74 IMPROVEMENT AT ROUTE 161 AND REPLACEMENT OF BRIDGE NO. 00250 (STATE PROJECT NO. 44-156)

The proposed project is intended to address vehicular safety on I-95 at Interchange 74 and address traffic operational concerns between Interchanges 74 and 75 in East Lyme. The project will also address traffic operational concerns and improve safety for all roadway users (motorists, pedestrians, and bicyclists) on Route 161 in the vicinity of the exit 74 interchange ramps. It proposes to replace the I-95 Bridge (No. 00250) over Route 161 due to its poor condition and to accommodate the widening of Route 161.

The proposed southbound ramps will be realigned to terminate on a new frontage road to form a signalized “T” intersection with a three-lane approach to Route 161 consisting of two left turn lanes and a shared through/right turn lane. Route 161 northbound at the new intersection will have a four-lane approach consisting of two exclusive left-turn lanes and two through lanes. The southbound Route 161 approach to the intersection will consist of two through lanes and an exclusive right turn lane.

The terminus of the northbound I-95 exit 74 ramp will be located southerly to form a new signalized intersection with Route 161 and the Burger King driveway. Vehicles on southbound Route 161 will be accessing I-95 northbound on a new entrance “loop” ramp approximately 500 feet south of its current

location. The entrance ramp to I-95 northbound for vehicles on northbound Route 161 will be realigned slightly at its present location.

To address safety and traffic operations on Route 161, improvements include full reconstruction and widening to provide turn lanes, wider shoulders, and sidewalk connectivity within the project limits.

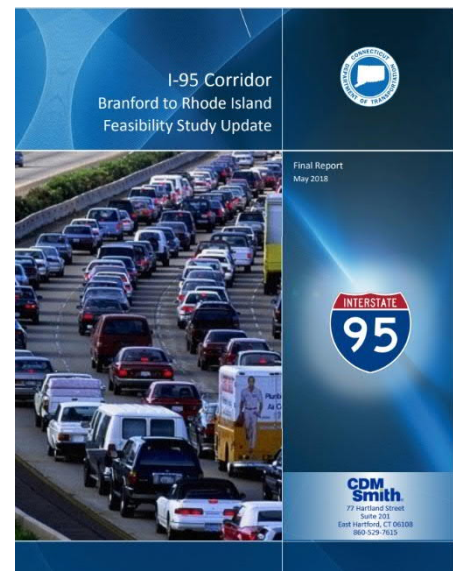
The project is scheduled to be bid in August 2022 with construction commencing shortly thereafter. A concept plan detailing the proposed improvements is included in Appendix A.

1.4.2 GATEWAY COMMONS MIXED USE DEVELOPMENT

Gateways Commons is an approximately 168-acre mixed use, master planned development located north of Interstate 95, between the I-95 interchanges at Route 161 and Society Road. Phase 1 of the Gateways Commons project consisted of both residential and retail developments. The residential portion was completed in 2015 and involved the construction of 275 apartment units. The retail portion was completed in 2019 and included the construction of an approximately 158,000 square foot Costco warehouse. Phase 2, completed in 2020, involved the construction of an additional 120 residential units and an associated clubhouse.

1.4.3 I-95 CORRIDOR BRANFORD TO RHODE ISLAND FEASIBILITY STUDY

This 2018 study provided an update to the 2004, I-95 Corridor Branford to Rhode Island Feasibility study, which evaluated the feasibility of adding one operational lane in each direction along I-95 between Exit 54 in Branford and the Connecticut/Rhode Island State line. The report also includes an analysis of operations, existing conditions, and identification of conceptual improvements. These improvements include a conceptual design for the I-95/I-395 interchange intended to improve interchange geometry and traffic operations on the mainlines, ramps and adjacent intersections. The report also recommends reconstructing the section of I-95 between Exit 70 and Exit 74 to widen the inside and outside shoulders to current design standards, while widening the roadway to add an additional operational lane in each direction. These recommendations will be further evaluated as part of a Planning and Environmental Linkage (PEL) study.



1.4.4 INSTALLATION AND REVISION OF TRAFFIC CONTROL SIGNALS IN VARIOUS TOWNS IN DISTRICT 1 AND 2 (STATE PROJECT NO. 172-471)

This project included traffic signal improvements at the intersection of Route 161 and U.S. Route 1 (Boston Post Road). New signal equipment including span poles, traffic signals, pedestrian signals, controller, and cabinet was installed. Vehicle detection was upgraded as inductive loop detectors were replaced with a 360-degree video detection camera. Emergency vehicle preemption was introduced to the intersection. Previous lane arrangements and traffic signal phasing were retained; however, signal timings were updated to accommodate current demand.

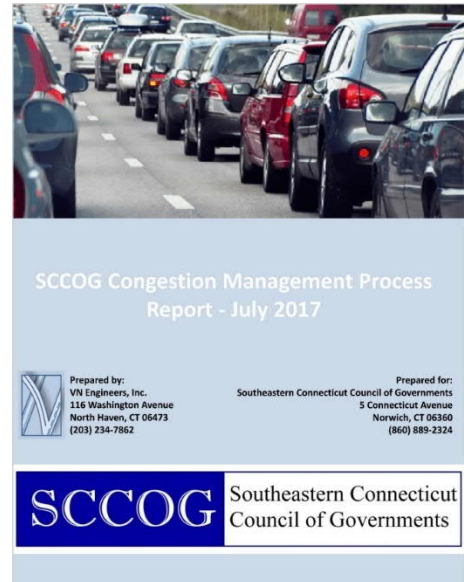
1.4.5 TRAFFIC SIGNAL SAFETY AND TECHNOLOGY ENHANCEMENTS IN DISTRICT 2 (STATE PROJECT NO. 172-485)

This project involved the installation and replacement of 360-degree video cameras and radar detection at traffic signals at various intersection including the intersections of Route 146 at Society Road and Route

146 at Route 156 (Main Street). In addition to vehicle detection equipment upgrades, clearance interval and pedestrian clearance timings were updated at each intersection.

1.4.6 SCCOG CONGESTION MANAGEMENT PROCESS REPORT

This 2017 report takes a systematic approach to identify and address congested areas within the region. The report utilizes volume-to-capacity (V/C) for 2011, projects the V/C ratio to the year 2035 and uses this information to identify potential future congestion concerns. The segment of Route 161 between Society Road and Industrial Park Road is identified as a congested corridor. Recommendations for addressing delay include lowering the speed limit to 25 mph. Such a speed limit reduction may address safety concerns for residents and pedestrians and make the speed limit more consistent with traffic flow. The report also recommends discouraging strip mall type of developments in the future, and incentivizing redevelopment of large parking lots into more compact mixed-use centers that would function more like a traditional village.



1.4.7 SCCOG REGIONAL BIKE AND PEDESTRIAN PLAN

The 2019 Regional Bike and Pedestrian Plan provides a comprehensive inventory of bike and pedestrian facilities, an analysis of gaps in the facilities, and prioritized recommendations for infrastructure improvements. Recommendations include widening Route 161 from the East Lyme High School driveway to Main Street to accommodate bike-safe shoulders or bike lanes. The report also recommends that an alternative north/south running route for a bike lane spanning East Pattagansett Road, Roxbury Road, and Riverview Road. Additional bicycle facilities are recommended on streets connecting to the corridor including bike-safe shoulders on U.S. Route 1 (Boston Post Road) and bike lanes or shoulders on Route 156 (Main Street). Pedestrian-oriented recommendations include infilling gaps in the Route 161 sidewalk network.



1.4.8 CONNECTICUT ACTIVE TRANSPORTATION PLAN

The 2019 Connecticut Active Transportation Plan is an action-oriented blueprint for meeting the needs of pedestrians and bicyclists in Connecticut. It includes a statewide bicycle planning network developed to serve three purposes:

1. To identify key routes and connections which bicyclists want to travel on throughout the state
2. To provide CTDOT guidance on where future improvements should occur
3. To provide a foundation for regions and municipalities to expand upon and make local connections to

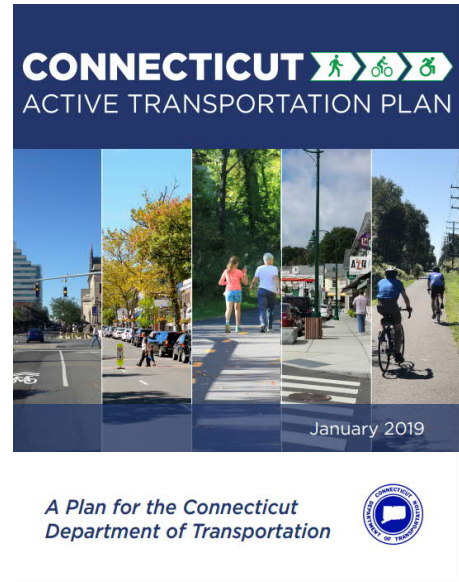
Once the draft network was developed and refined, a methodology was created to evaluate the network and ultimately prioritize segments, or corridors, for improvements. The evaluation for each bicycle network segment assessed such factors as safety, demand, equity, existing facilities, and opportunities. Each segment was ultimately placed into one of three categories, or tiers:

Tier 1: Segments that CTDOT could consider for stand-alone bicycle improvements

Tier 2: Segments that CTDOT could consider for the incorporation of bicycle improvements as part of maintenance and other road projects

Tier 3: Segments that generally meet criteria and should not be a Department priority, however, CTDOT should maintain existing level of service for bicyclists on these routes in future road projects.

The Connecticut Active Transportation Plan categorizes Route 161 as a Tier 3 corridor.



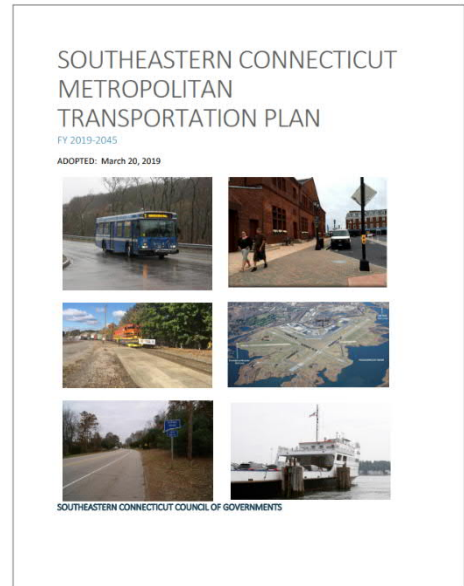
1.4.9 SCCOG REGIONAL TRANSPORTATION SAFETY PLAN

The 2020 Regional Transportation Safety Plan serves as a road map and strategy to help SCCOG member municipalities collaborate with the State in reducing fatal and injury crashes. It identifies the region's high-frequency crash locations and outlines effective countermeasures and strategies to reduce crashes. The segment of Route 161 between Society Road to Oak Hill Drive is identified as having the region's sixteenth highest Equivalent Property Damage Only crash rating due in part to speeding. Dynamic speed feedback signs are recommended to improve safety. The segment of Route 161 between the East Lyme High School driveway and Egret Road is identified as a top non-motorized crash location due to the occurrence of one collision involving a pedestrian and one collision involving a bicyclist. The report recommends that high-visibility crosswalks be utilized at the East Lyme High School driveway, that traffic calming measures be incorporated, and that Route 161 be widened as needed to accommodate bike-safe shoulders.



1.4.10 SCCOG METROPOLITAN TRANSPORTATION PLAN (2019-2045)

SCCOG’s Metropolitan Transportation Plan is developed, adopted, and updated through the metropolitan transportation planning process with the purpose of identifying the long-range transportation needs of the southeastern Connecticut region and to create a general policy guide for the future allocation of available public resources to address those needs. The aforementioned I-95 Interchange 74 and I-95 Corridor projects are highlighted as high priority projects that will improve operations, safety, and dovetail with built and planned developments on the Route 161 corridor. The report also identifies a list of infrastructure projects supported by the SCCOG member municipalities. The list, which was generated in coordination with the CTDOT, transit, and municipal planning staff, includes a project proposed for implementation between 202 and 2028 that will add a bike lane from U.S. Route 1 (Boston Post Road) to the Montville town line.



2.0 EXISTING CONDITIONS

2.1 ROADWAY CHARACTERISTICS

The Route 161 corridor was considered in four segments as shown in Figure 2 based on adjacent functional classification, cross section, posted speed limit, and land use.

East Lyme High School Driveway to U.S. Route 1 (Boston Post Road)

The segment of the study corridor between the East Lyme High School driveway and U.S. Route 1 (Boston Post Road) is classified by CTDOT as a collector.

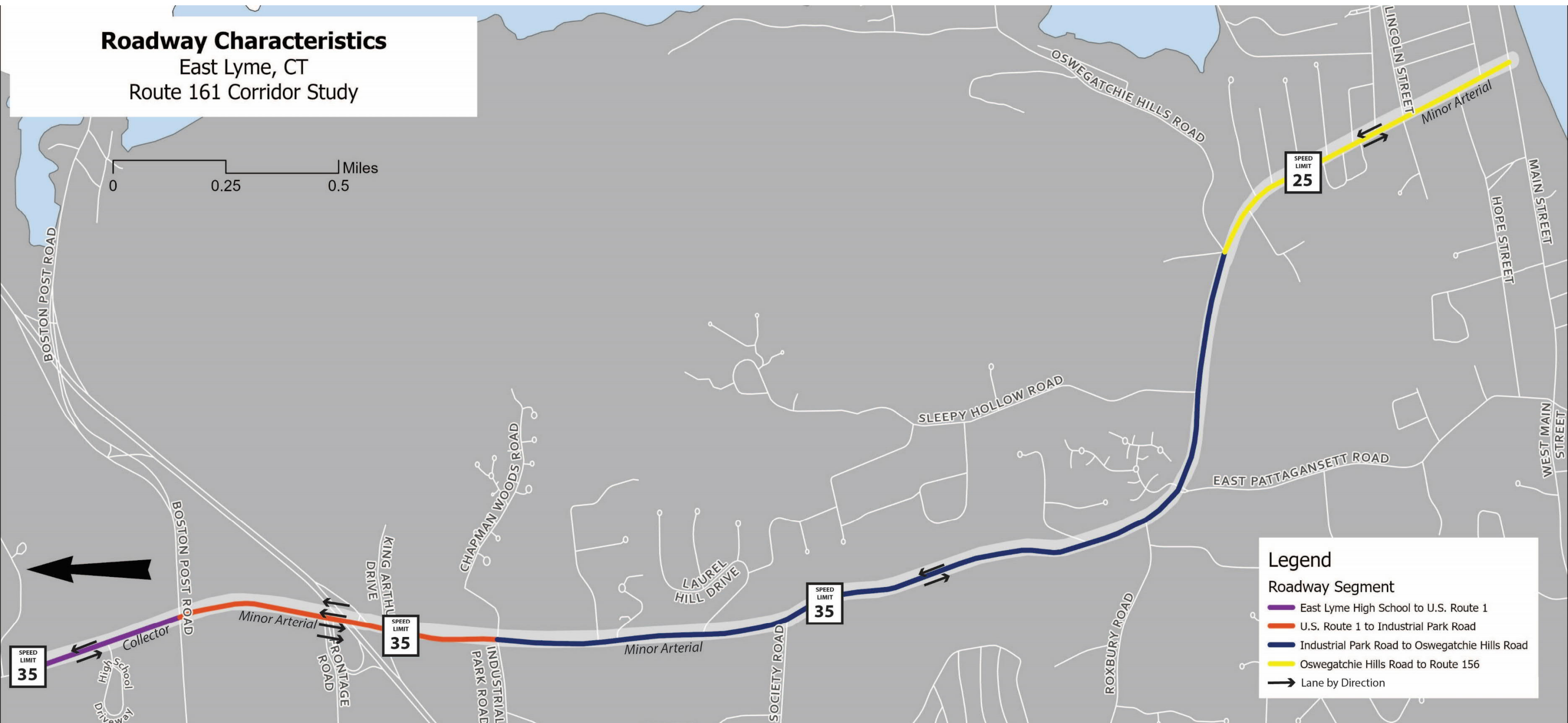
Collectors provide a balanced blend of mobility and access. Route 161 is known as Chesterfield Road in this area. The cross section generally consists of a single through lane in each direction, with additional turning lanes provided at the U.S. Route 1 (Boston Post Road) intersection. The speed limit is posted at 35 miles per hour. Land use within this segment is primarily commercial. Destinations of note include East Lyme High School and Flanders Plaza.

U.S. Route 1 (Boston Post Road) to Industrial Park Road and Chapman Woods Road

CTDOT classifies the segment of Route 161 between U.S. Route 1 (Boston Post Road) and Industrial Park Road as a minor arterial. Arterials are roadways that provide a high level of mobility. The roadway is known as Flanders Road in this area. The cross section consists of two through lanes in each direction, with additional turning lanes included at various intersections. The posted speed limit within this segment is 35 miles per hour. Land use within this segment is primarily commercial. Destinations of note include Walgreens, Latimer Brook Commons, True Value, and Stop and Shop.

“Roadways serve two primary travel needs: access to/egress from specific locations and travel mobility. The concept of functional classification defines the role that a particular roadway segment plays in servicing this flow of traffic through the network.” FHWA Highway Functional Classification Concepts, Criteria and Procedures

Figure 2: Roadway Characteristics



Industrial Park Road and Chapman Woods Road to Oswegatchie Hills Road

This segment of the corridor is classified as a minor arterial. Route 161 is known as Flanders Road to the north of East Pattagansett Road, and it is known as Pennsylvania Avenue to the south of East Pattagansett Road. The cross section consists of a single through lane in each direction. Additional turn lanes are provided at some signalized intersections. The posted speed limit within this segment is 35 miles per hour. Land use within this segment is a mixture of commercial and residential. Destinations of note include Midway Plaza, Oswegatchie Hills Nature Preserve, and Veterans Memorial Field.

Oswegatchie Hills Road to Route 156 (Main Street)

Route 161 is known as Pennsylvania Avenue and is classified as a minor arterial within this segment. The cross section includes a single through lane in each direction throughout this section, with no additional turn lanes provided at intersections. The posted speed limit in this segment is 25 miles per hour. Land use within this segment is a mixture of commercial, residential, and institutional. Destinations of note include Niantic Community Church, East Lyme Town Hall, and Harbor Plaza.

2.2 INTERSECTION CHARACTERISTICS

Route 161 (Chesterfield Road) and East Lyme High School Driveway is an unsignalized T-intersection. The East Lyme High School Driveway is Stop controlled with exclusive left turn and right turn lanes. Route 161 is uncontrolled and has a single lane approach in both directions. There is a crosswalk with Rectangular Rapid Flashing Beacons across the northern leg of Route 161.



Route 161 (Chesterfield Road/Flanders Road) and U.S. Route 1 (Boston Post Road) is a four-way signalized intersection. The Route 161 northbound approach has one exclusive left turn lane, one through lane, one exclusive right turn lane, and two departure lanes. The Route 161 southbound approach has one exclusive left turn lane, one through lane, one shared through-right turn lane, and one departure lane. The U.S. Route 1 (Boston Post Road) westbound leg has one exclusive left turn lane, one through lane, one exclusive right turn lane, and two departure lanes. The U.S. Route 1 (Boston Post Road) eastbound leg has one exclusive left turn lane, one through lane, one shared through-right turn lane, and there is one departure lane. The traffic signal at this intersection is uncoordinated, with protected/permitted left turn phasing on all approaches and an exclusive pedestrian phase. Crosswalks are located on all legs of the intersection.



Route 161 (Flanders Road) and Frontage Road to 1-95 Southbound Ramps is a signalized T-intersection. The Route 161 northbound approach has one shared through-left turn lane, one through lane, and two departure lanes. The Route 161 southbound approach has one through lane, one shared through-right turn lane, and one departure lane. The 1-95 Southbound Ramp approach has one exclusive left turn lane, one channelized exclusive right turn lane, and one departure lane. This signal has time-based coordination and protected/permitted left turn phasing on the northbound approach. There is a crosswalk with no pedestrian phasing on the west leg of the intersection.



Route 161 (Flanders Road) and I-95 Northbound Ramps and King Arthur Drive is a signalized four-way intersection. The Route 161 northbound approach has one through lane, one shared through-right turn lane, and two departure lanes. The Route 161 southbound approach has one exclusive left turn lane, two through lanes, and two departure lanes. The westbound King Arthur Drive approach has one exclusive left turn lane, one exclusive right turn lane, and one departure lane. The I-95 Northbound Off Ramp has one shared through-left turn lane and one channelized exclusive right turn lane. The traffic signal at this intersection has time-based coordination. The southbound left-turn movement has protected phasing, the eastbound and westbound left-turn movements have permitted left-turn phasing, and there is an exclusive pedestrian phase. Crosswalks are located on the southern and western legs of the intersection. Commercial driveways are located within 100 feet of the intersection on Route 161.



Route 161 (Flanders Road) and Industrial Park Road and Chapman Woods Road is a signalized four-way intersection. Both the Route 161 northbound and southbound approach have one exclusive left turn lane, one through lane, one shared through-right turn lane, and two departure lanes. The westbound Chapman Woods Road approach has one approach lane and one departure lane. The eastbound Industrial Park Road approach has two exclusive left turn lanes, one shared through-right turn lane, and one departure lane. The traffic signal at this intersection has time-based coordination. The northbound and southbound left-turn movements have protected/permitted phasing, and the eastbound left-turn movement has protected phasing. A crosswalk is located on the north leg of the intersection.



Route 161 (Flanders Road) and Laurel Hill Drive is an unsignalized skewed T-intersection. Laurel Hill Drive is Stop controlled with a one lane approach that flares out at Route 161 to allow right-turning vehicles to maneuver around vehicles waiting to make a left turn onto Route 161 southbound. Route 161 is uncontrolled and has one approach and departure lane in each direction. There is a crosswalk across the northern leg of Route 161.



NB approach



WB approach

Route 161 (Flanders Road) and Society Road is a signalized T-intersection with Society Road forming the stem of the Tee on the west side of Route 161. The Route 161 northbound approach has one exclusive left turn lane, one through lane, and one departure lane. The Route 161 southbound approach has one through lane, one exclusive right turn lane, and one departure lane. Society Road has one undesignated approach lane and one departure lane. The traffic signal at this intersection is uncoordinated and the northbound left-turn movement has protected phasing. A crosswalk is located on the north leg of the intersection.



NB approach



WB approach

Route 161 (Flanders Road) and Roxbury Road is a signalized T-intersection with Roxbury Road forming the stem of the Tee on the west side of Route 161. All legs of the intersection have one undesignated approach lane and one departure lane. The traffic signal is uncoordinated and operates on a single controller with the signal at the intersection of Route 161, East Pattagansett Road and Chapman Farms Road.



NB approach



WB approach

Route 161 (Flanders Road/Pennsylvania Avenue), East Pattagansett Road and Chapman Farms Road is a signalized four-way intersection. The Route 161 northbound approach has one undesignated approach lane and one departure lane. The Route 161 southbound approach has one shared through-left turn lane, one exclusive right turn lane, and one departure lane. East Pattagansett Road has one undesignated approach lane and one departure lane that are separated by a raised median.



NWB approach



SWB

Chapman Farms Road has one undesignated approach lane and one departure lane. The traffic signal at this intersection is uncoordinated and operates on a single controller with the signal at the intersection of Route 161 and Roxbury Road. A crosswalk is located on the south leg of the intersection.

Route 161 (Pennsylvania Avenue) and Sleepy Hollow Road is an unsignalized T-intersection. Sleepy Hollow Road is Stop controlled with a one lane approach. Route 161 is uncontrolled and has one approach and departure lane in each direction. There is a crosswalk across the western leg of Route 161.



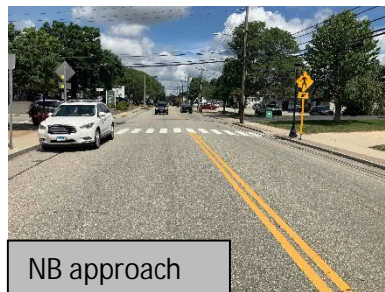
Route 161 (Pennsylvania Avenue) and Oswegatchie Hills Road is an unsignalized T-intersection and Oswegatchie Hills Road is stop controlled with a single approach lane. Route 161 is uncontrolled and has one approach and departure lane in each direction. There is a crosswalk across the western leg of Route 161.



Route 161 (Pennsylvania Avenue) and State Road and Lincoln Street is an unsignalized four way intersection with Lincoln Street on the east side of Route 161 and State Road to the west. Both State Road and Lincoln Street are Stop controlled with a one lane approach. Route 161 is uncontrolled and has one approach and departure lane in each direction. There is a crosswalk across the southern leg of Route 161.



Route 161 (Pennsylvania Avenue) and Hope Street is an unsignalized T-intersection. Hope Street is Stop controlled with a one lane approach. Route 161 is uncontrolled and has one approach and departure lane in each direction. There is a crosswalk across the southern leg of Route 161.



Route 161 (Pennsylvania Avenue) at Route 156 (Main Street) is a signalized T-intersection. The Route 161 southbound approach has a single lane in both directions. The Route 156 (Main Street) eastbound approach has one exclusive left turn lane, one through lane, and one departure lane. The Route 156 (Main Street) westbound approach has one through lane, one exclusive right turn lane, and one departure lane.



The traffic signal at this intersection is uncoordinated. The eastbound left-turn movement has protected/permitted phasing and there is an exclusive pedestrian phase. Crosswalks are located on the northern and western legs of the intersection.

2.3 ROUTE 161 RELATIVE TO CURRENT STANDARDS

CTDOT's Highway Design Manual, 2003 Edition provides guidance on the geometric design of highway projects based on factors such as urban/rural location, classification, and project scope of work. The guidance provided in the Manual offers significant benefit to designers in selecting cost-effective designs that will meet the objectives of both the local community and the Department. Existing geometry along the corridor including through lane width, shoulder width, and intersection sight distance was measured and compared to the design criteria presented in the Manual.

Geometric design standards for the segment of the study area located north of U.S. Route 1 (Boston Post Road) are based on criteria for an Urban Collector Street with Intermediate development. Geometric design standards for the portion of the study area located south of U.S. Route 1 (Boston Post Road) are based on criteria for a Minor Arterial.

Design standards for intersection sight distance varied based on design speed, which impacts the amount of distance required for a driver to perceive potential conflicts and perform the actions needed to negotiate the intersection safely. North of Oswegatchie Hills Road the posted speed limit on the Route 161 corridor is 35 mph and a design speed of 40 mph was utilized. South of Oswegatchie Hills Road the posted speed limit on the corridor is 25 mph and a design speed of 30 mph was utilized.

"Intersection Sight Distance (ISD) refers to the available distance that allows a driver approaching an intersection to observe the actions of vehicles on the crossing leg(s).
CTDOT Highway Design Manual

Design standards for the corridor are summarized in Table 1. Locations where existing elements do not meet current design standards are summarized in Figure 3 and Table 2. Between Luce Avenue and Route 156 (Main Street) through lane widths exceed design standard values and no shoulders are present. Shoulder widths of less than 2' were measured between U.S. U.S. Route 1 (Boston Post Road) and the Frontage Road to I-95 Southbound Ramps. Shoulder widths exceeding 8' were measured between Damon Heights Road and Society Road. Deficient intersection sight distances were measured at various intersections where sight lines were obstructed by horizontal curves, steep grades, vegetation, parked vehicles, walls, fences, and/or traffic signal cabinets.

Table 1: Design Standards

Design Element	40mph/2 lanes (East Lyme HS to U.S. Route 1 (Boston Post Road); Industrial Park Rd. to Oswegatchie Hills Rd.)	40 mph/4 lanes (U.S. Route 1 (Boston Post Road) to Industrial Park Rd.)	30 mph/2 lanes (Oswegatchie Hills Rd. to Route 156 (Main Street))
Through Lane Width	10' - 12'	10' - 12'	10' - 12'
Shoulder Width	2' - 8'	2' - 8'	2' - 8'
B1 - Left Turn Intersection Sight Distance	445'	475'	335'
B2 - Right Turn Intersection Sight Distance	445'	445'	335'

Figure 3: Existing Geometric Deficiencies



Table 2: Existing Geometric Deficiencies

Existing Feature/Location	Existing Value	Design Standard	Comments
Through Lane Width			
Route 161 from Luce Avenue to Rt. 156 (Main Street)	14' - 16' varies	10' - 12'	NB and SB through lane widths exceed 10' in areas
Shoulder Width			
Route 161 from U.S. Route 1 (Boston Post Rd) to Frontage Road to I-95 SB Ramps	1' - 6' varies	2' - 8'	SB shoulder width less than 2' in areas
Route 161 from Damon Heights Road to Society Road	2' - 10' varies	2' - 8'	NB and SB shoulders exceed 8' in areas
Route 161 from Luce Avenue to Rt. 156 (Main Street)	0'	2' - 8'	No shoulders present
Intersection Sight Distance - Left Turn from the Minor Road			
Oak Hill Drive WB	320'	445'	ISD restricted by horizontal curve
Chapman Farms Road WB	420'	445'	ISD restricted by horizontal curve
Penncove Road WB	290'	335'	ISD restricted by vegetation on NE corner
Hope Street EB	210'	335'	ISD restricted by parked vehicles
Intersection Sight Distance - Right Turn from the Minor Road			
East Lyme High School Driveway EB	320'	445'	ISD restricted by vegetation on NW corner
Frontage Road to I-95 SB Ramps EB	430'	445'	ISD restricted by vegetation on NW corner
I-95 NB Exit Ramp EB	150'	445'	ISD restricted by vegetation on NW corner
Industrial Park Road EB	210'	445'	ISD restricted by signal cabinet, fence, and vegetation
Chapman Woods Road WB	200'	445'	ISD restricted by vegetation and grading on SE corner
Laurel Hill Drive WB	210'	445'	ISD restricted by horizontal curve and vegetation on SE corner
Roxbury Road EB	210'	445'	ISD restricted by vegetation on NW corner
E Pattagansett Road EB	280'	445'	ISD restricted by horizontal curve
Lake View Heights EB	120'	335'	ISD restricted by horizontal curve, stone wall, and vegetation on NW corner
Penncove Road WB	110'	335'	ISD restricted by vegetation on SE corner
Luce Avenue WB	140'	335'	ISD restricted by vegetation on SE corner
Hope Street EB	300'	335'	ISD restricted by vegetation on NW corner

2.4 TRAFFIC CONDITIONS

Daily traffic volumes, speeds, intersection turning movement counts, and heavy vehicle volumes were collected and used to evaluate traffic conditions along the corridor.

2.4.1 DAILY TRAFFIC VOLUMES

Traffic count data along the Route 161 corridor was obtained in May 2022 for this study. Automatic Traffic Recorder (ATR) counts were collected on Wednesday, May 25th and Thursday May 26th at the following five locations:

- Route 161 north of U.S. Route 1 (Boston Post Road)
- Route 161 north of Frontage Road to I-95 Southbound Ramps
- Route 161 south of Industrial Park Road and Chapman Woods Road
- Route 161 south of Roxbury Road
- Route 161 north of Route 156 (Main Street)

Average Daily Traffic (ADT), the total two-way traffic volume passing through a defined segment of roadway in a 24-hour period is summarized in Table 3. Complete ATR data is included in Appendix B.

Table 3: Existing Traffic-Volume Summary

Location	NB ADT	SB ADT	Total ADT
Route 161 north of U.S. Route 1 (Boston Post Road)	6,300	6,200	12,500
Route 161 north of Frontage Road to I-95 SB Ramps	7,400	9,400	16,800
Route 161 south of Industrial Park Road and Chapman Woods Road	9,300	9,200	18,500
Route 161 south of Roxbury Road	7,800	8,000	15,800
Route 161 north of Route 156 (Main Street)	3,900	4,100	8,000

Traffic volumes collected for the study were compared to historical volumes collected by CTDOT. Historical volumes are summarized in Figure 4 and Table 4. It should be noted that the traffic volumes decreased during 2021 due to the Coronavirus pandemic. Volumes collected for the study in 2022 generally increased to pre-pandemic levels.

Figure 4: Historical Traffic Counts

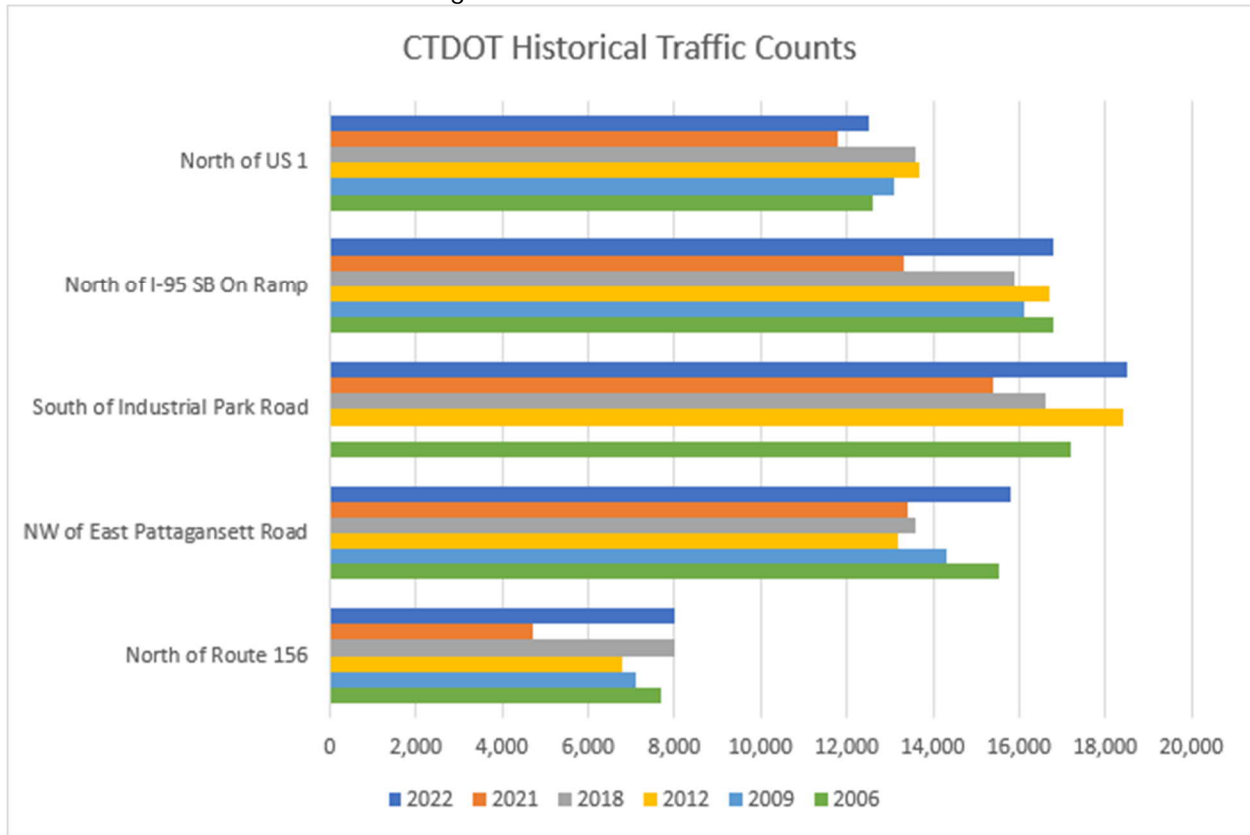


Table 4: Historical Traffic Counts

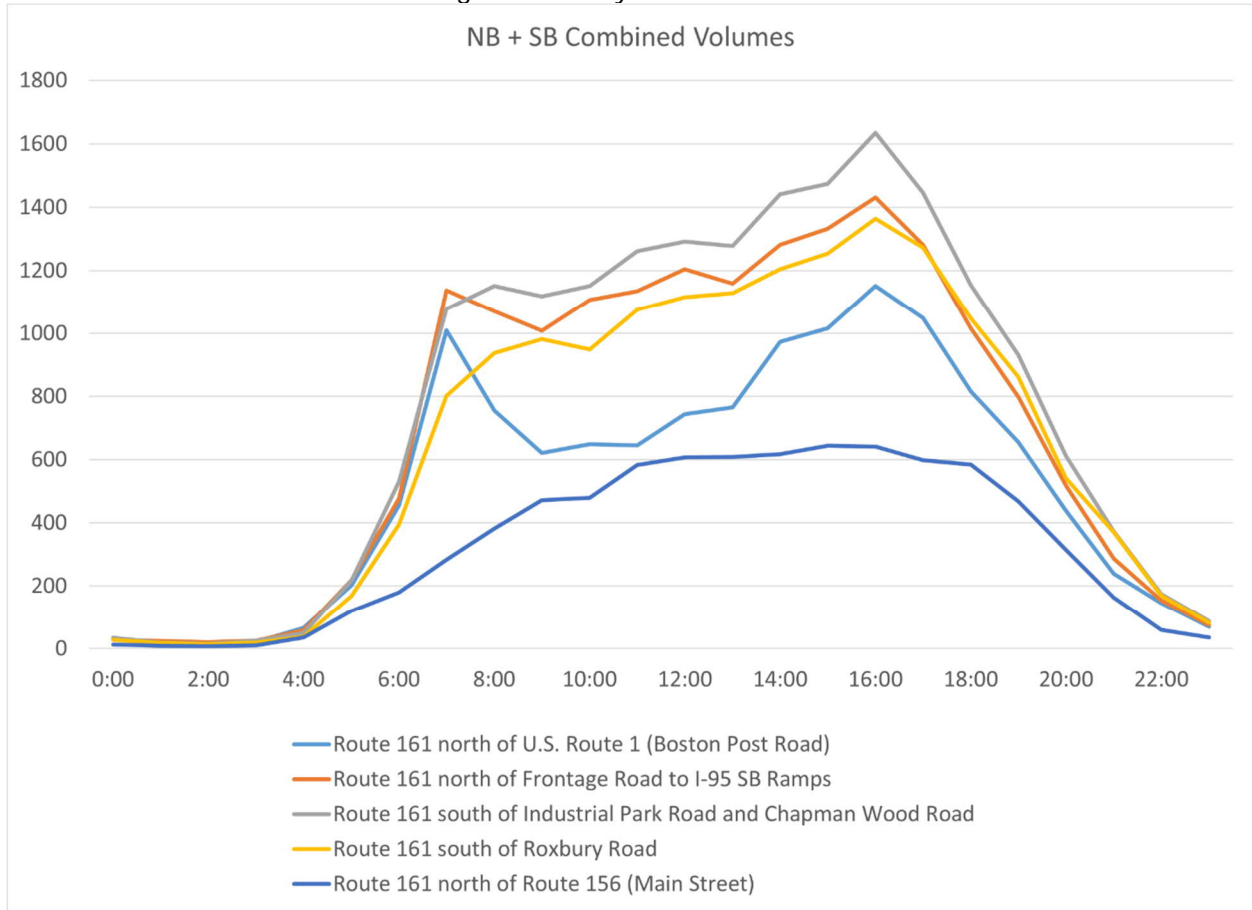
	2022	2021	2018	2012	2009	2006
North of U.S. Route 1 (Boston Post Road)	12,500	11,800	13,600	13,700	13,100	12,600
North of I-95 SB On Ramp	16,800	13,300	15,900	16,700	16,100	16,800
South of Industrial Park Road and Chapman Woods Road	18,500	15,400	16,600	18,400	-	17,200
NW of East Pattagansett Road and Chapman Farms Road	15,800	13,400	13,600	13,200	14,300	15,550
North of Route 156 (Main Street)	8,000	4,700	8,000	6,800	7,100	7,700

Historically, traffic volumes have been highest south of the Industrial Park Road and Chapman Woods Road intersection where volumes ranged from 15,400 to 18,500 vehicles per day. Traffic volumes have been lowest north of the Route 156 (Main Street) intersection with volumes ranging from 4,700 to 8,000 vehicles per day.

Hourly variation in traffic volumes is shown in Figure 5. The highest volumes were observed during the afternoon peak hour between approximately 3:00 PM and 6:00 PM. At intersections south of U.S. Route 1 (Boston Post Road) generally increased throughout the course of the day. North of U.S. Route 1 (Boston Post Road), traffic volumes declined following the 7:00 AM hour and increased during the mid-afternoon

hours. The hourly traffic pattern north of U.S. Route 1 (Boston Post Road) can be attributed to drop offs and pickups at East Lyme High School.

Figure 5: Hourly Traffic Volumes



2.4.2 TRAVEL SPEEDS

Vehicle speed is a basic measure of transportation performance that is defined as the rate of movement of a vehicle in distance per unit time. Speed limits on roadways are typically established based on sound traffic engineering principles that consider actual motorist travel speeds in ideal driving conditions (i.e., free flowing). Vehicle speeds are important as motorists relate travel speeds to safety, convenience, time, comfort, and economics. The intent for limiting vehicle speeds is to reduce the number and severity of traffic collisions, improve safety for non-motorized traffic, and alleviate environmental impacts (e.g., vehicle noise, vibration, emissions).

Travel speeds were recorded using automatic traffic recorders (ATRs) over 48-hour periods, thereby also recording travel speeds during non-peak hours when vehicle speeds are not affected by platooning and congestion. Speed measurements were obtained at the same locations and for the same time periods as the ATR counts listed above. The speed measurement data are summarized in Table 5 and detailed speed data reports are provided in Appendix B.

Traffic speed data are summarized with average (median) speed and 85th percentile speeds. The 85th percentile speed represents the speed at which 85% of vehicles are traveling at or below. Since this speed more accurately represents the overall travel speed, 85th percentile speeds are typically used to verify

speeding concerns. In addition, the pace was noted of the vehicles traveling in each of the specific sections. The pace is the 10-mph range containing the largest number of sample vehicles.

The posted speed limit along Route 161 varies along the corridor from 25 to 35 miles per hour and is indicated for each speed data collection location in Table 5.

Table 5: Speed Data Summary

Location/Direction	Regulated Speed Limit	Average Speed	85 th Percentile Speed ^a	Pace ^b
Route 161 north of U.S. Route 1 (Boston Post Road)				
Northbound	35	34	42	31-40
Southbound	35	28	33	26-35
Route 161 north of Frontage Road to I-95 SB ramps				
Northbound	35	36	43	31-40
Southbound	35	34	40	31-40
Route 161 south of Industrial Park Road and Chapman Woods Road				
Northbound	35	38	44	36-45
Southbound	35	33	39	31-40
Route 161 south of Roxbury Road				
Northbound	35	32	37	26-35
Southbound	35	30	34	26-35
Route 161 north of Route 156 (Main Street)				
Northbound	25	22	27	16-25
Southbound	25	20	24	16-25
^a Speed at, or below which, 85% of observed vehicles travel.				
^b The 10 mph speed range containing the greatest number of vehicles.				

Average speeds along most of the study corridor were found to be generally below or consistent with the posted speed limits. The 10 mph pace ranges were also found to be generally in the range of the posted speed limits. The 85th percentile speeds were observed to be higher than the regulated speed limit at each count location:

- North of U.S. Route 1 (Boston Post Road) where the 85th percentile speed is 7 mph above the posted speed limit in the northbound direction
- North of Frontage Road to I-95 Southbound ramps where the 85th percentile speed is 8 mph above the posted speed in the northbound direction and 5 mph above the posted speed in the southbound direction
- South of Industrial Park Road and Chapman Woods Road where the 85th percentile speed is 9 mph over the posted speed limit in the northbound direction and 4 mph above the posted speed limit in the southbound direction
- South of Roxbury Road where the 85th percentile speed is 2 mph above the posted speed limit in the northbound direction
- North of Route 156 (Main Street) where the 85th percentile speed is 2 mph over the posted speed limit in the northbound direction

2.4.3 PEAK HOUR VOLUMES

Intersection turning movement counts were obtained at 14 intersections in the Route 161 study corridor on Tuesday May 24th, 2022 during the weekday afternoon (PM) peak period (3 to 6 PM) to correspond to

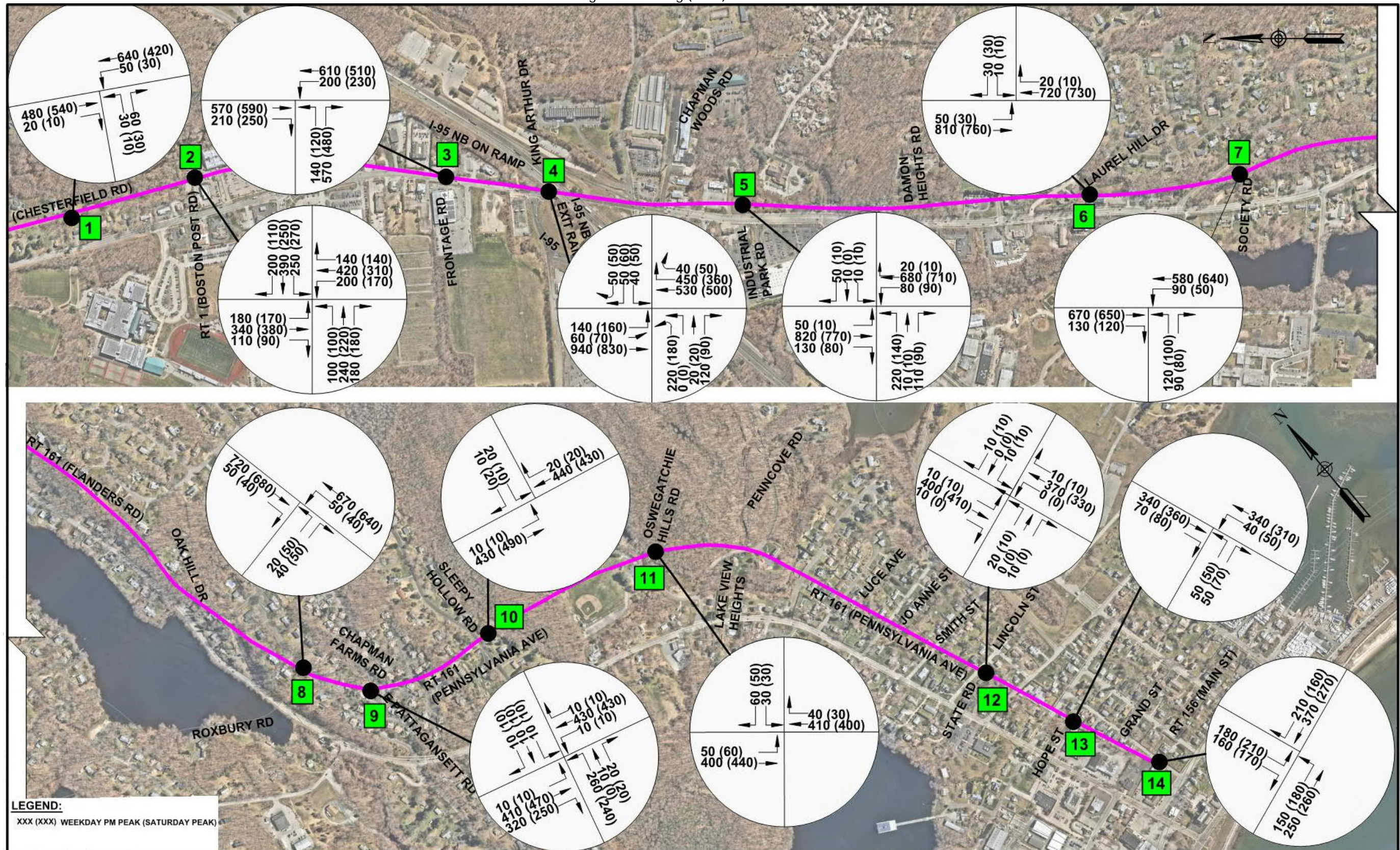
with the peak travel period in the study corridor. Additional intersection turning movement counts were obtained and Saturday June 4th, 2022 during the Saturday midday peak period (11 AM to 2 PM).

Turning movement counts were collected at the following intersections.

1. Route 161 at East Lyme High School Driveway
2. Route 161 at U.S. Route 1 (Boston Post Road)
3. Route 161 at Frontage Road to I-95 Southbound Ramps
4. Route 161 at I-95 Northbound Ramps and King Arthur Drive
5. Route 161 Industrial Park Road and Chapman Woods Road
6. Route 161 at Laurel Hill Drive
7. Route 161 at Society Road
8. Route 161 at Roxbury Road
9. Route 161 at East Pattagansett Road and Chapman Farms Road
10. Route 161 at Sleepy Hollow Road
11. Route 161 at Oswegatchie Hills Road
12. Route 161 at State Road and Lincoln Street
13. Route 161 at Hope Street
14. Route 161 at Route 156 (Main Street)

Based on the intersection turning movement count data, the weekday PM peak hour for the corridor was determined to be 3:45-4:45 PM and the Saturday midday peak hour was determined to be 11:15 AM – 12:15 PM. Peak hour turning movement volumes for these time periods were calculated for each intersection, and then the traffic volumes were balanced. The final adjusted existing condition peak hour turning movements are shown in Figure 6. Raw Turning Movement Count Data reports are included in Appendix C.

Figure 6: Existing (2022) Traffic Volumes



2.4.4 HEAVY VEHICLE VOLUMES

Based on the ATR data collected in May of 2022 heavy vehicles, including trucks and buses, comprise 3% to 18% of daily traffic volumes on the corridor. Heavy vehicle percentages are summarized in Table 6. Heavy vehicles percentages at each count location were higher for northbound traffic than for southbound traffic. The highest heavy vehicle percentages were observed at the north end of the corridor, largely due to the proximity to the more commercial land uses and proximity to the I-95 Interchange and U.S. Route 1 (Boston Post Road). Lower heavy vehicles percentages were observed in the central section of the corridor where the land use is primarily residential and in the southern segment that includes additional residential land uses along with Niantic’s central business district.

Table 6: Overall Crash Summary for Route 161

Location/Direction	2022 ADT	Percent Heavy Vehicles
Route 161 north of U.S. Route 1 (Boston Post Road)		
Northbound	6,300	18.8%
Southbound	6,200	3.8%
Route 161 north of Frontage Road to I-95 ramps		
Northbound	7,400	12.7%
Southbound	9,400	8.9%
Route 161 south of Industrial Park Road and Chapman Woods Road		
Northbound	9,300	10.5%
Southbound	9,200	6.1%
Route 161 south of Roxbury Road		
Northbound	7,800	8.6%
Southbound	8,000	4.8%
Route 161 north of Route 156 (Main Street)		
Northbound	3,900	8.1%
Southbound	4,100	3.7%

2.5 PEDESTRIAN AND BICYCLE FACILITIES

Destinations for pedestrians and bicyclists include many commercial areas, the Oswegatchie Hills Nature Preserve, East Lyme High School, and the Niantic Bay Boardwalk. Sidewalks are present in areas, however bicycle facilities within the corridor are limited. This section provides a summary of the existing conditions of facilities along the corridor for people walking and biking.

2.5.1 SIDEWALK CONTINUITY

Figure 7 shows existing sidewalks and crosswalks along the Route 161 corridor. The 3.7-mile long corridor includes approximately 2.5 miles of sidewalk on its west side (68% coverage) and approximately 1.4 miles of sidewalk on its east side (37% coverage). Sidewalks are present along much of the west side of the corridor between East Lyme High School and the north end of Gorton Pond, although there are several gaps in this section of the sidewalk network. Pedestrian desire lines were observed in two of these gaps. The worn vegetation in these areas are indicative of pedestrians' desire for an accessible walking route between sidewalk segments. Approximately 510 feet of pedestrian desire paths were recorded, including the areas adjacent to Smokey O'Grady's, True Value, #294 Flanders Road, and #226 Flanders Road. Several such gaps will be closed when new sidewalk is constructed under State Project No. 44-156.



Route 161 by Gorton Pond.
Source: Google Streetview

Between East Lyme High School and Gorton Pond existing sidewalk along the east side of the corridor is more intermittent. Construction of sidewalk appears to have been limited by challenges such as steep grades, rights-of-way, and physical obstructions such as the bridge carrying I-95 over the corridor. New sidewalk is planned along portions of the east side of the corridor between Industrial Park Road and #319 Flanders Road as part of State Project No. 44-156.

No sidewalks are present on either side of the roadway in the vicinity of Gorton Pond, leaving an approximately 0.45-mile gap in the sidewalk network. The gap can likely be attributed to the close proximity of the Pond on the west side of the corridor and steep grades along the east side of the corridor.

Sidewalk is present along at least one side of the corridor between Oak Hill Drive and Route 156 (Main Street), with sidewalks provided on both sides of the corridor in areas including the south end of the Niantic commercial district.

2.5.2 SIDEWALK CONDITION

Sidewalk condition can be assessed by examining general condition, material, distresses, and obstructions. Figure 7 shows sidewalk condition on the Route 161 corridor study area, as assessed in Summer of 2022. For the most part, sidewalks along the corridor are made of concrete (93 percent of sidewalks). Recently reconstructed asphalt sidewalks exist by the Interstate 95 on and off ramps. Of the 4.21 miles of provided sidewalks along the corridor, the majority (around 2.88 miles) were found to be in fair condition. Around 1.33 miles of sidewalk was found to be in good condition, and no sidewalk condition was poor. Sidewalk issues include overgrown vegetation, cracking, depression, and ground encroachment. Sidewalk condition reports are provided in Appendix D.

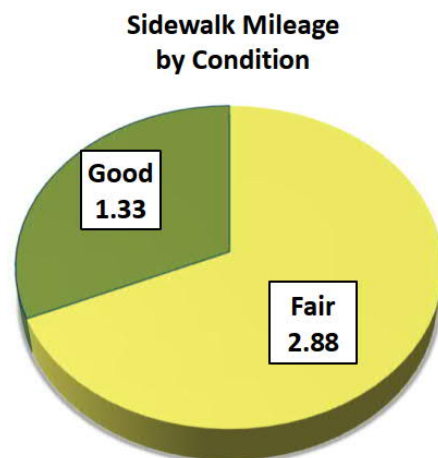


Figure 7: Existing Sidewalks and Crosswalks

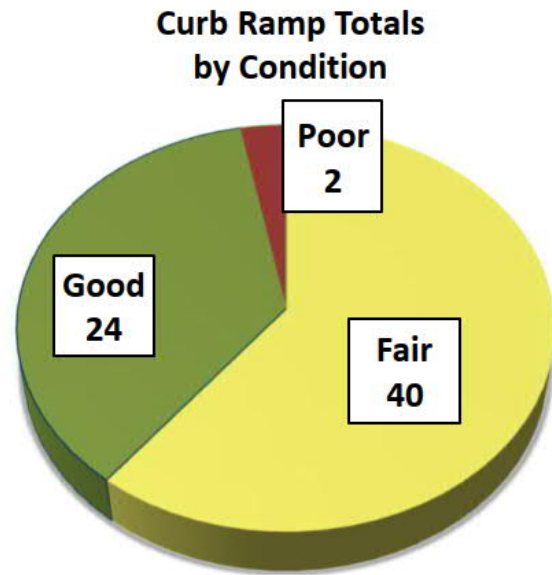


2.5.3 CURB RAMP CONDITION

Condition of ramps on the Route 161 corridor was assessed in Summer 2022 at the same time as sidewalk condition. Like sidewalks, curb ramp materials, general condition, distress, and obstruction were assessed, along with ramp width, slope, landing area, and detectable warning panels.

Figure 8 shows ramp condition for the 66 curb ramps identified along the corridor.

Of the 66 ramps, most (40 ramps) were in fair condition, 23 ramps were in good condition and 2 ramps were in poor condition. Of the twenty-eight crosswalks identified along the corridor, all but two had curb ramps present. The crosswalks across Route 161 at Memorial Park Drive and at Clark Street do not have curb ramps on either side.



There were 35 ramps that met preliminary compliance with Americans with Disabilities Act Accessibility Guidelines (ADAAG) based on the attributes that were assessed. The remaining 31 ramps had at least one attribute that did not meet ADAAG. Curb ramp assessment reports are provided in Appendix D.

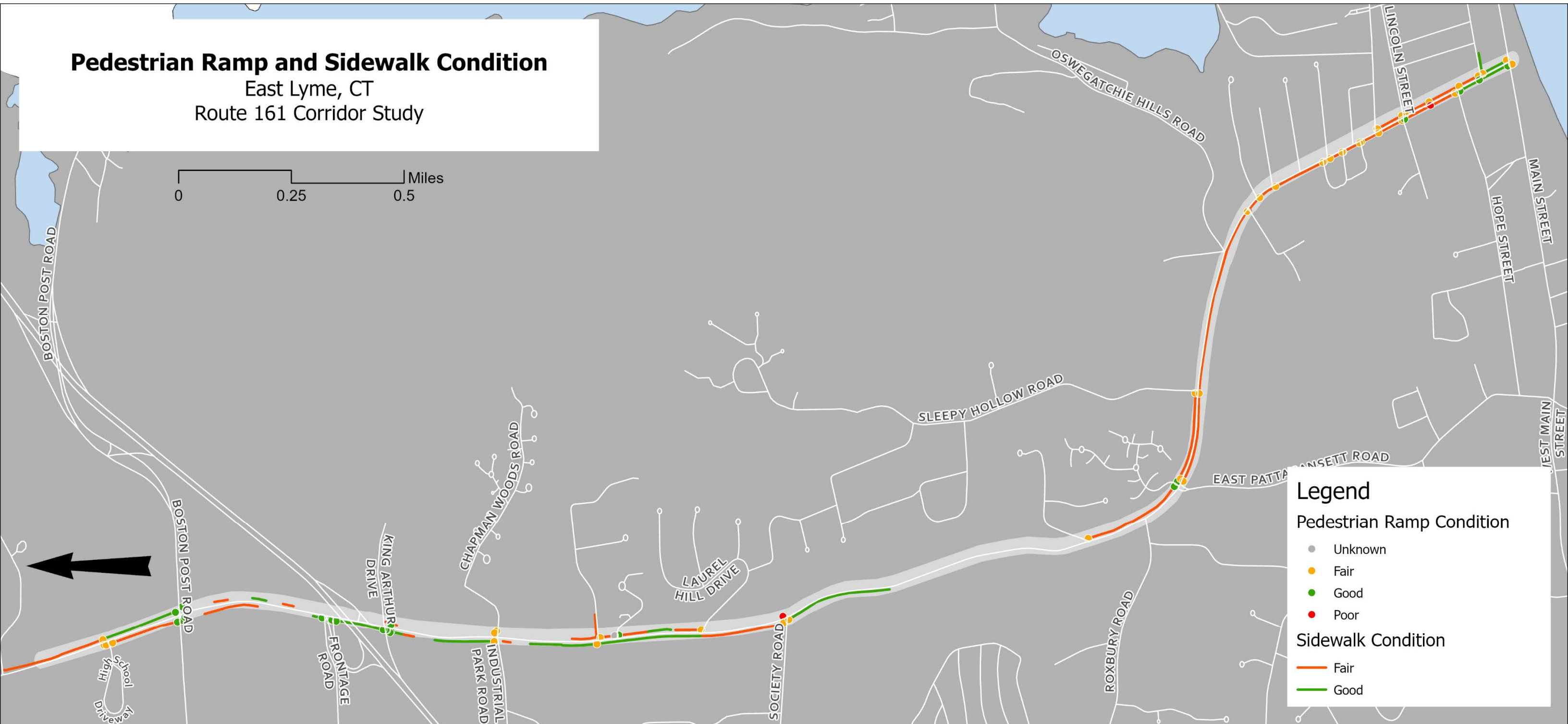
2.5.4 CROSSWALKS

Twenty-eight crosswalks exist along the Route 161 corridor extent, of which two are in mid-block locations, as seen in Figure 7. Crosswalks are spaced closest together in the southern section of the road in the Niantic area with crosswalks averaging 300-foot spacing. No crossings are provided across Route 161 between East Pattagansett Road and Society Road, a distance of approximately 0.9 miles. Most crosswalks (twenty) are in fair condition and eight crosswalks are in good condition.



Pedestrian on Route 161 by Clark Street crosswalk. Source: Google Streetview

Figure 8: Sidewalk and Pedestrian Ramp Condition



2.5.4.1 SIGNALIZED INTERSECTIONS

Intersections on the Route 161 corridor include signals with exclusive pedestrian phasing and locations with concurrent pedestrian phasing as summarized in Table 7. Exclusive pedestrian phasing involves all pedestrians crossing simultaneously during a separate phase where all vehicular approaches have red indications. Side street green phasing involves pedestrians crossing the main roadway while parallel motorists have a green ball indication that is shared for motorists and pedestrians. At signals with side street green pedestrian phasing motorists may think they have the right-of-way and pedestrians are sometimes unsure when to cross. Due to these concerns CTDOT is working towards replacing side street green phasing with concurrent pedestrian phasing. With concurrent pedestrian phasing pedestrians still cross the main roadway while parallel motorists have a green ball. However, a separate pedestrian signal face is provided to clarify to pedestrians and drivers when pedestrians should cross.

Pedestrian signals with countdown timers are currently provided at each of the intersections with exclusive pedestrian phasing. Accessible pedestrian signals were recently installed at the U.S. Route 1 (Boston Post Road) and I-95 Northbound Ramps/King Arthur Drive intersections. Accessible pedestrian signals provide information in non-visual formats such as audible tones, speech messages, and/or vibrating surfaces to assist pedestrians with visual disabilities in crossing.

Table 7: Pedestrian Accommodations at Signalized Intersections

Intersection	Pedestrian Phasing	Countdown Pedestrian Signal	Accessible Pedestrian Signal	Pedestrian Signal Head	Push Button Actuation
Route 161 at U.S. Route 1 (Boston Post Road)	Exclusive	Yes	Yes	Yes	Yes
Route 161 at Frontage Road to I-95 SB Ramps	N/A	No	No	No	No
Route 161 at I-95 NB Ramps and King Arthur Drive	Exclusive	Yes	Yes	Yes	Yes
Route 161 at Industrial Park Road and Chapman Woods Road	Side Street Green	No	No	No	Yes
Route 161 at Society Road	Side Street Green	No	No	No	Yes
Route 161 at Roxbury Road and East Pattagansett Road	Side Street Green	No	No	No	Yes
Route 161 at Route 156 (Main Street)	Exclusive	Yes	No	Yes	Yes

New signals will be installed at the following existing and new intersections under the I-95 Interchange 74 Improvements at Route 161 and Replacement of Bridge No. 00250 project:

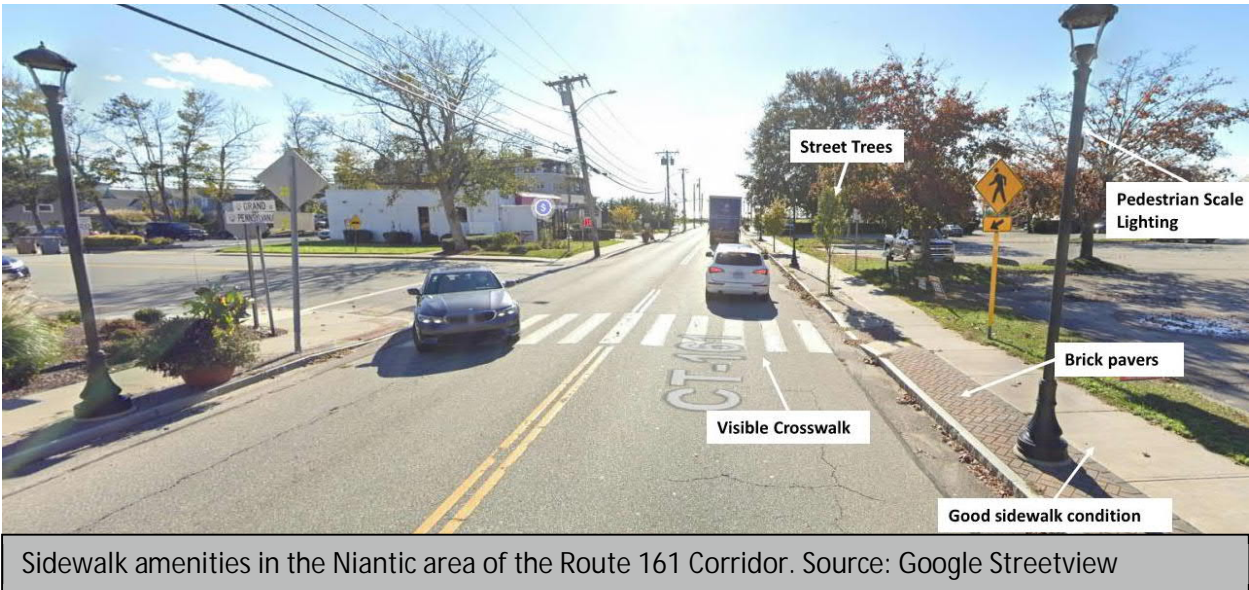
- Route 161 at Industrial Park Road and Chapman Woods Road
- Route 161 at I-95 Northbound Exit 74 Off Ramp
- Route 161 at I-95 Northbound Ramps and King Arthur Drive

- Route 161 at Frontage Road to I-95 Southbound Ramps

New countdown pedestrian signal heads and accessible pedestrian signals will be installed at the new signals. A new pedestrian crossing will be implemented across Route 161 at Frontage Road to I-95 Southbound Ramps.

2.5.4.2 STREETScape Amenities

Route 161 in the Niantic area offers pedestrian amenities in the form of pedestrian scale lighting, benches, brick pavers, and street trees for people walking along the sidewalk. As Route 161 continues north, the road provides a grass buffer between the road and trees growing along the outer edge of the roadway offer some shade, though the grass buffer does not typically have planted trees.



In the portion of the East Lyme Corridor north of Industrial Park Road and Gorton Pond, the road is characterized by two lanes of vehicle travel in both directions, and car centric development with wide driveways and pavement. This area, where sidewalks exist, sometimes has a grass buffer and sometimes is directly adjacent to the curb in closer proximity to high-speed vehicle lanes. The area also lacks amenities like benches and street trees.

The corridor does not have designated bike facilities in any part of the corridor. Wide shoulders that can be used exist in some sections of the road but are not consistently available or of consistent width.

To the north where the road becomes four lanes with no shoulder, current facilities are only suitable for confident cyclists. No bike parking is provided in the Route 161 Corridor Study area.



Route 161 by Stop and Shop (Left) with grass buffer and tree. Underpass (Right) with dark narrow sidewalk provided. Source: Google Streetview

2.5.6 BIKE AND PEDESTRIAN VOLUMES

Pedestrian volumes were collected on Tuesday 5/24/2022 between 3 PM and 6PM and Saturday 6/4/2022 between 11 AM and 2 PM at 14 locations along the 3.7-mile corridor. Route 161 at Route 156 (Main Street) had the highest pedestrian traffic on both weekdays and weekends, followed by Route 161 at Hope Street and Route 161 at State Road/Lincoln Street. In general, more people walked in the study area during the weekend (422) than during the weekday (293) however, this can largely be attributed to the increase in people walking by the State Road/Lincoln Street, Hope Street, and Route 156 (Main Street) intersections in the Niantic commercial area on weekends. The intersections at the north end of the study area had higher pedestrian volumes during the week. Collected pedestrian volumes by the high school were double the weekend volumes, owing to the large number of students.



Bicyclist on Route 161 south of U.S. Route 1 (Boston Post Road)
Source: Google Streetview



Portion of Route 161 with shoulders on both sides.
Source: Google Streetview

Table 8: Pedestrian Volumes on Route 161

Intersection	Saturday (11 AM to 2 PM)	Tuesday (3 PM to 6 PM)
Route 161 at E Lyme High School Driveway	21	45
Route 161 at U.S. Route 1 (Boston Post Road)	4	8
Route 161 at Frontage Road to I-95 SB Ramps	2	6
Route 161 at I-95 NB Ramps and King Arthur Drive	4	7
Route 161 at Industrial Park Road and Chapman Woods Road	0	0
Route 161 at Laurel Hill Drive	0	1
Route 161 at Society Road	6	6
Route 161 at Roxbury Road	8	7
Route 161 at E Pattagansett Road/ Chapman Farms Road	11	13
Route 161 at Sleepy Hollow Road	16	9
Route 161 at Oswegatchie Hills Road	5	15
Route 161 at State Road/Lincoln Street	70	59
Route 161 at Hope Street	106	52
Route 161 at Route 156 (Main Street)	169	65

Bike Volumes were also collected on Tuesday 5/24/2022 between 3 PM and 6PM and Saturday 6/4/2022 between 11 AM and 2 PM. Table 9 shows the total number of people biking at each location during these periods. A similar number of bicyclists were observed in the study area during the weekend (24) and the weekday (26). The intersections at the north end of the study area had higher pedestrian volumes during the week. The highest bicycle volumes were observed in the Niantic commercial area.

Table 9: Bike Volumes on Route 161

Intersection	Saturday (11 AM to 2 PM)	Tuesday (3 PM to 6 PM)
Route 161 at U.S. Route 1 (Boston Post Road)	0	2
Route 161 at Frontage Road to I-95 SB Ramps	0	3
Route 161 at I-95 NB Ramps and King Arthur Drive	0	2

Intersection	Saturday (11 AM to 2 PM)	Tuesday (3 PM to 6 PM)
Route 161 at Industrial Park Road and Chapman Woods Road	0	1
Route 161 at Roxbury Road	1	3
Route 161 at E Pattagansett Road/Chapman Farms Road	3	1
Route 161 at Sleepy Hollow Road	6	1
Route 161 at Oswegatchie Hills Road	2	3
Route 161 at State Road/Lincoln Street	6	1
Route 161 at Hope Street	1	6
Route 161 at Route 156 (Main Street)	5	3

2.6 TRANSIT SERVICE

Transit service along the Route 161 project corridor is provided by two transit providers: Southeast Area Transit District and Estuary Transit District. Bus service, routes, headways, and ridership are described below for each transit service. Figure 9 shows the two fixed bus routes in the study area.

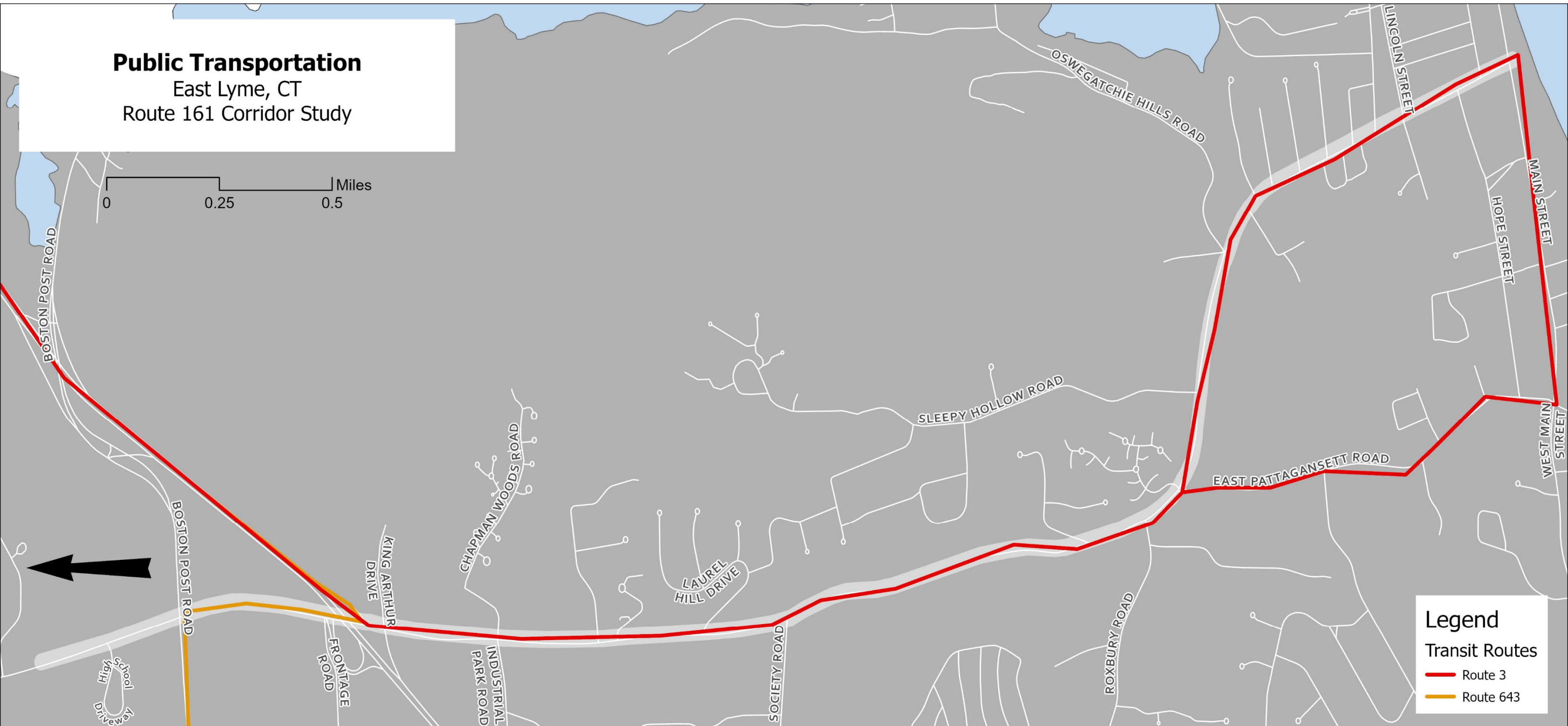
2.6.1 SOUTHEAST AREA TRANSIT DISTRICT (SEAT)

Route 3 New London to Niantic via Boston Post Road and Crossroads Wal-Mart – provides weekday (Monday-Friday) bus service between New London Union Station, areas of Groton and Niantic via Route 161 in East Lyme. Three buses run during the morning at 7:00 AM, 9:00 AM, and 11:00 AM with two-hour headways. Two buses run during the afternoon at 1:00 PM and 3:00 PM with two-hour headways. SEAT operates a flag-down service for all its buses where passengers can board or alight anywhere along the bus route. There are no bus shelters or benches along the study corridor.

The following fares are used for SEAT bus routes:

- Regular Single = \$1.75
- Senior (65+)/Disabled = \$0.85
- ADA/Paratransit = \$3.50
- 10 Ride ADA/Paratransit Ticket Book = \$35.00
- 4 Hour Regular ZIP Pass = \$2.50
- 10 Ride Regular TRIP Pass = \$17.50
- 10 Ride Senior/Disabled = \$8.50
- 1 Day Unlimited Pass = \$3.50
- 5 Day Unlimited Pass = \$14.00
- 31 Day Unlimited Pass = \$40.00
- Children 5 and under = Free

Figure 9: SEAT and Estuary Transit District Bus Routes



Free transfers allow passengers to complete one-way trips requiring multiple buses with additional fare payment. Buses are equipped with bicycle racks which passengers can use at no additional charge.

Table 10 shows ridership data for Route 3 service along the Route 161 study corridor for the period between January 1 and December 31, 2019. The results show there were over 3,100 passengers during 2019. The stops with highest ridership (over 200) included the following:

- Southbound and westbound stops at the Flanders Road and Boston Post Road intersection combined ridership of over 1,300
- Pennsylvania Avenue at Grand Street, ridership over 800
- Flanders Road at Industrial Park Road and Chapman Woods Road, approximately 570 passengers

Table 10: SEAT Ridership

Stop	Direction	Boardings	Alightings	Totals
Route 161 @ Grand St	NB	540	274	814
Route 161 @ Lincoln St	NB	8	3	11
Route 161 @ Oswegatchie Hills Rd	WB	4	1	5
Route 161 @ Chapman Farms	WB	7	3	10
Route 161 @ Laurel Hill Drive	NB	6	1	7
Route 161 @ Damon Heights Rd	NB	2	0	2
Route 161 @ Stop & Shop	NA	1	0	1
Route 161 @ Chapman Woods Rd	NB	55	176	231
Route 161 @ Burger King	NA	75	11	86
Route 161 @ I-95	NB	0	1	1
Route 161 @ Boston Post Rd	NB	1	2	3
U.S. Route 1 @ Flanders Rd*	WB	10	341	351
Route 161 @ Boston Post Rd	SB	702	259	961
Route 161 @ Industrial Park Rd	SB	250	318	568
Route 161 @ Crest Ford Dealership	SB	1	19	20
Route 161 @ Laurel Hill Drive	SB	12	41	53
East Pattagansett Rd @ Pennsylvania Ave*	SB	4	8	12
	Totals	1,678	1,458	3,136
* These boardings and alightings are on roadways with intersections at Route 161				

2.6.2 ESTUARY TRANSIT DISTRICT (ETD)

ETD operates the 9 Town Transit Service. Route 643 Old Saybrook/New London provides weekday (Monday-Friday) fixed route bus service between Old Saybrook and New London via Route 161 in East Lyme. Three buses run in each direction during the morning and afternoon between 7:00 AM and 6:00 PM with two-hour headways. Route 643 makes seven scheduled stops including Stop 6 at Flanders Road (Route 161) and U.S. Route 1 (Boston Post Road). Buses will also make stops on request if passengers call for a pickup. Route 643 also operates on a Deviated Fixed Route where passengers may flag down a bus

anywhere along the route. Route 643 buses also provide Off-Route Service within three-quarters of a mile off the route with a 24-hour advanced reservation.

Transfers for passengers are provided at no charge for a one-way trip on the next ETD transit route. All buses are equipped with bicycle racks which passengers can use at no additional charge.

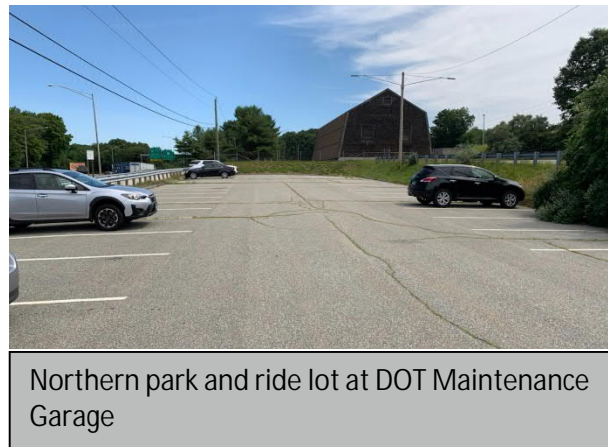
The following fares are used for ETD bus routes:

- Regular On-Route = \$1.75
- Senior (65+)/Disabled On-Route = \$0.85
- Resident Senior On-Route = \$0.85
- Regular Off-Route, Dial-A-Ride, ADA Paratransit = \$3.50
- Senior Off-Route, Dial-A-Ride = \$1.75
- Children Free
- 10-ticket Book = \$15.75
- Monthly Pass = \$59.00
- Senior/Disabled Monthly Pass = \$31.00

Ridership data provided by ETD indicates that one or two passengers on a weekday board or alight at the Flanders Road and U.S. Route 1 (Boston Post Road) stop.

2.6.3 PARK AND RIDE FACILITIES

Two park and ride lots are located off of King Arthur Drive to accommodate commuters who want to avoid traffic congestion and save on commuting costs by parking their vehicles while they use carpools, vanpools, or buses for their trips to work. The southerly park and ride lot contains 60 parking spaces while the lot immediately to the north and adjacent to a CTDOT maintenance garage contains an additional 68 parking spaces. The lots are paved with streetlights provided. Spaces for compact and standard vehicles are provided. The lots are located within walking distance of SEAT and Estuary Transit District bus routes.



Northern park and ride lot at DOT Maintenance Garage

2.7 CRASH HISTORY

The latest three-year period of available study area crash data at the time of analysis was obtained from the UConn Connecticut Crash Data Repository for the period between January 1, 2019, and December 31, 2021. Additionally, crash data for the same time period was collected for all intersections within the study area. Overall, the entire length of Route 161 within the study area yielded a total of 141 crashes. Areas experiencing the highest crash densities are shown in Figure 10.

About 74 percent of these crashes were property damage only and there were no fatalities during the three-year period. Angle and rear-end collisions were the most common crash types, accounting for 32 percent and 40 percent of the total crashes, respectively. This trend is typical of corridors with intersecting

roadways and driveways. A summary of the crash data for the Route 161 corridor categorized by severity, and crash type is provided in Table 11 and Figure 11.

Table 11: Overall Crash Summary for Route 161

Corridor	Crash Type	PDO*	Injury	Fatal	Total	Crash Percentage
Route 161 (From East Lyme High School Driveway to Rt. 156)	Angle	34	11	0	45	32%
	Head-on	3	2	0	5	4%
	Rear-end	41	16	0	57	40%
	Fixed Object	6	2	0	8	6%
	Pedestrian	0	3	0	3	2%
	Overturn/Rollover	0	1	0	1	1%
	Sideswipe, same direction	13	2	0	15	11%
	Sideswipe, opposite direction	7	0	0	7	5%
	Corridor Total	104	37	0	141	100%

*PDO = Property Damage Only

Within the corridor, three pedestrian collisions occurred during the three-year period. These crashes were evenly distributed with one crash each year. Through deeper investigation of these pedestrian crashes, it was found that two of the crashes involved pedestrians crossing at crosswalks. The third collision was a single occurrence of a pedestrian improperly crossing Route 161, where there was not a crosswalk. One of the crashes with a pedestrian at a crosswalk involved a vehicle maneuvering an illegal U-turn. Two of the crashes occurred in the dark; one was classified as dark-lighted condition and the other as dark-not lighted condition. The remaining single crash occurred during daylight. These three crashes occurred at isolated locations and did not indicate a recurring trend.

One bicycle crash occurred on the roadway between 2019 and 2021. The crash occurred in June of 2019 did not result in injury. The crash occurred in the shoulder at 161 Pennsylvania Ave by the Sunoco Gas Station.

Figure 10: Roadway Crashes



Figure 11: Crash Analysis



- CRASH LEGEND**
- NON-MOTORIZED CRASHES
 - BICYCLE CRASH
 - PEDESTRIAN CRASH
 - MOTORIZED CRASH SEVERITY
 - FATALITY
 - INJURY
 - PROPERTY
 - MANNER OF COLLISION
 - REAR END
 - HEAD ON
 - ANGLE
 - SIDESWIPE, SAME DIRECTION
 - SIDESWIPE, OPPOSITE DIRECTION
 - PEDESTRIAN
 - FIXED OBJECT
 - OVERTURN

Figure 11: Crash Analysis (continued)



There were also five head-on collisions within the three-year period. Upon further investigation, it is likely that these crashes were due to improper exiting maneuvers from a driveway or distracted driving causing a vehicle to cross over the double yellow line. These five crashes are distributed throughout the corridor and not indicative of a safety deficiency at a single location.

Crash analysis was performed for 21 intersections within the study area, identified within Table 12. Out of these 21 total intersections, five did not experience any crashes within the three-year period and nine intersections experienced less than five total crashes. The overall crash summary for the study intersections is provided in Table 12. The intersection of Route 161 at U.S. 1 (Boston Post Road) experienced 40 total crashes during the three-year period, the highest among all study intersections. This is not unusual considering both intersecting roadways are minor arterials and experience significant traffic volume. The intersection with the second highest number of crashes is the intersection of Route 161 at I-95 Northbound Ramps and King Arthur Drive with 17 total crashes. The remaining four intersections experienced between 5 and 10 total crashes in the three-year period.

Table 12: Overall Crash Summary by Intersections

Intersection Name	Intersection Type	Total Crashes
Route 161 at East Lyme High School Driveway	Unsignalized	3
Route 161 at U.S. 1 (Boston Post Rd.)	Signalized	40
Route 161 at I-95 SB On/Off-Ramp	Signalized	8
Route 161 at I-95 NB Ramps/King Arthur Dr.	Signalized	17
Route 161 at Industrial Park Rd./Chapman Woods Rd.	Signalized	10
Route 161 at Damon Heights Rd.	Unsignalized	4
Route 161 at Laurel Hills Dr.	Unsignalized	11
Route 161 at Society Rd.	Signalized	3
Route 161 at Oak Hill Dr.	Unsignalized	2
Route 161 at Roxbury Rd.	Signalized	3
Route 161 at East Pattagansett Rd./Chapman Farms	Signalized	0
Route 161 at Sleepy Hollow Rd.	Unsignalized	0
Route 161 at Oswegatchie Hill Rd./Memorial Park Dr.	Unsignalized	4
Route 161 at Penncove Rd./Cove Dr./Lake View Hts.	Unsignalized	1
Route 161 at Luce Ave./Clark St.	Unsignalized	0
Route 161 at Jo Anne St.	Unsignalized	0
Route 161 at Smith St.	Unsignalized	1
Route 161 at Lincoln St./State Rd.	Unsignalized	0
Route 161 at Hope St.	Unsignalized	5
Route 161 at Grand St.	Unsignalized	1
Route 161 at Route 156 (Main St.)	Signalized	7

A detailed summary of the crash data for each study intersection categorized by severity, and crash type is provided in Table 13. The intersection of Route 161 at U.S. 1 (Boston Post Road) experienced the greatest number of crashes within the study area with 40 total crashes. The predominant crash type for this intersection is rear-end, accounting for 53 percent of crashes. This trend is expected as rear-end collisions are generally the most common crash type at signalized intersections due to the frequent stop and go maneuvers. The second highest crash type for this intersection is angle crashes, accounting for 40 percent. There are multiple commercial driveways within 250 feet of this intersection. Vehicles entering and exiting these driveways are one of the main causes for the angle crashes. Some angle crashes were also caused by turning vehicles in the intersection.

The intersection of Route 161 at I-95 Northbound Ramps and King Arthur Drive yielded the second highest number of crashes among all the intersections. Out of the total 17 crashes, nine were angle crashes that account for 53 percent of crashes at this location. This intersection is in close proximity to several commercial and private driveways. Conflicts between vehicles traveling on Route 161 and those entering or exiting the driveways were the primary cause for the angle crashes.

Table 13: Detailed Crash Summary by Intersection

Intersection	Crash Type	PDO*	Injury	Fatal	Total	Crash Percentage
Route 161 at East Lyme High School Driveway	Angle	1	0	0	1	33%
	Head-on	0	0	0	0	0%
	Rear-end	1	0	0	1	33%
	Fixed Object	0	0	0	0	0%
	Sideswipe, opposite direction	1	0	0	1	33%
	Intersection Total	3	0	0	3	100%
Route 161 at US 1 (Boston Post Rd.)	Angle	15	1	0	16	40%
	Rear-end	15	6	0	21	52%
	Fixed Object	1	0	0	1	3%
	Sideswipe, same direction	2	0	0	2	5%
	Sideswipe, opposite direction	0	0	0	0	0%
	Intersection Total	33	7	0	40	100%
Route 161 at I-95 SB On/Off-Ramp	Rear-end	7	0	0	7	87%
	Pedestrian	0	1	0	1	13%
	Intersection Total	7	1	0	8	100%
Route 161 at I-95 NB Ramps/King Arthur Dr.	Angle	7	2	0	9	53%
	Rear-end	2	2	0	4	23%
	Pedestrian	0	1	0	1	6%
	Sideswipe, same direction	2	0	0	2	12%
	Sideswipe, opposite direction	1	0	0	1	6%
	Intersection Total	12	5	0	17	100%

Intersection	Crash Type	PDO*	Injury	Fatal	Total	Crash Percentage
Route 161 at Industrial Park Rd./Chapman Woods Rd.	Angle	1	0	0	1	10%
	Rear-end	4	1	0	5	50%
	Sideswipe, same direction	2	1	0	3	30%
	Sideswipe, opposite direction	1	0	0	1	10%
	Intersection Total	8	2	0	10	100%
Route 161 at Damon Heights Rd.	Angle	1	0	0	1	25%
	Head-on	1	0	0	1	25%
	Rear-end	0	2	0	2	50%
	Intersection Total	2	2	0	4	100%
Route 161 at Laurel Hills Dr.	Angle	2	2	0	4	36%
	Head-on	0	1	0	1	9%
	Rear-end	2	3	0	5	46%
	Sideswipe, same direction	1	0	0	1	9%
	Sideswipe, opposite direction	0	0	0	0	0%
	Intersection Total	5	6	0	11	100%
Route 161 at Society Rd.	Angle	0	1	0	1	33%
	Rear-end	1	0	0	1	33%
	Fixed Object	0	1	0	1	33%
	Intersection Total	1	2	0	3	100%
Route 161 at Oak Hill Dr.	Overturn/Rollover	0	1	0	1	50%
	Sideswipe, opposite direction	1	0	0	1	50%
	Intersection Total	1	1	0	2	100%
Route 161 at Roxbury Rd.	Rear-end	2	1	0	3	100%
	Intersection Total	2	1	0	3	100%
Route 161 at Oswegatchie Hill Rd./Memorial Park Dr.	Angle	0	1	0	1	25%
	Rear-end	1	0	0	1	25%
	Fixed Object	2	0	0	2	50%
	Intersection Total	3	1	0	4	100%
Route 161 at Penn Cove Rd.	Rear-end	1	0	0	1	100%
	Intersection Total	1	0	0	1	100%
Route 161 at Smith St.	Sideswipe, same direction	1	0	0	1	100%
	Intersection Total	1	0	0	1	100%

Intersection	Crash Type	PDO*	Injury	Fatal	Total	Crash Percentage
Route 161 at Hope St.	Angle	2	0	0	2	40%
	Rear-end	1	0	0	1	20%
	Fixed Object	2	0	0	2	40%
	Intersection Total	5	0	0	5	100%
Route 161 at Grand St.	Sideswipe, opposite direction	1	0	0	1	100%
	Intersection Total	1	0	0	1	100%
Route 161 at Route 156 (Main St.)	Head-on	1	0	0	1	14%
	Rear-end	4	0	0	4	58%
	Fixed Object	1	0	0	1	14%
	Sideswipe, same direction	1	0	0	1	14%
	Intersection Total	7	0	0	7	100%
*PDO=Property Damage Only						

Based on the safety analysis results, the crash trends along Route 161 follow the general expectation of a higher frequency of crashes at high volume intersections. Overall, the total crashes remained consistent throughout the three years analyzed. There were 49 total crashes in 2019, 51 in 2020, and 41 in 2021. Rear-end and angle crashes are the predominant crash types throughout the corridor and at study intersections. Signalized intersections typically have a high frequency of rear-end collisions due to frequent stopping. Adequate yellow and red clearance intervals are critical to allowing enough time for vehicles to exit the intersection and preventing unexpected stops of approaching vehicles. Conflicts due to vehicles entering and exiting the commercial and private driveways along Route 161 is another primary cause for crashes within the study area. Sufficient sight distance for the driveways throughout the corridor may help to reduce collisions. This could involve assessing the current conditions at study intersections to remove obstructions such as overgrown vegetation, as well as ensuring speed limit compliance throughout the corridor. Further examination was performed for the pedestrian and head-on crashes within the corridor. Although these are typically less frequent crash types, the pedestrian and head-on collisions within the corridor occurred at isolated intersections and did not indicate a recurring trend. Re-evaluating the clearance intervals at signalized intersections, checking for adequate sight distances, and installing warning signs throughout the corridor may improve the overall safety along the Route 161 corridor.

Additional safety analysis was performed using the Connecticut Roadway Safety Management System’s (CRSMS’s) diagnosis module. The diagnosis module is used to investigate sites with overrepresented crashes in more detail using a statistical test to check if a specific crash type or severity is overrepresented compared to the state average of similar roadway segments or intersections. The period beginning January 1, 2018 and ending December 31, 2020 was used for the diagnosis, as crash data for 2021 was not yet available in CRSMS. Overrepresented crash types are summarized in Table 14.

Based on the statistical test overrepresented crash types include angle crashes between the driveways to Flanders Plaza and Walgreen’s (located on either side of U.S. Route 1 (Boston Post Road)). Vehicles exiting and entering driveways in this segment may contribute to the frequency of angle crashes. Opposite direction sideswipe crashes were overrepresented between Industrial Park Road and King Arthur Drive as

well as at the Grand Street intersection. Potential contributing factors for opposite direction sideswipe crashes include inadequate shoulders, excessive speed, and inadequate pavement markings. Rear end crashes were overrepresented between Society Road and Laurel Hill Drive as well as between Route 156 (Main Street) and Hope Street. Potential contributing factors for rear end crashes include inappropriate approach speeds, poor visibility of signals, unexpected stops, and excessive speed. Fixed object and roadway departure crashes were overrepresented between Oak Hill Drive and Laurel Hill Drive. Potential contributing factors for these types of crashes include obstructions in or near the roadway; inadequate signs, delineators, or guardrail; slippery pavement; poor visibility; and excessive speed. Bicycle crashes were overrepresented between Oswegatchie Hills Road and Sleep Hollow Road. Potential contributing factors for bicycle crashes include inadequate bicycle facilities, inadequate signage, and excessive vehicle speeds.

Table 14: Overrepresented Crash Types

Site Name	Category
Route 161 between Walgreens Drive through and Flanders Plaza	Angle
Route 161 and U.S. Route 1 (Boston Post Road)	Single-Other
Route 161 between I-95 NB Ramps and Walgreens Drive through	Multiple-Other
Route 161 between Industrial Park Road and King Arthur Drive	Multiple-Other
Route 161 between Industrial Park Road and King Arthur Drive	Sideswipe - Opposite Direction
Route 161 and Laurel Hill Drive	Fatal/Serious/Minor Injury
Route 161 between Society Road and Laurel Hill Drive	Rear End
Route 161 between Society Road and Laurel Hill Drive	Commercial Vehicle
Route 161 between Oak Hill Drive and Laurel Hill Drive	Fatal/Serious/Minor/Possible Injury
Route 161 between Oak Hill Drive and Laurel Hill Drive	Fatal/Serious/Minor Injury
Route 161 between Oak Hill Drive and Laurel Hill Drive	Fatal/Serious Injury
Route 161 between Oak Hill Drive and Laurel Hill Drive	Fatal Injury
Route 161 between Oak Hill Drive and Laurel Hill Drive	Fixed Object
Route 161 between Oak Hill Drive and Laurel Hill Drive	Roadway Departure
Route 161 between Oswegatchie Hills Road and Sleepy Hollow Road	Single-Other
Route 161 between Oswegatchie Hills Road and Sleepy Hollow Road	Young Driver
Route 161 between Oswegatchie Hills Road and Sleepy Hollow Road	Bicycle
Route 161 between Penncove Road and Oswegatchie Hills Road	Single-Other
Route 161 and Clark Street	Fatal/Serious Injury
Route 161 and Clark Street	Motorcycle
Route 161 and Grand Street	Sideswipe - Opposite Direction
Route 161 between CT-156 and Hope Street	Rear End
Route 161 and Route 156 (Main Street)	Single-Other

2.8 ACCESS MANAGEMENT

Access Management improves roadway safety and traffic operations at driveways and access points through a variety of strategies including those that seek to:

- Reduce the number of driveways for a single parcel
- Narrow and better define driveways
- Create shared driveways to serve two or more abutting properties
- Relocate or realign access
- Maximize sight lines to help motorists better perceive oncoming traffic
- Restrict left turn movements through signing, pavement markings, and/or geometric changes
- Establish one-way driveways
- Continue sidewalk across driveways to alert drivers to the potential for pedestrian crossings
- Provide dedicated turn lanes or two-way left turn lanes

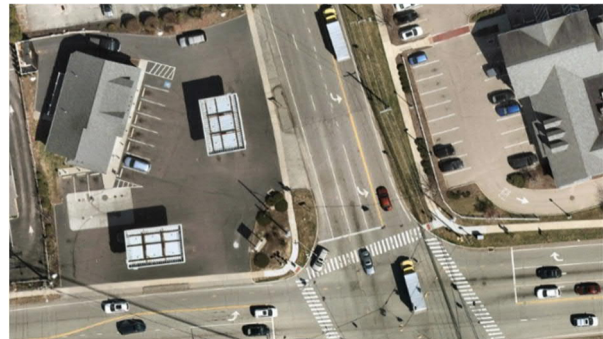
“Access Management (AM) is the proactive management of vehicular access points to land parcels adjacent to all manner of roadways. Good access management promotes safe and efficient use of the transportation network.”
FHWA Office of Operations

As new developments are planned and existing commercial sites are redeveloped, the Town’s site plan approval process should provide opportunities to improve access management.

Existing commercial drives in the corridor were reviewed to identify locations where improved access management is needed. There are approximately 125 driveways in the 3.7-mile long study area, equaling about 34 driveways per mile. The driveways range from narrow residential driveways to high-volume commercial access points. A brief description of existing driveway characteristics and general access management needs in various segments of the corridor is provided below.

East Lyme High School Driveway to U.S. Route 1 (Boston Post Road)

The segment of Route 161 between the East Lyme High School driveway and U.S. Route 1 (Boston Post Road) features commercial development including the Flanders Plaza Shopping Center. Access management strategies such as creating shared driveways for multiple abutting properties and continuing sidewalk across the driveway have been applied at Flanders Plaza Shopping Center. Access to several smaller commercial developments is provided via unsignalized driveways. Two driveways for the Shell gas station at 113 Boston Post Road are located within 150’ of the U.S. Route 1 (Boston Post Road) intersection which may complicate traffic operations for motorists, bicyclists, and pedestrians.



Driveways at 113 Boston Post Road in close proximity to the U.S. Route 1 (Boston Post Road) intersection.

U.S. Route 1 (Boston Post Road) to Industrial Park Road and Chapman Woods Road

Between U.S. Route 1 (Boston Post Road) and Industrial Park Road, Route 161 consists of primarily commercial development with numerous driveways serving single businesses. This segment of the corridor features two lanes in either direction, complicating left turns exiting and entering the flow of traffic. The access management deficiencies in this segment relate to closely spaced driveways, redundant driveways at single parcels, and wide curb cuts. The Starbucks driveway located on Route 161 was recently barricaded following an agreement with the Town and State as a result of drivers violating a signed 'No Left Turn' prohibition.

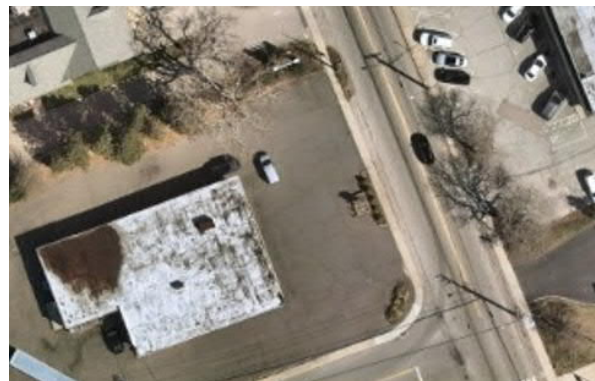


Sidewalk not continued through driveway at 324 Flanders Road. Wide curb cuts at 323 Flanders Road.

Industrial Park Road and Chapman Woods Road to Laurel Hills Drive

Between Industrial Park Road and Laurel Hills Drive, Route 161 narrows to a single lane in each direction with a mixture of smaller commercial and residential driveways. Access management deficiencies in this segment include closely spaced driveways, redundant driveways at single parcels, and wide curb cuts.

Laurel Hills Drive to Oswegatchie Hills Road The majority of driveways between Laurel Hills Drive and Oswegatchie Hills Road are residential with scattered smaller commercial developments. The corridor consists of a single lane in each direction. From an access management perspective, there are limited issues on this segment, aside from redundant two-way driveways.



Redundant two-way driveways at 50 Pennsylvania Avenue.

Oswegatchie Hills Road to Route 156 (Main Street)

The segment of Route 161 between Oswegatchie Hills Road and Route 156 (Main Street) consists of one lane in each direction and a mixture of commercial, institutional, and residential driveways. Access management deficiencies in this segment include driveways in close proximity to intersections, closely spaced driveways, redundant two-way driveways, and wide curb cuts.

2.9 ENVIRONMENTAL CONDITIONS

Natural resources within the study area were reviewed to obtain a better understanding of constraints that may impact the feasibility of implementing various potential alternatives for improvement. Geographic Information Systems (GIS) data from the Connecticut Department of Energy and Environmental Protection (CT DEEP), SCCOG, and the Town of East Lyme were screened for the following environmental features:

- Water Resources
- Groundwater Resources
- Wetland and Watercourses

- Floodplains and Floodways
- Hurricane Surge Inundation
- Threatened and Endangered Species and Critical Habitats

Environmental resources within the study area are shown in Figures 12 through 14. Impacts to these resources should be avoided where possible. Further evaluation in accordance with the Connecticut Environmental Policy Act (CEPA) and the National Environmental Policy Act (NEPA) should be performed as study recommendations are progressed through design and implementation.

2.9.1 SURFACE WATER RESOURCES

Surface water resources within or in close proximity to the study area include Gorton Pond, the Pattagansett River, Dodge Pond and Long Island Sound. The Draft 2022 Connecticut Integrated Water Quality Report developed by CT DEEP classifies water bodies according to designated uses that should be supported.

Gorton Pond, Pattagansett River, and Dodge Pond are each classified as Class A indicating designated uses as potential public supply, recreation, habitat for fish and other aquatic wildlife, navigation, water supply for industry, and agriculture.

Pattagansett River's water quality is "not supporting" as a habitat for marine fish, other aquatic life, and wildlife. Dodge Pond is classified as "not supporting" for fish consumption due to mercury levels and the pond has been placed on the List of Impaired Waters for Connecticut. The Niantic Bay (West) area of Long Island Sound is classified as "not supporting" as a habitat for marine fish, other aquatic life, and wildlife and the area has been placed on the List of Impaired Waters for Connecticut. Although the cause is identified as "unknown," fecal coliform is identified as a contributing factor.

2.9.2 GROUNDWATER RESOURCES

Connecticut's Aquifer Protection Area Program protects major public water supply wells in sand and gravel aquifers to ensure a plentiful supply of public drinking water for present and future generations. Program responsibilities are shared by the state DEEP, municipalities, and the water companies. DEEP classifies groundwater within in the study area as Class GA. Class GA designated uses are existing private and potential public or private supplies of water suitable for drinking without treatment and baseflow for hydraulically-connected surface water bodies. All ground waters not specifically classified are considered as Class GA.

2.9.3 WETLANDS AND WATERCOURSES

In Connecticut wetlands are protected by the Inland Wetlands and Watercourses Act which requires each municipality to regulate activities in wetlands and watercourses. Locally, wetland regulations are overseen by the East Lyme Inland Wetland Agency, a regulatory body appointed by the Board of Selectmen. The East Lyme Inland Wetland Agency regulates all activities that may have an impact on a wetland or watercourse. Their jurisdiction is 300-feet from a wetland or watercourse boundary but can extend further if there is a potential for impact.

The Inland Wetlands and Watercourse Act defines inland wetlands by soil type. The soil types are poorly drained, very poorly drained, alluvial, and floodplain. Based on a review of DEEP mapping, poorly drained very poorly drained, alluvial, and floodplain soils, are present within or in close proximity to various areas along the corridor.

Figure 12: Water Resources, Wetlands, and Threatened Species

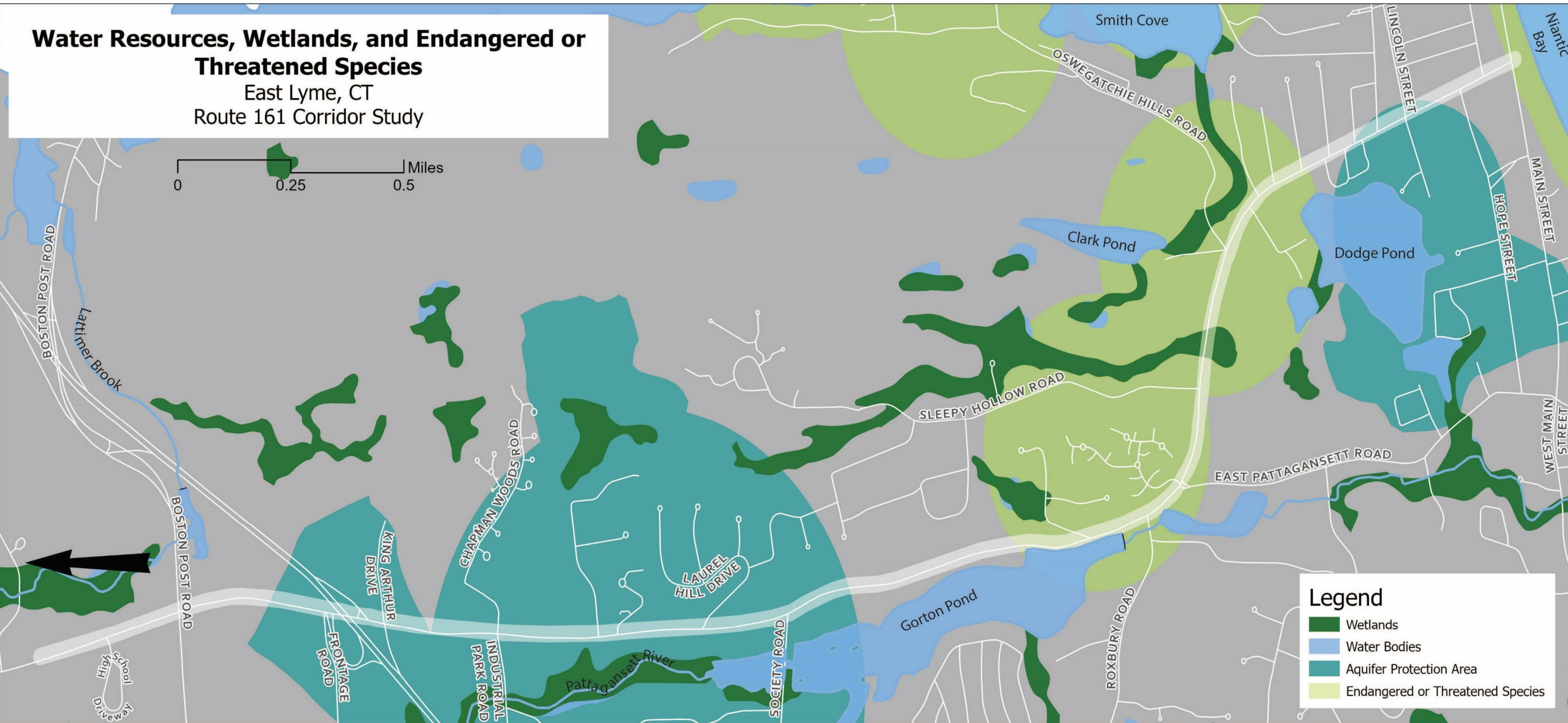


Figure 13: Floodplains and Floodways

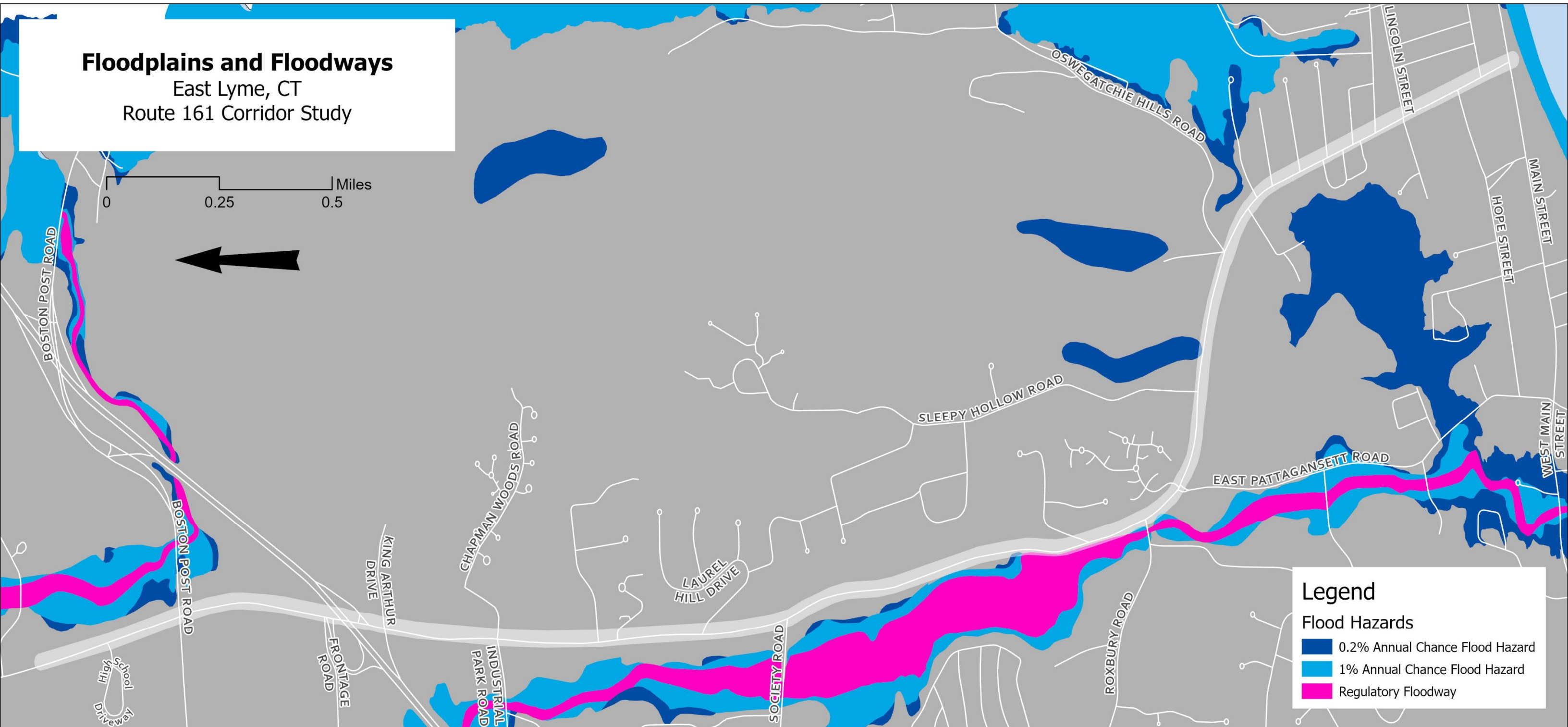


Figure 14: Hurricane Surge Inundation



The Act also defines the term watercourses very broadly to mean rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal, or intermittent, public or private. Gorton Pond, the Pattagansett River, Dodge Pond and Long Island Sound are located within or in close proximity to the study area.

2.9.4 FLOODPLAINS AND FLOODWAYS

Connecticut General Status Sections 25-68b through 25-68h require any state agency proposing an activity within or affecting a floodplain or that impacts natural or manufactured storm drainage facilities to submit a flood management certification to DEEP. Floodplains are low-lying ground adjacent to a river, formed mainly of river sediments and subject to flooding. FEMA identifies 100-year floodplains, areas that have a 1-percent chance of being equaled or exceeded in any given year, and 500-year floodplains which have a 0.2-percent chance of being equaled or exceeded in any given year. There are 100-year and 500-year floodplains located within in the study area.

Floodways are located within floodplains and consist of the river or stream channel plus any portion of the 100-year floodplain which carries stream flows during flood events. A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated heigh. Regulatory floodways are present at Lattimer Brook and at the Pattangansett River.

2.9.5 HURRICANE SURGE INUNDATION

The US Army Corps of Engineers has created Sea, Lake, and Overland Surge from Hurricanes (SLOSH) maps for each Connecticut coastal community to assist federal, state, and local emergency management officials planning for and responding to hurricanes. The maps include Hurricane Surge Inundation areas for category 1 through 4 hurricanes striking the coast of Connecticut with a peak hurricane surge arriving at high mean water. Category 1 through 4 Hurricane Surge Inundation areas are present in close proximity to the corridor.

2.9.6 THREATENED AND ENDANGERED SPECIES AND CRITICAL HABITATS

DEEP's Natural Diversity Data Base (NDDDB) identifies locations, both historic and extant, of state and federal listed species. The database was developed to help state agencies and landowners comply with the State Endangered Species Act. Under the Act, state agencies are required to ensure that any activity authorized, funded, or performed by the state does not threaten the continued existence of endangered or threatened species or their essential habitant. Data sources include state biologists, university students and professors, conservation organizations and private landowners. The Natural Diversity Data Base Areas are a generalized representation of species observations. The exact locations and species names have been masked to protect sensitive species from collection and disturbance. A review of NDDDB mapping indicated a NDDDB areas is located in the segment of the corridor extending from north of Oak Hill Drive to Clark Street. The intersection of Route 161 and Route 156 (Main Street) is also located in a NDDDB area.

2.10 ZONING

The Town of East Lyme has adopted zoning regulations, most recently amended on October 21, 2021, to promote the health, safety, and general welfare of the community. These regulations were made in accordance with a comprehensive plan, with consideration given to:

1. The recommendations of East Lyme Plan of Development;
2. The character of each district and its peculiar suitability for particular uses;
3. Conserving the value of existing buildings; and

4. Encouraging the most appropriate use of land throughout the town.

Figure 15 shows Town zoning designations within the study corridor. Existing zoning districts contained within the study area include:

RU-40 Rural District – Areas generally outside of the developed section of the Town, but not so remote as the RU-80 Districts, and characterized by sparse settlement and lack of utilities. It is the purpose of the Zoning Regulations to encourage low density residential development for areas zoned RU-40.

CA Commercial District – A commercial district along arterial routes. The purpose of this district is to provide for convenient neighborhood and community oriented commercial development.

R-10 Residence District – A highly developed residential district with urban character, transitional between residential and commercial use. The purpose of this zone is to provide for moderately high density residential uses mixed with limited commercial development.

CB Commercial District – To represent the central business district of the Town, characterized by intensive commercial and related development. The purpose of this district is to concentrate the main commercial enterprises by the town.

SU Special Use District – A district designed to accommodate highly specialized uses on large tracts of land in appropriate locations to be determined by the Zoning Commission.

GDPP Gateway Planned Development District – Coordinate development of properties under separate ownership and provide safeguards that one or another early development does not jeopardize maximum build-out. Promote high technology businesses and complimentary uses that will broaden the town's tax base, provide employment for highly skilled workers and be in harmony with the underlying aquifer protection district.

LI Light Industrial District – A district suitable for heavy commercial and light manufacturing, oriented essentially to major transportation facilities. The purpose of this district is to provide areas for industrial and commercial uses in an open setting that will not have objectionable influences on adjacent residential and commercial districts.

Between the East Lyme High School driveway and Laurel Hill Drive, the corridor is primarily designated as a CA Commercial District with a GDPP Gateway Planned Development District and Light Industrial Districts also present to the west of the study area. Between Laurel Hill Drive and Oswegatchie Hills Road the corridor is primarily designated as a RU-40/20 Rural District, with the Chapman Farms development designated as a SU Special Use District. The corridor is designated as a RU-10 Residence District between Oswegatchie Hills Road and Lincoln Street, and as a CB Commercial District between Lincoln Street and Route 156 (Main Street).

A buffer was applied surrounding the Route 161 corridor, encompassing the parcels on both sides of the roadway from the East Lyme High School driveway to Route 156 (Main Street). Approximately 341 acres of land exist within this roughly 800-foot wide zone. Dominant land use types are present as detailed in Table 15.

Figure 15: Zoning Districts

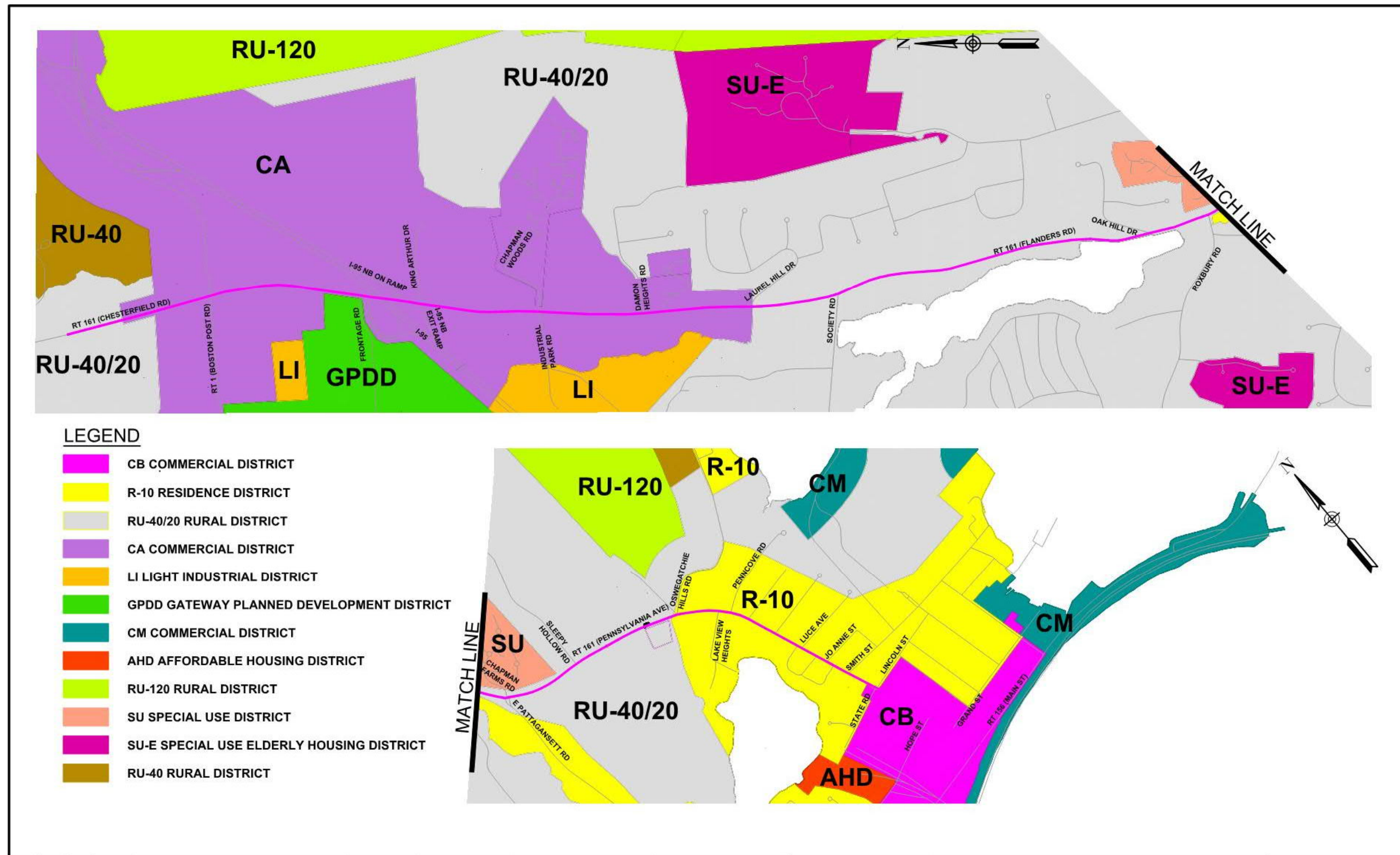


Table 15: Route 161 Corridor Zoning Summary

Zoning District	Corridor Area (Acres)
RU-40/20	136
CA	119
R-10	49
CB	25
SU	8
GPDD	4
LI	1

2.11 UTILITIES

Overhead and underground utilities – such as electric, cable, telephone, water, and sewer lines – are located throughout the Route 161 study corridor. Because relocation of utilities can be cost-prohibitive to potential improvement projects in the corridor, potential impacts to these utilities are generally minimized or avoided where possible when planning improvement projects. Additionally, existing public utility infrastructure, particularly water and sewer capacity, could constrain the intensity of future development that is possible without upgrades.

3.0 TRAFFIC OPERATIONS ANALYSIS

3.1 EXISTING TRAFFIC OPERATIONS

Capacity analyses were conducted to assess the quality of traffic flow at each of the study intersections along Route 161. This was performed for the existing weekday PM peak hour and the Saturday midday peak hour using Trafficware’s Synchro software package (Version 11).

For intersections, six levels of service (LOS), “A”-“F” have been established with “A” representing very good operation and “F” representing very poor operation. For signalized and unsignalized intersections, level of service is defined in terms of average delay per vehicle and is computed for individual intersection lane groups. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The relationship between LOS and delay for unsignalized and signalized intersections are summarized in Table 16 and Table 17, respectively.

Table 16: Level of Service Criteria for Unsignalized Intersections

LOS	Unsignalized Intersection Criteria Average Total Delay (Seconds per Vehicle)	General Description
A	< 10.0	Free Flow
B	10.1 to 15.0	Stable flow (slight delays)
C	15.1 to 25.0	Stable flow (acceptable delays)
D	25.1 to 35.0	Approaching unstable flow (tolerable delay)
E	35.1 to 50.0	Unstable flow (intolerable delay)
F	> 50.0	Forced flow (jammed)

Table 17: Level of Service Criteria for Signalized Intersections

LOS	Signalized Intersection Criteria Average Total Delay (Seconds per Vehicle)	General Description
A	< 10.0	Free Flow
B	10.1 to 20.0	Stable flow (slight delays)
C	20.1 to 35.0	Stable flow (acceptable delays)
D	35.1 to 55.0	Approaching unstable flow (tolerable delay)
E	55.1 to 80.0	Unstable flow (intolerable delay)
F	> 80.0	Forced flow (jammed)

In addition to delay and level of service, the analysis examined the volume to capacity ratio (v/c) and 95th percentile queues for each lane group. Movements that experience a v/c ratio greater than 1.0 operate over capacity and therefore receive a LOS F ranking regardless of the calculated average delay. The 95th percentile queue represents the length of vehicle queuing (in feet) that is only exceeded five percent of the evaluated peak hour.

A summary of the Existing weekday PM and Saturday midday peak hour capacity analysis results are displayed in Table 18 and Figure 16. Existing conditions capacity analysis (Synchro) reports are provided in Appendix F.

Table 18: Existing Conditions Capacity Analysis Results

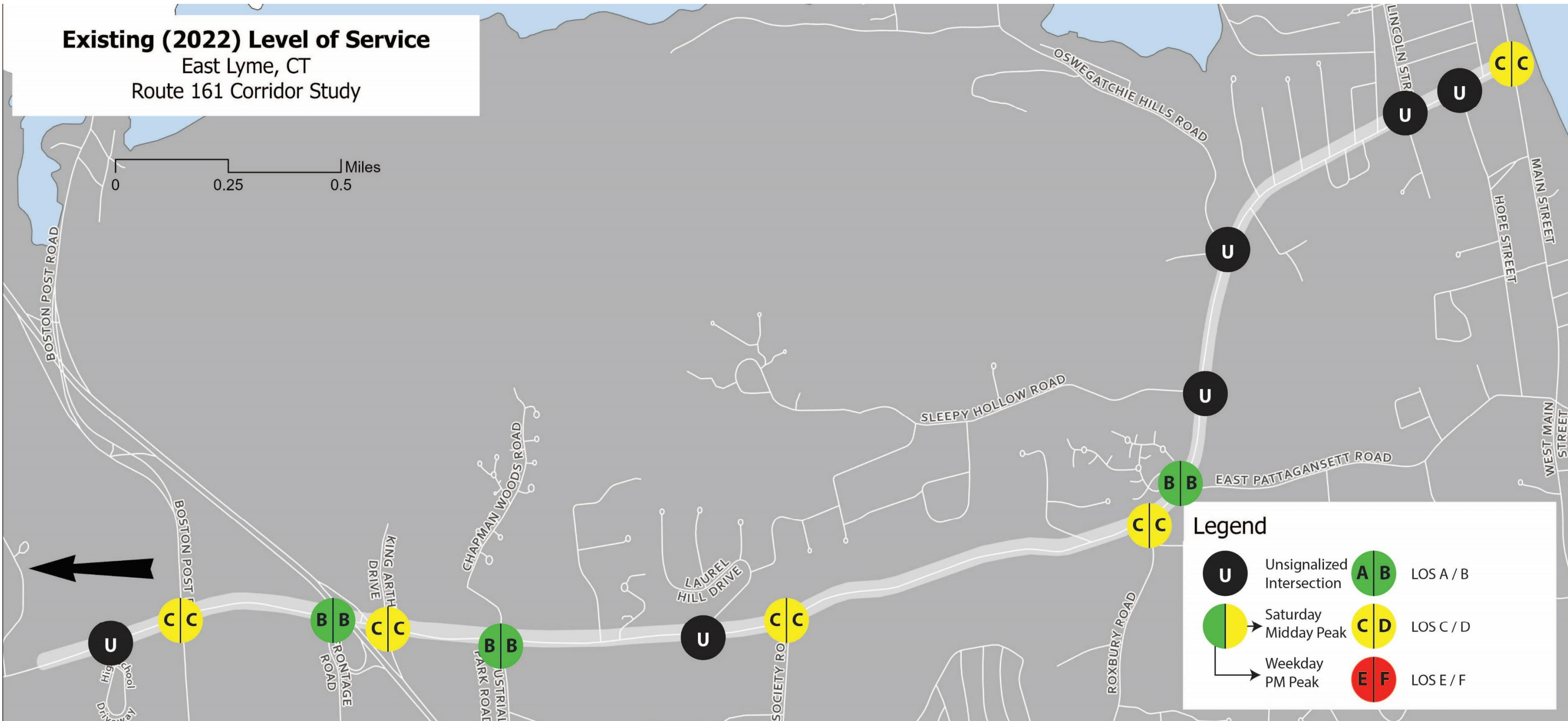
INTERSECTION	Existing Weekday PM Peak				Existing Saturday Midday Peak			
	LOS	Delay (s/veh)	v/c	95% Q (feet)	LOS	Delay (s/veh)	v/c	95% Q (feet)
Route 161 at East Lyme High School Driveway – Eastbound Stop-Controlled								
ELHS Driveway–EBL	E	42.1	0.27	26	D	27.2	0.12	10
ELHS Driveway-EBR	B	13.0	0.14	12	B	13.9	0.14	12
Route 161-NBLT	A	1.3	0.05	4	A	1.0	0.04	3
Route 161 at U.S. Route 1 (Boston Post Road) – Signalized								
U.S. Route 1-EBL	C	24.8	0.42	71	C	21.2	0.29	74
U.S. Route 1-EBTR	C	30.7	0.42	121	C	27.3	0.41	113
U.S. Route 1-WBL	C	22.2	0.68	173	B	18.2	0.66	194
U.S. Route 1-WBT	D	35.5	0.78	377	C	23.0	0.50	233
U.S. Route 1-WBR	C	23.9	0.24	87	B	19.6	0.08	43
Route 161-NBL	B	19.1	0.51	145	B	18.6	0.50	101
Route 161-NBT	D	44.1	0.86	#511	C	34.2	0.75	271
Route 161-NBR	C	24.2	0.10	49	C	23.5	0.10	45
Route 161-SBL	C	20.9	0.58	127	B	17.3	0.49	104
Route 161-SBTR	C	26.3	0.44	184	C	25.9	0.55	179
OVERALL	C	29.4	0.79		C	24.2	0.69	
Route 161 at Frontage Road to I-95 SB Ramps – Signalized								
Frontage Road - EBL	C	25.6	0.36	110	C	26.2	0.33	99
Frontage Road - EBR	C	21.9	0.73	318	B	19.7	0.65	264
Route 161-NBLT	B	10.8	0.61	63	B	10.4	0.61	61
Route 161-SBTR	B	18.7	0.55	204	B	19.7	0.63	228
OVERALL	B	17.2	0.72		B	17.0	0.69	
Route 161 at I-95 NB Ramps and King Arthur Drive – Signalized								
I-95 NB Exit Ramp-EBLT	D	48.1	0.83	#234	D	41.5	0.75	171
I-95 NB Exit Ramp-EBR	C	27.4	0.08	43	C	28.5	0.06	33
King Arthur Dr-WBL	C	30.6	0.45	53	D	38.1	0.61	58
King Arthur Dr-WBTR	C	29.5	0.41	95	C	33.6	0.59	98
Route 161-NBTR	C	21.5	0.73	324	B	18.7	0.64	282
Route 161-SBL	D	36.1	0.65	m151	D	36.5	0.73	m187
Route 161-SBT	A	8.2	0.41	149	A	8.3	0.36	154
OVERALL	C	21.2	0.74		C	20.5	0.68	
Route 161 at Industrial Park Road and Chapman Woods Road - Signalized								
Industrial Park Road-EBL	C	28.2	0.59	78	C	28.2	0.47	53
Industrial Park Road-EBTR	C	27.6	0.17	45	C	27.5	0.15	42
Chapman Woods Road-LTR	C	27.9	0.24	36	C	27.0	0.02	0
Route 161-NBL	A	9.2	0.34	32	A	7.0	0.30	35
Route 161-NBTR	B	13.2	0.48	175	B	10.2	0.42	170
Route 161-SBL	A	9.0	0.17	22	A	8.9	0.03	8
Route 161-SBTR	B	17.8	0.71	#298	B	14.4	0.58	225
OVERALL	B	17.9	0.59		B	14.4	0.48	
Route 161 at Laurel Hill Drive – Westbound Stop-Controlled								
Laurel Hill Drive-WBLR	D	31.5	0.19	17	D	27.6	0.18	16
Route 161-SBLT	A	2.0	0.07	6	A	1.1	0.04	3
Route 161 at Society Road - Signalized								
Society Road-EBLR	C	33.3	0.69	140	C	32.4	0.66	112
Route 161-NBL	B	10.7	0.28	39	A	9.9	0.16	23
Route 161-NBT	A	7.4	0.56	277	A	7.9	0.62	304

INTERSECTION	Existing Weekday PM Peak				Existing Saturday Midday Peak			
	LOS	Delay (s/veh)	v/c	95% Q (feet)	LOS	Delay (s/veh)	v/c	95% Q (feet)
Route 161-SBT	C	24.6	0.83	#587	C	23.8	0.82	#545
Route 161-SBR	B	12.4	0.13	56	B	11.9	0.13	51
OVERALL	B	18.2	0.75		B	17.6	0.76	
Route 161 at Roxbury Road – Signalized								
Roxbury Road-EBLR	C	31.9	0.16	41	C	31.6	0.47	71
Route 161-NBLT	C	23.6	0.88	#304	B	11.2	0.76	207
Route 161-SBTR	D	42.4	0.96	#660	C	30.0	0.89	#580
OVERALL	C	33.2	0.81		C	21.5	0.78	
Route 161 at E Pattagansett Road and Chapman Farms Road – Signalized								
Route 161-SEBLT	B	10.4	0.53	m93	B	10.4	0.58	m126
Route 161--SEBR	A	9.4	0.35	m32	A	8.8	0.27	m27
Route 161-NWBLTR	B	16.8	0.55	265	B	16.8	0.60	279
E Pattagansett Road-NEBLT	B	18.8	0.55	193	B	16.7	0.46	162
E Pattagansett Road-NEBR	B	14.2	0.01	8	B	13.5	0.01	8
Chapman Farms-SWBLTR	B	14.3	0.04	21	B	13.6	0.05	19
OVERALL	B	13.7	0.58		B	13.3	0.57	
Route 161 at Sleepy Hollow Road – Southbound Stop-Controlled								
Route 161-EBLT	A	0.3	0.01	1	A	0.3	0.01	1
Sleepy Hollow Road-SBLR	C	18.7	0.14	12	C	16.5	0.15	13
Route 161 at Oswegatchie Hills Road - Southbound Stop-Controlled								
Route 161-EBLT	A	1.5	0.05	4	A	1.6	0.06	5
Oswegatchie Hills Rd - SBLR	C	18.0	0.28	28	C	19.4	0.30	31
Route 161 at State Road and Lincoln Street – Eastbound/Westbound Stop-Controlled								
State Road-EBLTR	C	20.1	0.14	12	C	20.7	0.06	5
Lincoln Street-WBLTR	C	17.3	0.08	7	C	15.7	0.07	5
Route 161-SBLT	A	0.3	0.01	1	A	0.3	0.01	1
Route 161 at Hope Street – Eastbound Stop-Controlled								
Hope Street-EBLR	C	19.3	0.31	33	C	24.2	0.46	59
Route 161-NBL	A	1.3	0.04	4	A	1.8	0.06	5
Route 161 at Route 156 (Main Street) – Signalized								
Route 156-EBL	B	17.4	0.54	100	B	18.5	0.54	120
Route 156-EBT	C	22.3	0.46	213	C	26.8	0.60	223
Route 156-WBT	C	33.6	0.81	#364	C	26.3	0.58	224
Route 156-WBR	C	20.2	0.22	48	C	21.8	0.12	47
Route 156-SBLR	D	43.3	0.84	#363	D	44.9	0.89	#431
OVERALL	C	29.9	0.65		C	30.5	0.59	

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Figure 16: Existing Conditions Level of Service



Level of Service is D is generally considered the limit of delay acceptable to motorists. The capacity analyses show that all intersections within the study area currently operate with an overall LOS of C or better during the peak periods. Most lane groups operate a LOS of D or better during the peak periods. The following operational issues are exhibited in the analysis and were confirmed during sight observations during peak hour periods:

Route 161 at East Lyme High School Driveway

- The eastbound left turn lane operates with LOS E with an average delay of 42 seconds per vehicle during the weekday pm peak.

Route 161 at Roxbury Road

- The 95th percentile queue on the Route 161 southbound approach to Roxbury Road is estimated to be 660 feet or more during the pm peak period, extending to Oak Hill Drive and impacting traffic operation at that upstream intersection.

Route 161 at Route 156 (Main Street)

- The 95th percentile queues on the Route 161 southbound approach to Route 156 (Main Street) are estimated to be at least 363 feet and at least 431 feet during the PM and Saturday peak periods respectively, lengths that extend to Grand Street and impact traffic operation at that upstream intersection.

3.2 FUTURE TRAFFIC FORECAST

Future traffic volumes were forecasted and used to evaluate the potential effects of vehicular traffic growth in the study area over a twenty-year horizon. CTDOT's traffic forecasting unit developed weekday PM and Saturday midday peak hour volumes for the year 2042 baseline traffic conditions. The forecasts were developed using CTDOT's Statewide travel demand model which estimates regional traffic demands based on anticipated changes in future land use and demographics throughout the region and state along with planned transportation projects impacting the corridor. Baseline traffic conditions for the year 2042 are shown in Figure 17. Table 19 summarizes the forecasted peak hour traffic growth along key segments of the Route 161 study corridor for the weekday afternoon and Saturday midday peak hours. As shown in Table 19, PM peak hour traffic is expected to grow up to 11% in most segments of the corridor with slightly higher growth (up to 16%) anticipated north of Route 156 (Main Street).

Figure 17: Future (2042) Traffic Volumes

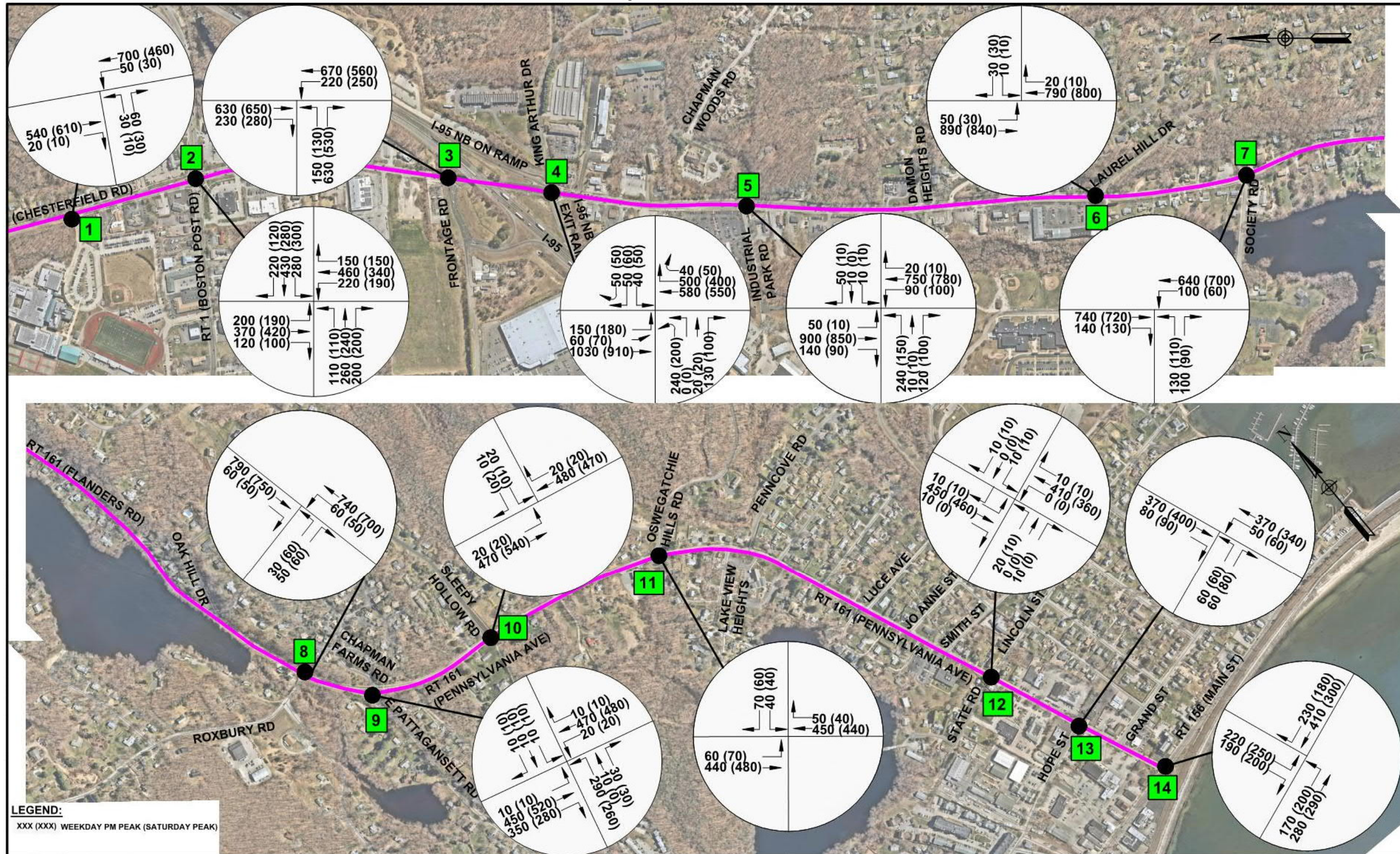


Table 19: Future Traffic Growth

Location	Weekday PM Peak Vol.			Saturday Midday Peak Vol.		
	2022	2042	% Change	2022	2042	% Change
North of East Lyme High School Driveway	1170	1290	10.3%	980	1090	11.2%
North of U.S. Route 1 (Boston Post Road)	1350	1480	9.6%	1160	1280	10.3%
North of Frontage Road to I-95 SB Ramps	1530	1680	9.8%	1470	1620	10.2%
North of King Arthur Drive	1940	2110	8.8%	1800	1970	9.4%
North of Industrial Park Road and Chapman Woods Road	1950	2130	9.2%	1720	1890	9.9%
North of Laurel Hill Drive	1610	1760	9.3%	1550	1700	9.7%
North of Society Road	1500	1650	10.0%	1510	1660	9.9%
North of Roxbury Road	1460	1620	11.0%	1410	1560	10.6%
North of E Pattagansett Road and Chapman Farms Road	1440	1580	9.7%	1410	1560	10.6%
North of Sleepy Hollow Road	890	980	10.1%	950	1050	10.5%
North of Oswegatchie Hills Road	920	1020	10.9%	950	1050	10.5%
North of State Road and Lincoln Street	820	910	11.0%	770	850	10.4%
North of Hope Street	800	880	10.0%	800	890	11.3%
North of Route 156 (Main Street)	700	810	15.7%	720	830	15.3%

3.3 DESIGN YEAR TRAFFIC OPERATIONS

The Existing conditions traffic model was used as a basis for creating the Design Year (2042) traffic model. The model was updated to include the projected year 2042 volumes along with the programmed geometric improvements to be constructed under the I-95 Interchange 74 Improvements at Route 161 and Replacement of Bridge No. 00250 Project. A summary of the Design Year (2042) weekday PM and Saturday midday peak hour capacity analysis results are displayed in Table 20 and Figure 18. Design Year (2042) conditions capacity analysis (Synchro) reports are provided in Appendix F.

Table 20: Design Year (2042) Conditions Capacity Analysis Results

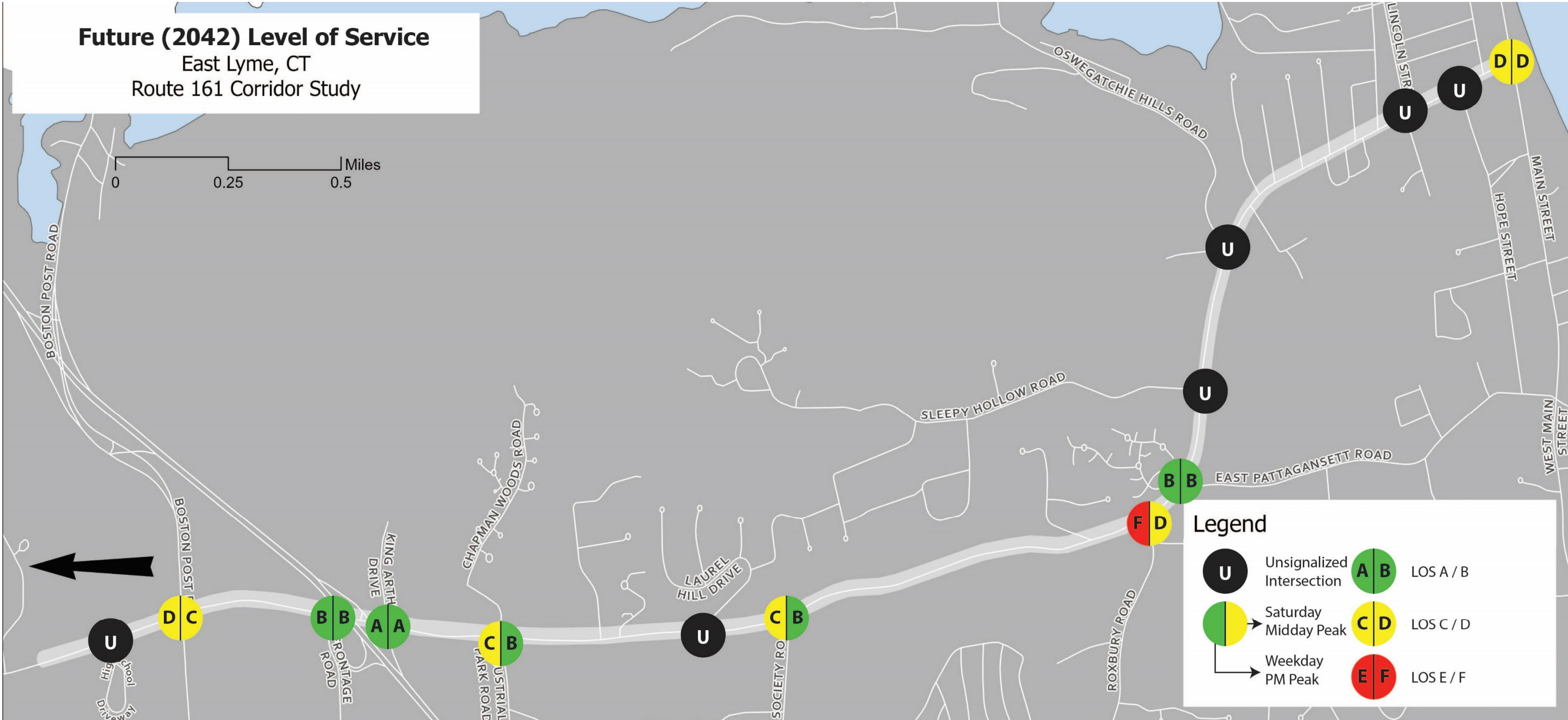
INTERSECTION	Future (2042) Weekday PM Peak				Future (2042) Saturday Midday Peak			
	LOS	Delay (s/veh)	v/c	95% Q (feet)	LOS	Delay (s/veh)	v/c	95% Q (feet)
Route 161 at East Lyme High School Driveway – Eastbound Stop-Controlled								
ELHS Driveway–EBL	F	58.8	0.35	35	D	28.3	0.07	6
ELHS Driveway-EBR	B	13.9	0.15	13	B	14.1	0.08	7
Route 161-NBLT	A	1.4	0.05	4	A	1.0	0.03	3
Route 161 at U.S. Route 1 (Boston Post Road) – Signalized								
U.S. Route 1-EBL	C	24.7	0.50	76	C	22.5	0.33	78
U.S. Route 1-EBTR	C	31.3	0.46	136	C	29.2	0.46	125
U.S. Route 1-WBL	C	28.4	0.78	#210	C	24.8	0.77	#236
U.S. Route 1-WBT	D	46.9	0.88	#460	C	25.3	0.57	263
U.S. Route 1-WBR	C	25.7	0.30	106	C	20.7	0.09	43
Route 161-NBL	C	21.3	0.59	160	B	19.8	0.55	122
Route 161-NBT	E	65.0	0.97	#581	D	38.2	0.80	#341
Route 161-NBR	C	25.6	0.11	54	C	24.2	0.11	49

INTERSECTION	Future (2042) Weekday PM Peak				Future (2042) Saturday Midday Peak			
	LOS	Delay (s/veh)	v/c	95% Q (feet)	LOS	Delay (s/veh)	v/c	95% Q (feet)
Route 161-SBL	C	26.6	0.70	#168	B	18.8	0.55	119
Route161-SBTR	C	28.1	0.49	203	C	27.1	0.57	203
OVERALL	D	35.9	0.90		C	26.6	0.78	
Route 161 at Frontage Road to I-95 SB Ramps – Signalized								
Frontage Road - EBL	C	28.5	0.50	110	C	29.1	0.47	101
Frontage Road - EBR	B	15.1	0.28	36	B	14.8	0.20	25
Route 161-NBL	C	21.7	0.47	51	C	21.4	0.50	60
Route 161-NBTR	A	5.6	0.30	161	A	5.5	0.25	96
Route 161-SBT	B	14.9	0.43	192	B	14.7	0.43	193
Route 161-SBR	A	5.7	0.16	19	A	6.1	0.19	22
OVERALL	B	13.1	0.49		B	13.0	0.50	
Route 161 at Park and Ride Lot and King Arthur Drive – Signalized								
I-95 NB Exit Ramp-EBLTR	C	24.2	0.04	6	A	0	0	0
King Arthur Dr-WBLT	C	26.0	0.34	82	C	26.4	0.40	91
King Arthur Dr-WBR	B	20.0	0.04	23	C	20.1	0.07	29
Route 161-NBTR	A	6.7	0.56	72	A	6.8	0.50	63
Route161-SBL	A	4.7	0.24	m8	A	3.7	0.25	9
Route 161-SBT	A	4.5	0.54	66	A	3.2	0.50	58
OVERALL	A	7.0	0.53		A	6.3	0.51	
Route 161 at Industrial Park Road and Chapman Woods Road - Signalized								
Industrial Park Road-EBL	F	134.8	1.14	#142	D	42.6	0.71	#79
Industrial Park Road-EBTR	C	29.5	0.15	49	C	31.1	0.16	46
Chapman Woods Road-LTR	C	29.5	0.16	37	C	30.5	0.02	0
Route 161-NBL	B	10.1	0.41	36	A	7.9	0.38	38
Route 161-NBTR	B	13.6	0.49	201	B	10.8	0.45	196
Route 161-SBL	A	3.9	0.17	m7	A	3.7	0.04	m1
Route 161-SBTR	A	6.8	0.71	82	A	5.5	0.61	67
OVERALL	C	24.5	0.64		B	12.0	0.54	
Route 161 at Laurel Hill Drive – Westbound Stop-Controlled								
Laurel Hill Drive-WBLR	E	47.3	0.30	29	E	41.5	0.26	25
Route 161-SBLT	A	2.4	0.08	7	A	1.4	0.05	4
Route 161 at Society Road – Signalized								
Society Road-EBLR	C	34.9	0.73	156	C	33.0	0.67	131
Route 161-NBL	B	13.1	0.32	45	B	11.1	0.19	27
Route 161-NBT	A	8.8	0.63	328	A	8.7	0.67	365
Route 161-SBT	D	36.1	0.93	#682	C	28.5	0.88	#639
Route 161-SBR	B	13.0	0.15	63	B	12.1	0.14	57
OVERALL	C	23.5	0.83		B	19.6	0.80	
Route 161 at Roxbury Road – Signalized								
Roxbury Road-EBLR	C	32.9	0.23	51	D	35.5	0.53	93
Route 161-NBLT	F	122.9	1.21	#657	D	40.4	0.96	#369
Route 161-SBTR	F	69.7	1.06	#765	D	50.9	0.99	#699
OVERALL	F	92.3	1.06		D	44.9	0.91	
Route 161 at E Pattagansett Road and Chapman Farms Road – Signalized								
Route 161-SEBLT	B	11.3	0.58	m92	B	12.0	0.66	m121
Route 161--SEBR	B	10.3	0.39	m31	B	10.5	0.33	m25
Route 161-NWBLTR	B	18.5	0.62	306	B	18.7	0.64	314
E Pattagansett Road-NEBLT	C	20.4	0.60	219	B	18.4	0.51	181

INTERSECTION	Future (2042) Weekday PM Peak				Future (2042) Saturday Midday Peak			
	LOS	Delay (s/veh)	v/c	95% Q (feet)	LOS	Delay (s/veh)	v/c	95% Q (feet)
E Pattagansett Road-NEBR	B	14.4	0.02	14	B	14.5	0.02	14
Chapman Farms-SWBLTR	B	14.5	0.04	21	B	14.6	0.04	21
OVERALL	B	14.9	0.65		B	14.9	0.62	
Route 161 at Sleepy Hollow Road – Southbound Stop-Controlled								
Route 161-EBLT	A	0.6	0.02	2	A	0.6	0.02	2
Sleepy Hollow Road-SBLR	C	21.8	0.17	15	C	17.8	0.13	11
Route 161 at Oswegatchie Hills Road - Southbound Stop-Controlled								
Route 161-EBLT	A	1.8	0.07	6	A	2.0	0.08	6
Oswegatchie Hills Rd - SBLR	C	23.4	0.41	47	C	24.9	0.40	46
Route 161 at State Road and Lincoln Street – Eastbound/Westbound Stop-Controlled								
State Road-EBLTR	C	22.9	0.16	14	C	23.8	0.06	5
Lincoln Street-WBLTR	C	19.2	0.09	8	C	17.6	0.08	7
Route 161-SBLT	A	0.3	0.01	1	A	0.3	0.01	1
Route 161 at Hope Street – Eastbound Stop-Controlled								
Hope Street-EBLR	C	24.1	0.43	51	D	26.1	0.49	64
Route 161-NBL	A	1.6	0.06	5	A	2.0	0.07	6
Route 161 at Route 156 (Main Street) – Signalized								
Route 156-EBL	C	25.4	0.71	#146	C	21.2	0.65	131
Route 156-EBT	C	24.0	0.52	239	C	26.5	0.60	248
Route 156-WBT	D	45.2	0.90	#426	C	31.4	0.74	259
Route 156-WBR	C	21.8	0.28	63	C	21.8	0.16	35
Route 156-SBLR	E	68.2	0.98	#472	F	74.9	1.01	#536
OVERALL	D	41.5	0.76		D	41.0	0.70	

95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Figure 18: Design Year (2042) Conditions Level of Service



The capacity analyses show that for the Design Year (2042) traffic conditions several intersections experience a degradation in LOS when compared to Existing Conditions. Still, all intersections within the study area operate with an overall LOS of D or better during the peak periods, with the lone exception of Route 161 at Roxbury Road which operates at LOS F during the weekday PM peak period. Several lane groups also experience a degradation in LOS when compared to Existing Conditions and operate at LOS E or F during the peak periods. The following operational issues are exhibited in the analysis:

Route 161 at East Lyme High School Driveway

- The eastbound left turn lane is expected to operate at LOS F with an average delay of 59 seconds per vehicle during the weekday pm peak.

Route 161 at U.S. Route 1 (Boston Post Road)

- The northbound through lane is expected to operate at LOS E with an average delay of 65 seconds per vehicle during the weekday pm peak.

Route 161 at Industrial Park Road and Chapman Woods Road

- The eastbound left turn lanes is expected to operate at LOS F with an average delay of 134 seconds per vehicle during the weekday pm peak.

Route 161 at Laurel Hill Drive

- The westbound approach is expected to operate at LOS E with an average delay of 47 seconds per vehicle during the weekday pm peak and at LOS E with an average delay of 42 seconds per vehicle during the Saturday midday peak.

Route 161 at Roxbury Road

- The intersection overall is expected to operate at LOS F with an average delay of 92 seconds per vehicle during the weekday pm peak.
- The northbound approach is expected to operate at LOS F with an average delay of 123 seconds per vehicle during the weekday pm peak.
- The southbound approach is expected to operate at LOS F with an average delay of 70 seconds per vehicle during the weekday pm peak.
- The 95th percentile queue on the Route 161 northbound approach to Roxbury Road is expected to be 657 feet or more during the weekday pm peak period, extending to East Pattagansett Road/Chapman Farms Road and impact traffic operation at this upstream intersection.
- The 95th percentile queues on the Route 161 southbound approach to Roxbury Road are expected to be at least 765 feet and at least 699 feet during the PM and Saturday peak periods respectively, lengths that would extend to Oak Hill Drive and impact traffic operation at that upstream intersection.

Route 161 at Route 156 (Main Street)

- The southbound approach is expected to operate at LOS E with an average delay of 68 seconds per vehicle during the weekday pm peak and at LOS F with an average delay of 75 seconds per vehicle during the Saturday midday peak.
- The 95th percentile queues on the Route 161 southbound approach to Route 156 (Main Street) are expected to be at least 472 feet and at least 536 feet during the PM and Saturday peak periods respectively, lengths that would extend to Grand Street and impact traffic operation at that upstream intersection.

4.0 NEXT STEPS

This Existing and Future Conditions Report is intended to provide a thorough understanding of the traffic, safety, and multimodal mobility issues in the corridor. The next step is to present the report findings at the first of two public workshops. The initial workshop will also serve as a listening session where stakeholders will have an opportunity to provide their input early in the process by sharing any issues or concerns pertaining to the corridor.

Input received during the first public workshop, along with the report findings, will be used to develop a draft conceptual alternatives plan that will include recommendations for improvements along the entire length of the corridor. The draft conceptual alternatives plan will include conceptual cost estimates, proposed implementation phasing, identification of potential funding sources, and a memorandum addressing anticipated local, state, and federal permitting needs.

The draft conceptual alternatives will be presented at a second public workshop and stakeholders will have the opportunity to provide feedback. Feedback will be incorporated into the plan accordingly before it is finalized. The finalized plan is intended to serve as a blueprint to guide future transportation improvements along the corridor.



APPENDIX A PUBLIC ENGAGEMENT PLAN

Southeastern Connecticut Council of Governments
Route 161 Corridor Study, East Lyme, CT
Job Number: 044-0159
March 2022

Public Engagement Plan



B E T A

1010 Wethersfield Avenue
Suite 305
Hartford, Connecticut 06114
860.513.1503
www.BETA-Inc.com

Route 161 Corridor Study, East Lyme, CT
Southeastern Connecticut Council of Governments
Job Number: 044-0159

PUBLIC ENGAGEMENT PLAN

Prepared by: BETA GROUP, INC.
Prepared for: Southeastern Connecticut Council of Governments

March 2022

TABLE OF CONTENTS

1.0 Introduction	1
1.1 Overview	1
1.2 Guiding Principals	1
1.3 Identification of Stakeholders and Public Groups	2
2.0 Public outreach events and engagement tools	2
2.1 Live Meetings	2
2.1.1 Project Advisory Committee (PAC) Meetings	3
2.1.2 Public Meetings or Workshops	3
2.1.3 Stakeholder Outreach	4
2.2 Electronic Media	4
2.2.1 Project Website	4
2.2.2 Stakeholder Survey – Interactive Map Tool	5
2.2.3 Virtual Meeting Room	5
2.3 Information Distribution Techniques	5
2.3.1 Press Advisories	5
2.4 Responding to public comments	6
2.4.1 Comment Database	6
2.4.2 Response to Comments	6
3.0 Schedule	6

LIST OF FIGURES

Figure 1 - Schedule

1.0 INTRODUCTION

1.1 OVERVIEW

This Public Engagement Plan (PEP) describes the objectives, methods, schedule and expectations for public engagement on the Route 161 Corridor Study Project. The purpose of this public involvement effort is to lay the framework to consult and collaborate with diverse project stakeholders and the public to:

- identify traffic, transit, and bicycle and pedestrian mobility deficiencies and needs within the project corridor;
- identify, develop and evaluate alternative solutions to improve safety for all users;
- reach consensus for improvements in the corridor and select the preferred alternative; and
- develop a conceptual design for the chosen plan.

This consultation and collaboration will require significant public and stakeholder input throughout the planning process. Southeastern Connecticut Council of Governments (SCCOG) has selected BETA Group, Inc. to manage this process and coordinate public outreach activities.

A robust public and stakeholder outreach program, guided by this PEP, will utilize a wide range of strategies and techniques to engage residents, businesses, commuters, and other stakeholders throughout the approximately 3.7-mile-long study area running from the driveway of East Lyme High School to Route 161's southern terminus at the intersection of Route 156. Public input will be crucial in ensuring that the project not only addresses Route 161's deficiencies and needs in a practical and cost-effective manner but also considers local and regional context and community concerns, goals and priorities related to land use, intermodal or multimodal travel, environmental protection, economic development, community cohesion and connectivity and social equity.

This PEP describes how the project team will reach out to inform and seek input from stakeholders, the traveling public, and affected communities throughout the project via public meetings, Project Advisory Committee (PAC) meetings, a virtual meeting room, a project website and other forms of outreach, as appropriate. Some methods will be used to let people know where we are in the study process, and others will provide opportunities for discussion and comment. Public opinion and comments will be well-documented and considered throughout project study.

1.2 GUIDING PRINCIPALS

The goals of the public engagement effort for the Route 161 Corridor Study Project reflect CTDOT's overarching goals to be accessible, inclusive, collaborative, responsive, informative, timely and transparent to the public in the provision of transportation services and in the planning and prioritization of major transportation projects.

Specifically, the goals of public engagement for this project are to:

- Obtain input from the public and project stakeholders on study area issues and concerns to help identify and frame the study goals and objectives
- Advise the public on the study findings
- Involve stakeholders and the public in the development and refinement of recommendations that fit the character and future vision of the surrounding community
- Facilitate reviews by the Town Board of Selectmen, Boards, and Commissions as well as Businesses and Residents leading to a Final Corridor Plan that is endorsed by these stakeholders to help guide future transportation system improvements and enhancements

Guiding principles of the public engagement approach for the Route 161 Corridor Study include:

- Information about the study will be readily accessible to the public: A record of all PAC and community meetings will be kept. Technical documents will be placed in locations available to the public.
- Project information will be presented to the public in a clear and accessible manner: Information will be clearly written and all technical terms and procedures will be explained.
- The public may learn about or become engaged in the study in a variety of ways: Methods to inform and engage the public will include Advisory Committee meetings, public meetings, a project website, virtual meeting room, interactive mapping, and traditional media (press releases).
- The study team will be responsive to public engagement: The public and PAC will receive sufficient notice of meetings, which will be scheduled at a time and place that is convenient and comfortable. Ample time to review any materials will also be provided. Public questions and inquiries will be answered in a timely manner.
- The public shall be able to participate in a process that is well coordinated: Good coordination, communication, and collaboration among all concerned agencies and community organizations will be critical to providing the public with the most current and correct information as well as to the overall success of the project.

1.3 IDENTIFICATION OF STAKEHOLDERS AND PUBLIC GROUPS

BETA will work with SCCOG and the PAC to identify stakeholders that should be directly engaged during the study process. For purposes of this plan, a stakeholder is defined as a person or group involved in or affected by this corridor plan, an entity that has the potential to influence people's opinions or decisions relative to transportation investments, or members of the public that have expressed interest in the project.

Examples of stakeholders include federal, state, regional and local officials, CTDOT partners or sister agencies, business, commerce or economic development organizations, transit operators, freight companies, shippers, transportation, transit or commuter advocates, bicycle advocacy groups, environmental organizations, public interest groups, residents and abutting property owners, institutions of higher learning, and community-based groups or social service agencies that advocate for limited English proficient populations, the disability community, and minorities, immigrant and ethnic groups. Some stakeholders already identified for this project are noted in the sections below.

2.0 PUBLIC OUTREACH EVENTS AND ENGAGEMENT TOOLS

The Public Engagement Plan has many elements to involve and inform the public in meaningful ways. The BETA Team will be accessible to the public, share information in a complete and understandable manner, and record and respond to public comments and concerns. Following is a description of each technique along with information about how they will be used and the desired outcomes. These techniques are generally grouped into four categories: 1) Live Meetings; 2) Electronic Media; 3) Information Distribution Techniques; and, 4) Responding to public comments. These are discussed in the following sections:

2.1 LIVE MEETINGS

Live virtual and in-person meetings are an important way to engage with citizens and offer opportunities to communicate and receive input. Every effort will be made to host in-person meetings in locations near public transportation options. All in-person public engagement activities will be held at venues that are

ADA accessible. Once the project team has determined the date, time, and location of the public meeting, the event will be added to Route 161 Corridor Study Project website.

2.1.1 PROJECT ADVISORY COMMITTEE (PAC) MEETINGS

The Project Advisory Committee will serve as the project's technical sounding board and will include representatives from SCCOG, CTDOT, the Town of East Lyme Department of Public Works and Planning Department, and CTDOT, at a minimum. BETA will take a collaborative approach with the PAC, consulting the group early on regarding meeting plans and topics, and sharing relevant technical information and study products with the PAC as they are developed. PAC members will assist in the study effort by providing advice and insight on local issues, identifying challenges/opportunities in the project area, and assessing improvement alternatives. PAC members will be asked to bring concerns and insights for discussion, and to assist the project team in conducting community outreach by identifying issues important to their interests and the public at large, identifying additional key stakeholders, and attending public meetings to discuss the project's progress. It is anticipated that the Advisory Committee will include representatives from SCCOG, CTDOT technical staff, Town of East Lyme Department of Public Works, Town of East Lyme Planning Department, Town of East Lyme Public Schools, Town of East Lyme Police Department, Southeast Area Transit District, and Estuary Transit District. Advisory Committee meetings will be open to the public.

BETA will conduct up to twelve (12) virtual Advisory Committee meetings. It is expected that virtual Advisory Committee meetings will be held at least once every two months. More frequent meetings may be necessary at different phases of the project. CTDOT technical staff will be invited to participate in Advisory Committee meetings. BETA will post meeting agendas and other materials, as necessary, to the project website in advance of meetings to allow adequate time for review. BETA will also post meeting minutes to the project website.

2.1.2 PUBLIC MEETINGS OR WORKSHOPS

BETA will coordinate with SCCOG to conduct two (2) public workshops held during the course of the project, one during Task: 2 Existing Conditions Report and another during Task 3: Alternatives Development. The first meeting will be to present the project and its purpose and need to the public along with the findings of the existing and future conditions report. This meeting will be structured as a listening session to hear about stakeholder issues and concerns and will be a key opportunity for the public to obtain information about the study and provide their input early in the process. The second public meeting will be held later in the project development to engage the public for feedback on the alternatives under review.

The Public Meetings will be held in a hybrid open-house format with a blend of live presentations, informal Q&A sessions, and unstructured, exhibit areas where attendees can roam and view exhibits at their own pace and ask questions of meeting facilitators in a one-on-one chat. The live presentation, or a dry run, will be recorded and posted to the website. The desired outcome of this informal and open house style format is that interested citizens, stakeholders and the media can learn more about the project in a casual and comfortable environment and feel free to ask candid questions, express concerns or comments, and offer ideas. For each public meeting BETA will prepare graphically rich display materials that are written in clear language and easy for the public to understand. Display materials may include maps, timelines, and visualization tools where feasible within the project budget. Each meeting will also include a formal public comment period, and a formal transcript will be taken to document comments received and responses made in support of future potential NEPA/CEPA requirements. The formal comment period will permit both in-person and written comments.

BETA will work with SCCOG to identify and secure meeting venues and publicize upcoming meetings. BETA will prepare press releases and flyers before each of the public meetings to help garner broad participation. BETA asks that SCCOG provide the appropriate media outlets for delivery of the press releases. BETA will consult the Advisory Committee to identify appropriate and effective locations to post flyers for the greatest visibility. Locations may include town buildings, rest areas, and public gathering places such as libraries. Flyers will also be made available in electronic format as a PDF for distribution to email mailing lists including the Advisory Committee and other stakeholder lists and as a JPG for distribution via social media. The Advisory Committee will be asked to distribute flyers to their constituents to spread the word about the meeting and post to their social media pages.

The PAC may also choose to hold a public meeting to present the final draft corridor study. BETA will support this meeting as budget allows.

2.1.3 STAKEHOLDER OUTREACH

There are a number of specific groups of stakeholders that have been involved in past planning efforts in and around the project corridor, and the project teams intends to maintain contact with these groups throughout the course of the study. While this coordination may be done through one-on-one phone calls, online public feedback portals or participation at the public workshops, additional efforts such as direct mailings may be required to ensure these stakeholders are informed of the process. BETA will consult the Advisory Committee to identify major businesses that have the most significant traffic impacts on the corridor. It is anticipated that direct mailers will be sent to up to a dozen such large businesses.

Stakeholders/interests that will be targeted for coordination may include, but are not limited to:

- Town of East Lyme
- SCCOG
- Transit agencies – SEAT and Estuary Transit District
- Niantic Main Street
- Niantic Bay Bicycles
- Area businesses - Costco, Stop and Shop, USPS, business organization in Niantic
- Waterford stakeholders including emergency managers and first responders
- Title VI and Limited English Proficiency (LEP) contacts

2.2 ELECTRONIC MEDIA

Electronic media will be employed as a cost-effective means of casting a broad net and facilitating meaningful participation of stakeholders representing diverse ages, ethnic and racial backgrounds, income levels, and other characteristics.

2.2.1 PROJECT WEBSITE

BETA will provide a domain, host, and develop the project website to provide information about the project and to host project documents. The project website will be the primary portal between the public, interested parties, the Advisory Committee, and the progress of the Corridor Study.

The site will include PowerPoint presentations, technical memoranda, concept plans, maps and other information developed over the course of the project. The website will also be a repository for all information presented at PAC and public meetings as well as summaries of those meetings. The website will also include an interactive link to a virtual public meeting room where stakeholders who are unable to attend in person public meetings may review reports, plans, and agendas, and conduct a virtual site walk of the corridor that will include photos of each intersection.

The website will include the following:

- Home Page: Provide project overview and directory for the other content
- About: Introduce visitors to the project, goals and objectives, study process, timeline, FAQ (to be developed from the public comment submissions) and details about the project team.
- Get Involved: Information about the Public Engagement Plan, the Advisory Committee, summaries of past meetings and information about upcoming events, and a join our mailing list submission form.
- Project materials: Downloadable electronic files of past meeting materials, press releases, and other project documents (plans, reports, technical memos, etc.)
- Contact us: an electronic comment form for the public to submit questions and share views with the project team. A log of all comments will be kept and routinely reviewed by the project team. Questions or comments will be aggregated by general topic, and the project team will provide responses for each general topic or thread to be posted in a FAQ section.

The project website will be updated monthly with news or postings of project progress, reports, meeting announcements, etc.

Project website materials, except for the virtual public meeting room, will be digitally transferred to SCCOG at the project's conclusion.

2.2.2 STAKEHOLDER SURVEY – INTERACTIVE MAP TOOL

The interactive mapping tool, a component of the project website, will allow individuals to share comments or ideas directly on a map they can access from their mobile phones, tablets, or computers. This feature will allow the public to provide valuable input without requiring them to attend a public informational meeting or hearing. BETA will use the input from the map to determine local priorities and concerns.

2.2.3 VIRTUAL MEETING ROOM

To reach people that may not be able to attend live public meetings, BETA will develop a virtual public meeting room that will seek to replicate the information presented and opportunities for comments during the live session. Visitors to the virtual meeting room will be able to view a recording of the presentation, download the slide deck and any meeting handouts, view and comment on project display boards at each of the virtual "stations." BETA will develop a virtual meeting room in advance of each of the two public meetings, and that room will remain live for up to one month after live scheduled public meeting. All digital files removed from the public meeting room will be made available under the Project Materials section of the project webpage.

2.3 INFORMATION DISTRIBUTION TECHNIQUES

The primary purpose of the following tools is to distribute information to the public in a timely and efficient manner. These techniques will also prompt interested citizens and groups to provide contact information (emails) so that they can receive regular updates about the project and to solicit comments from individuals and groups that may not be able to attend live meetings or other public outreach events.

2.3.1 PRESS ADVISORIES

Engagement with the press and media outlets will occur in advance of each public meeting, and to announce the 30-day public review and comment period for the draft final Corridor Study. Press Advisories or Press Releases will update the public on project progress and notify the public and stakeholders about the availability of information or plans. Notices will also be prepared and distributed

to media outlets in advance of key public information meetings about the project to notify the public about the date, time, place of the meetings, the subject to be discussed, study website address, and contact information.

2.4 RESPONDING TO PUBLIC COMMENTS

2.4.1 COMMENT DATABASE

All comments submitted by the public via the website, email, or from the public meetings will be reported to the project team. The project team will create a database to collect, manage and report on questions and comments. Questions and comments will be aggregated by topic or theme, and regularly reviewed with the advisory committee. The comment database will be provided to the SCCOG at the project's conclusion.

2.4.2 RESPONSE TO COMMENTS

The project team will regularly address submitted questions by adding content, as appropriate, to the FAQ page on the project website.

Responses to all non-question comments will be aggregated in the comment database. People who leave comments via the website will automatically be added to the project database and will receive future communications about the project. Oral comments received at public meetings will be captured by project note-takers and put into a meeting summary. These comments will be reviewed, aggregated and archived similarly to those received via the website.

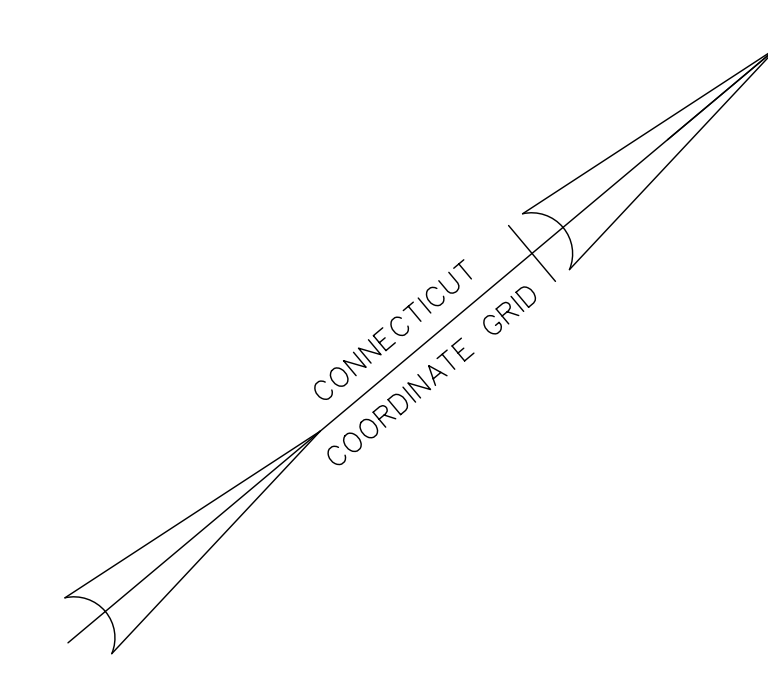
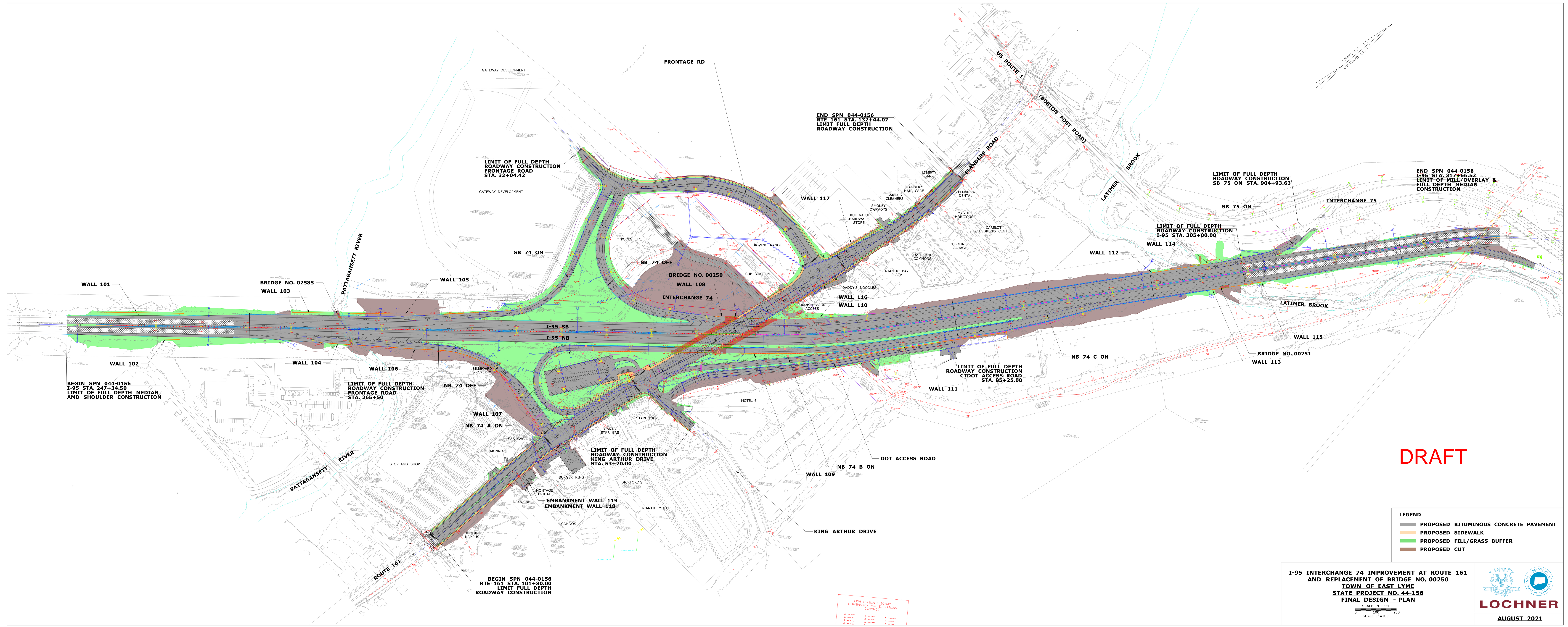
The project team will consider all public comments, both written and verbal, in the decision-making processes of the Route 161 Corridor Study Project. The project team and PAC will review public comments to determine if a response is required, and/or how to address the comment in the design of project alternatives.

3.0 SCHEDULE

The project team has developed a preliminary schedule for public involvement activities to:

- a) elicit timely and productive community dialog about transportation;
- b) to maintain public interest in the project;
- c) to strategically bridge between the plan's technical process and the needs and expectations of the interested public; and,
- d) to maximize benefits that can be achieved from interaction with the public. This schedule will be made available to the public on the project website and will be updated as required during the project.

APPENDIX B
I-95 INTERCHANGE 74 IMPROVEMENT PLAN



DRAFT

- LEGEND**
- PROPOSED BITUMINOUS CONCRETE PAVEMENT
 - PROPOSED SIDEWALK
 - PROPOSED FILL/GRASS BUFFER
 - PROPOSED CUT

I-95 INTERCHANGE 74 IMPROVEMENT AT ROUTE 161 AND REPLACEMENT OF BRIDGE NO. 00250
 TOWN OF EAST LYME
 STATE PROJECT NO. 44-156
 FINAL DESIGN - PLAN

SCALE IN FEET
 0 100 200
 SCALE 1"=100'

END SPN 044-0156
 RTE 161 STA. 132+44.07
 LIMIT FULL DEPTH
 ROADWAY CONSTRUCTION

END SPN 044-0156
 I-95 STA. 317+66.52
 LIMIT OF MILL/OVERLAY &
 FULL DEPTH MEDIAN
 CONSTRUCTION

LIMIT OF FULL DEPTH
 ROADWAY CONSTRUCTION
 SB 75 ON STA. 904+93.63

LIMIT OF FULL DEPTH
 ROADWAY CONSTRUCTION
 I-95 STA. 305+00.00

LIMIT OF FULL DEPTH
 ROADWAY CONSTRUCTION
 CTDOT ACCESS ROAD
 STA. 85+25.00

LIMIT OF FULL DEPTH
 ROADWAY CONSTRUCTION
 KING ARTHUR DRIVE
 STA. 53+20.00

LIMIT OF FULL DEPTH
 ROADWAY CONSTRUCTION
 FRONTAGE ROAD
 STA. 265+50

BEGIN SPN 044-0156
 RTE 161 STA. 101+30.00
 LIMIT FULL DEPTH
 ROADWAY CONSTRUCTION

BEGIN SPN 044-0156
 I-95 STA. 247+34.50
 LIMIT OF FULL DEPTH MEDIAN
 AND SHOULDER CONSTRUCTION

LIMIT OF FULL DEPTH
 ROADWAY CONSTRUCTION
 FRONTAGE ROAD
 STA. 32+04.42

HIGH TENSION ELECTRIC
 TRANSMISSION WIRE ELEVATIONS
 09/28/20

APPENDIX C
AUTOMATIC TRAFFIC RECORDER REPORTS

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Start Time	23-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	*	*	*	*	15	11	26	15	17	11	19	12	33	14	*	*
01:00	*	*	*	*	6	3	13	12	13	7	11	7	21	10	*	*
02:00	*	*	*	*	7	8	7	9	4	3	6	7	16	5	*	*
03:00	*	*	*	*	14	11	10	8	9	4	11	8	15	1	*	*
04:00	*	*	*	*	15	50	15	50	12	39	14	46	12	27	*	*
05:00	*	*	*	*	55	150	48	151	38	114	47	138	75	7	*	*
06:00	*	*	*	*	189	280	178	262	161	269	176	270	*	*	*	*
07:00	*	*	*	*	419	591	434	575	402	567	418	578	*	*	*	*
08:00	*	*	*	*	297	466	294	452	253	489	281	469	*	*	*	*
09:00	*	*	*	*	268	357	264	353	246	330	259	347	*	*	*	*
10:00	*	*	1	77	286	355	291	366	313	340	223	284	*	*	*	*
11:00	*	*	327	312	309	325	332	324	365	384	333	336	*	*	*	*
12:00 PM	*	*	335	343	383	364	351	388	435	392	376	372	*	*	*	*
01:00	*	*	400	350	405	350	399	375	490	417	424	373	*	*	*	*
02:00	*	*	495	545	491	463	472	518	516	561	494	522	*	*	*	*
03:00	*	*	627	472	553	436	571	470	584	486	584	466	*	*	*	*
04:00	*	*	686	522	689	451	699	464	597	483	668	480	*	*	*	*
05:00	*	*	597	465	580	517	564	435	529	455	568	468	*	*	*	*
06:00	*	*	465	351	439	356	493	343	431	348	457	350	*	*	*	*
07:00	*	*	395	292	369	269	391	280	314	199	367	260	*	*	*	*
08:00	*	*	238	165	219	161	255	243	240	159	238	182	*	*	*	*
09:00	*	*	124	115	137	111	130	100	149	119	135	111	*	*	*	*
10:00	*	*	56	50	87	69	76	58	101	86	80	66	*	*	*	*
11:00	*	*	18	24	38	35	38	28	52	34	36	30	*	*	*	*
Total Day	0	0	4764	4083	6270	6189	6351	6279	6271	6296	6225	6182	172	64	0	0
AM Peak Vol.	-	-	11:00	11:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00	05:00	04:00	-	-
PM Peak Vol.	-	-	16:00	14:00	16:00	17:00	16:00	14:00	16:00	14:00	16:00	14:00	-	-	-	-

Comb. Total	0	8847	12459	12630	12567	12407	236	0
ADT	ADT 12,552	AADT 12,552						

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14-23	1
11:00	1	27	43	58	63	63	44	22	6	0	0	0	0	0	327	31-40	126
12 PM	0	31	38	79	70	67	36	12	2	0	0	0	0	0	335	26-35	149
13:00	8	23	60	82	102	72	38	13	2	0	0	0	0	0	400	26-35	184
14:00	16	78	103	94	88	85	22	7	1	0	0	1	0	0	495	21-30	197
15:00	9	35	77	148	178	115	52	10	2	1	0	0	0	0	627	26-35	326
16:00	5	24	99	182	192	122	51	10	1	0	0	0	0	0	686	26-35	374
17:00	9	34	73	99	141	145	64	25	3	3	1	0	0	0	597	31-40	286
18:00	1	23	41	51	91	103	107	37	10	1	0	0	0	0	465	36-45	210
19:00	2	16	35	46	67	101	80	42	4	2	0	0	0	0	395	36-45	181
20:00	0	3	14	8	26	64	71	30	14	7	0	0	1	0	238	36-45	135
21:00	1	2	7	5	13	36	34	18	5	1	1	1	0	0	124	36-45	70
22:00	0	1	2	1	7	15	13	12	4	0	1	0	0	0	56	36-45	28
23:00	0	0	3	1	1	4	3	4	2	0	0	0	0	0	18	41-50	7
Total	52	297	596	854	1039	992	615	242	56	15	3	2	1	0	4764		
Percent	1.1%	6.2%	12.5%	17.9%	21.8%	20.8%	12.9%	5.1%	1.2%	0.3%	0.1%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00						11:00		
Vol.	1	27	43	58	63	63	44	22	6						327		
PM Peak	14:00	14:00	14:00	16:00	16:00	17:00	18:00	19:00	20:00	20:00	17:00	14:00	20:00		16:00		
Vol.	16	78	103	182	192	145	107	42	14	7	1	1	1		686		

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/25/22	0	0	0	0	0	5	5	3	1	1	0	0	0	0	15	36-45	10
01:00	0	0	0	0	1	1	1	0	2	0	1	0	0	0	6	36-45	2
02:00	0	0	0	0	1	2	3	1	0	0	0	0	0	0	7	36-45	5
03:00	1	0	0	0	1	0	2	2	4	4	0	0	0	0	14	50-59	8
04:00	0	0	1	0	0	4	2	5	3	0	0	0	0	0	15	44-53	8
05:00	0	3	2	2	6	13	18	8	3	0	0	0	0	0	55	36-45	31
06:00	0	5	6	16	51	42	39	24	5	1	0	0	0	0	189	31-40	93
07:00	23	47	86	65	83	65	36	7	5	2	0	0	0	0	419	21-30	151
08:00	1	13	24	31	78	79	40	22	7	2	0	0	0	0	297	31-40	157
09:00	0	6	20	27	58	82	57	13	4	1	0	0	0	0	268	31-40	140
10:00	1	10	33	34	59	74	51	15	7	1	1	0	0	0	286	31-40	133
11:00	4	27	51	55	69	62	26	14	1	0	0	0	0	0	309	31-40	131
12 PM	3	29	61	69	85	65	51	14	6	0	0	0	0	0	383	26-35	154
13:00	4	20	60	66	91	92	49	19	2	1	1	0	0	0	405	31-40	183
14:00	8	33	83	112	111	92	38	10	4	0	0	0	0	0	491	26-35	223
15:00	2	22	40	95	178	137	56	17	4	2	0	0	0	0	553	31-40	315
16:00	5	22	71	137	191	156	73	25	7	2	0	0	0	0	689	31-40	347
17:00	1	28	67	108	153	117	62	29	11	3	0	1	0	0	580	31-40	270
18:00	1	18	42	46	110	98	85	33	4	1	1	0	0	0	439	31-40	208
19:00	0	14	40	24	71	100	85	25	7	2	1	0	0	0	369	36-45	185
20:00	0	9	12	9	33	71	53	26	5	1	0	0	0	0	219	36-45	124
21:00	2	3	7	8	15	29	35	30	6	1	0	1	0	0	137	41-50	65
22:00	0	5	4	1	10	20	26	14	6	1	0	0	0	0	87	36-45	46
23:00	0	3	0	0	2	5	9	12	3	2	2	0	0	0	38	41-50	21
Total	56	317	710	905	1457	1411	902	368	107	28	7	2	0	0	6270		
Percent	0.9%	5.1%	11.3%	14.4%	23.2%	22.5%	14.4%	5.9%	1.7%	0.4%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	09:00	09:00	06:00	08:00	03:00	01:00				07:00		
Vol.	23	47	86	65	83	82	57	24	7	4	1				419		
PM Peak	14:00	14:00	14:00	16:00	16:00	16:00	18:00	18:00	17:00	17:00	23:00	17:00			16:00		
Vol.	8	33	83	137	191	156	85	33	11	3	2	1			689		

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/26/22	0	0	0	2	3	5	8	7	0	1	0	0	0	0	26	40-49	15
01:00	0	0	0	0	1	3	4	4	0	1	0	0	0	0	13	39-48	8
02:00	0	0	0	0	1	3	2	1	0	0	0	0	0	0	7	36-45	5
03:00	0	1	0	0	1	2	1	4	0	1	0	0	0	0	10	41-50	5
04:00	0	1	0	0	0	4	5	4	0	0	0	1	0	0	15	41-50	9
05:00	0	2	2	0	6	13	18	4	2	1	0	0	0	0	48	36-45	31
06:00	0	6	6	16	30	60	39	20	0	1	0	0	0	0	178	36-45	99
07:00	39	65	90	62	65	60	40	8	4	0	0	1	0	0	434	16-25	155
08:00	4	5	10	34	82	76	57	21	2	2	1	0	0	0	294	31-40	158
09:00	0	13	22	22	64	60	56	18	7	1	0	1	0	0	264	31-40	124
10:00	1	9	24	22	72	75	56	25	5	1	1	0	0	0	291	31-40	147
11:00	6	17	23	41	75	81	57	25	7	0	0	0	0	0	332	31-40	156
12 PM	1	7	38	49	88	78	54	22	12	0	2	0	0	0	351	31-40	166
13:00	2	20	50	60	94	87	48	29	7	1	1	0	0	0	399	31-40	181
14:00	4	24	61	99	129	85	49	18	2	1	0	0	0	0	472	26-35	228
15:00	4	27	63	98	203	118	44	12	1	1	0	0	0	0	571	31-40	321
16:00	3	30	84	169	177	158	56	21	1	0	0	0	0	0	699	26-35	346
17:00	0	22	53	77	128	162	77	36	9	0	0	0	0	0	564	31-40	290
18:00	1	19	45	41	100	150	89	36	9	1	2	0	0	0	493	31-40	250
19:00	0	15	27	31	57	109	96	44	9	1	2	0	0	0	391	36-45	205
20:00	1	7	17	11	47	78	59	21	10	2	2	0	0	0	255	36-45	137
21:00	1	5	3	3	17	42	28	20	3	6	2	0	0	0	130	36-45	70
22:00	0	3	5	1	10	19	22	12	2	2	0	0	0	0	76	36-45	41
23:00	1	3	3	1	4	8	12	6	0	0	0	0	0	0	38	36-45	20
Total	68	301	626	839	1454	1536	977	418	92	24	13	3	0	0	6351		
Percent	1.1%	4.7%	9.9%	13.2%	22.9%	24.2%	15.4%	6.6%	1.4%	0.4%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	08:00	11:00	08:00	10:00	09:00	08:00	08:00	04:00			07:00		
Vol.	39	65	90	62	82	81	57	25	7	2	1	1			434		
PM Peak	14:00	16:00	16:00	16:00	15:00	17:00	19:00	19:00	12:00	21:00	12:00				16:00		
Vol.	4	30	84	169	203	162	96	44	12	6	2				699		

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/27/22	0	0	0	1	1	2	7	3	2	1	0	0	0	0	17	39-48	10
01:00	0	0	0	1	2	4	4	1	1	0	0	0	0	0	13	36-45	8
02:00	0	0	0	0	0	1	1	1	0	0	1	0	0	0	4	34-43	2
03:00	1	1	0	0	0	1	3	2	0	1	0	0	0	0	9	41-50	5
04:00	0	0	0	0	2	4	3	2	0	1	0	0	0	0	12	34-43	7
05:00	1	1	2	3	4	9	10	4	3	1	0	0	0	0	38	36-45	19
06:00	0	5	9	15	23	41	40	23	5	0	0	0	0	0	161	36-45	81
07:00	10	24	62	107	91	58	30	18	1	1	0	0	0	0	402	26-35	198
08:00	0	10	14	36	60	76	41	12	3	1	0	0	0	0	253	31-40	136
09:00	2	12	17	28	61	57	42	19	7	1	0	0	0	0	246	31-40	118
10:00	0	12	24	40	77	83	62	13	2	0	0	0	0	0	313	31-40	160
11:00	2	20	48	57	97	79	45	14	3	0	0	0	0	0	365	31-40	176
12 PM	5	24	62	96	90	91	44	16	6	1	0	0	0	0	435	26-35	186
13:00	1	18	64	88	133	111	47	22	5	1	0	0	0	0	490	31-40	244
14:00	13	46	103	109	111	80	38	13	3	0	0	0	0	0	516	26-35	220
15:00	4	43	71	118	147	136	46	18	1	0	0	0	0	0	584	31-40	283
16:00	2	48	78	102	156	141	59	9	1	1	0	0	0	0	597	31-40	297
17:00	2	12	43	85	123	147	85	24	6	2	0	0	0	0	529	31-40	270
18:00	0	14	48	66	88	121	64	22	5	3	0	0	0	0	431	31-40	209
19:00	0	8	31	28	57	87	68	24	7	4	0	0	0	0	314	36-45	155
20:00	0	3	21	19	27	69	60	30	8	3	0	0	0	0	240	36-45	129
21:00	0	4	1	5	31	43	36	21	7	1	0	0	0	0	149	36-45	79
22:00	0	6	1	5	9	26	35	15	4	0	0	0	0	0	101	36-45	61
23:00	1	3	1	2	5	12	14	8	5	0	1	0	0	0	52	36-45	26
Total	44	314	700	1011	1395	1479	884	334	85	23	2	0	0	0	6271		
Percent	0.7%	5.0%	11.2%	16.1%	22.2%	23.6%	14.1%	5.3%	1.4%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	11:00	10:00	10:00	06:00	09:00	00:00	02:00				07:00		
Vol.	10	24	62	107	97	83	62	23	7	1	1				402		
PM Peak	14:00	16:00	14:00	15:00	16:00	17:00	17:00	20:00	20:00	19:00	23:00				16:00		
Vol.	13	48	103	118	156	147	85	30	8	4	1				597		

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
05/28/22	0	1	4	0	1	4	12	7	4	0	0	0	0	0	33	41-50	19
01:00	0	0	0	0	2	7	6	3	3	0	0	0	0	0	21	36-45	13
02:00	0	0	0	0	1	10	3	2	0	0	0	0	0	0	16	36-45	13
03:00	0	1	0	1	1	7	4	0	0	1	0	0	0	0	15	36-45	11
04:00	0	0	0	0	2	6	2	2	0	0	0	0	0	0	12	36-45	8
05:00	0	1	0	0	3	12	20	33	4	2	0	0	0	0	75	41-50	53
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	3	4	1	10	46	47	47	11	3	0	0	0	0	172		
Percent	0.0%	1.7%	2.3%	0.6%	5.8%	26.7%	27.3%	27.3%	6.4%	1.7%	0.0%	0.0%	0.0%	0.0%			
AM Peak		00:00	00:00	03:00	05:00	05:00	05:00	05:00	00:00	05:00					05:00		
Vol.		1	4	1	3	12	20	33	4	2					75		
PM Peak																	
Vol.																	
Total	220	1232	2636	3610	5355	5464	3425	1409	351	93	25	7	1	0	23828		
Percent	0.9%	5.2%	11.1%	15.2%	22.5%	22.9%	14.4%	5.9%	1.5%	0.4%	0.1%	0.0%	0.0%	0.0%			

15th Percentile : 24 MPH
 50th Percentile : 33 MPH
 85th Percentile : 42 MPH
 95th Percentile : 47 MPH

Stats
 10 MPH Pace Speed : 31-40 MPH
 Number in Pace : 10819
 Percent in Pace : 45.4%
 Number of Vehicles > 40 MPH : 5311
 Percent of Vehicles > 40 MPH : 22.3%
 Mean Speed(Average) : 34 MPH

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/25/22	0	0	0	3	5	2	1	0	0	0	0	0	0	0	11	26-35	8
01:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	25-34	3
02:00	0	1	0	2	2	2	1	0	0	0	0	0	0	0	8	31-40	4
03:00	0	0	0	2	6	2	1	0	0	0	0	0	0	0	11	31-40	8
04:00	0	0	3	13	29	3	2	0	0	0	0	0	0	0	50	26-35	42
05:00	0	2	4	58	76	10	0	0	0	0	0	0	0	0	150	26-35	134
06:00	0	4	35	117	107	17	0	0	0	0	0	0	0	0	280	26-35	224
07:00	8	61	165	244	108	5	0	0	0	0	0	0	0	0	591	21-30	409
08:00	3	16	68	200	147	29	3	0	0	0	0	0	0	0	466	26-35	347
09:00	1	7	65	155	120	7	2	0	0	0	0	0	0	0	357	26-35	275
10:00	1	14	54	167	102	17	0	0	0	0	0	0	0	0	355	26-35	269
11:00	4	15	67	137	89	12	1	0	0	0	0	0	0	0	325	26-35	226
12 PM	4	19	63	140	112	22	4	0	0	0	0	0	0	0	364	26-35	252
13:00	4	13	63	130	110	26	4	0	0	0	0	0	0	0	350	26-35	240
14:00	9	45	139	173	84	13	0	0	0	0	0	0	0	0	463	21-30	312
15:00	8	20	63	183	144	16	2	0	0	0	0	0	0	0	436	26-35	327
16:00	3	12	82	180	152	19	3	0	0	0	0	0	0	0	451	26-35	332
17:00	2	21	67	217	185	22	3	0	0	0	0	0	0	0	517	26-35	402
18:00	0	11	50	149	123	20	3	0	0	0	0	0	0	0	356	26-35	272
19:00	2	13	43	84	105	20	2	0	0	0	0	0	0	0	269	26-35	189
20:00	0	11	29	62	43	15	1	0	0	0	0	0	0	0	161	26-35	105
21:00	1	11	14	48	32	4	1	0	0	0	0	0	0	0	111	26-35	80
22:00	0	2	9	25	29	4	0	0	0	0	0	0	0	0	69	26-35	54
23:00	0	0	4	11	16	4	0	0	0	0	0	0	0	0	35	26-35	27
Total	50	298	1087	2501	1928	291	34	0	0	0	0	0	0	0	6189		
Percent	0.8%	4.8%	17.6%	40.4%	31.2%	4.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	08:00	08:00	08:00									07:00	
Vol.	8	61	165	244	147	29	3								591		
PM Peak	14:00	14:00	14:00	17:00	17:00	13:00	12:00								17:00		
Vol.	9	45	139	217	185	26	4								517		

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/27/22	0	0	1	2	6	2	0	0	0	0	0	0	0	0	11	31-40	8
01:00	0	1	0	4	1	1	0	0	0	0	0	0	0	0	7	24-33	5
02:00	0	0	1	1	0	1	0	0	0	0	0	0	0	0	3	19-28	2
03:00	0	0	1	0	0	2	1	0	0	0	0	0	0	0	4	34-43	3
04:00	0	0	0	8	23	8	0	0	0	0	0	0	0	0	39	31-40	31
05:00	0	7	5	37	50	14	0	1	0	0	0	0	0	0	114	26-35	87
06:00	0	4	29	123	91	21	1	0	0	0	0	0	0	0	269	26-35	214
07:00	10	46	209	218	76	8	0	0	0	0	0	0	0	0	567	21-30	427
08:00	3	20	116	201	139	9	1	0	0	0	0	0	0	0	489	26-35	340
09:00	5	12	41	151	111	9	1	0	0	0	0	0	0	0	330	26-35	262
10:00	3	7	51	148	115	16	0	0	0	0	0	0	0	0	340	26-35	263
11:00	9	17	84	136	123	15	0	0	0	0	0	0	0	0	384	26-35	259
12 PM	5	19	71	172	113	12	0	0	0	0	0	0	0	0	392	26-35	285
13:00	4	25	83	150	127	24	4	0	0	0	0	0	0	0	417	26-35	277
14:00	31	103	165	181	70	11	0	0	0	0	0	0	0	0	561	21-30	346
15:00	4	36	122	210	98	15	1	0	0	0	0	0	0	0	486	21-30	332
16:00	6	37	129	205	95	11	0	0	0	0	0	0	0	0	483	21-30	334
17:00	4	17	73	199	138	24	0	0	0	0	0	0	0	0	455	26-35	337
18:00	2	14	54	133	125	17	2	1	0	0	0	0	0	0	348	26-35	258
19:00	1	12	27	87	65	7	0	0	0	0	0	0	0	0	199	26-35	152
20:00	0	9	28	72	44	6	0	0	0	0	0	0	0	0	159	26-35	116
21:00	3	9	20	34	42	10	1	0	0	0	0	0	0	0	119	26-35	76
22:00	1	3	10	31	31	10	0	0	0	0	0	0	0	0	86	26-35	62
23:00	0	1	4	11	14	2	2	0	0	0	0	0	0	0	34	26-35	25
Total	91	399	1324	2514	1697	255	14	2	0	0	0	0	0	0	6296		
Percent	1.4%	6.3%	21.0%	39.9%	27.0%	4.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	08:00	06:00	03:00	05:00								07:00	
Vol.	10	46	209	218	139	21	1	1							567		
PM Peak	14:00	14:00	14:00	15:00	17:00	13:00	13:00	18:00							14:00		
Vol.	31	103	165	210	138	24	4	1							561		

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
05/28/22	0	0	1	5	7	0	0	0	1	0	0	0	0	0	14	26-35	12
01:00	0	0	2	5	3	0	0	0	0	0	0	0	0	0	10	24-33	8
02:00	0	0	0	2	2	1	0	0	0	0	0	0	0	0	5	26-35	4
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
04:00	0	0	2	7	12	5	1	0	0	0	0	0	0	0	27	26-35	19
05:00	0	0	0	4	2	1	0	0	0	0	0	0	0	0	7	26-35	6
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	5	23	27	7	1	0	1	0	0	0	0	0	64		
Percent	0.0%	0.0%	7.8%	35.9%	42.2%	10.9%	1.6%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			01:00	04:00	04:00	04:00	04:00		00:00						04:00		
Vol.			2	7	12	5	1		1						27		
PM Peak																	
Vol.																	
Total	221	1244	4434	9070	6782	1069	87	3	1	0	0	0	0	0	22911		
Percent	1.0%	5.4%	19.4%	39.6%	29.6%	4.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 22 MPH
50th Percentile : 28 MPH
85th Percentile : 33 MPH
95th Percentile : 35 MPH

Stats
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 15852
Percent in Pace : 69.2%
Number of Vehicles > 40 MPH : 91
Percent of Vehicles > 40 MPH : 0.4%
Mean Speed(Average) : 28 MPH

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00	1	91	196	1	36	1	0	1	0	0	0	0	0	0	327
12 PM	1	70	217	0	42	2	0	3	0	0	0	0	0	0	335
13:00	2	90	214	16	69	2	0	7	0	0	0	0	0	0	400
14:00	3	121	290	13	60	4	0	4	0	0	0	0	0	0	495
15:00	2	94	416	6	96	5	1	6	1	0	0	0	0	0	627
16:00	4	99	459	4	113	5	0	2	0	0	0	0	0	0	686
17:00	3	31	461	2	81	8	1	10	0	0	0	0	0	0	597
18:00	3	24	355	2	73	4	0	4	0	0	0	0	0	0	465
19:00	3	24	302	2	62	1	0	1	0	0	0	0	0	0	395
20:00	0	6	203	0	27	0	0	2	0	0	0	0	0	0	238
21:00	1	10	93	1	19	0	0	0	0	0	0	0	0	0	124
22:00	1	1	45	0	8	0	0	1	0	0	0	0	0	0	56
23:00	0	0	16	0	2	0	0	0	0	0	0	0	0	0	18
Total	24	662	3267	47	688	32	2	41	1	0	0	0	0	0	4764
Percent	0.5%	13.9%	68.6%	1.0%	14.4%	0.7%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00		11:00							
Vol.	1	91	196	1	36	1		1							
PM Peak	16:00	14:00	17:00	13:00	16:00	17:00	15:00	17:00	15:00						
Vol.	4	121	461	16	113	8	1	10	1						

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	2	8	0	5	0	0	0	0	0	0	0	0	0	15
01:00	1	0	4	0	1	0	0	0	0	0	0	0	0	0	6
02:00	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
03:00	0	2	11	1	0	0	0	0	0	0	0	0	0	0	14
04:00	0	1	8	0	5	1	0	0	0	0	0	0	0	0	15
05:00	0	5	32	2	12	3	0	1	0	0	0	0	0	0	55
06:00	1	17	127	10	32	1	0	1	0	0	0	0	0	0	189
07:00	3	86	266	12	42	3	1	5	1	0	0	0	0	0	419
08:00	1	39	179	11	59	1	1	7	0	0	0	0	0	0	298
09:00	0	30	179	3	50	2	0	3	1	0	0	0	0	0	268
10:00	1	30	193	2	50	1	0	7	2	0	0	0	0	0	286
11:00	0	51	201	5	46	1	0	5	0	0	0	0	0	0	309
12 PM	0	49	260	2	64	3	1	4	0	0	0	0	0	0	383
13:00	5	44	264	11	73	2	1	5	0	0	0	0	0	0	405
14:00	4	103	306	12	61	2	0	3	0	0	0	0	0	0	491
15:00	6	63	364	9	98	2	0	11	0	0	0	0	0	0	553
16:00	5	109	461	3	99	5	0	7	0	0	0	0	0	0	689
17:00	3	88	396	3	82	6	0	2	0	0	0	0	0	0	580
18:00	2	48	312	1	71	3	0	2	0	0	0	0	0	0	439
19:00	0	19	282	0	65	0	0	3	0	0	0	0	0	0	369
20:00	0	7	181	1	26	1	0	3	0	0	0	0	0	0	219
21:00	0	5	110	1	19	0	0	2	0	0	0	0	0	0	137
22:00	0	3	74	0	8	0	0	2	0	0	0	0	0	0	87
23:00	0	2	27	0	10	0	0	0	0	0	0	0	0	0	39
Total	32	803	4252	89	978	37	4	73	4	0	0	0	0	0	6272
Percent	0.5%	12.8%	67.8%	1.4%	15.6%	0.6%	0.1%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	08:00	05:00	07:00	08:00	10:00						
Vol.	3	86	266	12	59	3	1	7	2						
PM Peak	15:00	16:00	16:00	14:00	16:00	17:00	12:00	15:00							
Vol.	6	109	461	12	99	6	1	11							

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	0	23	0	3	0	0	0	0	0	0	0	0	0	26
01:00	0	0	11	2	0	0	0	0	0	0	0	0	0	0	13
02:00	0	1	5	0	1	0	0	0	0	0	0	0	0	0	7
03:00	0	1	7	1	1	0	0	0	0	0	0	0	0	0	10
04:00	0	1	8	0	5	1	0	0	0	0	0	0	0	0	15
05:00	0	7	30	0	11	0	0	0	0	0	0	0	0	0	48
06:00	1	31	110	13	23	0	0	0	0	0	0	0	0	0	178
07:00	5	189	177	12	44	2	2	3	0	0	0	0	0	0	434
08:00	3	40	183	6	53	2	1	6	0	0	0	0	0	0	294
09:00	1	23	187	4	42	2	0	5	0	0	0	0	0	0	264
10:00	1	23	199	1	60	1	0	6	0	0	0	0	0	0	291
11:00	4	33	226	4	53	1	0	10	1	0	0	0	0	0	332
12 PM	0	42	225	6	73	2	0	3	0	0	0	0	0	0	351
13:00	3	51	262	14	62	1	0	6	0	0	0	0	0	0	399
14:00	2	72	305	6	68	5	1	12	1	0	0	0	0	0	472
15:00	1	84	376	8	89	3	2	8	0	0	0	0	0	0	571
16:00	3	104	453	6	112	4	2	14	0	1	0	0	0	0	699
17:00	5	66	406	3	73	4	1	6	0	0	0	0	0	0	564
18:00	3	31	384	0	66	2	0	7	0	0	0	0	0	0	493
19:00	0	15	312	1	58	1	0	4	0	0	0	0	0	0	391
20:00	3	9	209	0	29	2	1	2	0	0	0	0	0	0	255
21:00	1	8	102	0	18	0	0	0	1	0	0	0	0	0	130
22:00	2	5	61	0	6	1	0	1	0	0	0	0	0	0	76
23:00	0	2	28	0	8	0	0	0	0	0	0	0	0	0	38
Total	38	838	4289	87	958	34	10	93	3	1	0	0	0	0	6351
Percent	0.6%	13.2%	67.5%	1.4%	15.1%	0.5%	0.2%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	11:00	06:00	10:00	07:00	07:00	11:00	11:00						
Vol.	5	189	226	13	60	2	2	10	1						
PM Peak	17:00	16:00	16:00	13:00	16:00	14:00	15:00	16:00	14:00	16:00					
Vol.	5	104	453	14	112	5	2	14	1	1					

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	0	16	0	1	0	0	0	0	0	0	0	0	0	17
01:00	1	0	7	1	2	2	0	0	0	0	0	0	0	0	13
02:00	0	0	3	0	1	0	0	0	0	0	0	0	0	0	4
03:00	0	0	8	0	1	0	0	0	0	0	0	0	0	0	9
04:00	0	1	4	1	6	0	0	0	0	0	0	0	0	0	12
05:00	0	4	25	0	9	0	0	0	0	0	0	0	0	0	38
06:00	1	18	97	12	29	1	0	3	0	0	0	0	0	0	161
07:00	2	96	229	10	56	5	0	4	0	0	0	0	0	0	402
08:00	2	40	146	8	50	3	1	3	0	0	0	0	0	0	253
09:00	0	32	157	3	50	0	1	3	0	0	0	0	0	0	246
10:00	2	39	202	1	62	3	0	4	0	0	0	0	0	0	313
11:00	0	60	234	1	61	3	1	3	2	0	0	0	0	0	365
12 PM	3	83	276	5	58	3	0	6	1	0	0	0	0	0	435
13:00	1	72	306	11	91	1	0	7	1	0	0	0	0	0	490
14:00	4	119	305	14	64	2	1	5	2	0	0	0	0	0	516
15:00	0	103	371	6	94	2	0	8	0	0	0	0	0	0	584
16:00	0	134	374	5	74	2	0	8	0	0	0	0	0	0	597
17:00	3	61	380	3	72	2	0	8	0	0	0	0	0	0	529
18:00	0	57	310	0	56	0	0	8	0	0	0	0	0	0	431
19:00	0	38	224	0	49	0	0	3	0	0	0	0	0	0	314
20:00	0	23	186	0	31	0	0	0	0	0	0	0	0	0	240
21:00	0	10	118	0	20	0	0	1	0	0	0	0	0	0	149
22:00	0	12	78	0	10	0	0	1	0	0	0	0	0	0	101
23:00	0	4	35	0	13	0	0	0	0	0	0	0	0	0	52
Total	19	1006	4091	81	960	29	4	75	6	0	0	0	0	0	6271
Percent	0.3%	16.0%	65.2%	1.3%	15.3%	0.5%	0.1%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	11:00	06:00	10:00	07:00	08:00	07:00	11:00						
Vol.	2	96	234	12	62	5	1	4	2						
PM Peak	14:00	16:00	17:00	14:00	15:00	12:00	14:00	15:00	14:00						
Vol.	4	134	380	14	94	3	1	8	2						

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	77	0	0	0	0	0	0	0	0	0	0	0	0	77
11:00	1	253	40	0	10	6	0	2	0	0	0	0	0	0	312
12 PM	1	283	49	1	7	0	0	2	0	0	0	0	0	0	343
13:00	5	283	49	1	11	1	0	0	0	0	0	0	0	0	350
14:00	3	455	74	8	4	0	0	1	0	0	0	0	0	0	545
15:00	0	393	55	5	13	2	0	3	1	0	0	0	0	0	472
16:00	3	433	66	8	6	3	0	3	0	0	0	0	0	0	522
17:00	2	365	86	1	8	1	0	1	0	0	0	0	0	0	464
18:00	3	270	71	0	6	1	0	0	0	0	0	0	0	0	351
19:00	3	243	41	1	4	0	0	0	0	0	0	0	0	0	292
20:00	2	137	25	0	1	0	0	0	0	0	0	0	0	0	165
21:00	0	98	12	1	3	1	0	0	0	0	0	0	0	0	115
22:00	1	44	5	0	0	0	0	0	0	0	0	0	0	0	50
23:00	0	20	4	0	0	0	0	0	0	0	0	0	0	0	24
Total	24	3354	577	26	73	15	0	12	1	0	0	0	0	0	4082
Percent	0.6%	82.2%	14.1%	0.6%	1.8%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00		11:00	11:00		11:00							
Vol.	1	253	40		10	6		2							
PM Peak	13:00	14:00	17:00	14:00	15:00	16:00		15:00	15:00						
Vol.	5	455	86	8	13	3		3	1						

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 North of Route 1
 East Lyme, Connecticut

Site Code:
 Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	10	1	0	0	0	0	0	0	0	0	0	0	0	11
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	1	7	0	0	0	0	0	0	0	0	0	0	0	0	8
03:00	0	9	2	0	0	0	0	0	0	0	0	0	0	0	11
04:00	0	37	12	0	0	0	0	0	1	0	0	0	0	0	50
05:00	3	112	33	0	1	1	0	0	0	0	0	0	0	0	150
06:00	5	210	55	0	6	1	0	1	1	0	0	0	0	0	279
07:00	1	451	115	4	8	7	1	3	1	0	0	0	0	0	591
08:00	1	388	62	1	10	0	0	4	0	0	0	0	0	0	466
09:00	3	299	42	1	10	1	0	0	1	0	0	0	0	0	357
10:00	2	285	52	0	7	5	0	4	0	0	0	0	0	0	355
11:00	2	268	38	1	14	0	0	2	0	0	0	0	0	0	325
12 PM	1	282	63	1	15	1	1	0	0	0	0	0	0	0	364
13:00	2	268	55	1	17	0	1	6	0	0	0	0	0	0	350
14:00	2	371	57	14	8	5	2	1	1	0	0	0	0	0	461
15:00	2	378	36	2	13	2	0	1	0	0	0	0	0	0	434
16:00	3	372	60	4	10	1	0	1	0	0	0	0	0	0	451
17:00	8	439	56	1	7	2	0	3	0	0	0	0	0	0	516
18:00	2	319	30	0	4	0	0	1	0	0	0	0	0	0	356
19:00	4	217	43	0	5	0	0	0	0	0	0	0	0	0	269
20:00	0	132	24	0	5	0	0	0	0	0	0	0	0	0	161
21:00	2	92	14	1	1	1	0	0	0	0	0	0	0	0	111
22:00	0	62	6	0	0	0	0	1	0	0	0	0	0	0	69
23:00	0	27	8	0	0	0	0	0	0	0	0	0	0	0	35
Total	44	5038	864	31	141	27	5	28	5	0	0	0	0	0	6183
Percent	0.7%	81.5%	14.0%	0.5%	2.3%	0.4%	0.1%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	07:00	11:00	07:00	07:00	08:00	04:00						
Vol.	5	451	115	4	14	7	1	4	1						
PM Peak	17:00	17:00	12:00	14:00	13:00	14:00	14:00	13:00	14:00						
Vol.	8	439	63	14	17	5	2	6	1						

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 North of Route 1
 East Lyme, Connecticut

Site Code:
 Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	12	3	0	0	0	0	0	0	0	0	0	0	0	15
01:00	0	11	1	0	0	0	0	0	0	0	0	0	0	0	12
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	6	2	0	0	0	0	0	0	0	0	0	0	0	8
04:00	1	39	7	0	1	0	0	1	1	0	0	0	0	0	50
05:00	3	111	35	0	1	1	0	0	0	0	0	0	0	0	151
06:00	1	213	38	0	9	0	0	1	0	0	0	0	0	0	262
07:00	4	478	68	3	12	5	0	3	0	1	0	0	0	0	574
08:00	2	367	64	5	10	1	1	1	0	0	0	0	0	0	451
09:00	2	293	47	0	8	2	0	1	0	0	0	0	0	0	353
10:00	6	291	50	3	11	2	1	1	1	0	0	0	0	0	366
11:00	3	252	51	0	10	4	0	3	1	0	0	0	0	0	324
12 PM	2	305	58	0	17	2	0	4	0	0	0	0	0	0	388
13:00	7	304	48	0	7	3	1	4	1	0	0	0	0	0	375
14:00	5	426	61	10	11	2	1	2	0	0	0	0	0	0	518
15:00	1	393	58	5	6	2	1	2	0	1	0	0	0	0	469
16:00	2	385	54	5	11	5	0	2	0	0	0	0	0	0	464
17:00	5	376	46	1	5	0	1	1	0	0	0	0	0	0	435
18:00	6	273	59	0	4	1	0	0	0	0	0	0	0	0	343
19:00	3	229	42	1	3	1	0	1	0	0	0	0	0	0	280
20:00	1	214	27	0	1	0	0	0	0	0	0	0	0	0	243
21:00	1	81	15	0	2	1	0	0	0	0	0	0	0	0	100
22:00	1	50	7	0	0	0	0	0	0	0	0	0	0	0	58
23:00	0	24	3	0	0	1	0	0	0	0	0	0	0	0	28
Total	56	5141	845	33	129	33	6	27	4	2	0	0	0	0	6276
Percent	0.9%	81.9%	13.5%	0.5%	2.1%	0.5%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	08:00	07:00	07:00	08:00	07:00	04:00	07:00					
Vol.	6	478	68	5	12	5	1	3	1	1					
PM Peak	13:00	14:00	14:00	14:00	12:00	16:00	13:00	12:00	13:00	15:00					
Vol.	7	426	61	10	17	5	1	4	1	1					

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 North of Route 1
 East Lyme, Connecticut

Site Code:
 Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	9	1	0	1	0	0	0	0	0	0	0	0	0	11
01:00	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
04:00	1	29	8	0	1	0	0	0	0	0	0	0	0	0	39
05:00	1	85	25	0	0	2	0	1	0	0	0	0	0	0	114
06:00	0	199	59	1	9	0	0	0	0	0	0	0	0	0	268
07:00	5	448	90	4	11	4	0	4	1	0	0	0	0	0	567
08:00	0	414	57	2	11	2	1	1	0	0	0	1	0	0	489
09:00	2	273	44	2	5	2	2	0	0	0	0	0	0	0	330
10:00	3	270	56	1	2	4	2	2	0	0	0	0	0	0	340
11:00	2	314	54	0	9	2	0	0	2	0	0	0	0	0	383
12 PM	4	313	57	1	10	4	1	2	0	0	0	0	0	0	392
13:00	1	350	54	0	7	4	1	0	0	0	0	0	0	0	417
14:00	4	454	72	16	9	1	2	2	1	0	0	0	0	0	561
15:00	1	423	46	2	7	3	2	2	0	0	0	0	0	0	486
16:00	4	420	46	4	6	1	0	1	0	0	0	0	0	0	482
17:00	0	401	48	0	6	0	0	0	0	0	0	0	0	0	455
18:00	2	309	35	0	1	0	0	1	0	0	0	0	0	0	348
19:00	0	178	20	0	1	0	0	0	0	0	0	0	0	0	199
20:00	1	139	17	0	2	0	0	0	0	0	0	0	0	0	159
21:00	0	108	11	0	0	0	0	0	0	0	0	0	0	0	119
22:00	0	78	8	0	0	0	0	0	0	0	0	0	0	0	86
23:00	0	28	6	0	0	0	0	0	0	0	0	0	0	0	34
Total	31	5256	814	33	98	29	11	16	4	0	0	1	0	0	6293
Percent	0.5%	83.5%	12.9%	0.5%	1.6%	0.5%	0.2%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	09:00	07:00	11:00			08:00			
Vol.	5	448	90	4	11	4	2	4	2			1			
PM Peak	12:00	14:00	14:00	14:00	12:00	12:00	14:00	12:00	14:00						
Vol.	4	454	72	16	10	4	2	2	1						

Route 161 North of Route 1
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5661

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/31/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AM Peak Vol.															
PM Peak Vol.															
Grand Total	155	18852	3108	123	441	104	22	83	15	2	0	1	0	0	22906
Percent	0.7%	82.3%	13.6%	0.5%	1.9%	0.5%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Route 161 North of I-95 SB Ramps
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Start Time	23-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	*	*	*	*	12	17	10	18	16	18	13	18	18	29	29	42
01:00	*	*	*	*	9	9	12	16	12	13	11	13	18	19	22	32
02:00	*	*	*	*	10	9	12	9	9	6	10	8	14	16	14	14
03:00	*	*	*	*	14	14	8	14	5	11	9	13	6	14	10	20
04:00	*	*	*	*	15	31	16	53	13	40	15	41	14	36	10	30
05:00	*	*	*	*	77	145	69	149	58	134	68	143	48	66	26	52
06:00	*	*	*	*	208	285	191	269	199	265	199	273	100	144	62	100
07:00	*	*	*	*	521	641	486	625	465	625	491	630	203	313	151	227
08:00	*	*	*	*	438	626	456	620	429	668	441	638	302	422	276	380
09:00	*	*	*	*	455	601	387	574	432	670	425	615	428	714	321	536
10:00	*	*	237	284	447	602	489	675	498	708	418	567	587	798	439	679
11:00	*	*	546	621	503	620	479	668	538	706	516	654	604	807	486	733
12:00 PM	*	*	511	653	546	656	491	714	618	761	542	696	586	806	495	672
01:00	*	*	567	566	520	624	520	653	617	817	556	665	574	658	470	629
02:00	*	*	838	609	540	724	555	744	612	807	636	721	544	652	440	614
03:00	*	*	733	687	585	735	603	740	647	820	642	746	508	611	449	531
04:00	*	*	740	757	643	787	662	768	665	851	678	791	477	554	464	513
05:00	*	*	616	719	574	757	551	680	569	702	578	714	474	494	412	450
06:00	*	*	510	517	497	544	482	509	465	555	488	531	351	393	409	372
07:00	*	*	392	379	380	429	376	410	374	406	380	406	271	307	298	270
08:00	*	*	247	254	221	241	271	304	226	256	241	264	193	248	270	272
09:00	*	*	114	141	129	153	135	157	189	179	142	158	170	188	163	169
10:00	*	*	73	68	80	73	65	89	89	115	77	86	107	142	75	90
11:00	*	*	19	46	30	47	32	40	51	67	33	50	73	80	51	77
Total	0	0	6143	6301	7454	9370	7358	9498	7796	10200	7609	9441	6670	8511	5842	7504
Day	0		12444		16824		16856		17996		17050		15181		13346	
AM Peak	-	-	11:00	11:00	07:00	07:00	10:00	10:00	11:00	10:00	11:00	11:00	11:00	11:00	11:00	11:00
Vol.	-	-	546	621	521	641	489	675	538	708	516	654	604	807	486	733
PM Peak	-	-	14:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	12:00	12:00	12:00	12:00
Vol.	-	-	838	757	643	787	662	768	665	851	678	791	586	806	495	672

Route 161 North of I-95 SB Ramps
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Start Time	30-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	18	32	14	19	*	*	*	*	*	*	16	26	*	*	*	*
01:00	18	19	4	12	*	*	*	*	*	*	11	16	*	*	*	*
02:00	13	13	10	5	*	*	*	*	*	*	12	9	*	*	*	*
03:00	7	9	7	10	*	*	*	*	*	*	7	10	*	*	*	*
04:00	14	18	19	36	*	*	*	*	*	*	16	27	*	*	*	*
05:00	36	73	58	152	*	*	*	*	*	*	47	112	*	*	*	*
06:00	73	116	215	289	*	*	*	*	*	*	144	202	*	*	*	*
07:00	150	214	467	615	*	*	*	*	*	*	308	414	*	*	*	*
08:00	239	366	424	603	*	*	*	*	*	*	332	484	*	*	*	*
09:00	298	516	449	646	*	*	*	*	*	*	374	581	*	*	*	*
10:00	373	588	475	685	*	*	*	*	*	*	424	636	*	*	*	*
11:00	467	786	544	685	*	*	*	*	*	*	506	736	*	*	*	*
12:00 PM	448	871	540	724	*	*	*	*	*	*	494	798	*	*	*	*
01:00	472	726	509	673	*	*	*	*	*	*	490	700	*	*	*	*
02:00	584	526	622	761	*	*	*	*	*	*	603	644	*	*	*	*
03:00	931	412	614	744	*	*	*	*	*	*	772	578	*	*	*	*
04:00	831	381	683	772	*	*	*	*	*	*	757	576	*	*	*	*
05:00	548	379	688	715	*	*	*	*	*	*	618	547	*	*	*	*
06:00	390	331	517	545	*	*	*	*	*	*	454	438	*	*	*	*
07:00	359	316	377	454	*	*	*	*	*	*	368	385	*	*	*	*
08:00	245	221	200	260	*	*	*	*	*	*	222	240	*	*	*	*
09:00	117	139	*	*	*	*	*	*	*	*	117	139	*	*	*	*
10:00	50	66	*	*	*	*	*	*	*	*	50	66	*	*	*	*
11:00	29	30	*	*	*	*	*	*	*	*	29	30	*	*	*	*
Total	6710	7148	7436	9405	0	0	0	0	0	0	7171	8394	0	0	0	0
Day	13858		16841		0		0		0		15565		0		0	
AM Peak	11:00	11:00	11:00	10:00	-	-	-	-	-	-	11:00	11:00	-	-	-	-
Vol.	467	786	544	685	-	-	-	-	-	-	506	736	-	-	-	-
PM Peak	15:00	12:00	17:00	16:00	-	-	-	-	-	-	15:00	12:00	-	-	-	-
Vol.	931	871	688	772	-	-	-	-	-	-	772	798	-	-	-	-

Comb. Total	13858	29285	16824	16856	17996	32615	15181	13346
ADT	ADT 16,384	AADT 16,384						

Route 161 North of I-95 SB Ramps
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	3	6	26	48	73	63	14	4	0	0	0	0	0	0	237	31-40	136
11:00	1	16	21	75	176	194	57	5	1	0	0	0	0	0	546	31-40	370
12 PM	0	8	19	53	139	185	85	16	3	3	0	0	0	0	511	31-40	324
13:00	1	14	32	72	113	188	105	34	8	0	0	0	0	0	567	31-40	301
14:00	70	170	136	148	161	91	48	10	3	1	0	0	0	0	838	26-35	309
15:00	12	19	39	60	180	232	143	38	7	2	1	0	0	0	733	31-40	412
16:00	1	7	27	37	176	285	148	53	4	0	2	0	0	0	740	31-40	461
17:00	1	3	17	35	113	227	164	42	12	2	0	0	0	0	616	36-45	391
18:00	0	4	6	12	79	163	149	79	16	2	0	0	0	0	510	36-45	312
19:00	0	1	1	11	58	125	129	49	14	4	0	0	0	0	392	36-45	254
20:00	0	0	1	4	26	80	86	37	9	4	0	0	0	0	247	36-45	166
21:00	0	0	0	2	8	25	48	27	3	1	0	0	0	0	114	41-50	75
22:00	0	0	0	0	12	29	18	11	1	2	0	0	0	0	73	36-45	47
23:00	0	0	1	2	3	4	5	4	0	0	0	0	0	0	19	41-50	9
Total	89	248	326	559	1317	1891	1199	409	81	21	3	0	0	0	6143		
Percent	1.4%	4.0%	5.3%	9.1%	21.4%	30.8%	19.5%	6.7%	1.3%	0.3%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	10:00	11:00	11:00	11:00	11:00	11:00	11:00						11:00		
Vol.	3	16	26	75	176	194	57	5	1						546		
PM Peak	14:00	14:00	14:00	14:00	15:00	16:00	17:00	18:00	18:00	19:00	16:00				14:00		
Vol.	70	170	136	148	180	285	164	79	16	4	2				838		

Route 161 North of I-95 SB Ramps
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/25/22	0	0	0	0	1	3	5	2	1	0	0	0	0	0	12	36-45	8
01:00	0	0	0	0	2	2	1	1	3	0	0	0	0	0	9	46-55	4
02:00	0	0	0	1	1	3	5	0	0	0	0	0	0	0	10	36-45	8
03:00	0	0	0	1	0	2	3	1	6	1	0	0	0	0	14	51-60	7
04:00	0	0	1	1	1	6	2	1	3	0	0	0	0	0	15	36-45	8
05:00	0	0	0	1	7	23	27	12	6	0	1	0	0	0	77	36-45	50
06:00	0	0	0	2	20	59	70	40	14	3	0	0	0	0	208	36-45	129
07:00	2	0	0	21	60	172	169	64	28	5	0	0	0	0	521	36-45	341
08:00	2	3	14	25	74	139	117	51	11	2	0	0	0	0	438	36-45	256
09:00	0	3	14	28	100	161	106	33	8	2	0	0	0	0	455	36-45	267
10:00	0	8	17	36	111	153	88	32	2	0	0	0	0	0	447	31-40	264
11:00	2	10	12	45	126	173	96	30	9	0	0	0	0	0	503	31-40	299
12 PM	2	14	26	50	163	166	91	28	6	0	0	0	0	0	546	31-40	329
13:00	5	11	19	33	211	132	84	19	6	0	0	0	0	0	520	31-40	343
14:00	0	0	0	0	540	0	0	0	0	0	0	0	0	0	540	26-35	540
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	13	49	103	244	1417	1194	864	314	103	13	1	0	0	0	4315		
Percent	0.3%	1.1%	2.4%	5.7%	32.8%	27.7%	20.0%	7.3%	2.4%	0.3%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	10:00	11:00	11:00	11:00	07:00	07:00	07:00	07:00	05:00						07:00
Vol.	2	10	17	45	126	173	169	64	28	5	1						521
PM Peak	13:00	12:00	12:00	12:00	14:00	12:00	12:00	12:00	12:00								12:00
Vol.	5	14	26	50	540	166	91	28	6								546
Total	102	297	429	803	2734	3085	2063	723	184	34	4	0	0	0	10458		
Percent	1.0%	2.8%	4.1%	7.7%	26.1%	29.5%	19.7%	6.9%	1.8%	0.3%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 29 MPH
 50th Percentile : 36 MPH
 85th Percentile : 43 MPH
 95th Percentile : 47 MPH

Stats
 10 MPH Pace Speed : 31-40 MPH
 Number in Pace : 5819
 Percent in Pace : 55.6%
 Number of Vehicles > 40 MPH : 3008
 Percent of Vehicles > 40 MPH : 28.8%
 Mean Speed(Average) : 36 MPH

Route 161 North of I-95 SB Ramps
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	1	5	10	51	98	74	37	7	1	0	0	0	0	0	284	31-40	172
11:00	2	7	38	109	211	168	62	21	1	2	0	0	0	0	621	31-40	379
12 PM	2	8	33	123	239	159	69	14	5	1	0	0	0	0	653	31-40	398
13:00	4	5	28	81	213	168	50	17	0	0	0	0	0	0	566	31-40	381
14:00	46	127	54	117	157	73	30	4	1	0	0	0	0	0	609	26-35	274
15:00	9	26	72	159	239	126	45	7	4	0	0	0	0	0	687	26-35	398
16:00	7	22	68	213	239	160	44	3	1	0	0	0	0	0	757	26-35	452
17:00	3	12	47	133	216	210	71	21	5	1	0	0	0	0	719	31-40	426
18:00	1	6	12	53	140	190	80	29	6	0	0	0	0	0	517	31-40	330
19:00	0	2	3	31	108	137	70	23	3	2	0	0	0	0	379	31-40	245
20:00	0	0	2	23	74	89	47	10	6	2	1	0	0	0	254	31-40	163
21:00	0	1	2	6	28	53	34	16	1	0	0	0	0	0	141	36-45	87
22:00	0	0	1	4	12	27	18	4	1	1	0	0	0	0	68	36-45	45
23:00	0	2	3	4	6	17	10	4	0	0	0	0	0	0	46	36-45	27
Total	75	223	373	1107	1980	1651	667	180	35	9	1	0	0	0	6301		
Percent	1.2%	3.5%	5.9%	17.6%	31.4%	26.2%	10.6%	2.9%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	10:00	11:00					11:00		
Vol.	2	7	38	109	211	168	62	21	1	2					621		
PM Peak	14:00	14:00	15:00	16:00	12:00	17:00	18:00	18:00	18:00	19:00	20:00				16:00		
Vol.	46	127	72	213	239	210	80	29	6	2	1				757		

Route 161 North of I-95 SB Ramps
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/25/22	0	0	0	1	2	6	5	2	0	0	1	0	0	0	17	36-45	11
01:00	0	0	0	1	0	7	1	0	0	0	0	0	0	0	9	34-43	8
02:00	0	0	0	0	0	6	2	1	0	0	0	0	0	0	9	36-45	8
03:00	0	0	0	0	5	4	5	0	0	0	0	0	0	0	14	31-40	9
04:00	0	0	0	1	8	10	10	2	0	0	0	0	0	0	31	36-45	20
05:00	0	0	0	0	20	53	44	20	7	1	0	0	0	0	145	36-45	97
06:00	0	0	1	10	38	113	82	33	4	4	0	0	0	0	285	36-45	195
07:00	1	1	11	76	172	200	133	39	8	0	0	0	0	0	641	31-40	372
08:00	0	1	17	73	174	206	116	33	4	2	0	0	0	0	626	31-40	380
09:00	2	11	28	69	192	191	85	19	3	1	0	0	0	0	601	31-40	383
10:00	2	12	40	83	223	170	62	9	1	0	0	0	0	0	602	31-40	393
11:00	2	9	35	94	241	179	51	7	2	0	0	0	0	0	620	31-40	420
12 PM	4	7	38	122	228	177	69	7	4	0	0	0	0	0	656	31-40	405
13:00	2	15	47	113	233	155	42	13	3	0	1	0	0	0	624	31-40	388
14:00	6	21	73	149	234	168	62	11	0	0	0	0	0	0	724	31-40	402
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	19	77	290	792	1770	1645	769	196	36	8	2	0	0	0	5604		
Percent	0.3%	1.4%	5.2%	14.1%	31.6%	29.4%	13.7%	3.5%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	10:00	11:00	11:00	08:00	07:00	07:00	07:00	06:00	00:00						07:00
Vol.	2	12	40	94	241	206	133	39	8	4	1				641		
PM Peak	14:00	14:00	14:00	14:00	14:00	12:00	12:00	13:00	12:00		13:00						14:00
Vol.	6	21	73	149	234	177	69	13	4		1				724		
Total	94	300	663	1899	3750	3296	1436	376	71	17	3	0	0	0	11905		
Percent	0.8%	2.5%	5.6%	16.0%	31.5%	27.7%	12.1%	3.2%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 26 MPH
50th Percentile : 33 MPH
85th Percentile : 40 MPH
95th Percentile : 44 MPH

Stats
10 MPH Pace Speed : 31-40 MPH
Number in Pace : 7046
Percent in Pace : 59.2%
Number of Vehicles > 40 MPH : 1903
Percent of Vehicles > 40 MPH : 16.0%
Mean Speed(Average) : 34 MPH

Route 161 North of I-95 SB Ramps
Old Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	180	42	1	11	0	0	3	0	0	0	0	0	0	237
11:00	4	391	112	2	36	1	0	0	0	0	0	0	0	0	546
12 PM	3	326	130	2	42	1	0	5	1	1	0	0	0	0	511
13:00	5	281	192	17	63	2	0	7	0	0	0	0	0	0	567
14:00	10	560	200	8	54	2	0	4	0	0	0	0	0	0	838
15:00	1	358	281	6	80	0	0	6	1	0	0	0	0	0	733
16:00	7	326	304	4	76	1	1	19	0	2	0	0	0	0	740
17:00	5	299	237	2	55	4	1	12	0	0	0	1	0	0	616
18:00	1	230	214	0	55	1	0	9	0	0	0	0	0	0	510
19:00	4	159	187	0	38	0	0	4	0	0	0	0	0	0	392
20:00	1	103	118	0	22	0	0	2	0	0	0	0	0	0	246
21:00	0	43	61	0	10	0	0	0	0	0	0	0	0	0	114
22:00	1	36	30	0	6	0	0	0	0	0	0	0	0	0	73
23:00	0	10	6	0	2	1	0	0	0	0	0	0	0	0	19
Total	42	3302	2114	42	550	13	2	71	2	3	0	1	0	0	6142
Percent	0.7%	53.8%	34.4%	0.7%	9.0%	0.2%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00		10:00							
Vol.	4	391	112	2	36	1		3							
PM Peak	14:00	14:00	16:00	13:00	15:00	17:00	16:00	16:00	12:00	16:00		17:00			
Vol.	10	560	304	17	80	4	1	19	1	2		1			

Route 161 North of I-95 SB Ramps
Old Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	7	5	0	0	0	0	0	0	0	0	0	0	0	12
01:00	0	2	3	1	2	0	0	1	0	0	0	0	0	0	9
02:00	0	8	2	0	0	0	0	0	0	0	0	0	0	0	10
03:00	1	5	6	0	2	0	0	0	0	0	0	0	0	0	14
04:00	0	8	3	1	2	0	0	1	0	0	0	0	0	0	15
05:00	0	26	30	3	14	1	0	2	1	0	0	0	0	0	77
06:00	1	80	87	10	28	0	0	2	0	0	0	0	0	0	208
07:00	6	222	231	9	39	2	2	10	0	0	0	0	0	0	521
08:00	5	171	187	7	59	3	1	5	0	0	0	0	0	0	438
09:00	8	191	198	0	51	0	0	5	1	0	0	0	0	0	454
10:00	11	199	171	1	52	0	0	11	1	0	1	0	0	0	447
11:00	7	222	201	1	61	2	0	9	0	0	0	0	0	0	503
12 PM	4	269	203	1	57	4	1	6	0	0	0	0	0	0	545
13:00	3	193	168	1	43	0	2	5	1	0	0	0	0	0	416
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	46	1604	1495	35	410	12	6	57	4	0	1	0	0	0	3670
Percent	1.3%	43.7%	40.7%	1.0%	11.2%	0.3%	0.2%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	06:00	11:00	08:00	07:00	10:00	05:00		10:00				
Vol.	11	222	231	10	61	3	2	11	1		1				
PM Peak	12:00	12:00	12:00	12:00	12:00	12:00	13:00	12:00	13:00						
Vol.	4	269	203	1	57	4	2	6	1						

Route 161 North of I-95 SB Ramps
Old Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	1	197	61	3	18	0	0	1	0	0	0	0	0	0	281
11:00	1	415	145	2	51	1	0	6	0	0	0	0	0	0	621
12 PM	2	438	163	1	40	1	0	8	0	0	0	0	0	0	653
13:00	1	393	121	3	42	0	0	5	1	0	0	0	0	0	566
14:00	11	463	103	6	23	1	0	2	0	0	0	0	0	0	609
15:00	1	494	139	7	39	1	0	6	0	0	0	0	0	0	687
16:00	2	536	160	10	39	1	0	7	1	0	1	0	0	0	757
17:00	2	520	157	2	36	1	0	1	0	0	0	0	0	0	719
18:00	2	361	117	1	34	0	0	2	0	0	0	0	0	0	517
19:00	2	272	81	1	22	0	0	0	0	1	0	0	0	0	379
20:00	6	170	65	0	13	0	0	0	0	0	0	0	0	0	254
21:00	0	91	36	1	11	1	0	1	0	0	0	0	0	0	141
22:00	1	48	18	0	1	0	0	0	0	0	0	0	0	0	68
23:00	0	23	12	0	9	2	0	0	0	0	0	0	0	0	46
Total	32	4421	1378	37	378	9	0	39	2	1	1	0	0	0	6298
Percent	0.5%	70.2%	21.9%	0.6%	6.0%	0.1%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	10:00	11:00	11:00		11:00							
Vol.	1	415	145	3	51	1		6							
PM Peak	14:00	16:00	12:00	16:00	13:00	23:00		12:00	13:00	19:00	16:00				
Vol.	11	536	163	10	42	2		8	1	1	1				

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 North of I-95 SB Ramps
 Old Lyme, Connecticut

Site Code:
 Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	1	11	4	0	1	0	0	0	0	0	0	0	0	0	17
01:00	1	4	3	1	0	0	0	0	0	0	0	0	0	0	9
02:00	0	6	2	0	1	0	0	0	0	0	0	0	0	0	9
03:00	0	11	2	0	1	0	0	0	0	0	0	0	0	0	14
04:00	0	17	6	2	5	1	0	0	0	0	0	0	0	0	31
05:00	0	76	34	1	30	1	0	3	0	0	0	0	0	0	145
06:00	1	159	80	2	37	1	0	4	1	0	0	0	0	0	285
07:00	4	422	141	11	53	4	0	5	1	0	0	0	0	0	641
08:00	4	401	162	9	47	0	0	3	0	0	0	0	0	0	626
09:00	3	383	152	3	54	1	0	3	1	1	0	0	0	0	601
10:00	3	405	143	2	40	3	0	5	1	0	0	0	0	0	602
11:00	1	434	115	5	56	0	1	7	0	1	0	0	0	0	620
12 PM	3	442	144	2	58	1	1	5	0	0	0	0	0	0	656
13:00	6	428	138	0	44	1	0	6	0	0	0	1	0	0	624
14:00	2	503	152	16	46	1	0	4	0	0	0	0	0	0	724
15:00	7	515	159	6	42	0	0	6	0	0	0	0	0	0	735
16:00	7	559	159	5	49	2	0	5	1	0	0	0	0	0	787
17:00	6	533	179	1	34	0	0	4	0	0	0	0	0	0	757
18:00	4	374	129	1	31	0	0	5	0	0	0	0	0	0	544
19:00	3	286	112	0	26	0	0	2	0	0	0	0	0	0	429
20:00	0	169	48	0	24	0	0	0	0	0	0	0	0	0	241
21:00	2	104	36	1	7	1	0	2	0	0	0	0	0	0	153
22:00	0	48	19	0	6	0	0	0	0	0	0	0	0	0	73
23:00	0	31	10	0	5	0	0	1	0	0	0	0	0	0	47
Total	58	6321	2129	68	697	17	2	70	5	2	0	1	0	0	9370
Percent	0.6%	67.5%	22.7%	0.7%	7.4%	0.2%	0.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	08:00	07:00	11:00	07:00	11:00	11:00	06:00	09:00					
Vol.	4	434	162	11	56	4	1	7	1	1					
PM Peak	15:00	16:00	17:00	14:00	12:00	16:00	12:00	13:00	16:00			13:00			
Vol.	7	559	179	16	58	2	1	6	1			1			

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 North of I-95 SB Ramps
 Old Lyme, Connecticut

Site Code:
 Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	13	3	0	2	0	0	0	0	0	0	0	0	0	18
01:00	0	12	2	0	2	0	0	0	0	0	0	0	0	0	16
02:00	0	7	0	1	1	0	0	0	0	0	0	0	0	0	9
03:00	0	10	3	0	1	0	0	0	0	0	0	0	0	0	14
04:00	3	36	6	0	6	2	0	0	0	0	0	0	0	0	53
05:00	1	84	36	0	24	2	0	2	0	0	0	0	0	0	149
06:00	1	162	75	2	26	0	1	2	0	0	0	0	0	0	269
07:00	2	406	150	15	44	0	0	7	1	0	0	0	0	0	625
08:00	2	394	151	10	52	1	1	9	0	0	0	0	0	0	620
09:00	3	364	143	8	48	2	0	6	0	0	0	0	0	0	574
10:00	8	462	140	4	51	3	0	7	0	0	0	0	0	0	675
11:00	3	448	155	3	44	3	0	11	1	0	0	0	0	0	668
12 PM	5	508	144	1	46	3	1	4	0	1	1	0	0	0	714
13:00	6	453	142	2	43	4	1	2	0	0	0	0	0	0	653
14:00	4	532	149	13	36	2	0	7	0	0	1	0	0	0	744
15:00	4	525	154	5	42	2	0	6	1	1	0	0	0	0	740
16:00	8	565	142	6	40	3	0	4	0	0	0	0	0	0	768
17:00	10	490	141	2	33	1	0	2	0	1	0	0	0	0	680
18:00	2	348	134	0	22	1	0	2	0	0	0	0	0	0	509
19:00	1	291	92	1	21	1	0	3	0	0	0	0	0	0	410
20:00	1	210	69	0	22	0	1	1	0	0	0	0	0	0	304
21:00	2	104	37	0	14	0	0	0	0	0	0	0	0	0	157
22:00	0	69	14	0	6	0	0	0	0	0	0	0	0	0	89
23:00	1	25	11	0	2	1	0	0	0	0	0	0	0	0	40
Total	67	6518	2093	73	628	31	5	75	3	3	2	0	0	0	9498
Percent	0.7%	68.6%	22.0%	0.8%	6.6%	0.3%	0.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	10:00	11:00	07:00	08:00	10:00	06:00	11:00	07:00						
Vol.	8	462	155	15	52	3	1	11	1						
PM Peak	17:00	16:00	15:00	14:00	12:00	13:00	12:00	14:00	15:00	12:00	12:00				
Vol.	10	565	154	13	46	4	1	7	1	1	1				

Route 161 North of I-95 SB Ramps
Old Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	12	2	0	4	0	0	0	0	0	0	0	0	0	18
01:00	1	7	3	1	1	0	0	0	0	0	0	0	0	0	13
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	8	3	0	0	0	0	0	0	0	0	0	0	0	11
04:00	1	25	3	0	10	0	0	1	0	0	0	0	0	0	40
05:00	2	69	28	1	31	2	0	1	0	0	0	0	0	0	134
06:00	1	152	80	1	29	0	0	2	0	0	0	0	0	0	265
07:00	3	404	135	16	58	1	0	7	1	0	0	0	0	0	625
08:00	4	426	167	13	49	3	1	5	0	0	0	0	0	0	668
09:00	2	434	173	6	49	1	1	3	1	0	0	0	0	0	670
10:00	4	496	152	2	47	1	1	4	1	0	0	0	0	0	708
11:00	2	480	153	4	54	1	0	11	1	0	0	0	0	0	706
12 PM	5	529	160	2	58	4	0	3	0	0	0	0	0	0	761
13:00	3	556	184	5	59	1	1	7	1	0	0	0	0	0	817
14:00	6	590	142	8	47	4	1	5	4	0	0	0	0	0	807
15:00	4	614	143	7	45	2	0	5	0	0	0	0	0	0	820
16:00	5	659	152	8	22	0	0	4	0	0	0	0	0	0	850
17:00	3	519	139	1	38	0	0	2	0	0	0	0	0	0	702
18:00	4	385	131	0	32	0	0	3	0	0	0	0	0	0	555
19:00	2	294	90	0	20	0	0	0	0	0	0	0	0	0	406
20:00	1	180	62	0	12	0	0	1	0	0	0	0	0	0	256
21:00	0	129	34	0	16	0	0	0	0	0	0	0	0	0	179
22:00	1	77	26	0	11	0	0	0	0	0	0	0	0	0	115
23:00	0	44	16	0	7	0	0	0	0	0	0	0	0	0	67
Total	54	7095	2178	75	699	20	5	64	9	0	0	0	0	0	10199
Percent	0.5%	69.6%	21.4%	0.7%	6.9%	0.2%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	10:00	09:00	07:00	07:00	08:00	08:00	11:00	07:00						
Vol.	4	496	173	16	58	3	1	11	1						
PM Peak	14:00	16:00	13:00	14:00	13:00	12:00	13:00	13:00	14:00						
Vol.	6	659	184	8	59	4	1	7	4						

Route 161 North of I-95 SB Ramps
Old Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/28/22	0	22	5	0	2	0	0	0	0	0	0	0	0	0	29
01:00	0	14	3	0	2	0	0	0	0	0	0	0	0	0	19
02:00	0	11	2	1	1	0	0	0	1	0	0	0	0	0	16
03:00	0	11	3	0	0	0	0	0	0	0	0	0	0	0	14
04:00	1	19	8	1	6	1	0	0	0	0	0	0	0	0	36
05:00	0	39	14	1	11	0	0	1	0	0	0	0	0	0	66
06:00	0	92	33	1	18	0	0	0	0	0	0	0	0	0	144
07:00	0	196	91	0	24	0	0	2	0	0	0	0	0	0	313
08:00	0	287	106	0	26	0	0	2	1	0	0	0	0	0	422
09:00	3	492	162	3	47	1	0	4	1	0	0	0	0	0	713
10:00	1	595	151	0	48	0	0	1	1	1	0	0	0	0	798
11:00	5	607	144	1	45	2	0	3	0	0	0	0	0	0	807
12 PM	8	608	146	1	42	0	0	0	0	0	0	0	0	0	805
13:00	2	474	144	1	34	1	0	1	1	0	0	0	0	0	658
14:00	2	480	128	2	33	1	0	5	0	1	0	0	0	0	652
15:00	5	434	134	0	31	1	0	5	0	1	0	0	0	0	611
16:00	2	404	117	1	28	0	0	2	0	0	0	0	0	0	554
17:00	0	354	98	0	39	0	0	3	0	0	0	0	0	0	494
18:00	2	279	85	0	25	0	0	2	0	0	0	0	0	0	393
19:00	0	209	70	0	27	0	0	1	0	0	0	0	0	0	307
20:00	0	183	50	0	15	0	0	0	0	0	0	0	0	0	248
21:00	1	140	33	0	13	0	0	1	0	0	0	0	0	0	188
22:00	0	107	26	0	8	0	0	1	0	0	0	0	0	0	142
23:00	0	59	10	0	11	0	0	0	0	0	0	0	0	0	80
Total	32	6116	1763	13	536	7	0	34	5	3	0	0	0	0	8509
Percent	0.4%	71.9%	20.7%	0.2%	6.3%	0.1%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	09:00	09:00	10:00	11:00		09:00	02:00	10:00					
Vol.	5	607	162	3	48	2		4	1	1					
PM Peak	12:00	12:00	12:00	14:00	12:00	13:00		14:00	13:00	14:00					
Vol.	8	608	146	2	42	1		5	1	1					

Route 161 North of I-95 SB Ramps
Old Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/29/22	1	22	13	1	5	0	0	0	0	0	0	0	0	0	42
01:00	0	17	10	1	4	0	0	0	0	0	0	0	0	0	32
02:00	0	12	2	0	0	0	0	0	0	0	0	0	0	0	14
03:00	2	12	4	0	2	0	0	0	0	0	0	0	0	0	20
04:00	1	19	5	0	4	0	0	1	0	0	0	0	0	0	30
05:00	1	27	9	0	12	0	0	3	0	0	0	0	0	0	52
06:00	0	63	21	0	13	0	0	3	0	0	0	0	0	0	100
07:00	4	127	61	0	30	2	0	3	0	0	0	0	0	0	227
08:00	2	244	95	0	34	0	0	5	0	0	0	0	0	0	380
09:00	4	361	124	1	42	0	0	4	0	0	0	0	0	0	536
10:00	10	482	155	0	26	1	0	4	1	0	0	0	0	0	679
11:00	21	521	150	1	36	1	0	2	0	0	0	1	0	0	733
12 PM	13	477	146	0	33	0	0	3	0	0	0	0	0	0	672
13:00	15	457	128	0	27	0	0	2	0	0	0	0	0	0	629
14:00	7	431	144	0	29	0	0	3	0	0	0	0	0	0	614
15:00	10	377	117	0	22	0	0	5	0	0	0	0	0	0	531
16:00	10	365	106	0	26	0	0	6	0	0	0	0	0	0	513
17:00	10	304	108	0	23	0	0	5	0	0	0	0	0	0	450
18:00	0	261	87	1	20	0	0	3	0	0	0	0	0	0	372
19:00	7	178	75	0	10	0	0	0	0	0	0	0	0	0	270
20:00	3	195	54	1	17	0	1	1	0	0	0	0	0	0	272
21:00	3	129	31	0	6	0	0	0	0	0	0	0	0	0	169
22:00	0	64	20	2	4	0	0	0	0	0	0	0	0	0	90
23:00	1	55	13	2	6	0	0	0	0	0	0	0	0	0	77
Total	125	5200	1678	10	431	4	1	53	1	0	0	1	0	0	7504
Percent	1.7%	69.3%	22.4%	0.1%	5.7%	0.1%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	00:00	09:00	07:00		08:00	10:00			11:00			
Vol.	21	521	155	1	42	2		5	1			1			
PM Peak	13:00	12:00	12:00	22:00	12:00		20:00	16:00							
Vol.	15	477	146	2	33		1	6							

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 North of I-95 SB Ramps
 Old Lyme, Connecticut

Site Code:
 Station ID: 5665

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/30/22	0	21	8	0	3	0	0	0	0	0	0	0	0	0	32
01:00	1	11	5	0	2	0	0	0	0	0	0	0	0	0	19
02:00	0	9	4	0	0	0	0	0	0	0	0	0	0	0	13
03:00	0	5	2	0	1	0	0	1	0	0	0	0	0	0	9
04:00	1	12	3	0	1	0	0	1	0	0	0	0	0	0	18
05:00	1	41	15	0	15	1	0	0	0	0	0	0	0	0	73
06:00	1	73	22	0	18	0	0	1	1	0	0	0	0	0	116
07:00	0	144	52	0	17	0	0	1	0	0	0	0	0	0	214
08:00	1	257	80	1	24	0	0	2	1	0	0	0	0	0	366
09:00	4	346	121	2	40	0	0	3	0	0	0	0	0	0	516
10:00	4	423	117	0	42	0	0	2	0	0	0	0	0	0	588
11:00	13	548	175	0	40	1	0	8	0	0	0	0	0	0	785
12 PM	16	595	195	3	48	1	0	13	0	0	0	0	0	0	871
13:00	13	486	178	1	40	0	0	8	0	0	0	0	0	0	726
14:00	12	344	133	0	31	1	0	5	0	0	0	0	0	0	526
15:00	8	289	100	1	12	0	0	2	0	0	0	0	0	0	412
16:00	6	259	91	0	24	0	0	1	0	0	0	0	0	0	381
17:00	7	257	90	0	19	0	0	6	0	0	0	0	0	0	379
18:00	3	216	92	0	18	1	0	1	0	0	0	0	0	0	331
19:00	4	202	87	0	23	0	0	0	0	0	0	0	0	0	316
20:00	2	156	49	1	12	0	0	1	0	0	0	0	0	0	221
21:00	2	90	36	0	11	0	0	0	0	0	0	0	0	0	139
22:00	0	53	8	0	5	0	0	0	0	0	0	0	0	0	66
23:00	0	24	3	0	3	0	0	0	0	0	0	0	0	0	30
Total	99	4861	1666	9	449	5	0	56	2	0	0	0	0	0	7147
Percent	1.4%	68.0%	23.3%	0.1%	6.3%	0.1%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	09:00	10:00	05:00		11:00	06:00						
Vol.	13	548	175	2	42	1		8	1						
PM Peak	12:00	12:00	12:00	12:00	12:00	12:00		12:00							
Vol.	16	595	195	3	48	1		13							

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Start Time	23-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	*	*	*	*	11	20	11	25	16	32	13	26	20	41	*	*
01:00	*	*	*	*	4	8	10	14	8	14	7	12	6	33	*	*
02:00	*	*	*	*	6	6	9	9	15	10	10	8	0	27	*	*
03:00	*	*	*	*	20	7	12	10	10	8	14	8	0	25	*	*
04:00	*	*	*	*	24	29	21	23	19	20	21	24	0	42	*	*
05:00	*	*	*	*	127	102	116	89	116	83	120	91	0	109	*	*
06:00	*	*	*	*	337	195	332	194	311	188	327	192	0	223	*	*
07:00	*	*	*	*	635	447	644	428	608	426	629	434	0	455	*	*
08:00	*	*	*	*	620	519	623	539	629	550	624	536	1	692	*	*
09:00	*	*	*	*	568	561	564	542	622	582	585	562	2	982	*	*
10:00	*	*	*	*	526	580	619	576	639	632	595	596	2	1116	*	*
11:00	*	*	207	192	623	594	634	672	668	716	533	544	2	1086	*	*
12:00 PM	*	*	611	618	630	637	611	705	680	747	633	677	591	801	*	*
01:00	*	*	619	602	587	607	695	666	749	795	662	668	657	678	*	*
02:00	*	*	654	804	715	712	745	710	770	862	721	772	666	606	*	*
03:00	*	*	692	770	698	775	705	768	848	808	736	780	642	601	*	*
04:00	*	*	781	831	812	780	824	852	805	825	806	822	565	608	*	*
05:00	*	*	638	771	671	829	646	745	688	802	661	787	505	537	*	*
06:00	*	*	543	608	561	624	569	554	560	612	558	600	361	559	*	*
07:00	*	*	379	432	464	516	432	450	405	443	420	460	243	428	*	*
08:00	*	*	269	315	290	322	287	324	295	303	285	316	199	337	*	*
09:00	*	*	155	173	216	176	142	211	227	180	185	185	124	324	*	*
10:00	*	*	55	75	62	96	78	113	96	146	73	108	69	204	*	*
11:00	*	*	25	52	26	54	36	58	63	76	38	60	41	95	*	*
Total Day	0	0	5628	6243	9233	9196	9365	9277	9847	9860	9256	9268	4696	10609	0	0
AM Peak	-	-	11:00	11:00	07:00	11:00	07:00	11:00	11:00	11:00	07:00	10:00	00:00	10:00	-	-
Vol.	-	-	207	192	635	594	644	672	668	716	629	596	20	1116	-	-
PM Peak	-	-	16:00	16:00	16:00	17:00	16:00	16:00	15:00	14:00	16:00	16:00	14:00	12:00	-	-
Vol.	-	-	781	831	812	829	824	852	848	862	806	822	666	801	-	-

Comb. Total	0	11871	18429	18642	19707	18524	15305	0
ADT	ADT 18,926	AADT 18,926						

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	2	8	9	22	75	75	15	1	0	0	0	0	0	0	207	31-40	150
12 PM	0	15	21	42	134	239	134	24	2	0	0	0	0	0	611	31-40	373
13:00	2	14	25	24	113	243	169	25	4	0	0	0	0	0	619	36-45	412
14:00	0	20	35	30	131	265	144	29	0	0	0	0	0	0	654	36-45	409
15:00	5	20	31	53	167	250	134	29	3	0	0	0	0	0	692	31-40	417
16:00	1	13	13	46	163	295	206	38	4	2	0	0	0	0	781	36-45	501
17:00	0	11	11	8	106	247	198	50	6	1	0	0	0	0	638	36-45	445
18:00	0	3	9	6	47	178	234	54	12	0	0	0	0	0	543	36-45	412
19:00	0	4	2	4	27	145	153	39	4	1	0	0	0	0	379	36-45	298
20:00	0	3	1	3	30	113	93	24	1	1	0	0	0	0	269	36-45	206
21:00	2	5	5	8	33	43	40	14	5	0	0	0	0	0	155	36-45	83
22:00	0	0	0	5	21	20	7	2	0	0	0	0	0	0	55	31-40	41
23:00	0	1	1	3	2	7	4	4	3	0	0	0	0	0	25	36-45	11
Total	12	117	163	254	1049	2120	1531	333	44	5	0	0	0	0	5628		
Percent	0.2%	2.1%	2.9%	4.5%	18.6%	37.7%	27.2%	5.9%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00									11:00
Vol.	2	8	9	22	75	75	15	1							207		
PM Peak	15:00	14:00	14:00	15:00	15:00	16:00	18:00	18:00	18:00	16:00					16:00		
Vol.	5	20	35	53	167	295	234	54	12	2				781			

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/25/22	1	0	0	0	0	2	1	6	1	0	0	0	0	0	11	45-54	7
01:00	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4	30-39	2
02:00	0	0	0	0	1	3	2	0	0	0	0	0	0	0	6	34-43	5
03:00	0	0	0	0	0	3	8	6	2	1	0	0	0	0	20	41-50	14
04:00	0	0	1	1	1	7	6	6	1	1	0	0	0	0	24	36-45	13
05:00	1	7	3	0	4	24	51	29	7	1	0	0	0	0	127	41-50	80
06:00	0	30	9	4	20	88	133	46	5	2	0	0	0	0	337	36-45	221
07:00	2	36	19	27	98	209	185	57	2	0	0	0	0	0	635	36-45	394
08:00	1	41	16	34	110	236	137	38	7	0	0	0	0	0	620	36-45	373
09:00	2	27	18	29	114	233	115	29	1	0	0	0	0	0	568	34-43	348
10:00	3	17	9	21	92	237	123	23	1	0	0	0	0	0	526	36-45	360
11:00	4	20	24	43	158	233	115	22	4	0	0	0	0	0	623	31-40	391
12 PM	2	16	18	38	144	272	113	23	4	0	0	0	0	0	630	31-40	416
13:00	0	23	27	29	122	231	140	15	0	0	0	0	0	0	587	36-45	371
14:00	2	15	30	45	193	281	118	30	1	0	0	0	0	0	715	31-40	474
15:00	1	20	44	57	164	245	135	29	3	0	0	0	0	0	698	31-40	409
16:00	1	6	7	57	186	340	186	28	1	0	0	0	0	0	812	36-45	526
17:00	0	12	15	16	102	244	210	67	5	0	0	0	0	0	671	36-45	454
18:00	0	4	7	11	47	208	213	61	8	2	0	0	0	0	561	36-45	421
19:00	0	4	5	10	60	165	155	59	6	0	0	0	0	0	464	36-45	320
20:00	0	5	5	5	33	95	103	40	4	0	0	0	0	0	290	36-45	198
21:00	0	1	0	5	20	102	65	18	3	1	0	1	0	0	216	36-45	167
22:00	0	5	1	0	3	18	24	8	2	1	0	0	0	0	62	36-45	42
23:00	0	0	0	0	0	6	15	3	1	1	0	0	0	0	26	36-45	21
Total	20	289	258	432	1672	3484	2353	645	69	10	0	1	0	0	9233		
Percent	0.2%	3.1%	2.8%	4.7%	18.1%	37.7%	25.5%	7.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	08:00	11:00	11:00	11:00	10:00	07:00	07:00	05:00	06:00					07:00		
Vol.	4	41	24	43	158	237	185	57	7	2					635		
PM Peak	12:00	13:00	15:00	15:00	14:00	16:00	18:00	17:00	18:00	18:00		21:00			16:00		
Vol.	2	23	44	57	193	340	213	67	8	2		1			812		

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/26/22	0	0	0	1	1	2	5	1	1	0	0	0	0	0	11	36-45	7
01:00	0	1	1	0	0	1	2	3	1	0	1	0	0	0	10	41-50	5
02:00	0	1	0	0	2	2	2	1	0	1	0	0	0	0	9	36-45	4
03:00	0	0	0	0	0	4	6	1	1	0	0	0	0	0	12	36-45	10
04:00	1	0	0	0	0	4	8	3	1	3	1	0	0	0	21	36-45	12
05:00	0	16	2	1	4	20	37	28	7	1	0	0	0	0	116	41-50	65
06:00	2	21	20	0	16	105	111	51	6	0	0	0	0	0	332	36-45	216
07:00	1	37	21	33	109	236	155	49	3	0	0	0	0	0	644	36-45	391
08:00	2	20	18	26	96	235	187	35	4	0	0	0	0	0	623	36-45	422
09:00	2	23	19	23	104	203	163	26	0	1	0	0	0	0	564	36-45	366
10:00	2	27	23	30	144	248	114	29	1	1	0	0	0	0	619	31-40	392
11:00	1	20	26	59	155	229	120	23	0	1	0	0	0	0	634	31-40	384
12 PM	0	12	14	23	103	262	158	33	6	0	0	0	0	0	611	36-45	420
13:00	4	14	25	39	153	310	128	20	2	0	0	0	0	0	695	31-40	463
14:00	1	20	43	65	158	294	132	30	1	0	1	0	0	0	745	31-40	452
15:00	1	17	22	50	146	315	121	29	4	0	0	0	0	0	705	31-40	461
16:00	0	17	28	47	168	343	186	33	2	0	0	0	0	0	824	36-45	529
17:00	0	8	6	22	98	267	192	42	9	2	0	0	0	0	646	36-45	459
18:00	1	11	6	5	75	247	178	43	3	0	0	0	0	0	569	36-45	425
19:00	1	6	5	5	46	166	147	48	8	0	0	0	0	0	432	36-45	313
20:00	0	2	1	6	18	105	113	37	5	0	0	0	0	0	287	36-45	218
21:00	0	0	3	0	9	55	59	15	1	0	0	0	0	0	142	36-45	114
22:00	1	2	2	0	3	21	28	8	11	2	0	0	0	0	78	36-45	49
23:00	0	0	2	1	3	7	15	8	0	0	0	0	0	0	36	41-50	23
Total	20	275	287	436	1611	3681	2367	596	77	11	4	0	0	0	9365		
Percent	0.2%	2.9%	3.1%	4.7%	17.2%	39.3%	25.3%	6.4%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	07:00	11:00	11:00	11:00	10:00	08:00	06:00	05:00	04:00	01:00				07:00		
Vol.	2	37	26	59	155	248	187	51	7	3	1				644		
PM Peak	13:00	14:00	14:00	14:00	16:00	16:00	17:00	19:00	22:00	17:00	14:00				16:00		
Vol.	4	20	43	65	168	343	192	48	11	2	1				824		

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/27/22	0	0	0	0	0	6	8	2	0	0	0	0	0	0	16	36-45	14
01:00	0	0	0	0	1	2	3	1	1	0	0	0	0	0	8	36-45	5
02:00	0	1	0	1	1	0	7	4	1	0	0	0	0	0	15	41-50	11
03:00	0	0	0	0	0	2	7	0	1	0	0	0	0	0	10	36-45	9
04:00	0	0	0	0	2	4	8	3	1	1	0	0	0	0	19	36-45	12
05:00	1	14	3	0	5	25	35	25	6	2	0	0	0	0	116	41-50	60
06:00	3	28	14	4	31	91	99	36	5	0	0	0	0	0	311	36-45	190
07:00	9	43	17	41	105	225	135	32	1	0	0	0	0	0	608	36-45	360
08:00	2	29	25	33	135	241	142	19	3	0	0	0	0	0	629	36-45	383
09:00	2	33	18	33	96	275	133	30	2	0	0	0	0	0	622	36-45	408
10:00	3	14	28	25	127	305	124	13	0	0	0	0	0	0	639	31-40	432
11:00	4	21	31	32	122	286	141	27	4	0	0	0	0	0	668	36-45	427
12 PM	2	32	25	63	158	248	126	24	2	0	0	0	0	0	680	31-40	406
13:00	1	25	20	74	179	285	147	16	2	0	0	0	0	0	749	31-40	464
14:00	0	24	28	85	176	320	114	19	4	0	0	0	0	0	770	31-40	496
15:00	1	20	38	81	242	339	106	21	0	0	0	0	0	0	848	31-40	581
16:00	2	15	57	68	225	294	127	15	1	1	0	0	0	0	805	31-40	519
17:00	2	8	16	13	96	313	198	38	3	1	0	0	0	0	688	36-45	511
18:00	1	3	7	10	83	232	179	43	2	0	0	0	0	0	560	36-45	411
19:00	0	1	1	5	40	154	142	55	7	0	0	0	0	0	405	36-45	296
20:00	0	6	10	1	26	131	100	19	2	0	0	0	0	0	295	36-45	231
21:00	1	0	5	3	32	81	79	25	1	0	0	0	0	0	227	36-45	160
22:00	0	2	2	1	7	27	37	11	9	0	0	0	0	0	96	36-45	64
23:00	0	4	3	0	5	17	19	11	3	1	0	0	0	0	63	36-45	36
Total	34	323	348	573	1894	3903	2216	489	61	6	0	0	0	0	9847		
Percent	0.3%	3.3%	3.5%	5.8%	19.2%	39.6%	22.5%	5.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	11:00	07:00	08:00	10:00	08:00	06:00	05:00	05:00					11:00		
Vol.	9	43	31	41	135	305	142	36	6	2					668		
PM Peak	12:00	12:00	16:00	14:00	15:00	15:00	17:00	19:00	22:00	16:00					15:00		
Vol.	2	32	57	85	242	339	198	55	9	1					848		

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
05/28/22	0	0	0	0	1	6	5	7	1	0	0	0	0	0	20	39-48	12
01:00	0	0	0	0	0	1	4	1	0	0	0	0	0	0	6	38-47	5
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
09:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	24-33	2
10:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
11:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	15-24	2
12 PM	2	14	25	58	95	183	154	42	14	3	1	0	0	0	591	36-45	337
13:00	1	9	13	30	74	182	188	100	39	17	4	0	0	0	657	36-45	370
14:00	1	16	22	27	87	187	173	105	37	7	2	2	0	0	666	36-45	360
15:00	1	6	16	30	65	155	174	131	47	13	1	3	0	0	642	36-45	329
16:00	1	5	12	25	37	109	141	138	68	23	4	2	0	0	565	41-50	279
17:00	1	2	10	4	22	77	135	139	77	26	6	5	1	0	505	41-50	274
18:00	1	3	9	7	29	65	78	81	50	18	16	3	1	0	361	41-50	159
19:00	0	3	3	1	6	47	46	55	44	30	7	1	0	0	243	41-50	101
20:00	0	2	4	2	2	30	41	48	42	18	8	2	0	0	199	46-55	90
21:00	0	1	0	3	5	20	35	33	19	7	1	0	0	0	124	41-50	68
22:00	0	0	0	0	0	13	11	16	12	10	3	3	1	0	69	46-55	28
23:00	0	0	1	0	0	2	5	9	10	10	2	1	1	0	41	49-58	20
Total	8	61	118	189	424	1078	1190	905	460	182	55	22	4	0	4696		
Percent	0.2%	1.3%	2.5%	4.0%	9.0%	23.0%	25.3%	19.3%	9.8%	3.9%	1.2%	0.5%	0.1%	0.0%			
AM Peak			11:00	09:00	00:00	00:00	00:00	00:00	00:00						00:00		
Vol.			2	1	1	6	5	7	1						20		
PM Peak	12:00	14:00	12:00	12:00	12:00	14:00	13:00	17:00	17:00	19:00	18:00	17:00	17:00		14:00		
Vol.	2	16	25	58	95	187	188	139	77	30	16	5	1		666		
Total	94	1065	1174	1884	6650	14266	9657	2968	711	214	59	23	4	0	38769		
Percent	0.2%	2.7%	3.0%	4.9%	17.2%	36.8%	24.9%	7.7%	1.8%	0.6%	0.2%	0.1%	0.0%	0.0%			

15th Percentile : 31 MPH
 50th Percentile : 37 MPH
 85th Percentile : 44 MPH
 95th Percentile : 48 MPH

Stats
 10 MPH Pace Speed : 36-45 MPH
 Number in Pace : 23923
 Percent in Pace : 61.7%
 Number of Vehicles > 40 MPH : 13636
 Percent of Vehicles > 40 MPH : 35.2%
 Mean Speed(Average) : 38 MPH

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Sothbound																	
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	0	15	31	47	58	29	10	2	0	0	0	0	0	0	192	26-35	105
12 PM	2	16	72	120	211	152	43	2	0	0	0	0	0	0	618	31-40	363
13:00	1	25	56	84	182	179	67	7	1	0	0	0	0	0	602	31-40	361
14:00	9	55	121	176	248	129	59	4	3	0	0	0	0	0	804	26-35	424
15:00	6	29	116	163	249	149	50	8	0	0	0	0	0	0	770	26-35	412
16:00	0	11	86	211	293	177	51	1	1	0	0	0	0	0	831	26-35	504
17:00	0	16	43	95	243	279	80	13	1	1	0	0	0	0	771	31-40	522
18:00	3	1	9	58	149	260	99	26	3	0	0	0	0	0	608	31-40	409
19:00	0	0	12	17	98	199	89	15	2	0	0	0	0	0	432	31-40	297
20:00	0	0	3	18	77	143	57	15	1	1	0	0	0	0	315	31-40	220
21:00	0	3	6	17	32	72	33	7	1	2	0	0	0	0	173	36-45	105
22:00	0	0	0	6	23	33	9	4	0	0	0	0	0	0	75	31-40	56
23:00	0	0	3	5	3	24	8	8	1	0	0	0	0	0	52	36-45	32
Total	21	171	558	1017	1866	1825	655	112	14	4	0	0	0	0	6243		
Percent	0.3%	2.7%	8.9%	16.3%	29.9%	29.2%	10.5%	1.8%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak		11:00	11:00	11:00	11:00	11:00	11:00	11:00								11:00	
Vol.		15	31	47	58	29	10	2							192		
PM Peak	14:00	14:00	14:00	16:00	16:00	17:00	18:00	18:00	14:00	21:00					16:00		
Vol.	9	55	121	211	293	279	99	26	3	2				831			

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Sothbound																	
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/25/22	0	0	0	0	1	5	10	4	0	0	0	0	0	0	20	36-45	15
01:00	0	0	0	0	4	1	1	2	0	0	0	0	0	0	8	29-38	5
02:00	0	0	1	0	0	2	3	0	0	0	0	0	0	0	6	36-45	5
03:00	0	0	0	0	3	2	2	0	0	0	0	0	0	0	7	30-39	5
04:00	0	0	2	0	4	8	13	2	0	0	0	0	0	0	29	36-45	21
05:00	0	3	5	5	8	34	28	12	6	1	0	0	0	0	102	36-45	62
06:00	0	6	6	13	14	60	74	21	1	0	0	0	0	0	195	36-45	134
07:00	2	12	19	51	106	158	81	17	1	0	0	0	0	0	447	31-40	264
08:00	4	32	57	49	124	172	69	10	2	0	0	0	0	0	519	31-40	296
09:00	3	31	56	80	195	136	51	9	0	0	0	0	0	0	561	31-40	331
10:00	5	26	51	100	172	170	50	5	1	0	0	0	0	0	580	31-40	342
11:00	1	14	77	133	168	155	37	8	1	0	0	0	0	0	594	31-40	323
12 PM	5	7	59	156	194	161	45	9	1	0	0	0	0	0	637	31-40	355
13:00	3	10	64	90	225	172	39	4	0	0	0	0	0	0	607	31-40	397
14:00	4	16	61	151	248	182	47	3	0	0	0	0	0	0	712	31-40	430
15:00	4	28	114	191	216	166	46	8	0	0	2	0	0	0	775	26-35	407
16:00	7	11	71	178	242	217	46	7	1	0	0	0	0	0	780	31-40	459
17:00	0	13	76	173	246	236	78	6	1	0	0	0	0	0	829	31-40	482
18:00	0	5	9	75	173	235	113	12	2	0	0	0	0	0	624	31-40	408
19:00	1	6	7	21	141	210	107	23	0	0	0	0	0	0	516	31-40	351
20:00	0	8	7	21	71	135	69	11	0	0	0	0	0	0	322	31-40	206
21:00	0	0	0	3	27	75	58	13	0	0	0	0	0	0	176	36-45	133
22:00	0	0	0	1	12	35	37	5	4	2	0	0	0	0	96	36-45	72
23:00	0	0	0	1	5	20	20	8	0	0	0	0	0	0	54	36-45	40
Total	39	228	742	1492	2599	2747	1124	199	21	3	2	0	0	0	9196		
Percent	0.4%	2.5%	8.1%	16.2%	28.3%	29.9%	12.2%	2.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	08:00	11:00	11:00	09:00	08:00	07:00	06:00	05:00	05:00					11:00		
Vol.	5	32	77	133	195	172	81	21	6	1					594		
PM Peak	16:00	15:00	15:00	15:00	14:00	17:00	18:00	19:00	22:00	22:00	15:00				17:00		
Vol.	7	28	114	191	248	236	113	23	4	2	2				829		

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Sothbound	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed	in Pace
05/26/22	0	0	0	3	2	9	8	3	0	0	0	0	0	0	25	36-45	17
01:00	0	0	0	0	0	5	4	4	1	0	0	0	0	0	14	36-45	9
02:00	0	0	1	0	1	5	2	0	0	0	0	0	0	0	9	36-45	7
03:00	0	0	0	0	2	4	3	1	0	0	0	0	0	0	10	34-43	7
04:00	0	0	1	0	1	12	8	1	0	0	0	0	0	0	23	36-45	20
05:00	1	3	8	1	4	22	36	10	3	1	0	0	0	0	89	36-45	58
06:00	1	4	21	9	19	56	56	23	4	1	0	0	0	0	194	36-45	112
07:00	7	12	44	50	70	138	81	21	4	1	0	0	0	0	428	36-45	219
08:00	10	25	34	61	123	172	100	11	2	1	0	0	0	0	539	31-40	295
09:00	3	12	53	65	154	191	58	6	0	0	0	0	0	0	542	31-40	345
10:00	7	21	51	116	186	143	42	9	0	1	0	0	0	0	576	31-40	329
11:00	2	32	100	185	201	115	34	3	0	0	0	0	0	0	672	26-35	386
12 PM	0	9	53	159	241	192	49	2	0	0	0	0	0	0	705	31-40	433
13:00	8	10	53	183	235	128	42	7	0	0	0	0	0	0	666	26-35	418
14:00	7	35	85	123	218	180	53	9	0	0	0	0	0	0	710	31-40	398
15:00	5	17	116	142	236	196	49	5	1	0	1	0	0	0	768	31-40	432
16:00	6	43	141	210	227	168	52	4	1	0	0	0	0	0	852	26-35	437
17:00	0	6	53	138	255	224	62	7	0	0	0	0	0	0	745	31-40	479
18:00	2	13	22	63	144	199	97	11	3	0	0	0	0	0	554	31-40	343
19:00	1	3	11	37	83	202	97	14	2	0	0	0	0	0	450	36-45	299
20:00	0	0	1	13	83	147	63	14	2	0	1	0	0	0	324	31-40	230
21:00	0	0	0	7	34	119	42	8	1	0	0	0	0	0	211	36-45	161
22:00	0	2	1	0	8	61	32	9	0	0	0	0	0	0	113	36-45	93
23:00	0	0	0	1	8	26	15	6	2	0	0	0	0	0	58	36-45	41
Total	60	247	849	1566	2535	2714	1085	188	26	5	2	0	0	0	9277		
Percent	0.6%	2.7%	9.2%	16.9%	27.3%	29.3%	11.7%	2.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	11:00	11:00	09:00	08:00	06:00	06:00	05:00							11:00
Vol.	10	32	100	185	201	191	100	23	4	1							672
PM Peak	13:00	16:00	16:00	16:00	17:00	17:00	18:00	19:00	18:00		15:00						16:00
Vol.	8	43	141	210	255	224	97	14	3		1						852

Route 161 South of Industrial Park Rd
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Sothbound																	
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/28/22	0	0	0	0	4	20	14	3	0	0	0	0	0	0	41	36-45	34
01:00	0	0	0	1	3	15	14	0	0	0	0	0	0	0	33	36-45	29
02:00	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	31-40	27
03:00	0	0	0	0	0	25	0	0	0	0	0	0	0	0	25	31-40	25
04:00	0	0	0	0	0	42	0	0	0	0	0	0	0	0	42	31-40	42
05:00	0	0	0	0	0	109	0	0	0	0	0	0	0	0	109	31-40	109
06:00	0	0	0	1	0	222	0	0	0	0	0	0	0	0	223	31-40	222
07:00	0	0	0	0	0	455	0	0	0	0	0	0	0	0	455	31-40	455
08:00	0	0	0	0	0	692	0	0	0	0	0	0	0	0	692	31-40	692
09:00	0	2	0	491	15	474	0	0	0	0	0	0	0	0	982	26-35	506
10:00	2	0	234	880	0	0	0	0	0	0	0	0	0	0	1116	21-30	1114
11:00	1	1	1084	0	0	0	0	0	0	0	0	0	0	0	1086	16-25	1085
12 PM	10	53	208	172	212	123	23	0	0	0	0	0	0	0	801	26-35	384
13:00	5	18	53	145	242	171	42	2	0	0	0	0	0	0	678	31-40	413
14:00	5	24	68	145	204	134	22	4	0	0	0	0	0	0	606	26-35	349
15:00	2	12	46	129	227	141	41	3	0	0	0	0	0	0	601	31-40	368
16:00	1	5	33	96	263	169	38	3	0	0	0	0	0	0	608	31-40	432
17:00	0	5	13	89	200	172	52	5	1	0	0	0	0	0	537	31-40	372
18:00	1	6	11	97	215	179	45	3	2	0	0	0	0	0	559	31-40	394
19:00	0	3	9	64	153	157	40	1	1	0	0	0	0	0	428	31-40	310
20:00	0	1	4	37	129	112	43	11	0	0	0	0	0	0	337	31-40	241
21:00	0	0	4	27	97	158	34	4	0	0	0	0	0	0	324	31-40	255
22:00	0	0	1	6	56	97	39	4	1	0	0	0	0	0	204	31-40	153
23:00	0	0	0	5	22	42	18	8	0	0	0	0	0	0	95	31-40	64
Total	27	130	1768	2385	2042	3736	465	51	5	0	0	0	0	0	10609		
Percent	0.3%	1.2%	16.7%	22.5%	19.2%	35.2%	4.4%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	11:00	10:00	09:00	08:00	00:00	00:00							10:00		
Vol.	2	2	1084	880	15	692	14	3							1116		
PM Peak	12:00	12:00	12:00	12:00	16:00	18:00	17:00	20:00	18:00						12:00		
Vol.	10	53	208	172	263	179	52	11	2						801		
Total	215	1100	4849	8294	11878	13748	4263	726	91	16	5	0	0	0	45185		
Percent	0.5%	2.4%	10.7%	18.4%	26.3%	30.4%	9.4%	1.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 25 MPH
 50th Percentile : 33 MPH
 85th Percentile : 39 MPH
 95th Percentile : 43 MPH

Stats
 10 MPH Pace Speed : 31-40 MPH
 Number in Pace : 25626
 Percent in Pace : 56.7%
 Number of Vehicles > 40 MPH : 5101
 Percent of Vehicles > 40 MPH : 11.3%
 Mean Speed(Average) : 33 MPH

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	2	195	46	2	15	0	0	3	0	0	0	0	0	0	263
14:00	3	222	47	0	11	1	0	1	0	0	0	0	0	0	285
15:00	1	252	52	1	19	3	0	2	0	0	0	0	0	0	330
16:00	6	220	47	1	30	0	0	2	0	0	0	0	0	0	306
17:00	6	251	39	0	21	1	0	1	0	0	0	0	0	0	319
18:00	4	228	43	0	13	0	0	1	0	0	0	0	0	0	289
19:00	5	183	37	0	15	0	0	0	0	0	0	0	0	0	240
20:00	4	125	26	0	8	0	0	0	0	0	0	0	0	0	163
21:00	1	69	7	0	3	0	0	0	0	0	0	0	0	0	80
22:00	0	30	2	0	0	0	0	0	0	0	0	0	0	0	32
23:00	0	3	1	0	1	0	0	0	0	0	0	0	0	0	5
Total	32	1778	347	4	136	5	0	10	0	0	0	0	0	0	2312
Percent	1.4%	76.9%	15.0%	0.2%	5.9%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	16:00 6	15:00 252	15:00 52	13:00 2	16:00 30	15:00 3		13:00 3							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
01:00	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
02:00	0	4	0	1	0	0	0	0	0	0	0	0	0	0	5
03:00	0	4	0	0	1	0	0	0	0	0	0	0	0	0	5
04:00	0	7	2	0	3	0	0	0	0	0	0	0	0	0	12
05:00	0	18	4	0	8	1	0	0	0	0	0	0	0	0	31
06:00	0	64	22	0	10	1	0	0	0	0	0	0	0	0	97
07:00	1	90	15	1	13	0	0	0	0	0	0	0	0	0	120
08:00	2	135	22	1	16	0	0	1	0	0	0	0	0	0	177
09:00	6	144	41	0	17	0	0	2	1	0	0	0	0	0	211
10:00	2	169	39	0	23	1	0	1	0	0	0	0	0	0	235
11:00	2	190	42	0	19	1	0	2	0	0	0	0	0	0	256
12 PM	8	199	44	0	24	2	0	1	0	0	0	0	0	0	278
13:00	7	213	50	0	17	1	0	2	0	0	0	0	0	0	290
14:00	7	215	41	1	18	0	0	1	0	0	0	0	0	0	283
15:00	6	269	54	0	23	1	0	0	0	0	0	0	0	0	353
16:00	5	224	43	1	25	1	0	2	1	0	0	0	0	0	302
17:00	4	221	45	0	13	0	0	0	0	0	0	0	0	0	283
18:00	11	249	47	0	17	0	0	0	0	0	0	0	0	0	324
19:00	13	180	40	1	14	1	0	2	0	0	0	0	0	0	251
20:00	6	148	22	0	6	0	0	0	0	0	0	0	0	0	182
21:00	2	67	12	0	3	1	0	1	0	0	0	0	0	0	86
22:00	0	20	6	0	1	0	0	1	0	0	0	0	0	0	28
23:00	0	12	4	0	1	0	0	0	0	0	0	0	0	0	17
Total	82	2850	596	6	273	11	0	16	2	0	0	0	0	0	3836
Percent	2.1%	74.3%	15.5%	0.2%	7.1%	0.3%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	11:00	02:00	10:00	05:00		09:00	09:00						
Vol.	6	190	42	1	23	1		2	1						
PM Peak	19:00	15:00	15:00	14:00	16:00	12:00		13:00	16:00						
Vol.	13	269	54	1	25	2		2	1						

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	4	0	0	1	0	0	0	0	0	0	0	0	0	5
01:00	0	6	2	1	0	0	0	0	0	0	0	0	0	0	9
02:00	0	1	1	0	2	0	0	0	0	0	0	0	0	0	4
03:00	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
04:00	0	8	2	0	2	1	0	0	0	0	0	0	0	0	13
05:00	0	18	6	0	2	0	0	0	0	0	0	0	0	0	26
06:00	2	57	14	0	10	1	0	0	0	0	0	0	0	0	84
07:00	2	101	17	3	18	0	0	1	0	0	0	0	0	0	142
08:00	1	143	28	5	20	0	0	2	0	0	0	0	0	0	199
09:00	2	157	39	2	19	1	0	2	0	0	0	0	0	0	222
10:00	2	154	35	3	25	0	0	0	0	0	0	0	0	0	219
11:00	4	180	52	1	23	2	1	4	1	0	0	0	0	0	268
12 PM	7	241	46	2	11	1	0	3	0	0	0	0	0	0	311
13:00	5	242	52	0	19	1	0	1	0	0	0	0	0	0	320
14:00	10	247	42	1	14	3	0	1	1	0	0	0	0	0	319
15:00	3	221	50	1	23	2	0	1	0	0	0	0	0	0	301
16:00	5	233	43	0	16	1	0	1	0	0	0	0	0	0	299
17:00	6	221	39	2	8	0	0	1	0	0	0	0	0	0	277
18:00	5	231	42	0	8	0	0	1	0	0	0	0	0	0	287
19:00	10	174	38	0	13	0	0	1	0	0	0	0	0	0	236
20:00	11	131	23	1	12	0	0	0	0	0	0	0	0	0	178
21:00	2	60	7	0	7	0	0	0	0	0	0	0	0	0	76
22:00	1	38	9	0	3	0	0	0	0	0	0	0	0	0	51
23:00	0	13	0	0	1	0	0	0	0	0	0	0	0	0	14
Total	78	2883	588	22	258	13	1	19	2	0	0	0	0	0	3864
Percent	2.0%	74.6%	15.2%	0.6%	6.7%	0.3%	0.0%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	08:00	10:00	11:00	11:00	11:00	11:00						
Vol.	4	180	52	5	25	2	1	4	1						
PM Peak	20:00	14:00	13:00	12:00	15:00	14:00		12:00	14:00						
Vol.	11	247	52	2	23	3		3	1						

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	8	2	0	1	0	0	0	0	0	0	0	0	0	11
01:00	0	5	2	2	1	0	0	0	0	0	0	0	0	0	10
02:00	0	2	1	0	2	0	0	0	0	0	0	0	0	0	5
03:00	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
04:00	0	9	2	0	1	0	0	0	0	0	0	0	0	0	12
05:00	0	16	4	0	6	0	0	0	0	0	0	0	0	0	26
06:00	1	51	15	1	15	1	0	0	0	0	0	0	0	0	84
07:00	0	88	21	2	20	0	0	0	0	0	0	0	0	0	131
08:00	2	131	31	1	14	0	0	0	0	0	0	0	0	0	179
09:00	4	155	56	2	22	0	0	1	0	0	0	0	0	0	240
10:00	4	184	45	0	21	2	0	1	0	0	0	0	0	0	257
11:00	1	191	33	1	19	3	0	2	0	0	0	0	0	0	250
12 PM	10	245	48	1	16	1	0	3	0	0	0	0	0	0	324
13:00	4	248	49	0	25	0	0	2	0	0	0	0	0	0	328
14:00	10	219	60	0	19	1	0	0	0	0	0	0	0	0	309
15:00	7	241	46	1	16	1	0	1	0	0	0	0	0	0	313
16:00	10	254	51	0	26	1	0	0	0	0	0	0	0	0	342
17:00	3	234	36	0	17	1	0	0	0	0	0	0	0	0	291
18:00	12	227	51	0	21	1	0	1	0	0	0	0	0	0	313
19:00	8	198	37	0	17	0	0	0	1	0	0	0	0	0	261
20:00	1	126	19	0	7	0	0	0	0	0	0	0	0	0	153
21:00	0	92	12	0	4	0	0	1	0	0	0	0	0	0	109
22:00	2	29	5	0	1	0	0	0	0	0	0	0	0	0	37
23:00	1	25	2	0	3	0	0	0	0	0	0	0	0	0	31
Total	80	2981	628	11	295	12	0	12	1	0	0	0	0	0	4020
Percent	2.0%	74.2%	15.6%	0.3%	7.3%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	09:00	01:00	09:00	11:00		11:00							
Vol.	4	191	56	2	22	3		2							
PM Peak	18:00	16:00	14:00	12:00	16:00	12:00		12:00	19:00						
Vol.	12	254	60	1	26	1		3	1						

Route 161 North of Route 156
 East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
 Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/28/22	0	10	2	0	1	0	0	0	0	0	0	0	0	0	13
01:00	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6
05:00	0	8	1	0	3	0	0	0	0	0	0	0	0	0	12
06:00	0	41	16	0	10	0	0	0	0	0	0	0	0	0	67
07:00	1	59	12	1	8	0	0	0	0	0	0	0	0	0	81
08:00	3	116	26	0	6	1	0	2	0	0	0	0	0	0	154
09:00	3	188	48	0	10	1	0	2	0	0	0	0	0	0	252
10:00	6	246	49	0	14	3	0	1	0	0	0	0	0	0	319
11:00	4	251	36	0	20	3	0	1	0	0	0	0	0	0	315
12 PM	4	228	39	0	13	1	0	0	0	0	0	0	0	0	285
13:00	4	258	31	0	12	1	0	1	0	0	0	0	0	0	307
14:00	12	216	54	0	20	0	0	1	0	0	0	0	0	0	303
15:00	8	231	43	0	10	2	0	1	0	0	0	0	0	0	295
16:00	5	214	45	0	12	1	0	1	0	0	0	0	0	0	278
17:00	1	233	29	0	10	0	0	0	0	0	0	0	0	0	273
18:00	7	202	37	0	19	1	0	0	1	0	0	0	0	0	267
19:00	5	156	31	0	11	0	0	1	0	0	0	0	0	0	204
20:00	1	141	24	0	3	0	0	0	0	0	0	0	0	0	169
21:00	1	86	17	0	7	0	0	0	0	0	0	0	0	0	111
22:00	0	38	5	0	1	0	0	0	0	0	0	0	0	0	44
23:00	0	14	5	0	1	0	0	0	0	0	0	0	0	0	20
Total	65	2952	553	1	192	14	0	11	1	0	0	0	0	0	3789
Percent	1.7%	77.9%	14.6%	0.0%	5.1%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	10:00	07:00	11:00	10:00		08:00							
Vol.	6	251	49	1	20	3		2							
PM Peak	14:00	13:00	14:00		14:00	15:00		13:00	18:00						
Vol.	12	258	54		20	2		1	1						

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/29/22	0	17	4	0	1	0	0	0	0	0	0	0	0	0	22
01:00	0	7	2	0	1	0	0	0	0	0	0	0	0	0	10
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	4	0	0	2	0	0	0	0	0	0	0	0	0	6
04:00	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6
05:00	1	10	3	0	3	0	0	0	0	0	0	0	0	0	17
06:00	0	22	7	0	9	0	0	0	0	0	0	0	0	0	38
07:00	1	61	18	0	6	1	0	1	1	0	0	0	0	0	89
08:00	4	123	29	0	4	0	0	0	0	0	0	0	0	0	160
09:00	2	141	28	0	13	0	0	0	0	0	0	0	0	0	184
10:00	7	156	27	0	16	0	0	2	0	0	0	0	0	0	208
11:00	8	220	35	1	13	1	0	3	1	0	0	0	0	0	282
12 PM	14	243	36	0	16	0	0	3	0	0	0	0	0	0	312
13:00	19	253	45	0	7	2	0	3	0	0	0	0	0	0	329
14:00	12	227	43	0	12	0	0	3	0	0	0	0	0	0	297
15:00	9	224	46	0	7	0	0	3	0	0	0	0	0	0	289
16:00	9	240	43	0	15	3	0	1	0	0	0	0	0	0	311
17:00	8	233	45	0	24	1	0	2	0	0	0	0	0	0	313
18:00	9	211	45	0	20	1	0	1	0	0	0	0	0	0	287
19:00	7	195	41	0	16	2	0	0	0	0	0	0	0	0	261
20:00	7	207	27	0	9	0	0	0	0	0	0	0	0	0	250
21:00	2	94	16	0	2	1	0	1	0	0	0	0	0	0	116
22:00	0	34	6	0	2	0	0	0	0	0	0	0	0	0	42
23:00	0	24	1	0	2	0	0	0	0	0	0	0	0	0	27
Total	119	2951	549	1	200	12	0	23	2	0	0	0	0	0	3857
Percent	3.1%	76.5%	14.2%	0.0%	5.2%	0.3%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	11:00	10:00	07:00		11:00	07:00						
Vol.	8	220	35	1	16	1		3	1						
PM Peak	13:00	13:00	15:00		17:00	16:00		12:00							
Vol.	19	253	46		24	3		3							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/30/22	0	8	4	0	2	0	0	0	0	0	0	0	0	0	14
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
05:00	0	10	4	0	9	0	0	1	0	0	0	0	0	0	24
06:00	0	36	14	0	6	0	0	0	0	0	0	0	0	0	56
07:00	1	58	13	0	8	0	0	1	0	0	0	0	0	0	81
08:00	3	93	17	1	7	0	0	0	0	0	0	0	0	0	121
09:00	4	139	33	0	14	1	0	0	0	0	0	0	0	0	191
10:00	6	133	31	1	8	1	0	2	0	0	0	0	0	0	182
11:00	5	177	38	0	14	2	0	0	0	0	0	0	0	0	236
12 PM	12	243	35	0	9	1	0	0	0	0	0	0	0	0	300
13:00	5	171	33	0	8	4	0	2	0	0	0	0	0	0	223
14:00	7	111	13	0	2	1	0	0	0	0	0	0	0	0	134
15:00	13	186	45	0	7	2	0	1	0	0	0	0	0	0	254
16:00	5	254	37	0	16	0	0	2	0	0	0	0	0	0	314
17:00	7	249	35	0	8	2	0	0	0	0	0	0	0	0	301
18:00	10	243	38	0	17	0	0	3	0	0	0	0	0	0	311
19:00	10	214	32	0	13	0	0	0	0	0	0	0	0	0	269
20:00	4	167	16	0	4	0	0	1	0	0	0	0	0	0	192
21:00	1	60	17	0	2	0	0	1	0	0	0	0	0	0	81
22:00	0	19	4	0	4	0	0	0	0	0	0	0	0	0	27
23:00	1	7	2	0	2	0	0	0	0	0	0	0	0	0	12
Total	94	2586	465	2	160	14	0	14	0	0	0	0	0	0	3335
Percent	2.8%	77.5%	13.9%	0.1%	4.8%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	08:00	09:00	11:00		10:00							
Vol.	6	177	38	1	14	2		2							
PM Peak	15:00	16:00	15:00		18:00	13:00		18:00							
Vol.	13	254	45		17	4		3							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	1	209	35	2	3	1	0	1	0	0	0	0	0	0	252
14:00	5	253	39	0	4	1	0	0	0	0	0	0	0	0	302
15:00	3	256	37	0	8	0	0	0	0	0	0	0	0	0	304
16:00	5	294	37	0	9	2	0	0	0	0	0	0	0	0	347
17:00	3	247	39	1	6	0	0	1	0	0	0	0	0	0	297
18:00	4	222	42	0	4	1	0	0	0	0	0	0	0	0	273
19:00	0	176	26	0	11	0	0	0	0	0	0	0	0	0	213
20:00	1	115	16	0	1	0	0	0	0	0	0	0	0	0	133
21:00	1	65	5	0	1	0	0	0	0	0	0	0	0	0	72
22:00	0	22	3	0	1	0	0	0	0	0	0	0	0	0	26
23:00	0	7	0	0	2	1	0	0	0	0	0	0	0	0	10
Total	23	1866	279	3	50	6	0	2	0	0	0	0	0	0	2229
Percent	1.0%	83.7%	12.5%	0.1%	2.2%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	14:00	16:00	18:00	13:00	19:00	16:00		13:00							
	5	294	42	2	11	2		1							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	20	4	0	2	0	0	0	0	0	0	0	0	0	26
05:00	1	64	30	0	3	0	0	1	0	0	0	0	0	0	99
06:00	0	70	19	0	5	0	0	1	0	0	0	0	0	0	95
07:00	3	109	22	2	7	2	0	0	0	0	0	0	0	0	145
08:00	0	136	50	1	9	0	0	1	1	0	0	0	0	0	198
09:00	5	192	50	1	13	1	0	0	0	0	0	0	0	0	262
10:00	1	195	38	1	6	2	0	0	0	0	0	0	0	0	243
11:00	9	251	46	0	7	0	0	1	0	0	0	0	0	0	314
12 PM	5	258	44	0	7	3	1	1	0	0	0	0	0	0	319
13:00	3	238	46	1	14	1	0	1	0	0	0	0	0	0	304
14:00	7	259	34	1	9	2	0	1	0	0	0	0	0	0	313
15:00	6	254	34	1	7	1	0	1	0	0	0	0	0	0	304
16:00	4	281	31	0	6	1	0	0	0	0	0	0	0	0	323
17:00	1	294	41	0	6	0	0	0	0	0	0	0	0	0	342
18:00	4	258	29	0	6	0	0	0	0	0	0	0	0	0	297
19:00	7	173	39	0	2	1	0	0	0	0	0	0	0	0	222
20:00	1	120	15	0	4	1	0	0	0	0	0	0	0	0	141
21:00	1	73	9	0	1	0	0	0	0	0	0	0	0	0	84
22:00	0	14	2	0	0	0	0	0	0	0	0	0	0	0	16
23:00	0	16	3	0	0	0	0	0	0	0	0	0	0	0	19
Total	58	3287	588	8	114	15	1	8	1	0	0	0	0	0	4080
Percent	1.4%	80.6%	14.4%	0.2%	2.8%	0.4%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	08:00	07:00	09:00	07:00		05:00	08:00						
Vol.	9	251	50	2	13	2		1	1						
PM Peak	14:00	17:00	13:00	13:00	13:00	12:00	12:00	12:00	12:00						
Vol.	7	294	46	1	14	3	1	1							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	5	1	0	1	0	0	0	0	0	0	0	0	0	7
04:00	0	13	6	0	0	0	0	0	0	0	0	0	0	0	19
05:00	0	54	25	0	4	0	0	0	0	0	0	0	0	0	83
06:00	0	62	14	0	7	0	0	0	0	0	0	0	0	0	83
07:00	2	109	32	0	8	4	1	0	2	0	0	0	0	0	158
08:00	0	138	39	3	8	0	1	1	0	0	0	0	0	0	190
09:00	5	178	52	2	11	1	0	0	0	0	0	0	0	0	249
10:00	2	202	44	1	11	1	0	0	0	0	0	0	0	0	261
11:00	6	263	44	0	9	2	1	2	1	0	0	0	0	0	328
12 PM	3	258	33	1	8	2	0	0	0	0	0	0	0	0	305
13:00	3	251	37	0	10	1	1	0	0	0	0	0	0	0	303
14:00	5	262	43	0	6	2	0	0	0	0	0	0	0	0	318
15:00	10	257	49	2	12	0	0	0	0	0	0	0	0	0	330
16:00	4	314	29	0	8	1	0	2	0	0	0	0	0	0	358
17:00	5	242	36	0	7	3	0	0	0	0	0	0	0	0	293
18:00	7	223	30	0	0	0	0	0	0	0	0	0	0	0	260
19:00	3	196	23	0	4	0	0	0	0	0	0	0	0	0	226
20:00	3	100	21	0	2	1	0	0	0	0	0	0	0	0	127
21:00	5	63	8	0	2	0	0	0	0	0	0	0	0	0	78
22:00	0	20	2	0	0	0	0	0	0	0	0	0	0	0	22
23:00	0	17	2	0	0	0	0	0	0	0	0	0	0	0	19
Total	63	3239	570	9	118	18	4	5	3	0	0	0	0	0	4029
Percent	1.6%	80.4%	14.1%	0.2%	2.9%	0.4%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	09:00	08:00	09:00	07:00	07:00	11:00	07:00						
Vol.	6	263	52	3	11	4	1	2	2						
PM Peak	15:00	16:00	15:00	15:00	15:00	17:00	13:00	16:00							
Vol.	10	314	49	2	12	3	1	2							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
01:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	4	1	0	1	0	0	0	0	0	0	0	0	0	6
03:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	14	3	0	1	0	0	0	0	0	0	0	0	0	18
05:00	0	53	23	0	1	0	0	0	0	0	0	0	0	0	77
06:00	2	55	15	0	3	0	0	1	0	0	0	0	0	0	76
07:00	0	109	22	1	9	3	0	0	0	0	0	0	0	0	144
08:00	0	170	48	2	8	1	0	3	0	0	0	0	0	0	232
09:00	1	196	43	0	9	0	0	1	1	0	0	0	0	0	251
10:00	3	225	42	0	5	4	0	2	0	0	0	0	0	0	281
11:00	2	260	48	1	10	2	0	3	1	0	0	0	0	0	327
12 PM	3	263	45	0	8	1	0	1	0	0	0	0	0	0	321
13:00	6	258	44	0	5	3	0	1	0	0	0	0	0	0	317
14:00	5	294	38	0	7	3	0	1	0	0	0	0	0	0	348
15:00	4	311	41	1	10	1	0	1	0	0	0	0	0	0	369
16:00	6	325	37	0	3	0	0	0	0	0	0	0	0	0	371
17:00	3	297	31	0	4	2	0	0	0	0	0	0	0	0	337
18:00	4	278	30	0	6	1	0	0	0	0	0	0	0	0	319
19:00	3	192	24	0	3	2	0	1	0	0	0	0	0	0	225
20:00	0	149	8	0	2	0	0	0	0	0	0	0	0	0	159
21:00	0	67	8	0	1	0	0	0	0	0	0	0	0	0	76
22:00	0	39	5	0	0	1	0	0	0	0	0	0	0	0	45
23:00	0	11	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	42	3581	558	5	96	24	0	15	2	0	0	0	0	0	4323
Percent	1.0%	82.8%	12.9%	0.1%	2.2%	0.6%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	08:00	08:00	11:00	10:00		08:00	09:00						
Vol.	3	260	48	2	10	4		3	1						
PM Peak	13:00	16:00	12:00	15:00	15:00	13:00		12:00							
Vol.	6	325	45	1	10	3		1							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/28/22	0	9	2	0	2	0	0	0	0	0	0	0	0	0	13
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	10	5	0	0	0	0	0	0	0	0	0	0	0	15
05:00	0	36	12	0	0	0	0	0	0	0	0	0	0	0	48
06:00	0	38	10	0	0	0	0	0	0	0	0	0	0	0	48
07:00	1	65	22	0	6	0	0	0	0	0	0	0	0	0	94
08:00	0	131	41	0	1	0	0	1	0	0	0	0	0	0	174
09:00	2	241	39	0	8	0	0	0	0	0	0	0	0	0	290
10:00	6	279	35	0	6	0	1	1	0	0	0	0	0	0	328
11:00	5	366	39	0	4	0	0	0	0	0	0	0	0	0	414
12 PM	0	321	39	0	4	1	0	0	0	0	0	0	0	0	365
13:00	4	284	42	0	5	2	0	0	0	0	0	0	0	0	337
14:00	6	288	27	0	5	2	0	0	0	0	0	0	0	0	328
15:00	4	278	38	1	8	0	0	1	0	0	0	0	0	0	330
16:00	3	261	30	0	2	2	0	1	0	0	0	0	0	0	299
17:00	2	206	46	0	1	0	0	0	0	0	0	0	0	0	255
18:00	0	208	31	0	3	1	0	0	0	0	0	0	0	0	243
19:00	1	156	19	0	5	0	0	0	0	0	0	0	0	0	181
20:00	3	127	15	0	2	0	0	0	0	0	0	0	0	0	147
21:00	0	75	13	0	4	0	0	0	0	0	0	0	0	0	92
22:00	0	48	3	0	1	0	0	0	0	0	0	0	0	0	52
23:00	0	22	1	0	0	0	0	0	0	0	0	0	0	0	23
Total	37	3459	509	1	67	8	1	4	0	0	0	0	0	0	4086
Percent	0.9%	84.7%	12.5%	0.0%	1.6%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	08:00		09:00		10:00	08:00							
Vol.	6	366	41		8		1	1							
PM Peak	14:00	12:00	17:00	15:00	15:00	13:00		15:00							
Vol.	6	321	46	1	8	2		1							

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/29/22	1	13	4	0	0	0	0	0	0	0	0	0	0	0	18
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	6	0	0	1	0	0	0	0	0	0	0	0	0	7
04:00	0	20	3	0	0	0	0	1	0	0	0	0	0	0	24
05:00	2	32	25	0	1	0	0	3	0	0	0	0	0	0	63
06:00	4	37	12	0	2	0	0	3	0	0	0	0	0	0	58
07:00	2	81	16	0	6	0	0	3	0	0	0	0	0	0	108
08:00	3	131	20	0	3	0	0	3	0	0	0	0	0	0	160
09:00	4	193	29	0	5	1	0	0	0	0	0	0	0	0	232
10:00	6	308	37	0	5	0	0	0	0	0	0	0	0	0	356
11:00	5	314	26	0	7	0	0	0	0	0	0	0	0	0	352
12 PM	18	298	25	0	2	2	0	0	0	0	0	0	0	0	345
13:00	16	293	34	0	6	1	0	0	0	0	0	0	0	0	350
14:00	11	272	37	0	4	1	0	1	0	0	0	0	0	0	326
15:00	7	266	11	0	4	2	0	3	0	0	0	0	0	0	293
16:00	9	255	35	0	6	0	0	1	0	0	0	0	0	0	306
17:00	10	260	34	0	2	0	0	0	0	0	0	0	0	0	306
18:00	1	264	24	0	1	0	0	0	0	0	0	0	0	0	290
19:00	9	192	21	0	6	0	0	0	0	0	0	0	0	0	228
20:00	4	140	13	0	3	0	0	0	1	0	0	0	0	0	161
21:00	1	103	17	0	0	0	0	0	0	0	0	0	0	0	121
22:00	0	27	3	0	0	0	0	0	0	0	0	0	0	0	30
23:00	0	12	3	0	2	0	0	0	0	0	0	0	0	0	17
Total	113	3526	429	0	66	7	0	18	1	0	0	0	0	0	4160
Percent	2.7%	84.8%	10.3%	0.0%	1.6%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	10:00		11:00	09:00		05:00							
Vol.	6	314	37		7	1		3							
PM Peak	12:00	12:00	14:00		13:00	12:00		15:00	20:00						
Vol.	18	298	37		6	2		3	1						

Route 161 North of Route 156
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/30/22	0	9	0	0	1	0	0	0	0	0	0	0	0	0	10
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	1	0	0	0	0	1	0	0	0	0	0	0	3
04:00	0	10	1	0	1	0	0	0	0	0	0	0	0	0	12
05:00	1	37	18	0	2	0	0	1	0	0	0	0	0	0	59
06:00	1	43	17	0	0	0	0	1	0	0	0	0	0	0	62
07:00	6	88	16	0	6	0	0	2	0	0	0	0	0	0	118
08:00	2	123	24	0	2	1	0	1	0	0	0	0	0	0	153
09:00	6	216	38	1	6	1	0	0	0	0	0	0	0	0	268
10:00	3	269	41	0	4	1	0	1	1	0	0	0	0	0	320
11:00	12	279	36	0	5	0	0	1	0	0	0	0	0	0	333
12 PM	8	303	30	0	6	1	0	1	0	0	0	0	0	0	349
13:00	10	174	16	0	2	2	0	0	0	0	0	0	0	0	204
14:00	2	90	12	0	2	0	0	0	0	0	0	0	0	0	106
15:00	8	249	22	0	3	0	0	0	0	0	0	0	0	0	282
16:00	8	242	25	0	5	3	0	0	0	0	0	0	0	0	283
17:00	7	249	35	0	5	1	0	2	0	0	0	0	0	0	299
18:00	7	209	19	0	2	2	0	0	0	0	0	0	0	0	239
19:00	6	162	23	0	3	2	0	0	0	0	0	0	0	0	196
20:00	2	126	7	0	6	1	0	0	0	0	0	0	0	0	142
21:00	0	50	6	0	1	0	0	0	0	0	0	0	0	0	57
22:00	0	22	3	0	0	0	0	0	0	0	0	0	0	0	25
23:00	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
Total	89	2961	392	1	62	15	0	11	1	0	0	0	0	0	3532
Percent	2.5%	83.8%	11.1%	0.0%	1.8%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	09:00	07:00	08:00		07:00	10:00						
Vol.	12	279	41	1	6	1		2	1						
PM Peak	13:00	12:00	17:00		12:00	16:00		17:00							
Vol.	10	303	35		6	3		2							

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Start Time	23-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	*	*	*	*	10	15	13	17	18	27	14	20	26	37	33	52
01:00	*	*	*	*	2	11	8	14	7	17	6	14	15	21	24	20
02:00	*	*	*	*	6	4	9	8	14	6	10	6	15	14	6	9
03:00	*	*	*	*	10	7	11	10	9	5	10	7	8	10	15	19
04:00	*	*	*	*	16	22	16	20	18	18	17	20	17	20	13	26
05:00	*	*	*	*	82	101	73	79	71	71	75	84	29	44	22	57
06:00	*	*	*	*	260	151	229	148	225	142	238	147	103	77	66	76
07:00	*	*	*	*	482	318	494	309	450	294	475	307	195	158	166	186
08:00	*	*	*	*	463	457	501	454	498	456	487	456	295	340	338	305
09:00	*	*	*	*	497	483	462	521	470	508	476	504	474	480	369	440
10:00	*	*	*	*	429	500	479	489	559	525	489	505	578	532	451	557
11:00	*	*	*	*	508	537	532	574	537	641	526	584	606	712	459	655
12:00 PM	*	*	314	331	516	574	533	609	517	674	470	547	676	654	513	682
01:00	*	*	520	529	501	580	591	585	570	644	546	584	605	678	467	656
02:00	*	*	551	605	574	583	637	613	572	699	584	625	546	587	469	567
03:00	*	*	637	634	592	640	613	663	571	733	603	668	564	586	522	502
04:00	*	*	669	689	689	657	689	691	606	715	663	688	491	567	515	529
05:00	*	*	598	672	579	695	602	670	538	740	579	694	493	485	467	547
06:00	*	*	475	561	515	576	483	521	501	617	494	569	429	454	472	395
07:00	*	*	330	422	395	491	406	430	380	416	378	440	327	355	445	345
08:00	*	*	255	273	268	279	266	270	239	276	257	274	289	233	361	275
09:00	*	*	143	154	213	171	150	206	215	175	180	176	212	210	225	196
10:00	*	*	56	71	64	76	97	101	105	135	80	96	121	140	91	91
11:00	*	*	23	45	29	52	28	55	58	76	34	57	67	67	58	71
Total	0	0	4571	4986	7700	7980	7922	8057	7748	8610	7691	8072	7181	7461	6567	7258
Day	0	0	9557		15680		15979		16358		15763		14642		13825	
AM Peak	-	-	-	-	11:00	11:00	11:00	11:00	10:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00
Vol.	-	-	-	-	508	537	532	574	559	641	526	584	606	712	459	655
PM Peak	-	-	16:00	16:00	16:00	17:00	16:00	16:00	16:00	17:00	16:00	17:00	12:00	13:00	15:00	12:00
Vol.	-	-	669	689	689	695	689	691	606	740	663	694	676	678	522	682

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Start Time	30-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	31	45	16	18	*	*	*	*	*	*	24	32	*	*	*	*
01:00	16	26	8	15	*	*	*	*	*	*	12	20	*	*	*	*
02:00	8	9	7	4	*	*	*	*	*	*	8	6	*	*	*	*
03:00	13	9	17	5	*	*	*	*	*	*	15	7	*	*	*	*
04:00	8	11	30	17	*	*	*	*	*	*	19	14	*	*	*	*
05:00	29	56	82	87	*	*	*	*	*	*	56	72	*	*	*	*
06:00	81	94	240	170	*	*	*	*	*	*	160	132	*	*	*	*
07:00	159	177	484	344	*	*	*	*	*	*	322	260	*	*	*	*
08:00	246	287	439	454	*	*	*	*	*	*	342	370	*	*	*	*
09:00	367	429	446	498	*	*	*	*	*	*	406	464	*	*	*	*
10:00	375	536	487	504	*	*	*	*	*	*	431	520	*	*	*	*
11:00	447	593	498	513	*	*	*	*	*	*	472	553	*	*	*	*
12:00 PM	420	704	550	500	*	*	*	*	*	*	485	602	*	*	*	*
01:00	463	655	538	488	*	*	*	*	*	*	500	572	*	*	*	*
02:00	650	429	595	481	*	*	*	*	*	*	622	455	*	*	*	*
03:00	618	421	549	533	*	*	*	*	*	*	584	477	*	*	*	*
04:00	506	394	532	740	*	*	*	*	*	*	519	567	*	*	*	*
05:00	500	431	545	680	*	*	*	*	*	*	522	556	*	*	*	*
06:00	508	328	461	550	*	*	*	*	*	*	484	439	*	*	*	*
07:00	386	282	375	419	*	*	*	*	*	*	380	350	*	*	*	*
08:00	317	237	247	312	*	*	*	*	*	*	282	274	*	*	*	*
09:00	126	128	128	124	*	*	*	*	*	*	127	126	*	*	*	*
10:00	63	68	45	64	*	*	*	*	*	*	54	66	*	*	*	*
11:00	37	38	*	*	*	*	*	*	*	*	37	38	*	*	*	*
Total Day	6374	6387	7319	7520	0	0	0	0	0	0	6863	6972	0	0	0	0
AM Peak	11:00	11:00	11:00	11:00	-	-	-	-	-	-	11:00	11:00	-	-	-	-
Vol.	447	593	498	513	-	-	-	-	-	-	472	553	-	-	-	-
PM Peak	14:00	12:00	14:00	16:00	-	-	-	-	-	-	14:00	12:00	-	-	-	-
Vol.	650	704	595	740	-	-	-	-	-	-	622	602	-	-	-	-

Comb. Total	12761	24396	15680	15979	16358	29598	14642	13825
ADT	ADT 15,194	AADT 15,194						

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	0	1	24	71	142	66	10	0	0	0	0	0	0	0	314	26-35	213
13:00	1	18	40	122	202	98	35	4	0	0	0	0	0	0	520	26-35	324
14:00	6	25	69	153	190	92	15	1	0	0	0	0	0	0	551	26-35	343
15:00	5	37	85	194	209	83	22	2	0	0	0	0	0	0	637	26-35	403
16:00	9	50	87	166	233	98	24	2	0	0	0	0	0	0	669	26-35	399
17:00	14	37	64	144	215	101	20	1	2	0	0	0	0	0	598	26-35	359
18:00	0	10	27	57	180	159	38	4	0	0	0	0	0	0	475	31-40	339
19:00	0	2	6	40	116	111	45	9	1	0	0	0	0	0	330	31-40	227
20:00	2	3	9	31	82	81	43	3	1	0	0	0	0	0	255	31-40	163
21:00	0	0	2	19	22	59	26	15	0	0	0	0	0	0	143	36-45	85
22:00	0	0	1	4	7	22	13	6	3	0	0	0	0	0	56	36-45	35
23:00	0	0	1	2	7	7	0	3	3	0	0	0	0	0	23	31-40	14
Total	37	183	415	1003	1605	977	291	50	10	0	0	0	0	0	4571		
Percent	0.8%	4.0%	9.1%	21.9%	35.1%	21.4%	6.4%	1.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	17:00	16:00	16:00	15:00	16:00	18:00	19:00	21:00	22:00						16:00		
	14	50	87	194	233	159	45	15	3						669		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/25/22	0	0	0	2	1	2	4	1	0	0	0	0	0	0	10	36-45	6
01:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	30-39	2
02:00	0	0	0	0	1	1	3	1	0	0	0	0	0	0	6	41-50	4
03:00	0	0	0	1	2	1	2	2	2	0	0	0	0	0	10	46-55	4
04:00	0	0	0	1	5	2	7	1	0	0	0	0	0	0	16	36-45	9
05:00	0	0	0	6	27	26	15	7	1	0	0	0	0	0	82	31-40	53
06:00	0	0	5	21	99	81	39	13	2	0	0	0	0	0	260	31-40	180
07:00	7	18	32	68	212	111	26	7	0	1	0	0	0	0	482	31-40	323
08:00	10	19	49	88	183	84	28	2	0	0	0	0	0	0	463	26-35	271
09:00	12	20	37	122	210	61	26	7	2	0	0	0	0	0	497	26-35	332
10:00	0	0	7	73	243	85	16	5	0	0	0	0	0	0	429	31-40	328
11:00	0	1	19	192	192	83	18	3	0	0	0	0	0	0	508	26-35	384
12 PM	3	12	37	140	208	84	28	4	0	0	0	0	0	0	516	26-35	348
13:00	12	28	52	125	194	65	23	2	0	0	0	0	0	0	501	26-35	319
14:00	27	29	69	147	195	82	23	2	0	0	0	0	0	0	574	26-35	342
15:00	17	22	73	163	195	97	23	2	0	0	0	0	0	0	592	26-35	358
16:00	18	56	96	184	227	89	18	1	0	0	0	0	0	0	689	26-35	411
17:00	12	36	75	122	211	91	26	5	1	0	0	0	0	0	579	26-35	333
18:00	9	14	37	111	190	108	32	13	1	0	0	0	0	0	515	26-35	301
19:00	5	9	21	74	170	84	23	9	0	0	0	0	0	0	395	31-40	254
20:00	1	2	8	33	93	81	39	6	5	0	0	0	0	0	268	31-40	174
21:00	0	0	8	9	46	89	48	12	1	0	0	0	0	0	213	35-44	137
22:00	0	0	0	10	17	20	10	5	2	0	0	0	0	0	64	31-40	37
23:00	0	0	1	5	13	4	3	2	1	0	0	0	0	0	29	26-35	18
Total	133	266	626	1697	2934	1433	480	112	18	1	0	0	0	0	7700		
Percent	1.7%	3.5%	8.1%	22.0%	38.1%	18.6%	6.2%	1.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	08:00	11:00	10:00	07:00	06:00	06:00	03:00	07:00					11:00		
Vol.	12	20	49	192	243	111	39	13	2	1					508		
PM Peak	14:00	16:00	16:00	16:00	16:00	18:00	21:00	18:00	20:00						16:00		
Vol.	27	56	96	184	227	108	48	13	5						689		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/26/22	0	0	1	0	3	3	3	3	0	0	0	0	0	0	13	31-40	6
01:00	0	0	0	0	1	1	4	2	0	0	0	0	0	0	8	39-48	6
02:00	0	0	0	1	2	1	4	1	0	0	0	0	0	0	9	35-44	5
03:00	0	0	0	0	6	2	3	0	0	0	0	0	0	0	11	30-39	8
04:00	0	0	0	1	3	4	2	5	1	0	0	0	0	0	16	41-50	7
05:00	0	0	1	6	22	19	16	7	2	0	0	0	0	0	73	31-40	41
06:00	1	4	3	31	72	78	29	10	0	1	0	0	0	0	229	31-40	150
07:00	5	21	36	86	217	100	22	7	0	0	0	0	0	0	494	31-40	317
08:00	13	18	37	73	192	125	41	2	0	0	0	0	0	0	501	31-40	317
09:00	11	20	44	116	183	58	25	4	1	0	0	0	0	0	462	26-35	299
10:00	2	4	19	123	222	84	20	5	0	0	0	0	0	0	479	26-35	345
11:00	7	32	68	151	193	69	12	0	0	0	0	0	0	0	532	26-35	344
12 PM	14	19	62	145	175	94	23	1	0	0	0	0	0	0	533	26-35	320
13:00	31	40	76	124	194	97	26	3	0	0	0	0	0	0	591	26-35	318
14:00	20	41	108	186	187	79	14	2	0	0	0	0	0	0	637	26-35	373
15:00	13	26	86	176	228	66	17	1	0	0	0	0	0	0	613	26-35	404
16:00	28	30	92	180	250	88	18	3	0	0	0	0	0	0	689	26-35	430
17:00	20	33	72	143	228	78	26	1	1	0	0	0	0	0	602	26-35	371
18:00	8	16	40	115	176	93	31	4	0	0	0	0	0	0	483	26-35	291
19:00	4	11	31	74	146	104	30	6	0	0	0	0	0	0	406	31-40	250
20:00	0	0	9	39	89	81	39	9	0	0	0	0	0	0	266	31-40	170
21:00	0	1	2	13	49	45	35	5	0	0	0	0	0	0	150	31-40	94
22:00	0	0	1	12	29	19	21	15	0	0	0	0	0	0	97	31-40	48
23:00	0	0	0	1	8	7	11	1	0	0	0	0	0	0	28	36-45	18
Total	177	316	788	1796	2875	1395	472	97	5	1	0	0	0	0	7922		
Percent	2.2%	4.0%	9.9%	22.7%	36.3%	17.6%	6.0%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	11:00	10:00	08:00	08:00	06:00	05:00	06:00					11:00		
Vol.	13	32	68	151	222	125	41	10	2	1					532		
PM Peak	13:00	14:00	14:00	14:00	16:00	19:00	20:00	22:00	17:00						16:00		
Vol.	31	41	108	186	250	104	39	15	1						689		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/27/22	0	0	0	0	7	3	5	3	0	0	0	0	0	0	18	31-40	10
01:00	0	0	1	1	0	2	2	1	0	0	0	0	0	0	7	36-45	4
02:00	0	0	0	1	2	5	4	1	1	0	0	0	0	0	14	36-45	9
03:00	0	0	0	0	2	2	3	2	0	0	0	0	0	0	9	41-50	5
04:00	0	0	0	2	6	4	2	4	0	0	0	0	0	0	18	31-40	10
05:00	0	1	0	9	23	18	11	7	2	0	0	0	0	0	71	31-40	41
06:00	1	2	7	21	72	66	43	12	1	0	0	0	0	0	225	31-40	138
07:00	3	7	17	65	221	100	33	2	2	0	0	0	0	0	450	31-40	321
08:00	4	15	57	127	169	90	32	3	1	0	0	0	0	0	498	26-35	296
09:00	6	16	75	86	153	91	40	3	0	0	0	0	0	0	470	31-40	244
10:00	9	46	73	145	174	89	17	5	1	0	0	0	0	0	559	26-35	319
11:00	3	27	54	177	166	88	22	0	0	0	0	0	0	0	537	26-35	343
12 PM	0	0	25	183	211	77	14	7	0	0	0	0	0	0	517	26-35	394
13:00	0	0	9	228	263	58	12	0	0	0	0	0	0	0	570	26-35	491
14:00	0	3	42	224	253	43	7	0	0	0	0	0	0	0	572	26-35	477
15:00	0	0	48	293	168	56	6	0	0	0	0	0	0	0	571	26-35	461
16:00	0	1	67	211	238	78	10	1	0	0	0	0	0	0	606	26-35	449
17:00	0	0	11	196	235	72	20	4	0	0	0	0	0	0	538	26-35	431
18:00	3	6	28	124	193	109	33	5	0	0	0	0	0	0	501	26-35	317
19:00	3	9	21	70	145	85	37	9	1	0	0	0	0	0	380	31-40	230
20:00	0	3	3	32	79	81	33	7	1	0	0	0	0	0	239	31-40	160
21:00	0	0	6	38	58	67	40	3	1	2	0	0	0	0	215	31-40	125
22:00	0	0	5	15	18	30	27	9	1	0	0	0	0	0	105	36-45	57
23:00	1	0	1	9	16	13	12	4	1	1	0	0	0	0	58	31-40	29
Total	33	136	550	2257	2872	1327	465	92	13	3	0	0	0	0	7748		
Percent	0.4%	1.8%	7.1%	29.1%	37.1%	17.1%	6.0%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	09:00	11:00	07:00	07:00	06:00	06:00	05:00						10:00		
Vol.	9	46	75	177	221	100	43	12	2						559		
PM Peak	18:00	19:00	16:00	15:00	13:00	18:00	21:00	19:00	19:00	21:00					16:00		
Vol.	3	9	67	293	263	109	40	9	1	2					606		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/28/22	0	0	0	2	10	9	4	1	0	0	0	0	0	0	26	31-40	19
01:00	0	0	0	3	3	8	0	1	0	0	0	0	0	0	15	31-40	11
02:00	0	0	1	3	2	6	3	0	0	0	0	0	0	0	15	34-43	9
03:00	0	0	0	2	2	1	2	1	0	0	0	0	0	0	8	26-35	4
04:00	0	0	0	0	6	9	0	2	0	0	0	0	0	0	17	31-40	15
05:00	0	0	0	1	8	4	11	3	2	0	0	0	0	0	29	36-45	15
06:00	0	0	0	5	37	31	21	9	0	0	0	0	0	0	103	31-40	68
07:00	0	0	9	31	67	65	16	6	1	0	0	0	0	0	195	31-40	132
08:00	0	4	15	36	105	101	25	8	1	0	0	0	0	0	295	31-40	206
09:00	10	24	41	101	162	98	31	6	1	0	0	0	0	0	474	26-35	263
10:00	19	52	101	129	186	77	12	2	0	0	0	0	0	0	578	26-35	315
11:00	26	47	113	150	197	60	12	1	0	0	0	0	0	0	606	26-35	347
12 PM	39	75	131	200	167	52	10	2	0	0	0	0	0	0	676	26-35	367
13:00	11	27	64	195	207	81	18	1	0	0	1	0	0	0	605	26-35	402
14:00	0	0	5	147	290	84	19	1	0	0	0	0	0	0	546	26-35	437
15:00	0	0	8	195	266	74	21	0	0	0	0	0	0	0	564	26-35	461
16:00	0	0	1	117	268	80	23	1	1	0	0	0	0	0	491	26-35	385
17:00	0	0	4	92	272	99	24	2	0	0	0	0	0	0	493	31-40	371
18:00	0	3	11	95	173	102	38	7	0	0	0	0	0	0	429	31-40	275
19:00	0	1	18	71	103	97	33	3	1	0	0	0	0	0	327	31-40	200
20:00	0	1	10	35	116	83	39	5	0	0	0	0	0	0	289	31-40	199
21:00	0	0	2	27	83	66	28	4	2	0	0	0	0	0	212	31-40	149
22:00	0	0	1	18	35	46	15	6	0	0	0	0	0	0	121	31-40	81
23:00	0	0	0	7	18	22	14	6	0	0	0	0	0	0	67	31-40	40
Total	105	234	535	1662	2783	1355	419	78	9	0	1	0	0	0	7181		
Percent	1.5%	3.3%	7.5%	23.1%	38.8%	18.9%	5.8%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	11:00	11:00	11:00	08:00	09:00	06:00	05:00						11:00		
Vol.	26	52	113	150	197	101	31	9	2						606		
PM Peak	12:00	12:00	12:00	12:00	14:00	18:00	20:00	18:00	21:00		13:00				12:00		
Vol.	39	75	131	200	290	102	39	7	2		1			676			

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
05/29/22	0	0	0	1	6	15	5	5	0	1	0	0	0	0	33	31-40	21
01:00	0	0	0	0	9	9	3	2	1	0	0	0	0	0	24	31-40	18
02:00	0	0	0	0	0	1	3	2	0	0	0	0	0	0	6	39-48	5
03:00	0	0	0	2	2	3	3	5	0	0	0	0	0	0	15	40-49	8
04:00	0	0	0	0	3	4	2	3	1	0	0	0	0	0	13	31-40	7
05:00	0	0	0	0	2	8	9	3	0	0	0	0	0	0	22	36-45	17
06:00	0	0	0	4	17	26	13	6	0	0	0	0	0	0	66	31-40	43
07:00	0	0	1	11	57	51	32	13	1	0	0	0	0	0	166	31-40	108
08:00	0	3	19	71	137	71	30	7	0	0	0	0	0	0	338	29-38	208
09:00	5	11	27	80	135	77	30	4	0	0	0	0	0	0	369	26-35	215
10:00	0	0	1	149	263	34	4	0	0	0	0	0	0	0	451	26-35	412
11:00	0	0	0	139	264	45	7	4	0	0	0	0	0	0	459	26-35	403
12 PM	0	0	2	207	233	59	12	0	0	0	0	0	0	0	513	26-35	440
13:00	1	0	2	220	172	52	17	3	0	0	0	0	0	0	467	26-35	392
14:00	0	0	1	91	282	79	14	2	0	0	0	0	0	0	469	26-35	373
15:00	0	0	1	132	273	88	26	2	0	0	0	0	0	0	522	26-35	405
16:00	0	0	1	116	273	94	25	6	0	0	0	0	0	0	515	26-35	389
17:00	0	0	2	102	221	106	32	3	1	0	0	0	0	0	467	31-40	327
18:00	0	0	3	62	218	147	36	4	1	1	0	0	0	0	472	31-40	365
19:00	0	2	6	60	195	138	38	5	1	0	0	0	0	0	445	31-40	333
20:00	2	4	10	71	136	106	28	3	1	0	0	0	0	0	361	31-40	242
21:00	1	5	20	30	88	62	16	3	0	0	0	0	0	0	225	31-40	150
22:00	0	0	3	8	33	25	18	3	1	0	0	0	0	0	91	31-40	58
23:00	0	0	1	8	13	20	10	5	1	0	0	0	0	0	58	31-40	33
Total	9	25	100	1564	3032	1320	413	93	9	2	0	0	0	0	6567		
Percent	0.1%	0.4%	1.5%	23.8%	46.2%	20.1%	6.3%	1.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	09:00	10:00	11:00	09:00	07:00	09:00	01:00	00:00					11:00		
Vol.	5	11	27	149	264	77	32	13	1	1					459		
PM Peak	20:00	21:00	21:00	13:00	14:00	18:00	19:00	16:00	17:00	18:00					15:00		
Vol.	2	5	20	220	282	147	38	6	1	1					522		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/30/22	0	0	2	6	11	6	6	0	0	0	0	0	0	0	31	26-35	17
01:00	0	0	0	1	7	5	2	1	0	0	0	0	0	0	16	31-40	12
02:00	0	0	1	0	2	1	2	1	1	0	0	0	0	0	8	41-50	3
03:00	0	0	0	1	4	4	3	1	0	0	0	0	0	0	13	31-40	8
04:00	0	0	0	3	2	1	1	1	0	0	0	0	0	0	8	26-35	5
05:00	0	0	0	3	8	8	3	7	0	0	0	0	0	0	29	31-40	16
06:00	0	0	0	8	21	32	14	3	2	1	0	0	0	0	81	31-40	53
07:00	1	1	4	16	48	52	25	11	0	1	0	0	0	0	159	31-40	100
08:00	0	1	7	29	75	85	35	14	0	0	0	0	0	0	246	31-40	160
09:00	2	11	17	77	165	83	11	1	0	0	0	0	0	0	367	31-40	248
10:00	0	0	0	60	249	59	5	2	0	0	0	0	0	0	375	26-35	309
11:00	0	0	0	144	252	44	5	2	0	0	0	0	0	0	447	26-35	396
12 PM	0	0	2	172	206	31	9	0	0	0	0	0	0	0	420	26-35	378
13:00	0	0	0	222	192	42	6	1	0	0	0	0	0	0	463	26-35	414
14:00	0	0	2	164	454	29	1	0	0	0	0	0	0	0	650	26-35	618
15:00	0	0	3	109	441	56	8	1	0	0	0	0	0	0	618	26-35	550
16:00	0	0	0	47	419	35	5	0	0	0	0	0	0	0	506	26-35	466
17:00	0	0	0	69	373	52	5	1	0	0	0	0	0	0	500	26-35	442
18:00	0	0	0	44	393	61	9	0	1	0	0	0	0	0	508	31-40	454
19:00	0	0	1	24	265	81	14	1	0	0	0	0	0	0	386	31-40	346
20:00	0	0	0	17	226	62	9	3	0	0	0	0	0	0	317	31-40	288
21:00	0	0	0	3	58	48	16	0	0	1	0	0	0	0	126	31-40	106
22:00	0	0	0	0	10	40	9	2	2	0	0	0	0	0	63	31-40	50
23:00	0	0	0	0	1	29	6	1	0	0	0	0	0	0	37	36-45	35
Total	3	13	39	1219	3882	946	209	54	6	3	0	0	0	0	6374		
Percent	0.0%	0.2%	0.6%	19.1%	60.9%	14.8%	3.3%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	09:00	09:00	11:00	11:00	08:00	08:00	08:00	06:00	06:00							11:00
Vol.	2	11	17	144	252	85	35	14	2	1							447
PM Peak			15:00	13:00	14:00	19:00	21:00	20:00	22:00	21:00							14:00
Vol.			3	222	454	81	16	3	2	1							650

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/31/22	0	0	0	0	2	9	3	2	0	0	0	0	0	0	16	36-45	12
01:00	0	0	0	0	0	5	2	1	0	0	0	0	0	0	8	36-45	7
02:00	0	0	0	0	2	2	3	0	0	0	0	0	0	0	7	34-43	5
03:00	0	0	0	0	4	7	4	2	0	0	0	0	0	0	17	36-45	11
04:00	0	0	0	0	5	12	8	5	0	0	0	0	0	0	30	36-45	20
05:00	0	1	1	4	28	34	10	3	1	0	0	0	0	0	82	31-40	62
06:00	0	1	3	27	86	84	25	12	2	0	0	0	0	0	240	31-40	170
07:00	0	0	12	89	270	84	25	4	0	0	0	0	0	0	484	26-35	359
08:00	0	0	2	106	275	43	11	2	0	0	0	0	0	0	439	26-35	381
09:00	0	0	1	61	346	31	5	2	0	0	0	0	0	0	446	26-35	407
10:00	0	0	0	8	444	35	0	0	0	0	0	0	0	0	487	31-40	479
11:00	0	0	1	29	416	52	0	0	0	0	0	0	0	0	498	31-40	468
12 PM	0	0	0	42	472	36	0	0	0	0	0	0	0	0	550	26-35	514
13:00	0	0	0	38	459	41	0	0	0	0	0	0	0	0	538	31-40	500
14:00	0	0	0	34	413	148	0	0	0	0	0	0	0	0	595	31-40	561
15:00	0	0	0	157	350	42	0	0	0	0	0	0	0	0	549	26-35	507
16:00	0	0	0	206	299	23	4	0	0	0	0	0	0	0	532	26-35	505
17:00	1	0	0	181	295	54	14	0	0	0	0	0	0	0	545	26-35	476
18:00	0	0	3	80	294	65	18	1	0	0	0	0	0	0	461	26-35	374
19:00	0	0	6	53	162	104	40	8	2	0	0	0	0	0	375	31-40	266
20:00	2	2	9	27	102	74	27	4	0	0	0	0	0	0	247	31-40	176
21:00	0	1	3	12	36	49	24	2	1	0	0	0	0	0	128	31-40	85
22:00	0	0	0	4	14	17	7	2	1	0	0	0	0	0	45	31-40	31
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	3	5	41	1158	4774	1051	230	50	7	0	0	0	0	0	7319		
Percent	0.0%	0.1%	0.6%	15.8%	65.2%	14.4%	3.1%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		05:00	07:00	08:00	10:00	06:00	06:00	06:00	06:00							11:00	
Vol.		1	12	106	444	84	25	12	2						498		
PM Peak	20:00	20:00	20:00	16:00	12:00	14:00	19:00	19:00	19:00						14:00		
Vol.	2	2	9	206	472	148	40	8	2						595		
Total	500	1178	3094	12356	24757	9804	2979	626	77	10	1	0	0	0	55382		
Percent	0.9%	2.1%	5.6%	22.3%	44.7%	17.7%	5.4%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 26 MPH
50th Percentile : 32 MPH
85th Percentile : 37 MPH
95th Percentile : 41 MPH

Stats
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 37113
Percent in Pace : 67.0%
Number of Vehicles > 40 MPH : 3693
Percent of Vehicles > 40 MPH : 6.7%
Mean Speed(Average) : 32 MPH

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	2	12	55	155	95	10	2	0	0	0	0	0	0	0	331	26-35	250
13:00	1	10	62	214	201	37	3	1	0	0	0	0	0	0	529	26-35	415
14:00	3	13	86	288	186	28	1	0	0	0	0	0	0	0	605	26-35	474
15:00	2	7	79	298	230	16	2	0	0	0	0	0	0	0	634	26-35	528
16:00	10	34	117	363	159	6	0	0	0	0	0	0	0	0	689	26-35	522
17:00	2	15	77	343	212	22	1	0	0	0	0	0	0	0	672	26-35	555
18:00	1	10	42	264	196	42	6	0	0	0	0	0	0	0	561	26-35	460
19:00	0	0	21	118	193	74	15	1	0	0	0	0	0	0	422	26-35	311
20:00	0	1	20	74	110	58	10	0	0	0	0	0	0	0	273	26-35	184
21:00	0	0	5	24	63	47	13	2	0	0	0	0	0	0	154	31-40	110
22:00	0	0	2	7	25	21	15	1	0	0	0	0	0	0	71	31-40	46
23:00	0	0	1	2	23	10	7	2	0	0	0	0	0	0	45	31-40	33
Total	21	102	567	2150	1693	371	75	7	0	0	0	0	0	0	4986		
Percent	0.4%	2.0%	11.4%	43.1%	34.0%	7.4%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	16:00	16:00	16:00	16:00	15:00	19:00	19:00	21:00							16:00		
	10	34	117	363	230	74	15	2							689		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/25/22	0	0	0	1	0	9	5	0	0	0	0	0	0	0	15	36-45	14
01:00	0	0	0	0	2	6	3	0	0	0	0	0	0	0	11	34-43	9
02:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4	30-39	4
03:00	0	0	1	1	2	2	1	0	0	0	0	0	0	0	7	31-40	4
04:00	0	0	0	1	3	13	5	0	0	0	0	0	0	0	22	35-44	18
05:00	0	0	3	7	33	27	28	2	1	0	0	0	0	0	101	31-40	60
06:00	0	2	7	39	44	41	17	0	0	1	0	0	0	0	151	31-40	85
07:00	0	4	26	113	126	42	7	0	0	0	0	0	0	0	318	26-35	239
08:00	5	11	39	190	178	31	3	0	0	0	0	0	0	0	457	26-35	368
09:00	0	6	59	211	165	36	6	0	0	0	0	0	0	0	483	26-35	376
10:00	3	3	27	206	222	34	5	0	0	0	0	0	0	0	500	26-35	428
11:00	2	6	77	266	154	28	4	0	0	0	0	0	0	0	537	26-35	420
12 PM	1	14	79	275	176	27	2	0	0	0	0	0	0	0	574	26-35	451
13:00	6	15	67	258	203	30	1	0	0	0	0	0	0	0	580	26-35	461
14:00	2	15	81	286	173	23	2	0	0	1	0	0	0	0	583	26-35	459
15:00	4	18	79	317	208	14	0	0	0	0	0	0	0	0	640	26-35	525
16:00	9	32	132	348	116	20	0	0	0	0	0	0	0	0	657	21-30	480
17:00	4	17	67	335	225	44	3	0	0	0	0	0	0	0	695	26-35	560
18:00	1	8	70	252	205	38	2	0	0	0	0	0	0	0	576	26-35	457
19:00	0	4	53	225	172	30	7	0	0	0	0	0	0	0	491	26-35	397
20:00	1	4	12	83	124	48	6	1	0	0	0	0	0	0	279	26-35	207
21:00	0	0	1	17	95	50	8	0	0	0	0	0	0	0	171	31-40	145
22:00	0	0	0	11	28	31	6	0	0	0	0	0	0	0	76	31-40	59
23:00	0	0	0	1	14	31	5	1	0	0	0	0	0	0	52	31-40	45
Total	38	159	880	3443	2670	657	126	4	1	2	0	0	0	0	7980		
Percent	0.5%	2.0%	11.0%	43.1%	33.5%	8.2%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	11:00	11:00	10:00	07:00	05:00	05:00	05:00	06:00					11:00		
Vol.	5	11	77	266	222	42	28	2	1	1					537		
PM Peak	16:00	16:00	16:00	16:00	17:00	21:00	21:00	20:00		14:00					17:00		
Vol.	9	32	132	348	225	50	8	1		1					695		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/26/22	0	0	0	0	5	5	5	2	0	0	0	0	0	0	17	36-45	10
01:00	0	1	0	0	1	8	1	2	0	1	0	0	0	0	14	36-45	9
02:00	0	0	0	1	5	2	0	0	0	0	0	0	0	0	8	31-40	7
03:00	0	0	0	0	5	3	2	0	0	0	0	0	0	0	10	31-40	8
04:00	0	0	0	1	6	6	7	0	0	0	0	0	0	0	20	34-43	13
05:00	0	1	4	7	17	23	17	5	3	2	0	0	0	0	79	36-45	40
06:00	0	1	7	25	55	42	16	2	0	0	0	0	0	0	148	31-40	97
07:00	1	2	29	118	116	36	5	2	0	0	0	0	0	0	309	26-35	234
08:00	4	16	33	183	183	34	1	0	0	0	0	0	0	0	454	26-35	366
09:00	0	14	41	231	184	50	1	0	0	0	0	0	0	0	521	26-35	415
10:00	2	4	56	193	172	59	3	0	0	0	0	0	0	0	489	26-35	365
11:00	6	17	71	277	176	26	1	0	0	0	0	0	0	0	574	26-35	453
12 PM	2	15	81	294	192	23	2	0	0	0	0	0	0	0	609	26-35	486
13:00	4	25	75	265	185	30	1	0	0	0	0	0	0	0	585	26-35	450
14:00	2	28	104	300	149	29	1	0	0	0	0	0	0	0	613	26-35	449
15:00	4	28	111	351	162	6	1	0	0	0	0	0	0	0	663	26-35	513
16:00	4	23	121	368	161	11	3	0	0	0	0	0	0	0	691	26-35	529
17:00	0	23	109	326	192	20	0	0	0	0	0	0	0	0	670	26-35	518
18:00	0	10	58	216	189	45	3	0	0	0	0	0	0	0	521	26-35	405
19:00	1	6	29	172	152	63	7	0	0	0	0	0	0	0	430	26-35	324
20:00	0	3	12	84	112	57	2	0	0	0	0	0	0	0	270	26-35	196
21:00	0	1	8	43	96	45	12	1	0	0	0	0	0	0	206	31-40	141
22:00	0	0	0	12	45	34	9	1	0	0	0	0	0	0	101	31-40	79
23:00	0	0	3	8	16	18	7	1	1	1	0	0	0	0	55	31-40	34
Total	30	218	952	3475	2576	675	107	16	4	4	0	0	0	0	8057		
Percent	0.4%	2.7%	11.8%	43.1%	32.0%	8.4%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	09:00	10:00	05:00	05:00	05:00	05:00							11:00
Vol.	6	17	71	277	184	59	17	5	3	2							574
PM Peak	13:00	14:00	16:00	16:00	12:00	19:00	21:00	21:00	23:00	23:00							16:00
Vol.	4	28	121	368	192	63	12	1	1	1							691

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/27/22	0	0	0	8	7	9	3	0	0	0	0	0	0	0	27	31-40	16
01:00	0	0	0	3	4	8	2	0	0	0	0	0	0	0	17	31-40	12
02:00	0	0	0	1	1	2	2	0	0	0	0	0	0	0	6	34-43	4
03:00	0	0	0	1	2	1	0	1	0	0	0	0	0	0	5	31-40	3
04:00	0	0	0	2	5	6	4	1	0	0	0	0	0	0	18	31-40	11
05:00	0	0	1	13	18	25	12	1	1	0	0	0	0	0	71	31-40	43
06:00	0	2	10	32	43	38	12	4	1	0	0	0	0	0	142	31-40	81
07:00	0	1	19	107	132	31	4	0	0	0	0	0	0	0	294	26-35	239
08:00	2	10	61	217	138	28	0	0	0	0	0	0	0	0	456	26-35	355
09:00	2	33	78	186	152	55	2	0	0	0	0	0	0	0	508	26-35	338
10:00	4	17	75	219	168	37	5	0	0	0	0	0	0	0	525	26-35	387
11:00	3	22	94	347	158	16	1	0	0	0	0	0	0	0	641	26-35	505
12 PM	4	8	90	321	222	29	0	0	0	0	0	0	0	0	674	26-35	543
13:00	7	6	46	331	234	19	1	0	0	0	0	0	0	0	644	26-35	565
14:00	3	37	113	375	159	11	1	0	0	0	0	0	0	0	699	26-35	534
15:00	3	29	147	399	152	3	0	0	0	0	0	0	0	0	733	26-35	551
16:00	5	23	134	354	179	19	1	0	0	0	0	0	0	0	715	26-35	533
17:00	3	11	102	422	187	15	0	0	0	0	0	0	0	0	740	26-35	609
18:00	0	15	69	282	209	36	6	0	0	0	0	0	0	0	617	26-35	491
19:00	0	8	34	174	141	51	8	0	0	0	0	0	0	0	416	26-35	315
20:00	0	1	15	72	131	50	7	0	0	0	0	0	0	0	276	26-35	203
21:00	0	0	8	49	69	44	5	0	0	0	0	0	0	0	175	26-35	118
22:00	0	0	5	15	53	56	6	0	0	0	0	0	0	0	135	31-40	109
23:00	0	1	2	13	18	30	8	2	2	0	0	0	0	0	76	31-40	48
Total	36	224	1103	3943	2582	619	90	9	4	0	0	0	0	0	8610		
Percent	0.4%	2.6%	12.8%	45.8%	30.0%	7.2%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	11:00	11:00	10:00	09:00	05:00	06:00	05:00							11:00	
Vol.	4	33	94	347	168	55	12	4	1						641		
PM Peak	13:00	14:00	15:00	17:00	13:00	22:00	19:00	23:00	23:00						17:00		
Vol.	7	37	147	422	234	56	8	2	2						740		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/28/22	0	0	0	5	10	15	6	1	0	0	0	0	0	0	37	31-40	25
01:00	0	0	1	3	5	9	3	0	0	0	0	0	0	0	21	31-40	14
02:00	0	0	0	3	4	7	0	0	0	0	0	0	0	0	14	31-40	11
03:00	0	0	0	0	5	2	3	0	0	0	0	0	0	0	10	30-39	7
04:00	0	0	1	2	2	6	9	0	0	0	0	0	0	0	20	36-45	15
05:00	0	1	0	1	4	16	15	7	0	0	0	0	0	0	44	36-45	31
06:00	0	0	1	7	27	27	11	4	0	0	0	0	0	0	77	31-40	54
07:00	0	4	23	31	45	41	12	2	0	0	0	0	0	0	158	31-40	86
08:00	0	0	22	95	153	63	7	0	0	0	0	0	0	0	340	26-35	248
09:00	1	11	50	188	176	49	5	0	0	0	0	0	0	0	480	26-35	364
10:00	0	14	84	298	118	16	2	0	0	0	0	0	0	0	532	26-35	416
11:00	5	30	129	409	128	11	0	0	0	0	0	0	0	0	712	21-30	538
12 PM	5	34	163	347	99	5	1	0	0	0	0	0	0	0	654	21-30	510
13:00	6	21	120	399	122	9	1	0	0	0	0	0	0	0	678	25-34	521
14:00	1	1	73	298	185	27	2	0	0	0	0	0	0	0	587	26-35	483
15:00	5	0	50	333	168	29	1	0	0	0	0	0	0	0	586	26-35	501
16:00	3	0	31	276	212	43	2	0	0	0	0	0	0	0	567	26-35	488
17:00	4	1	26	219	192	40	3	0	0	0	0	0	0	0	485	26-35	411
18:00	0	4	47	153	189	58	3	0	0	0	0	0	0	0	454	26-35	342
19:00	0	0	19	110	150	65	10	1	0	0	0	0	0	0	355	26-35	260
20:00	0	1	25	70	84	50	3	0	0	0	0	0	0	0	233	26-35	154
21:00	0	0	4	52	89	55	8	2	0	0	0	0	0	0	210	31-40	144
22:00	0	0	3	38	59	33	6	0	1	0	0	0	0	0	140	26-35	97
23:00	0	0	0	19	20	17	10	1	0	0	0	0	0	0	67	26-35	39
Total	30	122	872	3356	2246	693	123	18	1	0	0	0	0	0	7461		
Percent	0.4%	1.6%	11.7%	45.0%	30.1%	9.3%	1.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	09:00	08:00	05:00	05:00							11:00		
Vol.	5	30	129	409	176	63	15	7							712		
PM Peak	13:00	12:00	12:00	13:00	16:00	19:00	19:00	21:00	22:00						13:00		
Vol.	6	34	163	399	212	65	10	2	1						678		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/29/22	0	0	1	5	17	21	4	2	2	0	0	0	0	0	52	31-40	38
01:00	0	0	0	1	9	9	1	0	0	0	0	0	0	0	20	31-40	18
02:00	0	0	0	2	3	3	0	1	0	0	0	0	0	0	9	31-40	6
03:00	0	0	1	3	2	8	0	2	3	0	0	0	0	0	19	31-40	10
04:00	0	1	0	0	3	6	10	5	1	0	0	0	0	0	26	36-45	16
05:00	0	0	3	3	3	20	21	3	3	1	0	0	0	0	57	36-45	41
06:00	0	0	6	13	13	22	19	3	0	0	0	0	0	0	76	36-45	41
07:00	1	2	10	30	68	52	21	2	0	0	0	0	0	0	186	31-40	120
08:00	1	0	26	93	104	69	12	0	0	0	0	0	0	0	305	26-35	197
09:00	0	7	55	200	123	48	6	1	0	0	0	0	0	0	440	26-35	323
10:00	4	0	12	270	231	30	5	5	0	0	0	0	0	0	557	26-35	501
11:00	0	2	19	328	260	37	8	1	0	0	0	0	0	0	655	26-35	588
12 PM	3	0	49	383	223	20	3	1	0	0	0	0	0	0	682	26-35	606
13:00	1	1	65	380	186	20	2	1	0	0	0	0	0	0	656	26-35	566
14:00	2	0	22	239	253	46	5	0	0	0	0	0	0	0	567	26-35	492
15:00	1	0	39	238	204	17	3	0	0	0	0	0	0	0	502	26-35	442
16:00	1	0	31	242	219	34	2	0	0	0	0	0	0	0	529	26-35	461
17:00	2	2	52	245	194	44	7	1	0	0	0	0	0	0	547	26-35	439
18:00	2	0	24	157	155	51	5	1	0	0	0	0	0	0	395	26-35	312
19:00	0	1	23	119	140	54	8	0	0	0	0	0	0	0	345	26-35	259
20:00	0	1	29	85	101	55	4	0	0	0	0	0	0	0	275	26-35	186
21:00	0	2	11	63	79	36	5	0	0	0	0	0	0	0	196	26-35	142
22:00	0	1	4	14	36	28	7	1	0	0	0	0	0	0	91	31-40	64
23:00	0	0	0	8	37	20	4	2	0	0	0	0	0	0	71	31-40	57
Total	18	20	482	3121	2663	750	162	32	9	1	0	0	0	0	7258		
Percent	0.2%	0.3%	6.6%	43.0%	36.7%	10.3%	2.2%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	09:00	11:00	11:00	08:00	05:00	09:00	04:00	03:00	05:00				11:00		
Vol.	4	7	55	328	260	69	21	5	3	1					655		
PM Peak	12:00	17:00	13:00	12:00	14:00	20:00	19:00	23:00							12:00		
Vol.	3	2	65	383	253	55	8	2							682		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/30/22	0	2	1	14	8	16	3	0	1	0	0	0	0	0	45	31-40	24
01:00	0	0	1	1	9	11	4	0	0	0	0	0	0	0	26	31-40	20
02:00	0	0	0	2	2	2	1	2	0	0	0	0	0	0	9	31-40	4
03:00	0	0	0	1	1	7	0	0	0	0	0	0	0	0	9	31-40	8
04:00	0	0	0	0	2	4	5	0	0	0	0	0	0	0	11	36-45	9
05:00	0	1	1	6	3	19	18	3	4	1	0	0	0	0	56	36-45	37
06:00	0	0	0	17	14	31	25	5	2	0	0	0	0	0	94	36-45	56
07:00	0	4	15	35	52	55	13	3	0	0	0	0	0	0	177	31-40	107
08:00	0	1	31	69	97	71	17	1	0	0	0	0	0	0	287	30-39	168
09:00	0	6	35	158	168	56	6	0	0	0	0	0	0	0	429	26-35	326
10:00	1	0	6	179	248	85	13	3	1	0	0	0	0	0	536	26-35	427
11:00	0	2	11	272	239	54	11	3	0	0	1	0	0	0	593	26-35	511
12 PM	2	0	30	375	253	31	10	3	0	0	0	0	0	0	704	26-35	628
13:00	0	2	33	372	209	29	5	3	2	0	0	0	0	0	655	26-35	581
14:00	0	0	9	182	203	31	3	0	1	0	0	0	0	0	429	26-35	385
15:00	0	0	6	153	216	32	13	0	1	0	0	0	0	0	421	26-35	369
16:00	0	1	5	121	215	43	8	1	0	0	0	0	0	0	394	26-35	336
17:00	0	0	2	127	235	56	11	0	0	0	0	0	0	0	431	26-35	362
18:00	0	1	0	84	182	48	13	0	0	0	0	0	0	0	328	26-35	266
19:00	0	0	5	83	143	44	7	0	0	0	0	0	0	0	282	26-35	226
20:00	2	0	4	63	124	40	4	0	0	0	0	0	0	0	237	26-35	187
21:00	0	0	1	22	43	45	13	4	0	0	0	0	0	0	128	31-40	88
22:00	0	0	0	8	27	29	4	0	0	0	0	0	0	0	68	31-40	56
23:00	0	0	0	1	15	14	6	2	0	0	0	0	0	0	38	31-40	29
Total	5	20	196	2345	2708	853	213	33	12	1	1	0	0	0	6387		
Percent	0.1%	0.3%	3.1%	36.7%	42.4%	13.4%	3.3%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	09:00	11:00	10:00	10:00	06:00	06:00	05:00	05:00	11:00				11:00		
Vol.	1	6	35	272	248	85	25	5	4	1	1				593		
PM Peak	12:00	13:00	13:00	12:00	12:00	17:00	15:00	21:00	13:00						12:00		
Vol.	2	2	33	375	253	56	13	4	2						704		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/31/22	0	0	0	0	7	8	3	0	0	0	0	0	0	0	18	31-40	15
01:00	0	0	0	1	7	5	2	0	0	0	0	0	0	0	15	31-40	12
02:00	0	0	0	1	1	1	1	0	0	0	0	0	0	0	4	24-33	2
03:00	0	0	0	2	2	0	1	0	0	0	0	0	0	0	5	26-35	4
04:00	0	0	0	2	3	7	4	1	0	0	0	0	0	0	17	34-43	11
05:00	0	0	2	10	22	31	20	1	0	1	0	0	0	0	87	31-40	53
06:00	0	1	7	56	44	44	16	1	1	0	0	0	0	0	170	26-35	100
07:00	0	2	22	148	135	33	4	0	0	0	0	0	0	0	344	26-35	283
08:00	1	1	24	193	181	46	8	0	0	0	0	0	0	0	454	26-35	374
09:00	0	0	12	145	268	62	9	2	0	0	0	0	0	0	498	26-35	413
10:00	0	0	0	113	329	38	13	11	0	0	0	0	0	0	504	26-35	442
11:00	0	0	0	119	309	55	22	8	0	0	0	0	0	0	513	26-35	428
12 PM	1	0	1	146	283	44	16	8	0	1	0	0	0	0	500	26-35	429
13:00	1	1	5	121	274	56	18	11	1	0	0	0	0	0	488	26-35	395
14:00	0	0	3	98	266	74	32	5	2	1	0	0	0	0	481	26-35	364
15:00	2	0	6	206	255	38	24	2	0	0	0	0	0	0	533	26-35	461
16:00	1	1	22	358	314	28	14	2	0	0	0	0	0	0	740	26-35	672
17:00	1	1	29	354	256	32	7	0	0	0	0	0	0	0	680	26-35	610
18:00	0	0	16	194	288	49	3	0	0	0	0	0	0	0	550	26-35	482
19:00	1	0	18	135	194	64	7	0	0	0	0	0	0	0	419	26-35	329
20:00	0	2	21	89	136	59	5	0	0	0	0	0	0	0	312	26-35	225
21:00	0	0	7	24	55	24	12	2	0	0	0	0	0	0	124	26-35	79
22:00	0	0	0	13	27	21	3	0	0	0	0	0	0	0	64	31-40	48
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	8	9	195	2528	3656	819	244	54	4	3	0	0	0	0	7520		
Percent	0.1%	0.1%	2.6%	33.6%	48.6%	10.9%	3.2%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	08:00	08:00	10:00	09:00	11:00	10:00	06:00	05:00					11:00		
Vol.	1	2	24	193	329	62	22	11	1	1					513		
PM Peak	15:00	20:00	17:00	16:00	16:00	14:00	14:00	13:00	14:00	12:00					16:00		
Vol.	2	2	29	358	314	74	32	11	2	1					740		
Total	186	874	5247	24361	20794	5437	1140	173	35	11	1	0	0	0	58259		
Percent	0.3%	1.5%	9.0%	41.8%	35.7%	9.3%	2.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 25 MPH
50th Percentile : 29 MPH
85th Percentile : 34 MPH
95th Percentile : 38 MPH

Stats
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 45155
Percent in Pace : 77.5%
Number of Vehicles > 40 MPH : 1360
Percent of Vehicles > 40 MPH : 2.3%
Mean Speed(Average) : 30 MPH

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	1	240	47	0	17	6	0	3	0	0	0	0	0	0	314
13:00	6	373	82	3	50	3	0	2	1	0	0	0	0	0	520
14:00	5	420	94	3	23	3	0	3	0	0	0	0	0	0	551
15:00	5	495	87	3	45	0	0	2	0	0	0	0	0	0	637
16:00	5	494	106	5	53	4	0	2	0	0	0	0	0	0	669
17:00	2	443	107	2	38	4	0	2	0	0	0	0	0	0	598
18:00	3	358	70	0	37	3	0	4	0	0	0	0	0	0	475
19:00	3	255	47	0	22	1	0	2	0	0	0	0	0	0	330
20:00	1	201	34	0	16	3	0	0	0	0	0	0	0	0	255
21:00	0	111	26	0	6	0	0	0	0	0	0	0	0	0	143
22:00	1	51	2	0	2	0	0	0	0	0	0	0	0	0	56
23:00	0	13	7	0	3	0	0	0	0	0	0	0	0	0	23
Total	32	3454	709	16	312	27	0	20	1	0	0	0	0	0	4571
Percent	0.7%	75.6%	15.5%	0.4%	6.8%	0.6%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	13:00	15:00	17:00	16:00	16:00	12:00		18:00	13:00						
	6	495	107	5	53	6		4	1						

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	7	3	0	0	0	0	0	0	0	0	0	0	0	10
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
02:00	0	3	1	1	1	0	0	0	0	0	0	0	0	0	6
03:00	0	8	1	0	1	0	0	0	0	0	0	0	0	0	10
04:00	0	12	0	0	4	0	0	0	0	0	0	0	0	0	16
05:00	1	47	18	0	14	1	0	1	0	0	0	0	0	0	82
06:00	0	176	45	2	35	2	0	0	0	0	0	0	0	0	260
07:00	4	343	88	8	32	4	0	2	1	0	0	0	0	0	482
08:00	1	348	71	7	32	3	0	1	0	0	0	0	0	0	463
09:00	4	345	94	5	45	1	0	2	1	0	0	0	0	0	497
10:00	0	344	51	3	28	1	0	1	1	0	0	0	0	0	429
11:00	3	419	51	1	33	1	0	0	0	0	0	0	0	0	508
12 PM	6	389	75	2	39	1	0	3	1	0	0	0	0	0	516
13:00	5	361	89	1	41	1	0	3	0	0	0	0	0	0	501
14:00	2	427	103	8	32	0	0	1	1	0	0	0	0	0	574
15:00	6	428	115	2	37	2	0	2	0	0	0	0	0	0	592
16:00	6	505	115	7	47	5	0	3	0	1	0	0	0	0	689
17:00	7	446	88	3	30	4	0	1	0	0	0	0	0	0	579
18:00	2	397	67	1	42	3	0	3	0	0	0	0	0	0	515
19:00	3	309	58	0	22	3	0	0	0	0	0	0	0	0	395
20:00	1	212	37	0	15	0	0	3	0	0	0	0	0	0	268
21:00	0	153	34	2	23	0	0	1	0	0	0	0	0	0	213
22:00	0	53	8	0	1	0	0	2	0	0	0	0	0	0	64
23:00	0	19	7	0	3	0	0	0	0	0	0	0	0	0	29
Total	51	5752	1220	53	557	32	0	29	5	1	0	0	0	0	7700
Percent	0.7%	74.7%	15.8%	0.7%	7.2%	0.4%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	09:00	07:00	09:00	07:00		07:00	07:00						
Vol.	4	419	94	8	45	4		2	1						
PM Peak	17:00	16:00	15:00	14:00	16:00	16:00		12:00	12:00	16:00					
Vol.	7	505	115	8	47	5		3	1	1					

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	7	5	0	1	0	0	0	0	0	0	0	0	0	13
01:00	0	5	0	1	2	0	0	0	0	0	0	0	0	0	8
02:00	0	6	1	0	2	0	0	0	0	0	0	0	0	0	9
03:00	0	8	1	0	2	0	0	0	0	0	0	0	0	0	11
04:00	0	10	1	0	4	1	0	0	0	0	0	0	0	0	16
05:00	0	54	10	0	9	0	0	0	0	0	0	0	0	0	73
06:00	0	159	41	2	25	1	0	1	0	0	0	0	0	0	229
07:00	2	358	86	7	35	2	0	3	1	0	0	0	0	0	494
08:00	2	372	76	8	37	4	0	2	0	0	0	0	0	0	501
09:00	2	343	77	6	28	4	0	1	1	0	0	0	0	0	462
10:00	0	371	59	6	37	3	0	3	0	0	0	0	0	0	479
11:00	0	423	82	1	22	0	1	3	0	0	0	0	0	0	532
12 PM	5	390	83	0	39	8	0	5	3	0	0	0	0	0	533
13:00	8	452	77	4	45	2	0	2	1	0	0	0	0	0	591
14:00	3	481	101	5	40	5	0	2	0	0	0	0	0	0	637
15:00	5	467	84	5	47	2	0	3	0	0	0	0	0	0	613
16:00	10	529	100	5	39	5	0	1	0	0	0	0	0	0	689
17:00	5	483	86	1	21	3	0	2	1	0	0	0	0	0	602
18:00	3	383	70	0	25	1	0	1	0	0	0	0	0	0	483
19:00	3	317	56	0	28	1	0	1	0	0	0	0	0	0	406
20:00	2	195	47	1	20	0	0	1	0	0	0	0	0	0	266
21:00	6	110	24	0	10	0	0	0	0	0	0	0	0	0	150
22:00	1	74	17	0	5	0	0	0	0	0	0	0	0	0	97
23:00	0	20	4	0	4	0	0	0	0	0	0	0	0	0	28
Total	57	6017	1188	52	527	42	1	31	7	0	0	0	0	0	7922
Percent	0.7%	76.0%	15.0%	0.7%	6.7%	0.5%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	07:00	08:00	08:00	08:00	11:00	07:00	07:00						
Vol.	2	423	86	8	37	4	1	3	1						
PM Peak	16:00	16:00	14:00	14:00	15:00	12:00		12:00	12:00						
Vol.	10	529	101	5	47	8		5	3						

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	13	5	0	0	0	0	0	0	0	0	0	0	0	18
01:00	0	4	1	2	0	0	0	0	0	0	0	0	0	0	7
02:00	0	9	3	0	2	0	0	0	0	0	0	0	0	0	14
03:00	0	7	0	0	2	0	0	0	0	0	0	0	0	0	9
04:00	0	12	2	0	3	0	0	1	0	0	0	0	0	0	18
05:00	0	47	13	0	11	0	0	0	0	0	0	0	0	0	71
06:00	2	154	32	2	32	1	0	1	1	0	0	0	0	0	225
07:00	2	326	78	7	33	1	0	2	1	0	0	0	0	0	450
08:00	4	363	92	6	27	4	0	2	0	0	0	0	0	0	498
09:00	5	329	76	8	46	2	0	4	0	0	0	0	0	0	470
10:00	3	425	83	0	37	8	0	1	2	0	0	0	0	0	559
11:00	2	416	84	1	29	1	0	1	3	0	0	0	0	0	537
12 PM	0	445	42	1	24	3	0	2	0	0	0	0	0	0	517
13:00	0	516	31	0	21	1	0	1	0	0	0	0	0	0	570
14:00	0	506	42	3	20	0	0	1	0	0	0	0	0	0	572
15:00	0	510	40	0	20	0	0	1	0	0	0	0	0	0	571
16:00	0	520	58	2	21	2	0	3	0	0	0	0	0	0	606
17:00	0	439	80	0	19	0	0	0	0	0	0	0	0	0	538
18:00	3	393	77	0	25	2	0	0	1	0	0	0	0	0	501
19:00	3	299	50	0	27	1	0	0	0	0	0	0	0	0	380
20:00	0	191	31	0	17	0	0	0	0	0	0	0	0	0	239
21:00	0	178	26	0	9	0	0	1	1	0	0	0	0	0	215
22:00	0	89	14	0	1	1	0	0	0	0	0	0	0	0	105
23:00	0	44	11	0	3	0	0	0	0	0	0	0	0	0	58
Total	24	6235	971	32	429	27	0	21	9	0	0	0	0	0	7748
Percent	0.3%	80.5%	12.5%	0.4%	5.5%	0.3%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	10:00	08:00	09:00	09:00	10:00		09:00	11:00						
Vol.	5	425	92	8	46	8		4	3						
PM Peak	18:00	16:00	17:00	14:00	19:00	12:00		16:00	18:00						
Vol.	3	520	80	3	27	3		3	1						

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/28/22	0	19	6	0	1	0	0	0	0	0	0	0	0	0	26
01:00	0	14	1	0	0	0	0	0	0	0	0	0	0	0	15
02:00	0	12	2	0	1	0	0	0	0	0	0	0	0	0	15
03:00	0	7	0	0	0	0	0	1	0	0	0	0	0	0	8
04:00	0	11	3	0	2	0	0	1	0	0	0	0	0	0	17
05:00	0	18	6	0	5	0	0	0	0	0	0	0	0	0	29
06:00	0	76	14	0	12	0	0	1	0	0	0	0	0	0	103
07:00	0	131	42	0	19	1	0	2	0	0	0	0	0	0	195
08:00	1	214	54	1	19	4	0	1	1	0	0	0	0	0	295
09:00	2	359	76	2	31	3	0	1	0	0	0	0	0	0	474
10:00	2	459	77	0	37	1	0	2	0	0	0	0	0	0	578
11:00	2	477	89	1	30	6	0	1	0	0	0	0	0	0	606
12 PM	4	559	73	0	27	7	0	6	0	0	0	0	0	0	676
13:00	7	492	79	1	23	2	0	1	0	0	0	0	0	0	605
14:00	1	475	47	0	20	2	0	1	0	0	0	0	0	0	546
15:00	0	511	39	0	14	0	0	0	0	0	0	0	0	0	564
16:00	0	437	34	0	18	1	0	1	0	0	0	0	0	0	491
17:00	0	431	44	1	17	0	0	0	0	0	0	0	0	0	493
18:00	0	346	53	0	28	0	0	2	0	0	0	0	0	0	429
19:00	0	262	47	0	16	0	0	1	1	0	0	0	0	0	327
20:00	0	237	37	0	14	1	0	0	0	0	0	0	0	0	289
21:00	1	161	32	0	17	1	0	0	0	0	0	0	0	0	212
22:00	0	94	17	0	10	0	0	0	0	0	0	0	0	0	121
23:00	0	58	5	0	4	0	0	0	0	0	0	0	0	0	67
Total	20	5860	877	6	365	29	0	22	2	0	0	0	0	0	7181
Percent	0.3%	81.6%	12.2%	0.1%	5.1%	0.4%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	11:00	09:00	10:00	11:00		07:00	08:00						
Vol.	2	477	89	2	37	6		2	1						
PM Peak	13:00	12:00	13:00	13:00	18:00	12:00		12:00	19:00						
Vol.	7	559	79	1	28	7		6	1						

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/29/22	0	26	5	0	2	0	0	0	0	0	0	0	0	0	33
01:00	0	20	3	0	1	0	0	0	0	0	0	0	0	0	24
02:00	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	9	2	0	4	0	0	0	0	0	0	0	0	0	15
04:00	0	9	3	0	0	0	0	1	0	0	0	0	0	0	13
05:00	0	14	4	0	4	0	0	0	0	0	0	0	0	0	22
06:00	0	44	13	0	9	0	0	0	0	0	0	0	0	0	66
07:00	0	121	30	0	14	0	0	0	1	0	0	0	0	0	166
08:00	3	251	58	0	23	1	0	2	0	0	0	0	0	0	338
09:00	2	295	57	0	14	0	0	1	0	0	0	0	0	0	369
10:00	0	425	15	0	10	0	0	1	0	0	0	0	0	0	451
11:00	0	431	20	0	7	0	0	1	0	0	0	0	0	0	459
12 PM	0	474	28	0	10	1	0	0	0	0	0	0	0	0	513
13:00	2	430	31	0	4	0	0	0	0	0	0	0	0	0	467
14:00	0	422	35	0	10	1	0	1	0	0	0	0	0	0	469
15:00	0	485	29	0	8	0	0	0	0	0	0	0	0	0	522
16:00	0	459	42	0	13	1	0	0	0	0	0	0	0	0	515
17:00	0	412	44	0	11	0	0	0	0	0	0	0	0	0	467
18:00	0	394	53	0	25	0	0	0	0	0	0	0	0	0	472
19:00	0	360	57	0	27	0	0	1	0	0	0	0	0	0	445
20:00	0	291	43	0	26	1	0	0	0	0	0	0	0	0	361
21:00	2	179	34	0	9	1	0	0	0	0	0	0	0	0	225
22:00	0	68	17	0	6	0	0	0	0	0	0	0	0	0	91
23:00	0	50	6	0	2	0	0	0	0	0	0	0	0	0	58
Total	9	5674	630	0	239	6	0	8	1	0	0	0	0	0	6567
Percent	0.1%	86.4%	9.6%	0.0%	3.6%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	08:00		08:00	08:00		08:00	07:00						
Vol.	3	431	58		23	1		2	1						
PM Peak	13:00	15:00	19:00		19:00	12:00		14:00							
Vol.	2	485	57		27	1		1							

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/30/22	0	25	5	0	1	0	0	0	0	0	0	0	0	0	31
01:00	0	9	6	0	1	0	0	0	0	0	0	0	0	0	16
02:00	0	5	2	0	1	0	0	0	0	0	0	0	0	0	8
03:00	0	9	3	0	1	0	0	0	0	0	0	0	0	0	13
04:00	0	3	5	0	0	0	0	0	0	0	0	0	0	0	8
05:00	0	18	3	0	6	0	0	2	0	0	0	0	0	0	29
06:00	0	60	17	0	4	0	0	0	0	0	0	0	0	0	81
07:00	1	117	29	0	11	0	0	1	0	0	0	0	0	0	159
08:00	2	185	37	0	19	2	0	1	0	0	0	0	0	0	246
09:00	3	297	49	1	16	0	0	0	1	0	0	0	0	0	367
10:00	0	373	2	0	0	0	0	0	0	0	0	0	0	0	375
11:00	0	422	19	0	6	0	0	0	0	0	0	0	0	0	447
12 PM	0	398	19	0	3	0	0	0	0	0	0	0	0	0	420
13:00	1	436	16	0	10	0	0	0	0	0	0	0	0	0	463
14:00	0	630	12	0	6	0	0	2	0	0	0	0	0	0	650
15:00	0	583	24	0	11	0	0	0	0	0	0	0	0	0	618
16:00	0	488	10	0	7	0	0	1	0	0	0	0	0	0	506
17:00	0	488	7	0	5	0	0	0	0	0	0	0	0	0	500
18:00	0	487	19	0	2	0	0	0	0	0	0	0	0	0	508
19:00	0	368	12	0	6	0	0	0	0	0	0	0	0	0	386
20:00	0	287	20	0	9	0	0	1	0	0	0	0	0	0	317
21:00	0	119	6	0	1	0	0	0	0	0	0	0	0	0	126
22:00	0	57	4	0	2	0	0	0	0	0	0	0	0	0	63
23:00	0	34	1	0	2	0	0	0	0	0	0	0	0	0	37
Total	7	5898	327	1	130	2	0	8	1	0	0	0	0	0	6374
Percent	0.1%	92.5%	5.1%	0.0%	2.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	09:00	09:00	08:00	08:00		05:00	09:00						
Vol.	3	422	49	1	19	2		2	1						
PM Peak	13:00	14:00	15:00		15:00			14:00							
Vol.	1	630	24		11			2							

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	5	258	53	3	9	2	0	1	0	0	0	0	0	0	331
13:00	1	426	80	2	10	4	0	5	1	0	0	0	0	0	529
14:00	8	473	94	5	20	3	0	1	1	0	0	0	0	0	605
15:00	5	508	96	7	14	4	0	0	0	0	0	0	0	0	634
16:00	9	557	91	3	20	7	0	1	0	1	0	0	0	0	689
17:00	7	563	79	1	10	7	1	3	1	0	0	0	0	0	672
18:00	8	467	74	0	8	1	0	2	1	0	0	0	0	0	561
19:00	4	355	51	0	8	3	0	1	0	0	0	0	0	0	422
20:00	4	224	43	0	1	1	0	0	0	0	0	0	0	0	273
21:00	0	132	20	0	1	1	0	0	0	0	0	0	0	0	154
22:00	1	60	8	0	2	0	0	0	0	0	0	0	0	0	71
23:00	1	38	3	0	2	1	0	0	0	0	0	0	0	0	45
Total	53	4061	692	21	105	34	1	14	4	1	0	0	0	0	4986
Percent	1.1%	81.4%	13.9%	0.4%	2.1%	0.7%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	16:00	17:00	15:00	15:00	14:00	16:00	17:00	13:00	13:00	16:00					
	9	563	96	7	20	7	1	5	1	1					

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	12	3	0	0	0	0	0	0	0	0	0	0	0	15
01:00	0	9	2	0	0	0	0	0	0	0	0	0	0	0	11
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
04:00	0	16	4	0	2	0	0	0	0	0	0	0	0	0	22
05:00	0	66	29	0	3	2	0	1	0	0	0	0	0	0	101
06:00	2	92	39	6	10	1	0	1	0	0	0	0	0	0	151
07:00	3	220	69	2	21	2	0	1	0	0	0	0	0	0	318
08:00	2	320	102	7	21	3	0	2	0	0	0	0	0	0	457
09:00	6	328	102	9	31	4	1	2	0	0	0	0	0	0	483
10:00	5	389	75	0	27	1	0	2	1	0	0	0	0	0	500
11:00	4	427	87	5	11	2	0	1	0	0	0	0	0	0	537
12 PM	3	452	84	2	23	4	1	4	1	0	0	0	0	0	574
13:00	10	463	84	1	19	0	1	1	0	0	0	1	0	0	580
14:00	6	453	94	5	22	1	0	0	1	0	1	0	0	0	583
15:00	12	511	90	6	14	4	1	2	0	0	0	0	0	0	640
16:00	10	538	81	1	15	6	1	4	0	1	0	0	0	0	657
17:00	9	583	82	3	15	2	0	1	0	0	0	0	0	0	695
18:00	8	481	78	0	5	3	0	1	0	0	0	0	0	0	576
19:00	3	408	71	0	7	2	0	0	0	0	0	0	0	0	491
20:00	1	231	39	1	4	1	0	2	0	0	0	0	0	0	279
21:00	1	146	20	0	4	0	0	0	0	0	0	0	0	0	171
22:00	0	63	11	0	2	0	0	0	0	0	0	0	0	0	76
23:00	0	45	5	0	2	0	0	0	0	0	0	0	0	0	52
Total	85	6262	1253	48	258	38	5	25	3	1	1	1	0	0	7980
Percent	1.1%	78.5%	15.7%	0.6%	3.2%	0.5%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	08:00	09:00	09:00	09:00	09:00	08:00	10:00						
Vol.	6	427	102	9	31	4	1	2	1						
PM Peak	15:00	17:00	14:00	15:00	12:00	16:00	12:00	12:00	12:00	16:00	14:00	13:00			
Vol.	12	583	94	6	23	6	1	4	1	1	1	1			

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	15	2	0	0	0	0	0	0	0	0	0	0	0	17
01:00	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
02:00	0	6	2	0	0	0	0	0	0	0	0	0	0	0	8
03:00	0	8	1	0	1	0	0	0	0	0	0	0	0	0	10
04:00	0	16	2	0	2	0	0	0	0	0	0	0	0	0	20
05:00	0	54	21	0	3	1	0	0	0	0	0	0	0	0	79
06:00	0	96	33	5	14	0	0	0	0	0	0	0	0	0	148
07:00	5	205	70	3	17	3	1	4	1	0	0	0	0	0	309
08:00	3	322	92	13	15	8	1	0	0	0	0	0	0	0	454
09:00	3	372	103	6	32	2	0	2	1	0	0	0	0	0	521
10:00	2	365	93	0	21	4	0	4	0	0	0	0	0	0	489
11:00	4	458	78	2	20	7	1	1	3	0	0	0	0	0	574
12 PM	6	474	88	3	21	7	0	7	2	0	0	0	1	0	609
13:00	12	479	69	3	19	2	0	1	0	0	0	0	0	0	585
14:00	6	491	81	4	25	4	1	1	0	0	0	0	0	0	613
15:00	9	530	103	5	11	3	0	2	0	0	0	0	0	0	663
16:00	12	568	85	2	13	8	0	3	0	0	0	0	0	0	691
17:00	12	578	67	1	8	4	0	0	0	0	0	0	0	0	670
18:00	5	431	78	0	3	3	0	1	0	0	0	0	0	0	521
19:00	7	358	52	0	8	3	0	2	0	0	0	0	0	0	430
20:00	3	213	47	0	3	2	0	2	0	0	0	0	0	0	270
21:00	4	178	23	0	0	1	0	0	0	0	0	0	0	0	206
22:00	0	94	4	0	3	0	0	0	0	0	0	0	0	0	101
23:00	0	53	1	0	1	0	0	0	0	0	0	0	0	0	55
Total	93	6378	1195	47	240	62	4	30	7	0	0	0	1	0	8057
Percent	1.2%	79.2%	14.8%	0.6%	3.0%	0.8%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	11:00	09:00	08:00	09:00	08:00	07:00	07:00	11:00						
Vol.	5	458	103	13	32	8	1	4	3						
PM Peak	13:00	17:00	15:00	15:00	14:00	16:00	14:00	12:00	12:00				12:00		
Vol.	12	578	103	5	25	8	1	7	2				1		

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	23	4	0	0	0	0	0	0	0	0	0	0	0	27
01:00	0	15	2	0	0	0	0	0	0	0	0	0	0	0	17
02:00	0	5	0	0	1	0	0	0	0	0	0	0	0	0	6
03:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	13	2	0	3	0	0	0	0	0	0	0	0	0	18
05:00	0	46	21	0	4	0	0	0	0	0	0	0	0	0	71
06:00	2	82	38	6	11	2	0	1	0	0	0	0	0	0	142
07:00	1	197	63	6	20	4	0	2	1	0	0	0	0	0	294
08:00	5	311	101	9	19	3	0	8	0	0	0	0	0	0	456
09:00	5	358	114	4	15	5	2	5	0	0	0	0	0	0	508
10:00	9	399	89	0	19	7	0	2	0	0	0	0	0	0	525
11:00	5	507	105	2	16	2	0	4	0	0	0	0	0	0	641
12 PM	8	563	81	1	16	2	0	3	0	0	0	0	0	0	674
13:00	12	540	70	0	18	1	1	2	0	0	0	0	0	0	644
14:00	8	587	77	6	13	8	0	0	0	0	0	0	0	0	699
15:00	5	608	91	4	17	4	0	3	1	0	0	0	0	0	733
16:00	6	607	80	3	12	5	0	2	0	0	0	0	0	0	715
17:00	8	634	83	0	13	2	0	0	0	0	0	0	0	0	740
18:00	12	509	85	0	10	1	0	0	0	0	0	0	0	0	617
19:00	3	356	46	0	8	2	0	1	0	0	0	0	0	0	416
20:00	0	237	34	0	4	0	0	0	1	0	0	0	0	0	276
21:00	0	151	20	0	3	1	0	0	0	0	0	0	0	0	175
22:00	1	115	16	0	3	0	0	0	0	0	0	0	0	0	135
23:00	0	66	8	0	2	0	0	0	0	0	0	0	0	0	76
Total	90	6934	1230	41	227	49	3	33	3	0	0	0	0	0	8610
Percent	1.0%	80.5%	14.3%	0.5%	2.6%	0.6%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	09:00	08:00	07:00	10:00	09:00	08:00	07:00						
Vol.	9	507	114	9	20	7	2	8	1						
PM Peak	13:00	17:00	15:00	14:00	13:00	14:00	13:00	12:00	15:00						
Vol.	12	634	91	6	18	8	1	3	1						

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/28/22	0	32	5	0	0	0	0	0	0	0	0	0	0	0	37
01:00	0	19	2	0	0	0	0	0	0	0	0	0	0	0	21
02:00	0	13	1	0	0	0	0	0	0	0	0	0	0	0	14
03:00	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
04:00	0	15	4	0	1	0	0	0	0	0	0	0	0	0	20
05:00	0	29	13	0	2	0	0	0	0	0	0	0	0	0	44
06:00	0	58	13	0	6	0	0	0	0	0	0	0	0	0	77
07:00	1	119	33	0	5	0	0	0	0	0	0	0	0	0	158
08:00	2	250	73	0	11	0	0	3	1	0	0	0	0	0	340
09:00	3	377	79	2	12	5	0	2	0	0	0	0	0	0	480
10:00	3	423	88	0	12	3	0	3	0	0	0	0	0	0	532
11:00	5	595	90	0	17	4	0	0	1	0	0	0	0	0	712
12 PM	8	555	76	1	9	2	0	3	0	0	0	0	0	0	654
13:00	7	554	90	0	19	8	0	0	0	0	0	0	0	0	678
14:00	3	506	62	0	11	4	0	1	0	0	0	0	0	0	587
15:00	8	491	71	1	9	3	0	3	0	0	0	0	0	0	586
16:00	6	483	70	1	7	0	0	0	0	0	0	0	0	0	567
17:00	8	412	54	0	9	2	0	0	0	0	0	0	0	0	485
18:00	1	387	58	0	7	0	0	0	0	1	0	0	0	0	454
19:00	2	301	41	0	10	1	0	0	0	0	0	0	0	0	355
20:00	2	196	31	0	3	1	0	0	0	0	0	0	0	0	233
21:00	2	185	20	0	3	0	0	0	0	0	0	0	0	0	210
22:00	0	125	12	0	3	0	0	0	0	0	0	0	0	0	140
23:00	0	59	7	0	1	0	0	0	0	0	0	0	0	0	67
Total	61	6193	994	5	157	33	0	15	2	1	0	0	0	0	7461
Percent	0.8%	83.0%	13.3%	0.1%	2.1%	0.4%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	09:00	11:00	09:00		08:00	08:00						
Vol.	5	595	90	2	17	5		3	1						
PM Peak	12:00	12:00	13:00	12:00	13:00	13:00		12:00		18:00					
Vol.	8	555	90	1	19	8		3		1					

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/29/22	1	44	7	0	0	0	0	0	0	0	0	0	0	0	52
01:00	0	20	0	0	0	0	0	0	0	0	0	0	0	0	20
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	15	3	0	1	0	0	0	0	0	0	0	0	0	19
04:00	0	21	2	0	3	0	0	0	0	0	0	0	0	0	26
05:00	1	27	21	0	3	0	0	5	0	0	0	0	0	0	57
06:00	1	51	16	0	1	0	0	7	0	0	0	0	0	0	76
07:00	1	136	35	0	13	0	0	1	0	0	0	0	0	0	186
08:00	2	251	40	0	8	0	0	4	0	0	0	0	0	0	305
09:00	4	335	80	0	15	2	0	4	0	0	0	0	0	0	440
10:00	5	479	44	2	24	2	0	1	0	0	0	0	0	0	557
11:00	2	560	60	0	29	2	0	2	0	0	0	0	0	0	655
12 PM	9	586	65	1	17	3	0	1	0	0	0	0	0	0	682
13:00	2	584	54	0	15	1	0	0	0	0	0	0	0	0	656
14:00	7	495	54	1	9	1	0	0	0	0	0	0	0	0	567
15:00	4	448	43	2	4	0	0	0	1	0	0	0	0	0	502
16:00	5	455	57	1	8	2	0	1	0	0	0	0	0	0	529
17:00	6	468	69	0	3	1	0	0	0	0	0	0	0	0	547
18:00	4	348	36	0	6	1	0	0	0	0	0	0	0	0	395
19:00	5	299	30	0	6	5	0	0	0	0	0	0	0	0	345
20:00	3	236	30	0	5	1	0	0	0	0	0	0	0	0	275
21:00	3	171	19	0	3	0	0	0	0	0	0	0	0	0	196
22:00	1	80	10	0	0	0	0	0	0	0	0	0	0	0	91
23:00	0	66	3	0	2	0	0	0	0	0	0	0	0	0	71
Total	66	6183	779	7	175	21	0	26	1	0	0	0	0	0	7258
Percent	0.9%	85.2%	10.7%	0.1%	2.4%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	09:00	10:00	11:00	09:00		06:00							
Vol.	5	560	80	2	29	2		7							
PM Peak	12:00	12:00	17:00	15:00	12:00	19:00		12:00	15:00						
Vol.	9	586	69	2	17	5		1	1						

Route 161 South of Roxbury Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5666

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/30/22	0	41	2	0	2	0	0	0	0	0	0	0	0	0	45
01:00	0	23	2	0	1	0	0	0	0	0	0	0	0	0	26
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	7	1	0	0	0	0	1	0	0	0	0	0	0	9
04:00	0	9	2	0	0	0	0	0	0	0	0	0	0	0	11
05:00	1	31	19	0	5	0	0	0	0	0	0	0	0	0	56
06:00	1	66	20	0	5	0	0	2	0	0	0	0	0	0	94
07:00	1	134	33	0	7	0	0	2	0	0	0	0	0	0	177
08:00	0	236	42	1	5	1	0	1	1	0	0	0	0	0	287
09:00	4	338	66	1	12	5	0	3	0	0	0	0	0	0	429
10:00	4	448	56	2	21	3	0	2	0	0	0	0	0	0	536
11:00	4	498	60	1	29	0	0	1	0	0	0	0	0	0	593
12 PM	3	594	56	5	44	0	0	2	0	0	0	0	0	0	704
13:00	8	542	63	3	32	5	0	2	0	0	0	0	0	0	655
14:00	2	360	46	0	18	1	0	2	0	0	0	0	0	0	429
15:00	1	365	34	0	19	1	0	1	0	0	0	0	0	0	421
16:00	3	344	31	2	13	1	0	0	0	0	0	0	0	0	394
17:00	0	376	35	2	16	1	0	1	0	0	0	0	0	0	431
18:00	1	287	28	1	9	1	0	1	0	0	0	0	0	0	328
19:00	3	252	19	0	8	0	0	0	0	0	0	0	0	0	282
20:00	2	201	21	0	13	0	0	0	0	0	0	0	0	0	237
21:00	0	109	15	0	4	0	0	0	0	0	0	0	0	0	128
22:00	0	58	9	0	1	0	0	0	0	0	0	0	0	0	68
23:00	0	35	3	0	0	0	0	0	0	0	0	0	0	0	38
Total	38	5362	664	18	264	19	0	21	1	0	0	0	0	0	6387
Percent	0.6%	84.0%	10.4%	0.3%	4.1%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	09:00	10:00	11:00	09:00		09:00	08:00						
Vol.	4	498	66	2	29	5		3	1						
PM Peak	13:00	12:00	13:00	12:00	12:00	13:00		12:00							
Vol.	8	594	63	5	44	5		2							

Route 161 at Route 156
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Start Time	23-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	*	*	*	*	7	5	5	8	11	7	8	7	13	13	22	18
01:00	*	*	*	*	3	2	9	2	10	4	7	3	5	3	10	6
02:00	*	*	*	*	5	3	4	2	5	6	5	4	4	2	1	3
03:00	*	*	*	*	5	4	4	7	4	2	4	4	5	5	6	7
04:00	*	*	*	*	12	26	13	19	12	18	12	21	6	15	6	24
05:00	*	*	*	*	31	99	26	83	26	77	28	86	12	48	17	63
06:00	*	*	*	*	97	95	84	83	84	76	88	85	67	48	38	58
07:00	*	*	*	*	120	145	143	158	131	144	131	149	81	94	89	108
08:00	*	*	*	*	177	198	199	190	179	232	185	207	154	174	160	160
09:00	*	*	*	*	211	262	222	249	240	251	224	254	252	290	184	232
10:00	*	*	*	*	235	243	219	261	257	281	237	262	319	328	208	356
11:00	*	*	*	*	256	314	268	328	250	327	258	323	315	414	282	352
12:00 PM	*	*	*	*	278	319	311	305	324	321	304	315	285	365	312	345
01:00	*	*	263	252	290	304	320	303	328	317	300	294	307	337	329	350
02:00	*	*	285	302	284	313	319	318	309	348	299	320	303	328	297	326
03:00	*	*	330	304	353	304	301	330	313	369	324	327	295	330	289	293
04:00	*	*	306	347	302	323	299	358	342	371	312	350	278	299	311	306
05:00	*	*	319	297	283	342	277	293	291	337	292	317	274	255	313	306
06:00	*	*	289	273	324	297	287	260	313	319	303	287	267	243	287	290
07:00	*	*	240	213	251	222	236	226	261	225	247	222	204	181	261	228
08:00	*	*	163	133	182	141	178	127	153	159	169	140	169	147	250	161
09:00	*	*	80	72	86	84	76	78	109	76	88	78	111	92	116	121
10:00	*	*	32	26	28	16	51	22	37	45	37	27	44	52	42	30
11:00	*	*	5	10	17	19	14	19	31	11	17	15	20	23	27	17
Total	0	0	2312	2229	3837	4080	3865	4029	4020	4323	3879	4097	3790	4086	3857	4160
Day	0	0	4541		7917		7894		8343		7976		7876		8017	
AM Peak	-	-	-	-	11:00	11:00	11:00	11:00	10:00	11:00	11:00	11:00	10:00	11:00	11:00	10:00
Vol.	-	-	-	-	256	314	268	328	257	327	258	323	319	414	282	356
PM Peak	-	-	15:00	16:00	15:00	17:00	13:00	16:00	16:00	16:00	15:00	16:00	13:00	12:00	13:00	13:00
Vol.	-	-	330	347	353	342	320	358	342	371	324	350	307	365	329	350

Route 161 at Route 156
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Start Time	30-May-22		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
12:00 AM	14	10	7	2	*	*	*	*	*	*	10	6	*	*	*	*
01:00	2	4	10	7	*	*	*	*	*	*	6	6	*	*	*	*
02:00	3	1	3	1	*	*	*	*	*	*	3	1	*	*	*	*
03:00	4	3	9	4	*	*	*	*	*	*	6	4	*	*	*	*
04:00	3	12	11	23	*	*	*	*	*	*	7	18	*	*	*	*
05:00	24	59	34	94	*	*	*	*	*	*	29	76	*	*	*	*
06:00	56	62	79	94	*	*	*	*	*	*	68	78	*	*	*	*
07:00	81	118	129	170	*	*	*	*	*	*	105	144	*	*	*	*
08:00	121	153	180	231	*	*	*	*	*	*	150	192	*	*	*	*
09:00	191	268	230	245	*	*	*	*	*	*	210	256	*	*	*	*
10:00	182	320	247	273	*	*	*	*	*	*	214	296	*	*	*	*
11:00	236	333	301	324	*	*	*	*	*	*	268	328	*	*	*	*
12:00 PM	300	349	295	312	*	*	*	*	*	*	298	330	*	*	*	*
01:00	223	204	316	310	*	*	*	*	*	*	270	257	*	*	*	*
02:00	134	106	348	306	*	*	*	*	*	*	241	206	*	*	*	*
03:00	254	282	346	313	*	*	*	*	*	*	300	298	*	*	*	*
04:00	314	283	323	341	*	*	*	*	*	*	318	312	*	*	*	*
05:00	301	299	320	324	*	*	*	*	*	*	310	312	*	*	*	*
06:00	311	239	288	235	*	*	*	*	*	*	300	237	*	*	*	*
07:00	269	196	233	199	*	*	*	*	*	*	251	198	*	*	*	*
08:00	192	142	184	125	*	*	*	*	*	*	188	134	*	*	*	*
09:00	81	57	85	49	*	*	*	*	*	*	83	53	*	*	*	*
10:00	27	25	16	29	*	*	*	*	*	*	22	27	*	*	*	*
11:00	12	7	9	14	*	*	*	*	*	*	10	10	*	*	*	*
Total Day	3335	3532	4003	4025	0	0	0	0	0	0	3667	3779	0	0	0	0
AM Peak	11:00	11:00	11:00	11:00	-	-	-	-	-	-	11:00	11:00	-	-	-	-
Vol.	236	333	301	324	-	-	-	-	-	-	268	328	-	-	-	-
PM Peak	16:00	12:00	14:00	16:00	-	-	-	-	-	-	16:00	12:00	-	-	-	-
Vol.	314	349	348	341	-	-	-	-	-	-	318	330	-	-	-	-

Comb. Total	6867	12569	7917	7894	8343	15422	7876	8017
ADT	ADT 7,810	AADT 7,810						

Route 161 at Route 156
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	15	79	112	51	5	1	0	0	0	0	0	0	0	0	263	16-25	191
14:00	26	82	115	53	9	0	0	0	0	0	0	0	0	0	285	16-25	197
15:00	20	88	135	78	9	0	0	0	0	0	0	0	0	0	330	16-25	223
16:00	16	82	141	58	9	0	0	0	0	0	0	0	0	0	306	16-25	223
17:00	23	55	139	90	10	2	0	0	0	0	0	0	0	0	319	21-30	229
18:00	26	45	151	57	7	2	1	0	0	0	0	0	0	0	289	21-30	208
19:00	12	52	111	53	10	2	0	0	0	0	0	0	0	0	240	21-30	164
20:00	7	27	85	41	2	0	1	0	0	0	0	0	0	0	163	21-30	126
21:00	3	7	24	34	11	1	0	0	0	0	0	0	0	0	80	21-30	58
22:00	1	3	4	16	7	1	0	0	0	0	0	0	0	0	32	26-35	23
23:00	0	0	2	3	0	0	0	0	0	0	0	0	0	0	5	21-30	5
Total	149	520	1019	534	79	9	2	0	0	0	0	0	0	0	2312		
Percent	6.4%	22.5%	44.1%	23.1%	3.4%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	14:00	15:00	18:00	17:00	21:00	17:00	18:00								15:00		
	26	88	151	90	11	2	1							330			

Route 161 at Route 156
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/25/22	0	3	3	0	0	1	0	0	0	0	0	0	0	0	7	16-25	6
01:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	20-29	3
02:00	0	1	2	0	2	0	0	0	0	0	0	0	0	0	5	15-24	3
03:00	1	0	1	3	0	0	0	0	0	0	0	0	0	0	5	21-30	4
04:00	0	2	3	5	2	0	0	0	0	0	0	0	0	0	12	21-30	8
05:00	0	2	9	15	5	0	0	0	0	0	0	0	0	0	31	21-30	24
06:00	0	16	38	36	7	0	0	0	0	0	0	0	0	0	97	21-30	74
07:00	5	7	49	46	11	2	0	0	0	0	0	0	0	0	120	21-30	95
08:00	6	31	76	54	10	0	0	0	0	0	0	0	0	0	177	21-30	130
09:00	7	46	90	60	7	0	1	0	0	0	0	0	0	0	211	21-30	150
10:00	13	61	98	54	9	0	0	0	0	0	0	0	0	0	235	16-25	159
11:00	10	53	135	49	9	0	0	0	0	0	0	0	0	0	256	16-25	188
12 PM	20	83	125	43	6	1	0	0	0	0	0	0	0	0	278	16-25	208
13:00	26	101	119	42	1	1	0	0	0	0	0	0	0	0	290	16-25	220
14:00	17	97	116	43	11	0	0	0	0	0	0	0	0	0	284	16-25	213
15:00	24	98	151	67	13	0	0	0	0	0	0	0	0	0	353	16-25	249
16:00	6	52	155	76	11	1	1	0	0	0	0	0	0	0	302	21-30	231
17:00	18	58	127	72	8	0	0	0	0	0	0	0	0	0	283	21-30	199
18:00	17	75	143	82	7	0	0	0	0	0	0	0	0	0	324	21-30	225
19:00	14	41	104	85	6	0	1	0	0	0	0	0	0	0	251	21-30	189
20:00	14	44	85	31	8	0	0	0	0	0	0	0	0	0	182	16-25	129
21:00	11	10	36	21	8	0	0	0	0	0	0	0	0	0	86	21-30	57
22:00	0	1	11	13	3	0	0	0	0	0	0	0	0	0	28	21-30	24
23:00	2	2	5	5	2	1	0	0	0	0	0	0	0	0	17	21-30	10
Total	211	884	1682	904	146	7	3	0	0	0	0	0	0	0	3837		
Percent	5.5%	23.0%	43.8%	23.6%	3.8%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	11:00	09:00	07:00	07:00	09:00									11:00	
Vol.	13	61	135	60	11	2	1								256		
PM Peak	13:00	13:00	16:00	19:00	15:00	12:00	16:00								15:00		
Vol.	26	101	155	85	13	1	1								353		

Route 161 at Route 156
East Lyme, Connecticut

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/31/22	0	0	4	3	0	0	0	0	0	0	0	0	0	0	7	21-30	7
01:00	0	0	7	2	0	0	1	0	0	0	0	0	0	0	10	21-30	9
02:00	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3	20-29	3
03:00	0	1	2	4	2	0	0	0	0	0	0	0	0	0	9	26-35	6
04:00	0	0	5	6	0	0	0	0	0	0	0	0	0	0	11	21-30	11
05:00	1	4	10	15	4	0	0	0	0	0	0	0	0	0	34	21-30	25
06:00	1	9	34	23	11	1	0	0	0	0	0	0	0	0	79	21-30	57
07:00	3	11	55	50	9	1	0	0	0	0	0	0	0	0	129	21-30	105
08:00	3	30	88	47	11	1	0	0	0	0	0	0	0	0	180	21-30	135
09:00	13	63	86	61	7	0	0	0	0	0	0	0	0	0	230	16-25	149
10:00	17	65	106	54	5	0	0	0	0	0	0	0	0	0	247	16-25	171
11:00	21	108	122	44	4	2	0	0	0	0	0	0	0	0	301	16-25	230
12 PM	19	99	119	52	6	0	0	0	0	0	0	0	0	0	295	16-25	218
13:00	19	126	119	45	7	0	0	0	0	0	0	0	0	0	316	16-25	245
14:00	14	101	164	60	9	0	0	0	0	0	0	0	0	0	348	16-25	265
15:00	19	94	155	71	7	0	0	0	0	0	0	0	0	0	346	16-25	249
16:00	20	89	127	77	10	0	0	0	0	0	0	0	0	0	323	16-25	216
17:00	17	70	141	76	13	3	0	0	0	0	0	0	0	0	320	21-30	217
18:00	15	50	130	84	9	0	0	0	0	0	0	0	0	0	288	21-30	214
19:00	14	32	105	63	18	1	0	0	0	0	0	0	0	0	233	21-30	168
20:00	5	30	89	52	8	0	0	0	0	0	0	0	0	0	184	21-30	141
21:00	3	15	31	29	7	0	0	0	0	0	0	0	0	0	85	21-30	60
22:00	2	2	4	7	1	0	0	0	0	0	0	0	0	0	16	21-30	11
23:00	0	1	0	5	2	1	0	0	0	0	0	0	0	0	9	26-35	7
Total	206	1000	1704	932	150	10	1	0	0	0	0	0	0	0	4003		
Percent	5.1%	25.0%	42.6%	23.3%	3.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	09:00	06:00	11:00	01:00									11:00	
Vol.	21	108	122	61	11	2	1									301	
PM Peak	16:00	13:00	14:00	18:00	19:00	17:00										14:00	
Vol.	20	126	164	84	18	3										348	
Total	1945	7417	12356	6232	990	67	11	1	0	0	0	0	0	0	29019		
Percent	6.7%	25.6%	42.6%	21.5%	3.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 16 MPH
 50th Percentile : 22 MPH
 85th Percentile : 27 MPH
 95th Percentile : 29 MPH

Stats
 10 MPH Pace Speed : 16-25 MPH
 Number in Pace : 19773
 Percent in Pace : 68.1%
 Number of Vehicles > 40 MPH : 12
 Percent of Vehicles > 40 MPH : 0.0%
 Mean Speed(Average) : 22 MPH

Route 161 at Route 156
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	23	77	119	31	0	2	0	0	0	0	0	0	0	0	252	16-25	196
14:00	74	131	85	12	0	0	0	0	0	0	0	0	0	0	302	16-25	216
15:00	48	111	114	31	0	0	0	0	0	0	0	0	0	0	304	16-25	225
16:00	77	123	130	17	0	0	0	0	0	0	0	0	0	0	347	16-25	253
17:00	38	87	128	44	0	0	0	0	0	0	0	0	0	0	297	16-25	215
18:00	28	73	136	33	3	0	0	0	0	0	0	0	0	0	273	16-25	209
19:00	37	60	93	22	1	0	0	0	0	0	0	0	0	0	213	16-25	153
20:00	9	28	59	35	1	1	0	0	0	0	0	0	0	0	133	21-30	94
21:00	2	8	38	18	6	0	0	0	0	0	0	0	0	0	72	21-30	56
22:00	1	2	10	10	3	0	0	0	0	0	0	0	0	0	26	21-30	20
23:00	0	4	0	2	4	0	0	0	0	0	0	0	0	0	10	26-35	6
Total	337	704	912	255	18	3	0	0	0	0	0	0	0	0	2229		
Percent	15.1%	31.6%	40.9%	11.4%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	16:00 77	14:00 131	18:00 136	17:00 44	21:00 6	13:00 2									16:00 347		

Route 161 at Route 156
East Lyme, Connecticut

Connecticut Counts LLC Kensington, Connecticut 06037 (860) 828-1693

Site Code:
Station ID: 5663

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
05/31/22	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	*	1
01:00	0	0	3	2	2	0	0	0	0	0	0	0	0	0	7	20-29	5
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
03:00	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	20-29	4
04:00	1	2	7	12	1	0	0	0	0	0	0	0	0	0	23	21-30	19
05:00	1	8	40	36	8	1	0	0	0	0	0	0	0	0	94	21-30	76
06:00	3	6	39	38	8	0	0	0	0	0	0	0	0	0	94	21-30	77
07:00	6	20	71	65	8	0	0	0	0	0	0	0	0	0	170	21-30	136
08:00	14	68	102	43	4	0	0	0	0	0	0	0	0	0	231	16-25	170
09:00	16	54	128	44	3	0	0	0	0	0	0	0	0	0	245	16-25	182
10:00	22	88	136	24	3	0	0	0	0	0	0	0	0	0	273	16-25	224
11:00	56	131	112	22	3	0	0	0	0	0	0	0	0	0	324	16-25	243
12 PM	51	97	135	26	3	0	0	0	0	0	0	0	0	0	312	16-25	232
13:00	59	104	109	31	7	0	0	0	0	0	0	0	0	0	310	16-25	213
14:00	53	113	114	26	0	0	0	0	0	0	0	0	0	0	306	16-25	227
15:00	51	100	130	30	2	0	0	0	0	0	0	0	0	0	313	16-25	230
16:00	56	137	127	19	2	0	0	0	0	0	0	0	0	0	341	16-25	264
17:00	59	115	116	31	3	0	0	0	0	0	0	0	0	0	324	16-25	231
18:00	33	63	103	31	4	1	0	0	0	0	0	0	0	0	235	16-25	166
19:00	18	49	100	28	4	0	0	0	0	0	0	0	0	0	199	16-25	149
20:00	11	27	59	27	1	0	0	0	0	0	0	0	0	0	125	21-30	86
21:00	2	12	19	14	2	0	0	0	0	0	0	0	0	0	49	20-29	33
22:00	0	0	17	12	0	0	0	0	0	0	0	0	0	0	29	21-30	29
23:00	0	2	4	8	0	0	0	0	0	0	0	0	0	0	14	21-30	12
Total	513	1197	1674	571	68	2	0	0	0	0	0	0	0	0	4025		
Percent	12.7%	29.7%	41.6%	14.2%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	10:00	07:00	05:00	05:00										11:00	
Vol.	56	131	136	65	8	1										324	
PM Peak	13:00	16:00	12:00	13:00	13:00	18:00										16:00	
Vol.	59	137	135	31	7	1										341	
Total	5193	10143	11136	3586	380	24	2	0	0	0	0	0	0	0	30464		
Percent	17.0%	33.3%	36.6%	11.8%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 13 MPH
 50th Percentile : 19 MPH
 85th Percentile : 24 MPH
 95th Percentile : 28 MPH

Stats
 10 MPH Pace Speed : 16-25 MPH
 Number in Pace : 21279
 Percent in Pace : 69.8%
 Number of Vehicles > 40 MPH : 2
 Percent of Vehicles > 40 MPH : 0.0%
 Mean Speed(Average) : 20 MPH

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	1	153	37	0	16	0	0	0	0	0	0	0	0	0	207
12 PM	1	414	129	2	55	6	0	3	1	0	0	0	0	0	611
13:00	2	421	126	6	58	0	0	6	0	0	0	0	0	0	619
14:00	2	450	154	0	39	6	0	3	0	0	0	0	0	0	654
15:00	5	470	159	2	50	2	0	4	0	0	0	0	0	0	692
16:00	2	523	173	4	73	2	0	4	0	0	0	0	0	0	781
17:00	2	426	149	1	51	3	0	6	0	0	0	0	0	0	638
18:00	2	365	120	0	52	2	0	2	0	0	0	0	0	0	543
19:00	6	250	86	0	34	0	0	3	0	0	0	0	0	0	379
20:00	0	189	64	0	15	1	0	0	0	0	0	0	0	0	269
21:00	1	102	40	0	11	1	0	0	0	0	0	0	0	0	155
22:00	0	43	7	0	5	0	0	0	0	0	0	0	0	0	55
23:00	0	9	12	0	3	1	0	0	0	0	0	0	0	0	25
Total	24	3815	1256	15	462	24	0	31	1	0	0	0	0	0	5628
Percent	0.4%	67.8%	22.3%	0.3%	8.2%	0.4%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00		11:00										
Vol.	1	153	37		16										
PM Peak	19:00	16:00	16:00	13:00	16:00	12:00		13:00	12:00						
Vol.	6	523	173	6	73	6		6	1						

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	6	5	0	0	0	0	0	0	0	0	0	0	0	11
01:00	0	2	1	0	1	0	0	0	0	0	0	0	0	0	4
02:00	0	2	1	1	2	0	0	0	0	0	0	0	0	0	6
03:00	0	19	1	0	0	0	0	0	0	0	0	0	0	0	20
04:00	0	14	4	0	5	1	0	0	0	0	0	0	0	0	24
05:00	1	72	26	0	26	1	0	1	0	0	0	0	0	0	127
06:00	1	206	74	5	50	1	0	0	0	0	0	0	0	0	337
07:00	3	391	173	8	52	1	0	5	1	1	0	0	0	0	635
08:00	4	379	163	5	66	2	0	1	0	0	0	0	0	0	620
09:00	1	356	149	1	56	3	0	2	0	0	0	0	0	0	568
10:00	4	353	112	3	50	1	0	3	0	0	0	0	0	0	526
11:00	6	432	119	2	56	3	0	5	0	0	0	0	0	0	623
12 PM	2	416	139	4	60	4	0	5	0	0	0	0	0	0	630
13:00	2	381	139	1	58	0	0	5	1	0	0	0	0	0	587
14:00	0	485	166	6	52	3	0	3	0	0	0	0	0	0	715
15:00	1	482	154	1	57	1	0	2	0	0	0	0	0	0	698
16:00	3	557	168	2	74	2	0	5	0	1	0	0	0	0	812
17:00	2	466	136	5	55	4	1	2	0	0	0	0	0	0	671
18:00	2	360	139	2	52	2	0	4	0	0	0	0	0	0	561
19:00	5	295	131	0	32	1	0	0	0	0	0	0	0	0	464
20:00	0	185	75	1	26	1	0	2	0	0	0	0	0	0	290
21:00	0	125	62	2	26	0	0	1	0	0	0	0	0	0	216
22:00	0	44	13	0	3	0	0	2	0	0	0	0	0	0	62
23:00	0	17	6	0	2	0	0	1	0	0	0	0	0	0	26
Total	37	6045	2156	49	861	31	1	49	2	2	0	0	0	0	9233
Percent	0.4%	65.5%	23.4%	0.5%	9.3%	0.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	07:00	07:00	08:00	09:00		07:00	07:00	07:00					
Vol.	6	432	173	8	66	3		5	1	1					
PM Peak	19:00	16:00	16:00	14:00	16:00	12:00	17:00	12:00	13:00	16:00					
Vol.	5	557	168	6	74	4	1	5	1	1					

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	0	4	6	0	1	0	0	0	0	0	0	0	0	0	11
01:00	1	5	1	1	2	0	0	0	0	0	0	0	0	0	10
02:00	0	5	2	0	2	0	0	0	0	0	0	0	0	0	9
03:00	0	4	6	0	2	0	0	0	0	0	0	0	0	0	12
04:00	1	12	2	0	5	1	0	0	0	0	0	0	0	0	21
05:00	0	74	25	0	16	1	0	0	0	0	0	0	0	0	116
06:00	0	196	87	6	41	1	0	1	0	0	0	0	0	0	332
07:00	0	418	159	8	55	1	0	3	0	0	0	0	0	0	644
08:00	2	381	165	6	63	4	0	2	0	0	0	0	0	0	623
09:00	1	347	151	2	56	2	0	3	2	0	0	0	0	0	564
10:00	2	403	150	5	51	1	0	6	1	0	0	0	0	0	619
11:00	2	421	142	6	55	0	1	6	1	0	0	0	0	0	634
12 PM	7	413	124	3	51	3	0	6	4	0	0	0	0	0	611
13:00	0	497	140	2	47	1	1	4	3	0	0	0	0	0	695
14:00	6	501	171	3	55	2	0	7	0	0	0	0	0	0	745
15:00	3	499	133	2	61	3	1	3	0	0	0	0	0	0	705
16:00	7	582	157	1	65	8	0	4	0	0	0	0	0	0	824
17:00	7	443	146	1	43	2	0	3	1	0	0	0	0	0	646
18:00	3	381	138	0	43	1	0	3	0	0	0	0	0	0	569
19:00	1	285	105	0	39	1	0	1	0	0	0	0	0	0	432
20:00	4	182	66	0	34	0	0	1	0	0	0	0	0	0	287
21:00	1	91	42	0	7	0	0	1	0	0	0	0	0	0	142
22:00	2	51	17	0	8	0	0	0	0	0	0	0	0	0	78
23:00	1	22	6	0	6	1	0	0	0	0	0	0	0	0	36
Total	51	6217	2141	46	808	33	3	54	12	0	0	0	0	0	9365
Percent	0.5%	66.4%	22.9%	0.5%	8.6%	0.4%	0.0%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	08:00	07:00	08:00	08:00	11:00	10:00	09:00						
Vol.	2	421	165	8	63	4	1	6	2						
PM Peak	12:00	16:00	14:00	12:00	16:00	16:00	13:00	14:00	12:00						
Vol.	7	582	171	3	65	8	1	7	4						

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	9	6	0	1	0	0	0	0	0	0	0	0	0	16
01:00	0	3	1	2	2	0	0	0	0	0	0	0	0	0	8
02:00	0	6	7	0	2	0	0	0	0	0	0	0	0	0	15
03:00	0	6	3	0	1	0	0	0	0	0	0	0	0	0	10
04:00	0	8	5	0	6	0	0	0	0	0	0	0	0	0	19
05:00	0	60	36	0	20	0	0	0	0	0	0	0	0	0	116
06:00	1	169	82	8	47	0	0	2	2	0	0	0	0	0	311
07:00	2	398	142	8	56	1	0	1	0	0	0	0	0	0	608
08:00	3	399	163	5	52	2	0	5	0	0	0	0	0	0	629
09:00	2	391	162	6	57	1	0	3	0	0	0	0	0	0	622
10:00	1	423	141	0	66	3	0	4	1	0	0	0	0	0	639
11:00	1	450	149	2	58	3	1	1	3	0	0	0	0	0	668
12 PM	5	460	142	4	60	3	0	6	0	0	0	0	0	0	680
13:00	4	528	148	3	60	4	0	2	0	0	0	0	0	0	749
14:00	4	532	148	6	73	4	0	3	0	0	0	0	0	0	770
15:00	4	597	167	3	70	3	0	4	0	0	0	0	0	0	848
16:00	5	564	168	0	63	2	0	3	0	0	0	0	0	0	805
17:00	3	466	171	1	45	1	0	1	0	0	0	0	0	0	688
18:00	3	364	147	0	44	0	0	1	1	0	0	0	0	0	560
19:00	0	257	109	0	37	1	0	1	0	0	0	0	0	0	405
20:00	0	209	59	0	27	0	0	0	0	0	0	0	0	0	295
21:00	1	146	60	0	18	0	0	2	0	0	0	0	0	0	227
22:00	0	68	25	0	3	0	0	0	0	0	0	0	0	0	96
23:00	0	41	12	0	10	0	0	0	0	0	0	0	0	0	63
Total	39	6554	2253	48	878	28	1	39	7	0	0	0	0	0	9847
Percent	0.4%	66.6%	22.9%	0.5%	8.9%	0.3%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	11:00	08:00	06:00	10:00	10:00	11:00	08:00	11:00						
Vol.	3	450	163	8	66	3	1	5	3						
PM Peak	12:00	15:00	17:00	14:00	14:00	13:00		12:00	18:00						
Vol.	5	597	171	6	73	4		6	1						

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/28/22	0	13	7	0	0	0	0	0	0	0	0	0	0	0	20
01:00	0	4	2	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
09:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12 PM	1	299	238	1	51	0	0	1	0	0	0	0	0	0	591
13:00	1	239	345	1	70	1	0	0	0	0	0	0	0	0	657
14:00	1	235	349	1	79	0	0	1	0	0	0	0	0	0	666
15:00	0	197	378	1	65	0	0	1	0	0	0	0	0	0	642
16:00	2	145	339	0	79	0	0	0	0	0	0	0	0	0	565
17:00	0	90	307	1	106	0	0	1	0	0	0	0	0	0	505
18:00	1	89	182	1	88	0	0	1	0	0	0	0	0	0	362
19:00	0	51	129	0	63	1	0	0	0	0	0	0	0	0	244
20:00	0	27	126	0	46	0	0	0	0	0	0	0	0	0	199
21:00	0	27	77	0	21	0	0	0	0	0	0	0	0	0	125
22:00	0	16	31	0	22	0	0	0	0	0	0	0	0	0	69
23:00	0	3	27	0	11	0	0	0	0	0	0	0	0	0	41
Total	6	1442	2537	6	701	2	0	5	0	0	0	0	0	0	4699
Percent	0.1%	30.7%	54.0%	0.1%	14.9%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		00:00	00:00												
Vol.		13	7												
PM Peak	16:00	12:00	15:00	12:00	17:00	13:00		12:00							
Vol.	2	299	378	1	106	1		1							

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/29/22	0	3	7	0	2	0	0	0	0	0	0	0	0	0	12
01:00	0	0	5	0	2	0	0	0	0	0	0	0	0	0	7
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
03:00	0	4	3	0	3	0	0	0	0	0	0	0	0	0	10
04:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
06:00	0	16	9	0	4	0	0	0	0	0	0	0	0	0	29
07:00	1	27	27	1	19	0	0	0	0	0	0	0	0	0	75
08:00	0	60	43	0	21	0	0	0	0	0	0	0	0	0	124
09:00	1	89	146	0	54	0	0	0	0	0	0	0	0	0	290
10:00	2	127	225	1	64	0	0	0	0	0	0	0	0	0	419
11:00	2	153	171	0	42	0	0	0	0	0	0	0	0	0	368
12 PM	0	32	24	0	8	0	0	0	0	0	0	0	0	0	64
13:00	1	90	79	0	29	0	0	1	0	0	0	0	0	0	200
14:00	0	62	36	0	8	0	0	0	0	0	0	0	0	0	106
15:00	0	33	3	0	1	0	0	0	0	0	0	0	0	0	37
16:00	0	29	15	0	1	0	0	0	0	0	0	0	0	0	45
17:00	0	18	5	0	5	0	0	0	0	0	0	0	0	0	28
18:00	0	34	29	0	7	0	0	0	0	0	0	0	0	0	70
19:00	0	21	10	0	5	0	0	0	0	0	0	0	0	0	36
20:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	815	837	2	276	0	0	1	0	0	0	0	0	0	1938
Percent	0.4%	42.1%	43.2%	0.1%	14.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	10:00	07:00	10:00										
Vol.	2	153	225	1	64										
PM Peak	13:00	13:00	13:00		13:00			13:00							
Vol.	1	90	79		29			1							

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/30/22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
05:00	0	4	2	0	1	0	0	0	0	0	0	0	0	0	7
06:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
07:00	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
08:00	0	16	5	0	1	0	0	0	0	0	0	0	0	0	22
09:00	1	21	13	0	4	0	0	0	0	0	0	0	0	0	39
10:00	1	103	111	0	22	1	0	0	0	0	0	0	0	0	238
11:00	0	144	147	0	33	0	0	2	0	0	0	0	0	0	326
12 PM	2	122	124	0	24	0	0	0	0	0	0	0	0	0	272
13:00	0	105	82	1	26	0	0	0	0	0	0	0	0	0	214
14:00	3	89	56	0	12	0	0	1	0	0	0	0	0	0	161
15:00	0	114	121	0	32	0	0	0	0	0	0	0	0	0	267
16:00	0	74	109	0	23	0	0	0	0	0	0	0	0	0	206
17:00	1	87	147	0	38	0	0	0	0	0	0	0	0	0	273
18:00	0	73	185	0	54	0	0	0	0	0	0	0	0	0	312
19:00	0	47	73	1	31	0	0	0	0	0	0	0	0	0	152
20:00	0	24	58	0	13	0	0	0	0	0	0	0	0	0	95
21:00	0	3	17	0	4	0	0	0	0	0	0	0	0	0	24
22:00	0	3	3	0	1	0	0	0	0	0	0	0	0	0	7
23:00	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
Total	8	1042	1254	2	321	1	0	3	0	0	0	0	0	0	2631
Percent	0.3%	39.6%	47.7%	0.1%	12.2%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	11:00		11:00	10:00		11:00							
Vol.	1	144	147		33	1		2							
PM Peak	14:00	12:00	18:00	13:00	18:00			14:00							
Vol.	3	122	185	1	54			1							

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/24/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	1	146	33	1	7	2	1	1	0	0	0	0	0	0	192
12 PM	6	482	101	3	19	3	0	3	1	0	0	0	0	0	618
13:00	3	455	108	4	23	5	0	3	1	0	0	0	0	0	602
14:00	10	625	129	8	22	6	0	4	0	0	0	0	0	0	804
15:00	4	591	131	2	36	5	0	1	0	0	0	0	0	0	770
16:00	6	643	134	3	35	6	0	2	2	0	0	0	0	0	831
17:00	6	635	107	1	22	0	0	0	0	0	0	0	0	0	771
18:00	4	498	81	0	23	1	0	1	0	0	0	0	0	0	608
19:00	3	346	64	0	17	0	0	1	1	0	0	0	0	0	432
20:00	3	265	43	0	2	1	0	1	0	0	0	0	0	0	315
21:00	0	148	20	0	4	1	0	0	0	0	0	0	0	0	173
22:00	0	66	8	0	1	0	0	0	0	0	0	0	0	0	75
23:00	0	38	8	0	4	2	0	0	0	0	0	0	0	0	52
Total	46	4938	967	22	215	32	1	17	5	0	0	0	0	0	6243
Percent	0.7%	79.1%	15.5%	0.4%	3.4%	0.5%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00							
Vol.	1	146	33	1	7	2	1	1							
PM Peak	14:00	16:00	16:00	14:00	15:00	14:00		14:00	16:00						
Vol.	10	643	134	8	36	6		4	2						

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/25/22	0	13	7	0	0	0	0	0	0	0	0	0	0	0	20
01:00	0	7	1	0	0	0	0	0	0	0	0	0	0	0	8
02:00	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
04:00	1	19	4	0	4	1	0	0	0	0	0	0	0	0	29
05:00	0	63	25	0	10	3	0	1	0	0	0	0	0	0	102
06:00	1	126	41	1	21	1	0	4	0	0	0	0	0	0	195
07:00	2	316	87	7	27	6	0	1	1	0	0	0	0	0	447
08:00	1	376	98	4	35	0	1	3	1	0	0	0	0	0	519
09:00	4	386	122	4	41	2	0	2	0	0	0	0	0	0	561
10:00	3	428	101	4	36	4	1	2	1	0	0	0	0	0	580
11:00	3	445	114	3	20	4	0	5	0	0	0	0	0	0	594
12 PM	2	481	113	1	30	2	2	6	0	0	0	0	0	0	637
13:00	4	462	113	3	20	2	0	2	1	0	0	0	0	0	607
14:00	6	547	118	10	22	7	0	2	0	0	0	0	0	0	712
15:00	7	587	141	0	33	5	1	1	0	0	0	0	0	0	775
16:00	8	625	103	5	33	3	0	3	0	0	0	0	0	0	780
17:00	6	677	105	2	31	6	0	2	0	0	0	0	0	0	829
18:00	5	505	96	0	17	0	0	1	0	0	0	0	0	0	624
19:00	3	405	85	0	21	0	0	2	0	0	0	0	0	0	516
20:00	1	252	48	1	17	1	0	1	1	0	0	0	0	0	322
21:00	1	146	20	0	6	0	0	3	0	0	0	0	0	0	176
22:00	0	80	8	0	8	0	0	0	0	0	0	0	0	0	96
23:00	0	44	7	0	3	0	0	0	0	0	0	0	0	0	54
Total	58	7001	1559	45	435	47	5	41	5	0	0	0	0	0	9196
Percent	0.6%	76.1%	17.0%	0.5%	4.7%	0.5%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	09:00	07:00	09:00	07:00	08:00	11:00	07:00						
Vol.	4	445	122	7	41	6	1	5	1						
PM Peak	16:00	17:00	15:00	14:00	15:00	14:00	12:00	12:00	13:00						
Vol.	8	677	141	10	33	7	2	6	1						

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/26/22	1	17	6	0	0	1	0	0	0	0	0	0	0	0	25
01:00	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
02:00	0	8	1	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	8	0	0	2	0	0	0	0	0	0	0	0	0	10
04:00	0	18	2	0	2	1	0	0	0	0	0	0	0	0	23
05:00	0	62	18	0	9	0	0	0	0	0	0	0	0	0	89
06:00	0	124	47	1	20	0	0	1	1	0	0	0	0	0	194
07:00	4	306	73	5	31	2	1	5	1	0	0	0	0	0	428
08:00	1	391	102	8	31	2	2	2	0	0	0	0	0	0	539
09:00	2	390	95	5	41	5	0	3	1	0	0	0	0	0	542
10:00	1	437	87	4	36	3	0	7	1	0	0	0	0	0	576
11:00	7	508	118	2	26	5	1	2	3	0	0	0	0	0	672
12 PM	4	561	101	2	24	9	0	2	2	0	0	0	0	0	705
13:00	7	522	99	4	28	2	1	1	2	0	0	0	0	0	666
14:00	5	552	104	8	30	8	0	2	0	1	0	0	0	0	710
15:00	3	604	124	3	23	10	0	1	0	0	0	0	0	0	768
16:00	4	705	110	2	23	8	0	0	0	0	0	0	0	0	852
17:00	7	616	103	1	15	2	0	1	0	0	0	0	0	0	745
18:00	5	447	86	0	15	1	0	0	0	0	0	0	0	0	554
19:00	2	369	62	0	12	4	0	1	0	0	0	0	0	0	450
20:00	1	254	55	0	12	1	0	1	0	0	0	0	0	0	324
21:00	2	176	28	0	5	0	0	0	0	0	0	0	0	0	211
22:00	1	100	7	0	4	0	0	0	1	0	0	0	0	0	113
23:00	0	53	3	0	2	0	0	0	0	0	0	0	0	0	58
Total	57	7242	1431	45	391	64	5	29	12	1	0	0	0	0	9277
Percent	0.6%	78.1%	15.4%	0.5%	4.2%	0.7%	0.1%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	08:00	09:00	09:00	08:00	10:00	11:00						
Vol.	7	508	118	8	41	5	2	7	3						
PM Peak	13:00	16:00	15:00	14:00	14:00	15:00	13:00	12:00	12:00	14:00					
Vol.	7	705	124	8	30	10	1	2	2	1					

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/27/22	0	24	7	0	1	0	0	0	0	0	0	0	0	0	32
01:00	0	13	1	0	0	0	0	0	0	0	0	0	0	0	14
02:00	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
03:00	0	6	2	0	0	0	0	0	0	0	0	0	0	0	8
04:00	0	15	1	0	4	0	0	0	0	0	0	0	0	0	20
05:00	0	52	22	0	8	1	0	0	0	0	0	0	0	0	83
06:00	0	119	45	3	17	0	0	1	3	0	0	0	0	0	188
07:00	0	302	90	7	22	2	0	3	0	0	0	0	0	0	426
08:00	5	377	127	4	25	3	0	8	1	0	0	0	0	0	550
09:00	1	411	117	6	37	3	2	2	3	0	0	0	0	0	582
10:00	6	474	106	0	32	7	1	4	2	0	0	0	0	0	632
11:00	2	557	111	4	33	5	1	2	2	0	0	0	0	0	717
12 PM	5	582	118	2	30	8	0	2	0	0	0	0	0	0	747
13:00	8	632	114	0	28	7	1	3	1	1	0	0	0	0	795
14:00	5	705	106	10	26	4	2	3	1	0	0	0	0	0	862
15:00	5	655	120	1	22	3	0	2	0	0	0	0	0	0	808
16:00	1	663	122	3	23	11	0	1	1	0	0	0	0	0	825
17:00	2	664	105	1	23	5	0	2	0	0	0	0	0	0	802
18:00	4	492	95	0	19	2	0	0	0	0	0	0	0	0	612
19:00	3	372	55	0	10	2	0	0	1	0	0	0	0	0	443
20:00	1	262	31	0	6	3	0	0	0	0	0	0	0	0	303
21:00	1	145	26	0	8	0	0	0	0	0	0	0	0	0	180
22:00	0	123	18	0	5	0	0	0	0	0	0	0	0	0	146
23:00	0	65	9	0	2	0	0	0	0	0	0	0	0	0	76
Total	49	7720	1548	41	381	66	7	33	15	1	0	0	0	0	9861
Percent	0.5%	78.3%	15.7%	0.4%	3.9%	0.7%	0.1%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	08:00	07:00	09:00	10:00	09:00	08:00	06:00						
Vol.	6	557	127	7	37	7	2	8	3						
PM Peak	13:00	14:00	16:00	14:00	12:00	16:00	14:00	13:00	13:00	13:00					
Vol.	8	705	122	10	30	11	2	3	1	1					

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/28/22	0	34	6	0	1	0	0	0	0	0	0	0	0	0	41
01:00	1	31	1	0	0	0	0	0	0	0	0	0	0	0	33
02:00	0	27	0	0	0	0	0	0	0	0	0	0	0	0	27
03:00	0	25	0	0	0	0	0	0	0	0	0	0	0	0	25
04:00	0	42	0	0	0	0	0	0	0	0	0	0	0	0	42
05:00	0	109	0	0	0	0	0	0	0	0	0	0	0	0	109
06:00	0	223	0	0	0	0	0	0	0	0	0	0	0	0	223
07:00	0	455	0	0	0	0	0	0	0	0	0	0	0	0	455
08:00	0	692	0	0	0	0	0	0	0	0	0	0	0	0	692
09:00	0	982	0	0	0	0	0	0	0	0	0	0	0	0	982
10:00	0	1116	0	0	0	0	0	0	0	0	0	0	0	0	1116
11:00	0	1086	0	0	0	0	0	0	0	0	0	0	0	0	1086
12 PM	4	734	53	0	7	2	0	1	0	0	0	0	0	0	801
13:00	1	602	67	0	4	4	0	0	0	0	0	0	0	0	678
14:00	4	538	57	1	6	0	0	0	0	0	0	0	0	0	606
15:00	3	536	57	0	5	0	0	0	0	0	0	0	0	0	601
16:00	2	563	42	0	1	0	0	0	0	0	0	0	0	0	608
17:00	2	491	43	0	0	1	0	0	0	0	0	0	0	0	537
18:00	0	521	34	0	3	1	0	0	0	0	0	0	0	0	559
19:00	1	397	28	0	2	0	0	0	0	0	0	0	0	0	428
20:00	0	316	17	0	4	0	0	0	0	0	0	0	0	0	337
21:00	0	309	14	0	1	0	0	0	0	0	0	0	0	0	324
22:00	0	196	8	0	0	0	0	0	0	0	0	0	0	0	204
23:00	0	87	7	0	1	0	0	0	0	0	0	0	0	0	95
Total	18	10112	434	1	35	8	0	1	0	0	0	0	0	0	10609
Percent	0.2%	95.3%	4.1%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	10:00	00:00		00:00										
Vol.	1	1116	6		1										
PM Peak	12:00	12:00	13:00	14:00	12:00	13:00		12:00							
Vol.	4	734	67	1	7	4		1							

Route 161 South of Industrial Park Road
East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
Station ID: 5664

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/29/22	0	60	3	0	0	0	0	0	0	0	0	0	0	0	63
01:00	0	43	0	0	0	0	0	0	0	0	0	0	0	0	43
02:00	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
03:00	0	32	1	0	1	0	0	0	0	0	0	0	0	0	34
04:00	0	35	5	0	0	0	0	0	0	0	0	0	0	0	40
05:00	0	83	14	0	0	0	0	1	0	0	0	0	0	0	98
06:00	0	159	6	0	0	0	0	0	0	0	0	0	0	0	165
07:00	0	341	23	0	4	0	0	0	0	0	0	0	0	0	368
08:00	0	567	29	0	2	0	0	1	0	0	0	0	0	0	599
09:00	1	612	51	0	4	1	0	1	0	0	0	0	0	0	670
10:00	1	725	48	0	8	0	0	0	0	0	0	0	0	0	782
11:00	2	817	46	0	0	1	0	0	0	0	0	0	0	0	866
12 PM	0	985	8	0	0	1	0	0	0	0	0	0	0	0	994
13:00	0	923	33	0	1	0	0	0	0	0	0	0	0	0	957
14:00	0	905	14	0	2	0	0	0	0	0	0	0	0	0	921
15:00	0	959	13	0	0	0	0	0	0	0	0	0	0	0	972
16:00	0	951	9	0	0	0	0	0	0	0	0	0	0	0	960
17:00	0	886	4	0	0	0	0	1	0	0	0	0	0	0	891
18:00	0	774	7	0	1	0	0	0	0	0	0	0	0	0	782
19:00	1	695	5	0	1	1	0	0	0	0	0	0	0	0	703
20:00	0	608	3	0	0	0	0	0	0	0	0	0	0	0	611
21:00	0	387	1	0	0	0	0	0	0	0	0	0	0	0	388
22:00	0	200	0	0	0	0	0	0	0	0	0	0	0	0	200
23:00	0	147	0	0	0	0	0	0	0	0	0	0	0	0	147
Total	5	11908	323	0	24	4	0	4	0	0	0	0	0	0	12268
Percent	0.0%	97.1%	2.6%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	09:00		10:00	09:00		05:00							
Vol.	2	817	51		8	1		1							
PM Peak	19:00	12:00	13:00		14:00	12:00		17:00							
Vol.	1	985	33		2	1		1							

Route 161 South of Industrial Park Road
 East Lyme, Connecticut

Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Site Code:
 Station ID: 5664

Latitude: 0' 0.0000 Undefined

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
05/30/22	0	72	0	0	0	0	0	0	0	0	0	0	0	0	72
01:00	0	48	0	0	0	0	0	0	0	0	0	0	0	0	48
02:00	0	23	0	0	0	0	0	0	0	0	0	0	0	0	23
03:00	0	22	0	0	0	0	0	0	0	0	0	0	0	0	22
04:00	0	20	1	0	0	0	0	0	0	0	0	0	0	0	21
05:00	0	98	8	0	0	0	0	0	0	0	0	0	0	0	106
06:00	0	213	7	0	0	0	0	0	0	0	0	0	0	0	220
07:00	0	389	5	0	1	0	0	0	0	0	0	0	0	0	395
08:00	0	600	10	0	0	0	0	0	0	0	0	0	0	0	610
09:00	0	795	12	0	0	0	0	0	0	0	0	0	0	0	807
10:00	1	786	48	0	5	0	0	3	0	0	0	0	0	0	843
11:00	0	792	44	0	4	1	0	1	0	0	0	0	0	0	842
12 PM	0	904	52	2	2	0	0	0	0	0	0	0	0	0	960
13:00	2	897	28	0	6	0	0	1	0	0	0	0	0	0	934
14:00	2	991	18	0	0	0	0	0	0	0	0	0	0	0	1011
15:00	1	894	23	0	1	1	0	0	0	0	0	0	0	0	920
16:00	0	843	30	0	1	0	0	0	0	0	0	0	0	0	874
17:00	1	740	32	0	0	0	0	0	0	0	0	0	0	0	773
18:00	0	595	16	0	1	0	0	0	0	0	0	0	0	0	612
19:00	1	593	13	0	3	0	0	0	0	0	0	0	0	0	610
20:00	0	446	14	0	2	0	0	0	0	0	0	0	0	0	462
21:00	0	250	7	0	0	0	0	0	0	0	0	0	0	0	257
22:00	0	127	1	0	0	0	0	0	0	0	0	0	0	0	128
23:00	0	75	1	0	0	0	0	0	0	0	0	0	0	0	76
Total	8	11213	370	2	26	2	0	5	0	0	0	0	0	0	11626
Percent	0.1%	96.4%	3.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	09:00	10:00		10:00	11:00		10:00							
Vol.	1	795	48		5	1		3							
PM Peak	13:00	14:00	12:00	12:00	13:00	15:00		13:00							
Vol.	2	991	52	2	6	1		1							

APPENDIX D
INTERSECTION TURNING MOVEMENT
COUNT REPORTS

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at E. Lyme HS Drive
East Lyme, Connecticut

File Name : 23093
Site Code : 23093
Start Date : 5/24/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					From East					Route 161 From South					E. Lyme HS Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	6	100	0	19	125	0	0	0	0	0	0	127	17	0	144	24	0	3	0	27	296
03:15 PM	22	108	0	6	136	0	0	0	0	0	0	139	35	2	176	19	0	3	0	22	334
03:30 PM	12	116	0	4	132	0	0	0	0	0	0	131	18	0	149	18	0	17	0	35	316
03:45 PM	9	99	0	2	110	0	0	0	0	0	0	156	11	0	167	13	0	8	0	21	298
Total	49	423	0	31	503	0	0	0	0	0	0	553	81	2	636	74	0	31	0	105	1244
04:00 PM	7	120	0	3	130	0	0	0	0	0	0	152	11	0	163	18	0	8	0	26	319
04:15 PM	5	136	0	0	141	0	0	0	0	0	0	160	18	0	178	9	0	5	1	15	334
04:30 PM	3	125	0	0	128	0	0	0	0	0	0	166	13	0	179	15	0	9	0	24	331
04:45 PM	6	140	0	3	149	0	0	0	0	0	0	161	15	0	176	7	0	5	0	12	337
Total	21	521	0	6	548	0	0	0	0	0	0	639	57	0	696	49	0	27	1	77	1321
05:00 PM	8	98	0	0	106	0	0	0	0	0	0	148	15	0	163	15	0	4	0	19	288
05:15 PM	5	122	0	0	127	0	0	0	0	0	0	129	22	0	151	10	0	0	1	11	289
05:30 PM	8	100	0	2	110	0	0	0	0	0	0	123	8	0	131	14	0	10	1	25	266
05:45 PM	6	96	0	0	102	0	0	0	0	0	0	128	12	0	140	3	0	11	1	15	257
Total	27	416	0	2	445	0	0	0	0	0	0	528	57	0	585	42	0	25	3	70	1100
Grand Total	97	1360	0	39	1496	0	0	0	0	0	0	1720	195	2	1917	165	0	83	4	252	3665
Apprch %	6.5	90.9	0	2.6		0	0	0	0		0	89.7	10.2	0.1		65.5	0	32.9	1.6		
Total %	2.6	37.1	0	1.1	40.8	0	0	0	0	0	0	46.9	5.3	0.1	52.3	4.5	0	2.3	0.1	6.9	
Lights	94	1341									1701										
% Lights	96.9	98.6	0	100	98.5	0	0	0	0	0	0	98.9	95.4	100	98.5	95.2	0	95.2	100	95.2	98.3
Buses	3	8	0	0	11	0	0	0	0	0	0	8	9	0	17	8	0	4	0	12	40
% Buses	3.1	0.6	0	0	0.7	0	0	0	0	0	0	0.5	4.6	0	0.9	4.8	0	4.8	0	4.8	1.1
Trucks	0	11	0	0	11	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	22
% Trucks	0	0.8	0	0	0.7	0	0	0	0	0	0	0.6	0	0	0.6	0	0	0	0	0	0.6

Connecticut Counts LLC

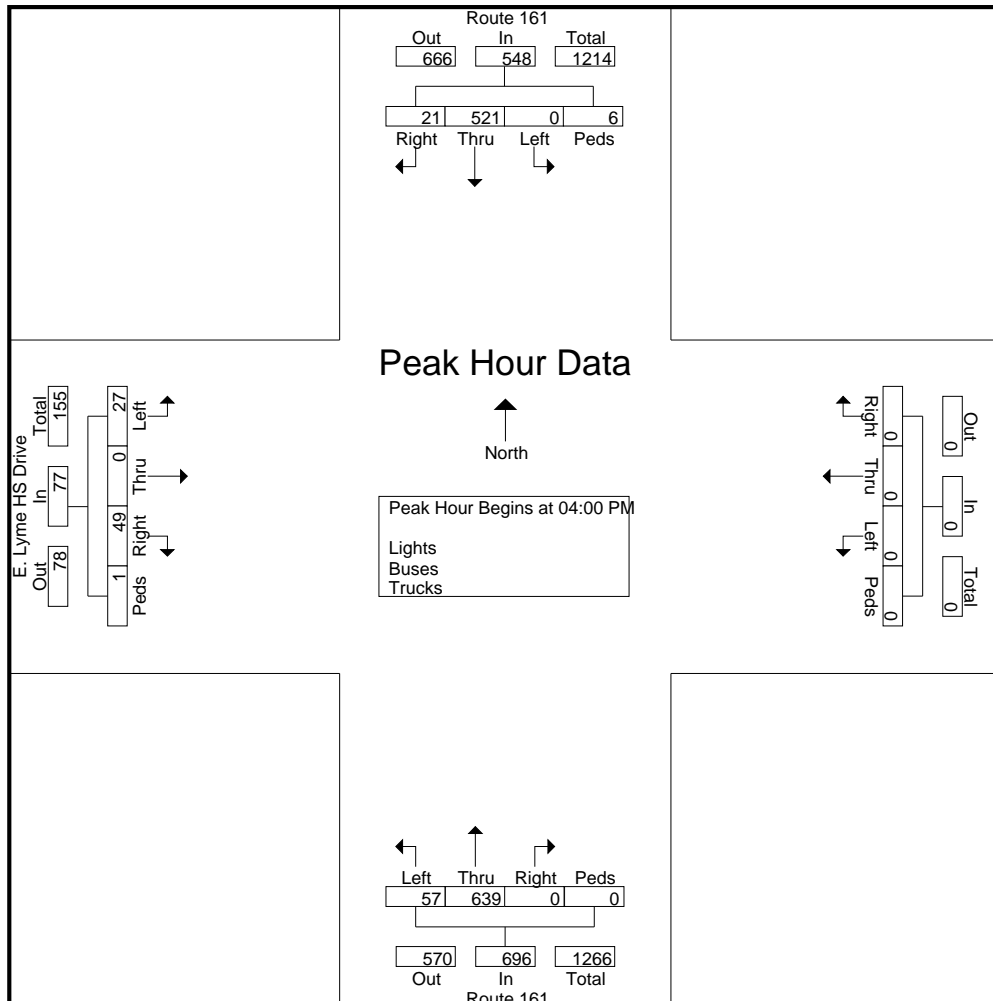
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23093
Site Code : 23093
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					From East					Route 161 From South					E. Lyme HS Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	7	120	0	3	130	0	0	0	0	0	0	152	11	0	163	18	0	8	0	26	319
04:15 PM	5	136	0	0	141	0	0	0	0	0	0	160	18	0	178	9	0	5	1	15	334
04:30 PM	3	125	0	0	128	0	0	0	0	0	0	166	13	0	179	15	0	9	0	24	331
04:45 PM	6	140	0	3	149	0	0	0	0	0	0	161	15	0	176	7	0	5	0	12	337
Total Volume	21	521	0	6	548	0	0	0	0	0	0	639	57	0	696	49	0	27	1	77	1321
% App. Total	3.8	95.1	0	1.1		0	0	0	0		0	91.8	8.2	0		63.6	0	35.1	1.3		
PHF	.750	.930	.000	.500	.919	.000	.000	.000	.000	.000	.000	.962	.792	.000	.972	.681	.000	.750	.250	.740	.980



Connecticut Counts LLC

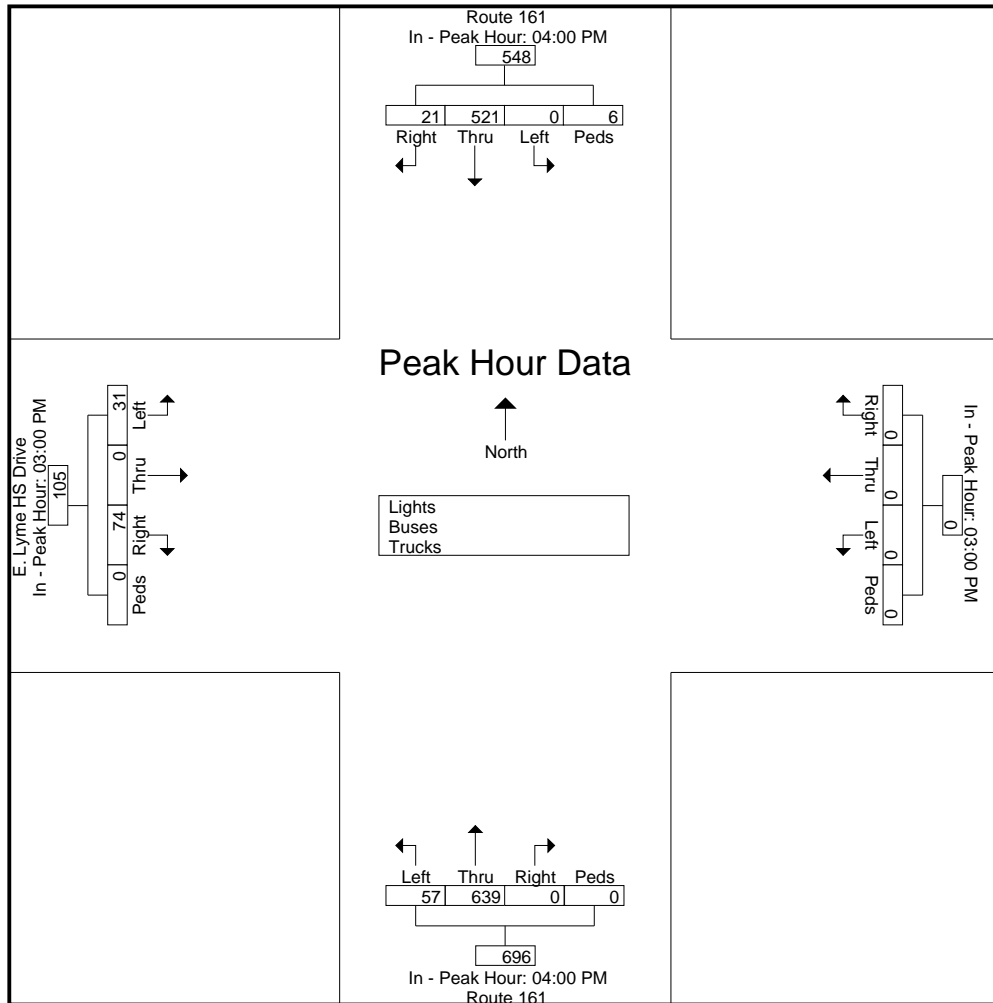
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23093
 Site Code : 23093
 Start Date : 5/24/2022
 Page No : 3

Start Time	Route 161 From North					From East					Route 161 From South					E. Lyme HS Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM					03:00 PM					04:00 PM					03:00 PM				
+0 mins.	7	120	0	3	130	0	0	0	0	0	0	152	11	0	163	24	0	3	0	27
+15 mins.	5	136	0	0	141	0	0	0	0	0	0	160	18	0	178	19	0	3	0	22
+30 mins.	3	125	0	0	128	0	0	0	0	0	0	166	13	0	179	18	0	17	0	35
+45 mins.	6	140	0	3	149	0	0	0	0	0	0	161	15	0	176	13	0	8	0	21
Total Volume	21	521	0	6	548	0	0	0	0	0	0	639	57	0	696	74	0	31	0	105
% App. Total	3.8	95.1	0	1.1		0	0	0	0		0	91.8	8.2	0		70.5	0	29.5	0	
PHF	.750	.930	.000	.500	.919	.000	.000	.000	.000	.000	.000	.962	.792	.000	.972	.771	.000	.456	.000	.750



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at E. Lyme HS Drive
 East Lyme, Connecticut

File Name : 23094
 Site Code : 23094
 Start Date : 6/4/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	RRoute 161 From North					From East					RRoute 161 From South					E. Lyme HS Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	5	123	0	1	129	0	0	0	0	0	0	94	11	0	105	8	0	1	1	10	244
11:15 AM	1	154	0	1	156	0	0	0	0	0	0	102	8	0	110	6	0	2	1	9	275
11:30 AM	2	98	0	1	101	0	0	0	0	0	0	89	5	0	94	4	0	1	1	6	201
11:45 AM	2	146	0	4	152	0	0	0	0	0	0	98	9	0	107	0	0	0	0	0	259
Total	10	521	0	7	538	0	0	0	0	0	0	383	33	0	416	18	0	4	3	25	979
12:00 PM	3	132	0	0	135	0	0	0	0	0	0	114	7	0	121	13	0	5	0	18	274
12:15 PM	6	126	0	0	132	0	0	0	0	0	0	116	11	0	127	36	0	11	0	47	306
12:30 PM	0	114	0	1	115	0	0	0	0	0	0	111	9	0	120	31	0	1	0	32	267
12:45 PM	4	113	0	4	121	0	0	0	0	0	0	110	6	0	116	6	0	3	0	9	246
Total	13	485	0	5	503	0	0	0	0	0	0	451	33	0	484	86	0	20	0	106	1093
01:00 PM	2	121	0	0	123	0	0	0	0	0	0	102	4	0	106	4	0	3	3	10	239
01:15 PM	0	103	0	2	105	0	0	0	0	0	0	103	8	0	111	4	0	4	0	8	224
01:30 PM	1	117	0	1	119	0	0	0	0	0	0	90	2	0	92	9	0	3	0	12	223
01:45 PM	1	96	0	0	97	0	0	0	0	0	0	110	0	0	110	4	0	1	0	5	212
Total	4	437	0	3	444	0	0	0	0	0	0	405	14	0	419	21	0	11	3	35	898
Grand Total	27	1443	0	15	1485	0	0	0	0	0	0	1239	80	0	1319	125	0	35	6	166	2970
Apprch %	1.8	97.2	0	1		0	0	0	0		0	93.9	6.1	0		75.3	0	21.1	3.6		
Total %	0.9	48.6	0	0.5	50	0	0	0	0	0	0	41.7	2.7	0	44.4	4.2	0	1.2	0.2	5.6	
Lights	27	1439										1235									
% Lights	100	99.7	0	100	99.7	0	0	0	0	0	0	99.7	98.8	0	99.6	98.4	0	100	100	98.8	99.6
Buses	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	5
% Buses	0	0.1	0	0	0.1	0	0	0	0	0	0	0.1	1.2	0	0.2	1.6	0	0	0	1.2	0.2
Trucks	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
% Trucks	0	0.2	0	0	0.2	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.2

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

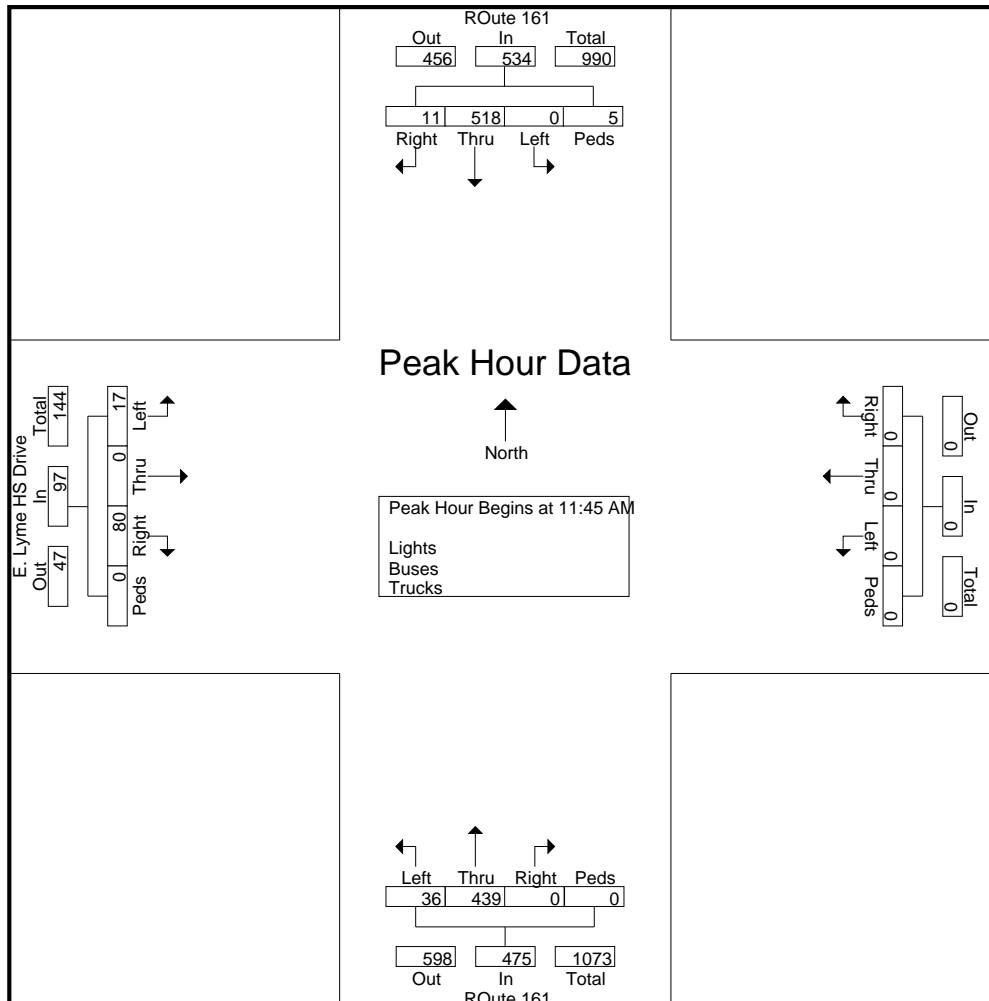
File Name : 23094
Site Code : 23094
Start Date : 6/4/2022
Page No : 2

Start Time	R0ute 161 From North					From East					R0ute 161 From South					E. Lyme HS Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 11:45 AM

11:45 AM	2	146	0	4	152	0	0	0	0	0	0	98	9	0	107	0	0	0	0	0	259
12:00 PM	3	132	0	0	135	0	0	0	0	0	0	114	7	0	121	13	0	5	0	18	274
12:15 PM	6	126	0	0	132	0	0	0	0	0	0	116	11	0	127	36	0	11	0	47	306
12:30 PM	0	114	0	1	115	0	0	0	0	0	0	111	9	0	120	31	0	1	0	32	267
Total Volume	11	518	0	5	534	0	0	0	0	0	0	439	36	0	475	80	0	17	0	97	1106
% App. Total	2.1	97	0	0.9		0	0	0	0		0	92.4	7.6	0		82.5	0	17.5	0		
PHF	.458	.887	.000	.313	.878	.000	.000	.000	.000	.000	.000	.946	.818	.000	.935	.556	.000	.386	.000	.516	.904



Connecticut Counts LLC

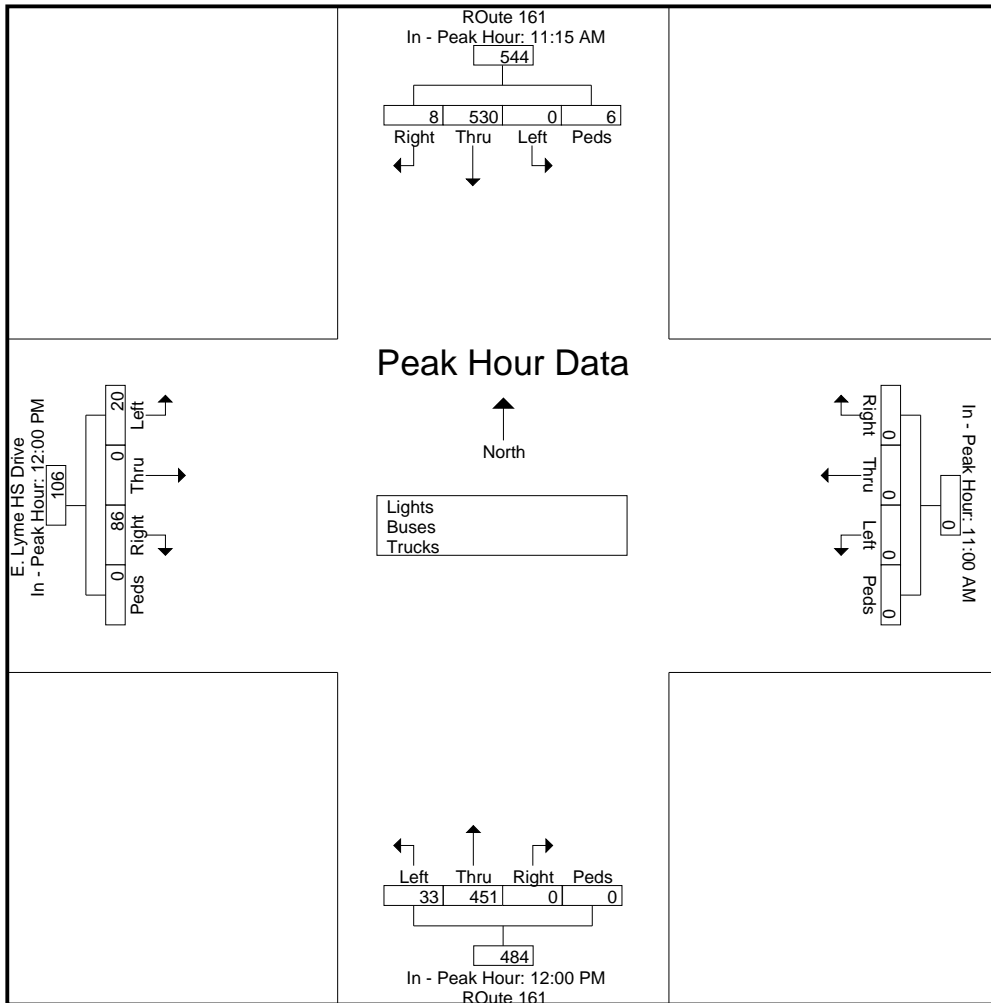
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23094
Site Code : 23094
Start Date : 6/4/2022
Page No : 3

Start Time	R0ute 161 From North					From East					R0ute 161 From South					E. Lyme HS Drive From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:15 AM					11:00 AM					12:00 PM					12:00 PM				
+0 mins.	1	154	0	1	156	0	0	0	0	0	0	114	7	0	121	13	0	5	0	18
+15 mins.	2	98	0	1	101	0	0	0	0	0	0	116	11	0	127	36	0	11	0	47
+30 mins.	2	146	0	4	152	0	0	0	0	0	0	111	9	0	120	31	0	1	0	32
+45 mins.	3	132	0	0	135	0	0	0	0	0	0	110	6	0	116	6	0	3	0	9
Total Volume	8	530	0	6	544	0	0	0	0	0	0	451	33	0	484	86	0	20	0	106
% App. Total	1.5	97.4	0	1.1		0	0	0	0		0	93.2	6.8	0		81.1	0	18.9	0	
PHF	.667	.860	.000	.375	.872	.000	.000	.000	.000	.000	.000	.972	.750	.000	.953	.597	.000	.455	.000	.564



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Route 161 at Route 1
East Lyme, Connecticut

File Name : 23113
Site Code : 23113
Start Date : 5/24/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

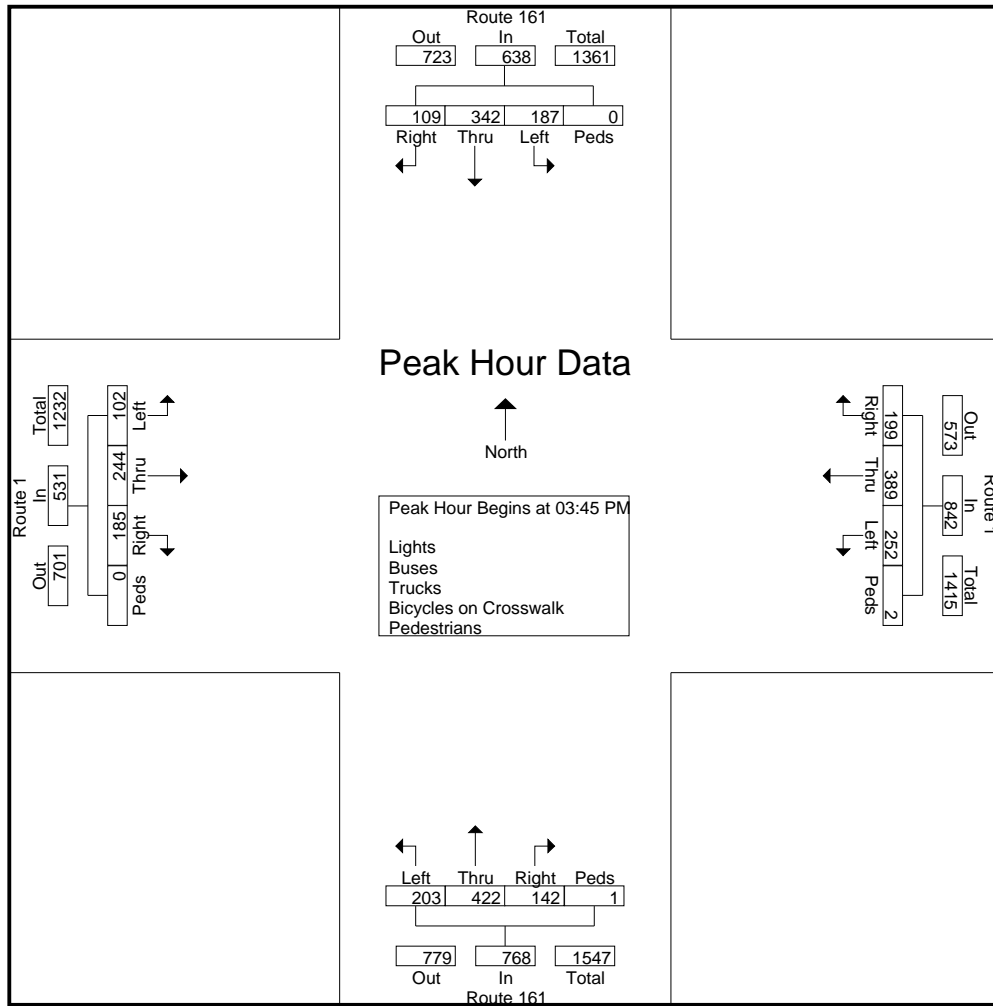
Start Time	Route 161 From North					Route 1 From East					Route 161 From South					Route 1 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	34	61	46	0	141	35	96	48	0	179	27	104	87	1	219	20	40	21	0	81	620
03:15 PM	31	87	31	0	149	50	103	57	0	210	31	107	46	0	184	32	41	29	0	102	645
03:30 PM	36	86	43	1	166	37	92	71	0	200	20	91	51	0	162	55	49	31	1	136	664
03:45 PM	35	73	44	0	152	42	116	78	0	236	38	96	55	0	189	47	63	31	0	141	718
Total	136	307	164	1	608	164	407	254	0	825	116	398	239	1	754	154	193	112	1	460	2647
04:00 PM	20	94	43	0	157	42	98	58	1	199	36	95	56	0	187	46	64	22	0	132	675
04:15 PM	27	89	48	0	164	55	97	60	0	212	34	113	41	0	188	41	56	22	0	119	683
04:30 PM	27	86	52	0	165	60	78	56	1	195	34	118	51	1	204	51	61	27	0	139	703
04:45 PM	34	77	49	0	160	54	84	61	0	199	34	125	63	0	222	38	55	22	0	115	696
Total	108	346	192	0	646	211	357	235	2	805	138	451	211	1	801	176	236	93	0	505	2757
05:00 PM	21	76	38	0	135	33	105	66	0	204	35	93	32	0	160	51	94	23	0	168	667
05:15 PM	18	94	49	0	161	35	67	63	3	168	39	102	66	0	207	54	47	28	0	129	665
05:30 PM	22	81	50	0	153	39	84	48	0	171	24	97	37	0	158	50	43	22	0	115	597
05:45 PM	17	79	39	0	135	49	72	46	0	167	23	74	47	0	144	47	55	25	1	128	574
Total	78	330	176	0	584	156	328	223	3	710	121	366	182	0	669	202	239	98	1	540	2503
Grand Total	322	983	532	1	1838	531	1092	712	5	2340	375	1215	632	2	2224	532	668	303	2	1505	7907
Apprch %	17.5	53.5	28.9	0.1		22.7	46.7	30.4	0.2		16.9	54.6	28.4	0.1		35.3	44.4	20.1	0.1		
Total %	4.1	12.4	6.7	0	23.2	6.7	13.8	9	0.1	29.6	4.7	15.4	8	0	28.1	6.7	8.4	3.8	0	19	
Lights	308	956	526	0	1790	520	1067				1185										
% Lights	95.7	97.3	98.9	0	97.4	97.9	97.7	98.5	0	97.8	98.4	97.5	98.3	0	97.8	97.6	96.9	96	0	96.8	97.5
Buses	1	16	4	0	21	5	4	1	0	10	2	8	3	0	13	6	1	3	0	10	54
% Buses	0.3	1.6	0.8	0	1.1	0.9	0.4	0.1	0	0.4	0.5	0.7	0.5	0	0.6	1.1	0.1	1	0	0.7	0.7
Trucks	13	11	2	0	26	6	21	10	0	37	4	22	8	0	34	7	20	9	0	36	133
% Trucks	4	1.1	0.4	0	1.4	1.1	1.9	1.4	0	1.6	1.1	1.8	1.3	0	1.5	1.3	3	3	0	2.4	1.7
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	1	1	0	0	0	5	5	0	0	0	2	2	0	0	0	2	2	10
% Pedestrians	0	0	0	100	0.1	0	0	0	100	0.2	0	0	0	100	0.1	0	0	0	100	0.1	0.1

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23113
Site Code : 23113
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					Route 1 From East					Route 161 From South					Route 1 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
03:45 PM	35	73	44	0	152	42	116	78	0	236	38	96	55	0	189	47	63	31	0	141	718
04:00 PM	20	94	43	0	157	42	98	58	1	199	36	95	56	0	187	46	64	22	0	132	675
04:15 PM	27	89	48	0	164	55	97	60	0	212	34	113	41	0	188	41	56	22	0	119	683
04:30 PM	27	86	52	0	165	60	78	56	1	195	34	118	51	1	204	51	61	27	0	139	703
Total Volume	109	342	187	0	638	199	389	252	2	842	142	422	203	1	768	185	244	102	0	531	2779
% App. Total	17.1	53.6	29.3	0		23.6	46.2	29.9	0.2		18.5	54.9	26.4	0.1		34.8	46	19.2	0		
PHF	.779	.910	.899	.000	.967	.829	.838	.808	.500	.892	.934	.894	.906	.250	.941	.907	.953	.823	.000	.941	.968



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

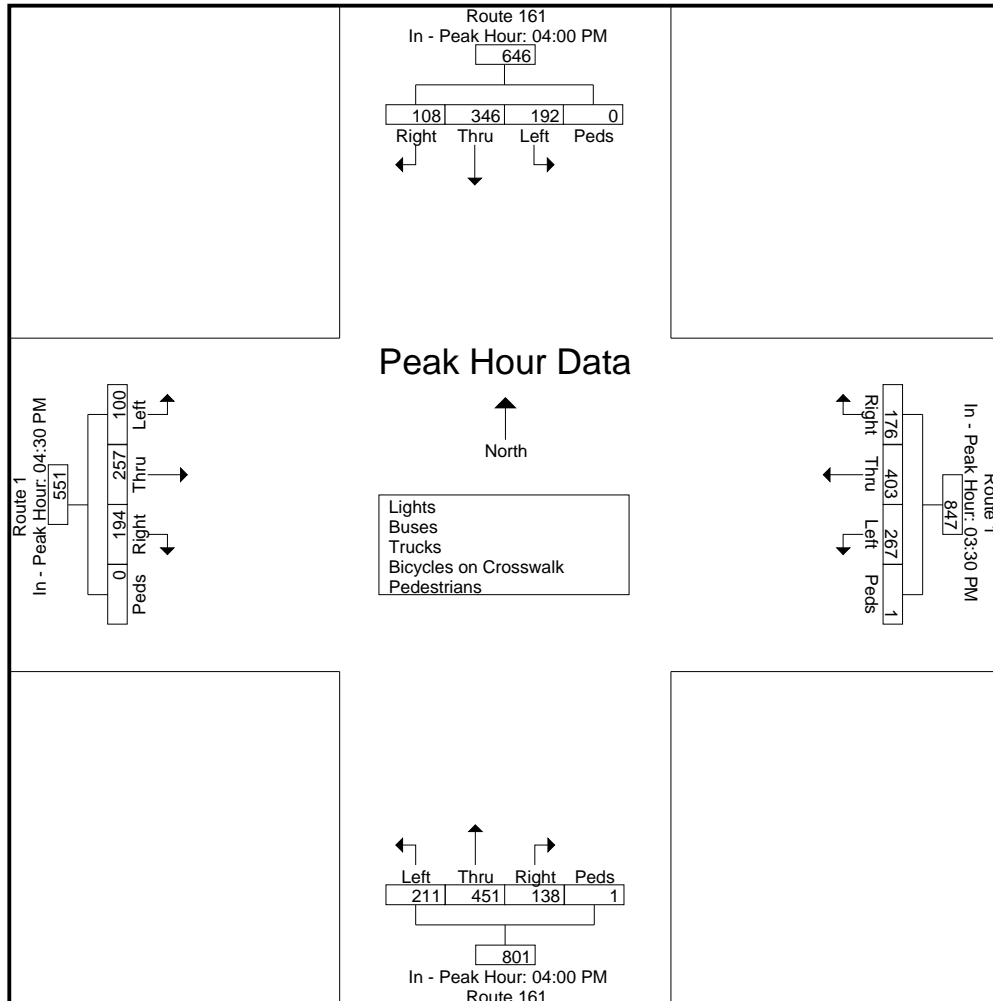
File Name : 23113
Site Code : 23113
Start Date : 5/24/2022
Page No : 3

	Route 161 From North					Route 1 From East					Route 161 From South					Route 1 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM					03:30 PM					04:00 PM					04:30 PM				
+0 mins.	20	94	43	0	157	37	92	71	0	200	36	95	56	0	187	51	61	27	0	139
+15 mins.	27	89	48	0	164	42	116	78	0	236	34	113	41	0	188	38	55	22	0	115
+30 mins.	27	86	52	0	165	42	98	58	1	199	34	118	51	1	204	51	94	23	0	168
+45 mins.	34	77	49	0	160	55	97	60	0	212	34	125	63	0	222	54	47	28	0	129
Total Volume	108	346	192	0	646	176	403	267	1	847	138	451	211	1	801	194	257	100	0	551
% App. Total	16.7	53.6	29.7	0		20.8	47.6	31.5	0.1		17.2	56.3	26.3	0.1		35.2	46.6	18.1	0	
PHF	.794	.920	.923	.000	.979	.800	.869	.856	.250	.897	.958	.902	.837	.250	.902	.898	.684	.893	.000	.820



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Route 161 at Route 1
East Lyme, Connecticut

File Name : 23114
Site Code : 23114
Start Date : 6/4/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

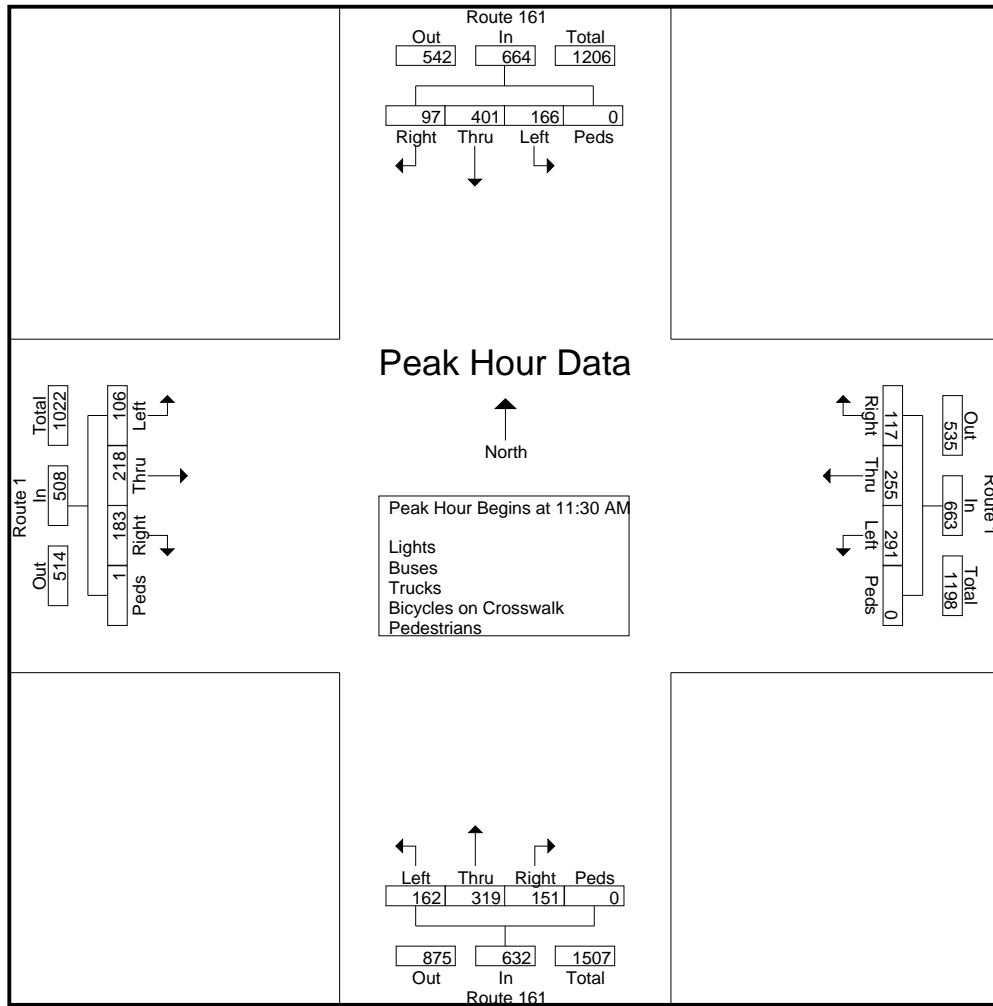
Start Time	Route 161 From North					Route 1 From East					Route 161 From South					Route 1 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	25	82	34	1	142	32	64	69	0	165	32	73	45	0	150	55	55	26	0	136	593
11:15 AM	23	88	50	1	162	24	68	52	0	144	36	63	45	0	144	49	60	28	0	137	587
11:30 AM	22	98	36	0	156	28	58	74	0	160	38	87	40	0	165	47	54	27	1	129	610
11:45 AM	29	105	45	0	179	30	78	70	0	178	37	74	43	0	154	47	54	21	0	122	633
Total	99	373	165	2	639	114	268	265	0	647	143	297	173	0	613	198	223	102	1	524	2423
12:00 PM	18	99	40	0	157	36	49	74	0	159	33	93	42	0	168	38	51	31	0	120	604
12:15 PM	28	99	45	0	172	23	70	73	0	166	43	65	37	0	145	51	59	27	0	137	620
12:30 PM	17	94	40	0	151	37	58	85	0	180	44	72	38	0	154	45	56	24	0	125	610
12:45 PM	20	73	36	0	129	25	52	60	0	137	28	77	45	1	151	42	43	21	0	106	523
Total	83	365	161	0	609	121	229	292	0	642	148	307	162	1	618	176	209	103	0	488	2357
01:00 PM	19	81	51	0	151	31	62	72	0	165	34	82	23	0	139	43	38	21	0	102	557
01:15 PM	17	83	37	0	137	41	67	69	0	177	32	74	29	0	135	32	52	17	0	101	550
01:30 PM	16	93	38	0	147	21	49	58	0	128	29	73	43	0	145	36	49	18	0	103	523
01:45 PM	26	71	33	0	130	38	51	66	1	156	31	68	33	0	132	37	48	16	0	101	519
Total	78	328	159	0	565	131	229	265	1	626	126	297	128	0	551	148	187	72	0	407	2149
Grand Total	260	1066	485	2	1813	366	726	822	1	1915	417	901	463	1	1782	522	619	277	1	1419	6929
Apprch %	14.3	58.8	26.8	0.1		19.1	37.9	42.9	0.1		23.4	50.6	26	0.1		36.8	43.6	19.5	0.1		
Total %	3.8	15.4	7	0	26.2	5.3	10.5	11.9	0	27.6	6	13	6.7	0	25.7	7.5	8.9	4	0	20.5	
Lights	258	1060																			
% Lights	99.2	99.4	98.8	0	99.1	99.2	99.4	99.8	0	99.5	99.5	99.4	99.6	0	99.4	99.2	98.4	99.3	0	98.8	99.2
Buses	0	3	0	0	3	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	6
% Buses	0	0.3	0	0	0.2	0	0.1	0	0	0.1	0	0.2	0	0	0.1	0	0	0	0	0	0.1
Trucks	2	3	6	0	11	3	3	2	0	8	2	3	2	0	7	4	10	2	0	16	42
% Trucks	0.8	0.3	1.2	0	0.6	0.8	0.4	0.2	0	0.4	0.5	0.3	0.4	0	0.4	0.8	1.6	0.7	0	1.1	0.6
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.1	0	0	0	0	0	0
Pedestrians	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	4
% Pedestrians	0	0	0	100	0.1	0	0	0	100	0.1	0	0	0	0	0	0	0	0	100	0.1	0.1

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23114
Site Code : 23114
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					Route 1 From East					Route 161 From South					Route 1 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	22	98	36	0	156	28	58	74	0	160	38	87	40	0	165	47	54	27	1	129	610
11:45 AM	29	105	45	0	179	30	78	70	0	178	37	74	43	0	154	47	54	21	0	122	633
12:00 PM	18	99	40	0	157	36	49	74	0	159	33	93	42	0	168	38	51	31	0	120	604
12:15 PM	28	99	45	0	172	23	70	73	0	166	43	65	37	0	145	51	59	27	0	137	620
Total Volume	97	401	166	0	664	117	255	291	0	663	151	319	162	0	632	183	218	106	1	508	2467
% App. Total	14.6	60.4	25	0		17.6	38.5	43.9	0		23.9	50.5	25.6	0		36	42.9	20.9	0.2		
PHF	.836	.955	.922	.000	.927	.813	.817	.983	.000	.931	.878	.858	.942	.000	.940	.897	.924	.855	.250	.927	.974



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

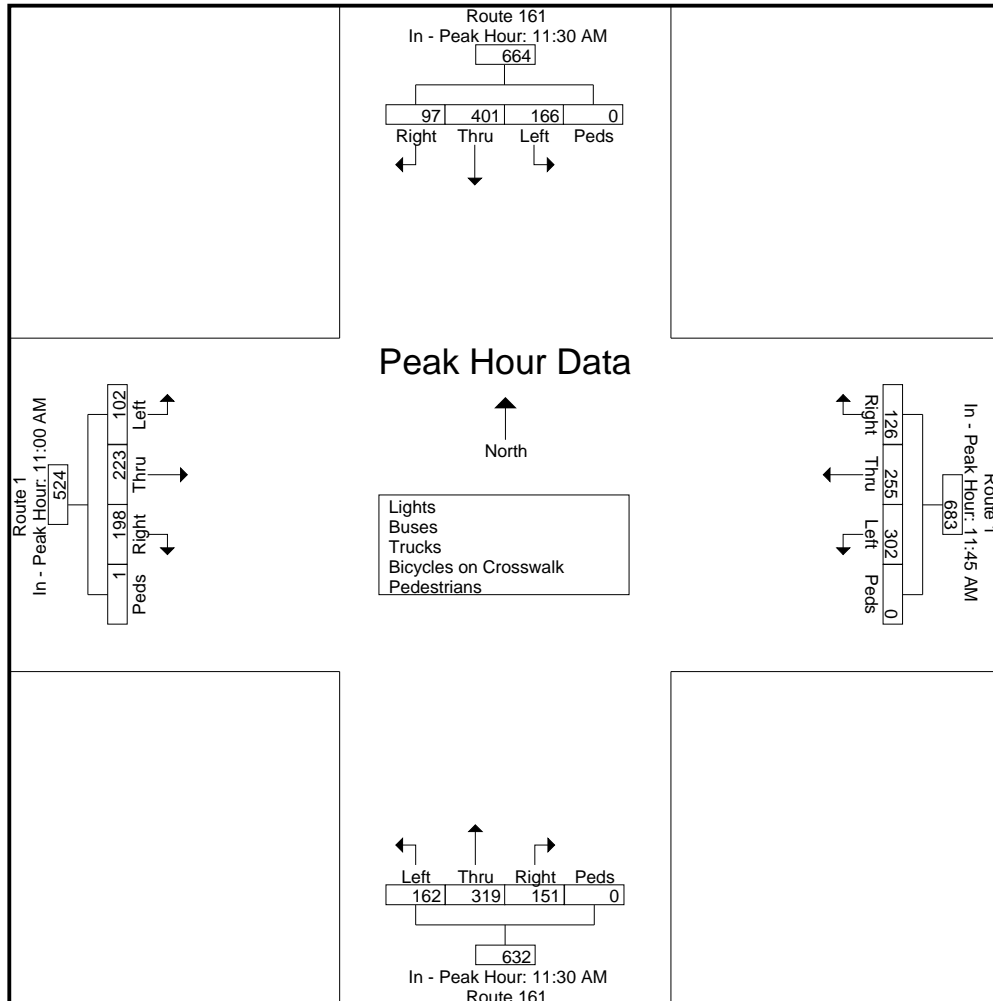
File Name : 23114
Site Code : 23114
Start Date : 6/4/2022
Page No : 3

	Route 161 From North					Route 1 From East					Route 161 From South					Route 1 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:30 AM					11:45 AM					11:30 AM					11:00 AM				
+0 mins.	22	98	36	0	156	30	78	70	0	178	38	87	40	0	165	55	55	26	0	136
+15 mins.	29	105	45	0	179	36	49	74	0	159	37	74	43	0	154	49	60	28	0	137
+30 mins.	18	99	40	0	157	23	70	73	0	166	33	93	42	0	168	47	54	27	1	129
+45 mins.	28	99	45	0	172	37	58	85	0	180	43	65	37	0	145	47	54	21	0	122
Total Volume	97	401	166	0	664	126	255	302	0	683	151	319	162	0	632	198	223	102	1	524
% App. Total	14.6	60.4	25	0		18.4	37.3	44.2	0		23.9	50.5	25.6	0		37.8	42.6	19.5	0.2	
PHF	.836	.955	.922	.000	.927	.851	.817	.888	.000	.949	.878	.858	.942	.000	.940	.900	.929	.911	.250	.956



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Route 161 at I-95 SB Ramps
East Lyme, Connecticut

File Name : 23109
Site Code : 23109
Start Date : 5/24/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

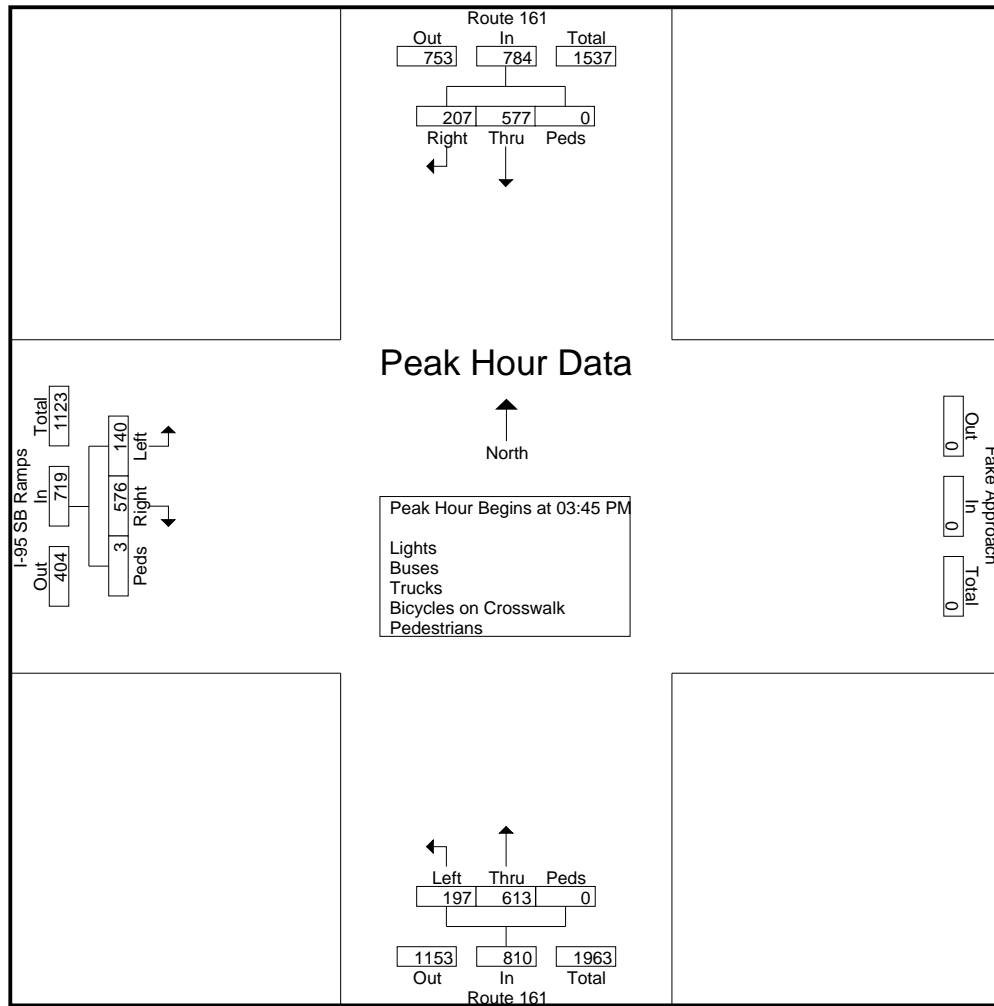
Start Time	Route 161 From North				Route 161 From South				I-95 SB Ramps From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
03:00 PM	35	109	0	144	154	29	0	183	133	84	0	217	544
03:15 PM	39	121	0	160	156	42	0	198	140	42	1	183	541
03:30 PM	46	148	0	194	124	55	0	179	132	39	1	172	545
03:45 PM	52	159	0	211	161	49	0	210	135	44	1	180	601
Total	172	537	0	709	595	175	0	770	540	209	3	752	2231
04:00 PM	40	146	0	186	141	59	0	200	138	25	2	165	551
04:15 PM	53	137	0	190	148	54	0	202	157	33	0	190	582
04:30 PM	62	135	0	197	163	35	0	198	146	38	0	184	579
04:45 PM	58	145	0	203	149	56	0	205	143	30	0	173	581
Total	213	563	0	776	601	204	0	805	584	126	2	712	2293
05:00 PM	53	148	0	201	147	53	0	200	132	24	0	156	557
05:15 PM	53	165	0	218	143	63	0	206	140	27	0	167	591
05:30 PM	43	143	0	186	121	41	0	162	130	30	0	160	508
05:45 PM	49	115	0	164	135	46	0	181	122	15	1	138	483
Total	198	571	0	769	546	203	0	749	524	96	1	621	2139
Grand Total	583	1671	0	2254	1742	582	0	2324	1648	431	6	2085	6663
Apprch %	25.9	74.1	0		75	25	0		79	20.7	0.3		
Total %	8.7	25.1	0	33.8	26.1	8.7	0	34.9	24.7	6.5	0.1	31.3	
Lights	572	1631	0	2203	1696	575	0	2271	1633	428	0	2061	6535
% Lights	98.1	97.6	0	97.7	97.4	98.8	0	97.7	99.1	99.3	0	98.8	98.1
Buses	2	20	0	22	13	0	0	13	1	0	0	1	36
% Buses	0.3	1.2	0	1	0.7	0	0	0.6	0.1	0	0	0	0.5
Trucks	9	20	0	29	33	7	0	40	14	3	0	17	86
% Trucks	1.5	1.2	0	1.3	1.9	1.2	0	1.7	0.8	0.7	0	0.8	1.3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	2	2	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	33.3	0.1	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	4	4	4
% Pedestrians	0	0	0	0	0	0	0	0	0	0	66.7	0.2	0.1

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23109
Site Code : 23109
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North				Route 161 From South				I-95 SB Ramps From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 03:45 PM													
03:45 PM	52	159	0	211	161	49	0	210	135	44	1	180	601
04:00 PM	40	146	0	186	141	59	0	200	138	25	2	165	551
04:15 PM	53	137	0	190	148	54	0	202	157	33	0	190	582
04:30 PM	62	135	0	197	163	35	0	198	146	38	0	184	579
Total Volume	207	577	0	784	613	197	0	810	576	140	3	719	2313
% App. Total	26.4	73.6	0		75.7	24.3	0		80.1	19.5	0.4		
PHF	.835	.907	.000	.929	.940	.835	.000	.964	.917	.795	.375	.946	.962



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

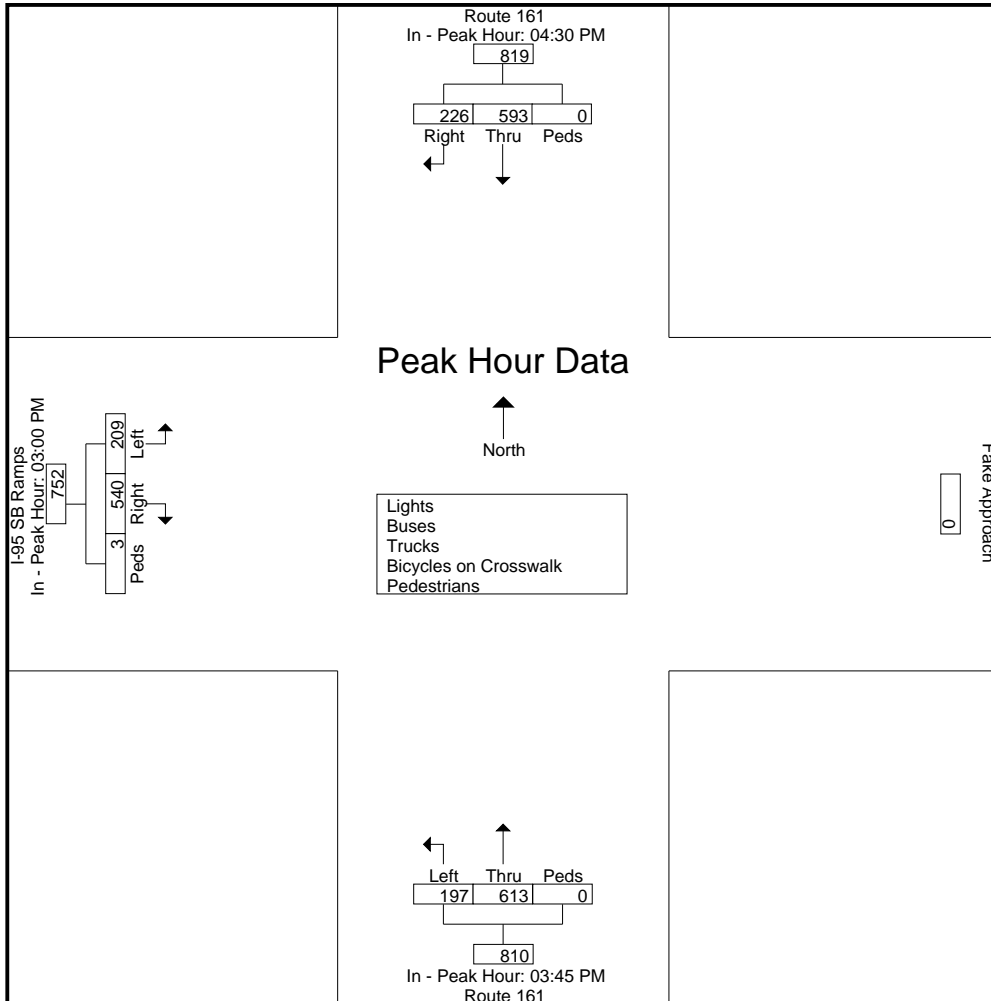
File Name : 23109
Site Code : 23109
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North				Route 161 From South				I-95 SB Ramps From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM				03:45 PM				03:00 PM			
+0 mins.	62	135	0	197	161	49	0	210	133	84	0	217
+15 mins.	58	145	0	203	141	59	0	200	140	42	1	183
+30 mins.	53	148	0	201	148	54	0	202	132	39	1	172
+45 mins.	53	165	0	218	163	35	0	198	135	44	1	180
Total Volume	226	593	0	819	613	197	0	810	540	209	3	752
% App. Total	27.6	72.4	0		75.7	24.3	0		71.8	27.8	0.4	
PHF	.911	.898	.000	.939	.940	.835	.000	.964	.964	.622	.750	.866



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Route 161 at I-95 SB Ramps
East Lyme, Connecticut

File Name : 23110
Site Code : 23110
Start Date : 6/4/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

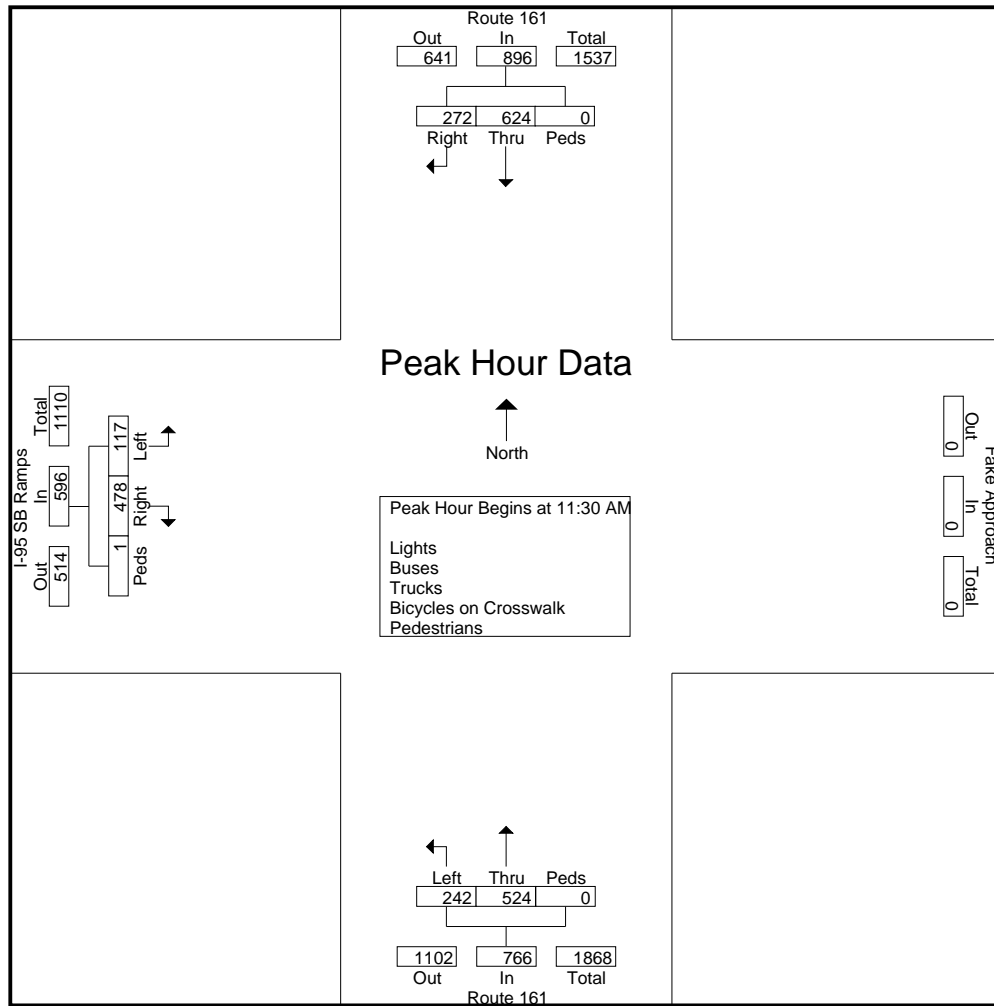
Start Time	Route 161 From North				Route 161 From South				I-95 SB Ramps From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
11:00 AM	59	162	0	221	133	64	0	197	117	29	0	146	564
11:15 AM	69	139	0	208	112	52	0	164	128	25	0	153	525
11:30 AM	49	148	0	197	145	60	0	205	124	39	1	164	566
11:45 AM	73	177	0	250	128	70	0	198	117	23	0	140	588
Total	250	626	0	876	518	246	0	764	486	116	1	603	2243
12:00 PM	58	141	0	199	128	50	0	178	115	32	0	147	524
12:15 PM	92	158	0	250	123	62	0	185	122	23	0	145	580
12:30 PM	65	147	0	212	123	68	0	191	120	29	0	149	552
12:45 PM	63	128	0	191	133	58	0	191	142	26	0	168	550
Total	278	574	0	852	507	238	0	745	499	110	0	609	2206
01:00 PM	56	140	0	196	113	62	0	175	121	27	0	148	519
01:15 PM	48	157	0	205	113	54	0	167	118	32	0	150	522
01:30 PM	63	131	0	194	112	48	0	160	125	30	1	156	510
01:45 PM	65	144	0	209	115	64	0	179	117	30	0	147	535
Total	232	572	0	804	453	228	0	681	481	119	1	601	2086
Grand Total	760	1772	0	2532	1478	712	0	2190	1466	345	2	1813	6535
Apprch %	30	70	0		67.5	32.5	0		80.9	19	0.1		
Total %	11.6	27.1	0	38.7	22.6	10.9	0	33.5	22.4	5.3	0	27.7	
Lights	754	1763	0	2517	1468	707	0	2175	1463	344	0	1807	6499
% Lights	99.2	99.5	0	99.4	99.3	99.3	0	99.3	99.8	99.7	0	99.7	99.4
Buses	1	1	0	2	1	0	0	1	0	0	0	0	3
% Buses	0.1	0.1	0	0.1	0.1	0	0	0	0	0	0	0	0
Trucks	5	8	0	13	9	5	0	14	3	1	0	4	31
% Trucks	0.7	0.5	0	0.5	0.6	0.7	0	0.6	0.2	0.3	0	0.2	0.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	2	2	2
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	0.1	0

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23110
Site Code : 23110
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North				Route 161 From South				I-95 SB Ramps From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:30 AM													
11:30 AM	49	148	0	197	145	60	0	205	124	39	1	164	566
11:45 AM	73	177	0	250	128	70	0	198	117	23	0	140	588
12:00 PM	58	141	0	199	128	50	0	178	115	32	0	147	524
12:15 PM	92	158	0	250	123	62	0	185	122	23	0	145	580
Total Volume	272	624	0	896	524	242	0	766	478	117	1	596	2258
% App. Total	30.4	69.6	0		68.4	31.6	0		80.2	19.6	0.2		
PHF	.739	.881	.000	.896	.903	.864	.000	.934	.964	.750	.250	.909	.960



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

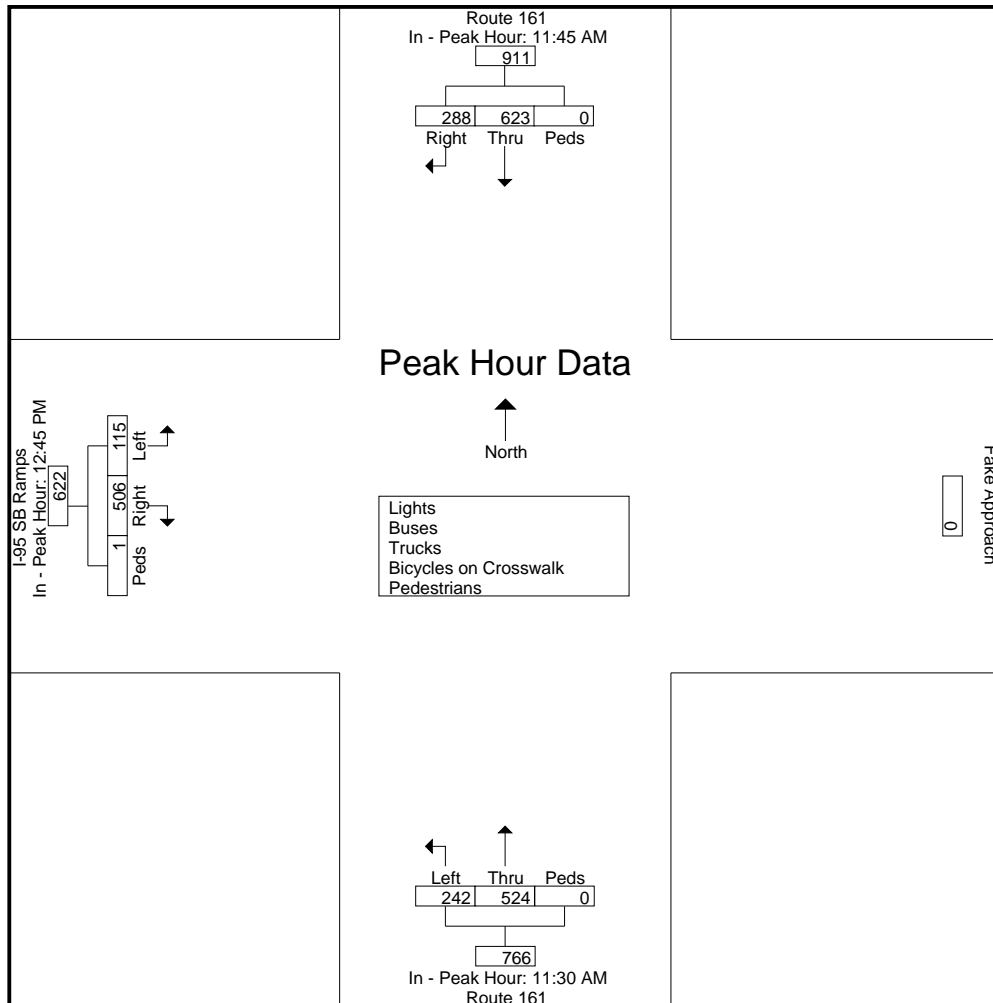
File Name : 23110
Site Code : 23110
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North				Route 161 From South				I-95 SB Ramps From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:45 AM				11:30 AM				12:45 PM			
+0 mins.	73	177	0	250	145	60	0	205	142	26	0	168
+15 mins.	58	141	0	199	128	70	0	198	121	27	0	148
+30 mins.	92	158	0	250	128	50	0	178	118	32	0	150
+45 mins.	65	147	0	212	123	62	0	185	125	30	1	156
Total Volume	288	623	0	911	524	242	0	766	506	115	1	622
% App. Total	31.6	68.4	0		68.4	31.6	0		81.4	18.5	0.2	
PHF	.783	.880	.000	.911	.903	.864	.000	.934	.891	.898	.250	.926



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at I-95 NB Ramps/King Arthur
East Lyme, Connecticut

File Name : 23111
Site Code : 23111
Start Date : 5/24/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Route 161 From North						I-95 NB On Ramp From Northeast						King Arthur Dr From East						Route 161 From South						I-95 NB Off Ramp From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	
03:00 PM	0	197	20	36	0	253	0	0	0	0	0	0	14	12	0	14	0	40	11	80	126	0	1	218	14	8	0	35	0	57	568
03:15 PM	0	214	15	28	0	257	0	0	0	0	0	0	5	10	0	10	0	25	12	79	125	0	0	216	25	3	0	43	1	72	570
03:30 PM	0	244	23	30	0	297	0	0	0	0	0	0	5	12	0	10	0	27	17	98	115	0	0	230	27	6	0	60	0	93	647
03:45 PM	0	245	14	30	0	289	0	0	0	0	0	0	7	11	0	16	0	34	13	111	122	0	1	247	34	4	0	61	1	100	670
Total	0	900	72	124	0	1096	0	0	0	0	0	0	31	45	0	50	0	126	53	368	488	0	2	911	100	21	0	199	2	322	2455
04:00 PM	0	232	22	45	0	299	0	0	0	0	0	0	15	13	0	9	0	37	13	105	138	0	0	256	36	7	0	54	2	99	691
04:15 PM	0	231	14	42	0	287	0	0	0	0	0	0	14	11	0	4	0	29	9	113	134	0	0	256	26	8	0	57	0	91	663
04:30 PM	0	256	15	22	0	293	0	0	0	0	0	0	13	11	0	10	0	34	7	120	140	0	0	267	20	5	0	52	0	77	671
04:45 PM	0	232	17	31	0	280	0	0	0	0	0	0	6	16	0	6	0	28	9	102	146	0	0	257	34	8	0	59	0	101	666
Total	0	951	68	140	0	1159	0	0	0	0	0	0	48	51	0	29	0	128	38	440	558	0	0	1036	116	28	0	222	2	368	2691
05:00 PM	0	222	11	46	0	279	0	0	0	0	1	1	7	9	0	11	0	27	10	92	128	0	0	230	18	4	0	58	0	80	617
05:15 PM	0	248	18	39	0	305	0	0	0	0	0	0	10	13	0	13	0	36	9	76	124	0	0	209	22	4	0	64	0	90	640
05:30 PM	0	216	18	44	0	278	0	0	0	0	0	0	6	8	0	9	0	23	11	77	95	0	0	183	25	2	0	71	0	98	582
05:45 PM	0	190	7	30	0	227	0	0	0	0	0	0	4	8	0	4	0	16	8	88	109	0	0	205	18	3	0	50	0	71	519
Total	0	876	54	159	0	1089	0	0	0	0	1	1	27	38	0	37	0	102	38	333	456	0	0	827	83	13	0	243	0	339	2358
Grand Total	0	2727	194	423	0	3344	0	0	0	0	1	1	106	134	0	116	0	356	129	1141	1502	0	2	2774	299	62	0	664	4	1029	7504
Apprch %	0	81.5	5.8	12.6	0		0	0	0	0	100		29.8	37.6	0	32.6	0		4.7	41.1	54.1	0	0.1		29.1	6	0	64.5	0.4		
Total %	0	36.3	2.6	5.6	0	44.6	0	0	0	0	0	0	1.4	1.8	0	1.5	0	4.7	1.7	15.2	20	0	0	37	4	0.8	0	8.8	0.1	13.7	
Lights	0	²⁶⁸³																	¹¹²³	1467	0	0	2715	288	57	0	650	0	995	7349	
% Lights	0	98.4	98.5	98.8	0	98.4	0	0	0	0	0	0	98.1	99.3	0	94.8	0	97.5	96.9	98.4	97.7	0	0	97.9	96.3	91.9	0	97.9	0	96.7	97.9
Buses	0	19	2	1	0	22	0	0	0	0	0	0	0	0	0	5	0	5	4	7	13	0	0	24	2	0	0	0	0	2	53
% Buses	0	0.7	1	0.2	0	0.7	0	0	0	0	0	0	0	0	0	4.3	0	1.4	3.1	0.6	0.9	0	0	0.9	0.7	0	0	0	0	0.2	0.7
Trucks	0	25	1	4	0	30	0	0	0	0	0	0	2	1	0	1	0	4	0	11	22	0	0	33	9	5	0	14	0	28	95
% Trucks	0	0.9	0.5	0.9	0	0.9	0	0	0	0	0	0	1.9	0.7	0	0.9	0	1.1	0	1	1.5	0	0	1.2	3	8.1	0	2.1	0	2.7	1.3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0.1	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	3	3	6
% Pedestrians	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0	0	0	100	0.1	0	0	0	0	75	0.3	0.1

Connecticut Counts LLC
 Kensington, Connecticut 06037
 (860) 828-1693

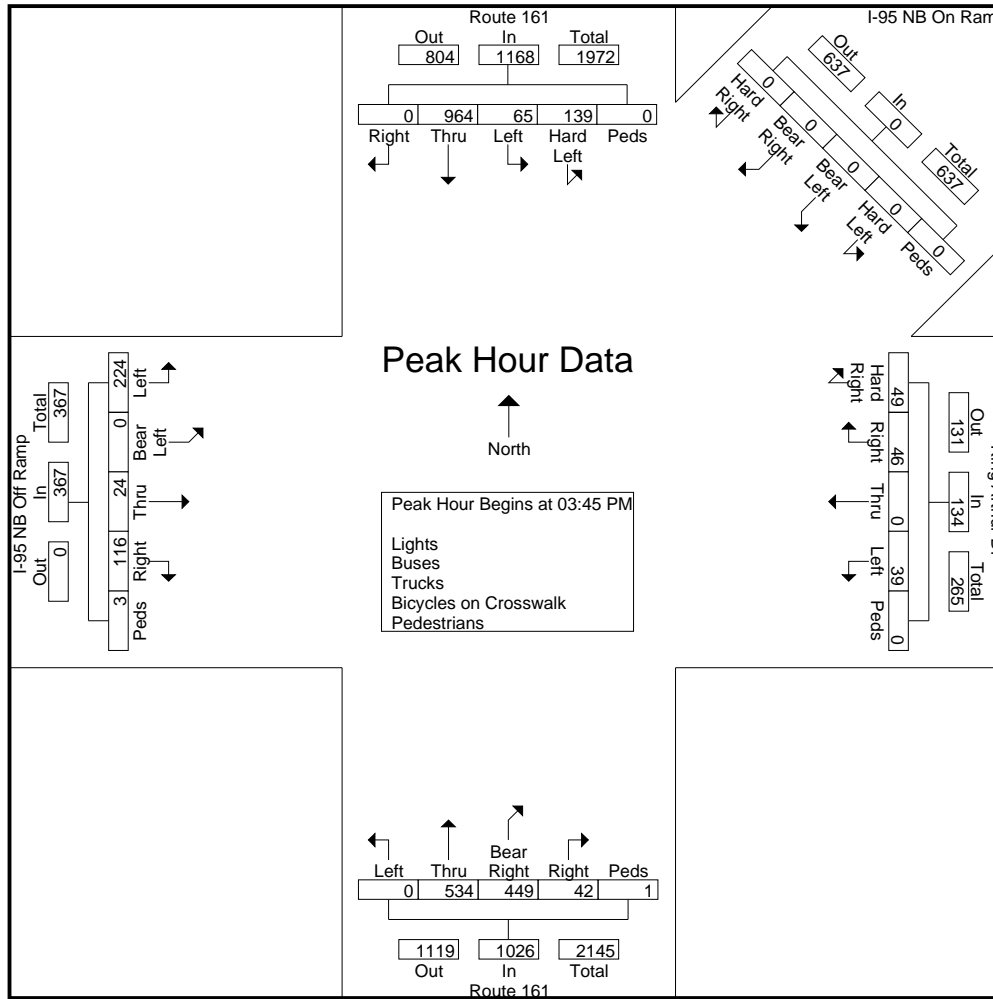
File Name : 23111
 Site Code : 23111
 Start Date : 5/24/2022
 Page No : 2

Start Time	Route 161 From North						I-95 NB On Ramp From Northeast						King Arthur Dr From East						Route 161 From South						I-95 NB Off Ramp From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 03:45 PM																															
03:45 PM	0	245	14	30	0	289	0	0	0	0	0	0	7	11	0	16	0	34	13	111	122	0	1	247	34	4	0	61	1	100	670
04:00 PM	0	232	22	45	0	299	0	0	0	0	0	0	15	13	0	9	0	37	13	105	138	0	0	256	36	7	0	54	2	99	691
04:15 PM	0	231	14	42	0	287	0	0	0	0	0	0	14	11	0	4	0	29	9	113	134	0	0	256	26	8	0	57	0	91	663
04:30 PM	0	256	15	22	0	293	0	0	0	0	0	0	13	11	0	10	0	34	7	120	140	0	0	267	20	5	0	52	0	77	671
Total Volume	0	964	65	139	0	1168	0	0	0	0	0	0	49	46	0	39	0	134	42	449	534	0	1	1026	116	24	0	224	3	367	2695
% App. Total	0	82.5	5.6	11.9	0		0	0	0	0	0		36.6	34.3	0	29.1	0		4.1	43.8	52	0	0.1		31.6	6.5	0	61	0.8		
PHF	.000	.941	.739	.772	.000	.977	.000	.000	.000	.000	.000	.000	.817	.885	.000	.609	.000	.905	.808	.935	.954	.000	.250	.961	.806	.750	.000	.918	.375	.918	.975

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23111
Site Code : 23111
Start Date : 5/24/2022
Page No : 3



Connecticut Counts LLC
 Kensington, Connecticut 06037
 (860) 828-1693

File Name : 23111
 Site Code : 23111
 Start Date : 5/24/2022
 Page No : 4

Start Time	Route 161 From North						I-95 NB On Ramp From Northeast						King Arthur Dr From East						Route 161 From South						I-95 NB Off Ramp From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

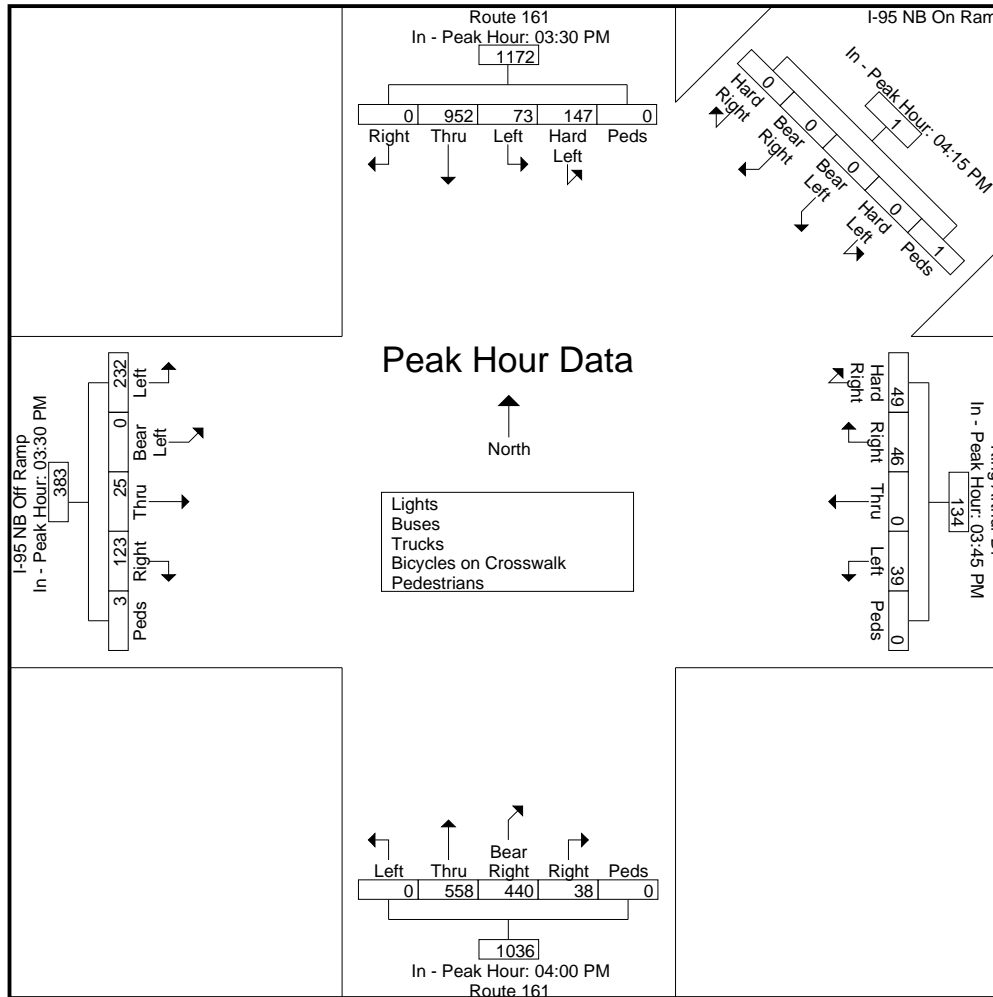
Peak Hour for Each Approach Begins at:

	03:30 PM						04:15 PM						03:45 PM						04:00 PM						03:30 PM					
+0 mins.	0	244	23	30	0	297	0	0	0	0	0	0	7	11	0	16	0	34	13	105	138	0	0	256	27	6	0	60	0	93
+15 mins.	0	245	14	30	0	289	0	0	0	0	0	0	15	13	0	9	0	37	9	113	134	0	0	256	34	4	0	61	1	100
+30 mins.	0	232	22	45	0	299	0	0	0	0	0	0	14	11	0	4	0	29	7	120	140	0	0	267	36	7	0	54	2	99
+45 mins.	0	231	14	42	0	287	0	0	0	0	1	1	13	11	0	10	0	34	9	102	146	0	0	257	26	8	0	57	0	91
Total Volume	0	952	73	147	0	1172	0	0	0	0	1	1	49	46	0	39	0	134	38	440	558	0	0	1036	123	25	0	232	3	383
% App. Total	0	81.2	6.2	12.5	0	100	0	0	0	0	100	100	36.6	34.3	0	29.1	0	100	3.7	42.5	53.9	0	0	100	32.1	6.5	0	60.6	0.8	100
PHF	.000	.971	.793	.817	.000	.980	.000	.000	.000	.000	.250	.250	.817	.885	.000	.609	.000	.905	.731	.917	.955	.000	.000	.970	.854	.781	.000	.951	.375	.958

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23111
Site Code : 23111
Start Date : 5/24/2022
Page No : 5



Connecticut Counts LLC
 Kensington, Connecticut 06037
 (860) 828-1693

Route 161 at I-95 Nb Ramps/King Arthur
 East Lyme, Connecticut

File Name : 23112
 Site Code : 23112
 Start Date : 6/4/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Route 161 From North						I-95 NB On Ramp From Northeast						King Arthur Dr From East						Route 161 From South						I-95 NB Off Ramp From West						Int. Total	
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total		
11:00 AM	0	215	9	37	0	261	0	0	0	0	0	0	15	9	0	7	0	31	19	91	128	0	0	238	29	3	0	56	0	88	618	
11:15 AM	0	218	16	34	0	268	0	0	0	0	0	0	19	17	0	16	0	52	13	83	106	0	0	202	20	4	0	50	0	74	596	
11:30 AM	0	221	19	46	0	286	0	0	1	0	0	1	13	10	0	14	0	37	15	86	133	0	0	234	21	1	0	48	1	71	629	
11:45 AM	0	218	23	40	0	281	0	0	0	0	0	0	5	25	0	12	0	42	13	93	137	0	0	243	29	3	0	42	0	74	640	
Total	0	872	67	157	0	1096	0	0	1	0	0	1	52	61	0	49	0	162	60	353	504	0	0	917	99	11	0	196	1	307	2483	
12:00 PM	0	196	14	44	0	254	0	0	0	0	0	0	17	6	0	9	0	32	11	100	124	0	1	236	28	9	0	41	0	78	600	
12:15 PM	0	215	14	48	0	277	0	0	0	0	0	0	19	18	0	9	0	46	15	76	119	0	0	210	22	5	0	58	0	85	618	
12:30 PM	0	218	12	50	0	280	0	0	0	0	0	0	10	15	0	11	0	36	14	88	115	0	0	217	25	2	0	53	0	80	613	
12:45 PM	0	203	18	46	0	267	0	0	0	0	0	0	10	13	0	9	0	32	14	76	126	0	0	216	26	2	0	49	0	77	592	
Total	0	832	58	188	0	1078	0	0	0	0	0	0	56	52	0	38	0	146	54	340	484	0	1	879	101	18	0	201	0	320	2423	
01:00 PM	0	207	9	38	0	254	0	0	0	0	0	0	10	8	0	6	0	24	12	78	111	0	0	201	24	5	0	51	0	80	559	
01:15 PM	0	219	13	47	0	279	0	0	0	0	0	0	17	7	0	14	0	38	7	92	113	0	1	213	15	5	0	48	1	69	599	
01:30 PM	0	188	20	55	0	263	0	0	0	0	0	0	10	16	0	8	0	34	13	83	110	0	0	206	14	2	1	36	0	53	556	
01:45 PM	0	193	20	42	0	255	0	0	0	0	0	0	11	12	0	13	0	36	13	86	121	0	0	220	20	2	1	42	0	65	576	
Total	0	807	62	182	0	1051	0	0	0	0	0	0	48	43	0	41	0	132	45	339	455	0	1	840	73	14	2	177	1	267	2290	
Grand Total	0	2511	187	527	0	3225	0	0	1	0	0	1	156	156	0	128	0	440	159	1032	1443	0	2	2636	273	43	2	574	2	894	7196	
Apprch %	0	77.9	5.8	16.3	0		0	0	100	0	0		35.5	35.5	0	29.1	0		6	39.2	54.7	0	0.1		30.5	4.8	0.2	64.2	0.2			
Total %	0	34.9	2.6	7.3	0	44.8	0	0	0	0	0	0	2.2	2.2	0	1.8	0	6.1	2.2	14.3	20.1	0	0	36.6	3.8	0.6	0	8	0	12.4		
Lights	0																															
% Lights	0	99.7	100	99.8	0	99.8	0	0	100	0	0	100	100	100	0	100	0	100	100	99.3	99.4	0	0	99.4	98.2	100	100	99	0	98.5	99.5	
Buses	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	3	
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0.1	0	0	0	0	0	0	0	
Trucks	0	6	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	0	0	13	5	0	0	6	0	11	31	
% Trucks	0	0.2	0	0.2	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.5	0	0	0.5	1.8	0	0	1	0	1.2	0.4	
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	2	4	
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.1	0	0	0	0	100	0.2	0.1	

Connecticut Counts LLC
 Kensington, Connecticut 06037
 (860) 828-1693

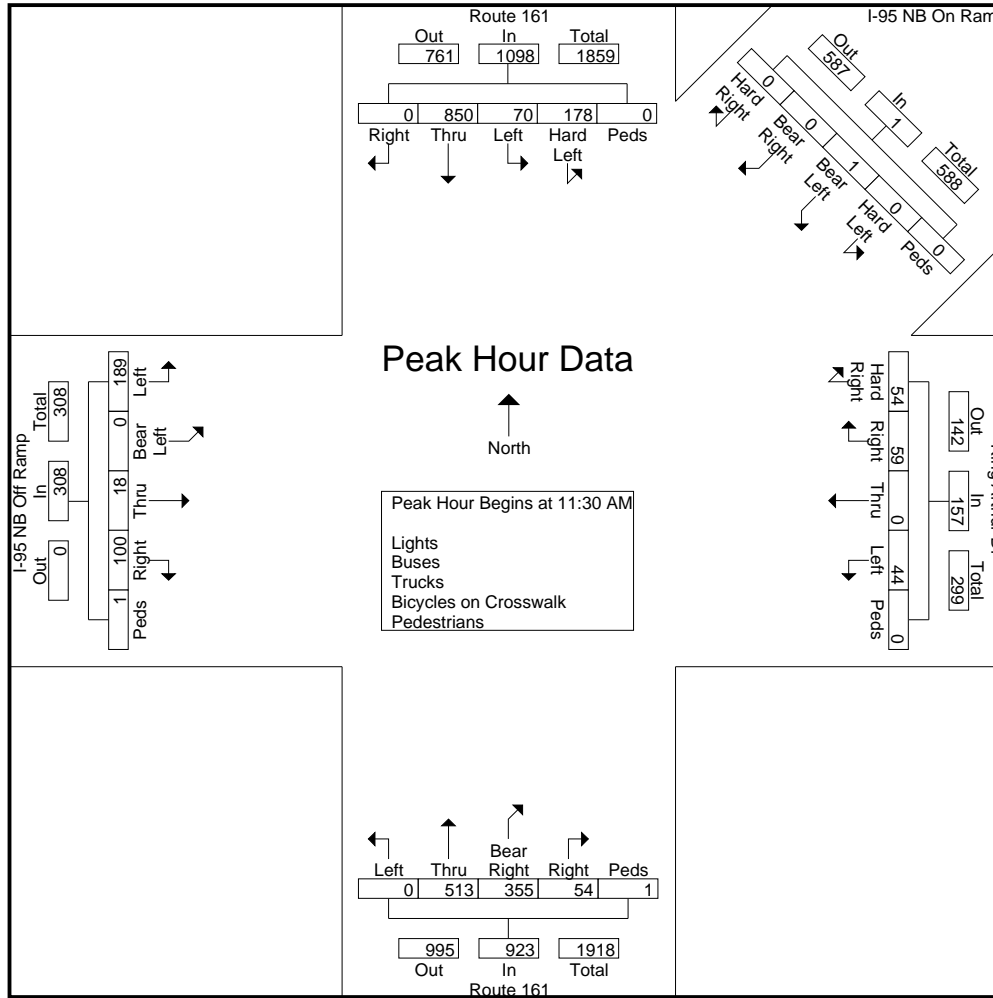
File Name : 23112
 Site Code : 23112
 Start Date : 6/4/2022
 Page No : 2

Start Time	Route 161 From North						I-95 NB On Ramp From Northeast						King Arthur Dr From East						Route 161 From South						I-95 NB Off Ramp From West						Int. Total	
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total		
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																																
Peak Hour for Entire Intersection Begins at 11:30 AM																																
11:30 AM	0	221	19	46	0	286	0	0	1	0	0	1	13	10	0	14	0	37	15	86	133	0	0	234	21	1	0	48	1	71	629	
11:45 AM	0	218	23	40	0	281	0	0	0	0	0	0	5	25	0	12	0	42	13	93	137	0	0	243	29	3	0	42	0	74	640	
12:00 PM	0	196	14	44	0	254	0	0	0	0	0	0	17	6	0	9	0	32	11	100	124	0	1	236	28	9	0	41	0	78	600	
12:15 PM	0	215	14	48	0	277	0	0	0	0	0	0	19	18	0	9	0	46	15	76	119	0	0	210	22	5	0	58	0	85	618	
Total Volume	0	850	70	178	0	1098	0	0	1	0	0	1	54	59	0	44	0	157	54	355	513	0	1	923	100	18	0	189	1	308	2487	
% App. Total	0	77.4	6.4	16.2	0		0	0	100	0	0		34.4	37.6	0	28	0		5.9	38.5	55.6	0	0.1		32.5	5.8	0	61.4	0.3			
PHF	.000	.962	.761	.927	.000	.960	.000	.000	.250	.000	.000	.250	.711	.590	.000	.786	.000	.853	.900	.888	.936	.000	.250	.950	.862	.500	.000	.815	.250	.906	.971	

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23112
Site Code : 23112
Start Date : 6/4/2022
Page No : 3



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23112
Site Code : 23112
Start Date : 6/4/2022
Page No : 4

Start Time	Route 161 From North						I-95 NB On Ramp From Northeast						King Arthur Dr From East						Route 161 From South						I-95 NB Off Ramp From West						Int. Total
	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

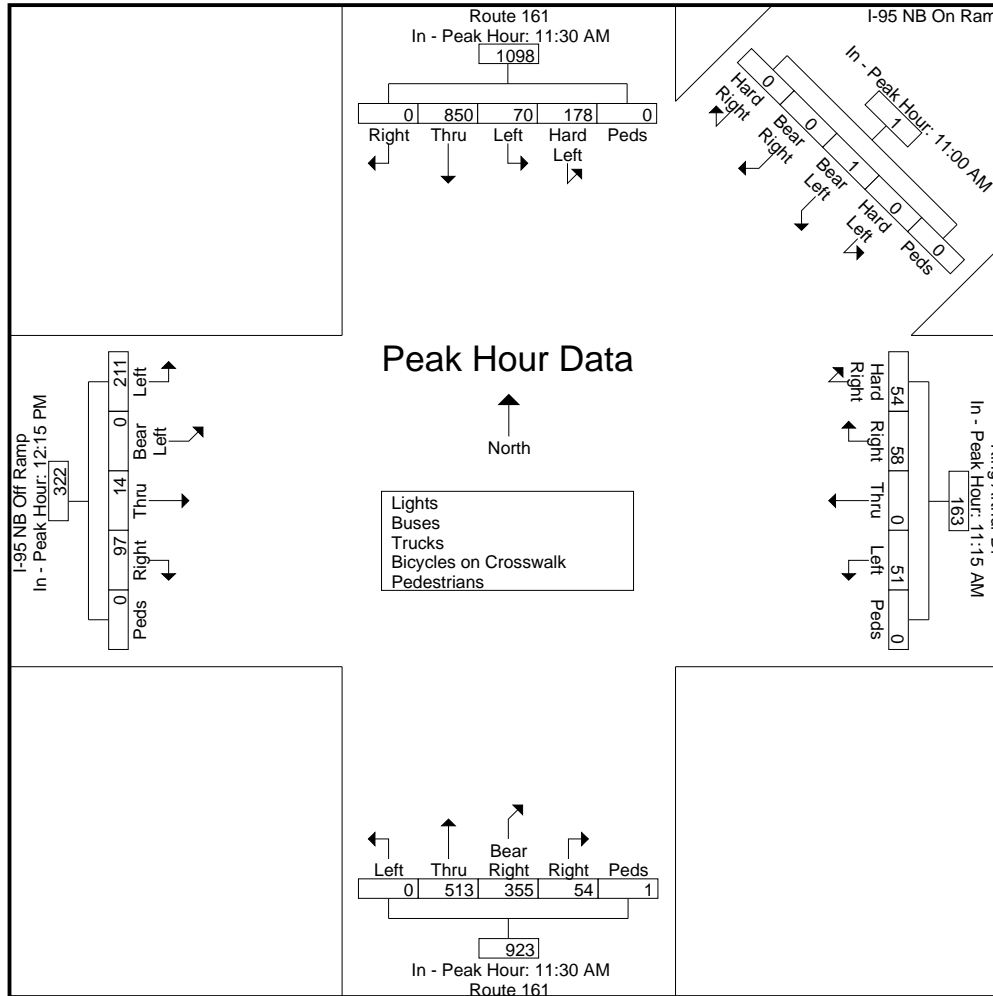
Peak Hour for Each Approach Begins at:

	11:30 AM						11:00 AM						11:15 AM						11:30 AM						12:15 PM					
+0 mins.	0	221	19	46	0	286	0	0	0	0	0	0	19	17	0	16	0	52	15	86	133	0	0	234	22	5	0	58	0	85
+15 mins.	0	218	23	40	0	281	0	0	0	0	0	0	13	10	0	14	0	37	13	93	137	0	0	243	25	2	0	53	0	80
+30 mins.	0	196	14	44	0	254	0	0	1	0	0	1	5	25	0	12	0	42	11	100	124	0	1	236	26	2	0	49	0	77
+45 mins.	0	215	14	48	0	277	0	0	0	0	0	0	17	6	0	9	0	32	15	76	119	0	0	210	24	5	0	51	0	80
Total Volume	0	850	70	178	0	1098	0	0	1	0	0	1	54	58	0	51	0	163	54	355	513	0	1	923	97	14	0	211	0	322
% App. Total	0	77.4	6.4	16.2	0		0	0	100	0	0		33.1	35.6	0	31.3	0		5.9	38.5	55.6	0	0.1		30.1	4.3	0	65.5	0	
PHF	.000	.962	.761	.927	.000	.960	.000	.000	.250	.000	.000	.250	.711	.580	.000	.797	.000	.784	.900	.888	.936	.000	.250	.950	.933	.700	.000	.909	.000	.947

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23112
Site Code : 23112
Start Date : 6/4/2022
Page No : 5

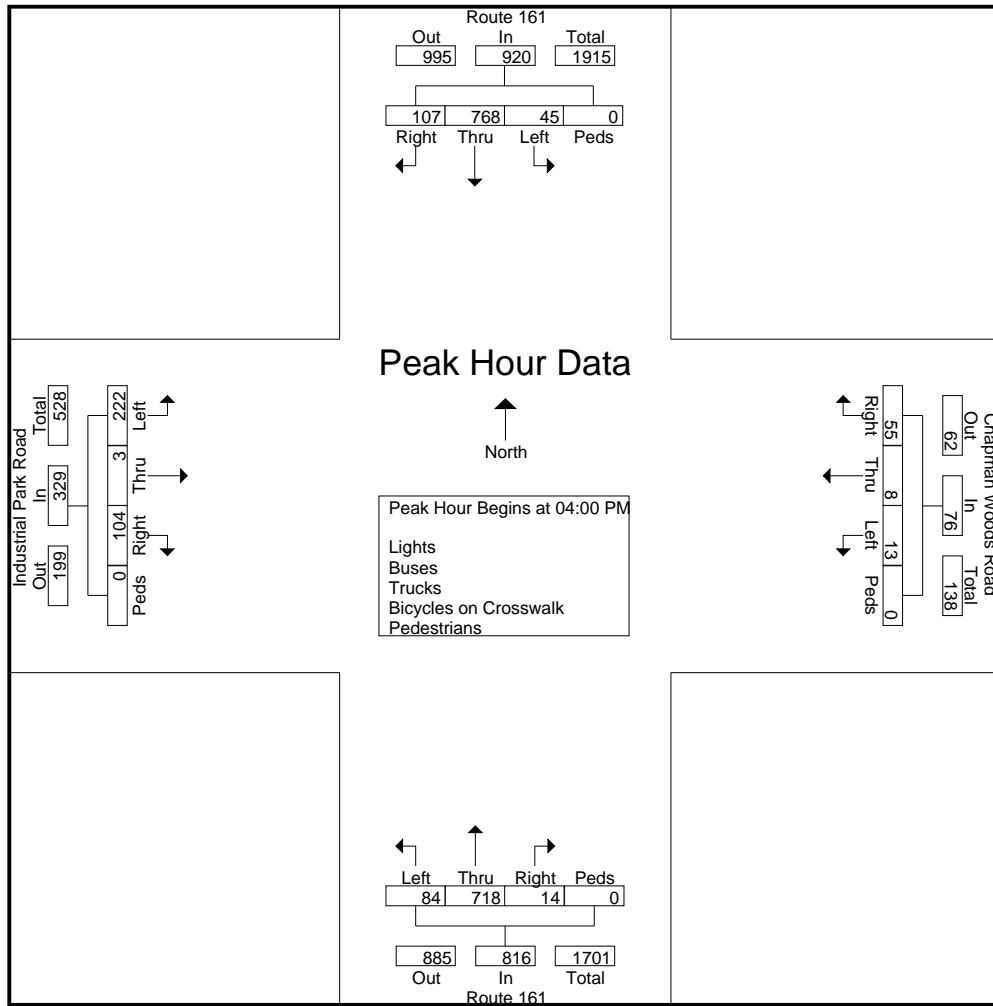


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23115
Site Code : 23115
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					Chapman Woods Road From East					Route 161 From South					Industrial Park Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	29	199	5	0	233	6	2	4	0	12	4	186	21	0	211	17	0	50	0	67	523
04:15 PM	19	186	15	0	220	17	2	3	0	22	4	164	22	0	190	28	1	67	0	96	528
04:30 PM	26	198	12	0	236	16	3	1	0	20	5	188	24	0	217	32	0	53	0	85	558
04:45 PM	33	185	13	0	231	16	1	5	0	22	1	180	17	0	198	27	2	52	0	81	532
Total Volume	107	768	45	0	920	55	8	13	0	76	14	718	84	0	816	104	3	222	0	329	2141
% App. Total	11.6	83.5	4.9	0		72.4	10.5	17.1	0		1.7	88	10.3	0		31.6	0.9	67.5	0		
PHF	.811	.965	.750	.000	.975	.809	.667	.650	.000	.864	.700	.955	.875	.000	.940	.813	.375	.828	.000	.857	.959



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

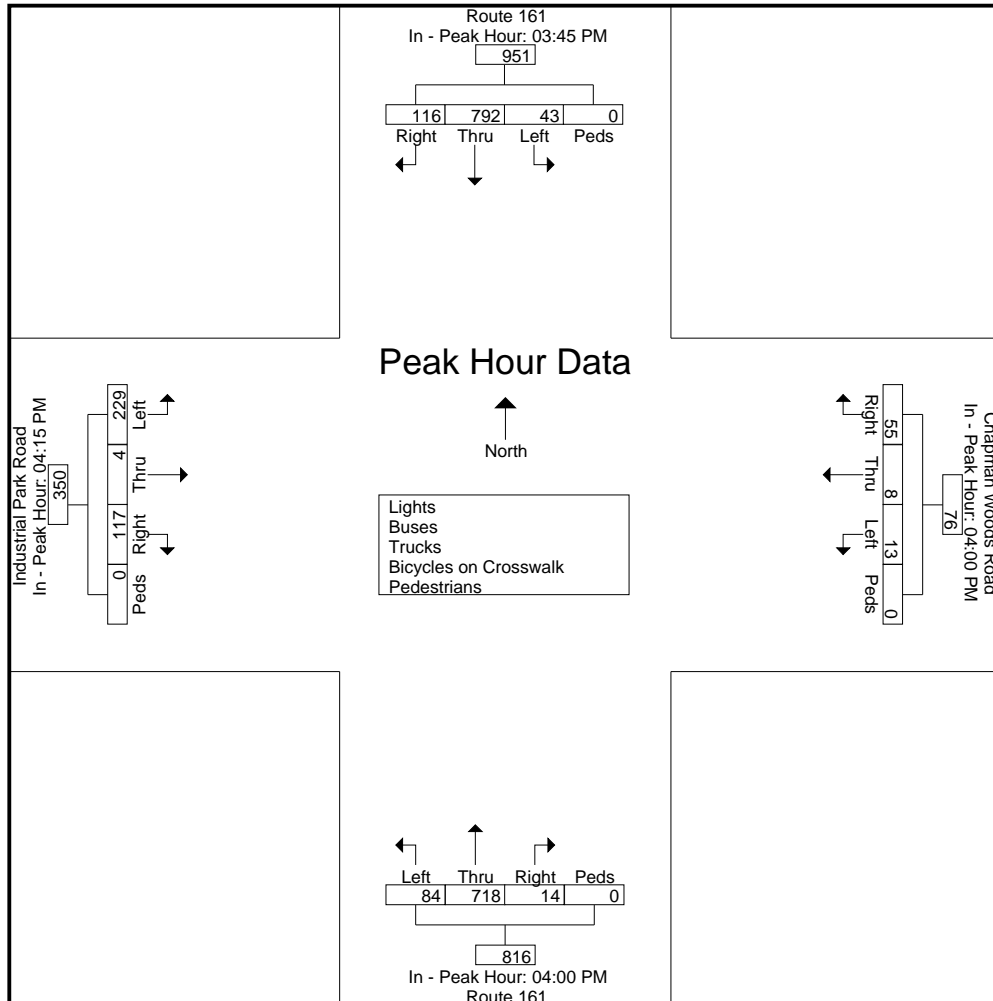
File Name : 23115
Site Code : 23115
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North					Chapman Woods Road From East					Route 161 From South					Industrial Park Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	03:45 PM					04:00 PM					04:15 PM									
+0 mins.	42	209	11	0	262	6	2	4	0	12	4	186	21	0	211	28	1	67	0	96
+15 mins.	29	199	5	0	233	17	2	3	0	22	4	164	22	0	190	32	0	53	0	85
+30 mins.	19	186	15	0	220	16	3	1	0	20	5	188	24	0	217	27	2	52	0	81
+45 mins.	26	198	12	0	236	16	1	5	0	22	1	180	17	0	198	30	1	57	0	88
Total Volume	116	792	43	0	951	55	8	13	0	76	14	718	84	0	816	117	4	229	0	350
% App. Total	12.2	83.3	4.5	0		72.4	10.5	17.1	0		1.7	88	10.3	0		33.4	1.1	65.4	0	
PHF	.690	.947	.717	.000	.907	.809	.667	.650	.000	.864	.700	.955	.875	.000	.940	.914	.500	.854	.000	.911

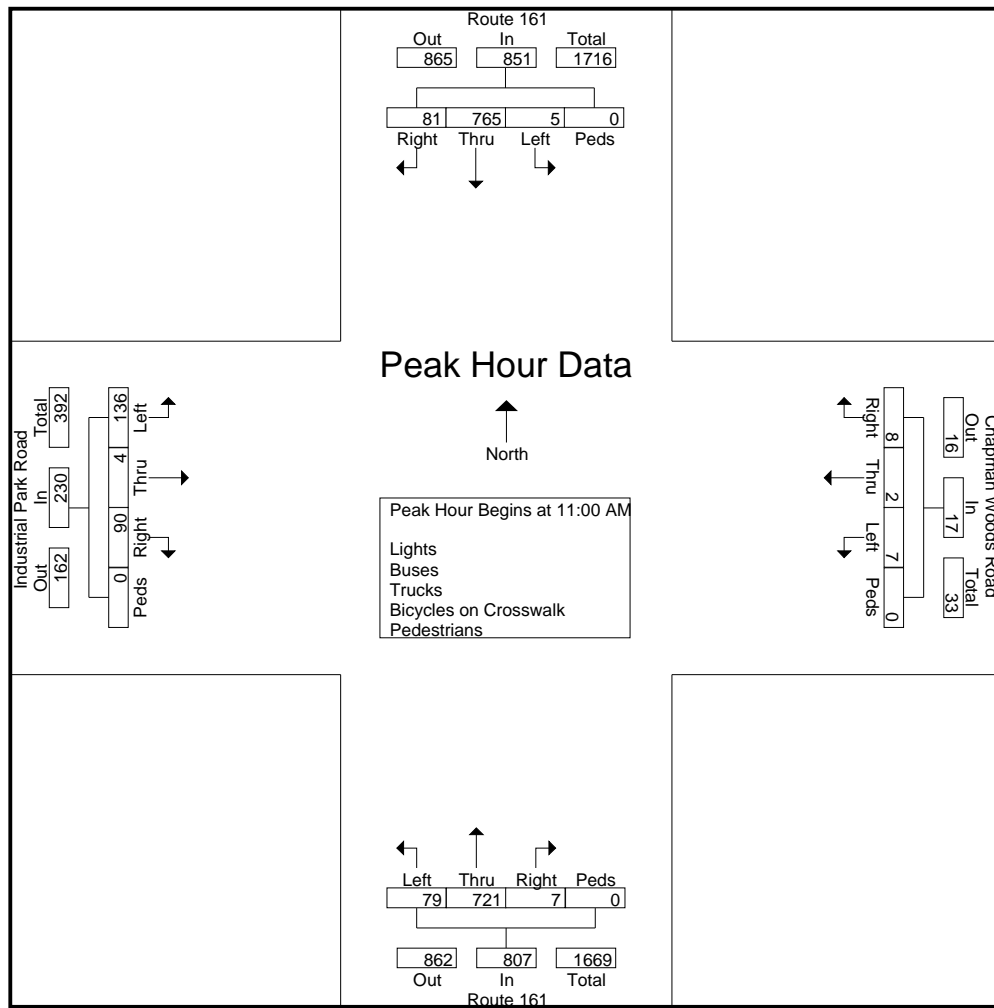


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23116
Site Code : 23116
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					Chapman Woods Road From East					Route 161 From South					Industrial Park Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	27	188	1	0	216	0	1	4	0	5	1	186	13	0	200	25	0	39	0	64	485
11:15 AM	21	201	2	0	224	3	0	2	0	5	2	168	26	0	196	19	1	23	0	43	468
11:30 AM	14	180	2	0	196	1	1	0	0	2	4	169	20	0	193	22	0	35	0	57	448
11:45 AM	19	196	0	0	215	4	0	1	0	5	0	198	20	0	218	24	3	39	0	66	504
Total Volume	81	765	5	0	851	8	2	7	0	17	7	721	79	0	807	90	4	136	0	230	1905
% App. Total	9.5	89.9	0.6	0		47.1	11.8	41.2	0		0.9	89.3	9.8	0		39.1	1.7	59.1	0		
PHF	.750	.951	.625	.000	.950	.500	.500	.438	.000	.850	.438	.910	.760	.000	.925	.900	.333	.872	.000	.871	.945



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

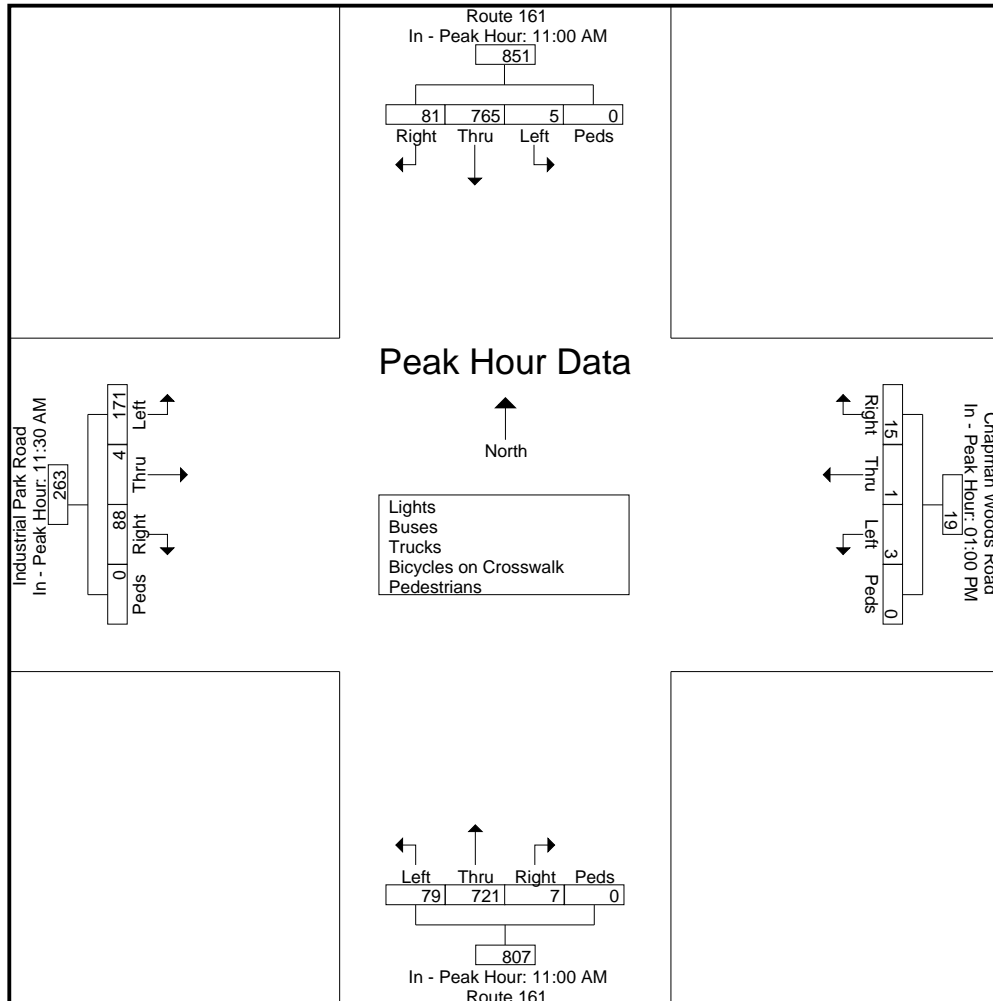
File Name : 23116
Site Code : 23116
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					Chapman Woods Road From East					Route 161 From South					Industrial Park Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM					01:00 PM					11:00 AM					11:30 AM				
+0 mins.	27	188	1	0	216	4	0	1	0	5	1	186	13	0	200	22	0	35	0	57
+15 mins.	21	201	2	0	224	6	0	0	0	6	2	168	26	0	196	24	3	39	0	66
+30 mins.	14	180	2	0	196	2	1	1	0	4	4	169	20	0	193	24	1	42	0	67
+45 mins.	19	196	0	0	215	3	0	1	0	4	0	198	20	0	218	18	0	55	0	73
Total Volume	81	765	5	0	851	15	1	3	0	19	7	721	79	0	807	88	4	171	0	263
% App. Total	9.5	89.9	0.6	0		78.9	5.3	15.8	0		0.9	89.3	9.8	0		33.5	1.5	65	0	
PHF	.750	.951	.625	.000	.950	.625	.250	.750	.000	.792	.438	.910	.760	.000	.925	.917	.333	.777	.000	.901



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Laurel Hill Road
 East Lyme, Connecticut

File Name : 23103
 Site Code : 23103
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Laurel Hill Road From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	0	187	9	0	196	5	0	2	0	7	3	160	0	0	163	0	0	0	0	0	366
03:15 PM	0	173	10	0	183	8	0	2	0	10	3	169	0	0	172	0	0	0	0	0	365
03:30 PM	0	188	6	0	194	2	0	0	0	2	3	173	0	0	176	0	0	0	0	0	372
03:45 PM	0	208	11	0	219	8	0	1	0	9	2	163	0	0	165	0	0	0	0	0	393
Total	0	756	36	0	792	23	0	5	0	28	11	665	0	0	676	0	0	0	0	0	1496
04:00 PM	0	210	13	0	223	7	0	1	0	8	2	196	0	0	198	0	0	0	0	0	429
04:15 PM	0	180	11	0	191	6	0	1	0	7	5	167	0	0	172	0	0	0	0	0	370
04:30 PM	0	210	15	0	225	8	0	0	0	8	7	201	0	0	208	0	0	0	0	0	441
04:45 PM	0	192	10	0	202	8	0	0	0	8	1	156	0	0	157	0	0	0	0	0	367
Total	0	792	49	0	841	29	0	2	0	31	15	720	0	0	735	0	0	0	0	0	1607
05:00 PM	0	207	12	0	219	7	0	2	0	9	3	158	0	0	161	0	0	0	0	0	389
05:15 PM	0	182	11	0	193	5	0	1	0	6	5	138	0	0	143	0	0	0	0	0	342
05:30 PM	0	177	6	0	183	4	0	0	1	5	4	145	0	0	149	0	0	0	0	0	337
05:45 PM	0	175	3	0	178	5	0	1	0	6	1	129	0	0	130	0	0	0	0	0	314
Total	0	741	32	0	773	21	0	4	1	26	13	570	0	0	583	0	0	0	0	0	1382
Grand Total	0	2289	117	0	2406	73	0	11	1	85	39	1955	0	0	1994	0	0	0	0	0	4485
Apprch %	0	95.1	4.9	0		85.9	0	12.9	1.2		2	98	0	0		0	0	0	0		
Total %	0	51	2.6	0	53.6	1.6	0	0.2	0	1.9	0.9	43.6	0	0	44.5	0	0	0	0	0	
Lights	0	2277										1941									
% Lights	0	99.5	99.1	0	99.5	97.3	0	100	100	97.6	94.9	99.3	0	0	99.2	0	0	0	0	0	99.3
Buses	0	6	1	0	7	2	0	0	0	2	2	5	0	0	7	0	0	0	0	0	16
% Buses	0	0.3	0.9	0	0.3	2.7	0	0	0	2.4	5.1	0.3	0	0	0.4	0	0	0	0	0	0.4
Trucks	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	15
% Trucks	0	0.3	0	0	0.2	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0.3

Connecticut Counts LLC

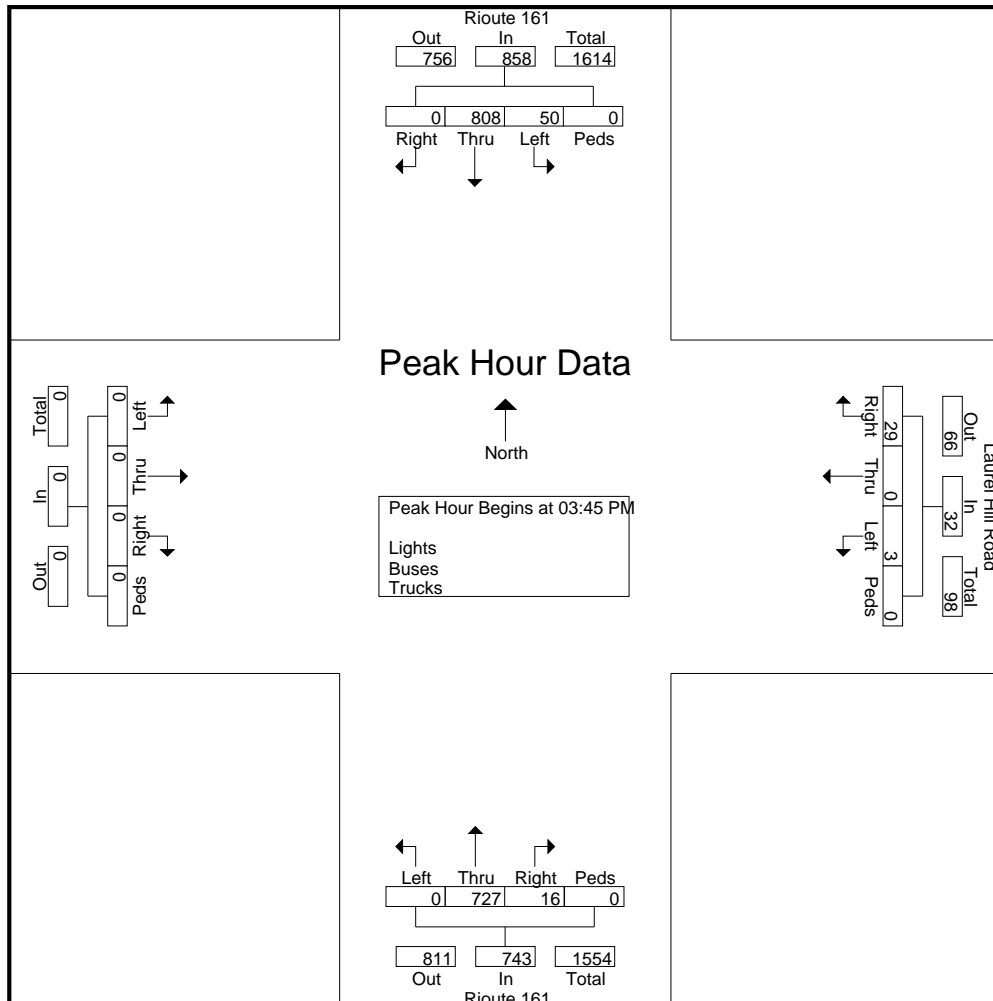
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23103
Site Code : 23103
Start Date : 5/24/2022
Page No : 2

Start Time	Rioute 161 From North					Laurel Hill Road From East					Rioute 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 03:45 PM

03:45 PM	0	208	11	0	219	8	0	1	0	9	2	163	0	0	165	0	0	0	0	0	393
04:00 PM	0	210	13	0	223	7	0	1	0	8	2	196	0	0	198	0	0	0	0	0	429
04:15 PM	0	180	11	0	191	6	0	1	0	7	5	167	0	0	172	0	0	0	0	0	370
04:30 PM	0	210	15	0	225	8	0	0	0	8	7	201	0	0	208	0	0	0	0	0	441
Total Volume	0	808	50	0	858	29	0	3	0	32	16	727	0	0	743	0	0	0	0	0	1633
% App. Total	0	94.2	5.8	0		90.6	0	9.4	0		2.2	97.8	0	0		0	0	0	0		
PHF	.000	.962	.833	.000	.953	.906	.000	.750	.000	.889	.571	.904	.000	.000	.893	.000	.000	.000	.000	.000	.926



Connecticut Counts LLC

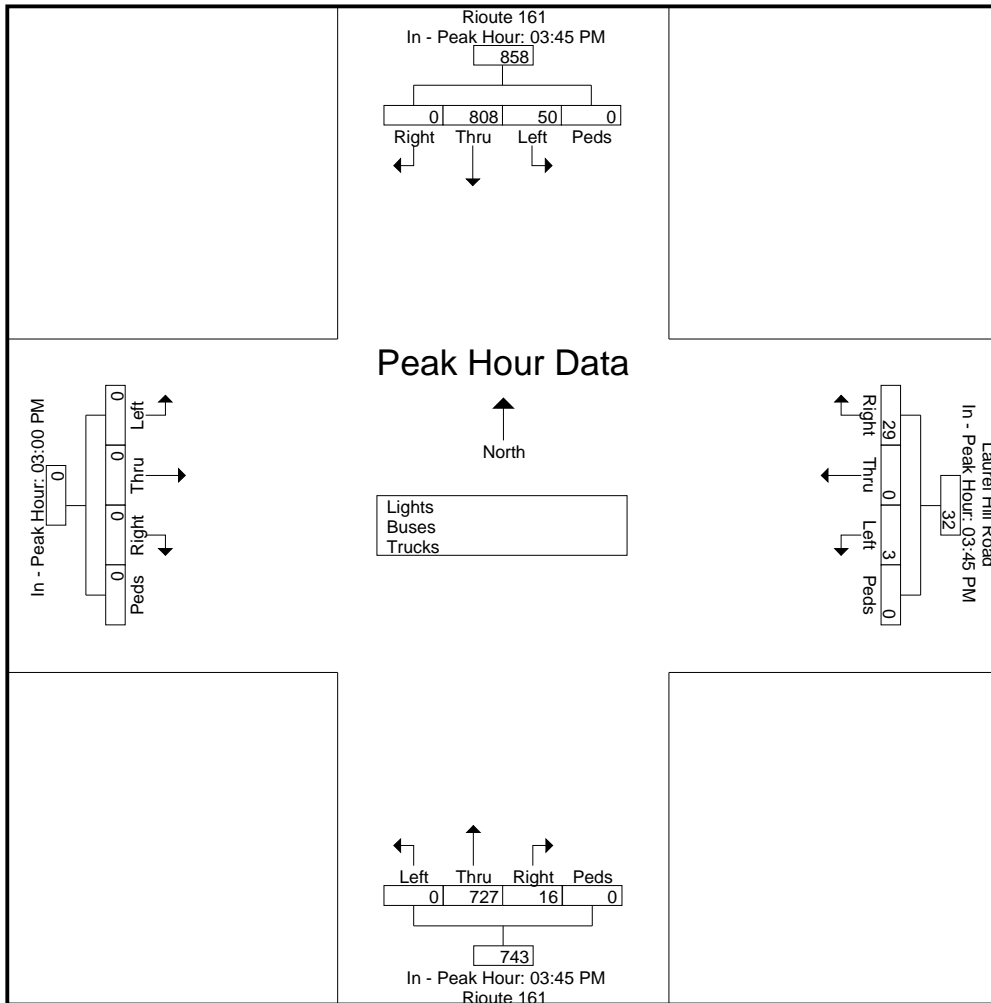
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23103
 Site Code : 23103
 Start Date : 5/24/2022
 Page No : 3

Start Time	Rioute 161 From North					Laurel Hill Road From East					Rioute 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:45 PM					03:45 PM					03:45 PM					03:00 PM				
+0 mins.	0	208	11	0	219	8	0	1	0	9	2	163	0	0	165	0	0	0	0	0
+15 mins.	0	210	13	0	223	7	0	1	0	8	2	196	0	0	198	0	0	0	0	0
+30 mins.	0	180	11	0	191	6	0	1	0	7	5	167	0	0	172	0	0	0	0	0
+45 mins.	0	210	15	0	225	8	0	0	0	8	7	201	0	0	208	0	0	0	0	0
Total Volume	0	808	50	0	858	29	0	3	0	32	16	727	0	0	743	0	0	0	0	0
% App. Total	0	94.2	5.8	0		90.6	0	9.4	0		2.2	97.8	0	0		0	0	0	0	
PHF	.000	.962	.833	.000	.953	.906	.000	.750	.000	.889	.571	.904	.000	.000	.893	.000	.000	.000	.000	.000

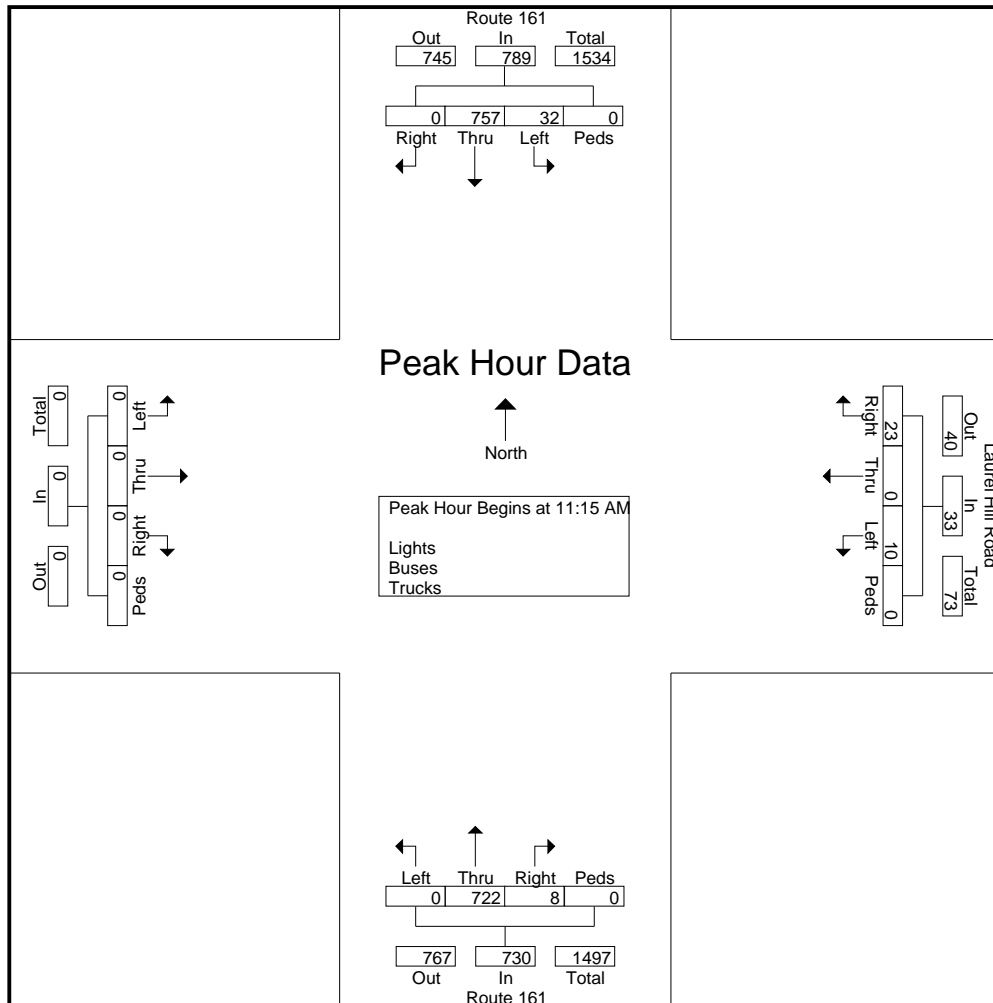


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23104
Site Code : 23104
Start Date : 6/2/2022
Page No : 2

Start Time	Route 161 From North					Laurel Hill Road From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:15 AM																					
11:15 AM	0	183	5	0	188	5	0	3	0	8	2	170	0	0	172	0	0	0	0	0	368
11:30 AM	0	199	4	0	203	2	0	1	0	3	2	180	0	0	182	0	0	0	0	0	388
11:45 AM	0	187	14	0	201	9	0	2	0	11	2	200	0	0	202	0	0	0	0	0	414
12:00 PM	0	188	9	0	197	7	0	4	0	11	2	172	0	0	174	0	0	0	0	0	382
Total Volume	0	757	32	0	789	23	0	10	0	33	8	722	0	0	730	0	0	0	0	0	1552
% App. Total	0	95.9	4.1	0		69.7	0	30.3	0		1.1	98.9	0	0		0	0	0	0	0	
PHF	.000	.951	.571	.000	.972	.639	.000	.625	.000	.750	1.00	.903	.000	.000	.903	.000	.000	.000	.000	.000	.937



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

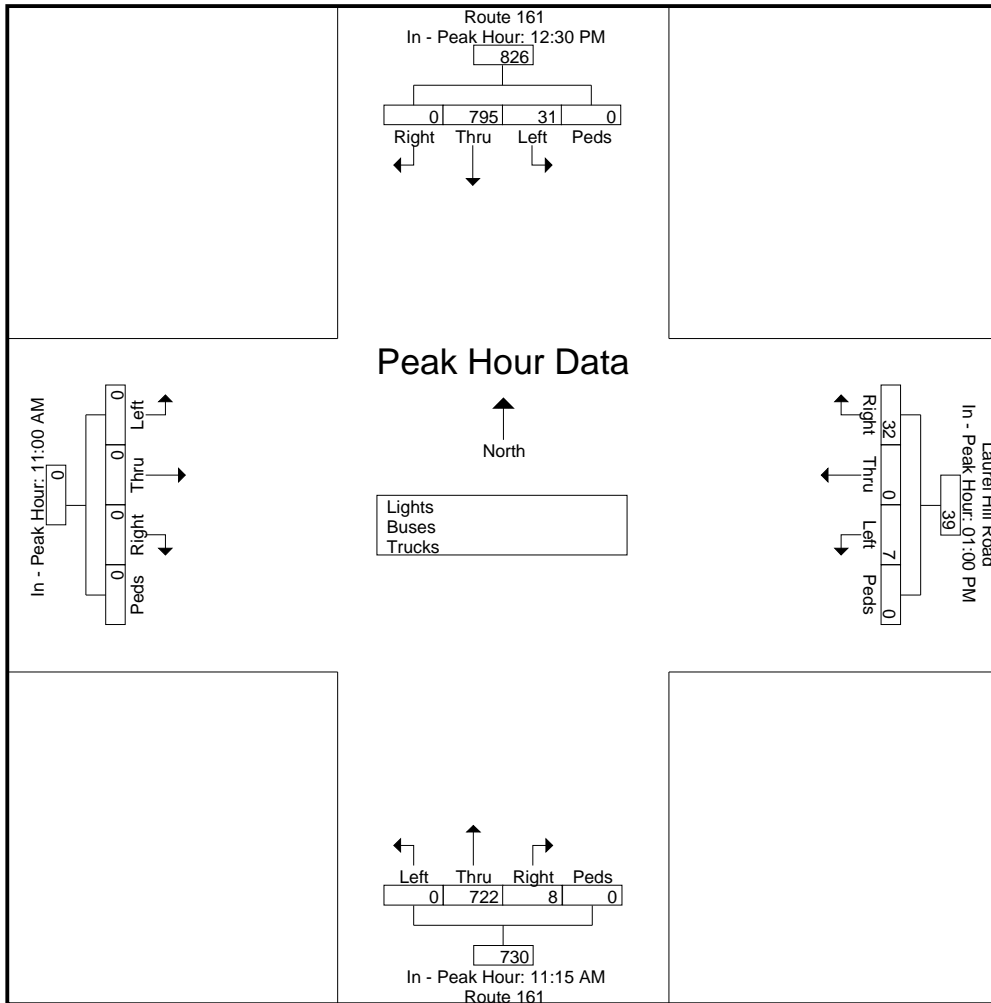
File Name : 23104
Site Code : 23104
Start Date : 6/2/2022
Page No : 3

Start Time	Route 161 From North					Laurel Hill Road From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:30 PM					01:00 PM					11:15 AM					11:00 AM				
+0 mins.	0	208	10	0	218	12	0	2	0	14	2	170	0	0	172	0	0	0	0	0
+15 mins.	0	179	7	0	186	8	0	1	0	9	2	180	0	0	182	0	0	0	0	0
+30 mins.	0	198	8	0	206	7	0	1	0	8	2	200	0	0	202	0	0	0	0	0
+45 mins.	0	210	6	0	216	5	0	3	0	8	2	172	0	0	174	0	0	0	0	0
Total Volume	0	795	31	0	826	32	0	7	0	39	8	722	0	0	730	0	0	0	0	0
% App. Total	0	96.2	3.8	0		82.1	0	17.9	0		1.1	98.9	0	0		0	0	0	0	
PHF	.000	.946	.775	.000	.947	.667	.000	.583	.000	.696	1.000	.903	.000	.000	.903	.000	.000	.000	.000	.000



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Society Road
 East Lyme, Connecticut

File Name : 23095
 Site Code : 23095
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					From East					Route 161 From South					Society Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	47	136	0	0	183	0	0	0	0	0	0	140	18	0	158	22	0	18	0	40	381
03:15 PM	34	147	0	0	181	0	0	0	0	0	0	142	26	0	168	25	0	28	1	54	403
03:30 PM	30	172	0	0	202	0	0	0	0	0	0	147	23	0	170	34	0	37	0	71	443
03:45 PM	31	168	0	0	199	0	0	0	0	0	0	126	15	0	141	24	0	23	3	50	390
Total	142	623	0	0	765	0	0	0	0	0	0	555	82	0	637	105	0	106	4	215	1617
04:00 PM	31	155	0	0	186	0	0	0	0	0	0	135	21	0	156	27	0	47	0	74	416
04:15 PM	31	161	0	0	192	0	0	0	0	0	0	152	25	0	177	28	0	23	0	51	420
04:30 PM	35	183	0	0	218	0	0	0	0	0	0	169	26	0	195	17	0	33	0	50	463
04:45 PM	32	168	0	0	200	0	0	0	0	0	0	141	19	0	160	22	0	23	0	45	405
Total	129	667	0	0	796	0	0	0	0	0	0	597	91	0	688	94	0	126	0	220	1704
05:00 PM	32	164	0	0	196	0	0	0	0	0	0	141	22	0	163	15	0	17	1	33	392
05:15 PM	34	166	0	0	200	0	0	0	0	0	0	122	42	0	164	19	0	21	1	41	405
05:30 PM	32	154	0	0	186	0	0	0	0	0	0	149	28	0	177	19	0	16	0	35	398
05:45 PM	27	156	0	0	183	0	0	0	0	0	0	104	15	0	119	14	0	13	0	27	329
Total	125	640	0	0	765	0	0	0	0	0	0	516	107	0	623	67	0	67	2	136	1524
Grand Total	396	1930	0	0	2326	0	0	0	0	0	0	1668	280	0	1948	266	0	299	6	571	4845
Apprch %	17	83	0	0		0	0	0	0		0	85.6	14.4	0		46.6	0	52.4	1.1		
Total %	8.2	39.8	0	0	48	0	0	0	0	0	0	34.4	5.8	0	40.2	5.5	0	6.2	0.1	11.8	
Lights	396	1917										1657									
% Lights	100	99.3	0	0	99.4	0	0	0	0	0	0	99.3	97.9	0	99.1	98.1	0	98.7	100	98.4	99.2
Buses	0	5	0	0	5	0	0	0	0	0	0	5	6	0	11	5	0	3	0	8	24
% Buses	0	0.3	0	0	0.2	0	0	0	0	0	0	0.3	2.1	0	0.6	1.9	0	1	0	1.4	0.5
Trucks	0	8	0	0	8	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	15
% Trucks	0	0.4	0	0	0.3	0	0	0	0	0	0	0.4	0	0	0.3	0	0	0.3	0	0.2	0.3

Connecticut Counts LLC

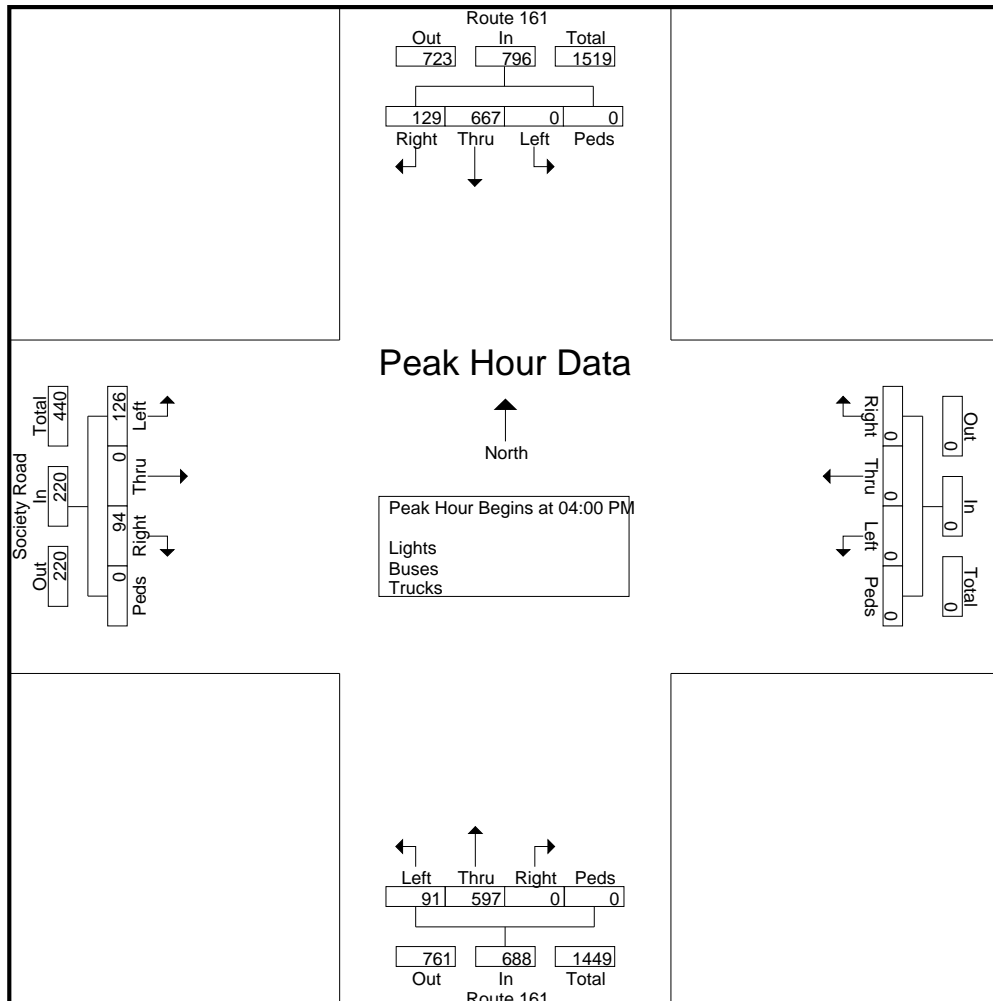
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23095
Site Code : 23095
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					From East					Route 161 From South					Society Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	31	155	0	0	186	0	0	0	0	0	0	135	21	0	156	27	0	47	0	74	416
04:15 PM	31	161	0	0	192	0	0	0	0	0	0	152	25	0	177	28	0	23	0	51	420
04:30 PM	35	183	0	0	218	0	0	0	0	0	0	169	26	0	195	17	0	33	0	50	463
04:45 PM	32	168	0	0	200	0	0	0	0	0	0	141	19	0	160	22	0	23	0	45	405
Total Volume	129	667	0	0	796	0	0	0	0	0	0	597	91	0	688	94	0	126	0	220	1704
% App. Total	16.2	83.8	0	0		0	0	0	0		0	86.8	13.2	0		42.7	0	57.3	0		
PHF	.921	.911	.000	.000	.913	.000	.000	.000	.000	.000	.000	.883	.875	.000	.882	.839	.000	.670	.000	.743	.920



Connecticut Counts LLC

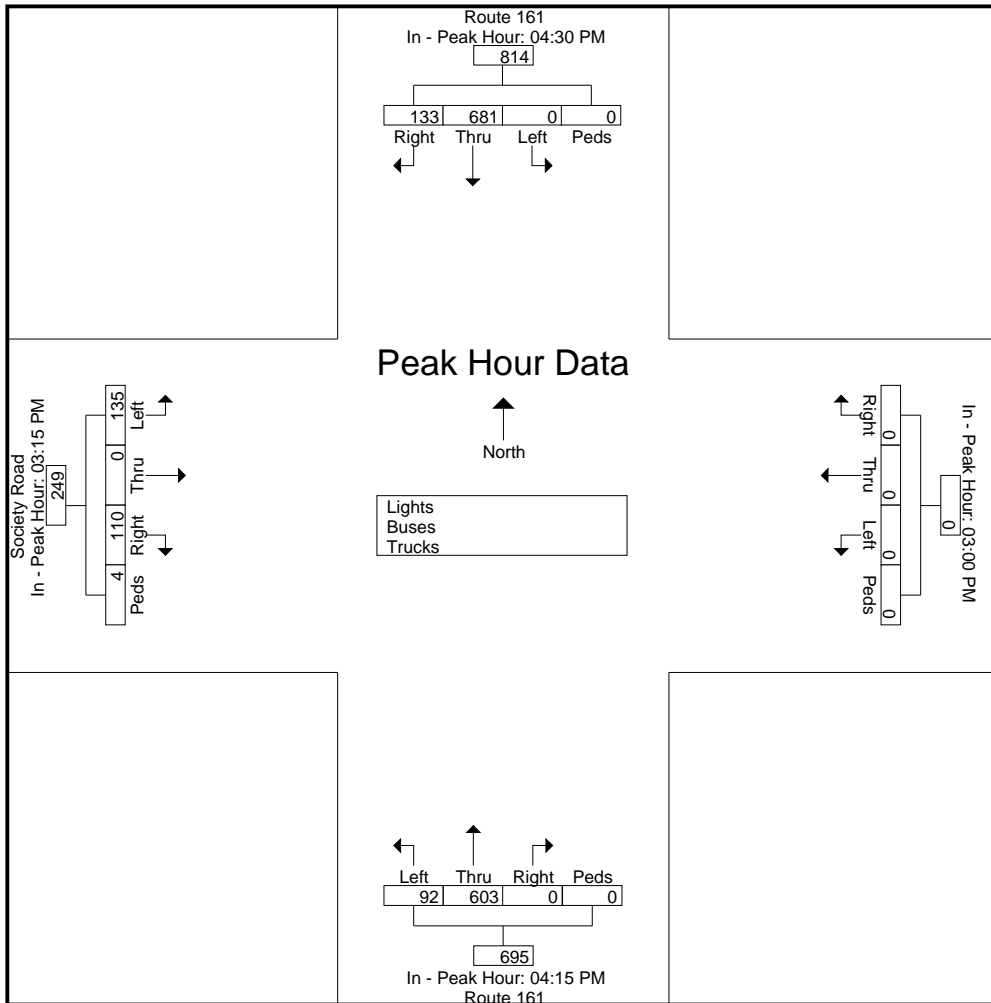
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23095
 Site Code : 23095
 Start Date : 5/24/2022
 Page No : 3

Start Time	Route 161 From North					From East					Route 161 From South					Society Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM					03:00 PM					04:15 PM					03:15 PM				
+0 mins.	35	183	0	0	218	0	0	0	0	0	0	152	25	0	177	25	0	28	1	54
+15 mins.	32	168	0	0	200	0	0	0	0	0	0	169	26	0	195	34	0	37	0	71
+30 mins.	32	164	0	0	196	0	0	0	0	0	0	141	19	0	160	24	0	23	3	50
+45 mins.	34	166	0	0	200	0	0	0	0	0	0	141	22	0	163	27	0	47	0	74
Total Volume	133	681	0	0	814	0	0	0	0	0	0	603	92	0	695	110	0	135	4	249
% App. Total	16.3	83.7	0	0		0	0	0	0		0	86.8	13.2	0		44.2	0	54.2	1.6	
PHF	.950	.930	.000	.000	.933	.000	.000	.000	.000	.000	.000	.892	.885	.000	.891	.809	.000	.718	.333	.841



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Society ROad
 East Lyme, Connecticut

File Name : 23096
 Site Code : 23095
 Start Date : 6/4/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					From East					Route 161 From South					Society ROad From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	23	157	0	0	180	0	0	0	0	0	0	151	14	0	165	16	0	23	0	39	384
11:15 AM	33	162	0	0	195	0	0	0	0	0	0	153	9	0	162	17	0	17	0	34	391
11:30 AM	33	190	0	0	223	0	0	0	0	0	0	185	23	0	208	22	0	31	0	53	484
11:45 AM	20	140	0	0	160	0	0	0	0	0	0	165	7	0	172	8	0	21	0	29	361
Total	109	649	0	0	758	0	0	0	0	0	0	654	53	0	707	63	0	92	0	155	1620
12:00 PM	33	162	0	0	195	0	0	0	0	0	0	144	13	0	157	35	0	34	0	69	421
12:15 PM	20	158	0	0	178	0	0	0	0	0	0	141	12	0	153	15	0	12	0	27	358
12:30 PM	26	185	0	0	211	0	0	0	0	0	0	155	8	0	163	19	0	19	0	38	412
12:45 PM	20	154	0	0	174	0	0	0	0	0	0	148	8	0	156	15	0	18	0	33	363
Total	99	659	0	0	758	0	0	0	0	0	0	588	41	0	629	84	0	83	0	167	1554
01:00 PM	33	179	0	0	212	0	0	0	0	0	0	147	15	0	162	22	0	15	0	37	411
01:15 PM	19	177	0	0	196	0	0	0	0	0	0	137	13	2	152	11	1	17	4	33	381
01:30 PM	15	152	0	0	167	0	0	0	0	0	0	164	10	0	174	10	0	9	0	19	360
01:45 PM	26	162	0	0	188	0	0	0	0	0	0	137	16	0	153	14	0	24	0	38	379
Total	93	670	0	0	763	0	0	0	0	0	0	585	54	2	641	57	1	65	4	127	1531
Grand Total	301	1978	0	0	2279	0	0	0	0	0	0	1827	148	2	1977	204	1	240	4	449	4705
Apprch %	13.2	86.8	0	0		0	0	0	0	0	0	92.4	7.5	0.1		45.4	0.2	53.5	0.9		
Total %	6.4	42	0	0	48.4	0	0	0	0	0	0	38.8	3.1	0	42	4.3	0	5.1	0.1	9.5	
Lights	301	1976										1824									
% Lights	100	99.9	0	0	99.9	0	0	0	0	0	0	99.8	100	100	99.8	100	100	100	100	100	99.9
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
% Trucks	0	0.1	0	0	0.1	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.1

Connecticut Counts LLC

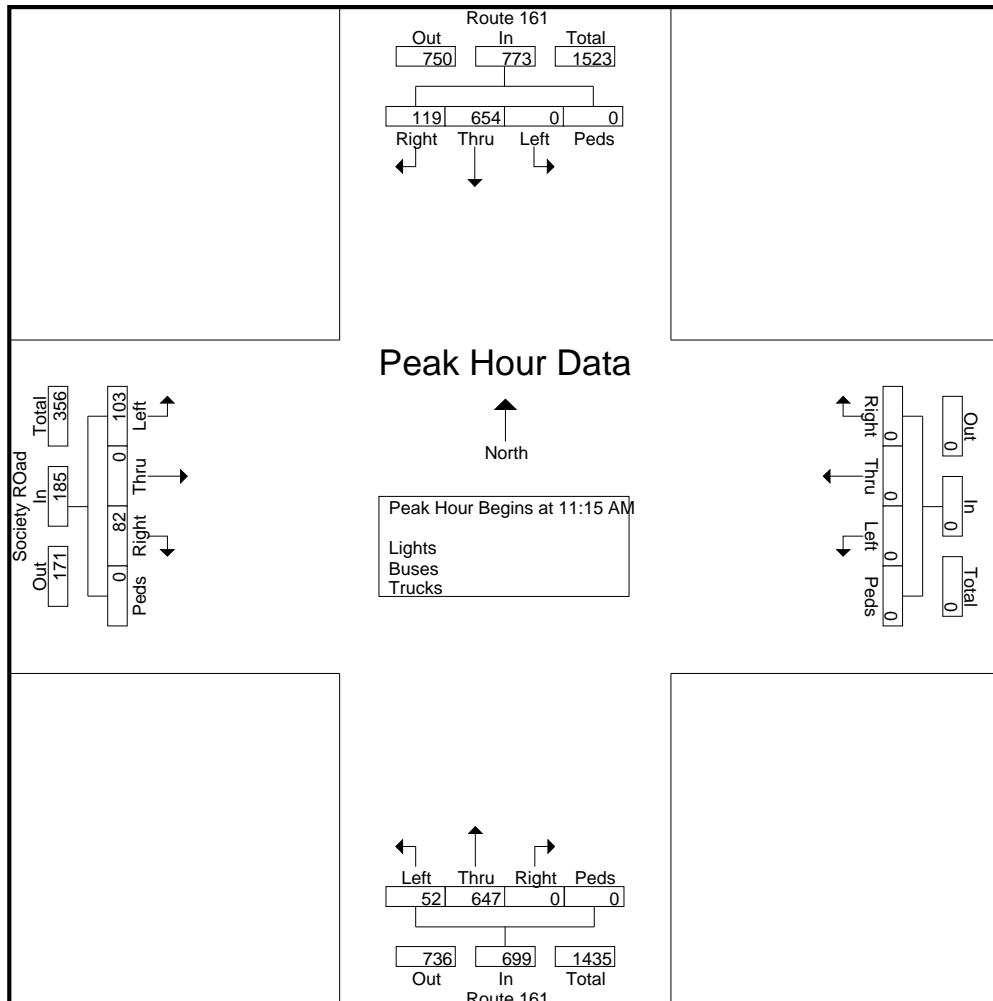
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23096
Site Code : 23095
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					From East					Route 161 From South					Society ROad From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:15 AM

11:15 AM	33	162	0	0	195	0	0	0	0	0	0	153	9	0	162	17	0	17	0	34	391
11:30 AM	33	190	0	0	223	0	0	0	0	0	0	185	23	0	208	22	0	31	0	53	484
11:45 AM	20	140	0	0	160	0	0	0	0	0	0	165	7	0	172	8	0	21	0	29	361
12:00 PM	33	162	0	0	195	0	0	0	0	0	0	144	13	0	157	35	0	34	0	69	421
Total Volume	119	654	0	0	773	0	0	0	0	0	0	647	52	0	699	82	0	103	0	185	1657
% App. Total	15.4	84.6	0	0		0	0	0	0		0	92.6	7.4	0		44.3	0	55.7	0		
PHF	.902	.861	.000	.000	.867	.000	.000	.000	.000	.000	.000	.874	.565	.000	.840	.586	.000	.757	.000	.670	.856



Connecticut Counts LLC

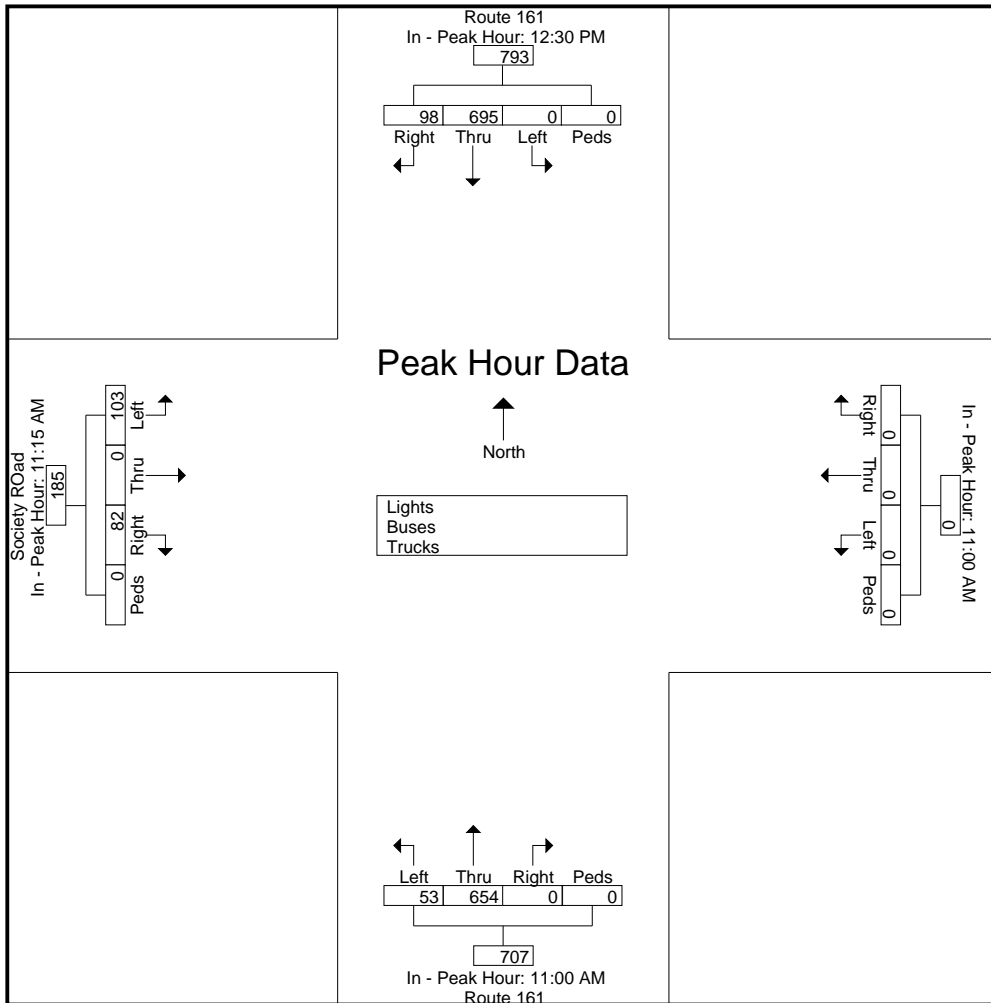
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23096
Site Code : 23095
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					From East					Route 161 From South					Society Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:30 PM					11:00 AM					11:15 AM									
+0 mins.	26	185	0	0	211	0	0	0	0	0	0	151	14	0	165	17	0	17	0	34
+15 mins.	20	154	0	0	174	0	0	0	0	0	0	153	9	0	162	22	0	31	0	53
+30 mins.	33	179	0	0	212	0	0	0	0	0	0	185	23	0	208	8	0	21	0	29
+45 mins.	19	177	0	0	196	0	0	0	0	0	0	165	7	0	172	35	0	34	0	69
Total Volume	98	695	0	0	793	0	0	0	0	0	0	654	53	0	707	82	0	103	0	185
% App. Total	12.4	87.6	0	0		0	0	0	0		0	92.5	7.5	0		44.3	0	55.7	0	
PHF	.742	.939	.000	.000	.935	.000	.000	.000	.000	.000	.000	.884	.576	.000	.850	.586	.000	.757	.000	.670



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Roxbury Road
 East Lyme, Connecticut

File Name : 23105
 Site Code : 23105
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					From East					Route 161 From South					Roxbury Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	24	121	0	0	145	0	0	0	0	0	0	145	16	0	161	13	0	19	0	32	338
03:15 PM	13	167	0	0	180	0	0	0	0	0	0	147	24	0	171	7	0	14	0	21	372
03:30 PM	11	163	0	0	174	0	0	0	0	0	0	151	9	0	160	7	0	9	0	16	350
03:45 PM	21	189	0	0	210	0	0	0	0	0	0	144	15	0	159	7	0	1	1	9	378
Total	69	640	0	0	709	0	0	0	0	0	0	587	64	0	651	34	0	43	1	78	1438
04:00 PM	8	178	0	0	186	0	0	0	0	0	0	163	13	0	176	7	0	10	0	17	379
04:15 PM	9	171	0	0	180	0	0	0	0	0	0	177	11	0	188	13	0	5	0	18	386
04:30 PM	13	188	0	0	201	0	0	0	0	0	0	183	11	1	195	9	0	3	1	13	409
04:45 PM	12	172	0	0	184	0	0	0	0	0	0	140	9	0	149	9	0	4	0	13	346
Total	42	709	0	0	751	0	0	0	0	0	0	663	44	1	708	38	0	22	1	61	1520
05:00 PM	11	185	0	0	196	0	0	0	0	0	0	179	21	1	201	10	0	3	1	14	411
05:15 PM	8	150	0	0	158	0	0	0	0	0	0	130	11	0	141	15	0	10	1	26	325
05:30 PM	6	161	0	0	167	0	0	0	0	0	0	146	6	0	152	8	0	14	0	22	341
05:45 PM	12	155	0	0	167	0	0	0	0	0	0	123	9	0	132	8	0	4	1	13	312
Total	37	651	0	0	688	0	0	0	0	0	0	578	47	1	626	41	0	31	3	75	1389
Grand Total	148	2000	0	0	2148	0	0	0	0	0	0	1828	155	2	1985	113	0	96	5	214	4347
Apprch %	6.9	93.1	0	0		0	0	0	0		0	92.1	7.8	0.1		52.8	0	44.9	2.3		
Total %	3.4	46	0	0	49.4	0	0	0	0	0	0	42.1	3.6	0	45.7	2.6	0	2.2	0.1	4.9	
Lights	144	1989										1815									
% Lights	97.3	99.4	0	0	99.3	0	0	0	0	0	0	99.3	97.4	100	99.1	99.1	0	96.9	100	98.1	99.2
Buses	3	7	0	0	10	0	0	0	0	0	0	6	1	0	7	0	0	2	0	2	19
% Buses	2	0.3	0	0	0.5	0	0	0	0	0	0	0.3	0.6	0	0.4	0	0	2.1	0	0.9	0.4
Trucks	1	4	0	0	5	0	0	0	0	0	0	7	3	0	10	1	0	1	0	2	17
% Trucks	0.7	0.2	0	0	0.2	0	0	0	0	0	0	0.4	1.9	0	0.5	0.9	0	1	0	0.9	0.4

Connecticut Counts LLC

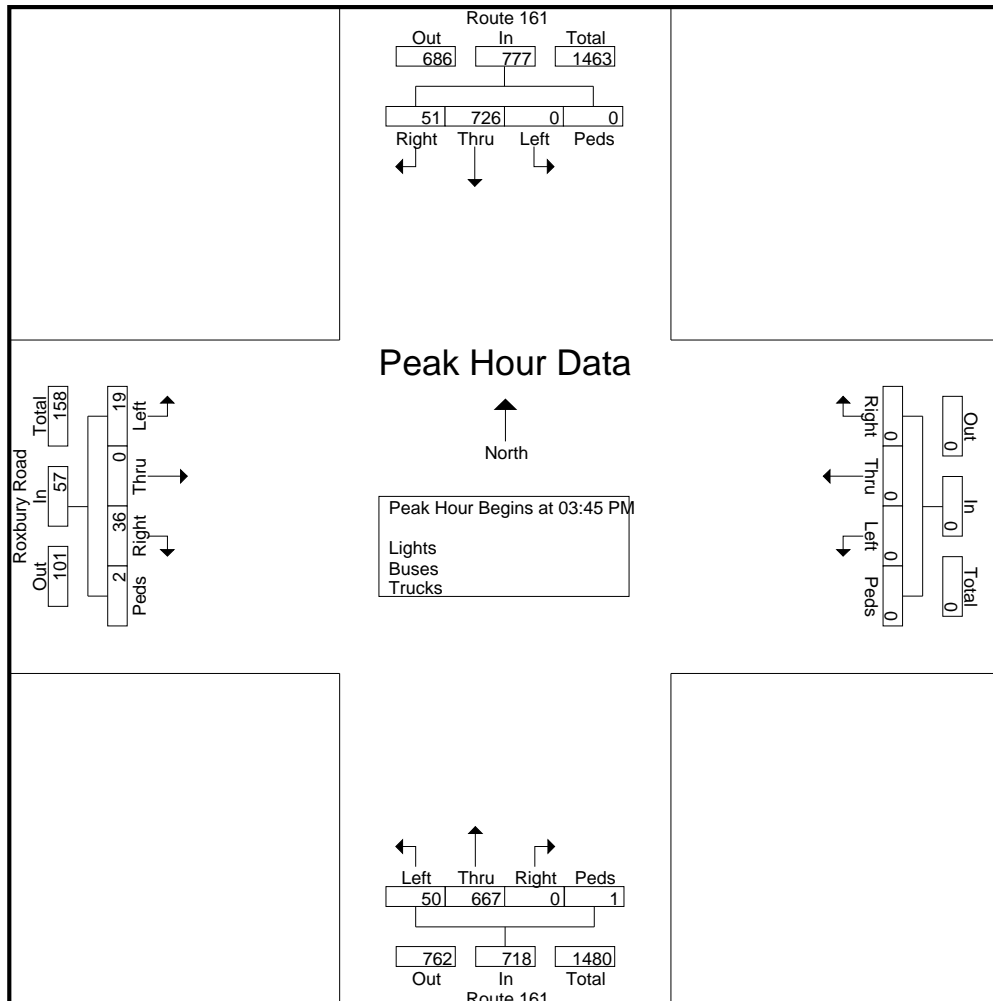
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23105
 Site Code : 23105
 Start Date : 5/24/2022
 Page No : 2

Start Time	Route 161 From North					From East					Route 161 From South					Roxbury Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 03:45 PM

03:45 PM	21	189	0	0	210	0	0	0	0	0	0	144	15	0	159	7	0	1	1	9	378
04:00 PM	8	178	0	0	186	0	0	0	0	0	0	163	13	0	176	7	0	10	0	17	379
04:15 PM	9	171	0	0	180	0	0	0	0	0	0	177	11	0	188	13	0	5	0	18	386
04:30 PM	13	188	0	0	201	0	0	0	0	0	0	183	11	1	195	9	0	3	1	13	409
Total Volume	51	726	0	0	777	0	0	0	0	0	0	667	50	1	718	36	0	19	2	57	1552
% App. Total	6.6	93.4	0	0		0	0	0	0		0	92.9	7	0.1		63.2	0	33.3	3.5		
PHF	.607	.960	.000	.000	.925	.000	.000	.000	.000	.000	.000	.911	.833	.250	.921	.692	.000	.475	.500	.792	.949



Connecticut Counts LLC

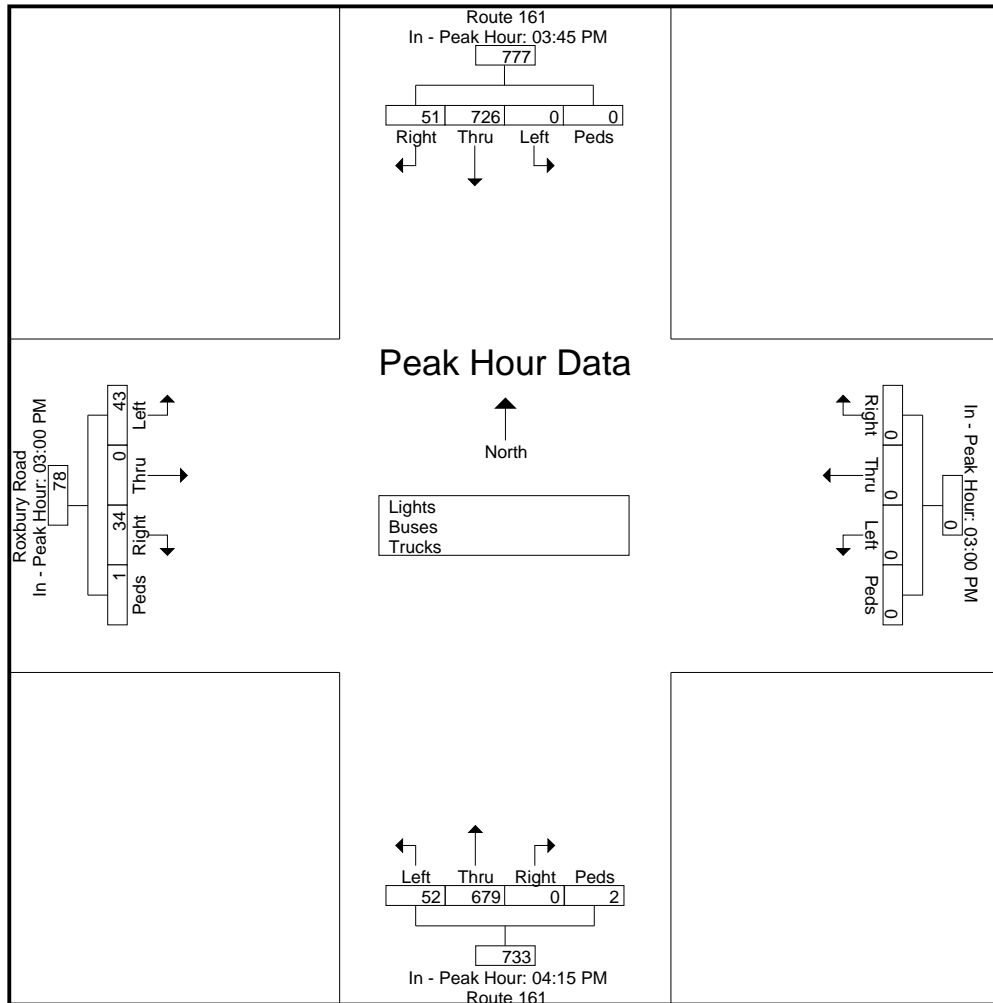
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23105
 Site Code : 23105
 Start Date : 5/24/2022
 Page No : 3

Start Time	Route 161 From North					From East					Route 161 From South					Roxbury Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:45 PM					03:00 PM					04:15 PM					03:00 PM				
+0 mins.	21	189	0	0	210	0	0	0	0	0	0	177	11	0	188	13	0	19	0	32
+15 mins.	8	178	0	0	186	0	0	0	0	0	0	183	11	1	195	7	0	14	0	21
+30 mins.	9	171	0	0	180	0	0	0	0	0	0	140	9	0	149	7	0	9	0	16
+45 mins.	13	188	0	0	201	0	0	0	0	0	0	179	21	1	201	7	0	1	1	9
Total Volume	51	726	0	0	777	0	0	0	0	0	0	679	52	2	733	34	0	43	1	78
% App. Total	6.6	93.4	0	0		0	0	0	0		0	92.6	7.1	0.3		43.6	0	55.1	1.3	
PHF	.607	.960	.000	.000	.925	.000	.000	.000	.000	.000	.000	.928	.619	.500	.912	.654	.000	.566	.250	.609



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Roxbury Road
 East Lyme, Connecticut

File Name : 23106
 Site Code : 23106
 Start Date : 6/4/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					From East					Route 161 From South					Roxbury Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	7	185	0	0	192	0	0	0	0	0	0	157	18	0	175	14	0	7	0	21	388
11:15 AM	10	171	0	0	181	0	0	0	0	0	0	185	9	1	195	17	0	22	1	40	416
11:30 AM	8	172	0	0	180	0	0	0	0	0	0	163	12	0	175	14	0	9	0	23	378
11:45 AM	5	156	0	0	161	0	0	0	0	0	0	148	5	0	153	10	0	13	0	23	337
Total	30	684	0	0	714	0	0	0	0	0	0	653	44	1	698	55	0	51	1	107	1519
12:00 PM	12	177	0	0	189	0	0	0	0	0	0	143	10	0	153	11	0	11	2	24	366
12:15 PM	16	167	0	1	184	0	0	0	0	0	0	150	6	0	156	20	0	12	0	32	372
12:30 PM	9	177	0	0	186	0	0	0	0	0	0	157	7	0	164	14	0	7	0	21	371
12:45 PM	9	174	0	0	183	0	0	0	0	0	0	137	7	0	144	11	0	8	0	19	346
Total	46	695	0	1	742	0	0	0	0	0	0	587	30	0	617	56	0	38	2	96	1455
01:00 PM	10	156	0	0	166	0	0	0	0	0	0	162	7	0	169	11	0	9	1	21	356
01:15 PM	11	138	0	0	149	0	0	0	0	0	0	152	4	1	157	13	0	8	1	22	328
01:30 PM	11	135	0	0	146	0	0	0	0	0	0	132	11	0	143	12	0	4	0	16	305
01:45 PM	3	101	0	0	104	0	0	0	0	0	0	144	6	0	150	10	0	9	0	19	273
Total	35	530	0	0	565	0	0	0	0	0	0	590	28	1	619	46	0	30	2	78	1262
Grand Total	111	1909	0	1	2021	0	0	0	0	0	0	1830	102	2	1934	157	0	119	5	281	4236
Apprch %	5.5	94.5	0	0		0	0	0	0		0	94.6	5.3	0.1		55.9	0	42.3	1.8		
Total %	2.6	45.1	0	0	47.7	0	0	0	0	0	0	43.2	2.4	0	45.7	3.7	0	2.8	0.1	6.6	
Lights	111	1907										1828									
% Lights	100	99.9	0	100	99.9	0	0	0	0	0	0	99.9	100	100	99.9	100	0	100	100	100	99.9
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
% Trucks	0	0.1	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0.1

Connecticut Counts LLC

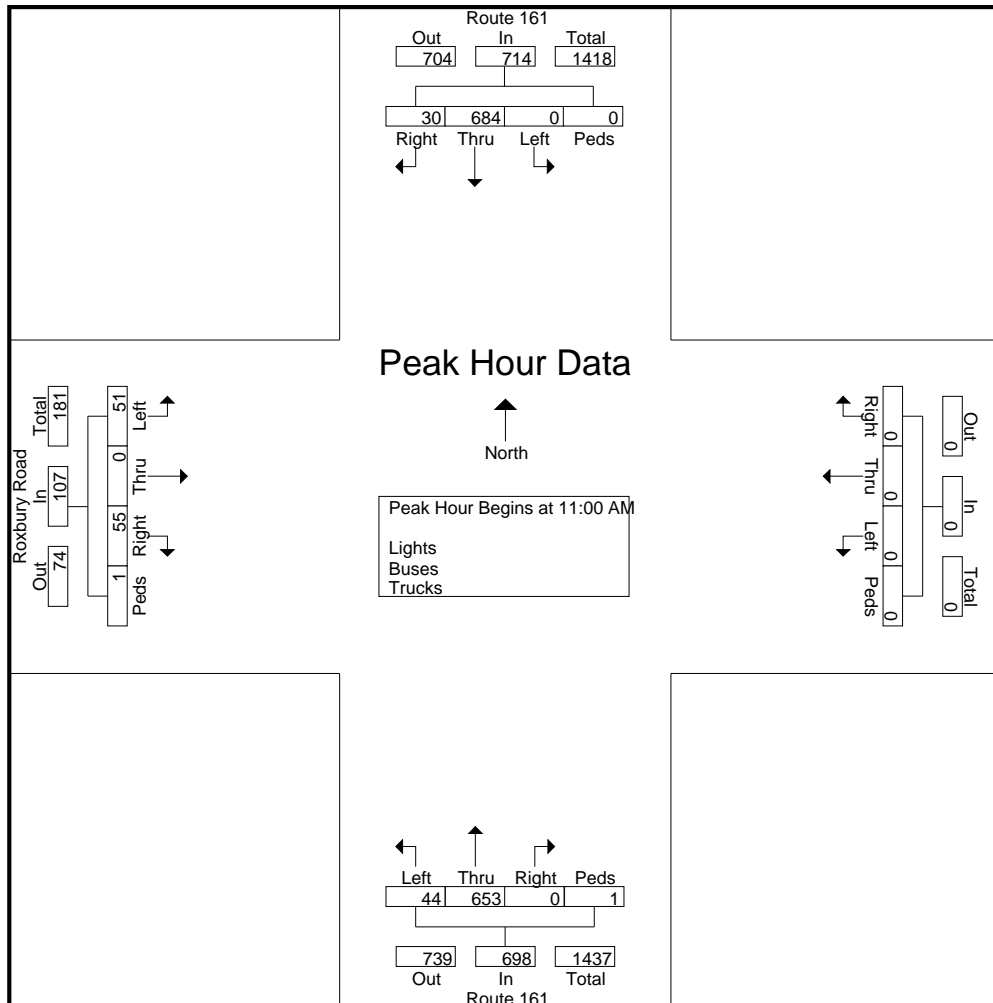
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23106
Site Code : 23106
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					From East					Route 161 From South					Roxbury Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:00 AM

11:00 AM	7	185	0	0	192	0	0	0	0	0	0	157	18	0	175	14	0	7	0	21	388
11:15 AM	10	171	0	0	181	0	0	0	0	0	0	185	9	1	195	17	0	22	1	40	416
11:30 AM	8	172	0	0	180	0	0	0	0	0	0	163	12	0	175	14	0	9	0	23	378
11:45 AM	5	156	0	0	161	0	0	0	0	0	0	148	5	0	153	10	0	13	0	23	337
Total Volume	30	684	0	0	714	0	0	0	0	0	0	653	44	1	698	55	0	51	1	107	1519
% App. Total	4.2	95.8	0	0		0	0	0	0		0	93.6	6.3	0.1		51.4	0	47.7	0.9		
PHF	.750	.924	.000	.000	.930	.000	.000	.000	.000	.000	.000	.882	.611	.250	.895	.809	.000	.580	.250	.669	.913



Connecticut Counts LLC

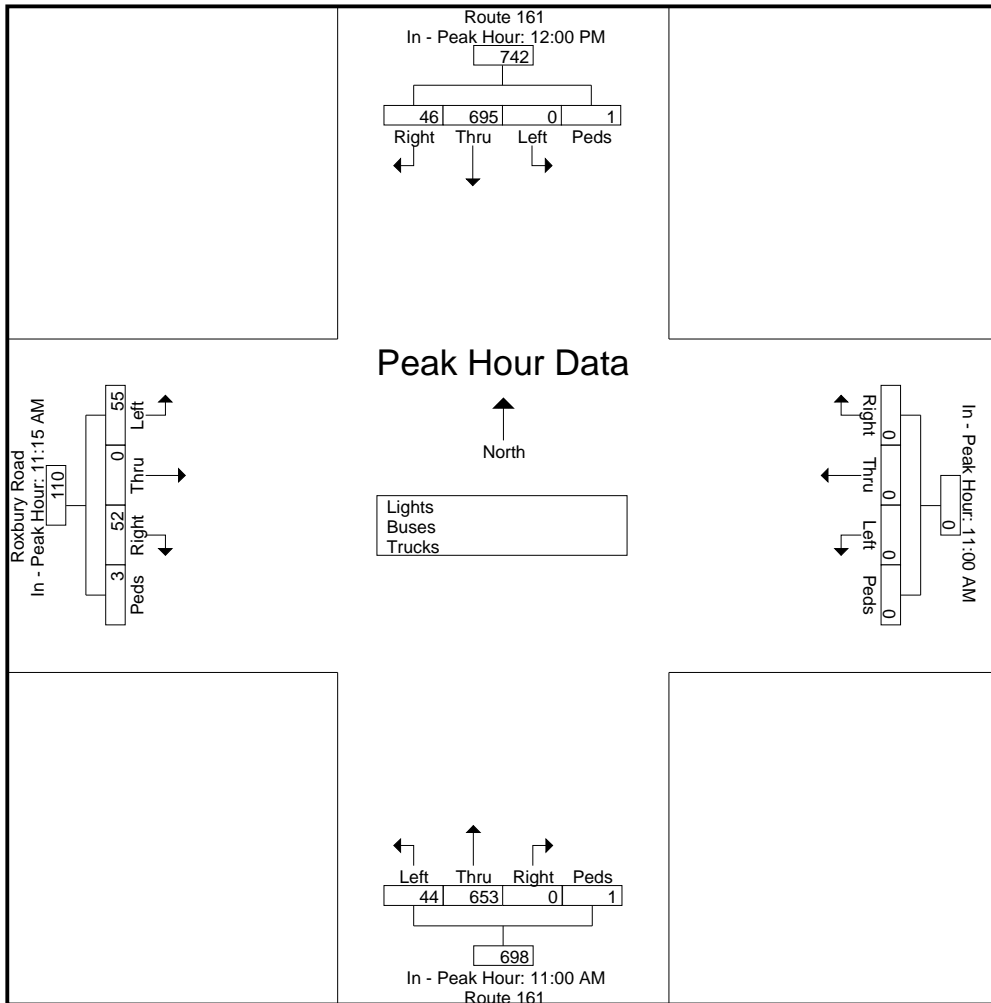
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23106
Site Code : 23106
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					From East					Route 161 From South					Roxbury Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM					11:00 AM					11:00 AM					11:15 AM				
+0 mins.	12	177	0	0	189	0	0	0	0	0	0	157	18	0	175	17	0	22	1	40
+15 mins.	16	167	0	1	184	0	0	0	0	0	0	185	9	1	195	14	0	9	0	23
+30 mins.	9	177	0	0	186	0	0	0	0	0	0	163	12	0	175	10	0	13	0	23
+45 mins.	9	174	0	0	183	0	0	0	0	0	0	148	5	0	153	11	0	11	2	24
Total Volume	46	695	0	1	742	0	0	0	0	0	0	653	44	1	698	52	0	55	3	110
% App. Total	6.2	93.7	0	0.1		0	0	0	0		0	93.6	6.3	0.1		47.3	0	50	2.7	
PHF	.719	.982	.000	.250	.981	.000	.000	.000	.000	.000	.000	.882	.611	.250	.895	.765	.000	.625	.375	.688



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at E.Pattagansett/Chapman Farm
East Lyme, Connecticut

File Name : 23091
Site Code : 23091
Start Date : 5/24/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	56	94	1	0	151	0	1	0	0	1	0	106	4	0	110	5	0	57	0	62	324
03:15 PM	83	97	2	0	182	0	1	0	0	1	2	118	1	0	121	1	3	75	0	79	383
03:30 PM	75	85	1	0	161	1	0	1	0	2	1	107	0	0	108	1	0	39	0	40	311
03:45 PM	84	99	3	0	186	1	0	2	0	3	1	98	3	0	102	3	1	61	1	66	357
Total	298	375	7	0	680	2	2	3	0	7	4	429	8	0	441	10	4	232	1	247	1375
04:00 PM	78	97	1	0	176	0	1	0	0	1	1	107	7	0	115	5	0	62	0	67	359
04:15 PM	79	123	2	0	204	2	1	0	1	4	0	113	2	0	115	5	3	67	1	76	399
04:30 PM	78	88	4	0	170	0	1	3	0	4	3	113	2	0	118	5	2	71	0	78	370
04:45 PM	81	113	1	0	195	1	1	2	1	5	1	91	5	0	97	6	0	71	0	77	374
Total	316	421	8	0	745	3	4	5	2	14	5	424	16	0	445	21	5	271	1	298	1502
05:00 PM	72	91	0	0	163	1	1	2	2	6	1	111	2	1	115	3	1	59	1	64	348
05:15 PM	79	120	0	0	199	0	0	0	0	0	1	105	2	0	108	0	0	70	1	71	378
05:30 PM	84	90	1	0	175	4	0	1	2	7	0	79	0	0	79	3	1	65	0	69	330
05:45 PM	62	84	0	0	146	1	0	0	1	2	1	88	1	0	90	1	0	44	1	46	284
Total	297	385	1	0	683	6	1	3	5	15	3	383	5	1	392	7	2	238	3	250	1340
Grand Total	911	1181	16	0	2108	11	7	11	7	36	12	1236	29	1	1278	38	11	741	5	795	4217
Apprch %	43.2	56	0.8	0		30.6	19.4	30.6	19.4		0.9	96.7	2.3	0.1		4.8	1.4	93.2	0.6		
Total %	21.6	28	0.4	0	50	0.3	0.2	0.3	0.2	0.9	0.3	29.3	0.7	0	30.3	0.9	0.3	17.6	0.1	18.9	
Lights	904	1174										1227									
% Lights	99.2	99.4	100	0	99.3	100	100	100	100	100	100	99.3	100	100	99.3	97.4	100	98.8	100	98.7	99.2
Buses	5	3	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	5	0	5	18
% Buses	0.5	0.3	0	0	0.4	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0.7	0	0.6	0.4
Trucks	2	4	0	0	6	0	0	0	0	0	0	4	0	0	4	1	0	4	0	5	15
% Trucks	0.2	0.3	0	0	0.3	0	0	0	0	0	0	0.3	0	0	0.3	2.6	0	0.5	0	0.6	0.4

Connecticut Counts LLC

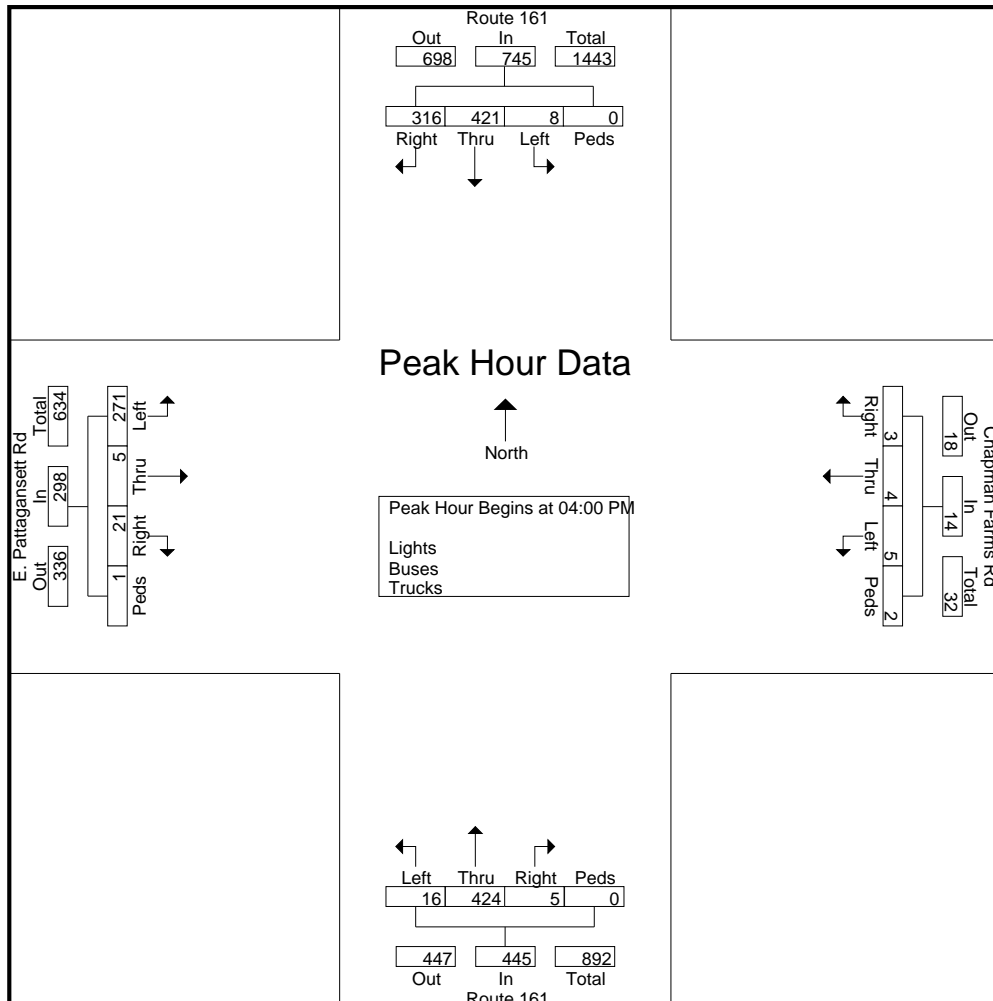
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23091
Site Code : 23091
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	78	97	1	0	176	0	1	0	0	1	1	107	7	0	115	5	0	62	0	67	359
04:15 PM	79	123	2	0	204	2	1	0	1	4	0	113	2	0	115	5	3	67	1	76	399
04:30 PM	78	88	4	0	170	0	1	3	0	4	3	113	2	0	118	5	2	71	0	78	370
04:45 PM	81	113	1	0	195	1	1	2	1	5	1	91	5	0	97	6	0	71	0	77	374
Total Volume	316	421	8	0	745	3	4	5	2	14	5	424	16	0	445	21	5	271	1	298	1502
% App. Total	42.4	56.5	1.1	0		21.4	28.6	35.7	14.3		1.1	95.3	3.6	0		7	1.7	90.9	0.3		
PHF	.975	.856	.500	.000	.913	.375	1.00	.417	.500	.700	.417	.938	.571	.000	.943	.875	.417	.954	.250	.955	.941



Connecticut Counts LLC

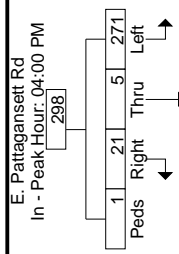
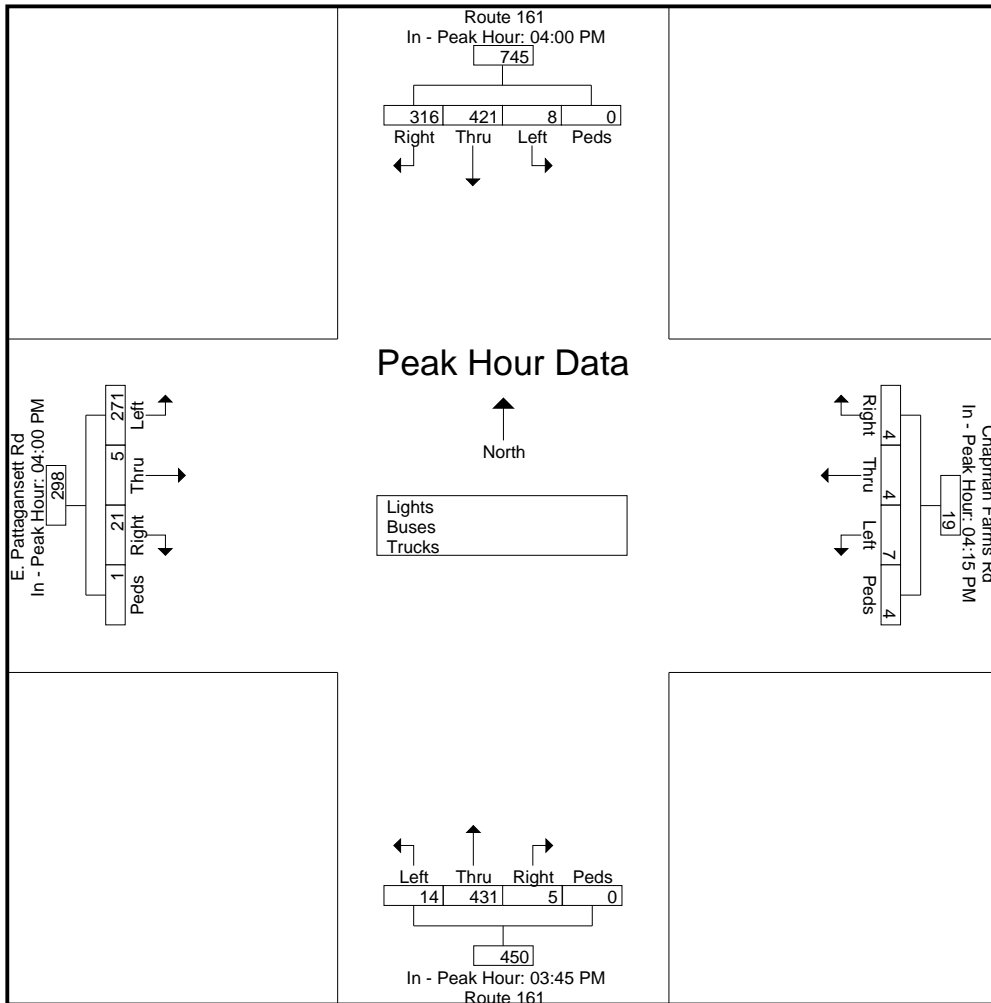
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23091
Site Code : 23091
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM					04:15 PM					03:45 PM					04:00 PM				
+0 mins.	78	97	1	0	176	2	1	0	1	4	1	98	3	0	102	5	0	62	0	67
+15 mins.	79	123	2	0	204	0	1	3	0	4	1	107	7	0	115	5	3	67	1	76
+30 mins.	78	88	4	0	170	1	1	2	1	5	0	113	2	0	115	5	2	71	0	78
+45 mins.	81	113	1	0	195	1	1	2	2	6	3	113	2	0	118	6	0	71	0	77
Total Volume	316	421	8	0	745	4	4	7	4	19	5	431	14	0	450	21	5	271	1	298
% App. Total	42.4	56.5	1.1	0		21.1	21.1	36.8	21.1		1.1	95.8	3.1	0		7	1.7	90.9	0.3	
PHF	.975	.856	.500	.000	.913	.500	1.000	.583	.500	.792	.417	.954	.500	.000	.953	.875	.417	.954	.250	.955



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at E. Pattagansett/Chapman Far
East Lyme, Connecticut

File Name : 23092
Site Code : 23092
Start Date : 6/4/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	73	125	2	0	200	0	0	3	1	4	0	100	3	0	103	6	0	58	0	64	371
11:15 AM	69	108	0	0	177	0	0	0	1	1	1	122	2	0	125	6	0	61	0	67	370
11:30 AM	60	113	5	0	178	2	0	1	1	4	1	100	2	0	103	3	0	62	0	65	350
11:45 AM	57	127	0	0	184	2	1	0	0	3	0	114	1	0	115	3	0	49	0	52	354
Total	259	473	7	0	739	4	1	4	3	12	2	436	8	0	446	18	0	230	0	248	1445
12:00 PM	72	125	1	0	198	1	2	2	0	5	0	93	5	0	98	6	0	59	0	65	366
12:15 PM	68	106	1	0	175	4	1	1	1	7	1	91	1	1	94	5	0	57	0	62	338
12:30 PM	89	133	0	0	222	0	2	0	0	2	2	117	0	0	119	6	2	70	0	78	421
12:45 PM	61	113	0	0	174	2	0	0	0	2	0	93	2	0	95	2	1	47	0	50	321
Total	290	477	2	0	769	7	5	3	1	16	3	394	8	1	406	19	3	233	0	255	1446
01:00 PM	85	113	8	0	206	3	1	2	0	6	2	94	2	3	101	4	0	49	1	54	367
01:15 PM	66	110	5	0	181	1	2	1	0	4	0	100	4	0	104	1	10	48	0	59	348
01:30 PM	64	108	1	0	173	1	2	1	0	4	0	104	0	0	104	5	5	56	0	66	347
01:45 PM	67	95	2	0	164	0	1	3	0	4	2	101	2	1	106	2	0	54	1	57	331
Total	282	426	16	0	724	5	6	7	0	18	4	399	8	4	415	12	15	207	2	236	1393
Grand Total	831	1376	25	0	2232	16	12	14	4	46	9	1229	24	5	1267	49	18	670	2	739	4284
Apprch %	37.2	61.6	1.1	0		34.8	26.1	30.4	8.7		0.7	97	1.9	0.4		6.6	2.4	90.7	0.3		
Total %	19.4	32.1	0.6	0	52.1	0.4	0.3	0.3	0.1	1.1	0.2	28.7	0.6	0.1	29.6	1.1	0.4	15.6	0	17.3	
Lights	830	1376										1228									
% Lights	99.9	100	100	0	100	100	100	100	100	100	100	99.9	100	100	99.9	100	100	100	100	100	100
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
% Trucks	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

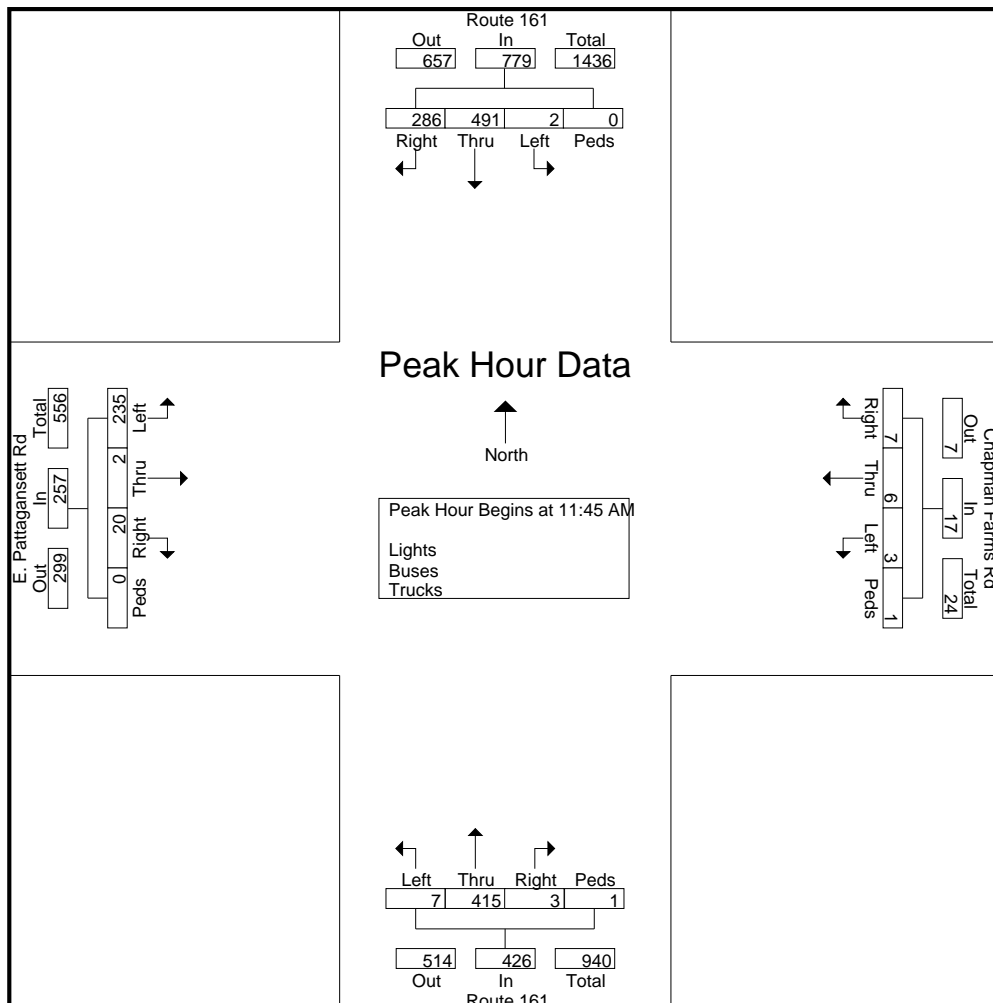
File Name : 23092
Site Code : 23092
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 11:45 AM

11:45 AM	57	127	0	0	184	2	1	0	0	3	0	114	1	0	115	3	0	49	0	52	354
12:00 PM	72	125	1	0	198	1	2	2	0	5	0	93	5	0	98	6	0	59	0	65	366
12:15 PM	68	106	1	0	175	4	1	1	1	7	1	91	1	1	94	5	0	57	0	62	338
12:30 PM	89	133	0	0	222	0	2	0	0	2	2	117	0	0	119	6	2	70	0	78	421
Total Volume	286	491	2	0	779	7	6	3	1	17	3	415	7	1	426	20	2	235	0	257	1479
% App. Total	36.7	63	0.3	0		41.2	35.3	17.6	5.9		0.7	97.4	1.6	0.2		7.8	0.8	91.4	0		
PHF	.803	.923	.500	.000	.877	.438	.750	.375	.250	.607	.375	.887	.350	.250	.895	.833	.250	.839	.000	.824	.878



Connecticut Counts LLC

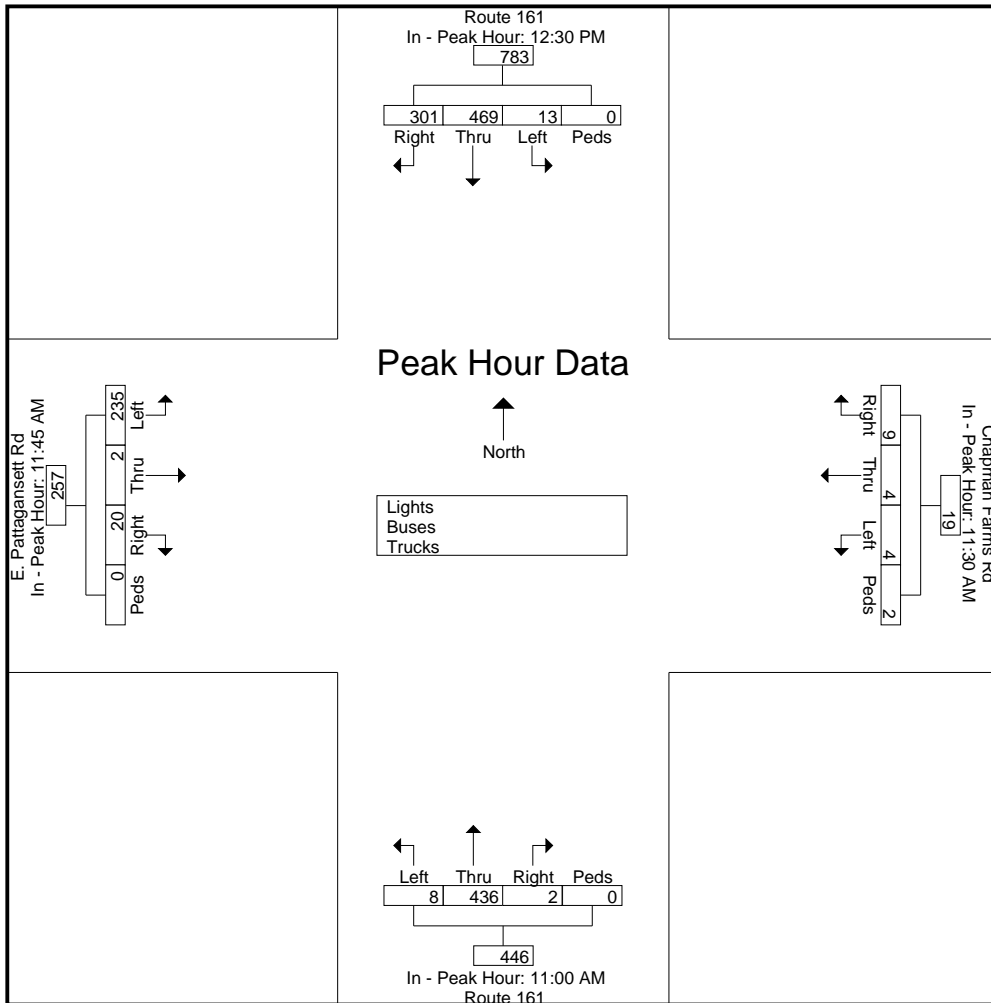
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23092
Site Code : 23092
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:30 PM					11:30 AM					11:00 AM					11:45 AM				
+0 mins.	89	133	0	0	222	2	0	1	1	4	0	100	3	0	103	3	0	49	0	52
+15 mins.	61	113	0	0	174	2	1	0	0	3	1	122	2	0	125	6	0	59	0	65
+30 mins.	85	113	8	0	206	1	2	2	0	5	1	100	2	0	103	5	0	57	0	62
+45 mins.	66	110	5	0	181	4	1	1	1	7	0	114	1	0	115	6	2	70	0	78
Total Volume	301	469	13	0	783	9	4	4	2	19	2	436	8	0	446	20	2	235	0	257
% App. Total	38.4	59.9	1.7	0		47.4	21.1	21.1	10.5		0.4	97.8	1.8	0		7.8	0.8	91.4	0	
PHF	.846	.882	.406	.000	.882	.563	.500	.500	.500	.679	.500	.893	.667	.000	.892	.833	.250	.839	.000	.824



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at E.Pattagansett/Chapman Farm
East Lyme, Connecticut

File Name : 23091
Site Code : 23091
Start Date : 5/24/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks

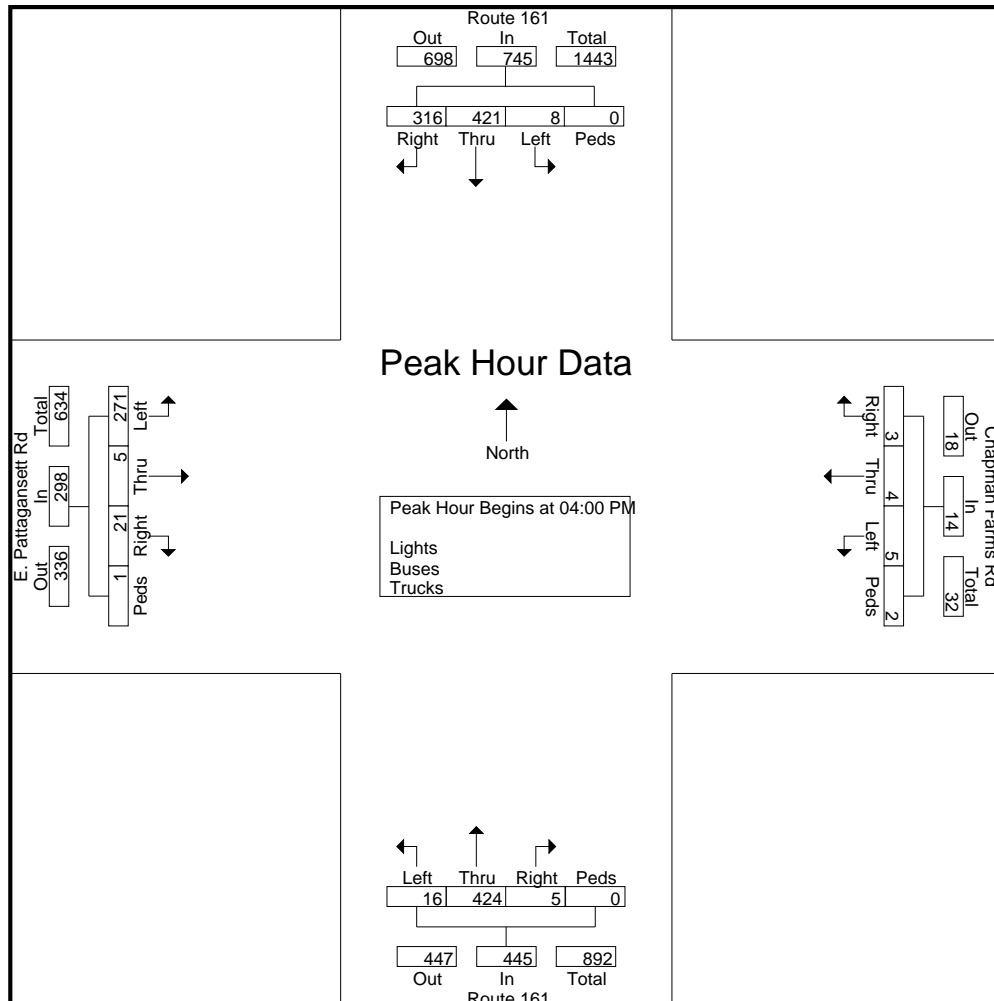
Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	56	94	1	0	151	0	1	0	0	1	0	106	4	0	110	5	0	57	0	62	324
03:15 PM	83	97	2	0	182	0	1	0	0	1	2	118	1	0	121	1	3	75	0	79	383
03:30 PM	75	85	1	0	161	1	0	1	0	2	1	107	0	0	108	1	0	39	0	40	311
03:45 PM	84	99	3	0	186	1	0	2	0	3	1	98	3	0	102	3	1	61	1	66	357
Total	298	375	7	0	680	2	2	3	0	7	4	429	8	0	441	10	4	232	1	247	1375
04:00 PM	78	97	1	0	176	0	1	0	0	1	1	107	7	0	115	5	0	62	0	67	359
04:15 PM	79	123	2	0	204	2	1	0	1	4	0	113	2	0	115	5	3	67	1	76	399
04:30 PM	78	88	4	0	170	0	1	3	0	4	3	113	2	0	118	5	2	71	0	78	370
04:45 PM	81	113	1	0	195	1	1	2	1	5	1	91	5	0	97	6	0	71	0	77	374
Total	316	421	8	0	745	3	4	5	2	14	5	424	16	0	445	21	5	271	1	298	1502
05:00 PM	72	91	0	0	163	1	1	2	2	6	1	111	2	1	115	3	1	59	1	64	348
05:15 PM	79	120	0	0	199	0	0	0	0	0	1	105	2	0	108	0	0	70	1	71	378
05:30 PM	84	90	1	0	175	4	0	1	2	7	0	79	0	0	79	3	1	65	0	69	330
05:45 PM	62	84	0	0	146	1	0	0	1	2	1	88	1	0	90	1	0	44	1	46	284
Total	297	385	1	0	683	6	1	3	5	15	3	383	5	1	392	7	2	238	3	250	1340
Grand Total	911	1181	16	0	2108	11	7	11	7	36	12	1236	29	1	1278	38	11	741	5	795	4217
Apprch %	43.2	56	0.8	0		30.6	19.4	30.6	19.4		0.9	96.7	2.3	0.1		4.8	1.4	93.2	0.6		
Total %	21.6	28	0.4	0	50	0.3	0.2	0.3	0.2	0.9	0.3	29.3	0.7	0	30.3	0.9	0.3	17.6	0.1	18.9	
Lights	904	1174										1227									
% Lights	99.2	99.4	100	0	99.3	100	100	100	100	100	100	99.3	100	100	99.3	97.4	100	98.8	100	98.7	99.2
Buses	5	3	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	5	0	5	18
% Buses	0.5	0.3	0	0	0.4	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0.7	0	0.6	0.4
Trucks	2	4	0	0	6	0	0	0	0	0	0	4	0	0	4	1	0	4	0	5	15
% Trucks	0.2	0.3	0	0	0.3	0	0	0	0	0	0	0.3	0	0	0.3	2.6	0	0.5	0	0.6	0.4

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23091
Site Code : 23091
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	78	97	1	0	176	0	1	0	0	1	1	107	7	0	115	5	0	62	0	67	359
04:15 PM	79	123	2	0	204	2	1	0	1	4	0	113	2	0	115	5	3	67	1	76	399
04:30 PM	78	88	4	0	170	0	1	3	0	4	3	113	2	0	118	5	2	71	0	78	370
04:45 PM	81	113	1	0	195	1	1	2	1	5	1	91	5	0	97	6	0	71	0	77	374
Total Volume	316	421	8	0	745	3	4	5	2	14	5	424	16	0	445	21	5	271	1	298	1502
% App. Total	42.4	56.5	1.1	0		21.4	28.6	35.7	14.3		1.1	95.3	3.6	0		7	1.7	90.9	0.3		
PHF	.975	.856	.500	.000	.913	.375	1.00	.417	.500	.700	.417	.938	.571	.000	.943	.875	.417	.954	.250	.955	.941



Connecticut Counts LLC

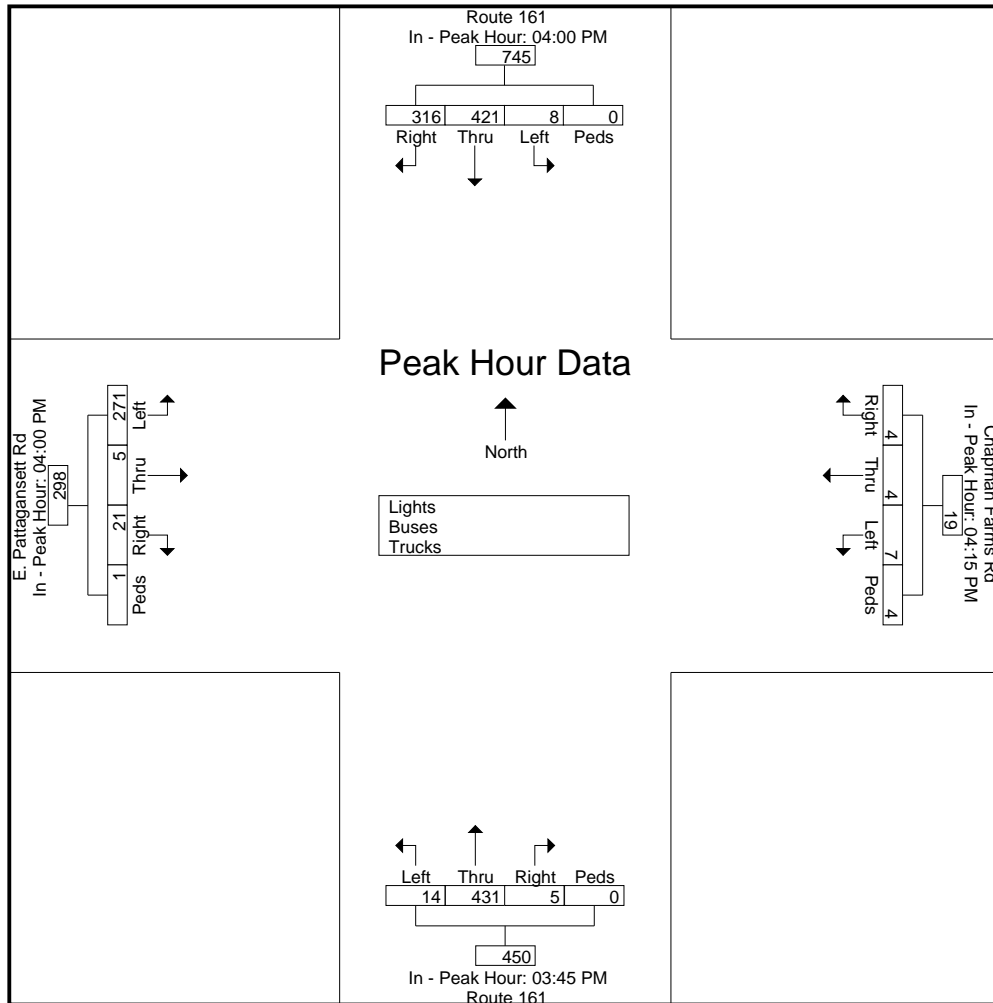
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23091
Site Code : 23091
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM					04:15 PM					03:45 PM					04:00 PM				
+0 mins.	78	97	1	0	176	2	1	0	1	4	1	98	3	0	102	5	0	62	0	67
+15 mins.	79	123	2	0	204	0	1	3	0	4	1	107	7	0	115	5	3	67	1	76
+30 mins.	78	88	4	0	170	1	1	2	1	5	0	113	2	0	115	5	2	71	0	78
+45 mins.	81	113	1	0	195	1	1	2	2	6	3	113	2	0	118	6	0	71	0	77
Total Volume	316	421	8	0	745	4	4	7	4	19	5	431	14	0	450	21	5	271	1	298
% App. Total	42.4	56.5	1.1	0		21.1	21.1	36.8	21.1		1.1	95.8	3.1	0		7	1.7	90.9	0.3	
PHF	.975	.856	.500	.000	.913	.500	1.000	.583	.500	.792	.417	.954	.500	.000	.953	.875	.417	.954	.250	.955



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at E. Pattagansett/Chapman Far
East Lyme, Connecticut

File Name : 23092
Site Code : 23092
Start Date : 6/4/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	73	125	2	0	200	0	0	3	1	4	0	100	3	0	103	6	0	58	0	64	371
11:15 AM	69	108	0	0	177	0	0	0	1	1	1	122	2	0	125	6	0	61	0	67	370
11:30 AM	60	113	5	0	178	2	0	1	1	4	1	100	2	0	103	3	0	62	0	65	350
11:45 AM	57	127	0	0	184	2	1	0	0	3	0	114	1	0	115	3	0	49	0	52	354
Total	259	473	7	0	739	4	1	4	3	12	2	436	8	0	446	18	0	230	0	248	1445
12:00 PM	72	125	1	0	198	1	2	2	0	5	0	93	5	0	98	6	0	59	0	65	366
12:15 PM	68	106	1	0	175	4	1	1	1	7	1	91	1	1	94	5	0	57	0	62	338
12:30 PM	89	133	0	0	222	0	2	0	0	2	2	117	0	0	119	6	2	70	0	78	421
12:45 PM	61	113	0	0	174	2	0	0	0	2	0	93	2	0	95	2	1	47	0	50	321
Total	290	477	2	0	769	7	5	3	1	16	3	394	8	1	406	19	3	233	0	255	1446
01:00 PM	85	113	8	0	206	3	1	2	0	6	2	94	2	3	101	4	0	49	1	54	367
01:15 PM	66	110	5	0	181	1	2	1	0	4	0	100	4	0	104	1	10	48	0	59	348
01:30 PM	64	108	1	0	173	1	2	1	0	4	0	104	0	0	104	5	5	56	0	66	347
01:45 PM	67	95	2	0	164	0	1	3	0	4	2	101	2	1	106	2	0	54	1	57	331
Total	282	426	16	0	724	5	6	7	0	18	4	399	8	4	415	12	15	207	2	236	1393
Grand Total	831	1376	25	0	2232	16	12	14	4	46	9	1229	24	5	1267	49	18	670	2	739	4284
Apprch %	37.2	61.6	1.1	0		34.8	26.1	30.4	8.7		0.7	97	1.9	0.4		6.6	2.4	90.7	0.3		
Total %	19.4	32.1	0.6	0	52.1	0.4	0.3	0.3	0.1	1.1	0.2	28.7	0.6	0.1	29.6	1.1	0.4	15.6	0	17.3	
Lights	830	1376										1228									
% Lights	99.9	100	100	0	100	100	100	100	100	100	100	99.9	100	100	99.9	100	100	100	100	100	100
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
% Trucks	0.1	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

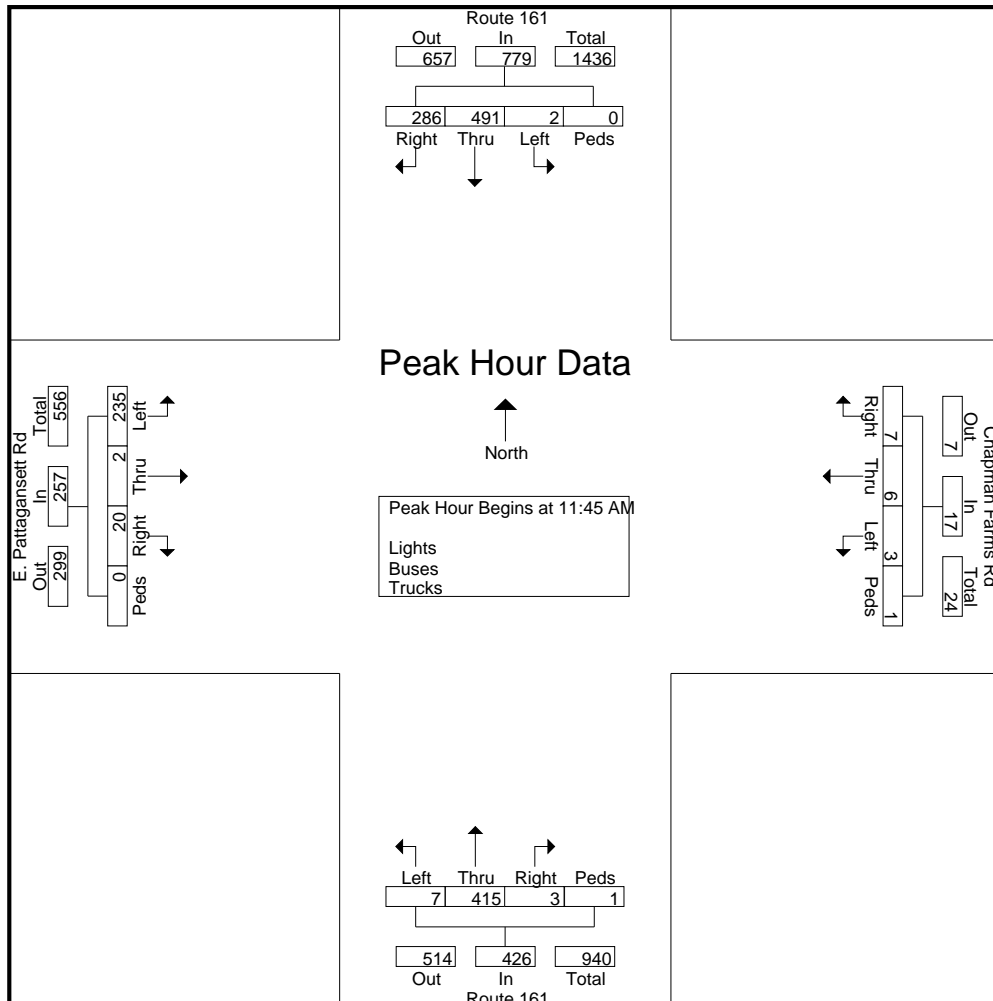
File Name : 23092
Site Code : 23092
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 11:45 AM

11:45 AM	57	127	0	0	184	2	1	0	0	3	0	114	1	0	115	3	0	49	0	52	354
12:00 PM	72	125	1	0	198	1	2	2	0	5	0	93	5	0	98	6	0	59	0	65	366
12:15 PM	68	106	1	0	175	4	1	1	1	7	1	91	1	1	94	5	0	57	0	62	338
12:30 PM	89	133	0	0	222	0	2	0	0	2	2	117	0	0	119	6	2	70	0	78	421
Total Volume	286	491	2	0	779	7	6	3	1	17	3	415	7	1	426	20	2	235	0	257	1479
% App. Total	36.7	63	0.3	0		41.2	35.3	17.6	5.9		0.7	97.4	1.6	0.2		7.8	0.8	91.4	0		
PHF	.803	.923	.500	.000	.877	.438	.750	.375	.250	.607	.375	.887	.350	.250	.895	.833	.250	.839	.000	.824	.878



Connecticut Counts LLC

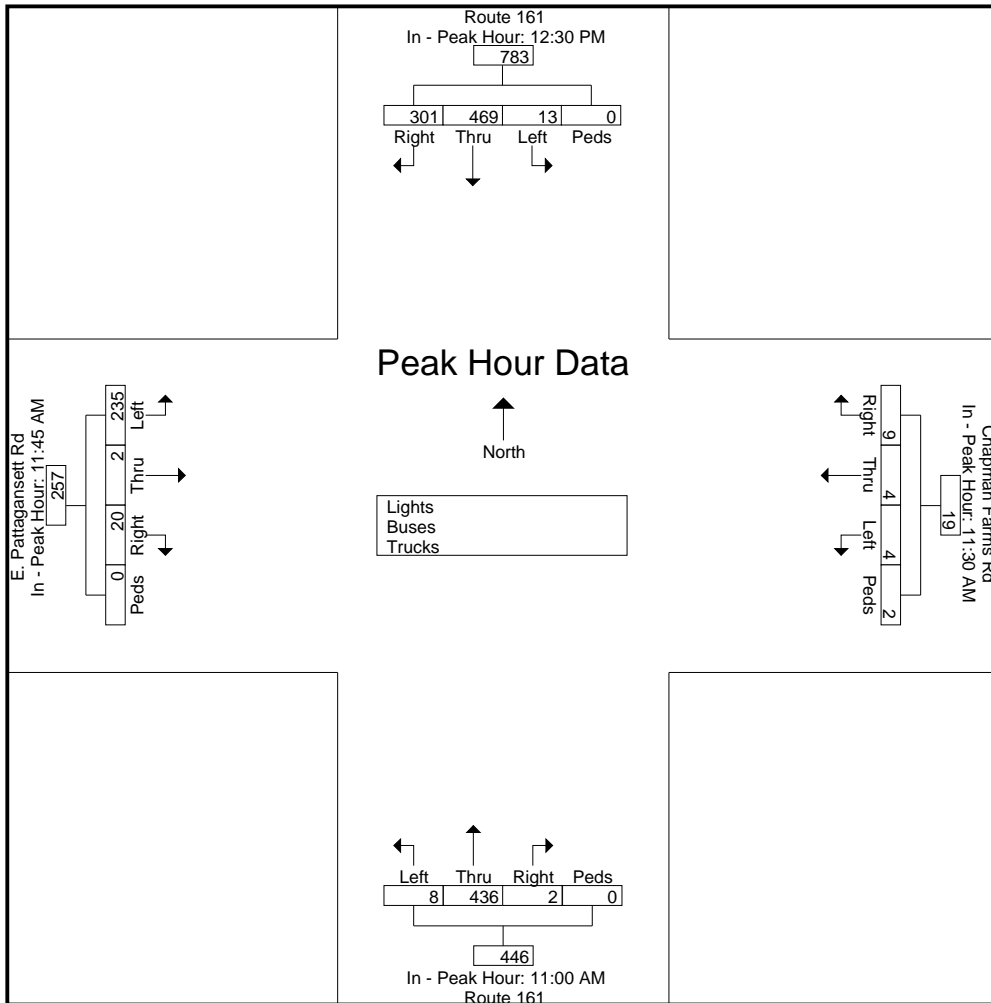
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23092
Site Code : 23092
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					Chapman Farms Rd From East					Route 161 From South					E. Pattagansett Rd From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:30 PM					11:30 AM					11:00 AM					11:45 AM				
+0 mins.	89	133	0	0	222	2	0	1	1	4	0	100	3	0	103	3	0	49	0	52
+15 mins.	61	113	0	0	174	2	1	0	0	3	1	122	2	0	125	6	0	59	0	65
+30 mins.	85	113	8	0	206	1	2	2	0	5	1	100	2	0	103	5	0	57	0	62
+45 mins.	66	110	5	0	181	4	1	1	1	7	0	114	1	0	115	6	2	70	0	78
Total Volume	301	469	13	0	783	9	4	4	2	19	2	436	8	0	446	20	2	235	0	257
% App. Total	38.4	59.9	1.7	0		47.4	21.1	21.1	10.5		0.4	97.8	1.8	0		7.8	0.8	91.4	0	
PHF	.846	.882	.406	.000	.882	.563	.500	.500	.500	.679	.500	.893	.667	.000	.892	.833	.250	.839	.000	.824



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Sleepy Hollow Road
 East Lyme, Connecticut

File Name : 23099
 Site Code : 23099
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Sleepy Hollow Road From North					Route 161 From East					From South					Route 161 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	4	0	5	0	9	0	109	0	0	109	0	0	0	0	0	0	98	1	0	99	217
03:15 PM	1	0	4	0	5	6	105	0	0	111	0	0	0	0	0	0	83	1	0	84	200
03:30 PM	2	0	5	0	7	5	117	0	0	122	0	0	0	0	0	0	95	0	0	95	224
03:45 PM	3	0	2	0	5	2	93	0	0	95	0	0	0	0	0	0	103	3	0	106	206
Total	10	0	16	0	26	13	424	0	0	437	0	0	0	0	0	0	379	5	0	384	847
04:00 PM	3	0	2	1	6	6	120	0	0	126	0	0	0	0	0	0	99	3	0	102	234
04:15 PM	2	0	7	1	10	4	111	0	0	115	0	0	0	0	0	0	120	1	0	121	246
04:30 PM	3	0	8	1	12	4	119	0	0	123	0	0	0	0	0	0	109	0	1	110	245
04:45 PM	6	0	6	0	12	4	109	0	0	113	0	0	0	0	0	0	120	4	0	124	249
Total	14	0	23	3	40	18	459	0	0	477	0	0	0	0	0	0	448	8	1	457	974
05:00 PM	4	0	5	1	10	5	95	0	0	100	0	0	0	0	0	0	88	1	1	90	200
05:15 PM	4	0	3	1	8	2	104	0	0	106	0	0	0	0	0	0	117	6	0	123	237
05:30 PM	0	0	8	2	10	7	81	0	0	88	0	0	0	0	0	0	87	3	0	90	188
05:45 PM	2	0	4	0	6	7	83	0	0	90	0	0	0	0	0	0	80	1	0	81	177
Total	10	0	20	4	34	21	363	0	0	384	0	0	0	0	0	0	372	11	1	384	802
Grand Total	34	0	59	7	100	52	1246	0	0	1298	0	0	0	0	0	0	1199	24	2	1225	2623
Apprch %	34	0	59	7		4	96	0	0		0	0	0	0		0	97.9	2	0.2		
Total %	1.3	0	2.2	0.3	3.8	2	47.5	0	0	49.5	0	0	0	0	0	0	45.7	0.9	0.1	46.7	
Lights	31	0	58	7	96	52	1238									1195					
% Lights	91.2	0	98.3	100	96	100	99.4	0	0	99.4	0	0	0	0	0	0	99.7	87.5	100	99.4	99.3
Buses	3	0	1	0	4	0	4	0	0	4	0	0	0	0	0	0	1	2	0	3	11
% Buses	8.8	0	1.7	0	4	0	0.3	0	0	0.3	0	0	0	0	0	0	0.1	8.3	0	0.2	0.4
Trucks	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	1	0	4	8
% Trucks	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0	0.3	4.2	0	0.3	0.3

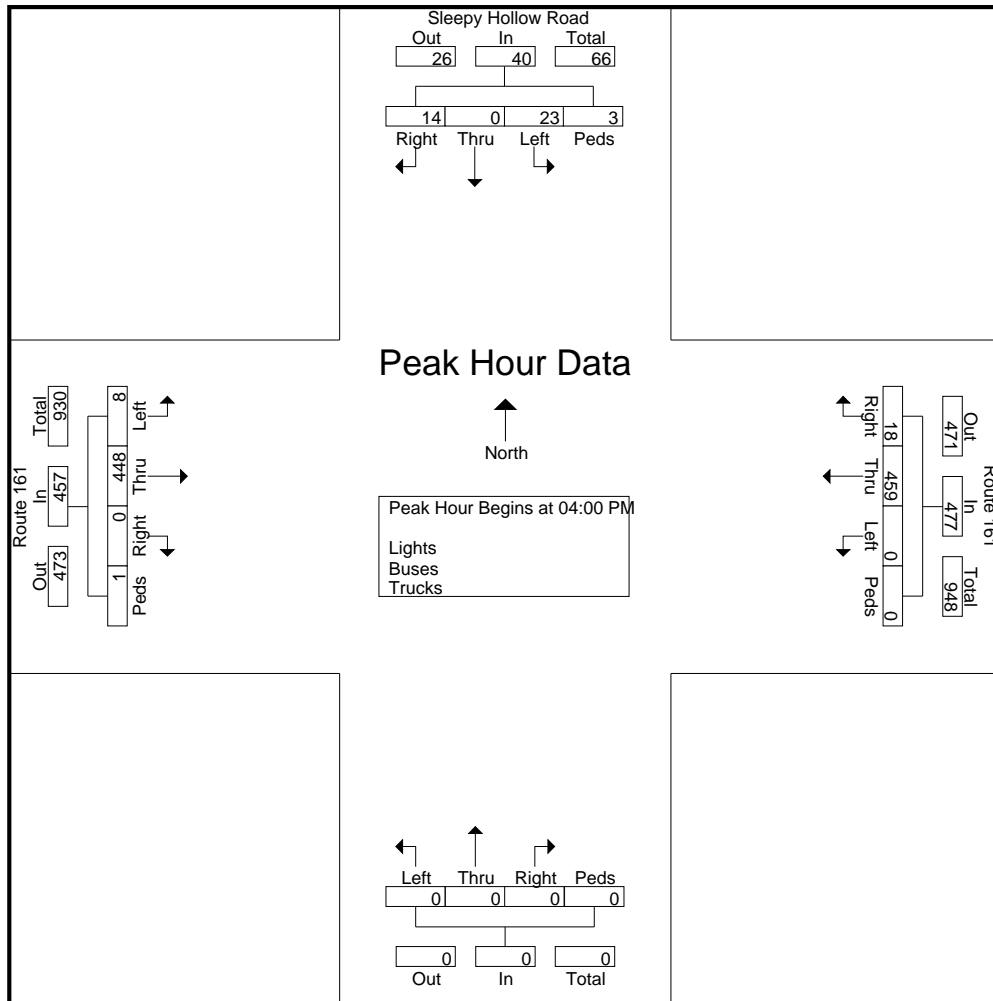
Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23099
Site Code : 23099
Start Date : 5/24/2022
Page No : 2

Start Time	Sleepy Hollow Road From North					Route 161 From East					From South					Route 161 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	3	0	2	1	6	6	120	0	0	126	0	0	0	0	0	0	99	3	0	102	234
04:15 PM	2	0	7	1	10	4	111	0	0	115	0	0	0	0	0	0	120	1	0	121	246
04:30 PM	3	0	8	1	12	4	119	0	0	123	0	0	0	0	0	0	109	0	1	110	245
04:45 PM	6	0	6	0	12	4	109	0	0	113	0	0	0	0	0	0	120	4	0	124	249
Total Volume	14	0	23	3	40	18	459	0	0	477	0	0	0	0	0	0	448	8	1	457	974
% App. Total	35	0	57.5	7.5		3.8	96.2	0	0		0	0	0	0		0	98	1.8	0.2		
PHF	.583	.000	.719	.750	.833	.750	.956	.000	.000	.946	.000	.000	.000	.000	.000	.000	.933	.500	.250	.921	.978

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM



Connecticut Counts LLC

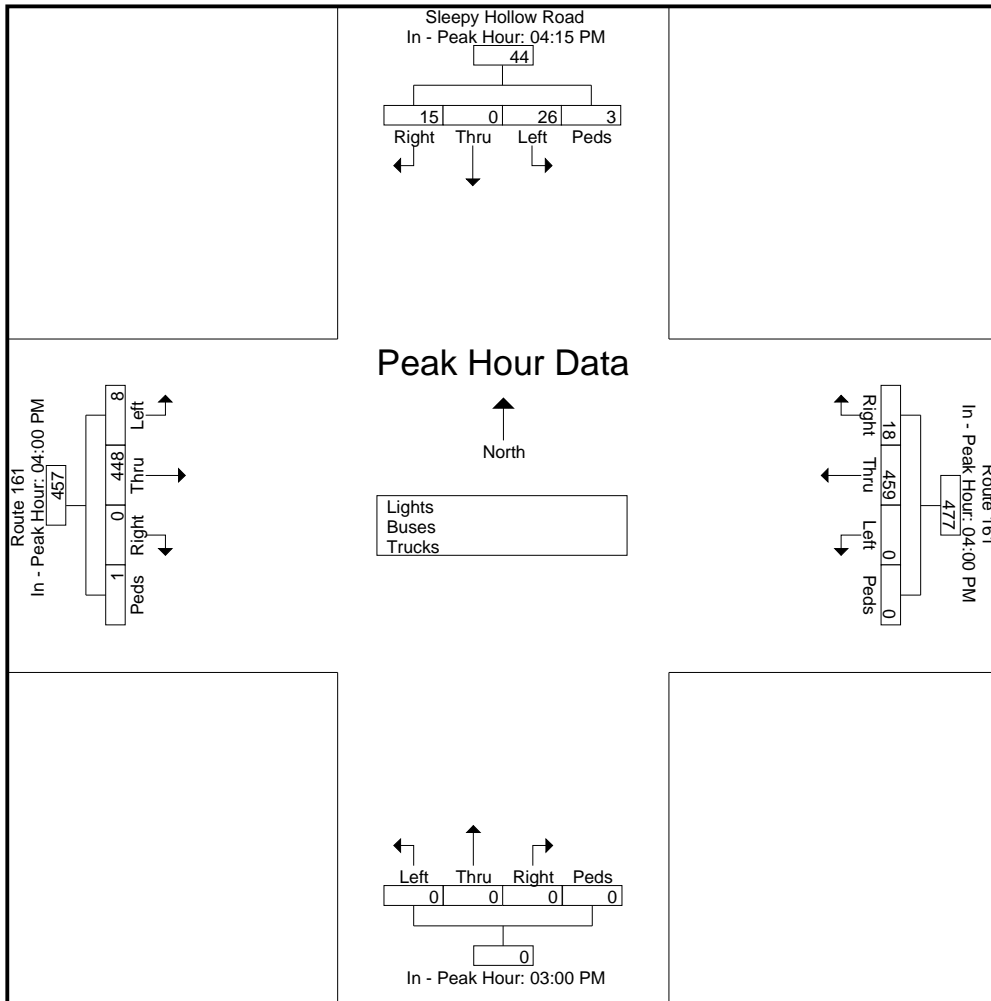
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23099
 Site Code : 23099
 Start Date : 5/24/2022
 Page No : 3

Start Time	Sleepy Hollow Road From North					Route 161 From East					From South					Route 161 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM					04:00 PM					03:00 PM					04:00 PM				
+0 mins.	2	0	7	1	10	6	120	0	0	126	0	0	0	0	0	0	99	3	0	102
+15 mins.	3	0	8	1	12	4	111	0	0	115	0	0	0	0	0	0	120	1	0	121
+30 mins.	6	0	6	0	12	4	119	0	0	123	0	0	0	0	0	0	109	0	1	110
+45 mins.	4	0	5	1	10	4	109	0	0	113	0	0	0	0	0	0	120	4	0	124
Total Volume	15	0	26	3	44	18	459	0	0	477	0	0	0	0	0	0	448	8	1	457
% App. Total	34.1	0	59.1	6.8		3.8	96.2	0	0		0	0	0	0		0	98	1.8	0.2	
PHF	.625	.000	.813	.750	.917	.750	.956	.000	.000	.946	.000	.000	.000	.000	.000	.000	.933	.500	.250	.921



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Sleepy Hollow Road
East Lyme, Connecticut

File Name : 23100
Site Code : 23100
Start Date : 6/4/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Sleepy Hollow Road From North					Route 161 From East					From South					Route 161 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	1	0	4	0	5	4	95	0	1	100	0	0	0	0	0	0	115	4	3	122	227
11:15 AM	3	0	2	0	5	5	126	0	1	132	0	0	1	0	1	0	121	0	1	122	260
11:30 AM	4	0	7	0	11	2	105	0	0	107	0	0	0	0	0	0	112	3	0	115	233
11:45 AM	1	0	1	0	2	4	112	0	0	116	0	0	0	0	0	0	123	2	0	125	243
Total	9	0	14	0	23	15	438	0	2	455	0	0	1	0	1	0	471	9	4	484	963
12:00 PM	3	0	4	0	7	4	87	0	0	91	0	0	0	0	0	0	130	2	1	133	231
12:15 PM	1	0	0	1	2	5	97	0	0	102	0	0	0	0	0	0	113	1	0	114	218
12:30 PM	2	0	2	1	5	2	101	0	0	103	0	0	0	0	0	0	117	1	1	119	227
12:45 PM	1	0	4	0	5	3	90	0	0	93	0	0	0	0	0	0	116	2	0	118	216
Total	7	0	10	2	19	14	375	0	0	389	0	0	0	0	0	0	476	6	2	484	892
01:00 PM	2	0	5	0	7	4	97	0	0	101	0	0	0	0	0	0	108	5	1	114	222
01:15 PM	4	0	4	0	8	5	101	0	0	106	0	0	0	0	0	0	117	1	0	118	232
01:30 PM	2	0	1	0	3	4	102	0	0	106	0	0	0	0	0	0	109	2	1	112	221
01:45 PM	1	0	2	1	4	1	104	0	0	105	0	0	0	0	0	0	94	4	3	101	210
Total	9	0	12	1	22	14	404	0	0	418	0	0	0	0	0	0	428	12	5	445	885
Grand Total	25	0	36	3	64	43	1217	0	2	1262	0	0	1	0	1	0	1375	27	11	1413	2740
Apprch %	39.1	0	56.2	4.7		3.4	96.4	0	0.2		0	0	100	0		0	97.3	1.9	0.8		
Total %	0.9	0	1.3	0.1	2.3	1.6	44.4	0	0.1	46.1	0	0	0	0	0	0	50.2	1	0.4	51.6	
Lights	25	0	36	3	64	43	1216									1375					
% Lights	100	0	100	100	100	100	99.9	0	100	99.9	0	0	100	0	100	0	100	100	100	100	100
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

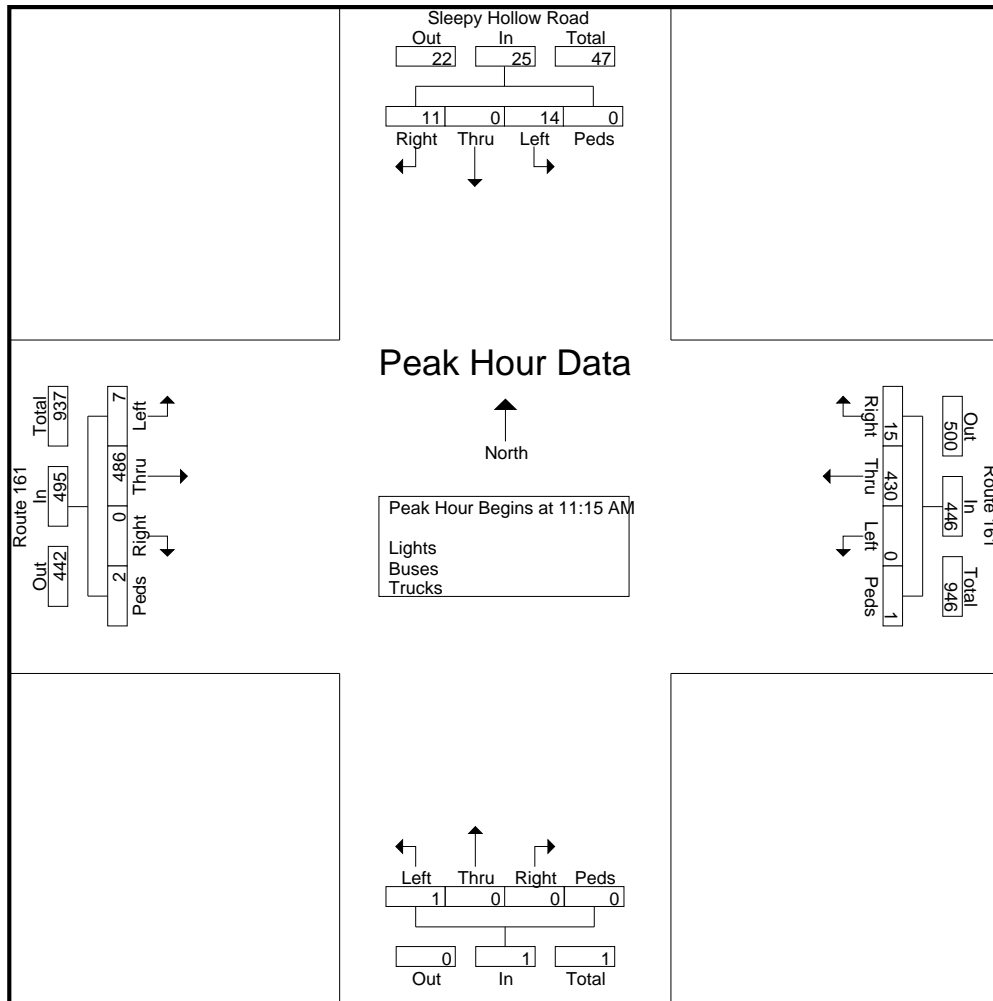
File Name : 23100
Site Code : 23100
Start Date : 6/4/2022
Page No : 2

Start Time	Sleepy Hollow Road From North					Route 161 From East					From South					Route 161 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 11:15 AM

11:15 AM	3	0	2	0	5	5	126	0	1	132	0	0	1	0	1	0	121	0	1	122	260
11:30 AM	4	0	7	0	11	2	105	0	0	107	0	0	0	0	0	0	112	3	0	115	233
11:45 AM	1	0	1	0	2	4	112	0	0	116	0	0	0	0	0	0	123	2	0	125	243
12:00 PM	3	0	4	0	7	4	87	0	0	91	0	0	0	0	0	0	130	2	1	133	231
Total Volume	11	0	14	0	25	15	430	0	1	446	0	0	1	0	1	0	486	7	2	495	967
% App. Total	44	0	56	0		3.4	96.4	0	0.2		0	0	100	0		0	98.2	1.4	0.4		
PHF	.688	.000	.500	.000	.568	.750	.853	.000	.250	.845	.000	.000	.250	.000	.250	.000	.935	.583	.500	.930	.930



Connecticut Counts LLC

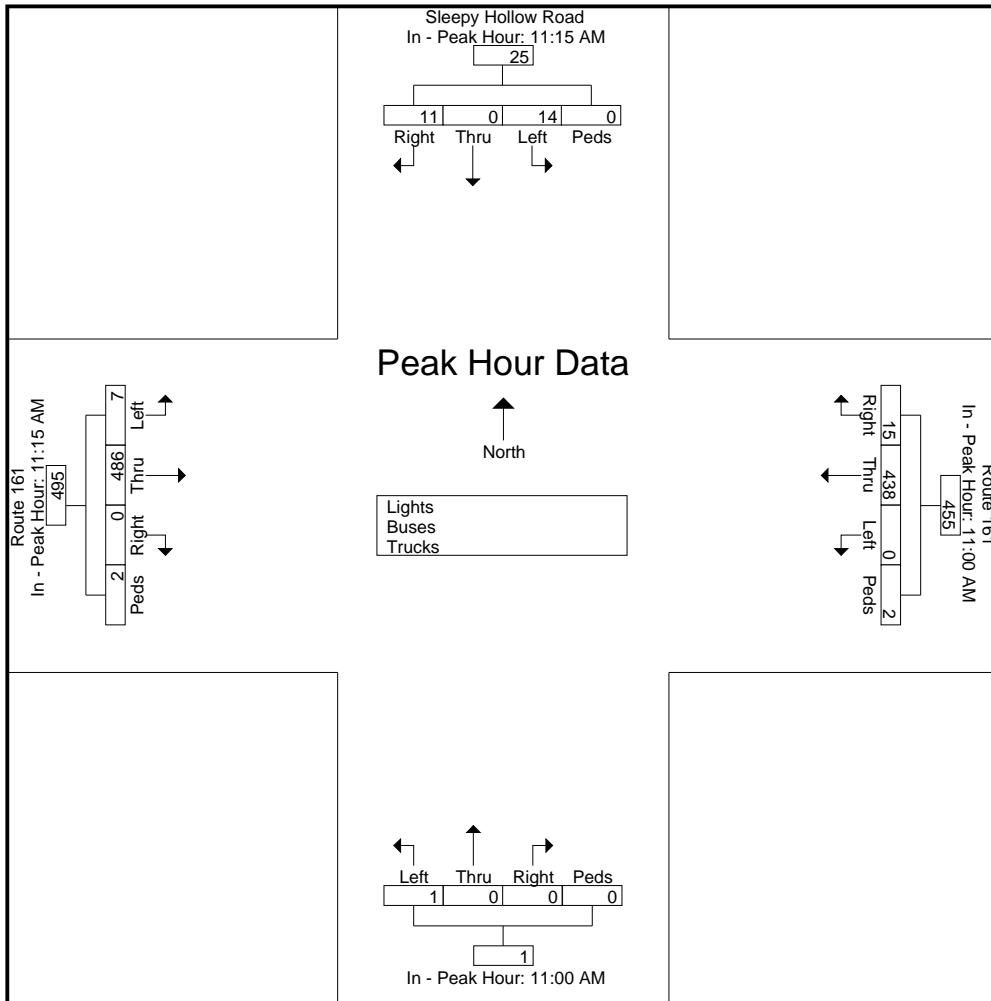
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23100
Site Code : 23100
Start Date : 6/4/2022
Page No : 3

Start Time	Sleepy Hollow Road From North					Route 161 From East					From South					Route 161 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:15 AM					11:00 AM					11:00 AM					11:15 AM				
+0 mins.	3	0	2	0	5	4	95	0	1	100	0	0	0	0	0	0	121	0	1	122
+15 mins.	4	0	7	0	11	5	126	0	1	132	0	0	1	0	1	0	112	3	0	115
+30 mins.	1	0	1	0	2	2	105	0	0	107	0	0	0	0	0	0	123	2	0	125
+45 mins.	3	0	4	0	7	4	112	0	0	116	0	0	0	0	0	0	130	2	1	133
Total Volume	11	0	14	0	25	15	438	0	2	455	0	0	1	0	1	0	486	7	2	495
% App. Total	44	0	56	0		3.3	96.3	0	0.4		0	0	100	0		0	98.2	1.4	0.4	
PHF	.688	.000	.500	.000	.568	.750	.869	.000	.500	.862	.000	.000	.250	.000	.250	.000	.935	.583	.500	.930



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Oswegatchie ill/Park Dr
 East Lyme, Connecticut

File Name : 23101
 Site Code : 23101
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Oswegatchie/Park Dr From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	0	91	13	0	104	12	0	8	0	20	12	93	0	0	105	0	0	0	0	0	229
03:15 PM	0	78	12	0	90	10	0	5	0	15	11	104	0	0	115	0	0	0	0	0	220
03:30 PM	0	86	13	0	99	11	0	4	0	15	8	107	0	0	115	0	0	0	0	0	229
03:45 PM	0	88	11	1	100	10	0	6	1	17	14	91	0	0	105	0	0	0	0	0	222
Total	0	343	49	1	393	43	0	23	1	67	45	395	0	0	440	0	0	0	0	0	900
04:00 PM	0	97	9	1	107	17	0	9	0	26	5	112	0	0	117	0	0	0	0	0	250
04:15 PM	0	118	15	1	134	16	0	4	2	22	12	95	0	0	107	0	0	0	0	0	263
04:30 PM	0	104	18	0	122	15	1	12	0	28	9	117	0	0	126	0	0	0	0	0	276
04:45 PM	0	96	14	2	112	16	0	5	0	21	10	77	0	0	87	0	0	0	0	0	220
Total	0	415	56	4	475	64	1	30	2	97	36	401	0	0	437	0	0	0	0	0	1009
05:00 PM	0	89	10	1	100	13	0	10	1	24	15	95	0	0	110	0	0	0	0	0	234
05:15 PM	0	96	20	1	117	14	0	7	2	23	8	93	0	0	101	0	0	0	0	0	241
05:30 PM	0	92	8	0	100	11	0	12	1	24	5	79	0	0	84	0	0	0	0	0	208
05:45 PM	0	80	8	0	88	5	0	5	1	11	9	85	0	0	94	0	0	0	0	0	193
Total	0	357	46	2	405	43	0	34	5	82	37	352	0	0	389	0	0	0	0	0	876
Grand Total	0	1115	151	7	1273	150	1	87	8	246	118	1148	0	0	1266	0	0	0	0	0	2785
Apprch %	0	87.6	11.9	0.5		61	0.4	35.4	3.3		9.3	90.7	0	0		0	0	0	0		
Total %	0	40	5.4	0.3	45.7	5.4	0	3.1	0.3	8.8	4.2	41.2	0	0	45.5	0	0	0	0	0	
Lights	0	1108									1144										
% Lights	0	99.4	100	100	99.5	99.3	100	98.9	100	99.2	97.5	99.7	0	0	99.4	0	0	0	0	0	99.4
Buses	0	4	0	0	4	1	0	1	0	2	3	1	0	0	4	0	0	0	0	0	10
% Buses	0	0.4	0	0	0.3	0.7	0	1.1	0	0.8	2.5	0.1	0	0	0.3	0	0	0	0	0	0.4
Trucks	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
% Trucks	0	0.3	0	0	0.2	0	0	0	0	0	0	0.3	0	0	0.2	0	0	0	0	0	0.2

Connecticut Counts LLC

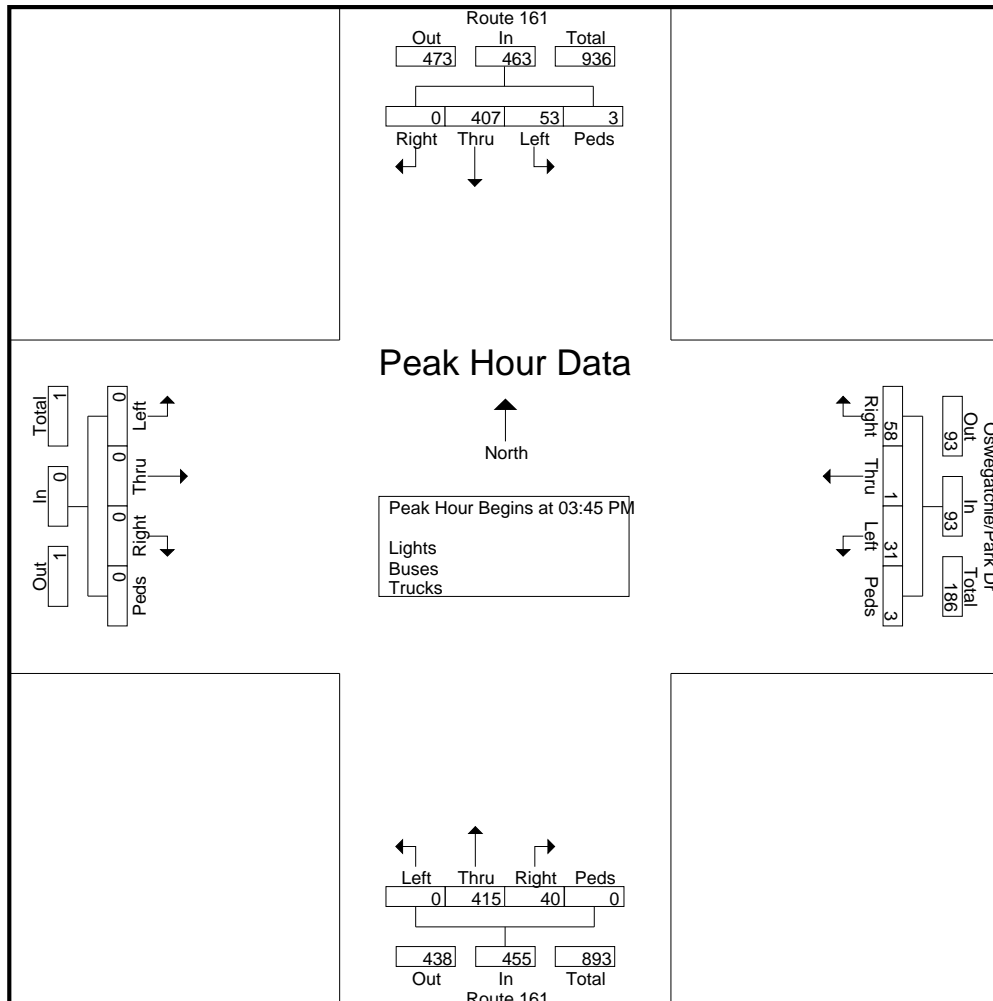
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23101
 Site Code : 23101
 Start Date : 5/24/2022
 Page No : 2

Start Time	Route 161 From North					Oswegatchie/Park Dr From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 03:45 PM

03:45 PM	0	88	11	1	100	10	0	6	1	17	14	91	0	0	105	0	0	0	0	0	222
04:00 PM	0	97	9	1	107	17	0	9	0	26	5	112	0	0	117	0	0	0	0	0	250
04:15 PM	0	118	15	1	134	16	0	4	2	22	12	95	0	0	107	0	0	0	0	0	263
04:30 PM	0	104	18	0	122	15	1	12	0	28	9	117	0	0	126	0	0	0	0	0	276
Total Volume	0	407	53	3	463	58	1	31	3	93	40	415	0	0	455	0	0	0	0	0	1011
% App. Total	0	87.9	11.4	0.6		62.4	1.1	33.3	3.2		8.8	91.2	0	0		0	0	0	0		
PHF	.000	.862	.736	.750	.864	.853	.250	.646	.375	.830	.714	.887	.000	.000	.903	.000	.000	.000	.000	.000	.916



Connecticut Counts LLC

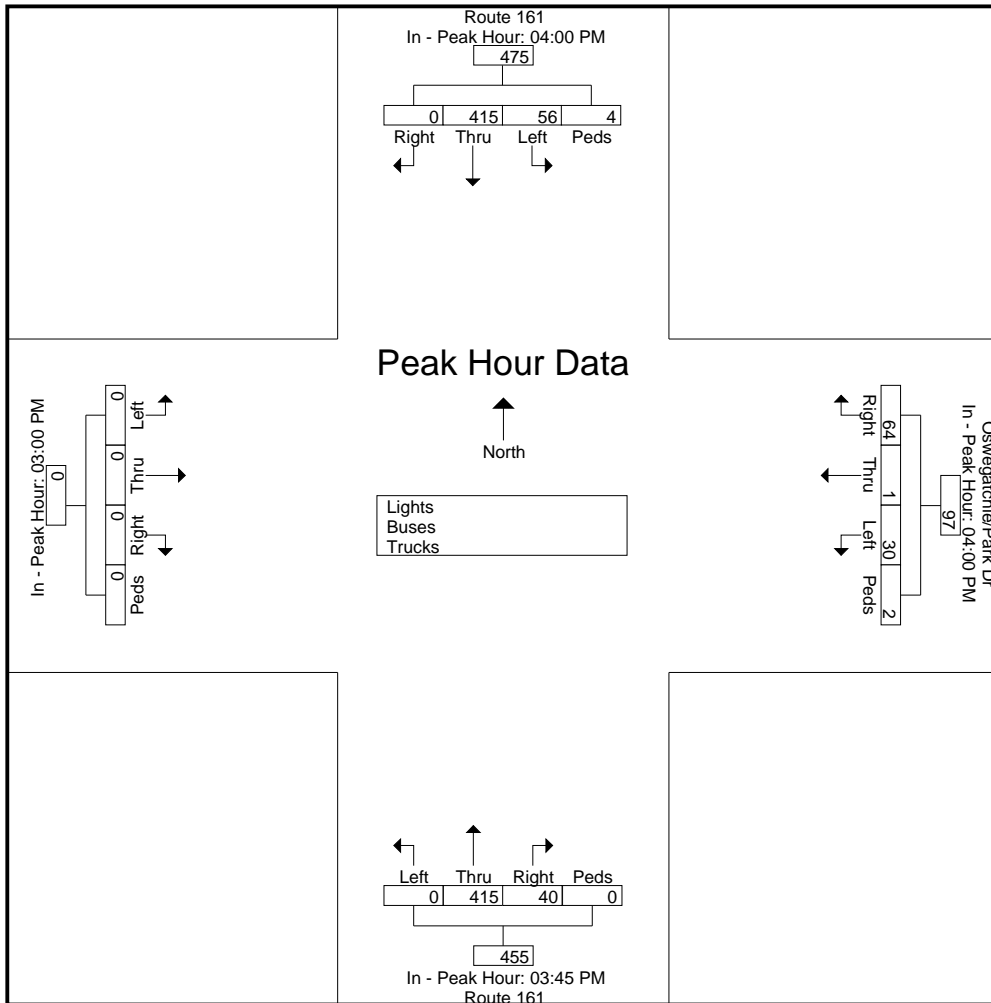
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23101
Site Code : 23101
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North					Oswegatchie/Park Dr From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM					04:00 PM					03:45 PM					03:00 PM				
+0 mins.	0	97	9	1	107	17	0	9	0	26	14	91	0	0	105	0	0	0	0	0
+15 mins.	0	118	15	1	134	16	0	4	2	22	5	112	0	0	117	0	0	0	0	0
+30 mins.	0	104	18	0	122	15	1	12	0	28	12	95	0	0	107	0	0	0	0	0
+45 mins.	0	96	14	2	112	16	0	5	0	21	9	117	0	0	126	0	0	0	0	0
Total Volume	0	415	56	4	475	64	1	30	2	97	40	415	0	0	455	0	0	0	0	0
% App. Total	0	87.4	11.8	0.8		66	1	30.9	2.1		8.8	91.2	0	0		0	0	0	0	
PHF	.000	.879	.778	.500	.886	.941	.250	.625	.250	.866	.714	.887	.000	.000	.903	.000	.000	.000	.000	.000



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Oswegatchie/Park Dr
 East Lyme, Connecticut

File Name : 23102
 Site Code : 23102
 Start Date : 6/4/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Oswegatchie/Park Dr From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	0	112	13	0	125	11	0	5	2	18	9	89	0	0	98	0	0	0	0	0	241
11:15 AM	0	118	11	1	130	15	4	10	0	29	12	127	0	0	139	0	0	0	0	0	298
11:30 AM	0	101	16	0	117	14	0	7	0	21	4	92	0	0	96	0	0	0	0	0	234
11:45 AM	0	114	16	0	130	9	0	7	0	16	12	111	0	0	123	0	0	0	0	0	269
Total	0	445	56	1	502	49	4	29	2	84	37	419	0	0	456	0	0	0	0	0	1042
12:00 PM	0	112	18	0	130	12	0	8	0	20	8	80	0	0	88	0	0	0	0	0	238
12:15 PM	0	108	14	0	122	15	0	11	0	26	12	87	0	0	99	0	0	0	0	0	247
12:30 PM	0	100	16	0	116	5	0	8	0	13	7	93	0	0	100	0	0	0	0	0	229
12:45 PM	0	109	10	0	119	14	0	7	0	21	8	89	0	0	97	0	0	0	0	0	237
Total	0	429	58	0	487	46	0	34	0	80	35	349	0	0	384	0	0	0	0	0	951
01:00 PM	0	98	17	0	115	15	0	7	0	22	8	84	0	0	92	0	0	0	0	0	229
01:15 PM	0	113	17	0	130	15	0	3	0	18	9	97	0	0	106	0	0	0	0	0	254
01:30 PM	0	93	21	0	114	17	0	7	0	24	15	86	0	0	101	0	0	0	0	0	239
01:45 PM	0	85	10	0	95	15	0	10	0	25	4	95	0	2	101	0	0	0	0	0	221
Total	0	389	65	0	454	62	0	27	0	89	36	362	0	2	400	0	0	0	0	0	943
Grand Total	0	1263	179	1	1443	157	4	90	2	253	108	1130	0	2	1240	0	0	0	0	0	2936
Apprch %	0	87.5	12.4	0.1		62.1	1.6	35.6	0.8		8.7	91.1	0	0.2		0	0	0	0		
Total %	0	43	6.1	0	49.1	5.3	0.1	3.1	0.1	8.6	3.7	38.5	0	0.1	42.2	0	0	0	0	0	
Lights	0	1263										1129									
% Lights	0	100	100	100	100	100	100	100	100	100	100	99.9	0	100	99.9	0	0	0	0	0	100
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

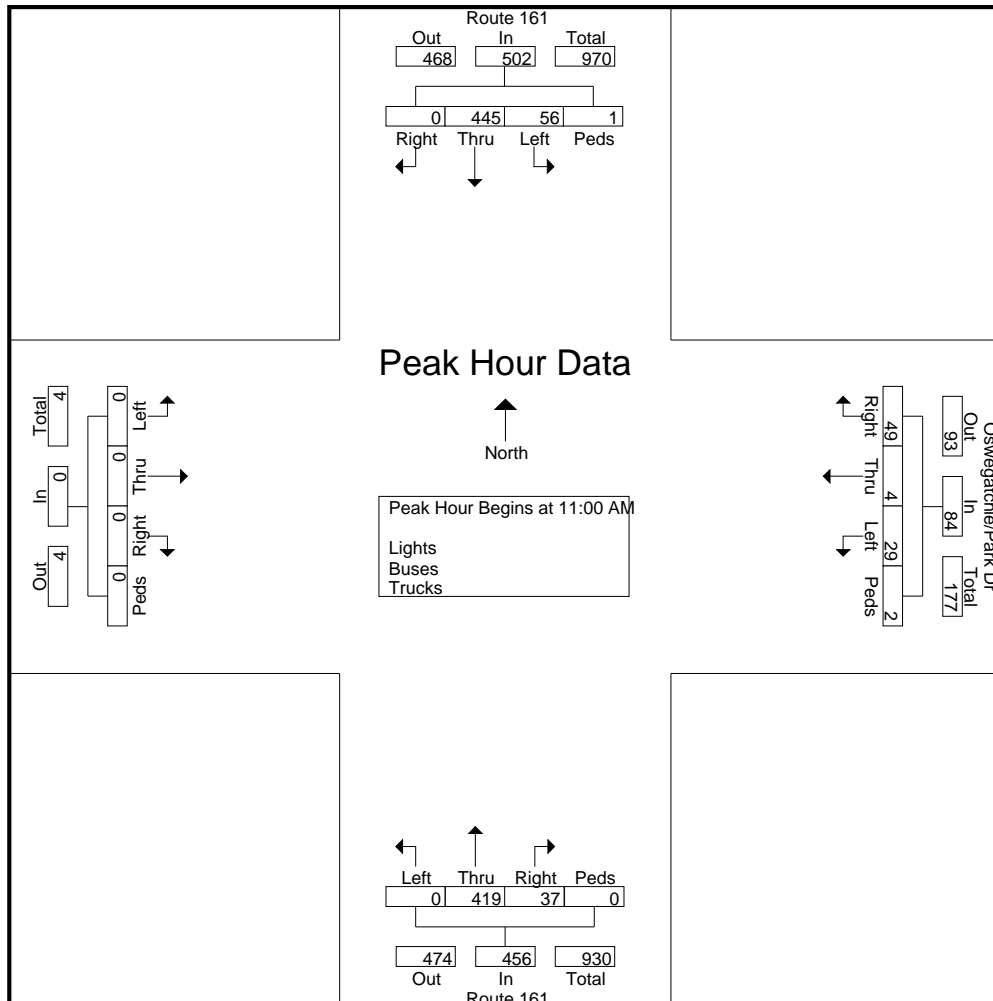
File Name : 23102
Site Code : 23102
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					Oswegatchie/Park Dr From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 11:00 AM

11:00 AM	0	112	13	0	125	11	0	5	2	18	9	89	0	0	98	0	0	0	0	0	241
11:15 AM	0	118	11	1	130	15	4	10	0	29	12	127	0	0	139	0	0	0	0	0	298
11:30 AM	0	101	16	0	117	14	0	7	0	21	4	92	0	0	96	0	0	0	0	0	234
11:45 AM	0	114	16	0	130	9	0	7	0	16	12	111	0	0	123	0	0	0	0	0	269
Total Volume	0	445	56	1	502	49	4	29	2	84	37	419	0	0	456	0	0	0	0	0	1042
% App. Total	0	88.6	11.2	0.2		58.3	4.8	34.5	2.4		8.1	91.9	0	0		0	0	0	0		
PHF	.000	.943	.875	.250	.965	.817	.250	.725	.250	.724	.771	.825	.000	.000	.820	.000	.000	.000	.000	.000	.874



Connecticut Counts LLC

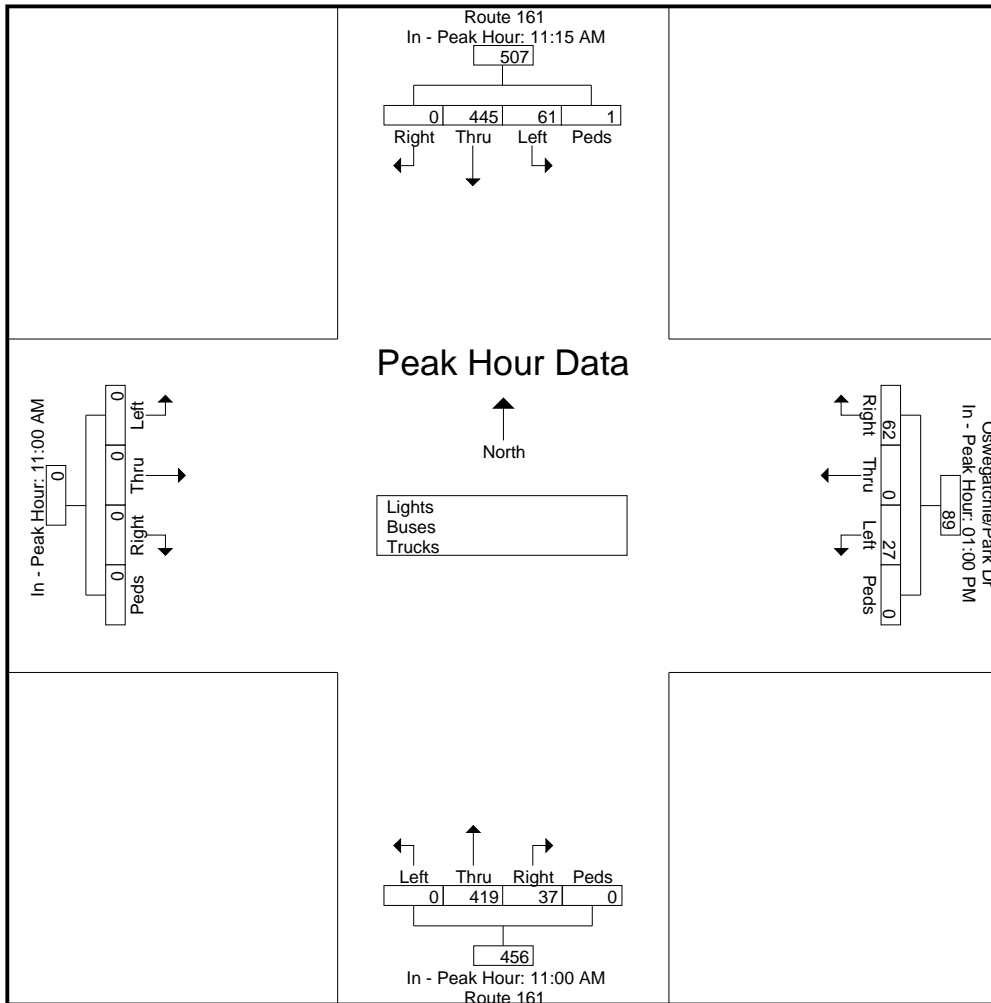
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23102
Site Code : 23102
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					Oswegatchie/Park Dr From East					Route 161 From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:15 AM					01:00 PM					11:00 AM					11:00 AM				
+0 mins.	0	118	11	1	130	15	0	7	0	22	9	89	0	0	98	0	0	0	0	0
+15 mins.	0	101	16	0	117	15	0	3	0	18	12	127	0	0	139	0	0	0	0	0
+30 mins.	0	114	16	0	130	17	0	7	0	24	4	92	0	0	96	0	0	0	0	0
+45 mins.	0	112	18	0	130	15	0	10	0	25	12	111	0	0	123	0	0	0	0	0
Total Volume	0	445	61	1	507	62	0	27	0	89	37	419	0	0	456	0	0	0	0	0
% App. Total	0	87.8	12	0.2		69.7	0	30.3	0		8.1	91.9	0	0		0	0	0	0	
PHF	.000	.943	.847	.250	.975	.912	.000	.675	.000	.890	.771	.825	.000	.000	.820	.000	.000	.000	.000	.000



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Lincoln St/State Rd
 East Lyme, Connecticut

File Name : 23107
 Site Code : 23107
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Lincoln Street From East					Route 161 From South					State Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	0	92	3	0	95	5	0	2	2	9	1	78	0	0	79	0	0	3	0	3	186
03:15 PM	1	88	1	0	90	0	0	1	4	5	2	104	0	0	106	5	0	2	0	7	208
03:30 PM	0	80	2	0	82	1	0	0	1	2	2	83	1	0	86	0	0	2	0	2	172
03:45 PM	1	85	3	0	89	1	0	1	1	3	1	91	1	0	93	1	0	5	3	9	194
Total	2	345	9	0	356	7	0	4	8	19	6	356	2	0	364	6	0	12	3	21	760
04:00 PM	1	103	1	0	105	2	0	1	2	5	2	91	0	1	94	1	0	4	0	5	209
04:15 PM	2	113	2	0	117	2	0	1	1	4	0	99	0	1	100	0	0	3	4	7	228
04:30 PM	0	100	0	0	100	1	0	1	1	3	2	73	0	3	78	1	0	7	2	10	191
04:45 PM	0	89	5	0	94	3	0	4	3	10	2	91	0	2	95	0	0	1	10	11	210
Total	3	405	8	0	416	8	0	7	7	22	6	354	0	7	367	2	0	15	16	33	838
05:00 PM	0	81	2	0	83	4	0	1	1	6	2	89	0	0	91	0	0	0	1	1	181
05:15 PM	0	98	0	0	98	1	0	0	0	1	2	84	0	3	89	1	0	2	2	5	193
05:30 PM	0	95	0	0	95	2	0	0	3	5	1	72	0	0	73	0	0	2	2	4	177
05:45 PM	1	80	2	0	83	1	0	1	1	3	4	94	0	0	98	1	0	1	5	7	191
Total	1	354	4	0	359	8	0	2	5	15	9	339	0	3	351	2	0	5	10	17	742
Grand Total	6	1104	21	0	1131	23	0	13	20	56	21	1049	2	10	1082	10	0	32	29	71	2340
Apprch %	0.5	97.6	1.9	0		41.1	0	23.2	35.7		1.9	97	0.2	0.9		14.1	0	45.1	40.8		
Total %	0.3	47.2	0.9	0	48.3	1	0	0.6	0.9	2.4	0.9	44.8	0.1	0.4	46.2	0.4	0	1.4	1.2	3	
Lights	6	1100									1041										
% Lights	100	99.6	95.2	0	99.6	100	0	92.3	100	98.2	95.2	99.2	100	100	99.2	100	0	100	100	100	99.4
Buses	0	1	1	0	2	0	0	1	0	1	1	3	0	0	4	0	0	0	0	0	7
% Buses	0	0.1	4.8	0	0.2	0	0	7.7	0	1.8	4.8	0.3	0	0	0.4	0	0	0	0	0	0.3
Trucks	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
% Trucks	0	0.3	0	0	0.3	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0.3

Connecticut Counts LLC

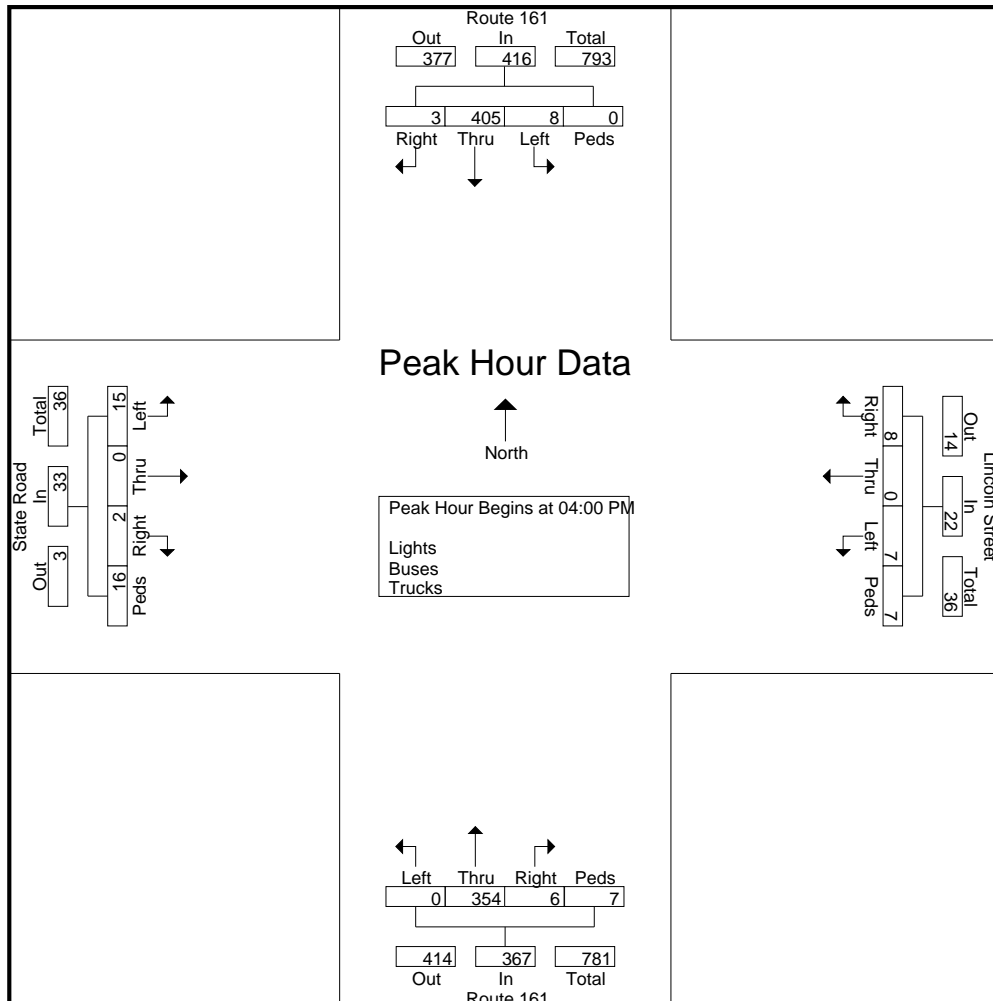
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23107
Site Code : 23107
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					Lincoln Street From East					Route 161 From South					State Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	1	103	1	0	105	2	0	1	2	5	2	91	0	1	94	1	0	4	0	5	209
04:15 PM	2	113	2	0	117	2	0	1	1	4	0	99	0	1	100	0	0	3	4	7	228
04:30 PM	0	100	0	0	100	1	0	1	1	3	2	73	0	3	78	1	0	7	2	10	191
04:45 PM	0	89	5	0	94	3	0	4	3	10	2	91	0	2	95	0	0	1	10	11	210
Total Volume	3	405	8	0	416	8	0	7	7	22	6	354	0	7	367	2	0	15	16	33	838
% App. Total	0.7	97.4	1.9	0		36.4	0	31.8	31.8		1.6	96.5	0	1.9		6.1	0	45.5	48.5		
PHF	.375	.896	.400	.000	.889	.667	.000	.438	.583	.550	.750	.894	.000	.583	.918	.500	.000	.536	.400	.750	.919



Connecticut Counts LLC

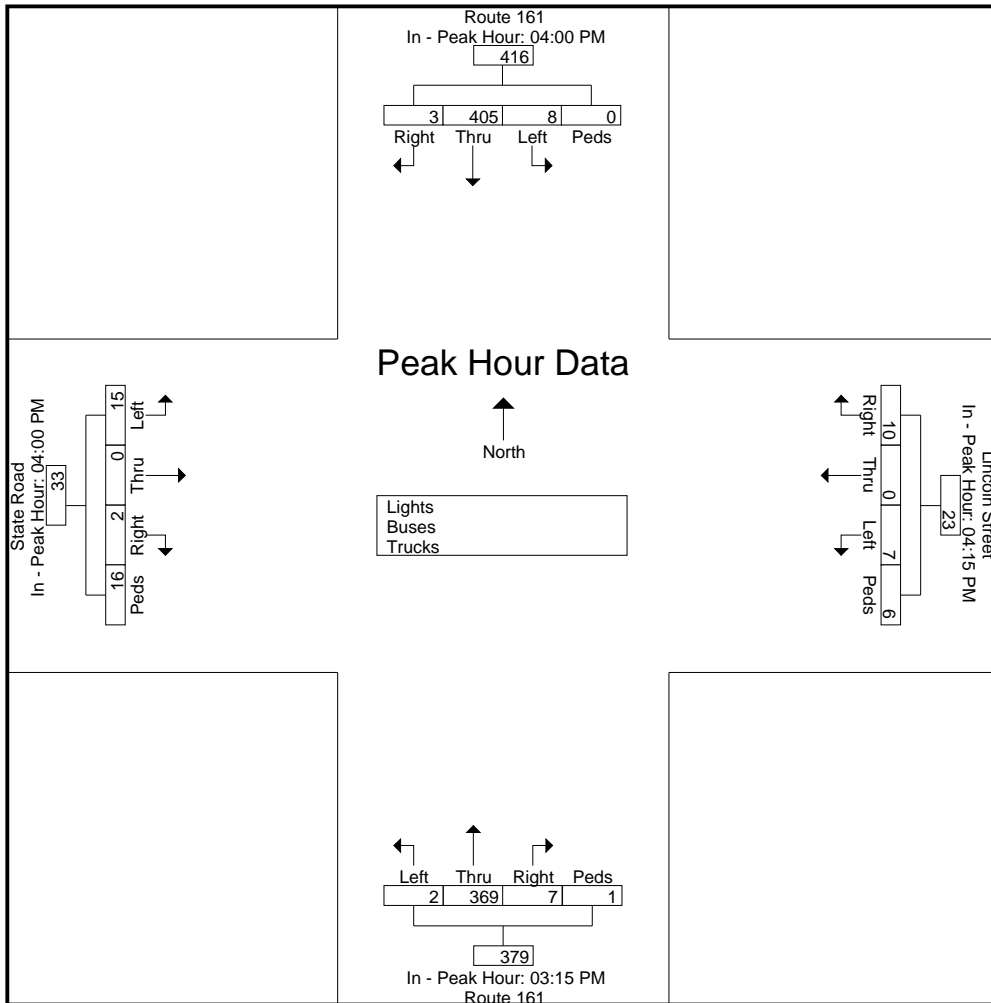
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23107
Site Code : 23107
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North					Lincoln Street From East					Route 161 From South					State Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM					04:15 PM					03:15 PM					04:00 PM				
+0 mins.	1	103	1	0	105	2	0	1	1	4	2	104	0	0	106	1	0	4	0	5
+15 mins.	2	113	2	0	117	1	0	1	1	3	2	83	1	0	86	0	0	3	4	7
+30 mins.	0	100	0	0	100	3	0	4	3	10	1	91	1	0	93	1	0	7	2	10
+45 mins.	0	89	5	0	94	4	0	1	1	6	2	91	0	1	94	0	0	1	10	11
Total Volume	3	405	8	0	416	10	0	7	6	23	7	369	2	1	379	2	0	15	16	33
% App. Total	0.7	97.4	1.9	0		43.5	0	30.4	26.1		1.8	97.4	0.5	0.3		6.1	0	45.5	48.5	
PHF	.375	.896	.400	.000	.889	.625	.000	.438	.500	.575	.875	.887	.500	.250	.894	.500	.000	.536	.400	.750



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Lincoln/State Rd
East Lyme, Connecticut

File Name : 23108
Site Code : 23108
Start Date : 6/4/2022
Page No : 1

Groups Printed- Lights - Buses - Trucks

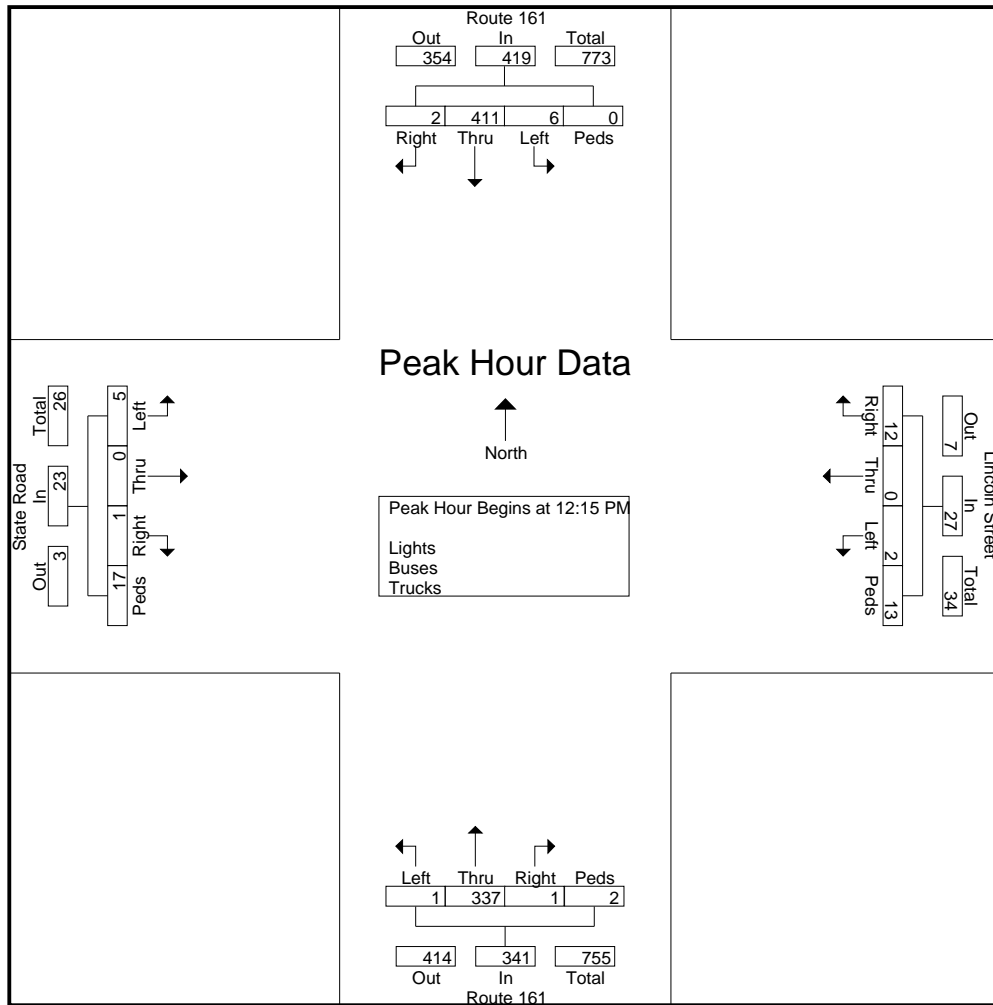
Start Time	Route 161 From North					Lincoln Street From East					Route 161 From South					State Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	0	119	2	0	121	4	0	0	0	4	1	73	1	1	76	1	0	1	4	6	207
11:15 AM	0	105	4	0	109	0	0	2	3	5	3	89	0	0	92	0	0	1	4	5	211
11:30 AM	0	96	1	0	97	1	1	2	1	5	1	82	0	0	83	0	0	1	0	1	186
11:45 AM	0	109	3	0	112	1	0	1	0	2	0	67	0	0	67	0	0	0	3	3	184
Total	0	429	10	0	439	6	1	5	4	16	5	311	1	1	318	1	0	3	11	15	788
12:00 PM	0	94	1	0	95	2	1	1	0	4	0	74	0	0	74	0	0	1	3	4	177
12:15 PM	0	103	2	0	105	6	0	0	1	7	0	83	1	0	84	0	0	1	1	2	198
12:30 PM	0	100	2	0	102	3	0	0	8	11	0	88	0	0	88	1	0	1	9	11	212
12:45 PM	0	84	1	0	85	2	0	0	3	5	0	84	0	2	86	0	0	2	5	7	183
Total	0	381	6	0	387	13	1	1	12	27	0	329	1	2	332	1	0	5	18	24	770
01:00 PM	2	124	1	0	127	1	0	2	1	4	1	82	0	0	83	0	0	1	2	3	217
01:15 PM	0	87	2	0	89	1	0	1	2	4	1	75	0	1	77	0	0	1	2	3	173
01:30 PM	0	94	3	0	97	1	0	2	1	4	3	76	0	2	81	0	0	0	11	11	193
01:45 PM	0	76	2	0	78	2	0	2	0	4	1	90	0	0	91	1	0	0	0	1	174
Total	2	381	8	0	391	5	0	7	4	16	6	323	0	3	332	1	0	2	15	18	757
Grand Total	2	1191	24	0	1217	24	2	13	20	59	11	963	2	6	982	3	0	10	44	57	2315
Apprch %	0.2	97.9	2	0		40.7	3.4	22	33.9		1.1	98.1	0.2	0.6		5.3	0	17.5	77.2		
Total %	0.1	51.4	1	0	52.6	1	0.1	0.6	0.9	2.5	0.5	41.6	0.1	0.3	42.4	0.1	0	0.4	1.9	2.5	
Lights	2	1191																			
% Lights	100	100	100	0	100	100	100	100	100	100	100	100	100	100	100	100	0	100	100	100	100
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 23108
Site Code : 23108
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					Lincoln Street From East					Route 161 From South					State Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15 PM																					
12:15 PM	0	103	2	0	105	6	0	0	1	7	0	83	1	0	84	0	0	1	1	2	198
12:30 PM	0	100	2	0	102	3	0	0	8	11	0	88	0	0	88	1	0	1	9	11	212
12:45 PM	0	84	1	0	85	2	0	0	3	5	0	84	0	2	86	0	0	2	5	7	183
01:00 PM	2	124	1	0	127	1	0	2	1	4	1	82	0	0	83	0	0	1	2	3	217
Total Volume	2	411	6	0	419	12	0	2	13	27	1	337	1	2	341	1	0	5	17	23	810
% App. Total	0.5	98.1	1.4	0		44.4	0	7.4	48.1		0.3	98.8	0.3	0.6		4.3	0	21.7	73.9		
PHF	.250	.829	.750	.000	.825	.500	.000	.250	.406	.614	.250	.957	.250	.250	.969	.250	.000	.625	.472	.523	.933



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

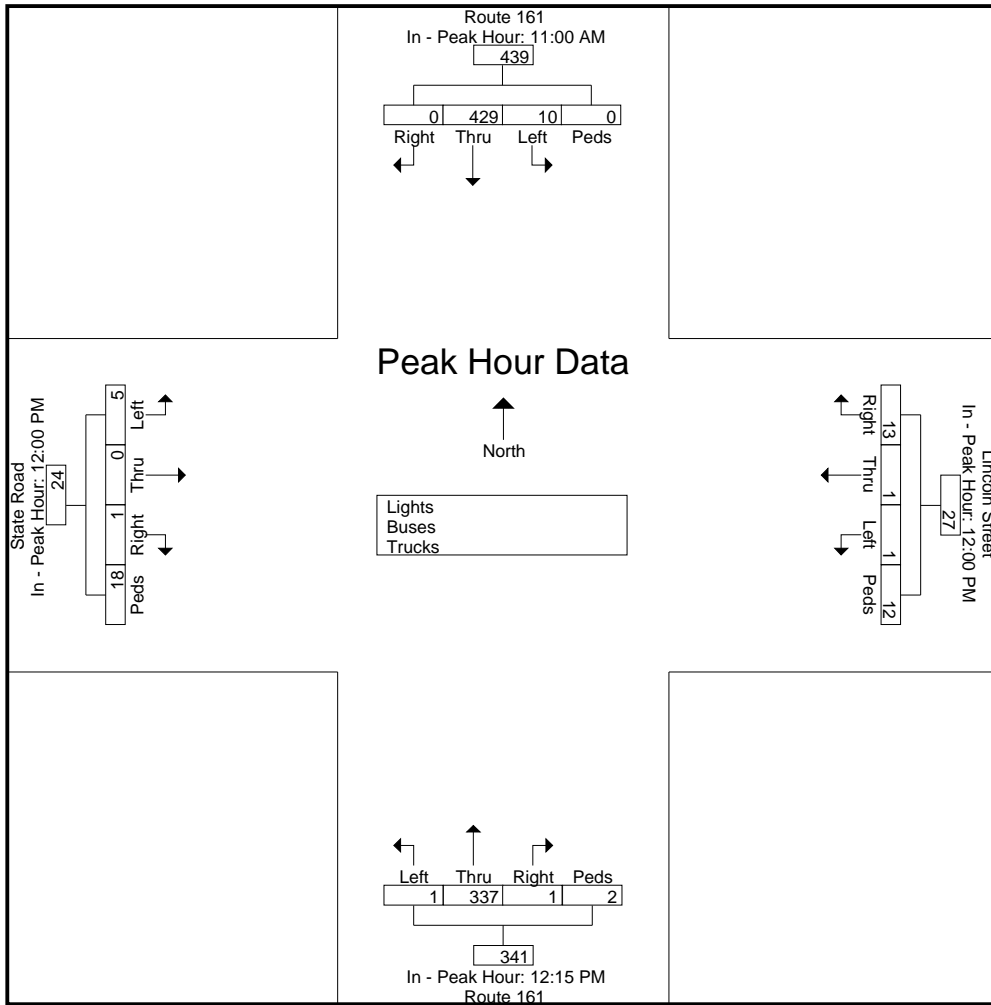
File Name : 23108
Site Code : 23108
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					Lincoln Street From East					Route 161 From South					State Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:00 AM					12:00 PM					12:15 PM					12:00 PM				
+0 mins.	0	119	2	0	121	2	1	1	0	4	0	83	1	0	84	0	0	1	3	4
+15 mins.	0	105	4	0	109	6	0	0	1	7	0	88	0	0	88	0	0	1	1	2
+30 mins.	0	96	1	0	97	3	0	0	8	11	0	84	0	2	86	1	0	1	9	11
+45 mins.	0	109	3	0	112	2	0	0	3	5	1	82	0	0	83	0	0	2	5	7
Total Volume	0	429	10	0	439	13	1	1	12	27	1	337	1	2	341	1	0	5	18	24
% App. Total	0	97.7	2.3	0		48.1	3.7	3.7	44.4		0.3	98.8	0.3	0.6		4.2	0	20.8	75	
PHF	.000	.901	.625	.000	.907	.542	.250	.250	.375	.614	.250	.957	.250	.250	.969	.250	.000	.625	.500	.545



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Hope Street
 East Lyme, Connecticut

File Name : 23097
 Site Code : 23097
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					From East					Route 161 From South					Hope Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	15	78	0	1	94	0	0	0	0	0	0	77	20	1	98	9	0	6	3	18	210
03:15 PM	17	70	0	1	88	0	0	0	0	0	0	88	17	2	107	10	0	7	0	17	212
03:30 PM	16	70	0	0	86	0	0	0	0	0	0	78	17	1	96	14	0	14	1	29	211
03:45 PM	20	72	0	0	92	0	0	0	0	0	0	92	11	1	104	12	0	13	2	27	223
Total	68	290	0	2	360	0	0	0	0	0	0	335	65	5	405	45	0	40	6	91	856
04:00 PM	15	88	0	0	103	0	0	0	0	0	0	72	10	4	86	14	0	12	5	31	220
04:15 PM	19	96	0	0	115	0	0	0	0	0	0	105	11	0	116	6	0	14	3	23	254
04:30 PM	18	89	0	0	107	0	0	0	0	0	0	74	9	0	83	13	0	10	4	27	217
04:45 PM	21	71	0	0	92	0	0	0	0	0	0	67	15	0	82	13	0	12	9	34	208
Total	73	344	0	0	417	0	0	0	0	0	0	318	45	4	367	46	0	48	21	115	899
05:00 PM	16	86	0	0	102	0	0	0	0	0	0	77	10	1	88	11	0	22	2	35	225
05:15 PM	17	92	0	0	109	0	0	0	0	0	0	95	8	2	105	3	0	10	2	15	229
05:30 PM	12	68	0	0	80	0	0	0	0	0	0	60	2	0	62	6	0	8	2	16	158
05:45 PM	15	70	0	0	85	0	0	0	0	0	0	78	5	1	84	7	0	13	4	24	193
Total	60	316	0	0	376	0	0	0	0	0	0	310	25	4	339	27	0	53	10	90	805
Grand Total	201	950	0	2	1153	0	0	0	0	0	0	963	135	13	1111	118	0	141	37	296	2560
Apprch %	17.4	82.4	0	0.2		0	0	0	0	0	0	86.7	12.2	1.2		39.9	0	47.6	12.5		
Total %	7.9	37.1	0	0.1	45	0	0	0	0	0	0	37.6	5.3	0.5	43.4	4.6	0	5.5	1.4	11.6	
Lights	199	947	0	2	1148	0	0	0	0	0	0	957	135	13	1105	118	0	141	37	296	2549
% Lights	99	99.7	0	100	99.6	0	0	0	0	0	0	99.4	100	100	99.5	100	0	100	100	100	99.6
Buses	1	1	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
% Buses	0.5	0.1	0	0	0.2	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0.2
Trucks	1	2	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
% Trucks	0.5	0.2	0	0	0.3	0	0	0	0	0	0	0.3	0	0	0.3	0	0	0	0	0	0.2

Connecticut Counts LLC

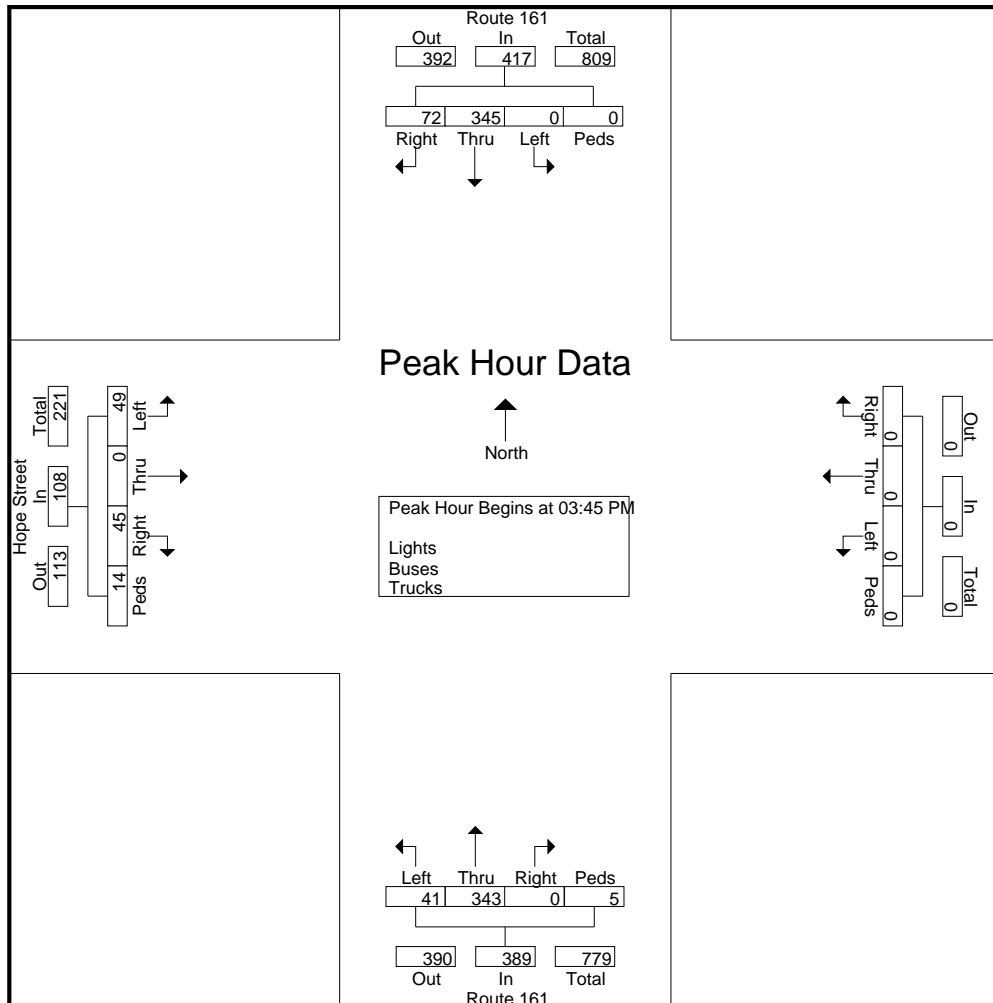
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23097
Site Code : 23097
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					From East					Route 161 From South					Hope Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 03:45 PM

03:45 PM	20	72	0	0	92	0	0	0	0	0	0	92	11	1	104	12	0	13	2	27	223
04:00 PM	15	88	0	0	103	0	0	0	0	0	0	72	10	4	86	14	0	12	5	31	220
04:15 PM	19	96	0	0	115	0	0	0	0	0	0	105	11	0	116	6	0	14	3	23	254
04:30 PM	18	89	0	0	107	0	0	0	0	0	0	74	9	0	83	13	0	10	4	27	217
Total Volume	72	345	0	0	417	0	0	0	0	0	0	343	41	5	389	45	0	49	14	108	914
% App. Total	17.3	82.7	0	0		0	0	0	0		0	88.2	10.5	1.3		41.7	0	45.4	13		
PHF	.900	.898	.000	.000	.907	.000	.000	.000	.000	.000	.000	.817	.932	.313	.838	.804	.000	.875	.700	.871	.900



Connecticut Counts LLC

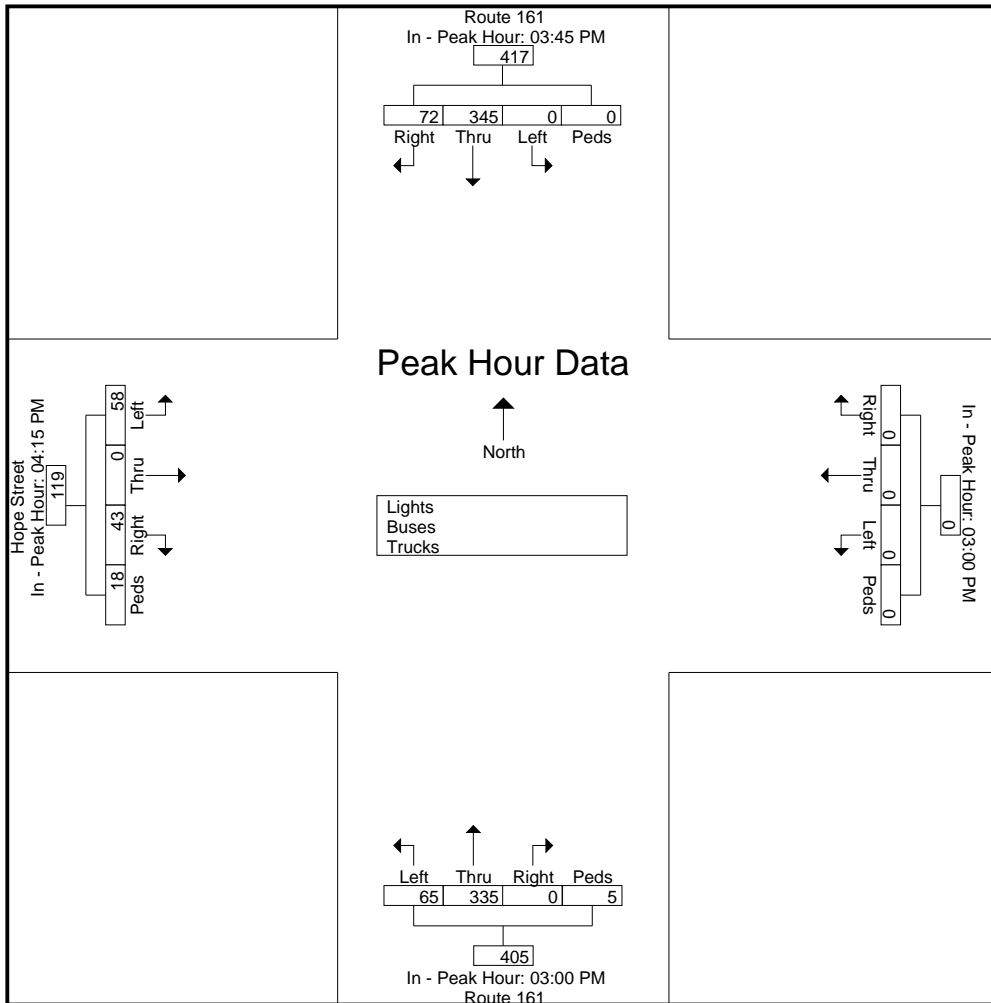
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23097
Site Code : 23097
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North					From East					Route 161 From South					Hope Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:45 PM					03:00 PM					03:00 PM					04:15 PM				
+0 mins.	20	72	0	0	92	0	0	0	0	0	0	77	20	1	98	6	0	14	3	23
+15 mins.	15	88	0	0	103	0	0	0	0	0	0	88	17	2	107	13	0	10	4	27
+30 mins.	19	96	0	0	115	0	0	0	0	0	0	78	17	1	96	13	0	12	9	34
+45 mins.	18	89	0	0	107	0	0	0	0	0	0	92	11	1	104	11	0	22	2	35
Total Volume	72	345	0	0	417	0	0	0	0	0	0	335	65	5	405	43	0	58	18	119
% App. Total	17.3	82.7	0	0		0	0	0	0		0	82.7	16	1.2		36.1	0	48.7	15.1	
PHF	.900	.898	.000	.000	.907	.000	.000	.000	.000	.000	.000	.910	.813	.625	.946	.827	.000	.659	.500	.850



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Hope Street
 East Lyme, Connecticut

File Name : 23098
 Site Code : 23098
 Start Date : 6/4/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					From East					Route 161 From South					Hope Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	19	98	0	0	117	0	0	0	0	0	0	72	8	1	81	18	0	7	8	33	231
11:15 AM	22	93	0	0	115	0	0	0	0	0	0	84	15	2	101	17	0	13	2	32	248
11:30 AM	24	91	0	0	115	0	0	0	0	0	0	86	17	1	104	20	0	9	3	32	251
11:45 AM	16	86	0	0	102	0	0	0	0	0	0	69	6	5	80	17	0	14	17	48	230
Total	81	368	0	0	449	0	0	0	0	0	0	311	46	9	366	72	0	43	30	145	960
12:00 PM	24	106	0	0	130	0	0	0	0	0	0	65	13	4	82	18	0	11	3	32	244
12:15 PM	20	92	0	0	112	0	0	0	0	0	0	80	10	1	91	14	0	18	7	39	242
12:30 PM	19	89	0	0	108	0	0	0	0	0	0	74	7	3	84	8	0	12	4	24	216
12:45 PM	17	101	0	1	119	0	0	0	0	0	0	62	9	4	75	12	0	11	3	26	220
Total	80	388	0	1	469	0	0	0	0	0	0	281	39	12	332	52	0	52	17	121	922
01:00 PM	14	84	0	0	98	0	0	0	0	0	0	64	14	0	78	7	0	11	4	22	198
01:15 PM	17	79	0	0	96	0	0	0	0	0	0	73	8	4	85	14	0	14	4	32	213
01:30 PM	22	75	0	0	97	0	0	0	0	0	0	87	15	0	102	10	0	10	4	24	223
01:45 PM	17	75	0	2	94	0	0	0	0	0	0	74	14	4	92	17	2	10	15	44	230
Total	70	313	0	2	385	0	0	0	0	0	0	298	51	8	357	48	2	45	27	122	864
Grand Total	231	1069	0	3	1303	0	0	0	0	0	0	890	136	29	1055	172	2	140	74	388	2746
Apprch %	17.7	82	0	0.2		0	0	0	0		0	84.4	12.9	2.7		44.3	0.5	36.1	19.1		
Total %	8.4	38.9	0	0.1	47.5	0	0	0	0	0	0	32.4	5	1.1	38.4	6.3	0.1	5.1	2.7	14.1	
Lights	231	1068																			
% Lights	100	99.9	0	100	99.9	0	0	0	0	0	0	99.8	100	100	99.8	100	100	100	100	100	99.9
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
% Trucks	0	0.1	0	0	0.1	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.1

Connecticut Counts LLC

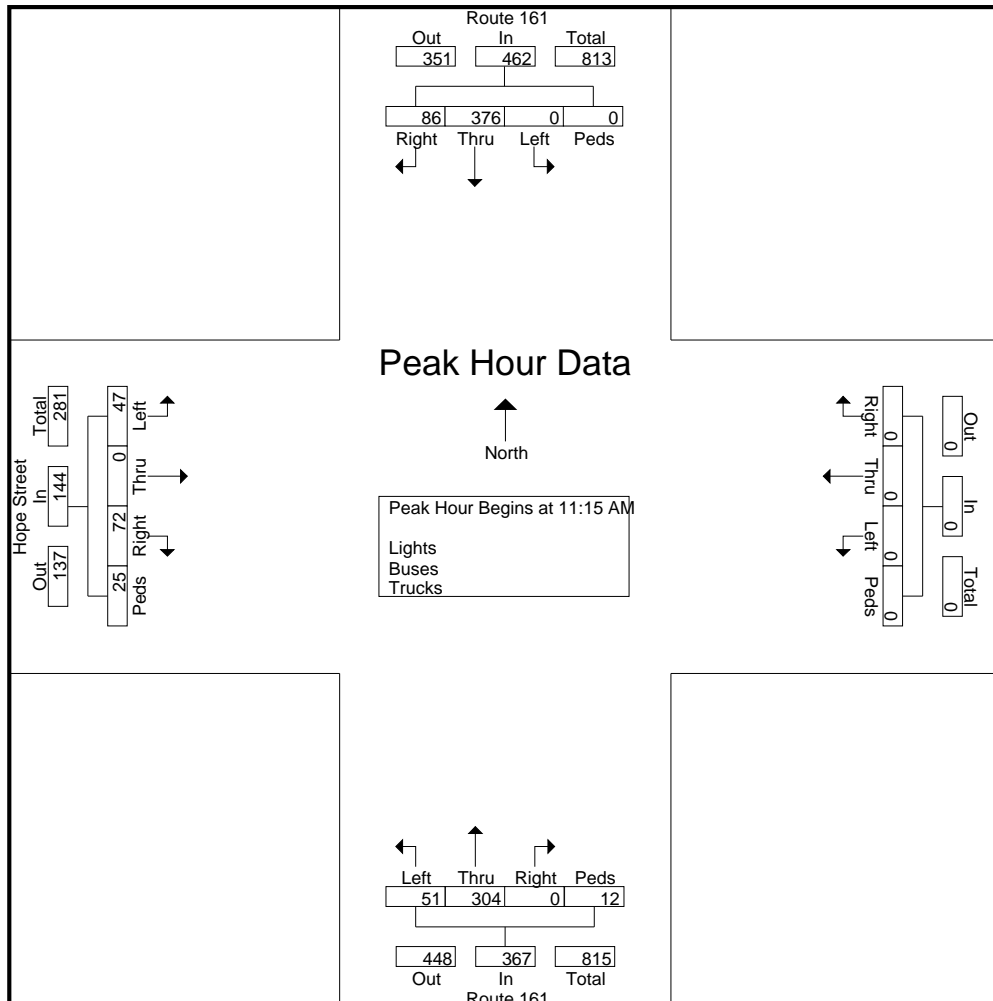
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23098
Site Code : 23098
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					From East					Route 161 From South					Hope Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:15 AM

11:15 AM	22	93	0	0	115	0	0	0	0	0	0	84	15	2	101	17	0	13	2	32	248
11:30 AM	24	91	0	0	115	0	0	0	0	0	0	86	17	1	104	20	0	9	3	32	251
11:45 AM	16	86	0	0	102	0	0	0	0	0	0	69	6	5	80	17	0	14	17	48	230
12:00 PM	24	106	0	0	130	0	0	0	0	0	0	65	13	4	82	18	0	11	3	32	244
Total Volume	86	376	0	0	462	0	0	0	0	0	0	304	51	12	367	72	0	47	25	144	973
% App. Total	18.6	81.4	0	0		0	0	0	0		0	82.8	13.9	3.3		50	0	32.6	17.4		
PHF	.896	.887	.000	.000	.888	.000	.000	.000	.000	.000	.000	.884	.750	.600	.882	.900	.000	.839	.368	.750	.969



Connecticut Counts LLC

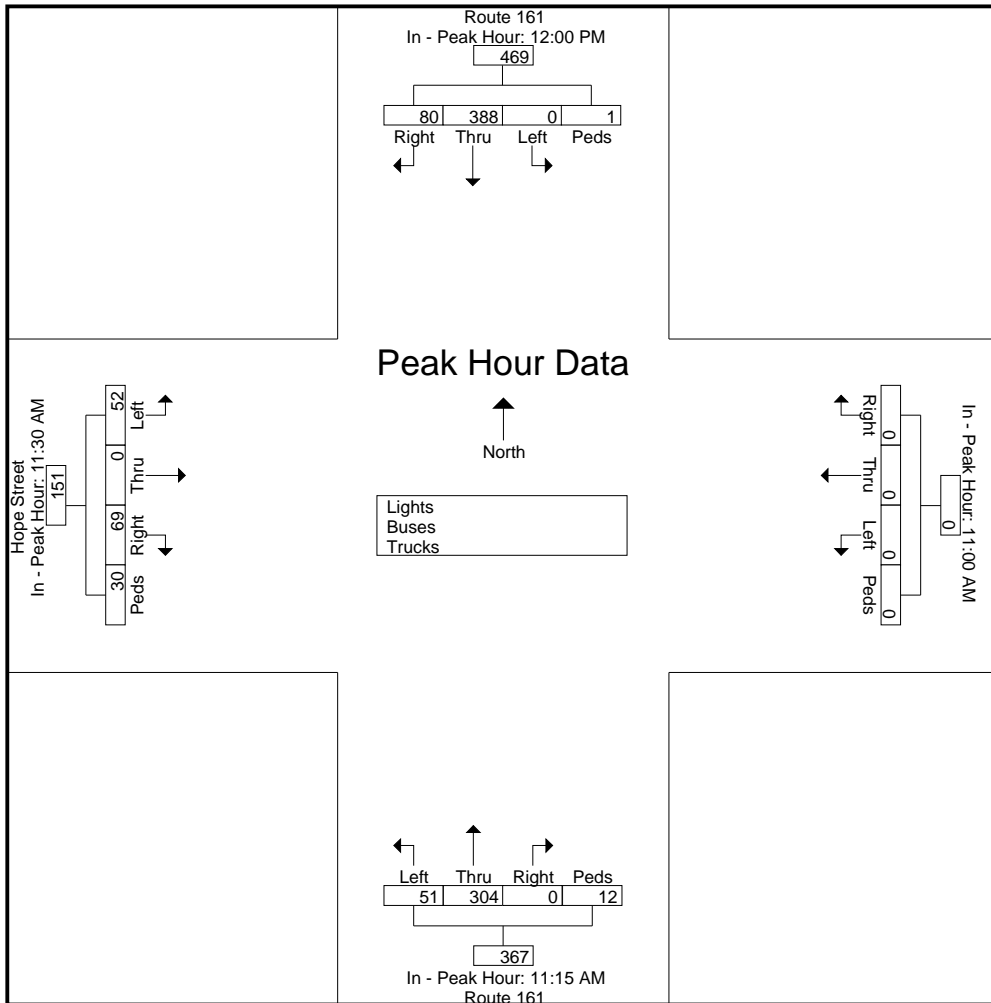
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23098
Site Code : 23098
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					From East					Route 161 From South					Hope Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM					11:00 AM					11:15 AM					11:30 AM				
+0 mins.	24	106	0	0	130	0	0	0	0	0	0	84	15	2	101	20	0	9	3	32
+15 mins.	20	92	0	0	112	0	0	0	0	0	0	86	17	1	104	17	0	14	17	48
+30 mins.	19	89	0	0	108	0	0	0	0	0	0	69	6	5	80	18	0	11	3	32
+45 mins.	17	101	0	1	119	0	0	0	0	0	0	65	13	4	82	14	0	18	7	39
Total Volume	80	388	0	1	469	0	0	0	0	0	0	304	51	12	367	69	0	52	30	151
% App. Total	17.1	82.7	0	0.2		0	0	0	0		0	82.8	13.9	3.3		45.7	0	34.4	19.9	
PHF	.833	.915	.000	.250	.902	.000	.000	.000	.000	.000	.000	.884	.750	.600	.882	.863	.000	.722	.441	.786



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Route 156
 East Lyme, Connecticut

File Name : 23089
 Site Code : 23089
 Start Date : 5/24/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Route 156 From East					Route 156 From South					Route 156 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	48	0	35	1	84	26	138	0	0	164	0	0	0	0	0	0	59	44	0	103	351
03:15 PM	37	0	34	2	73	65	142	0	0	207	0	0	0	0	0	0	72	45	2	119	399
03:30 PM	31	0	38	3	72	45	94	0	0	139	0	0	0	0	0	0	72	38	2	112	323
03:45 PM	33	0	39	3	75	53	126	0	0	179	0	0	0	0	0	0	63	41	2	106	360
Total	149	0	146	9	304	189	500	0	0	689	0	0	0	0	0	0	266	168	6	440	1433
04:00 PM	42	0	52	0	94	46	79	0	5	130	0	0	0	0	0	0	59	38	0	97	321
04:15 PM	44	0	33	5	82	57	81	0	0	138	0	0	0	0	0	0	67	39	7	113	333
04:30 PM	40	0	50	5	95	43	84	0	0	127	0	0	0	0	0	0	63	31	4	98	320
04:45 PM	29	0	46	5	80	39	76	0	0	115	0	0	0	0	0	0	57	28	0	85	280
Total	155	0	181	15	351	185	320	0	5	510	0	0	0	0	0	0	246	136	11	393	1254
05:00 PM	32	0	57	4	93	41	112	0	2	155	0	0	0	0	0	0	56	37	3	96	344
05:15 PM	33	0	39	4	76	44	64	0	0	108	0	0	0	0	0	0	75	41	0	116	300
05:30 PM	34	0	43	4	81	27	52	0	0	79	0	0	0	0	0	0	58	39	0	97	257
05:45 PM	31	0	31	1	63	51	68	0	1	120	0	0	0	0	0	0	59	28	0	87	270
Total	130	0	170	13	313	163	296	0	3	462	0	0	0	0	0	0	248	145	3	396	1171
Grand Total	434	0	497	37	968	537	1116	0	8	1661	0	0	0	0	0	0	760	449	20	1229	3858
Apprch %	44.8	0	51.3	3.8		32.3	67.2	0	0.5		0	0	0	0	0	0	61.8	36.5	1.6		
Total %	11.2	0	12.9	1	25.1	13.9	28.9	0	0.2	43.1	0	0	0	0	0	0	19.7	11.6	0.5	31.9	
Lights	433	0	496	37	966	537	1109														
% Lights	99.8	0	99.8	100	99.8	100	99.4	0	100	99.6	0	0	0	0	0	0	99.6	99.1	100	99.4	99.6
Buses	1	0	1	0	2	0	1	0	0	1	0	0	0	0	0	0	1	2	0	3	6
% Buses	0.2	0	0.2	0	0.2	0	0.1	0	0	0.1	0	0	0	0	0	0	0.1	0.4	0	0.2	0.2
Trucks	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	2	0	4	10
% Trucks	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0	0	0	0	0.3	0.4	0	0.3	0.3

Connecticut Counts LLC

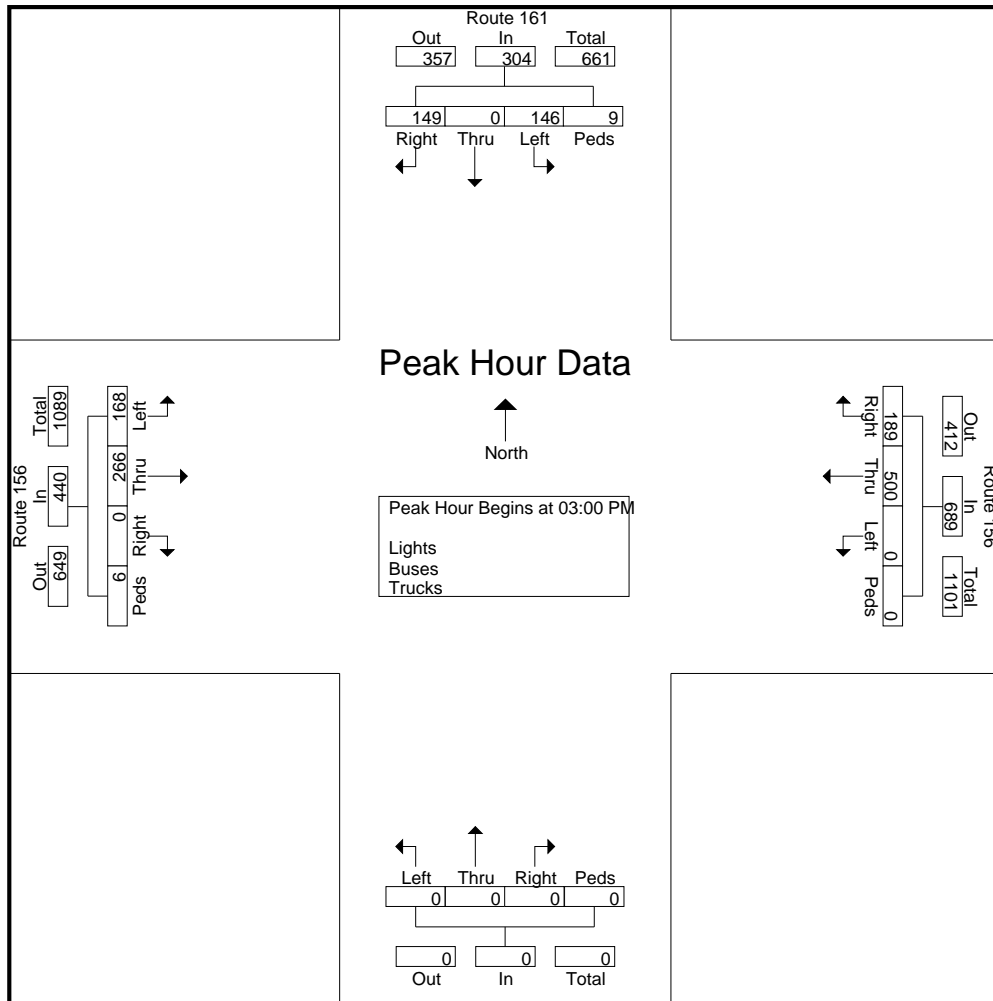
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23089
Site Code : 23089
Start Date : 5/24/2022
Page No : 2

Start Time	Route 161 From North					Route 156 From East					From South					Route 156 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	48	0	35	1	84	26	138	0	0	164	0	0	0	0	0	0	59	44	0	103	351
03:15 PM	37	0	34	2	73	65	142	0	0	207	0	0	0	0	0	0	72	45	2	119	399
03:30 PM	31	0	38	3	72	45	94	0	0	139	0	0	0	0	0	0	72	38	2	112	323
03:45 PM	33	0	39	3	75	53	126	0	0	179	0	0	0	0	0	0	63	41	2	106	360
Total Volume	149	0	146	9	304	189	500	0	0	689	0	0	0	0	0	0	266	168	6	440	1433
% App. Total	49	0	48	3		27.4	72.6	0	0		0	0	0	0		0	60.5	38.2	1.4		
PHF	.776	.000	.936	.750	.905	.727	.880	.000	.000	.832	.000	.000	.000	.000	.000	.000	.924	.933	.750	.924	.898

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 03:00 PM



Connecticut Counts LLC

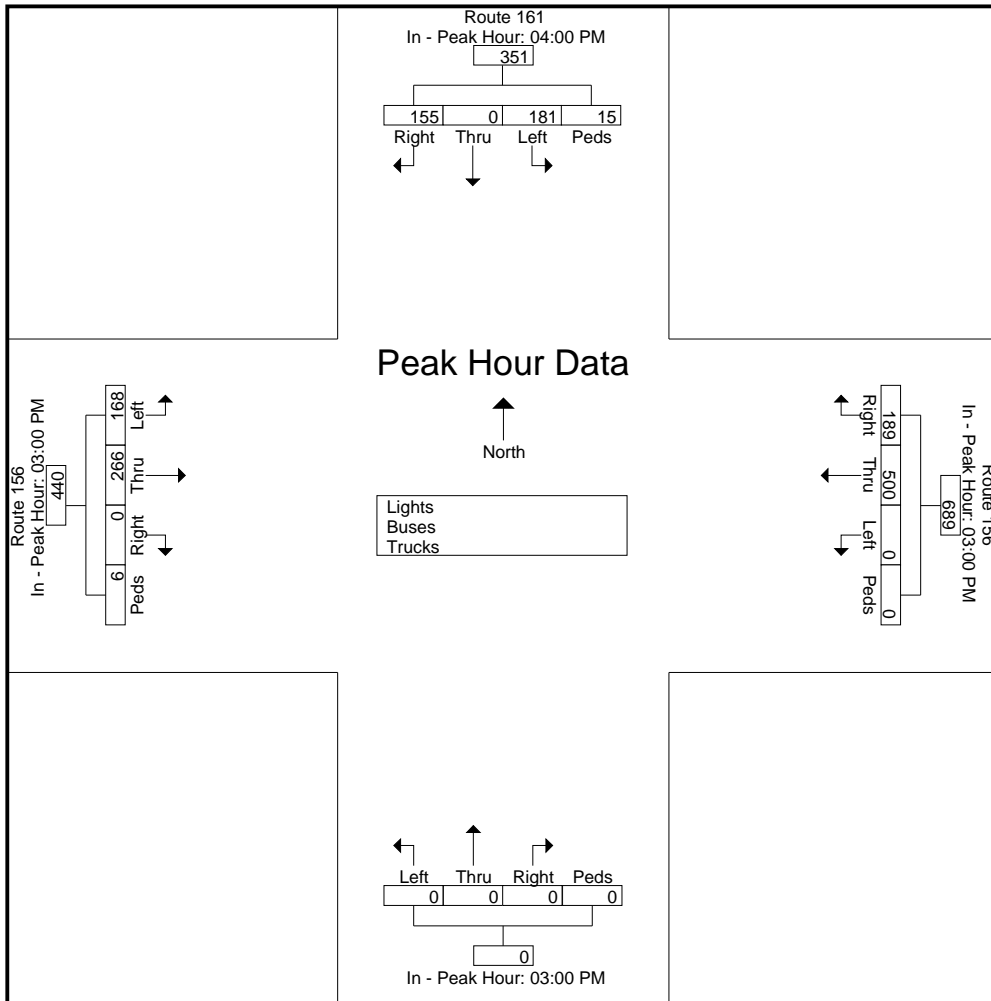
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23089
Site Code : 23089
Start Date : 5/24/2022
Page No : 3

Start Time	Route 161 From North					Route 156 From East					From South					Route 156 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM					03:00 PM					03:00 PM					03:00 PM				
+0 mins.	42	0	52	0	94	26	138	0	0	164	0	0	0	0	0	0	59	44	0	103
+15 mins.	44	0	33	5	82	65	142	0	0	207	0	0	0	0	0	0	72	45	2	119
+30 mins.	40	0	50	5	95	45	94	0	0	139	0	0	0	0	0	0	72	38	2	112
+45 mins.	29	0	46	5	80	53	126	0	0	179	0	0	0	0	0	0	63	41	2	106
Total Volume	155	0	181	15	351	189	500	0	0	689	0	0	0	0	0	0	266	168	6	440
% App. Total	44.2	0	51.6	4.3		27.4	72.6	0	0		0	0	0	0		0	60.5	38.2	1.4	
PHF	.881	.000	.870	.750	.924	.727	.880	.000	.000	.832	.000	.000	.000	.000	.000	.000	.924	.933	.750	.924



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

Route 161 at Route 156
 East Lyme, Connecticut

File Name : 23090
 Site Code : 23090
 Start Date : 6/4/2022
 Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Route 161 From North					Route 156 From East					Route 156 From South					Route 156 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	45	0	52	13	110	28	53	0	0	81	0	0	0	0	0	0	63	41	5	109	300
11:15 AM	34	0	41	8	83	39	67	0	4	110	0	0	0	0	0	0	65	50	0	115	308
11:30 AM	45	0	51	5	101	37	66	0	0	103	0	0	0	0	0	0	67	36	2	105	309
11:45 AM	40	0	50	7	97	41	72	0	1	114	0	0	0	0	0	0	54	40	1	95	306
Total	164	0	194	33	391	145	258	0	5	408	0	0	0	0	0	0	249	167	8	424	1223
12:00 PM	44	0	62	10	116	39	69	0	0	108	0	0	0	0	0	0	79	47	6	132	356
12:15 PM	48	0	52	10	110	40	68	0	0	108	0	0	0	0	0	0	78	42	10	130	348
12:30 PM	36	0	49	1	86	40	63	0	3	106	0	0	0	0	0	0	74	30	8	112	304
12:45 PM	37	0	52	10	99	32	75	0	0	107	0	0	0	0	0	0	64	35	1	100	306
Total	165	0	215	31	411	151	275	0	3	429	0	0	0	0	0	0	295	154	25	474	1314
01:00 PM	58	0	45	14	117	42	75	0	0	117	0	0	0	0	0	0	77	39	2	118	352
01:15 PM	37	0	50	3	90	48	66	0	0	114	0	0	0	0	0	0	69	32	4	105	309
01:30 PM	36	0	43	12	91	52	84	2	0	138	0	0	0	0	0	0	81	47	17	145	374
01:45 PM	31	0	48	3	82	32	70	0	2	104	0	0	0	0	0	0	63	39	7	109	295
Total	162	0	186	32	380	174	295	2	2	473	0	0	0	0	0	0	290	157	30	477	1330
Grand Total	491	0	595	96	1182	470	828	2	10	1310	0	0	0	0	0	0	834	478	63	1375	3867
Apprch %	41.5	0	50.3	8.1		35.9	63.2	0.2	0.8		0	0	0	0		0	60.7	34.8	4.6		
Total %	12.7	0	15.4	2.5	30.6	12.2	21.4	0.1	0.3	33.9	0	0	0	0	0	0	21.6	12.4	1.6	35.6	
Lights	488	0	594	96	1178	469	827	2	10	1308	0	0	0	0	0	0	831	477	63	1371	3857
% Lights	99.4	0	99.8	100	99.7	99.8	99.9	100	100	99.8	0	0	0	0	0	0	99.6	99.8	100	99.7	99.7
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	3	0	1	0	4	1	1	0	0	2	0	0	0	0	0	0	3	1	0	4	10
% Trucks	0.6	0	0.2	0	0.3	0.2	0.1	0	0	0.2	0	0	0	0	0	0	0.4	0.2	0	0.3	0.3

Connecticut Counts LLC

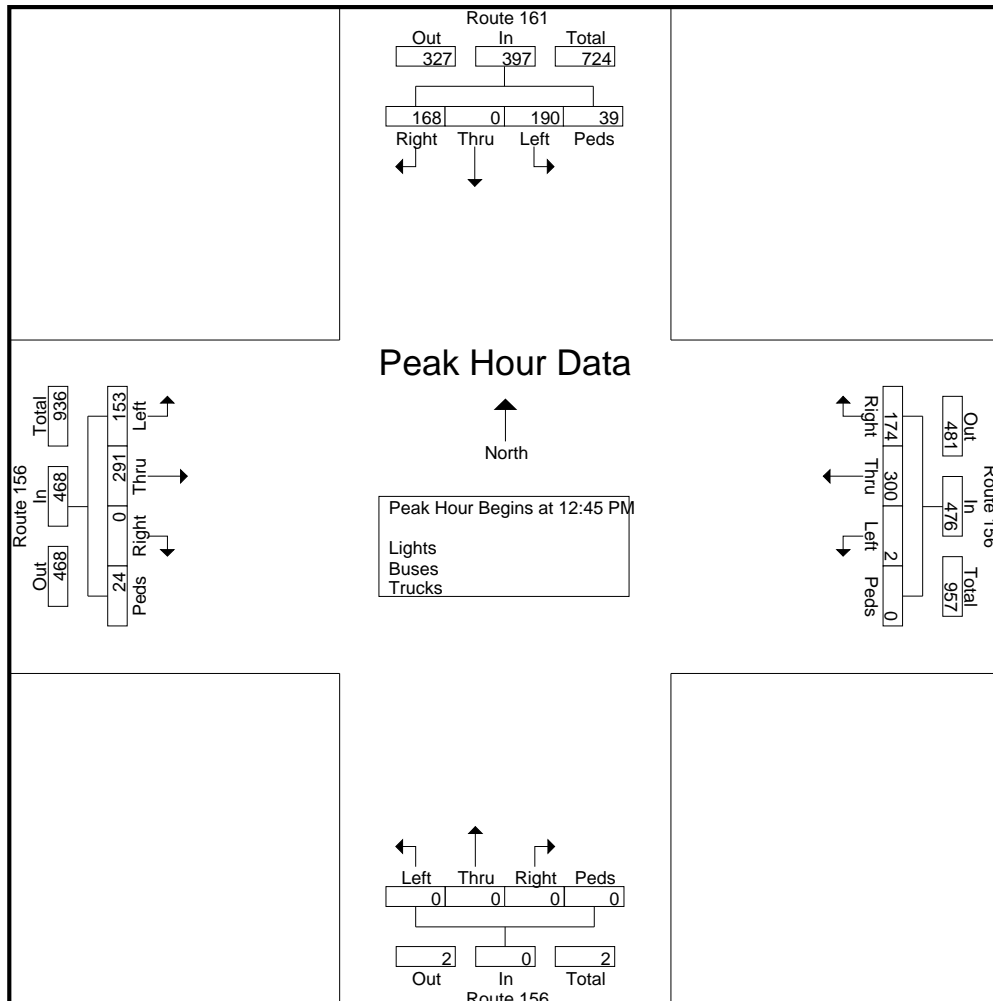
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23090
Site Code : 23090
Start Date : 6/4/2022
Page No : 2

Start Time	Route 161 From North					Route 156 From East					Route 156 From South					Route 156 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 12:45 PM

12:45 PM	37	0	52	10	99	32	75	0	0	107	0	0	0	0	0	0	64	35	1	100	306
01:00 PM	58	0	45	14	117	42	75	0	0	117	0	0	0	0	0	0	77	39	2	118	352
01:15 PM	37	0	50	3	90	48	66	0	0	114	0	0	0	0	0	0	69	32	4	105	309
01:30 PM	36	0	43	12	91	52	84	2	0	138	0	0	0	0	0	0	81	47	17	145	374
Total Volume	168	0	190	39	397	174	300	2	0	476	0	0	0	0	0	0	291	153	24	468	1341
% App. Total	42.3	0	47.9	9.8		36.6	63	0.4	0		0	0	0	0		0	62.2	32.7	5.1		
PHF	.724	.000	.913	.696	.848	.837	.893	.250	.000	.862	.000	.000	.000	.000	.000	.000	.898	.814	.353	.807	.896



Connecticut Counts LLC

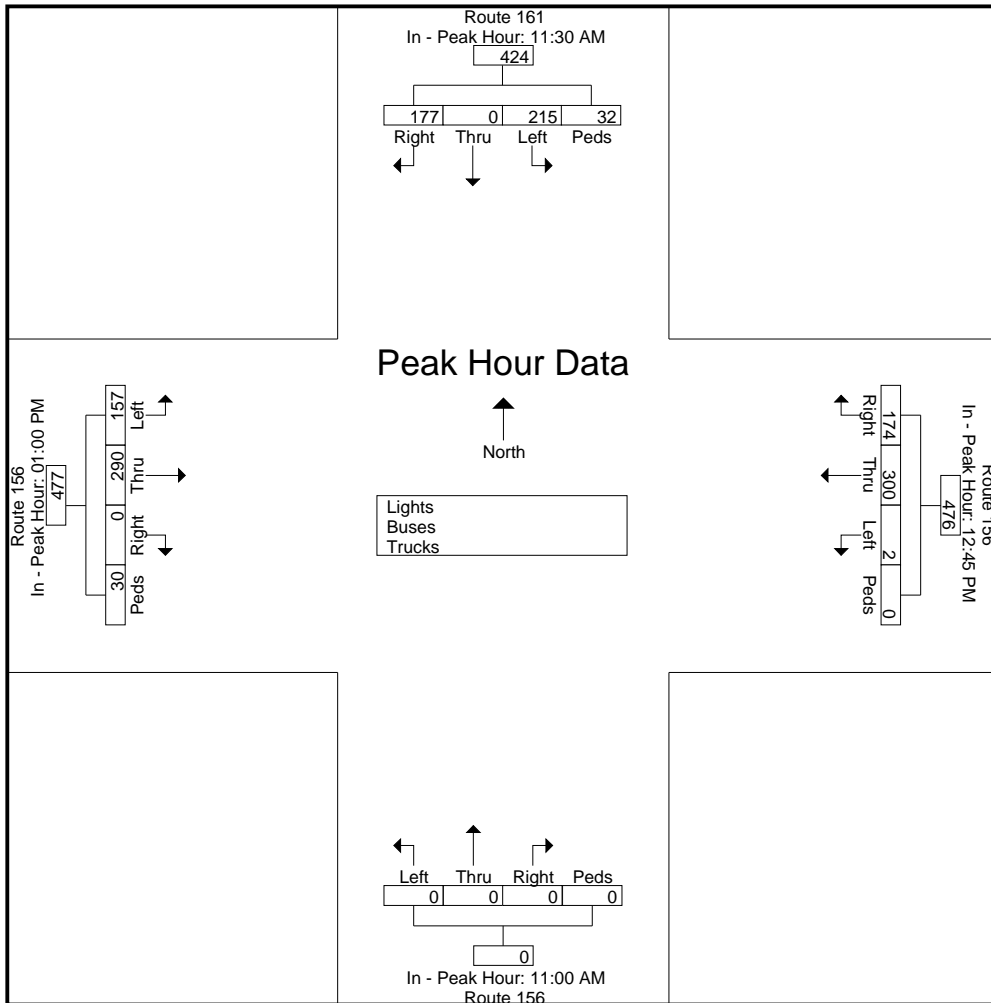
Kensington, Connecticut 06037
(860) 828-1693

File Name : 23090
Site Code : 23090
Start Date : 6/4/2022
Page No : 3

Start Time	Route 161 From North					Route 156 From East					Route 156 From South					Route 156 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:30 AM					12:45 PM					11:00 AM					01:00 PM				
+0 mins.	45	0	51	5	101	32	75	0	0	107	0	0	0	0	0	0	77	39	2	118
+15 mins.	40	0	50	7	97	42	75	0	0	117	0	0	0	0	0	0	69	32	4	105
+30 mins.	44	0	62	10	116	48	66	0	0	114	0	0	0	0	0	0	81	47	17	145
+45 mins.	48	0	52	10	110	52	84	2	0	138	0	0	0	0	0	0	63	39	7	109
Total Volume	177	0	215	32	424	174	300	2	0	476	0	0	0	0	0	0	290	157	30	477
% App. Total	41.7	0	50.7	7.5		36.6	63	0.4	0		0	0	0	0		0	60.8	32.9	6.3	
PHF	.922	.000	.867	.800	.914	.837	.893	.250	.000	.862	.000	.000	.000	.000	.000	.000	.895	.835	.441	.822



APPENDIX E
SIDEWALK AND CURB RAMP ASSESSMENT
REPORTS

East Lyme, Connecticut - Route 161 Corridor Study

Sidewalk Segment Description By Street - With Inspection Data

Sidewalk Segment	Side	From	To	Material	Condition	Length (Feet)	Length (Miles)
Chapman Woods Road	50 Feet						
Chapman Woods Road-Odd-1	Odd	Flanders Road	Flanders Road	Concrete	Good	50	0.01
Chesterfield Road	3,722 Feet						
Chesterfield Road-Even-1	Even	High School	Rt 1	Asphalt	Fair	771	0.15
Chesterfield Road-Odd-1	Odd	Subway	Rt 1	Concrete	Good	828	0.16
Chesterfield Road-Odd-2	Odd	North of Bluebird	High School	Concrete	Fair	2,123	0.40
Damon Heights Road	203 Feet						
Damon Heights Road-Odd-1	Odd	Rt 161	Up the hill	Concrete	Fair	203	0.04
Flanders Road	11,135 Feet						
Flanders Road-Even-1	Even	Rite Aid	West End of property	Concrete	Fair	494	0.09
Flanders Road-Even-10	Even	#230 Flanders Rd (carwash)	#230 Flanders Rd (carwash)	Concrete	Fair	89	0.02
Flanders Road-Even-11	Even	Midway Plaza	Crest Ford	Concrete	Good	2,027	0.38
Flanders Road-Even-12	Even	Midway Plaza	Society Rd	Concrete	Fair	975	0.18
Flanders Road-Even-13	Even	Society Rd	#104 Flanders Rd	Concrete	Good	1,235	0.23
Flanders Road-Even-2	Even	Rite Aid	Four Corners	Concrete	Good	47	0.01
Flanders Road-Even-3	Even	Walgreens	#308 Flanders Rd	Concrete	Fair	656	0.12
Flanders Road-Even-4	Even	288 Flanders Road Bus Stop	I-95 Exit 74 Ramp North	Asphalt	Good	108	0.02
Flanders Road-Even-5	Even	I-95 Exit 74 Ramp North	I-95 Overpass	Mixed	Good	287	0.05
Flanders Road-Even-6	Even	I-95 Overpass	I-95 Exit 74 Ramp South	Asphalt	Good	269	0.05
Flanders Road-Even-7	Even	I-95 Exit 74 Ramp South	# 262 Flanders Rd (mobil)	Asphalt	Good	128	0.02
Flanders Road-Even-8	Even	# 262 Flanders Rd (mobil)	# 262 Flanders Rd (mobil)	Concrete	Fair	144	0.03
Flanders Road-Even-9	Even	#248 Flanders Rd	Industrial Park Road	Concrete	Good	693	0.13
Flanders Road-Odd-1	Odd	Oak hill Rd	Sleepy Hollow	Concrete	Fair	2,006	0.38
Flanders Road-Odd-2	Odd	Laurel Hill Dr	#177 Flanders Rd	Concrete	Fair	301	0.06
Flanders Road-Odd-3	Odd	179 Flanders Rd (laurel hill)	#177 Flanders Rd	Concrete	Good	272	0.05
Flanders Road-Odd-4	Odd	#179 Flanders Rd	Damon Hts	Concrete	Fair	535	0.10
Flanders Road-Odd-5	Odd	# 211 Flanders Rd (S&S)	Briarwood Estates	Concrete	Fair	282	0.05
Flanders Road-Odd-6	Odd	#267 Flanders Rd (Starbucks)	#267 Flanders Rd (Starbucks)	Concrete	Fair	137	0.03
Flanders Road-Odd-7	Odd	#295 Flanders Rd (5 guys)	#295 Flanders Rd (5 guys)	Concrete	Fair	127	0.02
Flanders Road-Odd-8	Odd	#305 Flanders Rd	#305 Flanders Rd	Concrete	Good	165	0.03

BETA Group, Inc.

Sidewalk Segment	Side	From	To	Material	Condition	Length (Feet)	Length (Miles)
Flanders Road-Odd-9	Odd	#323 Flanders Rd (donuts)	#323 Flanders Rd (donuts)	Concrete	Fair	158	0.03
Pennsylvania Avenue		7,292 Feet					
Pennsylvania Avenue-Even-1	Even	E. Patt	Lakeview Hts	Concrete	Fair	2,537	0.48
Pennsylvania Avenue-Even-2	Even	Lakeview Hts	Smith Rd	Concrete	Fair	1,627	0.31
Pennsylvania Avenue-Even-3	Even	Smith St	State Rd	Concrete	Fair	368	0.07
Pennsylvania Avenue-Even-4	Even	State Rd	Hope St	Concrete	Fair	648	0.12
Pennsylvania Avenue-Even-5	Even	Hope Road	Town Green	Concrete	Good	443	0.08
Pennsylvania Avenue-Even-6	Even	Town Green	Rt 156	Concrete	Good	153	0.03
Pennsylvania Avenue-Odd-1	Odd	Grand St	Rt 156	Concrete	Good	296	0.06
Pennsylvania Avenue-Odd-2	Odd	#79 Penn	Grand St	Concrete	Fair	595	0.11
Pennsylvania Avenue-Odd-3	Odd	Lincoln St	#79 Penn (plaza)	Concrete	Fair	318	0.06
Pennsylvania Avenue-Odd-4	Odd	Smith St	Lincoln Rd	Concrete	Fair	307	0.06

East Lyme, Connecticut - Route 161 Corridor Study

Ramp Totals By Street - With Inspection Data

Ramp ID	Material	Condition	DWP	DWP Damage	Obstruction	Ramp Slope	Ramp Width	Landing Exists	Preliminary Compliance	
Chesterfield Road		4 Ramps								
At High School		4 Ramps								
1.1	Concrete	Fair	Yes	No	None	2.1	60	Yes	Yes	
1.2	Concrete	Fair	Yes	No	None	1	60	Yes	Yes	
1.3	Asphalt	Fair	No		None	4.8	84	No	No	
1.4	Concrete	Fair	No		None	-4.5	48	Yes	Yes	
Flanders Road		32 Ramps								
At Boston Post Road		6 Ramps								
2.1	Concrete	Good	Yes	No	None	4.9	60	Yes	Yes	
2.2	Concrete	Good	Yes	No	None	6.5	60	Yes	Yes	
2.3	Concrete	Good	Yes	No	None	1.6	60	Yes	Yes	
2.4	Concrete	Good	Yes	No	None	6	60	Yes	Yes	
2.5	Concrete	Good	Yes	No	None	4.1	60	Yes	Yes	
2.6	Concrete	Good	Yes	No	None	7.1	60	Yes	Yes	
At I-95 Exit 74 Ramp		4 Ramps								
3.1	Concrete	Good	Yes	No	None	0.8	60	Yes	Yes	
3.2	Concrete	Good	Yes	No	None	0.8	60	Yes	Yes	
3.3	Concrete	Good	Yes	No	None	0.1	60	Yes	Yes	
3.4	Concrete	Good	Yes	No	None	1.9	55	Yes	Yes	
At King Arther Drive		6 Ramps								
4.1	Concrete	Good	Yes	No	None	1.4	60	Yes	Yes	
4.2	Concrete	Good	Yes	No	None	1.8	64	Yes	Yes	
4.3	Concrete	Good	Yes	No	None	7.8	60	Yes	Yes	
4.4	Concrete	Good	Yes	No	None	7.1	60	Yes	Yes	
4.5	Concrete	Good	Yes	No	None	6.5	48	Yes	Yes	
4.6	Concrete	Good	Yes	No	None	7.9	48	Yes	Yes	
At Chapman Woods Road		2 Ramps								
5.1	Concrete	Fair	No		Curbing	9.9	40	Yes	No	
5.2	Concrete	Fair	Yes	Yes	None	7.1	48	No	No	
At Industrial Park Road		1 Ramps								

Ramp ID	Material	Condition	DWP	DWP Damage	Obstruction	Ramp Slope	Ramp Width	Landing Exists	Preliminary Compliance
6.1	Concrete	Fair	Yes	Yes	Curbing	8.7	48	Yes	No
At Damon Heights Road		2 Ramps							
7.1	Concrete	Fair	No		Vegetation	8.9	48	Yes	No
7.2	Mix Materials	Fair	No		None	7.3	96	Yes	Yes
At Clarks Lane		2 Ramps							
8.1	Concrete	Good	Yes	No	None	5.8	48	Yes	Yes
8.2	Concrete	Good	Yes	No	None	10.2	48	Yes	No
At Laurel Hill Drive		1 Ramps							
9.1	Concrete	Fair	No		Vegetation	5.7	48	Yes	Yes
At Society Road		3 Ramps							
10.1	Concrete	Poor	Yes	No	Vegetation	4.4	48	Yes	No
10.2	Concrete	Fair	Yes	Yes	None	10	36	Yes	No
10.3	Concrete	Fair	Yes	No	None	7.5	48	No	No
At Oak Hill Drive		1 Ramps							
11.1	Concrete	Fair	No		Curbing	10.4	48	Yes	No
At Chapman Farms Road		4 Ramps							
12.1	Concrete	Good	No		None	1	48	Yes	Yes
12.2	Concrete	Good	No		None	7.8	48	Yes	Yes
12.3	Concrete	Fair	No		Curbing	11.2	48	Yes	No
12.4	Concrete	Fair	No		None	6.9	60	No	No
Pennsylvania Avenue		30 Ramps							
At Sleepy Hollow Road		2 Ramps							
13.1	Concrete	Fair	No		Curbing	8.4	84	No	No
13.2	Concrete	Fair	No		Curbing	10.1	42	No	No
At Lakeview Heights Road		1 Ramps							
14.1	Concrete	Fair	No		Curbing	8.3	48	Yes	No
At Penncove Road		1 Ramps							
15.1	Concrete	Fair	Yes	No	None	8.1	36	No	No
At Cove Drive		1 Ramps							
16.1	Concrete	Fair	Yes	No	None	8.3	36	No	No
At Lakeview Circle North		2 Ramps							
17.1	Concrete	Fair	No		None	1.5	48	Yes	Yes
17.2	Concrete	Fair	No		None	3.3	48	Yes	Yes

Ramp ID	Material	Condition	DWP	DWP Damage	Obstruction	Ramp Slope	Ramp Width	Landing Exists	Preliminary Compliance	
At Luce Avenue		1 Ramps								
18.1	Concrete	Fair	Yes	No	Vegetation	6.1	48	Yes	Yes	
At Lakeview Circle Central		2 Ramps								
19.1	Concrete	Fair	No		None	0	48	Yes	Yes	
19.2	Concrete	Fair	No		None	1.4	48	Yes	Yes	
At Lakeview Circle South		2 Ramps								
20.1	Concrete	Fair	No		None	5.6	48	Yes	Yes	
20.2	Concrete	Fair	No		None	3.4	48	Yes	Yes	
At Smith Street		3 Ramps								
21.1	Concrete	Fair	No		Vegetation	3	44	Yes	Yes	
21.2	Concrete	Fair	No		Vegetation	-10.5	108	Yes	No	
21.3	Concrete	Fair	No		None	2.2	108	Yes	Yes	
At Lincoln Street		4 Ramps								
22.1	Concrete	Fair	No		None	5.4	48	No	No	
22.2	Concrete	Fair	No		None	5.7	48	No	No	
22.3	Concrete	Fair	No		None	3.4	48	Yes	Yes	
22.4	Concrete	Good	No		None	7.8	48	Yes	Yes	
At Midblock Dairy Queen		2 Ramps								
23.1	Concrete	Fair	Yes	No	Curbing	7.7	48	No	No	
23.2	Concrete	Poor	Yes	Yes	Vegetation	8.3	48	Yes	No	
At Hope Street		3 Ramps								
24.1	Concrete	Fair	No		None	11	48	No	No	
24.2	Concrete	Good	Yes	No	None	4.3	156	No	No	
24.3	Concrete	Fair	Yes	No	Curbing	7.2	48	Yes	No	
At Grand Street		3 Ramps								
25.1	Concrete	Fair	Yes	No	None	1.6	90	No	No	
25.2	Concrete	Fair	Yes	No	None	1.7	120	No	No	
25.3	Concrete	Good	Yes	No	Curbing	3.8	48	Yes	No	
At Main Street		3 Ramps								
26.1	Concrete	Fair	Yes	No	None	3.9	60	No	No	
26.2	Concrete	Good	Yes	No	Curbing	8.1	48	No	No	
26.3	Concrete	Fair	Yes	No	None	12.3	36	No	No	

APPENDIX F

SYNCHRO REPORTS

HCM Unsignalized Intersection Capacity Analysis

2: Route 161 & East Lyme High School


























08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	60	50	640	480	20
Future Volume (Veh/h)	30	60	50	640	480	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	36	72	52	667	533	22
Pedestrians	5			5	5	
Lane Width (ft)	13.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				849		
pX, platoon unblocked	0.78					
vC, conflicting volume	1325	554	560			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1274	554	560			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	73	86	95			
cM capacity (veh/h)	132	521	1006			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	36	72	719	555		
Volume Left	36	0	52	0		
Volume Right	0	72	0	22		
cSH	132	521	1006	1700		
Volume to Capacity	0.27	0.14	0.05	0.33		
Queue Length 95th (ft)	26	12	4	0		
Control Delay (s)	42.1	13.0	1.3	0.0		
Lane LOS	E	B	A			
Approach Delay (s)	22.7		1.3	0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			2.5			
Intersection Capacity Utilization			77.8%	ICU Level of Service	D	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
4: Route 161 & U.S. Route 1 (Boston Post Rd)

08/31/2022

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		 									 		
Traffic Volume (vph)	100	240	180	250	390	200	200	420	140	180	340	110	
Future Volume (vph)	100	240	180	250	390	200	200	420	140	180	340	110	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	11	12	11	11	11	11	11	11	11	12	12	
Total Lost time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0		
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		
Frbp, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.99	1.00	0.99		
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1693	3151		1710	1801	1495	1710	1801	1509	1694	3358		
Flt Permitted	0.31	1.00		0.32	1.00	1.00	0.40	1.00	1.00	0.20	1.00		
Satd. Flow (perm)	548	3151		575	1801	1495	720	1801	1509	356	3358		
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.97	0.97	0.97	
Adj. Flow (vph)	106	255	191	281	438	225	213	447	149	186	351	113	
RTOR Reduction (vph)	0	137	0	0	0	112	0	0	106	0	26	0	
Lane Group Flow (vph)	106	309	0	281	438	113	213	447	43	186	438	0	
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2	
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	3%	3%	3%	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		
Protected Phases	1	6		5	2		3	8		7	4		
Permitted Phases	6			2		2	8		8	4			
Actuated Green, G (s)	28.4	21.6		39.9	29.1	29.1	38.1	26.9	26.9	39.6	27.9		
Effective Green, g (s)	28.4	21.6		39.9	29.1	29.1	38.1	26.9	26.9	39.6	27.9		
Actuated g/C Ratio	0.31	0.23		0.43	0.31	0.31	0.41	0.29	0.29	0.43	0.30		
Clearance Time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0		
Vehicle Extension (s)	2.0	2.5		2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0		
Lane Grp Cap (vph)	251	731		415	563	467	414	520	436	319	1007		
v/s Ratio Prot	0.03	0.10		c0.10	c0.24		0.06	c0.25		c0.07	0.13		
v/s Ratio Perm	0.10			0.19		0.08	0.15		0.03	0.17			
v/c Ratio	0.42	0.42		0.68	0.78	0.24	0.51	0.86	0.10	0.58	0.44		
Uniform Delay, d1	24.4	30.4		18.8	29.0	23.8	18.7	31.3	24.2	19.1	26.2		
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.4	0.3		3.4	6.4	0.2	0.5	12.9	0.0	1.8	0.1		
Delay (s)	24.8	30.7		22.2	35.5	23.9	19.1	44.1	24.2	20.9	26.3		
Level of Service	C	C		C	D	C	B	D	C	C	C		
Approach Delay (s)		29.5			28.8			33.9			24.8		
Approach LOS		C			C			C			C		
Intersection Summary													
HCM 2000 Control Delay			29.4									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.79										
Actuated Cycle Length (s)			93.0									Sum of lost time (s)	19.0
Intersection Capacity Utilization			74.3%									ICU Level of Service	D
Analysis Period (min)			15										
c	Critical Lane Group												

Queues

4: Route 161 & U.S. Route 1 (Boston Post Rd)

08/31/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	106	446	281	438	225	213	447	149	186	464
v/c Ratio	0.38	0.53	0.67	0.77	0.39	0.50	0.85	0.27	0.57	0.45
Control Delay	20.3	20.7	26.3	40.5	10.4	20.4	50.6	6.8	23.2	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	20.7	26.3	40.5	10.4	20.4	50.6	6.8	23.2	27.3
Queue Length 50th (ft)	36	71	108	239	27	69	242	0	59	102
Queue Length 95th (ft)	71	121	173	377	87	145	#511	49	127	184
Internal Link Dist (ft)		985		337			1674			769
Turn Bay Length (ft)	90		310		140	190			260	
Base Capacity (vph)	410	1304	436	691	675	493	523	544	385	1038
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.34	0.64	0.63	0.33	0.43	0.85	0.27	0.48	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

8: Route 161 & Frontage Road to I-95 SB Ramps

08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	140	570	200	610	570	210
Future Volume (vph)	140	570	200	610	570	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12
Total Lost time (s)	4.6	4.6		4.0	6.7	
Lane Util. Factor	1.00	1.00		0.95	0.95	
Frbp, ped/bikes	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.96	
Flt Protected	0.95	1.00		0.99	1.00	
Satd. Flow (prot)	1728	1599		3496	3375	
Flt Permitted	0.95	1.00		0.57	1.00	
Satd. Flow (perm)	1728	1599		2028	3375	
Peak-hour factor, PHF	0.95	0.95	0.96	0.96	0.93	0.93
Adj. Flow (vph)	147	600	208	635	613	226
RTOR Reduction (vph)	0	86	0	0	46	0
Lane Group Flow (vph)	147	514	0	843	793	0
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	1%	1%	2%	2%	2%	2%
Turn Type	Prot	pt+ov	D.P+P	NA	NA	
Protected Phases	4	4 1	1	1 2	2	
Permitted Phases			2			
Actuated Green, G (s)	19.0	35.2		45.7	34.1	
Effective Green, g (s)	19.0	35.2		45.7	34.1	
Actuated g/C Ratio	0.24	0.44		0.57	0.43	
Clearance Time (s)	4.6				6.7	
Vehicle Extension (s)	1.5				3.0	
Lane Grp Cap (vph)	410	703		1371	1438	
v/s Ratio Prot	0.09	c0.32		0.09	0.23	
v/s Ratio Perm				c0.26		
v/c Ratio	0.36	0.73		0.61	0.55	
Uniform Delay, d1	25.4	18.5		11.3	17.2	
Progression Factor	1.00	1.00		0.92	1.00	
Incremental Delay, d2	0.2	3.4		0.4	1.5	
Delay (s)	25.6	21.9		10.8	18.7	
Level of Service	C	C		B	B	
Approach Delay (s)	22.6			10.8	18.7	
Approach LOS	C			B	B	

Intersection Summary

HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Queues

8: Route 161 & Frontage Road to I-95 SB Ramps

08/31/2022



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	147	600	843	839
v/c Ratio	0.36	0.77	0.59	0.56
Control Delay	27.7	21.9	7.6	17.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.7	21.9	7.6	17.5
Queue Length 50th (ft)	60	181	42	147
Queue Length 95th (ft)	110	318	63	204
Internal Link Dist (ft)	375		591	1674
Turn Bay Length (ft)				
Base Capacity (vph)	440	766	1440	1486
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.33	0.78	0.59	0.56
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

10: Route 161 & I-95 NB Exit Ramp/King Arthur Dr & I95 NB Entrance Ramp

08/31/2022



Movement	EBL2	EBT	EBR	WBL	WBR	WBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations		↖	↗	↖	↗		↕	↗			↘	↕
Traffic Volume (vph)	220	20	120	40	50	50	530	450	40	140	60	940
Future Volume (vph)	220	20	120	40	50	50	530	450	40	140	60	940
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	11	8	11	11	11
Total Lost time (s)		4.2	4.2	4.2	4.2		6.9				4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		0.95				1.00	0.95
Frbp, ped/bikes		1.00	0.98	1.00	0.96		0.99				1.00	1.00
Flpb, ped/bikes		0.99	1.00	1.00	1.00		1.00				1.00	1.00
Frt		1.00	0.85	1.00	0.85		0.93				1.00	1.00
Flt Protected		0.96	1.00	0.95	1.00		1.00				0.95	1.00
Satd. Flow (prot)		1753	1539	1688	1502		3239				1711	3421
Flt Permitted		0.96	1.00	0.31	1.00		1.00				0.95	1.00
Satd. Flow (perm)		1753	1539	547	1502		3239				1711	3421
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.98	0.98	0.98
Adj. Flow (vph)	239	22	130	44	55	55	552	469	42	143	61	959
RTOR Reduction (vph)	0	0	107	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	261	23	44	110	0	1063	0	0	0	204	959
Confl. Peds. (#/hr)	4		4	4	4	4		4	4	4	4	
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	custom	NA	custom	Perm	Perm		NA			Prot	Prot	NA
Protected Phases							2			1	1	1
Permitted Phases	4	4	4	4	4							
Actuated Green, G (s)		14.3	14.3	14.3	14.3		35.8				14.8	54.6
Effective Green, g (s)		14.3	14.3	14.3	14.3		35.8				14.8	54.6
Actuated g/C Ratio		0.18	0.18	0.18	0.18		0.45				0.19	0.68
Clearance Time (s)		4.2	4.2	4.2	4.2		6.9				4.0	
Vehicle Extension (s)		1.5	1.5	1.5	1.5		2.5				1.5	
Lane Grp Cap (vph)		313	275	97	268		1449				316	2334
v/s Ratio Prot							c0.33				c0.12	0.28
v/s Ratio Perm		c0.15	0.02	0.08	0.07							
v/c Ratio		0.83	0.08	0.45	0.41		0.73				0.65	0.41
Uniform Delay, d1		31.7	27.4	29.4	29.1		18.2				30.2	5.6
Progression Factor		1.00	1.00	1.00	1.00		1.00				1.12	1.45
Incremental Delay, d2		16.4	0.0	1.2	0.4		3.3				2.5	0.0
Delay (s)		48.1	27.4	30.6	29.5		21.5				36.1	8.2
Level of Service		D	C	C	C		C				D	A
Approach Delay (s)		41.2					21.5					13.1
Approach LOS		D					C					B

Intersection Summary

HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Queues

10: Route 161 & I-95 NB Exit Ramp/King Arthur Dr & I95 NB Entrance Ramp

08/31/2022



Lane Group	EBT	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	261	130	44	110	1063	204	959
v/c Ratio	0.83	0.34	0.45	0.41	0.73	0.64	0.39
Control Delay	55.0	8.2	44.4	33.5	23.3	40.5	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	8.2	44.4	33.5	23.3	40.5	7.1
Queue Length 50th (ft)	124	0	19	48	242	99	111
Queue Length 95th (ft)	#234	43	53	95	324	m151	149
Internal Link Dist (ft)	499				1247		591
Turn Bay Length (ft)				110		120	
Base Capacity (vph)	346	408	108	297	1447	363	2451
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.32	0.41	0.37	0.73	0.56	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 12: Route 161 & Industrial Park Rd/Chapman Woods Rd

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔			↔↔		↔	↔↔		↔	↔↔	
Traffic Volume (vph)	220	10	110	10	10	50	80	680	20	50	820	130
Future Volume (vph)	220	10	110	10	10	50	80	680	20	50	820	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	13	14	14	14	11	12	13	11	11	11
Grade (%)		2%			-4%			0%				0%
Total Lost time (s)	4.9	3.6			3.6		3.5	5.5		3.5	5.5	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.90		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3285	1538			1854		1711	3524		1711	3351	
Flt Permitted	0.95	1.00			0.79		0.16	1.00		0.31	1.00	
Satd. Flow (perm)	3285	1538			1471		293	3524		566	3351	
Peak-hour factor, PHF	0.86	0.86	0.86	0.76	0.76	0.76	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	256	12	128	13	13	66	89	756	22	55	901	143
RTOR Reduction (vph)	0	117	0	0	60	0	0	3	0	0	16	0
Lane Group Flow (vph)	256	23	0	0	32	0	89	775	0	55	1028	0
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	8			8		1	6		5	2	
Permitted Phases		8		8			6			2		
Actuated Green, G (s)	8.6	5.8			5.8		34.6	29.8		31.6	28.3	
Effective Green, g (s)	8.6	5.8			5.8		34.6	29.8		31.6	28.3	
Actuated g/C Ratio	0.13	0.09			0.09		0.53	0.46		0.49	0.44	
Clearance Time (s)	4.9	3.6			3.6		3.5	5.5		3.5	5.5	
Vehicle Extension (s)	2.5	1.5			1.5		1.5	2.5		1.5	2.5	
Lane Grp Cap (vph)	434	137			131		260	1615		333	1458	
v/s Ratio Prot	c0.08	0.02					c0.03	0.22		0.01	c0.31	
v/s Ratio Perm					c0.02		0.16			0.07		
v/c Ratio	0.59	0.17			0.24		0.34	0.48		0.17	0.71	
Uniform Delay, d1	26.5	27.4			27.6		8.9	12.2		9.0	15.0	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.7	0.2			0.4		0.3	1.0		0.1	2.9	
Delay (s)	28.2	27.6			27.9		9.2	13.2		9.0	17.8	
Level of Service	C	C			C		A	B		A	B	
Approach Delay (s)		28.0			27.9			12.8			17.4	
Approach LOS		C			C			B			B	

Intersection Summary		
HCM 2000 Control Delay	17.9	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.59	B
Actuated Cycle Length (s)	65.0	Sum of lost time (s)
Intersection Capacity Utilization	55.4%	17.5
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		B

Queues

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

08/31/2022



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	256	140	92	89	778	55	1044
v/c Ratio	0.59	0.55	0.48	0.30	0.46	0.14	0.69
Control Delay	32.5	16.1	20.9	9.1	13.7	7.1	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	16.1	20.9	9.1	13.7	7.1	18.9
Queue Length 50th (ft)	49	5	10	13	110	8	166
Queue Length 95th (ft)	78	45	36	32	175	22	#298
Internal Link Dist (ft)		619	594		240		1247
Turn Bay Length (ft)	150			200		100	
Base Capacity (vph)	459	288	225	403	1692	430	1509
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.49	0.41	0.22	0.46	0.13	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

17: Route 161 & Laurel Hill Dr

08/31/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	30	720	20	50	810
Future Volume (Veh/h)	10	30	720	20	50	810
Sign Control	Stop		Free		Free	
Grade	-3%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	11	34	809	22	53	853
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	1					
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)	1032					
pX, platoon unblocked	0.77	0.77			0.77	
vC, conflicting volume	1779	820			831	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1860	622			636	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	81	91			93	
cM capacity (veh/h)	58	377			737	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	45	831	906			
Volume Left	11	0	53			
Volume Right	34	22	0			
cSH	237	1700	737			
Volume to Capacity	0.19	0.49	0.07			
Queue Length 95th (ft)	17	0	6			
Control Delay (s)	31.5	0.0	2.0			
Lane LOS	D		A			
Approach Delay (s)	31.5	0.0	2.0			
Approach LOS	D					
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			93.6%	ICU Level of Service	F	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

19: Route 161 & Society Rd

08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	120	90	90	580	670	130
Future Volume (vph)	120	90	90	580	670	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	14	14
Grade (%)	0%			0%	3%	
Total Lost time (s)	4.0		4.0	4.0	5.6	5.6
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1630		1727	1818	1977	1641
Flt Permitted	0.97		0.12	1.00	1.00	1.00
Satd. Flow (perm)	1630		225	1818	1977	1641
Peak-hour factor, PHF	0.76	0.76	0.86	0.86	0.91	0.91
Adj. Flow (vph)	158	118	105	674	736	143
RTOR Reduction (vph)	35	0	0	0	0	44
Lane Group Flow (vph)	241	0	105	674	736	99
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		1	1 2	2	
Permitted Phases			1 2			2
Actuated Green, G (s)	16.5		46.6	50.6	34.6	34.6
Effective Green, g (s)	16.5		46.6	50.6	34.6	34.6
Actuated g/C Ratio	0.22		0.61	0.66	0.45	0.45
Clearance Time (s)	4.0		4.0		5.6	5.6
Vehicle Extension (s)	3.0		1.5		2.5	2.5
Lane Grp Cap (vph)	350		371	1199	891	740
v/s Ratio Prot	c0.15		0.04	c0.37	c0.37	
v/s Ratio Perm			0.13			0.06
v/c Ratio	0.69		0.28	0.56	0.83	0.13
Uniform Delay, d1	27.7		10.5	7.1	18.4	12.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	5.5		0.2	0.4	6.2	0.1
Delay (s)	33.3		10.7	7.4	24.6	12.4
Level of Service	C		B	A	C	B
Approach Delay (s)	33.3			7.9	22.6	
Approach LOS	C			A	C	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	76.7	Sum of lost time (s)	13.6
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

19: Route 161 & Society Rd

08/31/2022



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	276	105	674	736	143
v/c Ratio	0.72	0.28	0.55	0.83	0.18
Control Delay	33.9	7.6	9.4	29.9	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	7.6	9.4	29.9	7.8
Queue Length 50th (ft)	102	14	137	294	16
Queue Length 95th (ft)	140	39	277	#587	56
Internal Link Dist (ft)	1539		3382	952	
Turn Bay Length (ft)		105			120
Base Capacity (vph)	563	377	1216	890	782
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.49	0.28	0.55	0.83	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

22: Route 161 & Roxbury Rd

08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	40	50	670	720	50
Future Volume (vph)	20	40	50	670	720	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12
Grade (%)	2%			0%	0%	
Total Lost time (s)	4.0			6.1	6.1	
Lane Util. Factor	1.00			1.00	1.00	
Frbp, ped/bikes	0.98			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.91			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1562			1812	1862	
Flt Permitted	0.98			0.55	1.00	
Satd. Flow (perm)	1562			1005	1862	
Peak-hour factor, PHF	0.79	0.79	0.92	0.92	0.93	0.93
Adj. Flow (vph)	25	51	54	728	774	54
RTOR Reduction (vph)	44	0	0	0	3	0
Lane Group Flow (vph)	32	0	0	782	825	0
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		D.P+P	NA	NA	
Protected Phases	5		6	2	6	2
Permitted Phases			2			
Actuated Green, G (s)	10.8			57.5	38.1	
Effective Green, g (s)	10.8			57.5	38.1	
Actuated g/C Ratio	0.13			0.70	0.46	
Clearance Time (s)	4.0				6.1	
Vehicle Extension (s)	1.5				3.0	
Lane Grp Cap (vph)	204			891	860	
v/s Ratio Prot	c0.02			c0.21	c0.44	
v/s Ratio Perm				0.41		
v/c Ratio	0.16			0.88	0.96	
Uniform Delay, d1	31.8			9.7	21.4	
Progression Factor	1.00			1.54	1.00	
Incremental Delay, d2	0.1			8.6	21.0	
Delay (s)	31.9			23.6	42.4	
Level of Service	C			C	D	
Approach Delay (s)	31.9			23.6	42.4	
Approach LOS	C			C	D	

Intersection Summary

HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	82.4	Sum of lost time (s)	14.1
Intersection Capacity Utilization	90.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Queues

22: Route 161 & Roxbury Rd

08/31/2022



Lane Group	EBL	NBT	SBT
Lane Group Flow (vph)	76	782	828
v/c Ratio	0.31	0.93	0.96
Control Delay	18.9	27.5	45.4
Queue Delay	0.0	0.0	0.0
Total Delay	18.9	27.5	45.4
Queue Length 50th (ft)	12	204	402
Queue Length 95th (ft)	41	#304	#660
Internal Link Dist (ft)	1120	476	697
Turn Bay Length (ft)			
Base Capacity (vph)	252	869	883
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.30	0.90	0.94

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

08/31/2022



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↖	↗		↖			↖	↗		↕	
Traffic Volume (vph)	10	410	320	10	430	10	260	10	20	10	10	10
Future Volume (vph)	10	410	320	10	430	10	260	10	20	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	16	16	16
Grade (%)		0%			0%			2%				-4%
Total Lost time (s)		6.1	6.1		6.1			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00	
Frbp, ped/bikes		1.00	0.98		1.00			1.00	0.97		0.99	
Flpb, ped/bikes		1.00	1.00		1.00			0.99	1.00		1.00	
Frt		1.00	0.85		1.00			1.00	0.85		0.95	
Flt Protected		1.00	1.00		1.00			0.95	1.00		0.98	
Satd. Flow (prot)		1942	1614		1872			1759	1534		2038	
Flt Permitted		0.99	1.00		0.99			0.71	1.00		0.90	
Satd. Flow (perm)		1918	1614		1850			1300	1534		1864	
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95	0.92	0.92	0.92	0.75	0.75	0.75
Adj. Flow (vph)	11	456	356	11	453	11	283	11	22	13	13	13
RTOR Reduction (vph)	0	0	98	0	1	0	0	0	13	0	8	0
Lane Group Flow (vph)	0	467	258	0	474	0	0	294	9	0	31	0
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			5 6		5 6		5 6
Permitted Phases	2		2	2			5 6		5 6	5 6		
Actuated Green, G (s)		38.1	38.1		38.1			34.2	34.2		34.2	
Effective Green, g (s)		38.1	38.1		38.1			34.2	34.2		34.2	
Actuated g/C Ratio		0.46	0.46		0.46			0.42	0.42		0.42	
Clearance Time (s)		6.1	6.1		6.1							
Vehicle Extension (s)		3.0	3.0		3.0							
Lane Grp Cap (vph)		886	746		855			539	636		773	
v/s Ratio Prot												
v/s Ratio Perm		0.24	0.16		c0.26			c0.23	0.01		0.02	
v/c Ratio		0.53	0.35		0.55			0.55	0.01		0.04	
Uniform Delay, d1		15.7	14.2		16.0			18.2	14.2		14.3	
Progression Factor		0.65	0.65		1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.1		0.8			0.6	0.0		0.0	
Delay (s)		10.4	9.4		16.8			18.8	14.2		14.3	
Level of Service		B	A		B			B	B		B	
Approach Delay (s)		10.0			16.8			18.5			14.3	
Approach LOS		A			B			B			B	

Intersection Summary

HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	82.4	Sum of lost time (s)	14.1
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

08/31/2022



Lane Group	SET	SER	NWT	NET	NER	SWT
Lane Group Flow (vph)	467	356	475	294	22	39
v/c Ratio	0.53	0.42	0.56	0.55	0.03	0.05
Control Delay	11.5	5.3	19.2	23.1	2.5	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	5.3	19.2	23.1	2.5	11.2
Queue Length 50th (ft)	75	31	173	114	0	8
Queue Length 95th (ft)	m93	m32	265	193	8	21
Internal Link Dist (ft)	476		773	540		361
Turn Bay Length (ft)		50			50	
Base Capacity (vph)	907	859	875	539	660	780
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.41	0.54	0.55	0.03	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis

25: Route 161 & Sleepy Hollow Rd

08/31/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	430	440	20	20	10
Future Volume (Veh/h)	10	430	440	20	20	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.69	0.69
Hourly flow rate (vph)	11	473	484	22	29	14
Pedestrians		4	4		4	
Lane Width (ft)		11.0	11.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		853				
pX, platoon unblocked					0.82	
vC, conflicting volume	510				998	503
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	510				891	503
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				88	98
cM capacity (veh/h)	1056				251	560
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	484	506	43			
Volume Left	11	0	29			
Volume Right	0	22	14			
cSH	1056	1700	306			
Volume to Capacity	0.01	0.30	0.14			
Queue Length 95th (ft)	1	0	12			
Control Delay (s)	0.3	0.0	18.7			
Lane LOS	A		C			
Approach Delay (s)	0.3	0.0	18.7			
Approach LOS			C			
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization		41.9%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

28: Route 161 & Oswegatchie Hills Rd

08/31/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	50	400	410	40	30	60
Future Volume (Veh/h)	50	400	410	40	30	60
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.83	0.83
Hourly flow rate (vph)	58	465	456	44	36	72
Pedestrians		6	6		6	
Lane Width (ft)		11.0	11.0		11.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	506				1071	490
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	506				1071	490
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				84	88
cM capacity (veh/h)	1058				231	576
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	523	500	108			
Volume Left	58	0	36			
Volume Right	0	44	72			
cSH	1058	1700	384			
Volume to Capacity	0.05	0.29	0.28			
Queue Length 95th (ft)	4	0	28			
Control Delay (s)	1.5	0.0	18.0			
Lane LOS	A		C			
Approach Delay (s)	1.5	0.0	18.0			
Approach LOS			C			
Intersection Summary						
Average Delay			2.4			
Intersection Capacity Utilization		65.0%		ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

30: Route 161 & State Rd/Lincoln St

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	20	0	10	10	0	10	0	370	10	10	400	10
Future Volume (Veh/h)	20	0	10	10	0	10	0	370	10	10	400	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.75	0.75	0.75	0.91	0.91	0.91	0.88	0.88	0.88
Hourly flow rate (vph)	26	0	13	13	0	13	0	407	11	11	455	11
Pedestrians		19			19			19			19	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	946	938	498	946	938	450	485			437		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	946	938	498	946	938	450	485			437		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	100	98	94	100	98	100			99		
cM capacity (veh/h)	222	254	555	219	252	587	1063			1108		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	26	418	477								
Volume Left	26	13	0	11								
Volume Right	13	13	11	11								
cSH	277	319	1063	1108								
Volume to Capacity	0.14	0.08	0.00	0.01								
Queue Length 95th (ft)	12	7	0	1								
Control Delay (s)	20.1	17.3	0.0	0.3								
Lane LOS	C	C		A								
Approach Delay (s)	20.1	17.3	0.0	0.3								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			44.5%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

35: Route 161 & Hope St

08/31/2022

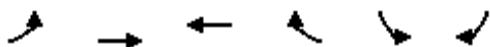


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	50	40	340	340	70
Future Volume (Veh/h)	50	50	40	340	340	70
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.84	0.84	0.91	0.91
Hourly flow rate (vph)	57	57	48	405	374	77
Pedestrians	19			19	19	
Lane Width (ft)	14.0			16.0	16.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			2	2	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)	664					
pX, platoon unblocked						
vC, conflicting volume	952	450	470			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	952	450	470			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	90	96			
cM capacity (veh/h)	265	586	1074			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	114	453	451			
Volume Left	57	48	0			
Volume Right	57	0	77			
cSH	365	1074	1700			
Volume to Capacity	0.31	0.04	0.27			
Queue Length 95th (ft)	33	4	0			
Control Delay (s)	19.3	1.3	0.0			
Lane LOS	C	A				
Approach Delay (s)	19.3	1.3	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			2.8			
Intersection Capacity Utilization			62.4%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

37: Rt 156 (Main St) & Route 161

08/31/2022

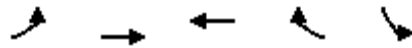


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	150	250	370	210	180	160
Future Volume (vph)	150	250	370	210	180	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	13	13
Total Lost time (s)	4.0	5.8	5.8	5.8	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	1.00	0.93	0.96	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.94	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1722	1881	1818	1440	1720	
Flt Permitted	0.24	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	427	1881	1818	1440	1720	
Peak-hour factor, PHF	0.92	0.92	0.80	0.80	0.91	0.91
Adj. Flow (vph)	163	272	462	262	198	176
RTOR Reduction (vph)	0	0	0	164	34	0
Lane Group Flow (vph)	163	272	463	99	340	0
Confl. Peds. (#/hr)	31			31	31	31
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	1	2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	32.6	24.8	24.8	24.8	18.6	
Effective Green, g (s)	32.6	24.8	24.8	24.8	18.6	
Actuated g/C Ratio	0.41	0.31	0.31	0.31	0.23	
Clearance Time (s)	4.0	5.8	5.8	5.8	4.0	
Vehicle Extension (s)	1.5	2.5	2.5	2.5	1.5	
Lane Grp Cap (vph)	303	589	569	450	403	
v/s Ratio Prot	c0.05	0.14	c0.25		c0.20	
v/s Ratio Perm	0.17			0.07		
v/c Ratio	0.54	0.46	0.81	0.22	0.84	
Uniform Delay, d1	16.5	21.8	25.1	20.1	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	0.4	8.5	0.2	14.3	
Delay (s)	17.4	22.3	33.6	20.2	43.3	
Level of Service	B	C	C	C	D	
Approach Delay (s)		20.4	28.7		43.3	
Approach LOS		C	C		D	
Intersection Summary						
HCM 2000 Control Delay			29.9		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.65			
Actuated Cycle Length (s)			79.2		Sum of lost time (s)	17.8
Intersection Capacity Utilization			60.4%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Queues

37: Rt 156 (Main St) & Route 161

08/31/2022



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	163	272	463	263	374
v/c Ratio	0.51	0.46	0.80	0.43	0.85
Control Delay	20.9	28.1	41.1	7.6	47.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	28.1	41.1	7.6	47.7
Queue Length 50th (ft)	58	134	263	10	191
Queue Length 95th (ft)	100	213	#364	48	#363
Internal Link Dist (ft)		576	456		584
Turn Bay Length (ft)	170			170	
Base Capacity (vph)	355	645	623	646	498
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.42	0.74	0.41	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

2: Route 161 & East Lyme High School


























08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	30	30	420	540	10
Future Volume (Veh/h)	10	30	30	420	540	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.46	0.46	0.89	0.89	0.87	0.87
Hourly flow rate (vph)	22	65	34	472	621	11
Pedestrians	8			8	8	
Lane Width (ft)	13.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				849		
pX, platoon unblocked	0.86					
vC, conflicting volume	1182	642	640			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1130	642	640			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	86	96			
cM capacity (veh/h)	184	468	946			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	22	65	506	632		
Volume Left	22	0	34	0		
Volume Right	0	65	0	11		
cSH	184	468	946	1700		
Volume to Capacity	0.12	0.14	0.04	0.37		
Queue Length 95th (ft)	10	12	3	0		
Control Delay (s)	27.2	13.9	1.0	0.0		
Lane LOS	D	B	A			
Approach Delay (s)	17.3		1.0	0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			59.1%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
 4: Route 161 & U.S. Route 1 (Boston Post Rd)

08/31/2022

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		 									 		
Traffic Volume (vph)	100	220	180	270	250	110	170	310	140	170	380	90	
Future Volume (vph)	100	220	180	270	250	110	170	310	140	170	380	90	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	11	12	11	11	11	11	11	11	11	12	12	
Total Lost time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0		
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		
Frbp, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00		
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1725	3200		1727	1818	1510	1727	1818	1523	1727	3456		
Flt Permitted	0.59	1.00		0.33	1.00	1.00	0.35	1.00	1.00	0.32	1.00		
Satd. Flow (perm)	1069	3200		592	1818	1510	643	1818	1523	576	3456		
Peak-hour factor, PHF	0.93	0.93	0.93	0.90	0.90	0.90	0.94	0.94	0.94	0.91	0.91	0.91	
Adj. Flow (vph)	108	237	194	300	278	122	181	330	149	187	418	99	
RTOR Reduction (vph)	0	153	0	0	0	84	0	0	113	0	18	0	
Lane Group Flow (vph)	108	278	0	300	278	38	181	330	36	187	499	0	
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		
Protected Phases	1	6		5	2		3	8		7	4		
Permitted Phases	6			2		2	8		8	4			
Actuated Green, G (s)	23.6	17.0		35.2	24.6	24.6	29.0	19.3	19.3	31.5	20.8		
Effective Green, g (s)	23.6	17.0		35.2	24.6	24.6	29.0	19.3	19.3	31.5	20.8		
Actuated g/C Ratio	0.30	0.21		0.44	0.31	0.31	0.36	0.24	0.24	0.40	0.26		
Clearance Time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0		
Vehicle Extension (s)	2.0	2.5		2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0		
Lane Grp Cap (vph)	370	682		456	561	466	365	440	368	382	901		
v/s Ratio Prot	0.02	0.09		c0.11	0.15		0.06	c0.18		c0.07	0.14		
v/s Ratio Perm	0.06			c0.18		0.02	0.12		0.02	0.13			
v/c Ratio	0.29	0.41		0.66	0.50	0.08	0.50	0.75	0.10	0.49	0.55		
Uniform Delay, d1	21.1	27.0		15.6	22.5	19.5	18.2	28.0	23.4	17.0	25.4		
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.2	0.3		2.6	0.5	0.1	0.4	6.3	0.0	0.4	0.4		
Delay (s)	21.2	27.3		18.2	23.0	19.6	18.6	34.2	23.5	17.3	25.9		
Level of Service	C	C		B	C	B	B	C	C	B	C		
Approach Delay (s)		26.1			20.3			27.5			23.6		
Approach LOS		C			C			C			C		
Intersection Summary													
HCM 2000 Control Delay			24.2									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.69										
Actuated Cycle Length (s)			79.7									Sum of lost time (s)	19.0
Intersection Capacity Utilization			69.0%									ICU Level of Service	C
Analysis Period (min)			15										
c	Critical Lane Group												

Queues

4: Route 161 & U.S. Route 1 (Boston Post Rd)

08/31/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	108	431	300	278	122	181	330	149	187	517
v/c Ratio	0.26	0.54	0.65	0.49	0.22	0.48	0.75	0.31	0.48	0.56
Control Delay	17.0	18.9	23.8	29.1	6.6	18.1	39.9	6.6	17.8	26.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	18.9	23.8	29.1	6.6	18.1	39.9	6.6	17.8	26.8
Queue Length 50th (ft)	30	53	93	113	0	53	151	0	55	109
Queue Length 95th (ft)	74	113	194	233	43	101	271	45	104	179
Internal Link Dist (ft)		985		337			1674			769
Turn Bay Length (ft)	90		310		140	190			260	
Base Capacity (vph)	569	1528	483	818	747	490	619	617	477	1224
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.28	0.62	0.34	0.16	0.37	0.53	0.24	0.39	0.42

Intersection Summary

HCM Signalized Intersection Capacity Analysis

8: Route 161 & Frontage Road to I-95 SB Ramps

08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	120	480	230	510	590	250
Future Volume (vph)	120	480	230	510	590	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12
Total Lost time (s)	4.6	4.6		4.0	6.7	
Lane Util. Factor	1.00	1.00		0.95	0.95	
Frbp, ped/bikes	1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	0.96	
Flt Protected	0.95	1.00		0.98	1.00	
Satd. Flow (prot)	1745	1615		3519	3393	
Flt Permitted	0.95	1.00		0.52	1.00	
Satd. Flow (perm)	1745	1615		1870	3393	
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.85	0.85
Adj. Flow (vph)	130	522	253	560	694	294
RTOR Reduction (vph)	0	68	0	0	57	0
Lane Group Flow (vph)	130	454	0	813	932	0
Confl. Peds. (#/hr)	1	1	1			1
Heavy Vehicles (%)	0%	0%	1%	1%	1%	1%
Turn Type	Prot	pt+ov	D.P+P	NA	NA	
Protected Phases	4	4 1	1	1 2	2	
Permitted Phases			2			
Actuated Green, G (s)	17.9	34.5		46.8	34.8	
Effective Green, g (s)	17.9	34.5		46.8	34.8	
Actuated g/C Ratio	0.22	0.43		0.58	0.43	
Clearance Time (s)	4.6				6.7	
Vehicle Extension (s)	1.5				3.0	
Lane Grp Cap (vph)	390	696		1341	1475	
v/s Ratio Prot	0.07	c0.28		0.09	c0.27	
v/s Ratio Perm				0.26		
v/c Ratio	0.33	0.65		0.61	0.63	
Uniform Delay, d1	26.0	18.0		10.7	17.6	
Progression Factor	1.00	1.00		0.94	1.00	
Incremental Delay, d2	0.2	1.7		0.4	2.1	
Delay (s)	26.2	19.7		10.4	19.7	
Level of Service	C	B		B	B	
Approach Delay (s)	21.0			10.4	19.7	
Approach LOS	C			B	B	

Intersection Summary

HCM 2000 Control Delay	17.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.3
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Queues

8: Route 161 & Frontage Road to I-95 SB Ramps

08/31/2022



Lane Group	EBL	EBR	NBT	SBT
Lane Group Flow (vph)	130	522	813	988
v/c Ratio	0.33	0.69	0.58	0.65
Control Delay	27.6	19.4	7.5	18.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.6	19.4	7.5	18.7
Queue Length 50th (ft)	52	152	41	183
Queue Length 95th (ft)	99	264	61	228
Internal Link Dist (ft)	375		591	1674
Turn Bay Length (ft)				
Base Capacity (vph)	444	753	1404	1529
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.69	0.58	0.65
Intersection Summary				

HCM Signalized Intersection Capacity Analysis

10: Route 161 & I-95 NB Exit Ramp/King Arthur Dr & I95 NB Entrance Ramp

08/31/2022



Movement	EBL2	EBT	EBR	WBL	WBR	WBR2	NBT	NBR	NBR2	SBL2	SBL	SBT
Lane Configurations		↖	↗	↖	↗		↕	↗			↘	↕
Traffic Volume (vph)	180	20	90	50	60	50	500	360	50	160	70	830
Future Volume (vph)	180	20	90	50	60	50	500	360	50	160	70	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	11	8	11	11	11
Total Lost time (s)		4.2	4.2	4.2	4.2		6.9				4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00		0.95				1.00	0.95
Frbp, ped/bikes		1.00	0.98	1.00	0.97		0.99				1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00				1.00	1.00
Frt		1.00	0.85	1.00	0.85		0.93				1.00	1.00
Flt Protected		0.96	1.00	0.95	1.00		1.00				0.95	1.00
Satd. Flow (prot)		1794	1574	1741	1563		3296				1745	3490
Flt Permitted		0.96	1.00	0.38	1.00		1.00				0.95	1.00
Satd. Flow (perm)		1794	1574	694	1563		3296				1745	3490
Peak-hour factor, PHF	0.92	0.92	0.92	0.74	0.74	0.74	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	196	22	98	68	81	68	532	383	53	168	74	874
RTOR Reduction (vph)	0	0	82	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	218	16	68	149	0	968	0	0	0	242	874
Confl. Peds. (#/hr)	2		2	2	2	2		2	2	2	2	
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	0%	0%	0%
Turn Type	custom	NA	custom	Perm	Perm		NA			Prot	Prot	NA
Protected Phases							2			1	1	1 2
Permitted Phases	4	4	4	4	4							
Actuated Green, G (s)		12.9	12.9	12.9	12.9		36.7				15.3	56.0
Effective Green, g (s)		12.9	12.9	12.9	12.9		36.7				15.3	56.0
Actuated g/C Ratio		0.16	0.16	0.16	0.16		0.46				0.19	0.70
Clearance Time (s)		4.2	4.2	4.2	4.2		6.9				4.0	
Vehicle Extension (s)		1.5	1.5	1.5	1.5		2.5				1.5	
Lane Grp Cap (vph)		289	253	111	252		1512				333	2443
v/s Ratio Prot							c0.29				c0.14	0.25
v/s Ratio Perm		c0.12	0.01	0.10	0.10							
v/c Ratio		0.75	0.06	0.61	0.59		0.64				0.73	0.36
Uniform Delay, d1		32.0	28.4	31.2	31.1		16.6				30.4	4.8
Progression Factor		1.00	1.00	1.00	1.00		1.00				1.04	1.71
Incremental Delay, d2		9.5	0.0	6.9	2.5		2.1				4.9	0.0
Delay (s)		41.5	28.5	38.1	33.6		18.7				36.5	8.3
Level of Service		D	C	D	C		B				D	A
Approach Delay (s)		37.5					18.7					14.4
Approach LOS		D					B					B

Intersection Summary

HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Queues

10: Route 161 & I-95 NB Exit Ramp/King Arthur Dr & I95 NB Entrance Ramp

08/31/2022



Lane Group	EBT	EBR	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	218	98	68	149	968	242	874
v/c Ratio	0.75	0.28	0.61	0.59	0.64	0.72	0.34
Control Delay	48.2	7.6	53.3	40.3	20.4	41.3	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	7.6	53.3	40.3	20.4	41.3	7.3
Queue Length 50th (ft)	104	0	32	69	204	119	109
Queue Length 95th (ft)	171	33	58	98	282	m187	154
Internal Link Dist (ft)	499				1247		591
Turn Bay Length (ft)				110		120	
Base Capacity (vph)	354	397	137	309	1509	375	2552
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.25	0.50	0.48	0.64	0.65	0.34

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 12: Route 161 & Industrial Park Rd/Chapman Woods Rd

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔			↔↔		↔	↔↔		↔	↔↔	
Traffic Volume (vph)	140	10	90	10	0	10	90	710	10	10	770	80
Future Volume (vph)	140	10	90	10	0	10	90	710	10	10	770	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	13	14	14	14	11	12	13	11	11	11
Grade (%)		2%			-4%			0%				0%
Total Lost time (s)	4.9	3.6			3.6		3.5	5.5		3.5	5.5	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3318	1556			1844		1728	3567		1728	3406	
Flt Permitted	0.95	1.00			0.80		0.21	1.00		0.36	1.00	
Satd. Flow (perm)	3318	1556			1516		379	3567		646	3406	
Peak-hour factor, PHF	0.87	0.87	0.87	0.80	0.80	0.80	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	161	11	103	12	0	12	98	772	11	11	837	87
RTOR Reduction (vph)	0	94	0	0	24	0	0	1	0	0	10	0
Lane Group Flow (vph)	161	20	0	0	2	0	98	782	0	11	914	0
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	8			8		1	6		5	2	
Permitted Phases		8		8			6			2		
Actuated Green, G (s)	6.7	5.8			5.8		38.5	34.0		31.1	30.1	
Effective Green, g (s)	6.7	5.8			5.8		38.5	34.0		31.1	30.1	
Actuated g/C Ratio	0.10	0.09			0.09		0.59	0.52		0.48	0.46	
Clearance Time (s)	4.9	3.6			3.6		3.5	5.5		3.5	5.5	
Vehicle Extension (s)	2.5	1.5			1.5		1.5	2.5		1.5	2.5	
Lane Grp Cap (vph)	342	138			135		326	1865		325	1577	
v/s Ratio Prot	c0.05	c0.01					c0.02	0.22		0.00	c0.27	
v/s Ratio Perm					0.00		0.16			0.02		
v/c Ratio	0.47	0.15			0.02		0.30	0.42		0.03	0.58	
Uniform Delay, d1	27.5	27.3			27.0		6.8	9.5		8.9	12.8	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	0.2			0.0		0.2	0.7		0.0	1.6	
Delay (s)	28.2	27.5			27.0		7.0	10.2		8.9	14.4	
Level of Service	C	C			C		A	B		A	B	
Approach Delay (s)		27.9			27.0			9.8			14.3	
Approach LOS		C			C			A			B	

Intersection Summary

HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	17.5
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Queues

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

08/31/2022



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	161	114	26	98	783	11	924
v/c Ratio	0.40	0.49	0.07	0.27	0.38	0.02	0.55
Control Delay	29.2	15.9	0.4	7.9	9.7	6.3	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	15.9	0.4	7.9	9.7	6.3	15.3
Queue Length 50th (ft)	30	4	0	14	77	2	136
Queue Length 95th (ft)	53	42	0	35	170	8	225
Internal Link Dist (ft)		619	594		240		1247
Turn Bay Length (ft)	150			200		100	
Base Capacity (vph)	464	268	386	460	2078	496	1681
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.43	0.07	0.21	0.38	0.02	0.55

Intersection Summary

HCM Unsignalized Intersection Capacity Analysis
 17: Route 161 & Laurel Hill Dr

08/31/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	30	730	10	30	760
Future Volume (Veh/h)	10	30	730	10	30	760
Sign Control	Stop		Free		Free	
Grade	-3%		0%		0%	
Peak Hour Factor	0.75	0.75	0.90	0.90	0.97	0.97
Hourly flow rate (vph)	13	40	811	11	31	784
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	1					
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked	0.76	0.76			0.76	
vC, conflicting volume	1662	816			822	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1715	595			602	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	82	90			96	
cM capacity (veh/h)	73	384			744	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	53	822	815			
Volume Left	13	0	31			
Volume Right	40	11	0			
cSH	297	1700	744			
Volume to Capacity	0.18	0.48	0.04			
Queue Length 95th (ft)	16	0	3			
Control Delay (s)	27.6	0.0	1.1			
Lane LOS	D		A			
Approach Delay (s)	27.6	0.0	1.1			
Approach LOS	D					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			74.3%	ICU Level of Service		D
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

19: Route 161 & Society Rd

08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	100	80	50	640	650	120
Future Volume (vph)	100	80	50	640	650	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	14	14
Grade (%)	0%			0%	3%	
Total Lost time (s)	4.0		4.0	4.0	5.6	5.6
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1680		1745	1837	1996	1697
Flt Permitted	0.97		0.12	1.00	1.00	1.00
Satd. Flow (perm)	1680		221	1837	1996	1697
Peak-hour factor, PHF	0.67	0.67	0.84	0.84	0.87	0.87
Adj. Flow (vph)	149	119	60	762	747	138
RTOR Reduction (vph)	38	0	0	0	0	41
Lane Group Flow (vph)	230	0	60	762	747	97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		1	1 2	2	
Permitted Phases			1 2			2
Actuated Green, G (s)	15.6		46.5	50.5	34.5	34.5
Effective Green, g (s)	15.6		46.5	50.5	34.5	34.5
Actuated g/C Ratio	0.21		0.61	0.67	0.46	0.46
Clearance Time (s)	4.0		4.0		5.6	5.6
Vehicle Extension (s)	3.0		1.5		2.5	2.5
Lane Grp Cap (vph)	346		377	1225	909	773
v/s Ratio Prot	c0.14		0.03	c0.41	c0.37	
v/s Ratio Perm			0.07			0.06
v/c Ratio	0.66		0.16	0.62	0.82	0.13
Uniform Delay, d1	27.6		9.9	7.2	17.9	11.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	4.8		0.1	0.7	5.9	0.1
Delay (s)	32.4		9.9	7.9	23.8	11.9
Level of Service	C		A	A	C	B
Approach Delay (s)	32.4			8.0	22.0	
Approach LOS	C			A	C	

Intersection Summary

HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	75.7	Sum of lost time (s)	13.6
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Queues

19: Route 161 & Society Rd

08/31/2022



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	268	60	762	747	138
v/c Ratio	0.70	0.16	0.60	0.82	0.17
Control Delay	32.8	6.1	9.9	28.8	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	6.1	9.9	28.8	7.6
Queue Length 50th (ft)	96	8	159	291	16
Queue Length 95th (ft)	112	23	304	#545	51
Internal Link Dist (ft)	1539		3382	952	
Turn Bay Length (ft)		105			120
Base Capacity (vph)	588	382	1264	909	814
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.16	0.60	0.82	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

22: Route 161 & Roxbury Rd

08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	WT			WT	WT	
Traffic Volume (vph)	50	50	40	640	680	40
Future Volume (vph)	50	50	40	640	680	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12
Grade (%)	2%			0%	0%	
Total Lost time (s)	4.0			6.1	6.1	
Lane Util. Factor	1.00			1.00	1.00	
Frbp, ped/bikes	0.98			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1626			1831	1883	
Flt Permitted	0.98			0.73	1.00	
Satd. Flow (perm)	1626			1337	1883	
Peak-hour factor, PHF	0.69	0.69	0.87	0.87	0.94	0.94
Adj. Flow (vph)	72	72	46	736	723	43
RTOR Reduction (vph)	42	0	0	0	3	0
Lane Group Flow (vph)	102	0	0	782	763	0
Confl. Peds. (#/hr)	4	4	4			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	Prot		D.P+P	NA	NA	
Protected Phases	5		6	2	6	2
Permitted Phases			2			
Actuated Green, G (s)	10.3			53.0	35.4	
Effective Green, g (s)	10.3			53.0	35.4	
Actuated g/C Ratio	0.13			0.68	0.46	
Clearance Time (s)	4.0				6.1	
Vehicle Extension (s)	1.5				3.0	
Lane Grp Cap (vph)	216			1027	861	
v/s Ratio Prot	c0.06			c0.17	c0.41	
v/s Ratio Perm				0.35		
v/c Ratio	0.47			0.76	0.89	
Uniform Delay, d1	31.0			8.0	19.2	
Progression Factor	1.00			1.02	1.00	
Incremental Delay, d2	0.6			3.0	10.9	
Delay (s)	31.6			11.2	30.0	
Level of Service	C			B	C	
Approach Delay (s)	31.6			11.2	30.0	
Approach LOS	C			B	C	

Intersection Summary

HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	77.4	Sum of lost time (s)	14.1
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Queues

22: Route 161 & Roxbury Rd

08/31/2022



Lane Group	EBL	NBT	SBT
Lane Group Flow (vph)	144	782	766
v/c Ratio	0.56	0.80	0.89
Control Delay	32.5	12.8	34.3
Queue Delay	0.0	0.0	0.0
Total Delay	32.5	12.8	34.3
Queue Length 50th (ft)	47	149	348
Queue Length 95th (ft)	71	207	#580
Internal Link Dist (ft)	1120	476	697
Turn Bay Length (ft)			
Base Capacity (vph)	277	1107	968
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.52	0.71	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

08/31/2022



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↖	↗		↖			↖	↗		↕	
Traffic Volume (vph)	10	470	250	10	430	10	240	0	20	10	10	10
Future Volume (vph)	10	470	250	10	430	10	240	0	20	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	16	16	16
Grade (%)		0%			0%			2%				-4%
Total Lost time (s)		6.1	6.1		6.1			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00	
Frb, ped/bikes		1.00	0.98		1.00			1.00	0.97		0.99	
Flpb, ped/bikes		1.00	1.00		1.00			0.99	1.00		1.00	
Frt		1.00	0.85		1.00			1.00	0.85		0.95	
Flt Protected		1.00	1.00		1.00			0.95	1.00		0.98	
Satd. Flow (prot)		1961	1632		1892			1775	1556		2042	
Flt Permitted		0.99	1.00		0.99			0.73	1.00		0.90	
Satd. Flow (perm)		1938	1632		1869			1360	1556		1870	
Peak-hour factor, PHF	0.93	0.93	0.93	0.88	0.88	0.88	0.93	0.93	0.93	0.65	0.65	0.65
Adj. Flow (vph)	11	505	269	11	489	11	258	0	22	15	15	15
RTOR Reduction (vph)	0	0	68	0	1	0	0	0	13	0	9	0
Lane Group Flow (vph)	0	516	201	0	510	0	0	258	9	0	36	0
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			5 6		5 6		5 6
Permitted Phases	2		2	2			5 6		5 6	5 6		
Actuated Green, G (s)		35.4	35.4		35.4			31.9	31.9		31.9	
Effective Green, g (s)		35.4	35.4		35.4			31.9	31.9		31.9	
Actuated g/C Ratio		0.46	0.46		0.46			0.41	0.41		0.41	
Clearance Time (s)		6.1	6.1		6.1							
Vehicle Extension (s)		3.0	3.0		3.0							
Lane Grp Cap (vph)		886	746		854			560	641		770	
v/s Ratio Prot												
v/s Ratio Perm		0.27	0.12		c0.27			c0.19	0.01		0.02	
v/c Ratio		0.58	0.27		0.60			0.46	0.01		0.05	
Uniform Delay, d1		15.5	13.0		15.7			16.5	13.5		13.6	
Progression Factor		0.63	0.67		1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.6	0.1		1.1			0.2	0.0		0.0	
Delay (s)		10.4	8.8		16.8			16.7	13.5		13.6	
Level of Service		B	A		B			B	B		B	
Approach Delay (s)		9.9			16.8			16.5			13.6	
Approach LOS		A			B			B			B	

Intersection Summary

HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	77.4	Sum of lost time (s)	14.1
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

08/31/2022



Lane Group	SET	SER	NWT	NET	NER	SWT
Lane Group Flow (vph)	516	269	511	258	22	45
v/c Ratio	0.58	0.33	0.60	0.46	0.03	0.06
Control Delay	12.1	5.7	19.7	20.8	2.5	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	5.7	19.7	20.8	2.5	11.2
Queue Length 50th (ft)	71	12	190	95	0	9
Queue Length 95th (ft)	m126	m27	279	162	8	19
Internal Link Dist (ft)	476		773	540		361
Turn Bay Length (ft)		50			50	
Base Capacity (vph)	994	898	960	608	718	845
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.30	0.53	0.42	0.03	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis

25: Route 161 & Sleepy Hollow Rd

08/31/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	10	490	430	20	10	20
Future Volume (Veh/h)	10	490	430	20	10	20
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.84	0.84	0.57	0.57
Hourly flow rate (vph)	11	527	512	24	18	35
Pedestrians		3	3		3	
Lane Width (ft)		11.0	11.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		853				
pX, platoon unblocked					0.79	
vC, conflicting volume	539				1079	530
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	539				968	530
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	94
cM capacity (veh/h)	1037				221	550
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	538	536	53			
Volume Left	11	0	18			
Volume Right	0	24	35			
cSH	1037	1700	365			
Volume to Capacity	0.01	0.32	0.15			
Queue Length 95th (ft)	1	0	13			
Control Delay (s)	0.3	0.0	16.5			
Lane LOS	A		C			
Approach Delay (s)	0.3	0.0	16.5			
Approach LOS			C			
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization		44.8%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

28: Route 161 & Oswegatchie Hills Rd

08/31/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (veh/h)	60	440	400	30	30	50
Future Volume (Veh/h)	60	440	400	30	30	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.98	0.98	0.80	0.80	0.74	0.74
Hourly flow rate (vph)	61	449	500	38	41	68
Pedestrians		1	1		1	
Lane Width (ft)		11.0	11.0		11.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	539				1092	521
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	539				1092	521
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				82	88
cM capacity (veh/h)	1039				225	558
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	510	538	109			
Volume Left	61	0	41			
Volume Right	0	38	68			
cSH	1039	1700	359			
Volume to Capacity	0.06	0.32	0.30			
Queue Length 95th (ft)	5	0	31			
Control Delay (s)	1.6	0.0	19.4			
Lane LOS	A		C			
Approach Delay (s)	1.6	0.0	19.4			
Approach LOS			C			
Intersection Summary						
Average Delay			2.6			
Intersection Capacity Utilization		64.4%		ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 30: Route 161 & State Rd/Lincoln St

08/31/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	10	0	0	10	0	10	0	330	10	10	410	0
Future Volume (Veh/h)	10	0	0	10	0	10	0	330	10	10	410	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.65	0.65	0.65	0.80	0.80	0.80	0.86	0.86	0.86	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	0	12	0	12	0	384	12	11	446	0
Pedestrians		14			14			14			14	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	898	892	474	886	886	418	460			410		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	898	892	474	886	886	418	460			410		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	100	100	95	100	98	100			99		
cM capacity (veh/h)	244	273	579	253	275	622	1097			1144		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	24	396	457								
Volume Left	15	12	0	11								
Volume Right	0	12	12	0								
cSH	244	360	1097	1144								
Volume to Capacity	0.06	0.07	0.00	0.01								
Queue Length 95th (ft)	5	5	0	1								
Control Delay (s)	20.7	15.7	0.0	0.3								
Lane LOS	C	C		A								
Approach Delay (s)	20.7	15.7	0.0	0.3								
Approach LOS	C	C										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			43.3%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

35: Route 161 & Hope St

08/31/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	70	50	310	360	80
Future Volume (Veh/h)	50	70	50	310	360	80
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.88	0.88	0.89	0.89
Hourly flow rate (vph)	67	93	57	352	404	90
Pedestrians	37			37	37	
Lane Width (ft)	14.0			16.0	16.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	4			5	5	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)	664					
pX, platoon unblocked						
vC, conflicting volume	989	523	531			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	989	523	531			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	72	82	94			
cM capacity (veh/h)	238	510	1004			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	160	409	494			
Volume Left	67	57	0			
Volume Right	93	0	90			
cSH	345	1004	1700			
Volume to Capacity	0.46	0.06	0.29			
Queue Length 95th (ft)	59	5	0			
Control Delay (s)	24.2	1.8	0.0			
Lane LOS	C	A				
Approach Delay (s)	24.2	1.8	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			4.3			
Intersection Capacity Utilization			65.5%	ICU Level of Service	C	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

37: Rt 156 (Main St) & Route 161

08/31/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↘	↘
Traffic Volume (vph)	180	260	270	160	210	170
Future Volume (vph)	180	260	270	160	210	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	13	13
Total Lost time (s)	4.0	5.8	5.8	5.8	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	1.00	0.90	0.96	
Flpb, ped/bikes	0.98	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.94	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1718	1900	1837	1404	1715	
Flt Permitted	0.45	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	808	1900	1837	1404	1715	
Peak-hour factor, PHF	0.85	0.85	0.95	0.95	0.86	0.86
Adj. Flow (vph)	212	306	284	168	244	198
RTOR Reduction (vph)	0	0	0	123	30	0
Lane Group Flow (vph)	212	306	284	45	412	0
Confl. Peds. (#/hr)	44			44	44	44
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	1	2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	29.0	20.8	20.8	20.8	21.2	
Effective Green, g (s)	29.0	20.8	20.8	20.8	21.2	
Actuated g/C Ratio	0.37	0.27	0.27	0.27	0.27	
Clearance Time (s)	4.0	5.8	5.8	5.8	4.0	
Vehicle Extension (s)	1.5	2.5	2.5	2.5	1.5	
Lane Grp Cap (vph)	395	506	489	373	465	
v/s Ratio Prot	c0.06	c0.16	0.15		c0.24	
v/s Ratio Perm	0.14			0.03		
v/c Ratio	0.54	0.60	0.58	0.12	0.89	
Uniform Delay, d1	17.8	25.1	24.9	21.7	27.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	1.7	1.5	0.1	17.6	
Delay (s)	18.5	26.8	26.3	21.8	44.9	
Level of Service	B	C	C	C	D	
Approach Delay (s)		23.4	24.6		44.9	
Approach LOS		C	C		D	

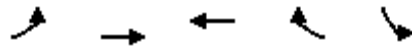
Intersection Summary

HCM 2000 Control Delay	30.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	17.8
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Queues

37: Rt 156 (Main St) & Route 161

08/31/2022



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	212	306	284	168	442
v/c Ratio	0.51	0.60	0.57	0.33	0.89
Control Delay	20.4	32.2	31.8	6.6	51.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	32.2	31.8	6.6	51.4
Queue Length 50th (ft)	77	154	142	0	-265
Queue Length 95th (ft)	120	223	224	47	#431
Internal Link Dist (ft)		576	456		584
Turn Bay Length (ft)	170			170	
Base Capacity (vph)	449	660	638	598	498
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.46	0.45	0.28	0.89

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

2: Route 161 & East Lyme High School

09/01/2022




























Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	60	50	700	540	20
Future Volume (Veh/h)	30	60	50	700	540	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	36	72	52	729	600	22
Pedestrians	5			5	5	
Lane Width (ft)	13.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				849		
pX, platoon unblocked	0.75					
vC, conflicting volume	1454	621	627			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1439	621	627			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	65	85	95			
cM capacity (veh/h)	102	477	950			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	36	72	781	622		
Volume Left	36	0	52	0		
Volume Right	0	72	0	22		
cSH	102	477	950	1700		
Volume to Capacity	0.35	0.15	0.05	0.37		
Queue Length 95th (ft)	35	13	4	0		
Control Delay (s)	58.8	13.9	1.4	0.0		
Lane LOS	F	B	A			
Approach Delay (s)	28.9		1.4	0.0		
Approach LOS	D					
Intersection Summary						
Average Delay			2.8			
Intersection Capacity Utilization			84.1%	ICU Level of Service	E	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

4: Route 161 & U.S. Route 1 (Boston Post Rd)

09/01/2022

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		 									 		
Traffic Volume (vph)	110	260	200	280	430	220	220	460	150	200	370	120	
Future Volume (vph)	110	260	200	280	430	220	220	460	150	200	370	120	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	11	12	11	11	11	11	11	11	11	12	12	
Total Lost time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0		
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95		
Frbp, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.99	1.00	0.99		
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1694	3147		1710	1801	1495	1710	1801	1509	1694	3356		
Flt Permitted	0.19	1.00		0.29	1.00	1.00	0.36	1.00	1.00	0.14	1.00		
Satd. Flow (perm)	347	3147		524	1801	1495	645	1801	1509	256	3356		
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.97	0.97	0.97	
Adj. Flow (vph)	117	277	213	315	483	247	234	489	160	206	381	124	
RTOR Reduction (vph)	0	140	0	0	0	113	0	0	111	0	27	0	
Lane Group Flow (vph)	117	350	0	315	483	134	234	489	49	206	478	0	
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2	
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	3%	3%	3%	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		
Protected Phases	1	6		5	2		3	8		7	4		
Permitted Phases	6			2		2	8		8	4			
Actuated Green, G (s)	31.7	23.1		41.7	29.1	29.1	38.9	26.9	26.9	40.4	27.9		
Effective Green, g (s)	31.7	23.1		41.7	29.1	29.1	38.9	26.9	26.9	40.4	27.9		
Actuated g/C Ratio	0.33	0.24		0.44	0.30	0.30	0.41	0.28	0.28	0.42	0.29		
Clearance Time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0		
Vehicle Extension (s)	2.0	2.5		2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0		
Lane Grp Cap (vph)	236	760		403	548	455	396	506	424	296	979		
v/s Ratio Prot	0.04	0.11		c0.12	c0.27		0.07	c0.27		c0.09	0.14		
v/s Ratio Perm	0.12			0.23		0.09	0.17		0.03	0.20			
v/c Ratio	0.50	0.46		0.78	0.88	0.30	0.59	0.97	0.11	0.70	0.49		
Uniform Delay, d1	24.1	30.9		19.6	31.6	25.4	19.8	33.9	25.5	21.0	28.0		
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	0.6	0.3		8.8	15.3	0.3	1.6	31.1	0.0	5.6	0.1		
Delay (s)	24.7	31.3		28.4	46.9	25.7	21.3	65.0	25.6	26.6	28.1		
Level of Service	C	C		C	D	C	C	E	C	C	C		
Approach Delay (s)		30.0			36.3			46.3			27.7		
Approach LOS		C			D			D			C		
Intersection Summary													
HCM 2000 Control Delay			35.9									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.90										
Actuated Cycle Length (s)			95.6									Sum of lost time (s)	19.0
Intersection Capacity Utilization			80.3%									ICU Level of Service	D
Analysis Period (min)			15										
c	Critical Lane Group												

Queues

4: Route 161 & U.S. Route 1 (Boston Post Rd)

09/01/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	117	490	315	483	247	234	489	160	206	505
v/c Ratio	0.49	0.54	0.77	0.88	0.44	0.58	0.97	0.30	0.69	0.50
Control Delay	23.4	21.5	32.6	51.0	12.4	23.6	70.8	7.4	33.1	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.4	21.5	32.6	51.0	12.4	23.6	70.8	7.4	33.1	29.9
Queue Length 50th (ft)	42	85	129	283	39	89	-320	2	77	130
Queue Length 95th (ft)	76	136	#210	#460	106	160	#581	54	#168	203
Internal Link Dist (ft)		985		299			1287			769
Turn Bay Length (ft)	90		310		140	190			260	
Base Capacity (vph)	357	1265	421	666	655	457	504	534	342	1004
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.39	0.75	0.73	0.38	0.51	0.97	0.30	0.60	0.50

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖		↗↘		↖	↗	↗↘	↖↗		↖	↖↖	↗	
Traffic Volume (vph)	150	0	630	0	0	0	220	670	0	0	630	230	
Future Volume (vph)	150	0	630	0	0	0	220	670	0	0	630	230	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12	
Total Lost time (s)	5.9		5.9				4.0	5.5			7.0	5.9	
Lane Util. Factor	1.00		0.88				0.97	0.95			0.95	1.00	
Frbp, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99	
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00	
Frt	1.00		0.85				1.00	1.00			1.00	0.85	
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (prot)	1728		2814				3433	3539			3539	1568	
Flt Permitted	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (perm)	1728		2814				3433	3539			3539	1568	
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.96	0.96	0.92	0.92	0.93	0.93	
Adj. Flow (vph)	158	0	663	0	0	0	229	698	0	0	677	247	
RTOR Reduction (vph)	0	0	350	0	0	0	0	0	0	0	0	91	
Lane Group Flow (vph)	158	0	313	0	0	0	229	698	0	0	677	156	
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3	
Heavy Vehicles (%)	1%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Turn Type	Prot		pt+ov				Prot	Prot	NA		pm+pt	NA	pm+ov
Protected Phases	8		8 1	4	4	4	1	6			5	2	8
Permitted Phases										2			2
Actuated Green, G (s)	13.7		30.3				10.7	49.9			33.7	47.4	
Effective Green, g (s)	13.7		30.3				10.7	49.9			33.7	47.4	
Actuated g/C Ratio	0.18		0.40				0.14	0.67			0.45	0.63	
Clearance Time (s)	5.9						4.0	5.5			7.0	5.9	
Vehicle Extension (s)	2.5						2.5	2.5			2.5	2.5	
Lane Grp Cap (vph)	315		1136				489	2354			1590	990	
v/s Ratio Prot	c0.09		0.11				c0.07	0.20			c0.19	0.03	
v/s Ratio Perm												0.07	
v/c Ratio	0.50		0.28				0.47	0.30			0.43	0.16	
Uniform Delay, d1	27.6		15.0				29.5	5.2			14.1	5.6	
Progression Factor	1.00		1.00				0.72	1.07			1.00	1.00	
Incremental Delay, d2	0.9		0.1				0.5	0.0			0.8	0.1	
Delay (s)	28.5		15.1				21.7	5.6			14.9	5.7	
Level of Service	C		B				C	A			B	A	
Approach Delay (s)		17.7			0.0			9.6			12.4		
Approach LOS		B			A			A			B		
Intersection Summary													
HCM 2000 Control Delay			13.1				HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.49										
Actuated Cycle Length (s)			75.0				Sum of lost time (s)			22.0			
Intersection Capacity Utilization			51.2%				ICU Level of Service			A			
Analysis Period (min)			15										
c Critical Lane Group													

Queues

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway

09/01/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	158	663	229	698	677	247
v/c Ratio	0.50	0.46	0.47	0.30	0.43	0.22
Control Delay	32.3	3.1	23.6	6.5	16.7	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	3.1	23.6	6.5	16.7	1.2
Queue Length 50th (ft)	67	12	38	47	108	0
Queue Length 95th (ft)	110	36	51	161	192	19
Internal Link Dist (ft)				824	1287	
Turn Bay Length (ft)						
Base Capacity (vph)	355	1389	508	2355	1590	1132
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.48	0.45	0.30	0.43	0.22
Intersection Summary						

HCM Signalized Intersection Capacity Analysis

10: Route 161 & Park and Ride Lot/King Arthur Dr

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↕↕		↕	↕↕	
Traffic Volume (vph)	30	0	20	90	0	50	0	1360	60	60	1190	10
Future Volume (vph)	30	0	20	90	0	50	0	1360	60	60	1190	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	8	11	11	11
Total Lost time (s)		4.2			4.2	4.0		6.6		4.0	6.1	
Lane Util. Factor		1.00			1.00	1.00		0.91		1.00	0.95	
Frbp, ped/bikes		0.99			1.00	0.99		1.00		1.00	1.00	
Flpb, ped/bikes		1.00			0.99	1.00		1.00		1.00	1.00	
Frt		0.95			1.00	0.85		0.99		1.00	1.00	
Flt Protected		0.97			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1677			1743	1549		5048		1711	3416	
Flt Permitted		0.81			0.80	1.00		1.00		0.12	1.00	
Satd. Flow (perm)		1406			1477	1549		5048		213	3416	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.98	0.98	0.98
Adj. Flow (vph)	33	0	22	99	0	55	0	1417	62	61	1214	10
RTOR Reduction (vph)	0	44	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	11	0	0	99	17	0	1480	0	61	1224	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4	4		8		8	2			6		
Actuated Green, G (s)		15.0			15.0	20.6		39.6		49.7	49.7	
Effective Green, g (s)		15.0			15.0	20.6		39.6		49.7	49.7	
Actuated g/C Ratio		0.20			0.20	0.27		0.53		0.66	0.66	
Clearance Time (s)		4.2			4.2	4.0		6.6		4.0	6.1	
Vehicle Extension (s)		1.5			1.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)		281			295	425		2665		252	2263	
v/s Ratio Prot						0.00		0.29		0.02	c0.36	
v/s Ratio Perm		0.01			c0.07	0.01				0.14		
v/c Ratio		0.04			0.34	0.04		0.56		0.24	0.54	
Uniform Delay, d1		24.2			25.7	20.0		11.8		5.8	6.7	
Progression Factor		1.00			1.00	1.00		0.51		0.76	0.65	
Incremental Delay, d2		0.0			0.2	0.0		0.7		0.3	0.2	
Delay (s)		24.2			26.0	20.0		6.7		4.7	4.5	
Level of Service		C			C	B		A		A	A	
Approach Delay (s)		24.2			23.8			6.7			4.5	
Approach LOS		C			C			A			A	

Intersection Summary

HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Queues

10: Route 161 & Park and Ride Lot/King Arthur Dr

09/01/2022



Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	55	99	55	1480	61	1224
v/c Ratio	0.15	0.34	0.11	0.54	0.21	0.54
Control Delay	1.7	29.5	6.4	6.8	4.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	29.5	6.4	6.8	4.4	5.3
Queue Length 50th (ft)	0	40	1	67	4	187
Queue Length 95th (ft)	6	82	23	72	m8	66
Internal Link Dist (ft)	104	603		431		69
Turn Bay Length (ft)			110			
Base Capacity (vph)	418	350	495	2720	286	2264
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.28	0.11	0.54	0.21	0.54

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	10	120	10	10	50	90	750	20	50	900	140
Future Volume (vph)	240	10	120	10	10	50	90	750	20	50	900	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	13	14	14	14	11	12	13	11	11	11
Grade (%)		2%			-4%			0%			0%	
Total Lost time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.90		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3285	1536			1854		1711	3526		1711	3352	
Flt Permitted	0.95	1.00			0.93		0.15	1.00		0.29	1.00	
Satd. Flow (perm)	3285	1536			1740		264	3526		514	3352	
Peak-hour factor, PHF	0.86	0.86	0.86	0.76	0.76	0.76	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	279	12	140	13	13	66	100	833	22	55	989	154
RTOR Reduction (vph)	0	123	0	0	58	0	0	2	0	0	11	0
Lane Group Flow (vph)	279	29	0	0	34	0	100	853	0	55	1132	0
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	8			8		1	6		5	2	
Permitted Phases		8		8			6			2		
Actuated Green, G (s)	5.6	9.3			9.3		42.0	37.1		39.2	35.8	
Effective Green, g (s)	5.6	9.3			9.3		42.0	37.1		39.2	35.8	
Actuated g/C Ratio	0.07	0.12			0.12		0.56	0.49		0.52	0.48	
Clearance Time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Vehicle Extension (s)	2.5	1.5			1.5		1.5	2.5		1.5	2.5	
Lane Grp Cap (vph)	245	190			215		242	1744		322	1600	
v/s Ratio Prot	c0.08	0.02					c0.03	0.24		0.01	c0.34	
v/s Ratio Perm					c0.02		0.20			0.08		
v/c Ratio	1.14	0.15			0.16		0.41	0.49		0.17	0.71	
Uniform Delay, d1	34.7	29.3			29.4		9.7	12.6		9.0	15.5	
Progression Factor	1.00	1.00			1.00		1.00	1.00		0.42	0.30	
Incremental Delay, d2	100.1	0.1			0.1		0.4	1.0		0.1	2.2	
Delay (s)	134.8	29.5			29.5		10.1	13.6		3.9	6.8	
Level of Service	F	C			C		B	B		A	A	
Approach Delay (s)		97.6			29.5			13.3			6.7	
Approach LOS		F			C			B			A	

Intersection Summary

HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Queues

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

09/01/2022



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	279	152	92	100	855	55	1143
v/c Ratio	1.14	0.49	0.34	0.37	0.47	0.15	0.70
Control Delay	135.3	12.9	16.1	9.8	13.6	3.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	135.3	12.9	16.1	9.8	13.6	3.2	6.9
Queue Length 50th (ft)	~79	5	11	16	136	2	41
Queue Length 95th (ft)	#142	49	37	36	201	m7	82
Internal Link Dist (ft)		619	594		240		743
Turn Bay Length (ft)	150			200		100	
Base Capacity (vph)	245	605	624	273	1821	378	1644
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.25	0.15	0.37	0.47	0.15	0.70

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis
 17: Route 161 & Laurel Hill Dr

09/01/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	30	790	20	50	890
Future Volume (Veh/h)	10	30	790	20	50	890
Sign Control	Stop		Free		Free	
Grade	-3%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	11	34	888	22	53	937
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	1					
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked	0.72	0.72			0.72	
vC, conflicting volume	1942	899			910	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2117	661			676	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	70	90			92	
cM capacity (veh/h)	37	331			659	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	45	910	990			
Volume Left	11	0	53			
Volume Right	34	22	0			
cSH	150	1700	659			
Volume to Capacity	0.30	0.54	0.08			
Queue Length 95th (ft)	29	0	7			
Control Delay (s)	47.3	0.0	2.4			
Lane LOS	E		A			
Approach Delay (s)	47.3	0.0	2.4			
Approach LOS	E					
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			97.7%		ICU Level of Service	F
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

19: Route 161 & Society Rd

09/01/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	130	100	100	640	740	140
Future Volume (vph)	130	100	100	640	740	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	14	14
Grade (%)	0%			0%	3%	
Total Lost time (s)	4.0		4.0	4.0	5.6	5.6
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1629		1727	1818	1977	1641
Flt Permitted	0.97		0.12	1.00	1.00	1.00
Satd. Flow (perm)	1629		211	1818	1977	1641
Peak-hour factor, PHF	0.76	0.76	0.86	0.86	0.91	0.91
Adj. Flow (vph)	171	132	116	744	813	154
RTOR Reduction (vph)	36	0	0	0	0	43
Lane Group Flow (vph)	267	0	116	744	813	111
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		1	1 2	2	
Permitted Phases			1 2			2
Actuated Green, G (s)	17.6		46.6	50.6	34.5	34.5
Effective Green, g (s)	17.6		46.6	50.6	34.5	34.5
Actuated g/C Ratio	0.23		0.60	0.65	0.44	0.44
Clearance Time (s)	4.0		4.0		5.6	5.6
Vehicle Extension (s)	3.0		1.5		2.5	2.5
Lane Grp Cap (vph)	368		362	1182	876	727
v/s Ratio Prot	c0.16		0.05	c0.41	c0.41	
v/s Ratio Perm			0.14			0.07
v/c Ratio	0.73		0.32	0.63	0.93	0.15
Uniform Delay, d1	27.9		13.0	8.1	20.5	12.9
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	7.0		0.2	0.8	15.6	0.1
Delay (s)	34.9		13.1	8.8	36.1	13.0
Level of Service	C		B	A	D	B
Approach Delay (s)	34.9			9.4	32.4	
Approach LOS	C			A	C	

Intersection Summary

HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	77.8	Sum of lost time (s)	13.6
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues

19: Route 161 & Society Rd

09/01/2022



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	303	116	744	813	154
v/c Ratio	0.75	0.32	0.61	0.93	0.20
Control Delay	35.7	9.2	11.0	40.8	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	9.2	11.0	40.8	8.7
Queue Length 50th (ft)	116	17	174	360	21
Queue Length 95th (ft)	156	45	328	#682	63
Internal Link Dist (ft)	1539		3382	952	
Turn Bay Length (ft)		105			120
Base Capacity (vph)	556	365	1218	877	770
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.32	0.61	0.93	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

22: Route 161 & Roxbury Rd

09/01/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	WT			WT	WT	
Traffic Volume (vph)	30	50	60	740	790	60
Future Volume (vph)	30	50	60	740	790	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12
Grade (%)	2%			0%	0%	
Total Lost time (s)	4.0			6.1	6.1	
Lane Util. Factor	1.00			1.00	1.00	
Frbp, ped/bikes	0.98			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.92			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1571			1812	1860	
Flt Permitted	0.98			0.34	1.00	
Satd. Flow (perm)	1571			615	1860	
Peak-hour factor, PHF	0.79	0.79	0.92	0.92	0.93	0.93
Adj. Flow (vph)	38	63	65	804	849	65
RTOR Reduction (vph)	55	0	0	0	3	0
Lane Group Flow (vph)	46	0	0	869	911	0
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		D.P+P	NA	NA	
Protected Phases	5		6	2	6	2
Permitted Phases			2			
Actuated Green, G (s)	11.0			58.9	38.9	
Effective Green, g (s)	11.0			58.9	38.9	
Actuated g/C Ratio	0.13			0.70	0.46	
Clearance Time (s)	4.0				6.1	
Vehicle Extension (s)	1.5				3.0	
Lane Grp Cap (vph)	205			716	861	
v/s Ratio Prot	c0.03			c0.29	0.49	
v/s Ratio Perm				c0.56		
v/c Ratio	0.23			1.21	1.06	
Uniform Delay, d1	32.7			12.6	22.6	
Progression Factor	1.00			1.29	1.00	
Incremental Delay, d2	0.2			106.8	47.1	
Delay (s)	32.9			122.9	69.7	
Level of Service	C			F	E	
Approach Delay (s)	32.9			122.9	69.7	
Approach LOS	C			F	E	

Intersection Summary

HCM 2000 Control Delay	92.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	14.1
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Queues

22: Route 161 & Roxbury Rd

09/01/2022



Lane Group	EBL	NBT	SBT
Lane Group Flow (vph)	101	869	914
v/c Ratio	0.39	1.30	1.06
Control Delay	20.1	162.6	71.5
Queue Delay	0.0	0.0	0.0
Total Delay	20.1	162.6	71.5
Queue Length 50th (ft)	18	-448	-535
Queue Length 95th (ft)	51	#657	#765
Internal Link Dist (ft)	1120	476	697
Turn Bay Length (ft)			
Base Capacity (vph)	260	670	864
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.39	1.30	1.06

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 24: E Pattagansett Rd/Chapman Farms Rd & Route 161

09/01/2022



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↖	↗		↖			↖	↗		↕	
Traffic Volume (vph)	10	450	350	20	470	10	290	10	30	10	10	10
Future Volume (vph)	10	450	350	20	470	10	290	10	30	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	16	16	16
Grade (%)		0%			0%			2%				-4%
Total Lost time (s)		6.1	6.1		6.1			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00	
Frbp, ped/bikes		1.00	0.98		1.00			1.00	0.97		0.99	
Flpb, ped/bikes		1.00	1.00		1.00			0.99	1.00		1.00	
Frt		1.00	0.85		1.00			1.00	0.85		0.95	
Flt Protected		1.00	1.00		1.00			0.95	1.00		0.98	
Satd. Flow (prot)		1942	1614		1871			1758	1534		2038	
Flt Permitted		0.99	1.00		0.97			0.70	1.00		0.89	
Satd. Flow (perm)		1918	1614		1820			1299	1534		1852	
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95	0.92	0.92	0.92	0.75	0.75	0.75
Adj. Flow (vph)	11	500	389	21	495	11	315	11	33	13	13	13
RTOR Reduction (vph)	0	0	98	0	1	0	0	0	19	0	8	0
Lane Group Flow (vph)	0	511	291	0	526	0	0	326	14	0	31	0
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			5 6		5 6		5 6
Permitted Phases	2		2	2			5 6		5 6	5 6		
Actuated Green, G (s)		38.9	38.9		38.9			35.0	35.0		35.0	
Effective Green, g (s)		38.9	38.9		38.9			35.0	35.0		35.0	
Actuated g/C Ratio		0.46	0.46		0.46			0.42	0.42		0.42	
Clearance Time (s)		6.1	6.1		6.1							
Vehicle Extension (s)		3.0	3.0		3.0							
Lane Grp Cap (vph)		888	747		842			541	639		771	
v/s Ratio Prot												
v/s Ratio Perm		0.27	0.18		c0.29			c0.25	0.01		0.02	
v/c Ratio		0.58	0.39		0.62			0.60	0.02		0.04	
Uniform Delay, d1		16.5	14.8		17.0			19.1	14.4		14.5	
Progression Factor		0.68	0.70		1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.1	0.0		1.5			1.3	0.0		0.0	
Delay (s)		11.3	10.3		18.5			20.4	14.4		14.5	
Level of Service		B	B		B			C	B		B	
Approach Delay (s)		10.9			18.5			19.8			14.5	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			14.9								HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			84.0								Sum of lost time (s)	14.1
Intersection Capacity Utilization			73.3%								ICU Level of Service	D
Analysis Period (min)			15									

c Critical Lane Group

Queues

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

09/01/2022



Lane Group	SET	SER	NWT	NET	NER	SWT
Lane Group Flow (vph)	511	389	527	326	33	39
v/c Ratio	0.58	0.46	0.63	0.60	0.05	0.05
Control Delay	11.8	5.7	21.1	24.9	4.5	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	5.7	21.1	24.9	4.5	11.2
Queue Length 50th (ft)	92	33	201	130	0	8
Queue Length 95th (ft)	m92	m31	306	219	14	21
Internal Link Dist (ft)	476		773	540		361
Turn Bay Length (ft)		50			50	
Base Capacity (vph)	888	845	843	541	662	779
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.46	0.63	0.60	0.05	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis

25: Route 161 & Sleepy Hollow Rd

09/01/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	470	480	20	20	10
Future Volume (Veh/h)	20	470	480	20	20	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.69	0.69
Hourly flow rate (vph)	22	516	527	22	29	14
Pedestrians		4	4		4	
Lane Width (ft)		11.0	11.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		853				
pX, platoon unblocked					0.80	
vC, conflicting volume	553				1106	546
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	553				1006	546
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				86	97
cM capacity (veh/h)	1018				205	530
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	538	549	43			
Volume Left	22	0	29			
Volume Right	0	22	14			
cSH	1018	1700	256			
Volume to Capacity	0.02	0.32	0.17			
Queue Length 95th (ft)	2	0	15			
Control Delay (s)	0.6	0.0	21.8			
Lane LOS	A		C			
Approach Delay (s)	0.6	0.0	21.8			
Approach LOS			C			
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			52.2%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

28: Route 161 & Oswegatchie Hills Rd

09/01/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	440	450	50	40	70
Future Volume (Veh/h)	60	440	450	50	40	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.83	0.83
Hourly flow rate (vph)	70	512	500	56	48	84
Pedestrians		6	6		6	
Lane Width (ft)		11.0	11.0		11.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	562				1192	540
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	562				1192	540
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				75	84
cM capacity (veh/h)	1009				192	540
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	582	556	132			
Volume Left	70	0	48			
Volume Right	0	56	84			
cSH	1009	1700	326			
Volume to Capacity	0.07	0.33	0.41			
Queue Length 95th (ft)	6	0	47			
Control Delay (s)	1.8	0.0	23.4			
Lane LOS	A		C			
Approach Delay (s)	1.8	0.0	23.4			
Approach LOS			C			
Intersection Summary						
Average Delay			3.3			
Intersection Capacity Utilization		71.3%		ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

30: Route 161 & State Rd/Lincoln St

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	20	0	10	10	0	10	0	410	10	10	450	10
Future Volume (Veh/h)	20	0	10	10	0	10	0	410	10	10	450	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.75	0.75	0.75	0.91	0.91	0.91	0.88	0.88	0.88
Hourly flow rate (vph)	26	0	13	13	0	13	0	451	11	11	511	11
Pedestrians		19			19			19			19	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1046	1038	554	1046	1038	494	541			481		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1046	1038	554	1046	1038	494	541			481		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	100	97	93	100	98	100			99		
cM capacity (veh/h)	189	222	516	187	220	554	1014			1067		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	26	462	533								
Volume Left	26	13	0	11								
Volume Right	13	13	11	11								
cSH	240	280	1014	1067								
Volume to Capacity	0.16	0.09	0.00	0.01								
Queue Length 95th (ft)	14	8	0	1								
Control Delay (s)	22.9	19.2	0.0	0.3								
Lane LOS	C	C		A								
Approach Delay (s)	22.9	19.2	0.0	0.3								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			47.1%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

35: Route 161 & Hope St

09/01/2022

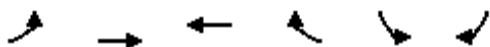


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	60	50	370	370	80
Future Volume (Veh/h)	60	60	50	370	370	80
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.84	0.84	0.91	0.91
Hourly flow rate (vph)	69	69	60	440	407	88
Pedestrians	19			19	19	
Lane Width (ft)	14.0			16.0	16.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			2	2	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume	1049	489	514			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1049	489	514			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	70	88	94			
cM capacity (veh/h)	229	557	1034			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	138	500	495			
Volume Left	69	60	0			
Volume Right	69	0	88			
cSH	324	1034	1700			
Volume to Capacity	0.43	0.06	0.29			
Queue Length 95th (ft)	51	5	0			
Control Delay (s)	24.1	1.6	0.0			
Lane LOS	C	A				
Approach Delay (s)	24.1	1.6	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization			67.4%	ICU Level of Service	C	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

37: Rt 156 (Main St) & Route 161

09/01/2022

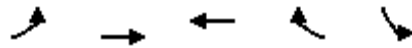


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	170	280	410	230	220	190
Future Volume (vph)	170	280	410	230	220	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	13	13
Total Lost time (s)	4.0	5.8	5.8	5.8	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	0.93	0.96	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.94	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1725	1881	1818	1440	1725	
Flt Permitted	0.16	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	297	1881	1818	1440	1725	
Peak-hour factor, PHF	0.92	0.92	0.80	0.80	0.91	0.91
Adj. Flow (vph)	185	304	512	288	242	209
RTOR Reduction (vph)	0	0	0	162	32	0
Lane Group Flow (vph)	185	304	513	126	419	0
Confl. Peds. (#/hr)	31			31	31	31
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	1	2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	34.0	25.9	25.9	25.9	20.6	
Effective Green, g (s)	34.0	25.9	25.9	25.9	20.6	
Actuated g/C Ratio	0.41	0.31	0.31	0.31	0.25	
Clearance Time (s)	4.0	5.8	5.8	5.8	4.0	
Vehicle Extension (s)	1.5	2.5	2.5	2.5	1.5	
Lane Grp Cap (vph)	261	586	567	449	428	
v/s Ratio Prot	c0.07	0.16	c0.28		c0.24	
v/s Ratio Perm	0.22			0.09		
v/c Ratio	0.71	0.52	0.90	0.28	0.98	
Uniform Delay, d1	18.4	23.4	27.4	21.5	31.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	7.0	0.6	17.9	0.2	37.2	
Delay (s)	25.4	24.0	45.2	21.8	68.2	
Level of Service	C	C	D	C	E	
Approach Delay (s)		24.5	36.8		68.2	
Approach LOS		C	D		E	
Intersection Summary						
HCM 2000 Control Delay			41.5		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.76			
Actuated Cycle Length (s)			83.0		Sum of lost time (s)	17.8
Intersection Capacity Utilization			67.6%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Queues

37: Rt 156 (Main St) & Route 161

09/01/2022



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	185	304	513	288	451
v/c Ratio	0.68	0.51	0.89	0.47	0.97
Control Delay	30.0	29.3	49.8	9.4	67.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	29.3	49.8	9.4	67.7
Queue Length 50th (ft)	66	153	~323	23	~282
Queue Length 95th (ft)	#146	239	#426	63	#472
Internal Link Dist (ft)		576	456		584
Turn Bay Length (ft)	170			170	
Base Capacity (vph)	296	597	577	614	464
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.51	0.89	0.47	0.97

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

2: Route 161 & East Lyme High School

09/01/2022


























Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	30	30	460	610	10
Future Volume (Veh/h)	10	30	30	460	610	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	12	36	31	479	678	11
Pedestrians	5			5	5	
Lane Width (ft)	13.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				849		
pX, platoon unblocked	0.85					
vC, conflicting volume	1234	694	694			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1188	694	694			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	92	97			
cM capacity (veh/h)	167	434	897			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1		
Volume Total	12	36	510	689		
Volume Left	12	0	31	0		
Volume Right	0	36	0	11		
cSH	167	434	897	1700		
Volume to Capacity	0.07	0.08	0.03	0.41		
Queue Length 95th (ft)	6	7	3	0		
Control Delay (s)	28.3	14.1	1.0	0.0		
Lane LOS	D	B	A			
Approach Delay (s)	17.6		1.0	0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			60.3%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

4: Route 161 & U.S. Route 1 (Boston Post Rd)

09/01/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	240	200	300	280	120	190	340	150	190	420	100
Future Volume (vph)	110	240	200	300	280	120	190	340	150	190	420	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	11	11	11	11	12	12
Total Lost time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	
Frbp, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1692	3136		1710	1801	1495	1710	1801	1509	1694	3388	
Flt Permitted	0.57	1.00		0.29	1.00	1.00	0.33	1.00	1.00	0.28	1.00	
Satd. Flow (perm)	1014	3136		524	1801	1495	598	1801	1509	492	3388	
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.97	0.97	0.97
Adj. Flow (vph)	117	255	213	337	315	135	202	362	160	196	433	103
RTOR Reduction (vph)	0	156	0	0	0	93	0	0	120	0	18	0
Lane Group Flow (vph)	117	312	0	337	315	42	202	362	40	196	518	0
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2	8		8	4		
Actuated Green, G (s)	25.0	18.0		37.0	26.0	26.0	31.7	21.2	21.2	33.8	22.5	
Effective Green, g (s)	25.0	18.0		37.0	26.0	26.0	31.7	21.2	21.2	33.8	22.5	
Actuated g/C Ratio	0.30	0.21		0.44	0.31	0.31	0.38	0.25	0.25	0.40	0.27	
Clearance Time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5	5.5	4.0	5.0	
Vehicle Extension (s)	2.0	2.5		2.0	2.5	2.5	2.0	2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)	358	672		435	557	462	364	454	380	359	907	
v/s Ratio Prot	0.03	0.10		c0.13	0.17		0.07	c0.20		c0.07	0.15	
v/s Ratio Perm	0.07			c0.21		0.03	0.14		0.03	0.15		
v/c Ratio	0.33	0.46		0.77	0.57	0.09	0.55	0.80	0.11	0.55	0.57	
Uniform Delay, d1	22.3	28.8		17.2	24.3	20.6	18.7	29.4	24.1	17.9	26.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	0.4		7.7	1.1	0.1	1.0	8.8	0.0	0.9	0.5	
Delay (s)	22.5	29.2		24.8	25.3	20.7	19.8	38.2	24.2	18.8	27.1	
Level of Service	C	C		C	C	C	B	D	C	B	C	
Approach Delay (s)		27.8			24.3			30.0			24.9	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			26.6	HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			84.0	Sum of lost time (s)				19.0				
Intersection Capacity Utilization			74.0%	ICU Level of Service				D				
Analysis Period (min)			15									
c	Critical Lane Group											

Queues

4: Route 161 & U.S. Route 1 (Boston Post Rd)

09/01/2022



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	117	468	337	315	135	202	362	160	196	536
v/c Ratio	0.30	0.59	0.77	0.56	0.24	0.53	0.79	0.32	0.53	0.57
Control Delay	18.1	21.0	31.4	32.0	6.4	19.9	43.6	6.5	19.8	28.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	21.0	31.4	32.0	6.4	19.9	43.6	6.5	19.8	28.3
Queue Length 50th (ft)	35	65	118	143	0	60	172	0	58	116
Queue Length 95th (ft)	78	125	#236	263	43	122	#341	49	119	203
Internal Link Dist (ft)		985		299			1287			769
Turn Bay Length (ft)	90		310		140	190			260	
Base Capacity (vph)	534	1435	449	768	715	467	582	595	439	1142
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.33	0.75	0.41	0.19	0.43	0.62	0.27	0.45	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖		↗↘		↖	↗	↗↘	↕↔		↖	↗↘	↗	
Traffic Volume (vph)	130	0	530	0	0	0	250	570	0	0	650	280	
Future Volume (vph)	130	0	530	0	0	0	250	570	0	0	650	280	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12	
Total Lost time (s)	5.9		5.9				4.0	5.5			7.0	5.9	
Lane Util. Factor	1.00		0.88				0.97	0.95			0.95	1.00	
Frbp, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99	
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00	
Frt	1.00		0.85				1.00	1.00			1.00	0.85	
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (prot)	1728		2814				3433	3539			3539	1568	
Flt Permitted	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (perm)	1728		2814				3433	3539			3539	1568	
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.96	0.96	0.92	0.92	0.93	0.93	
Adj. Flow (vph)	137	0	558	0	0	0	260	594	0	0	699	301	
RTOR Reduction (vph)	0	0	336	0	0	0	0	0	0	0	0	113	
Lane Group Flow (vph)	137	0	222	0	0	0	260	594	0	0	699	188	
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3	
Heavy Vehicles (%)	1%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Turn Type	Prot		pt+ov				Prot	Prot	NA		pm+pt	NA	pm+ov
Protected Phases	8		8 1	4	4	4	1	6			5	2	8
Permitted Phases										2			2
Actuated Green, G (s)	12.6		29.8				11.3	51.0			34.2	46.8	
Effective Green, g (s)	12.6		29.8				11.3	51.0			34.2	46.8	
Actuated g/C Ratio	0.17		0.40				0.15	0.68			0.46	0.62	
Clearance Time (s)	5.9						4.0	5.5			7.0	5.9	
Vehicle Extension (s)	2.5						2.5	2.5			2.5	2.5	
Lane Grp Cap (vph)	290		1118				517	2406			1613	978	
v/s Ratio Prot	c0.08		0.08				c0.08	0.17			c0.20	0.03	
v/s Ratio Perm												0.09	
v/c Ratio	0.47		0.20				0.50	0.25			0.43	0.19	
Uniform Delay, d1	28.2		14.8				29.3	4.6			13.8	6.0	
Progression Factor	1.00		1.00				0.71	1.18			1.00	1.00	
Incremental Delay, d2	0.9		0.1				0.5	0.0			0.9	0.1	
Delay (s)	29.1		14.8				21.4	5.5			14.7	6.1	
Level of Service	C		B				C	A			B	A	
Approach Delay (s)		17.7			0.0			10.3			12.1		
Approach LOS		B			A			B			B		

Intersection Summary

HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Queues

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway

09/01/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	137	558	260	594	699	301
v/c Ratio	0.47	0.40	0.50	0.25	0.43	0.27
Control Delay	32.8	2.1	23.7	6.3	16.3	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	2.1	23.7	6.3	16.3	1.3
Queue Length 50th (ft)	59	0	41	45	108	0
Queue Length 95th (ft)	101	25	60	96	193	22
Internal Link Dist (ft)				824	1287	
Turn Bay Length (ft)						
Base Capacity (vph)	343	1368	530	2406	1614	1149
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.41	0.49	0.25	0.43	0.26

Intersection Summary

HCM Signalized Intersection Capacity Analysis

10: Route 161 & Park and Ride Lot/King Arthur Dr

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↕↕		↕	↕↕	
Traffic Volume (vph)	0	0	0	100	0	60	0	1210	70	70	1110	0
Future Volume (vph)	0	0	0	100	0	60	0	1210	70	70	1110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	8	11	11	11
Total Lost time (s)					4.2	4.0		6.6		4.0	6.1	
Lane Util. Factor					1.00	1.00		0.91		1.00	0.95	
Frbp, ped/bikes					1.00	0.99		1.00		1.00	1.00	
Flpb, ped/bikes					0.99	1.00		1.00		1.00	1.00	
Frt					1.00	0.85		0.99		1.00	1.00	
Flt Protected					0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)					1742	1549		5037		1711	3421	
Flt Permitted					0.76	1.00		1.00		0.15	1.00	
Satd. Flow (perm)					1388	1549		5037		265	3421	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.98	0.98	0.98
Adj. Flow (vph)	0	0	0	110	0	66	0	1260	73	71	1133	0
RTOR Reduction (vph)	0	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	110	28	0	1333	0	71	1133	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type				Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4	4		8		8	2			6		
Actuated Green, G (s)					15.0	20.6		39.6		49.7	49.7	
Effective Green, g (s)					15.0	20.6		39.6		49.7	49.7	
Actuated g/C Ratio					0.20	0.27		0.53		0.66	0.66	
Clearance Time (s)					4.2	4.0		6.6		4.0	6.1	
Vehicle Extension (s)					1.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)					277	425		2659		283	2266	
v/s Ratio Prot						0.00		0.26		0.02	c0.33	
v/s Ratio Perm					c0.08	0.01				0.15		
v/c Ratio					0.40	0.07		0.50		0.25	0.50	
Uniform Delay, d1					26.1	20.1		11.4		5.4	6.4	
Progression Factor					1.00	1.00		0.55		0.62	0.48	
Incremental Delay, d2					0.3	0.0		0.6		0.3	0.1	
Delay (s)					26.4	20.1		6.8		3.7	3.2	
Level of Service					C	C		A		A	A	
Approach Delay (s)		0.0			24.1			6.8			3.2	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			6.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					14.8		
Intersection Capacity Utilization			59.3%		ICU Level of Service					B		
Analysis Period (min)			15									
c Critical Lane Group												

Queues

10: Route 161 & Park and Ride Lot/King Arthur Dr

09/01/2022



Lane Group	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	110	66	1333	71	1133
v/c Ratio	0.40	0.13	0.49	0.22	0.50
Control Delay	31.1	7.7	6.9	3.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	7.7	6.9	3.9	3.9
Queue Length 50th (ft)	45	4	68	4	46
Queue Length 95th (ft)	91	29	63	9	58
Internal Link Dist (ft)	603		431		69
Turn Bay Length (ft)		110			
Base Capacity (vph)	329	496	2711	318	2266
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.13	0.49	0.22	0.50

Intersection Summary

HCM Signalized Intersection Capacity Analysis

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔			↔↔		↔	↔↔		↔	↔↔	
Traffic Volume (vph)	150	10	100	10	0	10	100	780	10	10	850	90
Future Volume (vph)	150	10	100	10	0	10	100	780	10	10	850	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	13	14	14	14	11	12	13	11	11	11
Grade (%)		2%			-4%			0%				0%
Total Lost time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3285	1540			1881		1711	3533		1711	3372	
Flt Permitted	0.95	1.00			0.77		0.18	1.00		0.31	1.00	
Satd. Flow (perm)	3285	1540			1480		327	3533		562	3372	
Peak-hour factor, PHF	0.86	0.86	0.86	0.76	0.76	0.76	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	174	12	116	13	0	13	111	867	11	11	934	99
RTOR Reduction (vph)	0	105	0	0	23	0	0	1	0	0	8	0
Lane Group Flow (vph)	174	23	0	0	3	0	111	877	0	11	1026	0
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	8			8		1	6		5	2	
Permitted Phases		8		8			6			2		
Actuated Green, G (s)	5.6	7.4			7.4		46.4	41.4		38.5	37.5	
Effective Green, g (s)	5.6	7.4			7.4		46.4	41.4		38.5	37.5	
Actuated g/C Ratio	0.07	0.10			0.10		0.62	0.55		0.51	0.50	
Clearance Time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Vehicle Extension (s)	2.5	1.5			1.5		1.5	2.5		1.5	2.5	
Lane Grp Cap (vph)	245	151			146		296	1950		303	1686	
v/s Ratio Prot	c0.05	c0.02					c0.03	0.25		0.00	c0.30	
v/s Ratio Perm					0.00		0.21			0.02		
v/c Ratio	0.71	0.16			0.02		0.38	0.45		0.04	0.61	
Uniform Delay, d1	33.9	30.9			30.5		7.6	10.0		9.0	13.5	
Progression Factor	1.00	1.00			1.00		1.00	1.00		0.42	0.30	
Incremental Delay, d2	8.7	0.2			0.0		0.3	0.8		0.0	1.4	
Delay (s)	42.6	31.1			30.5		7.9	10.8		3.7	5.5	
Level of Service	D	C			C		A	B		A	A	
Approach Delay (s)		37.7			30.5			10.4			5.5	
Approach LOS		D			C			B			A	

Intersection Summary

HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Queues

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

09/01/2022



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	174	128	26	111	878	11	1033
v/c Ratio	0.71	0.44	0.08	0.34	0.41	0.03	0.58
Control Delay	51.5	13.2	0.5	8.5	9.8	2.5	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	13.2	0.5	8.5	9.8	2.5	5.6
Queue Length 50th (ft)	41	5	0	18	103	0	39
Queue Length 95th (ft)	#79	46	0	38	196	m1	67
Internal Link Dist (ft)		619	594		240		743
Turn Bay Length (ft)	150			200		100	
Base Capacity (vph)	245	590	606	329	2149	415	1773
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.22	0.04	0.34	0.41	0.03	0.58

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis

17: Route 161 & Laurel Hill Dr

09/01/2022



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	30	800	10	30	840
Future Volume (Veh/h)	10	30	800	10	30	840
Sign Control	Stop		Free		Free	
Grade	-3%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	11	34	899	11	32	884
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	1					
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)	1032					
pX, platoon unblocked	0.69	0.69			0.69	
vC, conflicting volume	1852	904			910	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2011	637			645	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	90			95	
cM capacity (veh/h)	43	329			652	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	45	910	916			
Volume Left	11	0	32			
Volume Right	34	11	0			
cSH	174	1700	652			
Volume to Capacity	0.26	0.54	0.05			
Queue Length 95th (ft)	25	0	4			
Control Delay (s)	41.5	0.0	1.4			
Lane LOS	E		A			
Approach Delay (s)	41.5	0.0	1.4			
Approach LOS	E					
Intersection Summary						
Average Delay	1.7					
Intersection Capacity Utilization	78.5%		ICU Level of Service		D	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

19: Route 161 & Society Rd

09/01/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	90	60	700	720	130
Future Volume (vph)	110	90	60	700	720	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	14	14
Grade (%)	0%			0%	3%	
Total Lost time (s)	4.0		4.0	4.0	5.6	5.6
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1626		1727	1818	1977	1641
Flt Permitted	0.97		0.12	1.00	1.00	1.00
Satd. Flow (perm)	1626		211	1818	1977	1641
Peak-hour factor, PHF	0.76	0.76	0.86	0.86	0.91	0.91
Adj. Flow (vph)	145	118	70	814	791	143
RTOR Reduction (vph)	39	0	0	0	0	41
Lane Group Flow (vph)	224	0	70	814	791	102
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		1	1 2	2	
Permitted Phases			1 2			2
Actuated Green, G (s)	15.6		46.6	50.6	34.5	34.5
Effective Green, g (s)	15.6		46.6	50.6	34.5	34.5
Actuated g/C Ratio	0.21		0.61	0.67	0.46	0.46
Clearance Time (s)	4.0		4.0		5.6	5.6
Vehicle Extension (s)	3.0		1.5		2.5	2.5
Lane Grp Cap (vph)	334		371	1213	899	746
v/s Ratio Prot	c0.14		0.03	c0.45	c0.40	
v/s Ratio Perm			0.09			0.06
v/c Ratio	0.67		0.19	0.67	0.88	0.14
Uniform Delay, d1	27.7		11.0	7.6	18.8	12.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	5.2		0.1	1.2	9.8	0.1
Delay (s)	33.0		11.1	8.7	28.5	12.1
Level of Service	C		B	A	C	B
Approach Delay (s)	33.0			8.9	26.0	
Approach LOS	C			A	C	

Intersection Summary

HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	75.8	Sum of lost time (s)	13.6
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues

19: Route 161 & Society Rd

09/01/2022



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	263	70	814	791	143
v/c Ratio	0.71	0.19	0.65	0.88	0.18
Control Delay	33.0	6.4	11.0	33.7	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	6.4	11.0	33.7	8.0
Queue Length 50th (ft)	93	9	181	323	17
Queue Length 95th (ft)	131	27	365	#639	57
Internal Link Dist (ft)	1539		3382	952	
Turn Bay Length (ft)		105			120
Base Capacity (vph)	570	374	1250	899	787
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.19	0.65	0.88	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

22: Route 161 & Roxbury Rd

09/01/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			T	T	
Traffic Volume (vph)	60	60	50	700	750	50
Future Volume (vph)	60	60	50	700	750	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12
Grade (%)	2%			0%	0%	
Total Lost time (s)	4.0			6.1	6.1	
Lane Util. Factor	1.00			1.00	1.00	
Frbp, ped/bikes	0.98			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1596			1812	1863	
Flt Permitted	0.98			0.49	1.00	
Satd. Flow (perm)	1596			894	1863	
Peak-hour factor, PHF	0.79	0.79	0.92	0.92	0.93	0.93
Adj. Flow (vph)	76	76	54	761	806	54
RTOR Reduction (vph)	43	0	0	0	3	0
Lane Group Flow (vph)	109	0	0	815	857	0
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		D.P+P	NA	NA	
Protected Phases	5		6	2	6	2
Permitted Phases			2			
Actuated Green, G (s)	10.8			58.9	38.9	
Effective Green, g (s)	10.8			58.9	38.9	
Actuated g/C Ratio	0.13			0.70	0.46	
Clearance Time (s)	4.0				6.1	
Vehicle Extension (s)	1.5				3.0	
Lane Grp Cap (vph)	205			847	864	
v/s Ratio Prot	c0.07			c0.23	c0.46	
v/s Ratio Perm				0.45		
v/c Ratio	0.53			0.96	0.99	
Uniform Delay, d1	34.1			11.4	22.3	
Progression Factor	1.00			1.83	1.00	
Incremental Delay, d2	1.3			19.5	28.6	
Delay (s)	35.5			40.4	50.9	
Level of Service	D			D	D	
Approach Delay (s)	35.5			40.4	50.9	
Approach LOS	D			D	D	

Intersection Summary

HCM 2000 Control Delay	44.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	83.8	Sum of lost time (s)	14.1
Intersection Capacity Utilization	93.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Queues

22: Route 161 & Roxbury Rd

09/01/2022



Lane Group	EBL	NBT	SBT
Lane Group Flow (vph)	152	815	860
v/c Ratio	0.62	1.02	0.99
Control Delay	34.9	49.1	52.8
Queue Delay	0.0	0.0	0.0
Total Delay	34.9	49.1	52.8
Queue Length 50th (ft)	51	-270	431
Queue Length 95th (ft)	93	#369	#699
Internal Link Dist (ft)	1120	476	697
Turn Bay Length (ft)			
Base Capacity (vph)	252	802	867
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.60	1.02	0.99

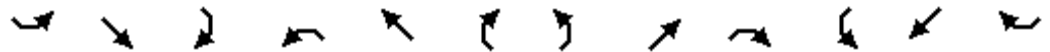
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

09/01/2022



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations		↕	↗		↖			↕	↗		↕		
Traffic Volume (vph)	10	520	280	20	480	10	260	0	30	10	10	10	
Future Volume (vph)	10	520	280	20	480	10	260	0	30	10	10	10	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	13	13	13	12	12	12	12	12	12	16	16	16	
Grade (%)		0%			0%			2%				-4%	
Total Lost time (s)		6.1	6.1		6.1			4.0	4.0		4.0		
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00		
Frbp, ped/bikes		1.00	0.98		1.00			1.00	0.97		0.99		
Flpb, ped/bikes		1.00	1.00		1.00			0.99	1.00		1.00		
Frt		1.00	0.85		1.00			1.00	0.85		0.95		
Flt Protected		1.00	1.00		1.00			0.95	1.00		0.98		
Satd. Flow (prot)		1942	1614		1871			1750	1534		2038		
Flt Permitted		0.99	1.00		0.97			0.73	1.00		0.90		
Satd. Flow (perm)		1921	1614		1814			1348	1534		1867		
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95	0.92	0.92	0.92	0.75	0.75	0.75	
Adj. Flow (vph)	11	578	311	21	505	11	283	0	33	13	13	13	
RTOR Reduction (vph)	0	0	68	0	1	0	0	0	19	0	8	0	
Lane Group Flow (vph)	0	589	243	0	536	0	0	283	14	0	31	0	
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3	
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA		
Protected Phases		2			2			5 6		5 6		5 6	
Permitted Phases	2		2	2			5 6		5 6	5 6			
Actuated Green, G (s)		38.9	38.9		38.9			34.8	34.8		34.8		
Effective Green, g (s)		38.9	38.9		38.9			34.8	34.8		34.8		
Actuated g/C Ratio		0.46	0.46		0.46			0.42	0.42		0.42		
Clearance Time (s)		6.1	6.1		6.1								
Vehicle Extension (s)		3.0	3.0		3.0								
Lane Grp Cap (vph)		891	749		842			559	637		775		
v/s Ratio Prot													
v/s Ratio Perm		c0.31	0.15		0.30			c0.21	0.01		0.02		
v/c Ratio		0.66	0.33		0.64			0.51	0.02		0.04		
Uniform Delay, d1		17.4	14.2		17.1			18.1	14.5		14.6		
Progression Factor		0.66	0.74		1.00			1.00	1.00		1.00		
Incremental Delay, d2		0.6	0.1		1.6			0.3	0.0		0.0		
Delay (s)		12.0	10.5		18.7			18.4	14.5		14.6		
Level of Service		B	B		B			B	B		B		
Approach Delay (s)		11.5			18.7			18.0			14.6		
Approach LOS		B			B			B			B		
Intersection Summary													
HCM 2000 Control Delay			14.9									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.62										
Actuated Cycle Length (s)			83.8									Sum of lost time (s)	14.1
Intersection Capacity Utilization			71.6%									ICU Level of Service	C
Analysis Period (min)			15										

c Critical Lane Group

Queues

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

09/01/2022



Lane Group	SET	SER	NWT	NET	NER	SWT
Lane Group Flow (vph)	589	311	537	283	33	39
v/c Ratio	0.66	0.38	0.64	0.51	0.05	0.05
Control Delay	13.1	6.8	21.3	22.1	4.5	11.2
Queue Delay	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	6.8	21.3	22.1	4.5	11.2
Queue Length 50th (ft)	113	24	206	107	0	8
Queue Length 95th (ft)	m121	m25	314	181	14	21
Internal Link Dist (ft)	476		773	540		361
Turn Bay Length (ft)		50			50	
Base Capacity (vph)	891	817	843	550	649	769
Starvation Cap Reductn	28	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.38	0.64	0.51	0.05	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Unsignalized Intersection Capacity Analysis

25: Route 161 & Sleepy Hollow Rd

09/01/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	20	540	470	20	10	20
Future Volume (Veh/h)	20	540	470	20	10	20
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.69	0.69
Hourly flow rate (vph)	22	593	516	22	14	29
Pedestrians		4	4		4	
Lane Width (ft)		11.0	11.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		853				
pX, platoon unblocked					0.75	
vC, conflicting volume	542				1172	535
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	542				1061	535
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				92	95
cM capacity (veh/h)	1028				178	538
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	615	538	43			
Volume Left	22	0	14			
Volume Right	0	22	29			
cSH	1028	1700	325			
Volume to Capacity	0.02	0.32	0.13			
Queue Length 95th (ft)	2	0	11			
Control Delay (s)	0.6	0.0	17.8			
Lane LOS	A		C			
Approach Delay (s)	0.6	0.0	17.8			
Approach LOS			C			
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			55.9%		ICU Level of Service	B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

28: Route 161 & Oswegatchie Hills Rd

09/01/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	70	480	440	40	40	60
Future Volume (Veh/h)	70	480	440	40	40	60
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.83	0.83
Hourly flow rate (vph)	81	558	489	44	48	72
Pedestrians		6	6		6	
Lane Width (ft)		11.0	11.0		11.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	539				1243	523
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	539				1243	523
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				73	87
cM capacity (veh/h)	1029				177	552
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	639	533	120			
Volume Left	81	0	48			
Volume Right	0	44	72			
cSH	1029	1700	299			
Volume to Capacity	0.08	0.31	0.40			
Queue Length 95th (ft)	6	0	46			
Control Delay (s)	2.0	0.0	24.9			
Lane LOS	A		C			
Approach Delay (s)	2.0	0.0	24.9			
Approach LOS			C			
Intersection Summary						
Average Delay			3.3			
Intersection Capacity Utilization		72.3%		ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

30: Route 161 & State Rd/Lincoln St

09/01/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	10	0	0	10	0	10	0	360	10	10	460	0
Future Volume (Veh/h)	10	0	0	10	0	10	0	360	10	10	460	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.75	0.75	0.75	0.91	0.91	0.91	0.88	0.88	0.88
Hourly flow rate (vph)	13	0	0	13	0	13	0	396	11	11	523	0
Pedestrians		19			19			19			19	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	998	990	561	984	984	440	542			426		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	998	990	561	984	984	440	542			426		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	100	100	94	100	98	100			99		
cM capacity (veh/h)	205	237	512	212	237	595	1013			1118		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	26	407	534								
Volume Left	13	13	0	11								
Volume Right	0	13	11	0								
cSH	205	312	1013	1118								
Volume to Capacity	0.06	0.08	0.00	0.01								
Queue Length 95th (ft)	5	7	0	1								
Control Delay (s)	23.8	17.6	0.0	0.3								
Lane LOS	C	C		A								
Approach Delay (s)	23.8	17.6	0.0	0.3								
Approach LOS	C	C										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			46.9%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

35: Route 161 & Hope St

09/01/2022



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	80	60	340	400	90
Future Volume (Veh/h)	60	80	60	340	400	90
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.84	0.84	0.91	0.91
Hourly flow rate (vph)	69	92	71	405	440	99
Pedestrians	19			19	19	
Lane Width (ft)	14.0			16.0	16.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			2	2	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume	1074	528	558			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1074	528	558			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	68	83	93			
cM capacity (veh/h)	218	530	996			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	161	476	539			
Volume Left	69	71	0			
Volume Right	92	0	99			
cSH	328	996	1700			
Volume to Capacity	0.49	0.07	0.32			
Queue Length 95th (ft)	64	6	0			
Control Delay (s)	26.1	2.0	0.0			
Lane LOS	D	A				
Approach Delay (s)	26.1	2.0	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			4.4			
Intersection Capacity Utilization			69.3%	ICU Level of Service	C	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

37: Rt 156 (Main St) & Route 161

09/01/2022

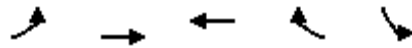


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	200	290	300	180	250	200
Future Volume (vph)	200	290	300	180	250	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	13	13
Total Lost time (s)	4.0	5.8	5.8	5.8	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	1.00	0.93	0.97	
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.94	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1718	1881	1818	1431	1734	
Flt Permitted	0.31	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	566	1881	1818	1431	1734	
Peak-hour factor, PHF	0.92	0.92	0.80	0.80	0.91	0.91
Adj. Flow (vph)	217	315	375	225	275	220
RTOR Reduction (vph)	0	0	0	162	29	0
Lane Group Flow (vph)	217	315	375	63	466	0
Confl. Peds. (#/hr)	31			31	31	31
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	1	2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	30.5	22.2	22.2	22.2	21.1	
Effective Green, g (s)	30.5	22.2	22.2	22.2	21.1	
Actuated g/C Ratio	0.38	0.28	0.28	0.28	0.27	
Clearance Time (s)	4.0	5.8	5.8	5.8	4.0	
Vehicle Extension (s)	1.5	2.5	2.5	2.5	1.5	
Lane Grp Cap (vph)	336	524	507	399	459	
v/s Ratio Prot	c0.07	0.17	c0.21		c0.27	
v/s Ratio Perm	0.18			0.04		
v/c Ratio	0.65	0.60	0.74	0.16	1.01	
Uniform Delay, d1	18.0	24.9	26.1	21.6	29.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.2	1.6	5.3	0.1	45.7	
Delay (s)	21.2	26.5	31.4	21.8	74.9	
Level of Service	C	C	C	C	E	
Approach Delay (s)		24.3	27.8		74.9	
Approach LOS		C	C		E	
Intersection Summary						
HCM 2000 Control Delay			41.0		HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.70			
Actuated Cycle Length (s)			79.6		Sum of lost time (s)	17.8
Intersection Capacity Utilization			65.7%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Queues

37: Rt 156 (Main St) & Route 161

09/01/2022



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	217	315	375	225	495
v/c Ratio	0.61	0.59	0.73	0.40	1.01
Control Delay	24.3	31.8	37.3	6.2	75.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	31.8	37.3	6.2	75.0
Queue Length 50th (ft)	79	160	200	0	-340
Queue Length 95th (ft)	131	248	259	35	#536
Internal Link Dist (ft)		576	456		584
Turn Bay Length (ft)	170			170	
Base Capacity (vph)	380	636	614	632	492
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.50	0.61	0.36	1.01

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Rhode Island
Massachusetts
Connecticut
New Hampshire

www.BETA-Inc.com



Route 161 Corridor Study Volume II Concept Plan

Prepared for the Southeastern Connecticut Council of Governments

August 2023



Town of East Lyme
Route 161 Corridor Study
State Project #044-0159
August 2023

CONCEPT PLAN



B E T A

1010 Wethersfield Avenue
Suite 305
Hartford, Connecticut 06114
860.513.1503
www.BETA-Inc.com

Route 161 Corridor Study
Town of East Lyme
State Project #044-0159

CONCEPT PLAN

Prepared by: BETA GROUP, INC.
Prepared for: Southeastern Connecticut Council of Governments

August 2023

TABLE OF CONTENTS

1.0 Introduction	1
2.0 Proposed Improvements.....	2
2.1 Segment 1 – Route 156 (Main Street) to Smith Street.....	3
2.2 Segment 2 – Smith Street to East Pattagansett Road	7
2.3 Segment 3 –East Pattagansett Road to Society Road.....	9
2.4 Segment 4 – Society Road to Industrial Park Road	14
2.5 Segment 5 – Industrial Park Road to Frontage Road.....	16
2.6 Segment 6 –Frontage Road to U.S. Route 1 (Boston Post Road)	18
2.7 Segment 7 –U.S. Route 1 (Boston Post Road) to East Lyme High School	21
3.0 Traffic Operations	23
4.0 Constraints	26
4.1 Rights of Way	26
4.2 Utilities.....	27
4.3 Permitting	28
5.0 Implementation Plan	30
5.1 Near-Term Program.....	30
5.2 Mid-Term Program	31
5.3 Long-Term Program.....	34
5.4 Program Summary.....	34
5.5 Funding Opportunities.....	37
6.0 Access Management.....	39

LIST OF TABLES

Table 1 – Level of Service Criteria for Unsignalized Intersections
Table 2 – Level of Service Criteria for Signalized Intersections
Table 3 - Weekday PM Peak LOS and Delay
Table 4 - Saturday Midday Peak LOS and Delay
Table 5 – Anticipated Easements
Table 6 – Anticipated Utility Relocations
Table 7 – Environmental Impact Summary
Table 8 – Program Summary

LIST OF FIGURES

- Figure 1 – Project Area
- Figure 2 – Proposed Cross Section, Segment 1
- Figure 3 – Proposed Improvements, Segment 1
- Figure 4 – Rendering, Downtown Niantic Bike Lanes and Pocket Parking
- Figure 5 – Proposed Cross Section, Segment 2
- Figure 6 – Proposed Improvements, Segment 2
- Figure 7 – Proposed Cross Section, Segment 3
- Figure 8 – Proposed Improvements, Segment 3
- Figure 9 – Rendering, Shared Use Path at Gorton Pond
- Figure 10 – Rendering, Scenic Outlook at Gorton Pond
- Figure 11 – Proposed Cross Section, Segment 4
- Figure 12 – Proposed Improvements, Segment 4
- Figure 13 – Proposed Cross Section, Segment 5
- Figure 14 – Proposed Improvements, Segment 5
- Figure 15 – Proposed Cross Section, Segment 6
- Figure 16 – Proposed Improvements, Segment 6
- Figure 17 – Rendering, Shared Use Path and Bus Pull Out, South of U.S. Route 1
- Figure 18 – Proposed Cross Section, Segment 7
- Figure 19 – Proposed Improvements, Segment 7
- Figure 20 – Access Management, Downtown Niantic
- Figure 21 – Access Management Plan, Near Oswegatchie Hills Road
- Figure 22 – Access Management Plan, Near East Pattagansett Road
- Figure 23 – Access Management Plan, Society Road to Laurel Hill Drive
- Figure 24 – Access Management Plan, Laurel Hill Drive to Damon Heights Road
- Figure 25 – Access Management Plan, Damon Heights Road to Industrial Park Road
- Figure 26 – Access Management Plan, Industrial Park Road to King Arthur Drive
- Figure 27 – Access Management Plan, Frontage Road to U.S. Route 1 (Boston Post Road)
- Figure 28 – Access Management Plan, U.S. Route 1 (Boston Post Road) to Frontage Road

LIST OF APPENDICES

- Appendix A – Meeting Minutes and Public Comments
- Appendix B – Concept Plans
- Appendix C – Capacity Analysis Reports
- Appendix D – Environmental Permitting Overview
- Appendix E – Construction Cost Estimates
- Appendix F – Bicycle and Pedestrian Funding Opportunities

1.0 INTRODUCTION

The Southeastern Connecticut Council of Governments (SCCOG), in cooperation with the Town of East Lyme and the Connecticut Department of Transportation (CTDOT) initiated the Route 161 Corridor Study to develop a conceptual transportation plan for a 3.7-mile-long section of Route 161 extending from the intersection of Route 156 (Main Street) northerly to East Lyme High School. The transportation plan aims to improve the Route 161 corridor by alleviating traffic congestion during peak travel hours, improving mobility for pedestrians and bicyclists, promoting healthy and environmentally friendly modes of travel, enhancing transit ridership, and improving safety for all users.

During the initial phase of the project, existing conditions were analyzed. This included a review of geometric characteristics, traffic volumes, travel speeds, vehicle classification, pedestrian and bicycle infrastructure, transit operations, crash history, environmental constraints, and traffic operations. Future traffic operations were also analyzed by forecasting peak hour traffic volumes for the year 2042 using CTDOT's Statewide travel demand model which estimates regional traffic demands based on anticipated changes in future land use and demographics throughout the region and state along with planned transportation projects impacting the corridor. These analyses were summarized in the Existing and Future Conditions Report.

Public input was critical to understanding the corridor's challenges and opportunities. Throughout the study process a wide range of strategies were utilized to engage residents, commuters, businesses, and other stakeholders. These included regular meetings with a Project Advisory Committee consisting of staff from SCCOG, the Town, CTDOT, transit districts, and residents; a project website with an interactive mapping tool, a virtual meeting room, and two public meetings. Findings of the Existing and Future Conditions Report were presented at the first public meeting on October 27, 2022. At that meeting participants were invited to provide input on what features are working well along the corridor and what challenges they would most like to see addressed from the perspective of a driver, pedestrian, or bicyclist. At the second public meeting, held on April 27, 2023, the project team shared proposed improvements in draft format and solicited feedback from attendees which was then used to refine the proposed improvements discussed herein. Minutes from the public meeting and a summary of comments submitted through the project website are included in Appendix A.



The proposed improvements for the Route 161 corridor took into account major infrastructure upgrades associated with State Project #044-0156 which will address vehicular safety on I-95 at Interchange 74 as well as traffic operational concerns and safety for all roadway users on Route 161 in the vicinity of the exit

74 interchange ramps. State Project #044-0156's improvements include full reconstruction and widening of I-95 to accommodate revised ramp configurations, auxiliary lanes between exits 74 and 75 in each direction and the full replacement of the bridge over Route 161. The project will also address safety and traffic operations on Route 161 between Industrial Park Road and U.S. Route 1 (Boston Post Road) via full reconstruction and widening to provide turn lanes, wider shoulders, and sidewalk connectivity within the project limits. Construction on State Project #044-0156 began on April 3, 2023.

2.0 PROPOSED IMPROVEMENTS

Recommended transportation improvements were developed for each of the seven segments shown in Figure 1. The recommendations are separated into near-term (those that can be implemented within three-years), mid-term (three to seven year implementation timeline), and long-term (seven-plus year implementation timeline) improvements based on their complexity, cost, and benefit. Typical cross sections were developed for each segment. Conceptual plans and renderings were prepared for several key recommendations.

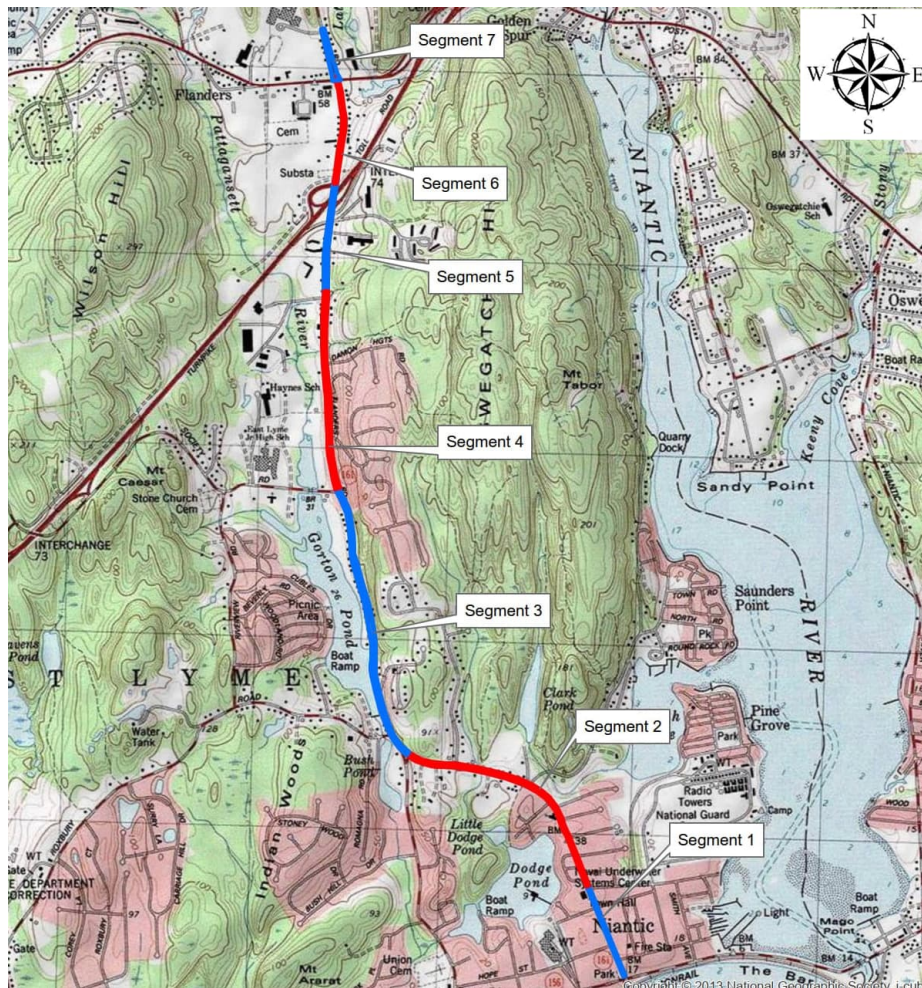


Figure 1: Project Area

2.1 SEGMENT 1 – ROUTE 156 (MAIN STREET) TO SMITH STREET

Figures 2 and 3 show the improvements developed for the Route 161 corridor segment between Route 156 (Main Street) and Smith Street. The improvements include:

Near-Term Improvements

- Stripe on-street parking spaces on Hope Street to better accommodate parking demand from visitors to local businesses.
- Install crosswalks across side streets with high pedestrian volumes including Grand Street, Hope Street, State Street, and Lincoln Street to enhance pedestrian safety.
- Install a new traffic signal at the Route 161 and Route 156 (Main Street) intersection. Incorporate retroreflective backplates to enhance visibility and mitigate rear end collisions, and accessible pedestrian signals to improve accessibility for visually impaired pedestrians.

Mid-Term Improvements

- Stripe bike lanes along both sides of Route 161 to promote bicycle use and enhance safety for bicyclists. (See Appendix B for a concept plan and Figure 4 for a rendering of the bike lanes)
- Construct a pocket parking area on the west of the corridor, just south of Hope Street, shifting the existing on-street parking outside of the existing curb line to accommodate the proposed bike lanes. The pocket parking area will also improve sight distances at the intersection and allow drivers to have a clearer view of oncoming traffic before executing left turns out of Hope Street. (See Appendix B for a concept plan and Figure 4, for a rendering of the pocket parking area.)



- Install pedestrian scale lighting between Smith Street and Hope Street to enhance pedestrian visibility and walkability.
- Widen the existing sidewalk on the west side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.
- Plant street trees within the public right-of-way to enhance the aesthetics of the downtown Niantic area and promote survival of local pollinators.
- Reconstruct pedestrian curb ramps at various locations in accordance with the U.S. Access Board's Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

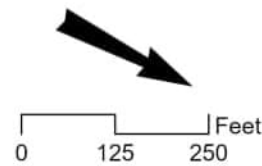


Figure 3
Segment 1 - Route 156 (Main Street) to
Smith Street

June 2023



Figure 4: Downtown Niantic Bike Lanes and Pocket Parking

2.2 SEGMENT 2 – SMITH STREET TO EAST PATTAGANSETT ROAD

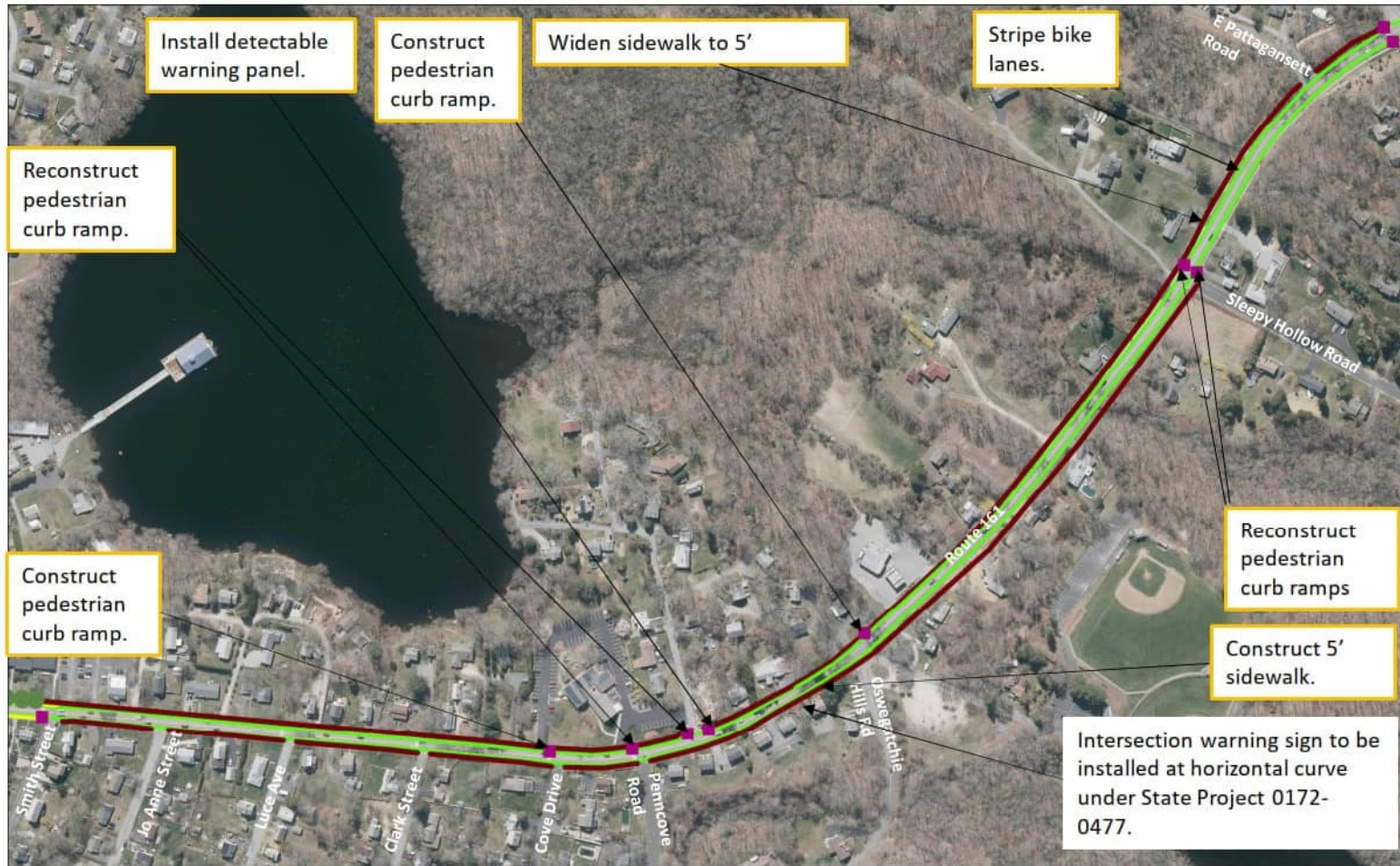
Figures 5 and 6 show the improvements developed for the Route 161 corridor segment between Smith Street and East Pattagansett Road. The improvements include:

Mid-Term Improvements

- Construct pedestrian curb ramps where none are provided including the Clark Street and Oswegatchie Hills Road crossings to improve mobility for all users.
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations in accordance with the U.S. Access Board’s Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.
- Stripe bike lanes along both sides of Route 161 to promote bicycle use and enhance safety for bicyclists.
- Construct new sidewalk along the east side of Route 161 between Smith Street and Sleepy Hollow Road to create an improved pedestrian connection between Veterans Memorial Field, Oswegatchie Hills Nature Preserve, and the downtown Niantic area.
- Widen the existing sidewalk along the west side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.



Credit: Streetmix



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

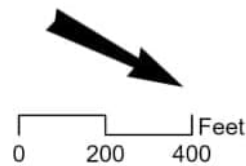


Figure 6
Segment 2 - Smith Street to East
Pattagansett Road

June 2023

2.3 SEGMENT 3 –EAST PATTAGANSETT ROAD TO SOCIETY ROAD

Figures 7 and 8 show the improvements developed for the Route 161 corridor segment between East Pattagansett Road and Society Road. The improvements include:

Mid-Term Improvements

- Install speed feedback signs to discourage speeding.
- Restripe the existing shoulder with 6"-wide shoulder markings to mitigate crashes involving pedestrians, bicyclists and older drivers, and to discourage speeding.
- Reconstruct pedestrian curb ramps at various locations in accordance with the U.S. Access Board's Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.
- Install new traffic signals at the Route 161/East Pattagansett Road and Route 161/Roxbury Road intersections. Provide separate traffic signal controllers at each intersection allowing each signal to operate independently, improving traffic operations, and reducing delay. Incorporate Leading Pedestrian Interval (LPI) phasing and accessible pedestrian signals at each intersection to enhance pedestrian safety and improve mobility for all users. At the Roxbury Road signal install a dedicated northbound left turn lane and a bicycle box to facilitate transition from the bicycle lanes south of the intersection to the shared use path north of the intersection.
- *A roundabout was also considered for the Route 161/East Pattagansett Road intersection to improve operations, reduce speeds, and create a gateway into downtown Niantic. Traffic signal improvements were selected, however, as the preferred alternative in part due to concern that the roundabout would eliminate metering created by the traffic signal and result in fewer gaps where residents downstream of the intersection could safely make a left turn maneuver out of their driveways. (See Appendix B for a concept plan and rendering of the proposed roundabout.)*

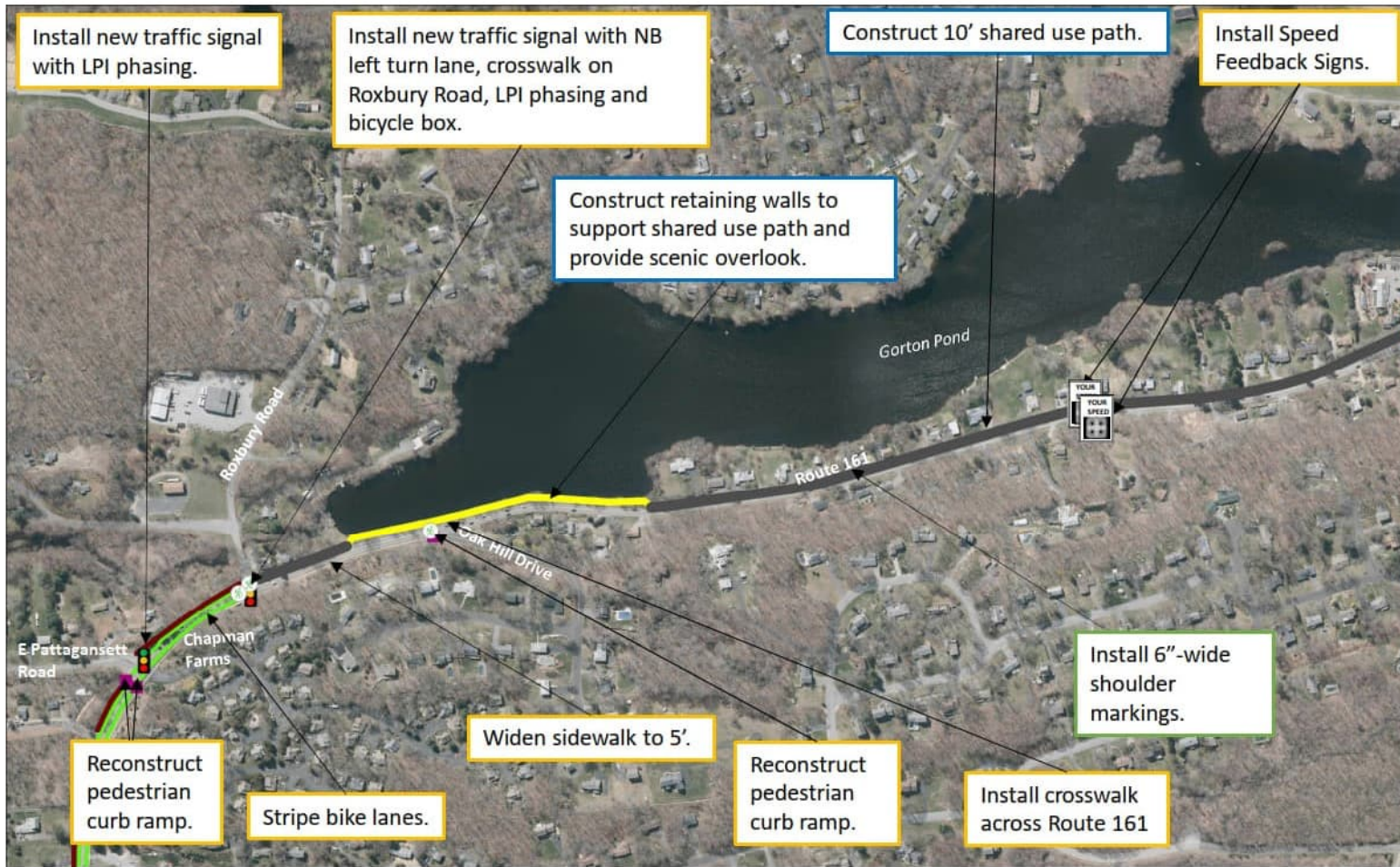


Credit: Streetmix

- Install crosswalks across both roadways at the intersection of Route 161 and Roxbury Road to enhance pedestrian safety.
- Install a crosswalk across Route 161 at Oak Hill Drive to improve access to the proposed sidewalk and overlook area at Gorton Pond.
- Widen the existing sidewalk along the east side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.

Long-Term Improvements

- Install a 10'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. Retaining walls will be necessary to support the shared use path along the south end of Gorton Pond. An overlook area is recommended to accommodate fishing, sight-seeing, or other recreational activities. (See Appendix B for a concept plan and Figures 9 and 10 for renderings of the proposed shared use path.)



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

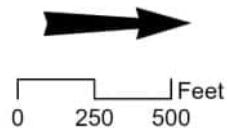


Figure 8
Segment 3 - East Pattagansett Road to Society Road

June 2023



Figure 9: Shared Use Path at Gorton Pond



Figure 10: Scenic Overlook at Gorton Pond

2.4 SEGMENT 4 – SOCIETY ROAD TO INDUSTRIAL PARK ROAD

Figures 11 and 12 show the improvements developed for the Route 161 corridor segment between Society Road and Industrial Park Road. The improvements include:

Mid-Term Improvements

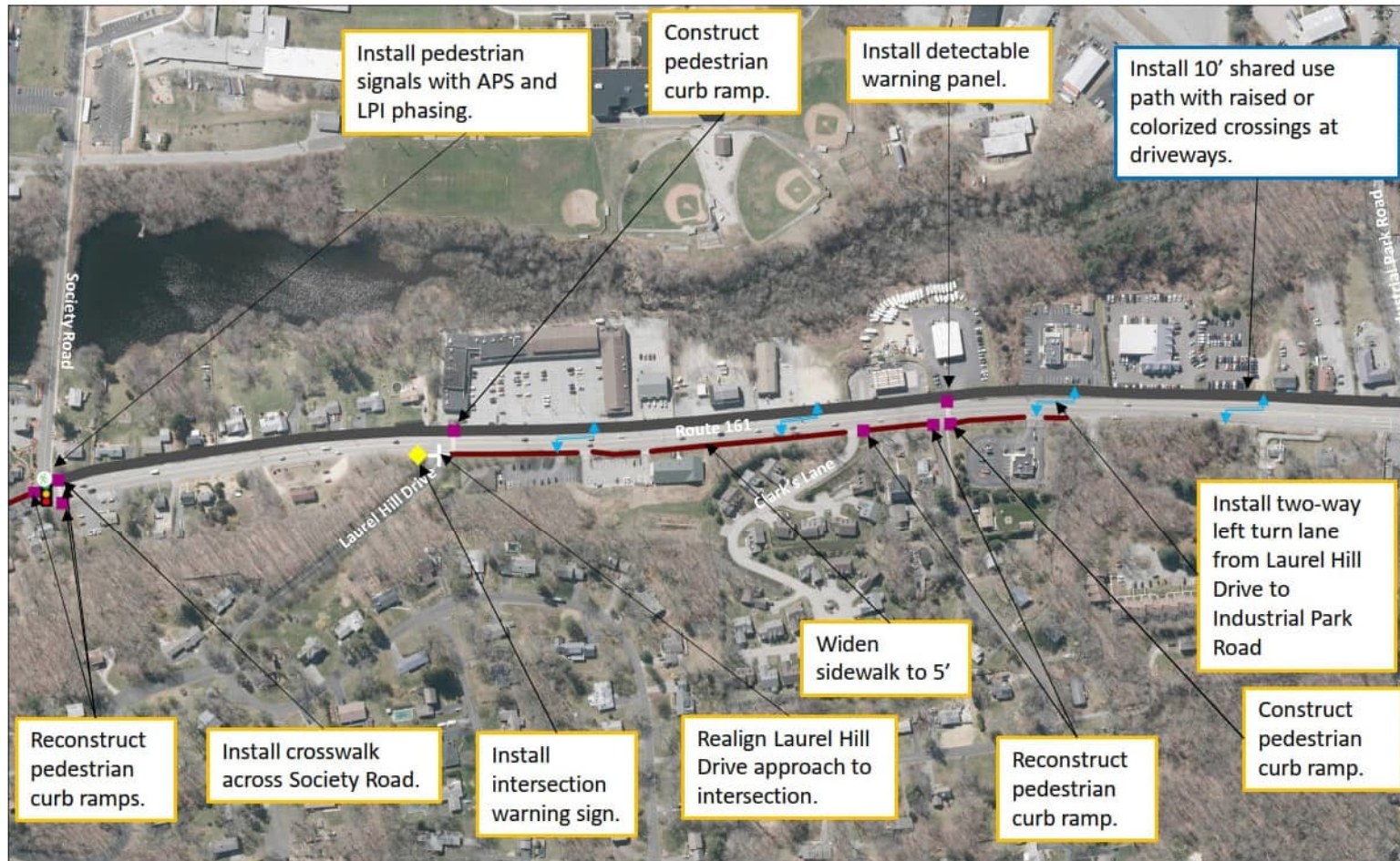
- At the intersection of Route 161 and Society Road install accessible pedestrian signals, implement Leading Pedestrian Interval (LPI) phasing, and stripe a crosswalk across Society Road to improve pedestrian safety and mobility for all users.
- Construct pedestrian curb ramps where none are provided including the Laurel Hill Drive and Damon Heights Road crossings to improve mobility for all users.
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations in accordance with the U.S. Access Board’s Proposed Public Rights-of-Way Accessibility Guidelines to improve mobility for all users.
- Install an intersection warning sign on the northbound approach to Laurel Hill Drive to alert drivers to the presence of an intersection with limited sight distances and improve safety.
- Restripe the roadway to incorporate a two-way left turn lane to improve flow and reduce crashes.
- Realign the Laurel Hill Drive approach to Route 161 approximately 150 feet southward to reduce the skewed angle, improve sight distance, and mitigate crashes.
- Widen the existing sidewalk along the east side of Route 161 to provide suitable passing spaces and enhance walkability and mobility for all users.

Long-Term Improvements

- Install a 10’-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. Replace the existing culvert south of Dunkin’ to accommodate the shared use path.



Credit: Streetmix



Imagery from 2019 Spring Aerial Imagery by UConn CTECO

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

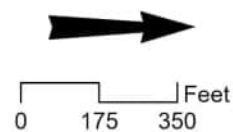


Figure 12
Segment 4 - Society Road to Industrial
Park Road

June 2023

2.5 SEGMENT 5 – INDUSTRIAL PARK ROAD TO FRONTAGE ROAD

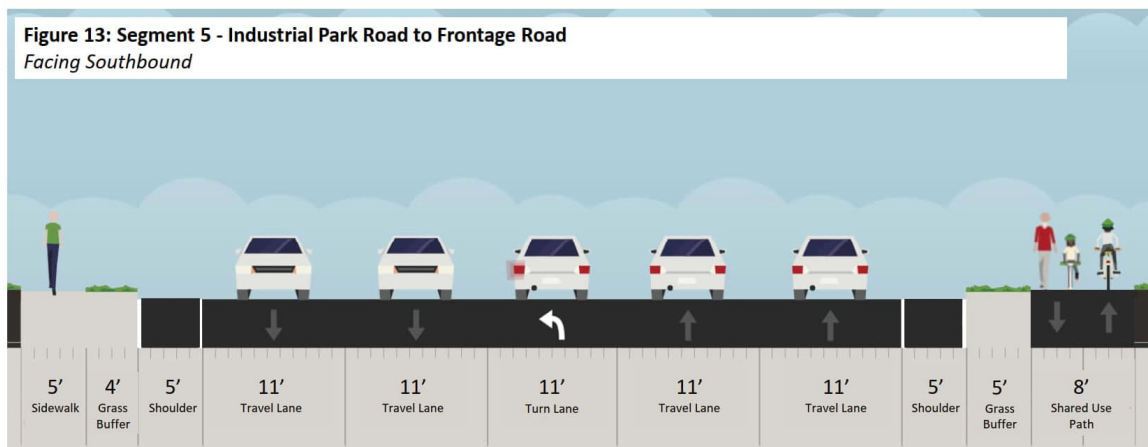
Figures 13 and 14 show the improvements developed for the Route 161 corridor segment between Industrial Park Road and Frontage Road. The improvements include:

Mid-Term Improvements

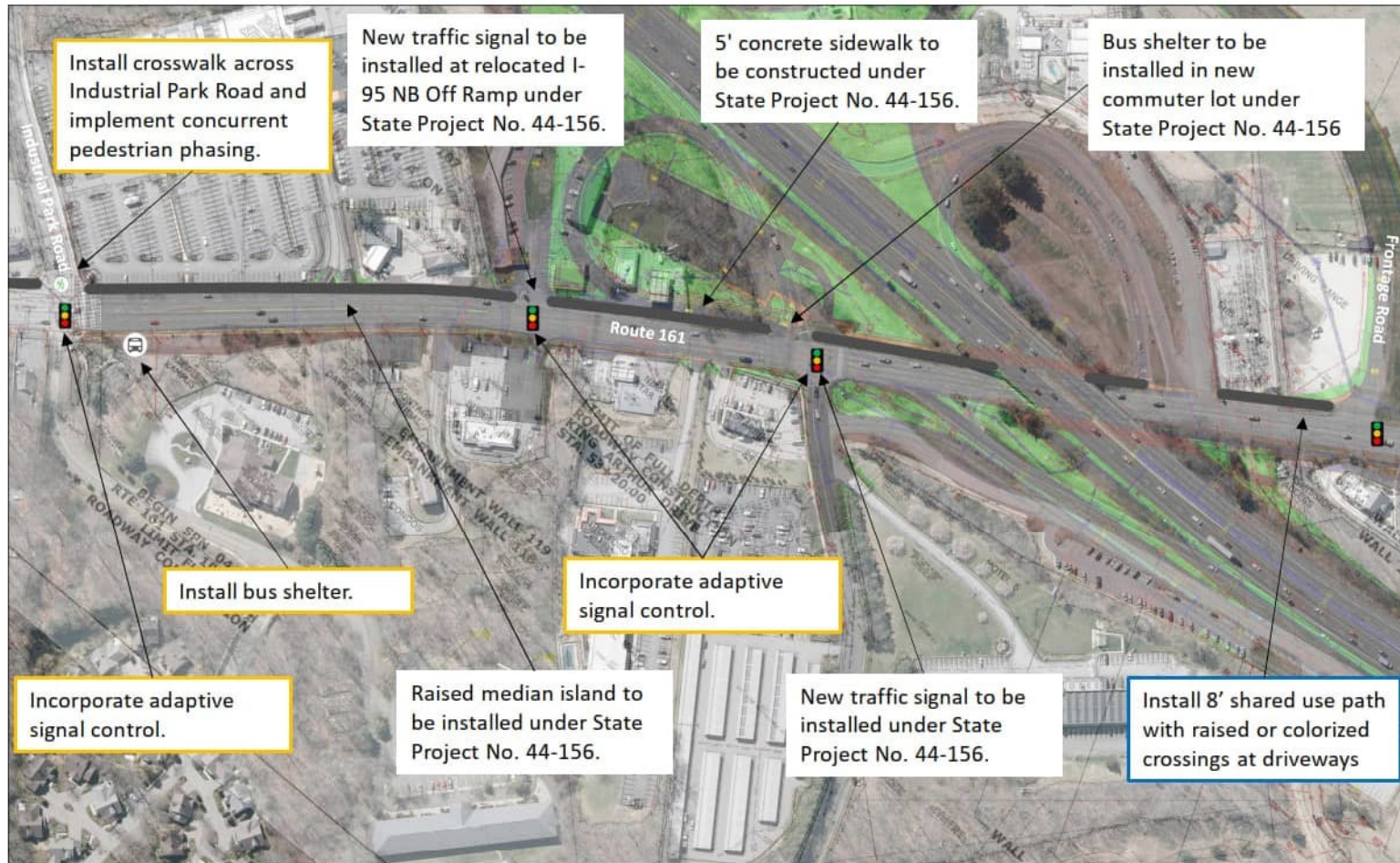
- Install a crosswalk with pedestrian signals across Industrial Park Road and implement concurrent pedestrian phasing to improve pedestrian safety.
- Incorporate adaptive signal control at the new traffic signals to be installed at Industrial Park Road, the Exit 74 Off Ramp, and King Arthur Drive under the I-95 Interchange 74 Improvement project. Adaptive signal control can allow the signals to better respond to changing traffic volumes and reduce delay on the Route 161 corridor when traffic volumes increase due to incidents on I-95 or seasonal tourism.
- Install a bus shelter northeast of Chapman Wood Road to promote transit use.

Long-Term Improvements

- Install an 8'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. A narrower shared use path is recommended within this segment due to limited width below the I-95 bridge and to minimize impacts to commercial parking areas.



Credit: Streetmix



Imagery from 2019 Spring Aerial Imagery by UConn CTECO and Interchange 74 Plan Set

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

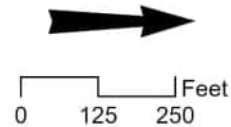


Figure 14
Segment 5 - Industrial Park Road to
Frontage Road

June 2023

2.6 SEGMENT 6 –FRONTAGE ROAD TO U.S. ROUTE 1 (BOSTON POST ROAD)

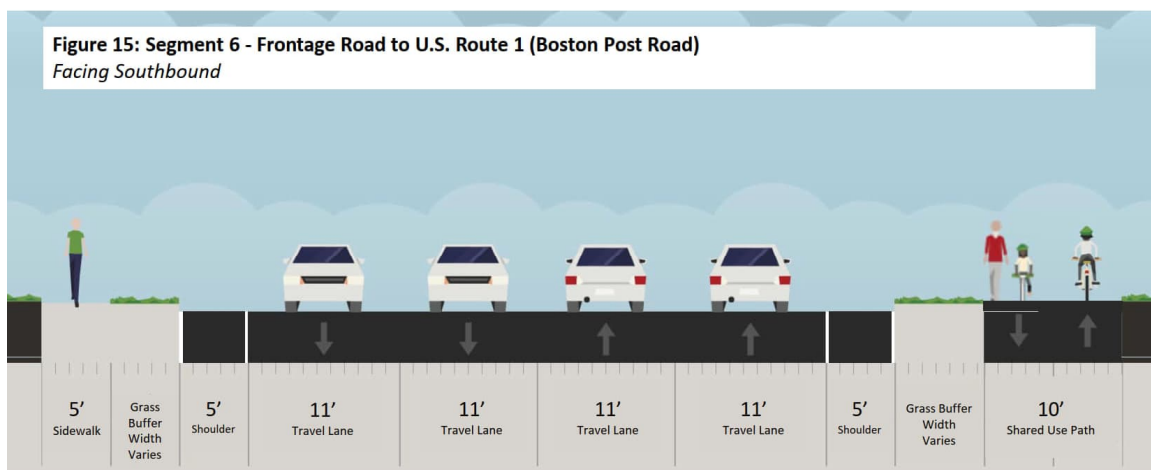
Figures 15 and 16 show the improvements developed for the Route 161 corridor segment between Frontage Road and U.S. Route 1 (Boston Post Road). The improvements include:

Mid-Term Improvements

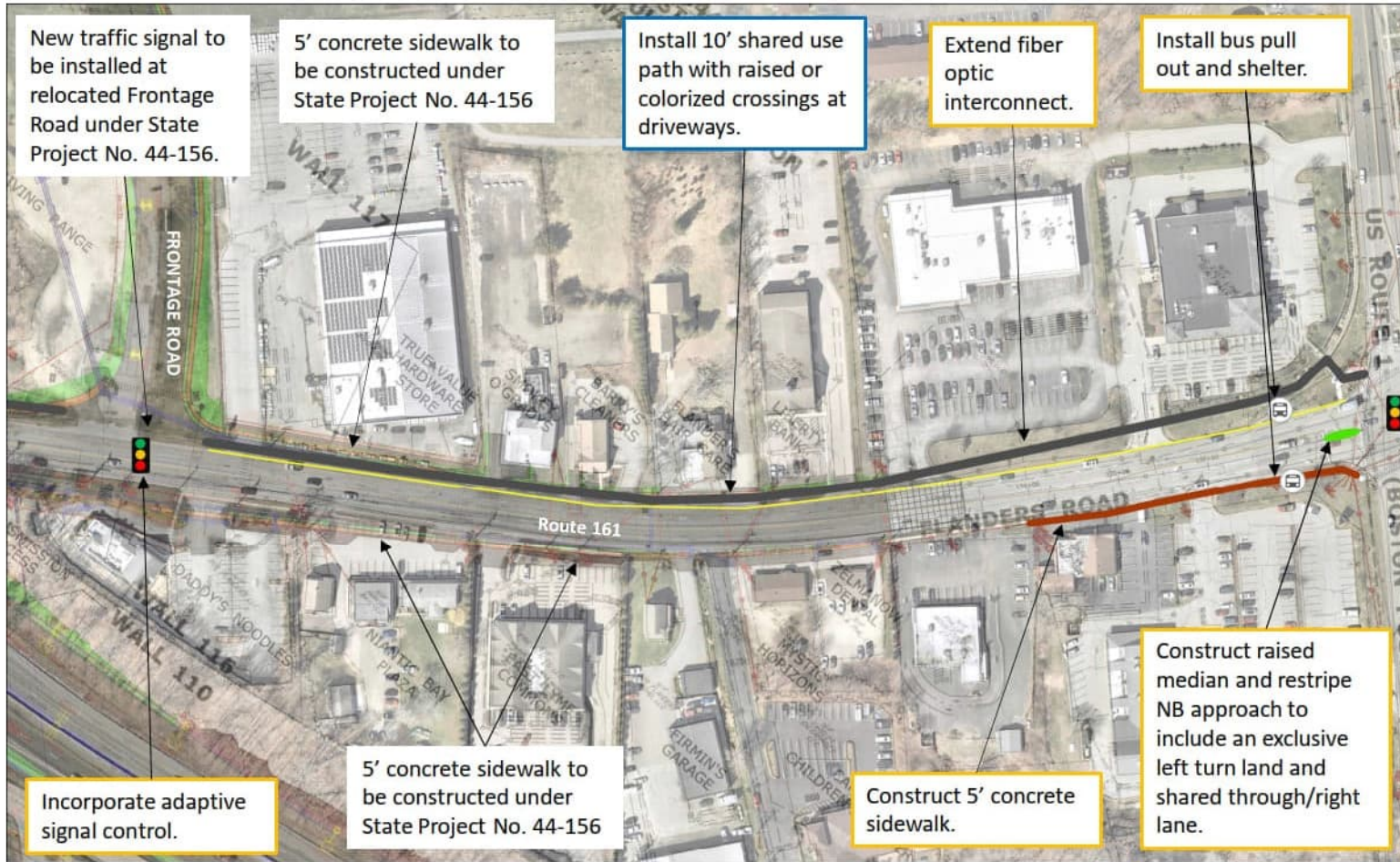
- Incorporate adaptive signal control at the new traffic signal to be installed at Frontage Road under the I-95 Interchange 74 Improvement project. Adaptive signal control can allow the signal to better respond to changing traffic volumes and reduce delay on the Route 161 corridor when traffic volumes increase due to incidents on I-95 or seasonal tourism.
- Install fiber optic interconnect to facilitate communication between the traffic signal at U.S. Route 1 (Boston Post Road) and the signals at Frontage Road, King Arthur Drive, the I-95 Exit 74 Off Ramp, and Industrial Park Road.
- Construct a new 5'-wide concrete sidewalk on the east side of the corridor in front of Latimer Brook Commons to fill a gap in the existing sidewalk network and improve pedestrian connectivity.
- Install bus pull outs on both sides of the corridor just south of U.S. Route 1 (Boston Post Road) where buses can pick up and drop off passengers without impeding the flow of traffic. Install a bus shelter at each pull out to promote transit use. (See Appendix B for a concept plan and Figure 17 for a rendering of the proposed bus pull outs and shelters.)
- Construct a raised median island on the southern leg of the Route 161/U.S. Route 1 (Boston Post Road) intersection to enhance pedestrian safety between the proposed bus shelters. Restripe the northbound approach to include an exclusive left turn lane and shared through/right turn lane to accommodate the median island.

Long-Term Improvements

- Install a 10'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. (See Appendix B for a concept plan and Figure 17 for a rendering of the proposed shared use path.)



Credit: Streetmix



Imagery from Nearmap and Interchange 74 Plan Set

- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement

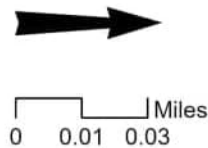


Figure 16
Segment 6 – Frontage Road to U.S.
Route 1 (Boston Post Road)

June 2023



Figure 17: Shared Use Path and Bus Pull Out, South of U.S. Route 1 (Boston Post Road)

2.7 SEGMENT 7 –U.S. ROUTE 1 (BOSTON POST ROAD) TO EAST LYME HIGH SCHOOL

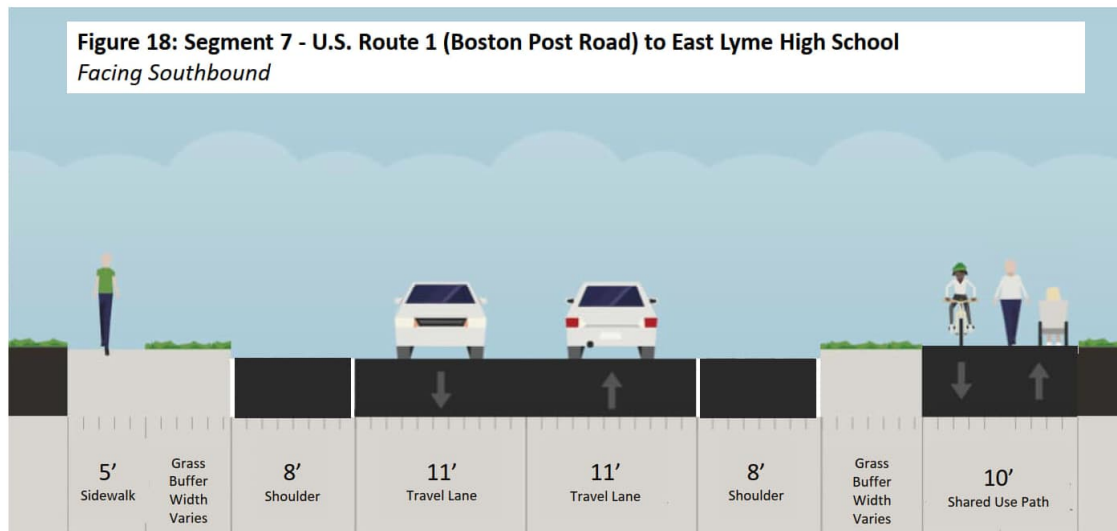
Figures 18 and 19 show the improvements developed for the Route 161 corridor segment between U.S. Route 1 (Boston Post Road) and East Lyme High School. The improvements include:

Mid-Term Improvements

- Implement a left-turn lane on the northbound approach to East Lyme High School to mitigate delay and enhance safety during the morning arrival period.
- Incorporate adaptive signal control at the Route 161/U.S. Route 1 (Boston Post Road) traffic signal. Adaptive signal control can allow the signal to better respond to changing traffic volumes and reduce delay on the Route 161 corridor when traffic volumes increase due to incidents on I-95 or seasonal tourism.

Long-Term Improvements

- Install a 10'-wide shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking.



Credit: Streetmix



- Green Comment: Near Term Improvement
- Orange Comment: Mid-Term Improvement
- Blue Comment: Long-Term Improvement



Figure 19
Segment 7 –U.S. Route 1 (Boston Post Road) to East Lyme High School

June 2023

3.0 TRAFFIC OPERATIONS

Existing and Future No Build traffic models were previously developed using Synchro software (Version 11) and summarized in the Existing and Future Conditions report. The Existing conditions model evaluated traffic operations at fourteen corridor intersections to assess the level of traffic delays and congestion that are currently being experienced during the weekday afternoon and Saturday midday peak hours. The Future No Build conditions model evaluated traffic congestions during these peak periods for the year 2042, taking into account anticipated changes in future land use and demographics as well as planned transportation projects impacting the corridor.

The Existing and Future Conditions Report included a summary of Level of Service and delay for each intersection and each peak period. For intersections, six levels of service (LOS), "A"- "F", have been established with "A" representing very good operation and "F" representing very poor operation. For signalized and unsignalized intersections, level of service is defined in terms of average delay per vehicle and is computed for individual intersection lane groups. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The relationship for unsignalized and signalized intersections are summarized in Table 1 and Table 2, respectively.

Table 1: Level of Service Criteria for Unsignalized Intersections

LOS	Unsignalized Intersection Criteria Average Total Delay (Seconds per Vehicle)	General Description
A	< 10.0	Free Flow
B	10.1 to 15.0	Stable flow (slight delays)
C	15.1 to 25.0	Stable flow (acceptable delays)
D	25.1 to 35.0	Approaching unstable flow (tolerable delay)
E	35.1 to 50.0	Unstable flow (intolerable delay)
F	> 50.0	Forced flow (jammed)

Table 2: Level of Service Criteria for Signalized Intersections

LOS	Signalized Intersection Criteria Average Total Delay (Seconds per Vehicle)	General Description
A	< 10.0	Free Flow
B	10.1 to 20.0	Stable flow (slight delays)
C	20.1 to 35.0	Stable flow (acceptable delays)
D	35.1 to 55.0	Approaching unstable flow (tolerable delay)
E	55.1 to 80.0	Unstable flow (intolerable delay)
F	> 80.0	Forced flow (jammed)

The proposed improvements identified in Chapter 2 were evaluated as part of the Future Build traffic model which examines their impact on Level of Service and delay during each peak period under year

2042 traffic conditions. Level of Service and delay for the Existing, Future No Build, and Future Build traffic models are summarized in Table 3 (Weekday PM Peak) and Table 4 (Saturday Midday Peak). For signalized locations the overall intersection Level of Service and delay are shown. For unsignalized locations the Level of Service and delay for the stop-controlled approach are shown. Future Build capacity analysis (Synchro) reports are provided in Appendix C.

Table 3 - Weekday PM Peak LOS and Delay

Intersecting Street	Existing	Future No Build	Future Build
Route 156 (Main Street)	C (30)	D (42)	D (37)
Hope Street - Eastbound Approach	C (19)	C (24)	C (24)
State Road - Eastbound Approach	C (20)	C (23)	C (23)
Lincoln Street - Westbound Approach	C (17)	C (19)	C (19)
Oswegatchie Hills Road - Southbound Approach	C (18)	C (23)	C (23)
Sleepy Hollow Road - Southbound Approach	C (19)	C (22)	C (22)
East Pattagansett Road and Chapman Woods Road	B (14)	C (20)	B (15)
Roxbury Road	C (33)	F (92)	B (17)
Society Road	B (18)	C (24)	B (19)
Laurel Hill Drive - Westbound Approach	D (32)	E (47)	E (44)
Industrial Park Road and Chapman Woods Road	B (18)	C (25)	C (25)
I-95 NB Exit Ramp and Burger King Driveway	N/A	B (14)	B (14)
King Arthur Drive	C (21)	A (7)	A (7)
Frontage Road to I-95 SB Ramps	B (17)	B (13)	B (13)
U.S. Route 1 (Boston Post Road)	C (29)	D (36)	D (45)
East Lyme High School - Eastbound Approach	C (23)	D (29)	D (30)

Table 4 - Saturday Midday Peak LOS and Delay

Intersecting Street	Existing	Future No Build	Future Build
Route 156 (Main Street)	C (31)	D (41)	C (34)
Hope Street - Eastbound Approach	C (24)	D (26)	D (26)
State Road - Eastbound Approach	C (21)	C (24)	C (24)
Lincoln Street - Westbound Approach	C (16)	C (18)	C (18)
Oswegatchie Hills Road - Southbound Approach	C (19)	C (25)	C (25)
Sleepy Hollow Road - Southbound Approach	C (17)	C (18)	C (18)
East Pattagansett Road and Chapman Woods Road	B (13)	B (15)	B (11)
Roxbury Road	C (22)	D (45)	A (9)
Society Road	B (18)	B (20)	B (20)
Laurel Hill Drive - Westbound Approach	D (28)	E (42)	E (42)
Industrial Park Road and Chapman Woods Road	B (14)	B (12)	B (12)
I-95 NB Exit Ramp and Burger King Driveway	N/A	B (13)	B (13)
King Arthur Drive	C (21)	A (6)	A (6)
Frontage Road to I-95 SB Ramps	B (17)	B (13)	B (13)

Town of East Lyme

U.S. Route 1 (Boston Post Road)	C (24)	C (27)	D (36)
East Lyme High School - Eastbound Approach	C (17)	C (18)	C (17)

At the Route 156 (Main Street) intersection, installing a new traffic signal with optimized timings improves traffic operations from a LOS D with 42 seconds of average delay to a LOS D with 34 seconds of average delay during future conditions for the weekday afternoon peak hour. Traffic operations are improved from a LOS D with 41 seconds of average delay to a LOS C with 32 seconds of average delay during future conditions for the Saturday midday peak hour.

At the East Pattagansett Road and Chapman Woods Road intersection installing a new traffic signal that operates independently from Roxbury Road improves traffic operations from a LOS C with 20 seconds of average delay to a LOS B with 15 seconds of average delay during future conditions for the weekday afternoon peak hour. Traffic operations are improved from a LOS B with 15 seconds of average delay to a LOS B with 11 seconds of average delay during future conditions for the Saturday midday peak hour. *With a roundabout this intersection would operate at LOS C with 19 seconds of average delay during future conditions for both the weekday afternoon and Saturday midday peak hours.*

At the Roxbury Road intersection installing a new traffic signal that incorporates a northbound left turn lane improves traffic operations from a LOS F with 92 seconds of average delay to a LOS B with 17 seconds of average delay during future conditions for the weekday afternoon peak hour. Traffic operations are improved from a LOS D with 45 seconds of average delay to a LOS A with 9 seconds of average delay during future conditions for the Saturday midday peak hour.

At the Route U.S. Route 1 (Boston Post Road) intersection eliminating a turn lane on the northbound approach to accommodate the proposed pedestrian refuge island worsens traffic operations from a LOS D with 36 seconds of average delay to a LOS D with 45 seconds of average delay during future conditions for the weekday afternoon peak hour. Traffic operations worsen with from a LOS C with 27 seconds of average delay to a LOS D with 36 seconds of average delay for the Saturday midday peak hour. Although traffic operations worsen the proposed pedestrian refuge island is expected to facilitate safer crossings for pedestrians.

4.0 CONSTRAINTS

Potential constraints associated with implementation of the proposed improvements identified in Chapter 2 include rights of way, utilities, and permitting.

4.1 RIGHTS OF WAY

The proposed improvements for the Route 161 corridor are generally included within the existing rights of way. Rights of way boundaries are located as close as 4-feet as far as 125-feet from the existing curb on the west side of the corridor. Along the east side of the corridor the rights of way boundary varies from 3-feet to 90-feet from the existing curb. Improvements involving traffic signals, pavement markings, signage, bus shelters, parking, or modifications to existing sidewalks can generally be implemented without easements. However, the following easements are anticipated to accommodate the proposed shared use path, new sidewalks, and roadway realignment:

Table 5 – Anticipated Easements

Segment	Proposed Improvement	Impacted Property	Approximate Easement (sf)
2	5' Sidewalk	143 Pennsylvania Ave (Residential)	200 s.f.
2	5' Sidewalk	149 Pennsylvania Ave (Residential)	150 s.f.
2	5' Sidewalk	151 Pennsylvania Ave (Residential)	175 s.f.
2	5' Sidewalk	165 Pennsylvania Ave (Residential)	500 s.f.
2	5' Sidewalk	167 Pennsylvania Ave (Residential)	200 s.f.
2	5' Sidewalk	171 Pennsylvania Ave (Residential)	300 s.f.
2	5' Sidewalk	175 Pennsylvania Ave (Residential)	200 s.f.
2	5' Sidewalk	177 Pennsylvania Ave (Residential)	500 s.f.
2	5' Sidewalk	181 Pennsylvania Ave (Residential)	550 s.f.
3	10' Shared Use Path	4 Flanders Road (Residential)	100 s.f.
3	10' Shared Use Path	44 Flanders Road (Residential)	100 s.f.
3	10' Shared Use Path	48 Flanders Road (Residential)	240 s.f.
3	10' Shared Use Path	56 Flanders Road (Residential)	700 s.f.
3	10' Shared Use Path	64 Flanderes Road (Residential)	500 s.f.
3	10' Shared Use Path	68 Flanders Road (Residential)	300 s.f.
3	10' Shared Use Path	72 Flanders Road (Residential)	700 s.f.
3	10' Shared Use Path	76 Flanders Road (Residential)	1000 s.f.
3	10' Shared Use Path	78 Flanders Road (Residential)	250 s.f.
3	10' Shared Use Path	84 Flanders Road (Residential)	400 s.f.
3	10' Shared Use Path	88 Flanders Road (Residential)	150 s.f.

Segment	Proposed Improvement	Impacted Property	Approximate Easement (sf)
3	10' Shared Use Path	106 Flanders Road (Residential)	150 s.f.
3	10' Shared Use Path	108 Flanders Road (Residential)	100 s.f.
4	10' Shared Use Path	170 Flanders Road LLC (Midway Plaza)	500 s.f.
4	10' Shared Use Path	222 Flanders Road (Monaco Ford)	350 s.f.
4	10' Shared Use Path	226 Flanders Road (Iliano's)	275 s.f.
4	10' Shared Use Path	228 Flanders Road (Iliano's)	425 s.f.
4	10' Shared Use Path	230 Flanders Road (Future Car Wash)	350 s.f.
4	Realign Laurel Hill Drive	155 Flanders Road (Residential)	450 s.f.
5	8' Shared Use Path	248 Flanders Road (Stop & Shop)	400 s.f.
5	8' Shared Use Path	250 Flanders Road (L&L East Lyme)	1300 s.f.
5	8' Shared Use Path	252 Flanders Road (Monro and Stop & Shop Gas)	650 s.f.

Additionally, rights to grade and rights to construct driveways may be required at various locations to facilitate construction of the proposed sidewalks and shared use path.

4.2 UTILITIES

Overhead and underground utilities including electrical, cable, telephone, water, and sewer lines are located throughout the Route 161 corridor. It is desirable to minimize or avoid impacts to utilities to minimize project costs and streamline construction schedules. The following utility relocations are anticipated to be necessary to accommodate the proposed improvements discussed in Chapter 2:

Table 6 – Anticipated Utility Relocations

Segment	Proposed Improvement	Location	Approximate Easement (sf)
2	5' Sidewalk	Luce Avenue to Penncove Road (east side)	Relocate 6 utility poles and overhead cables
2	5' Sidewalk	Oswegathcie Hills Road to Sleepy Hollow Road (north side)	Relocate 6 utility poles and overhead cables
3	10' Shared Use Path	Roxbury Road to Society Road (west side)	Relocate 5 hydrants, 3 utility poles, and overhead cables
3	10' Shared Use Path	Society Road to Industrial Park Road (west side)	Relocate 5 utility poles and overhead cables
3	Realign Laurel Hill Dr.	Laurel Hill Dr. (south side)	Relocate 1 utility pole and overhead cables

Segment	Proposed Improvement	Location	Approximate Easement (sf)
5	8' Shared Use Path	Industrial Park Road to Frontage Road (west side)	Relocate 1 utility pole and overhead cable
7	10' Shared Use Path	U.S. Route 1 to East Lyme High Scholl (west side)	Relocate 2 utility poles and overhead cable

4.3 PERMITTING

Below is a brief overview of the environmental context of each of the segments in the project area and the project’s impacts to various environmental resources. A field visit was conducted to confirm the presence of wetlands along the Corridor on March 17, 2023. Table 7 provides a summary of the various environmental resources present within each segment.

Table 7 - Environmental Impact Summary

	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7
Wetlands and Watercourses		✓*	✓	✓*			
Upland Review Area	✓	✓	✓	✓	✓	✓	✓
NDDDB Habitat	✓	✓	✓				
Floodplain			✓				
Aquifer Protection Area			✓	✓	✓	✓	✓
Historic Structures**							
Coastal Management Area	✓						

*Segments marked with an asterisk require a formal delineation to confirm whether the project will impact wetlands or watercourses.

** To determine the presence of historic structures in the project corridor, the Historic Property Database provided by the State Historic Preservation Office (SHPO) was consulted.

Given the impacts associated with the proposed improvements and because it is anticipated that CTDOT funding will be pursued for implementation, the following environmental permits will be required to complete permitting for each of the Project segments.

- Town of East Lyme Inland Wetlands Permit for all Segments;
- Self-Verification Notification Form or Pre-Construction Notification under the US Army Corps of Engineers Section 404 Connecticut General Permits 17A for Segment 3, and potentially Segments 2 and 4, depending on final impacts;
- Submission of the Land and Water Resource Division (LWRD) License Application (Form L) to CTDEEP for Inland Wetlands and Watercourses and required attachments for Segment 3, and potentially Segments 2 and 4. Coordination with CTDEEP will be conducted during preliminary design to confirm CTDEEP filing requirements;
- NDDDB Consultation Submission for Segments 1, 2 and 3;

- DEEP Stormwater Permit for the Project as a whole, as earth disturbance is anticipated to exceed two acres;
- Coastal Management Act Site Plan Review for Segment 1;
- East Lyme Floodplain Development Permit Application for Segment 3; and
- As a state-funded Project, the work will require review and confirmation that the Project will not have an effect or adverse effect on historic and / or archaeological resources. A Project Notification Form is required to be submitted to CT State Historic Preservation Office (SHPO), as required for state-funded projects, to comply with the Connecticut Environmental Policy Act (CEPA).

Additional information on the environmental context, impacts and considerations associated with each segment is included in the Environmental Permitting Overview memorandum in Appendix D.

5.0 IMPLEMENTATION PLAN

The proposed improvements identified in Chapter 2 may be implemented through a series of ten potential projects. An implementation timeline has been developed based on the complexity, cost, and benefit of each project with each project being categorized as near-term, mid-term, or long-term.

Approximate construction costs have been identified for each project based on comparable projects and similar work. The planning-level construction costs are reported in 2023 dollars. Itemized construction cost estimates were developed for projects for which concept plans and renderings were developed. Itemized construction costs are included in Appendix E.

5.1 NEAR-TERM PROGRAM

The near-term program includes two projects that could be implemented within a three-year timeline. A summary of the project including lead agency and approximate construction cost is provided below.

Project 1 – Traffic Signal Improvements – Route 156 (Main Street)	Mid-term
Summary: Traffic signal improvements at the intersection of Route 161 and Route 156 (Main Street).	Lead Agency: CTDOT Cost: \$320,000

This project includes:

- Installing a new traffic signal at the Route 161 and Route 156 (Main Street) intersection. The existing traffic signal is scheduled to be replaced under State Project #0172-0501 during the 2024 and 2025 construction seasons. Retroreflective backplates will be installed to enhance visibility and mitigate rear end collisions. Accessible pedestrian signals to improve accessibility for visually impaired pedestrians.

Project 2 – Pavement Marking and Signing Improvements – by the Town of East Lyme	Near-term
Summary: Various pavement marking and signing improvements implemented and maintained by the Town of East Lyme.	Lead Agency: Town of East Lyme Cost: \$45,000

This project includes:

- Striping crosswalks across side streets with high pedestrian volumes including Grand Street, Hope Street, State Street, and Lincoln Street to enhance pedestrian safety.
- Striping on-street parking spaces on Hope Street to better accommodate parking demand from visitors to local businesses.
- Installing speed feedback signs between Roxbury Road and Society Road to discourage speeding.

The approximate cost assumes that pavement markings will be installed in conjunction with routine pavement rehabilitation. Milling, paving, and related costs are therefore not included.

5.2 MID-TERM PROGRAM

The mid-term program includes seven projects that could be implemented within a three to seven-year timeline. A summary of each project including lead agency and approximate construction cost is provided below.

Project 3 – Bus Facility and Pocket Parking Improvements	Mid-Term
Summary: Modify existing curb geometry to accommodate bus pull outs and pocket parking. Install bus shelters and pedestrian refuge island between shelters.	Lead Agency: Town of East Lyme/CTDOT Cost: \$700,000

This project includes:

- Constructing a pocket parking area on the west of the corridor, just south of Hope Street to accommodate bike lanes and improve sight distance.
- Installing a bus shelter northeast of Chapman Wood Road.
- Installing bus pull outs on both sides of the corridor just south of U.S. Route 1 (Boston Post Road) where buses can pick up and drop off passengers without impeding the flow of traffic.

Constructing a raised median island on the southern leg of the Route 161/U.S. Route 1 (Boston Post Road) intersection to enhance pedestrian safety between the proposed bus shelters and restriping the northbound approach to include an exclusive left turn lane and shared through/right turn lane.

Project 4 – Pavement Marking and Signing Improvements – by CTDOT	Mid-term
Summary: Various pavement marking and signing improvements implemented and maintained by CTDOT.	Lead Agency: CTDOT Cost: \$75,000

This project includes:

- Striping bike lanes along both sides of Route 161 between Route 156 (Main Street) and East Pattagansett Road to promote bicycle use and enhance safety for bicyclists.
- Restriping the existing shoulder between Roxbury Road and Society Road with 6" - wide shoulder markings to mitigate crashes involving pedestrians, bicyclists, and older drivers and to discourage speeding.

Town of East Lyme

- Installing a crosswalk across Route 161 at Oak Hill Drive to improve access to the proposed sidewalk and overlook area at Gorton Pond.
- Restriping the roadway between Laurel Hill Drive and Industrial Park Road to incorporate a two-way left turn lane to improve traffic flow and reduce crashes.
- Installing an intersection warning sign on the northbound approach to Laurel Hill Drive to alert drivers to the presence of an intersection with limited sight distances and improve safety.
- Implementing a left-turn lane on the northbound approach to East Lyme High School to mitigate delay and enhance safety during the morning arrival period.

The proposed pocket parking area south of Hope Street identified as part of Project 2 should be constructed prior to restriping to accommodate installation of the bike lanes.

The approximate cost assumes that pavement markings will be installed in conjunction with routine pavement rehabilitation. Milling, paving, and related costs are therefore not included.

Project 5 – Traffic Signal Improvements – East Pattagansett Road to Society Road	Mid-term
Summary: Various upgrades to traffic signals between East Pattagansett Road and Society Road.	Lead Agency: CTDOT Cost: \$730,000

This project includes:

- Installing new traffic signals at the Route 161/East Pattagansett Road and Route 161/Roxbury Road intersections. Provide separate traffic signal controllers at each intersection allowing each signal to operate independently, improving traffic operations, and reducing delay. Incorporate Leading Pedestrian Interval (LPI) phasing and accessible pedestrian signals at each intersection to enhance pedestrian safety and improve mobility for all users. At the Roxbury Road signal install a dedicated northbound left turn lane and a bicycle box to facilitate transition from the bicycle lanes south of the intersection to the shared use path north of the intersection.
- At the intersection of Route 161 and Society Road install accessible pedestrian signals, implement leading pedestrian interval (LPI) pedestrian phasing, and stripe a crosswalk across Society Road to improve pedestrian safety and mobility for all users.

Project 6 – Traffic Signal Improvements – Industrial Park Road to U.S. Route 1 (Boston Post Road)	Mid-term
Summary: Various upgrades to traffic signals between Industrial Park Road and U.S. Route 1 (Boston Post Road).	Lead Agency: CTDOT Cost: \$300,000

This project includes:

- Install a crosswalk with pedestrian signals across Industrial Park Road and implement concurrent pedestrian phasing to improve pedestrian safety.
- Incorporate adaptive signal control at the new traffic signals to be installed at Industrial Park Road, the Exit 74 Off Ramp, King Arthur Drive, and Frontage Road under the I-95 Interchange 74 Improvement project.
- Install fiber optic interconnect to facilitate communication between the traffic signal at U.S. Route 1 (Boston Post Road) and the signals at Frontage Road, King Arthur Drive, the I-95 Exit 74 Off Ramp, and Industrial Park Road.
- Incorporate adaptive signal control at Route 161/U.S. Route 1 (Boston Post Road) traffic signal.

Project 7 – Pedestrian Connectivity Improvements	Mid-Term
Summary: Provide new sidewalk facilities to improve connectivity and create a more walkable corridor.	Lead Agency: Town of East Lyme/CTDOT Cost: \$900,000

This project includes:

- Constructing new sidewalk along the east side of Route 161 between Smith Street and Sleepy Hollow Road to create an improved pedestrian connection between Veterans Memorial Field, Oswegatchie Hills Nature Preserve, and the downtown Niantic area.
- Construct new sidewalk on the east side of the corridor in front of Latimer Brook Commons to fill a gap in the existing sidewalk network and improve pedestrian connectivity.

Project 8 – Upgrade Existing Sidewalk Facilities	Mid-Term
Summary: Install sidewalk ramps at locations where they are missing, replace existing sidewalk ramps with PROWAG-compliant ramps as required, and widen narrow sidewalks to 5—feet. Provide additional streetscape amenities.	Lead Agency: Town of East Lyme/CTDOT Cost: \$1,600,000

This project includes:

- Construct pedestrian curb ramps where none are provided.
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations in accordance with the U.S. Access Board’s Proposed Public Rights-of-Way Accessibility Guidelines.
- Widen the existing sidewalk along the west side of the corridor between Hope Street and East Pattagansett Road, along the east side of the corridor between Sleepy Hollow Road and Oak Hill Drive, and along the east side of the corridor between Laurel Hill Drive and Dunkin’ Donuts.

Town of East Lyme

- Installing pedestrian scale lighting between Smith Street and Hope Street to enhance pedestrian visibility and walkability.
- Plant street trees within the public right-of-way to enhance the aesthetics of the downtown Niantic area and promote survival of local pollinators.

Project 9 – Laurel Hill Drive Realignment	Mid-Term
Summary: Realign the Laurel Hill Drive approach to Route 161.	Lead Agency: Town of East Lyme/CTDOT Cost: \$215,000

This project includes:

- Realigning the Laurel Hill Drive approach to Route 161 approximately 150 feet southward to reduce the skewed angle, improve sight distance, and mitigate crashes.

5.3 LONG-TERM PROGRAM

The long-term program includes one project that could take seven years or longer to implement. A summary of the project including lead agency and approximate construction cost is provided below.

Project 10 – Shared Use Path – Roxbury Road to East Lyme High School	Long-term
Summary: Install a shared use path along the west side of Route 161 from Roxbury Road to East Lyme High School	Lead Agency: Town of East Lyme/CTDOT Cost: \$5,400,000

This project includes:

- Installing a shared use path along the west side of Route 161 to promote nonmotorized modes of travel such as walking and biking. Construct retaining walls to support the shared use path along the south end of Gorton Pond. Provide an overlook area to accommodate fishing, sight-seeing, or other recreational activities. Extend the existing culvert south of Dunkin’ to accommodate the shared use path.

5.4 PROGRAM SUMMARY

Time frame, lead agency, approximate construction cost, study segments, right-of-way acquisitions, utility relocations, and permitting requirements for each of the projects are summarized in Table 8.

Table 8 – Program Summary

Project	Time Frame	Lead Agency	Approximate Construction Cost	Study Segments	ROW Acquisition	Utility Relocation	Permits
1 - Traffic Signal Improvements - Route 156 (Main Street)	Near	CTDOT	\$320,000	1	-	-	NDDDB Habitat, Upland Review Area, Coastal Management Area
2 - Pavement Marking and Signing Improvements - by the Town of East Lyme	Near	Town	\$45,000	1,3	-	-	Wetlands and Watercourses, Upland Review Area, NDDDB Habitat, Floodplain, Aquifer Protection Area
3 - Bus Facility and Pocket Parking Improvements	Mid	Town/CTDOT	\$700,000	1,6	-	-	Upland Review Area
4 - Pavement Marking and Signing Improvements - by CTDOT	Mid	CTDOT	\$75,000	1,2,3,4,7	-	-	Wetlands and Watercourses, Upland Review Area, NDDDB Habitat, Floodplain, Aquifer Protection Area, Coastal Management Area
5 - Traffic Signal Improvements - East Pattagansett Road to Society Road	Mid	CTDOT	\$730,000	3,4	-	-	Wetlands and Watercourses, Upland Review Area, NDDDB, Floodplain, Aquifer Protection Area
6 - Traffic Signal Improvements - Industrial Park Road to	Mid	CTDOT	\$300,000	5,6,7	-	-	Upland Review Area, Aquifer Protection Area

Project	Time Frame	Lead Agency	Approximate Construction Cost	Study Segments	ROW Acquisition	Utility Relocation	Permits
U.S. Route 1 (Boston Post Road)							
7 - Pedestrian Connectivity Improvements	Mid	Town/CTDOT	\$900,000	1,2,6	✓	✓	Wetlands and Watercourses, Upland Review Area, NDDDB Habitat
8 - Upgrade Existing Sidewalk Facilities	Mid	Town/CTDOT	\$1,600,000	1,2,3,4	-	-	Wetlands and Watercourses, Upland Review, NDDDB Habitat, Floodplain, Aquifer Protection Area, Coastal Management Area
9 - Laurel Hill Drive Realignment	Mid	Town/CTDOT	\$215,000	4	✓	✓	Wetlands and Watercourses, Upland Review, Aquifer Protection Area
10 - Shared Use Path - Roxbury Road to East Lyme High School	Long	Town/CTDOT	\$5,400,000	3,4,5,6,7	✓	✓	Wetlands and Watercourses, Upland Review, NDDDB Habitat, Floodplain, Aquifer Protection Area

5.5 FUNDING OPPORTUNITIES

The following funding programs have been identified as potential sources for financing the projects:

- Community Connectivity Grant Program – The Community Connectivity Program seeks to improve accommodations for bicyclists and pedestrians in urban, suburban, and rural community centers. The goal of the Community Connectivity Program is to make conditions safer and more accommodating for pedestrians and bicyclists, thereby encouraging more people to use these healthy and environmentally sustainable modes of travel.
- Congestion Mitigation and Air Quality (CMAQ) Program – The Congestion Mitigation and Air Quality Improvement (CMAQ) program provides a funding source for State and local governments to fund transportation projects and programs to help meet the requirements of the Clean Air Act (CAA) and its amendments.
- Congressionally Directed Spending/Community Project Funding – Members of Congress may request funding for specific projects. These requests are reviewed by the Appropriations subcommittee and approved requests are included in the Consolidated Appropriations Act and the accompanying joint explanatory statement. These requests are called Congressionally Directed Spending in the Senate and Community Project Funding in the House of Representatives.
- Connecticut Recreational Trails Program – The Connecticut Department of Environmental Protection’s Recreational Trails Grant Program was established to provide funding to any private nonprofit organizations, municipalities, state departments, and tribal governments in support of trail projects.
- Local Capital Improvement Program (LoCIP) – LoCIP distributes formula-based entitlement funds to municipalities to reimburse the cost of eligible local capital improvement projects such as road, bridge or public building construction activities.
- Local Transportation Capital Improvement Program (LOTICIP) – The purpose of the LOTICIP is to provide State monies to urbanized area municipal governments in lieu of Federal funds otherwise available through the Federal transportation legislation. The LOTICIP allows eligible municipalities to perform capital infrastructure improvements with less burdensome requirements and minimizes the number and level of State resources involved in the oversight of municipal infrastructure improvements.
- Safe Streets and Roads for All Grant – The Safe Streets and Roads for All (SS4A) Grant issued by USDOT funds planning, infrastructure, behavioral, and operational initiatives to eliminate fatalities and serious injury on roads and streets involving all roadway users, including pedestrians; bicyclists; public transportation, personal conveyance, and micromobility users; motorists; and commercial vehicle operators.
- Small Town Economic Assistance Program (STEAP) – STEAP funds economic development, community conservation and quality-of-life capital projects for localities that are ineligible to receive Urban Action bonds. This program is managed by the Office of Policy and Management, and the grants are administered by various state agencies.

- Surface Transportation Program (STP) – The STP provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.

Many funding programs require local participation – typically 10% to 20% of the overall construction cost. The Town’s capital improvement program may also be used to finance projects approved during the annual budget approval process. Additional pedestrian and bicycle funding opportunities for which the proposed projects may be eligible are summarized in Appendix F.

6.0 ACCESS MANAGEMENT

Multimodal conflicts and safety issues are present when closely spaced driveways and continuous access result in vehicular turning movements interfering with through movements for people driving, walking, and biking. Access management is a tool cities and towns can use to reduce conflicts using strategies like closing driveways, consolidating driveways, and modifying traffic patterns within a site. Access management strategies are most often associated with high density residential, commercial, or institutional driveways with a higher volume of turning movements.

An Access Management Plan was developed to assist the Town as they work with property owners to make modifications and incorporate improvements during future redevelopment. A more detailed description of each strategy considered for the Route 161 Corridor Study is described below.

- *Access Closure:* When one development has multiple driveways, there is an opportunity to close redundant driveways.
- *Relocate Access:* When driveways are closed, the access to the site can be relocated and realigned to an existing driveway or a new entrance and exit location.
- *Create shared driveway:* When multiple businesses have driveways placed close to one another, creating a shared driveway can channel all vehicle turning movements for the businesses into a single driveway.
- *Provide vehicular interconnection:* When multiple driveways are combined into one single driveway, access between the businesses may need to be added between the sites through access roadways.
- *Define Entrance:* Often, commercial driveways are built wider than necessary or do not have defined entrances and exits. In these situations, vehicles pull in and pull out in an unstructured manner, increasing conflict. Defining the driveway refers to the narrowing and channeling of vehicles at driveways with overly wide or undefined entrances and exits. The narrowing of driveways also reduces pedestrian exposure to vehicles in the sidewalk.
- *Continue sidewalk access across driveways:* When sidewalks continue across driveways, drivers are alerted to the presence of pedestrians.
- *Create one-way driveways:* Creating one-way driveways restricts exiting or exiting










from certain driveways by dedicating certain driveways for entering and other driveways for exiting. This reduces the number of turning conflicts out of a site.

- *Maximize sight lines:* When through moving and turning vehicles cannot easily see one another, there is a greater opportunity for collisions. Maximizing sight lines can include moving access to a site to a location with better sight lines, cutting vegetation or removing or relocating obstructions.

The access management plan for the Route 161 Corridor focuses on closing, relocating or consolidating driveways along the parts of the corridor with closely spaced, frequent, and sometimes redundant driveways. The majority of the recommendations focus on the sections of roadway between East Lyme High School and Laurel Hill Drive, and between East Lyme Town Hall and Route 156, as these areas have the most frequent driveways and turning conflicts. Figures 20 through 28 show the proposed access management improvements along the corridor. Additional approvals may be required for strategies impacting privately owned roadways such as Chapman Woods Road.



- Legend**
-  Maximize Sight Lines
 -  Access Closure
 -  Continue Sidewalk Across Driveway
 -  Create Shared Driveway
 -  Provide Vehicular Interconnection
 -  Redefine Entrance; Define Entrance
 -  Relocated Access
 -  One Way

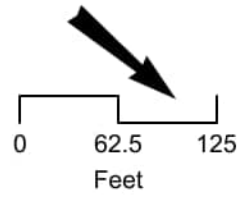
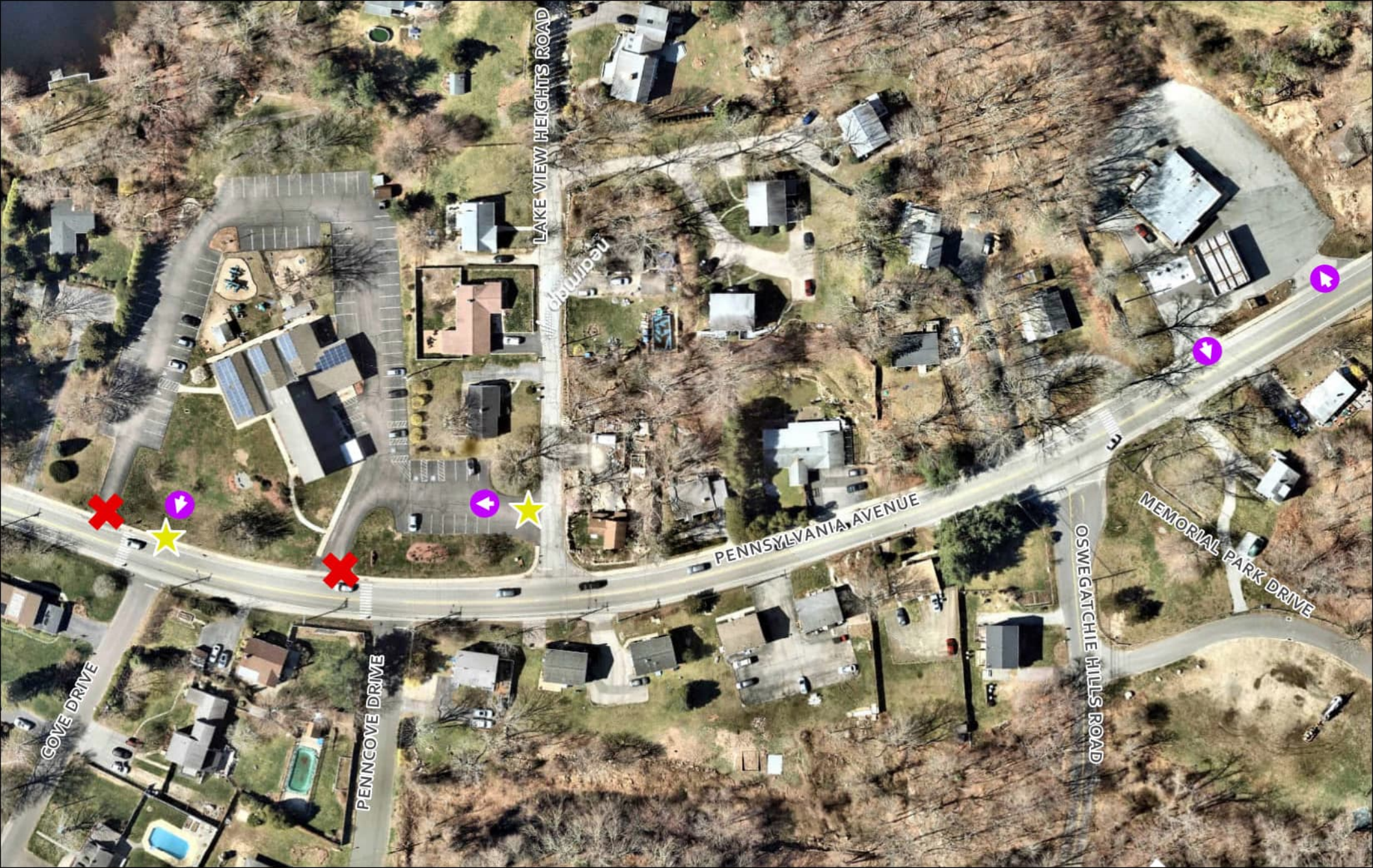









Figure 20
Access Management Plan
 Downtown Niantic



- Legend**
-  Maximize Sight Lines
 -  Access Closure
 -  Continue Sidewalk Across Driveway
 -  Create Shared Driveway
 -  Provide Vehicular Interconnection
 -  Redefine Entrance; Define Entrance
 -  Relocated Access
 -  One Way

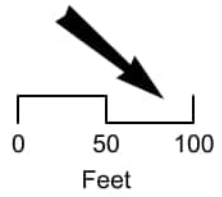










Figure 21
Access Management Plan
 Near Oswegatchie Hills Road



- Legend**
-  Maximize Sight Lines
 -  Access Closure
 -  Continue Sidewalk Across Driveway
 -  Create Shared Driveway
 -  Provide Vehicular Interconnection
 -  Redefine Entrance; Define Entrance
 -  Relocated Access
 -  One Way

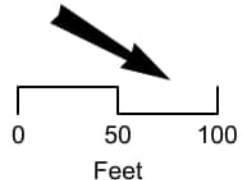
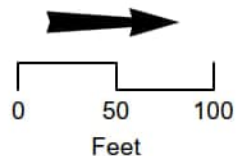


Figure 22
Access Management Plan
 Near East Patagansett Road



- Legend**
-  Maximize Sight Lines
 -  Access Closure
 -  Continue Sidewalk Across Driveway
 -  Create Shared Driveway
 -  Provide Vehicular Interconnection
 -  Redefine Entrance; Define Entrance
 -  Relocated Access
 -  One Way

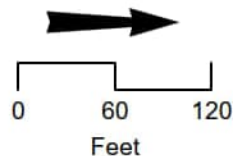


Date: June 15, 2023
 Basemap: Nearmap Imagery and Interchange 74 Plans

Figure 23
Access Management Plan
 Society Road to Laurel Hill Drive



- Legend**
- Maximize Sight Lines
 - Access Closure
 - Provide Vehicular Interconnection
 - Redefine Entrance; Define Entrance
 - Continue Sidewalk Across Driveway
 - Relocated Access
 - Create Shared Driveway
 - One Way

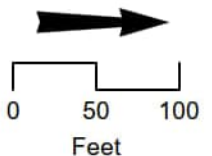


Date: June 15, 2023
 Basemap: Nearmap Imagery and Interchange 74 Plans

Figure 24
Access Management Plan
 Laurel Hill Drive to Damon
 Heights Road

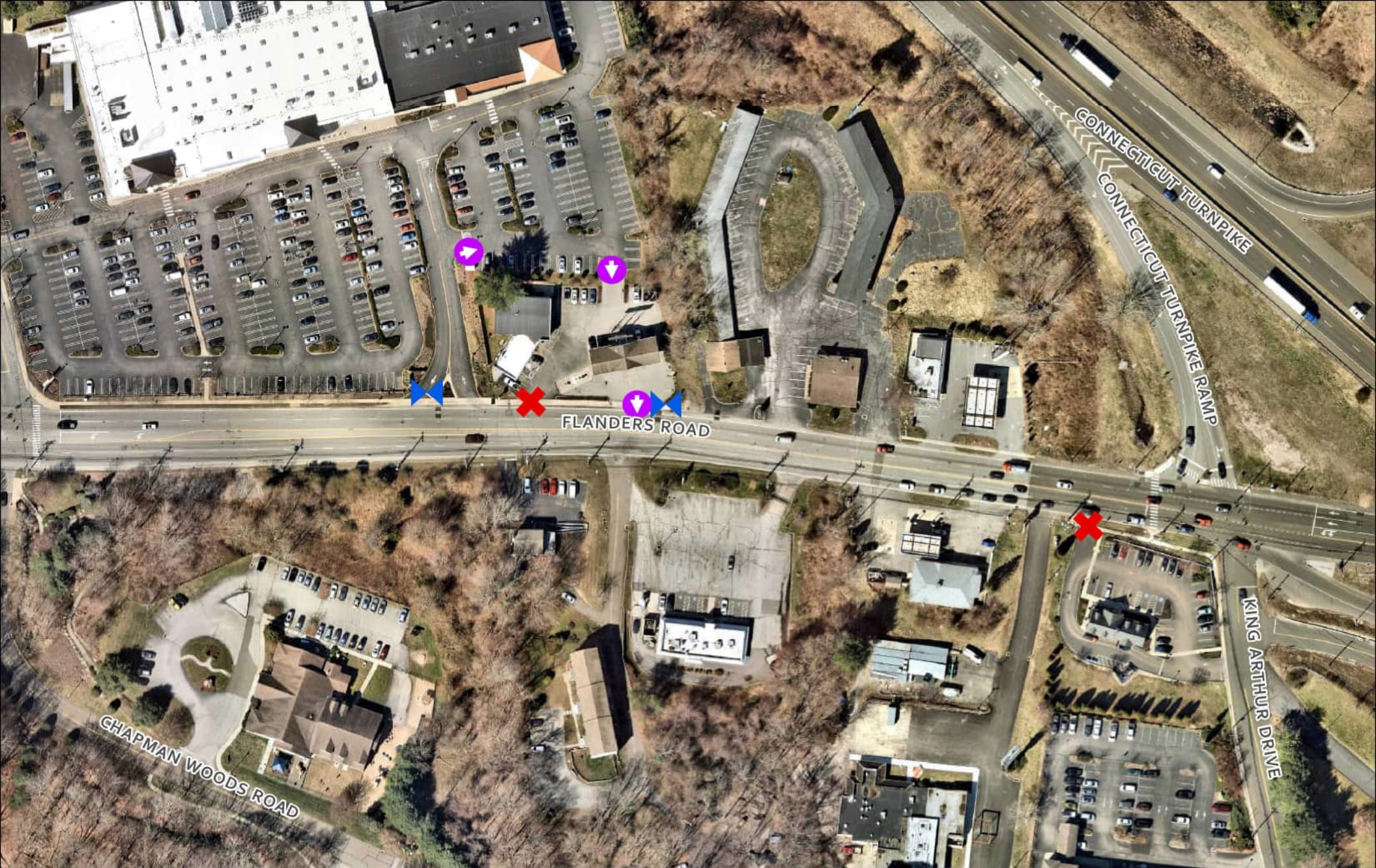


- Legend**
-  Maximize Sight Lines
 -  Access Closure
 -  Continue Sidewalk Across Driveway
 -  Create Shared Driveway
 -  Provide Vehicular Interconnection
 -  Redefine Entrance; Define Entrance
 -  Relocated Access
 -  One Way

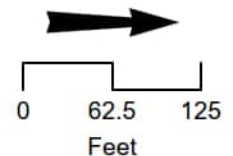


Date: June 15, 2023
 Basemap: Nearmap Imagery and Interchange 74 Plans

Figure 25
Access Management Plan
 Damon Heights Road to
 Industrial Park Road



- Legend**
- Maximize Sight Lines
 - ✕ Access Closure
 - ⦿ Continue Sidewalk Across Driveway
 - ▲ Create Shared Driveway
 - ⊕ Provide Vehicular Interconnection
 - ⚡ Redefine Entrance; Define Entrance
 - ★ Relocated Access
 - ⊕ One Way











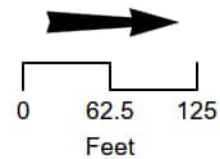
Date: June 15, 2023
Basemap: Nearmap Imagery and Interchange 74 Plans

Figure 26
Access Management Plan
Industrial Park Road to King Arthur Drive



Legend

-  Maximize Sight Lines
-  Access Closure
-  Continue Sidewalk Across Driveway
-  Create Shared Driveway
-  Provide Vehicular Interconnection
-  Redefine Entrance; Define Entrance
-  Relocated Access
-  One Way



Date: June 15, 2023

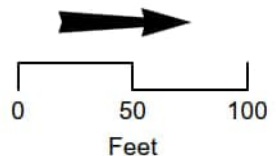
Basemap: Nearmap Imagery and Interchange 74 Plans

Figure 27

Access Management Plan
Frontage Road to U.S. Route 1
(Boston Post Road)



- Legend**
- Maximize Sight Lines
 - Access Closure
 - Continue Sidewalk Across Driveway
 - Create Shared Driveway
 - Redefine Entrance; Define Entrance
 - Relocated Access
 - One Way
 - Provide Vehicular Interconnection



Date: June 15, 2023
 Basemap: Nearmap Imagery and Interchange 74 Plans

Figure 28
Access Management Plan
 U.S. Route 1 (Boston Post Road) to
 East Lyme High School Driveway

APPENDIX A
MEETING MINUTES & PUBLIC COMMENTS

Client: SCCOG Date: Tuesday, November 1, 2022
Meeting Date: Thursday, October 27, 2022 Prepared By: Katey Curran
Meeting Location: East Lyme High School Auditorium Job Number: 10369
Meeting Topic: Route 161 Corridor Study

ATTENDEES:

See attached sign in sheet.

RECORD OF MEETING MINUTES:

- I. Introduction from the Southeastern Connecticut Council of Government's (SCCOG's) Senior Advisor, Jim Butler
 - A. SCCOG received a grant from the Connecticut Department of Transportation (CTDOT) last year. This grant was used to hire BETA Group Inc. (BETA) to perform the Route 161 Corridor Study.
- II. Introduction from East Lyme's First Selectman, Kevin Seery
 - A. For the past several months the Town, SCCOG, CTDOT, transit providers, and BETA have had bimonthly virtual meetings to discuss the corridor study.
- III. PowerPoint presentation
 - A. Joe Rimiller, BETA's Project Manager, gave a presentation that included a project introduction, discussion of previous studies and upcoming projects, existing and future corridor conditions, and next steps. A recording of the presentation has been posted on the project website (www.route161corridorstudy.com).
- IV. Break Out Sessions
 - A. Following the presentation attendees were asked to a series of stations and discuss three topics with BETA's engineers and planners. These topics, spin-off questions from BETA, and responses provided by the community are summarized below.
 - B. What is working well on the Route 161 corridor?
 1. What destinations do you like to visit?
 - a. Downtown
 - b. Village Café (190 Flanders Road)
 2. What streetscape or landscape features do you like?
 - a. Streetlights
 3. What is your overall vision for the corridor?
 - a. A roundabout at the Oswegatchie Hills Road intersection.
 - b. A roundabout at the East Pattagansett Road intersection.
 - C. What challenges or opportunities would you like to see addressed from the perspective of a pedestrian, bicyclist, or transit user?
 1. Are there areas where sidewalks are needed?
 - a. East Pattagansett Road needs a sidewalk.

- b. Extend sidewalk on the east side of Route 161 between Penncove Road and Route 156 to better serve the residents of these streets.
 - c. Sidewalks are needed near Gorton Pond
 - d. Sidewalks are needed on the east side of the corridor in Niantic
 - e. Better walkability is needed
 2. Are there areas where you have difficulty crossing the roadway?
 - a. Rectangular Rapid Flashing Beacons (RRFBs) are needed in the Downtown Niantic section.
 - b. The Industrial Park Road/Chapman Woods Road intersection needs a pedestrian signal head.
 3. Are there areas where bicycle facilities are needed?
 - a. Realign/restripe Boston Post Road for better bike access.
 - b. Bike lanes are needed throughout the corridor.
 - c. Bike lanes should be considered in the four-lane section of the corridor between the high school and the Ford dealership.
 4. Are there any improvements you would like to see made to transit services?
 - a. Improvements are needed at the bus stop at Stop & Shop (248 Flanders Road)
- D. What challenges or opportunities would you like to see addressed from the perspective of a driver?
 1. Are there areas where safety is a concern?
 - a. Drivers exiting the driveway for the liquor store at the Industrial Park Road/Chapman Woods Road intersection don't have a traffic signal and drivers aren't sure when to go.
 - b. Consider jughandles to eliminate challenging left turn.
 - c. Drivers turning right out of Citgo at 200 Flanders Road don't look for oncoming traffic. Consider eliminating or improving a driveway.
 - d. Drivers exiting the Stop and Shop driveway onto Route 161 ignore the right turn only designation. Consider installing bollards to prevent unsafe left turns.
 - e. The southbound left turn lane from Route 161 onto Chapman Woods Road does not provide sufficient storage for queued vehicles.
 - f. There are two traffic signals on the Society Road approach to Rt 161. Are they both needed?
 - g. An exclusive left turn lane with protected traffic signal phasing is needed at the northbound left turn from Route 161 onto the Frontage Road to the I-95 ramps. Drivers currently make unexpected left turns. There is also too much delay for this movement.
 2. Are there areas where vehicular congestion frustrates you?
 - a. The number of lanes on I-395/I-95 SB heading towards U.S. Route 1 drops from three to one. It is confusing for motorists and congested.
 - b. When there is congestion or an issue on I-95 drivers use U.S. Route 1. They tend to be more aggressive due to frustration and more prone to cause crashes. More police enforcement would help. The upcoming improvements at the I-95 Exit 74 Interchange may also help.

- c. During the summer I-95 is more congested so drivers use U.S. Route 1 instead and there is excessive backup near the Route 161 intersection. Left turn storage lanes fill up and left turning traffic obstructs through lanes.
 - d. The traffic signals at the East Pattagansett Road and Roxbury Road intersections aren't always responsive to drivers.
 - e. It is difficult to turn out of Oak Hill Drive due to congestion and speeding.
 - f. Better traffic signal coordination is needed along the corridor.
3. Are there areas where you have difficulty parking?
 - a. Parking is challenging at Sift Bake Shop on Route 156 (185 Main Street).
 4. Are there any destinations that you have difficulty accessing?
 - a. It is a challenge making left turns out of businesses on the west side of the corridor between Industrial Park Road and Society Road.
 - b. It is difficult to make a left turn out of the Citgo Station at 200 Flanders Road.
 - c. A traffic signal needed is needed at the Laurel Hill Drive/Gateway Plaza intersection.
 - d. It is difficult to make an eastbound left turn from Hope Street onto Route 161 due to heavy volumes and limited gaps in traffic.
 - e. Trying to get in or out of driveways at Flanders Commons is difficult, especially when making a left turn. It is hard to find a gap in traffic on Route 161 or Route 1.
 - f. There are long delays for drivers trying to make a left turn from Clarks Lane onto Route 161. There is a 55+ community on Clarks Lane.
 - g. The signals on the Frontage Road near Costco are closely spaced but this will be addressed by the I-95 Interchange 74 project.
- E. General comments
- Better stormwater management is needed to prevent salt used to treat roads from getting into aquifers and ground water. This includes storm drains and tree filtration systems.
 - Native plants are needed to help pollinators.
 - More open space is needed for large trees to help with carbon reduction.

Client: SCCOG Date: Friday, April 28, 2023
Meeting Date: Thursday, April 27, 2023 Prepared By: Joe Rimiller
Meeting Location: East Lyme High School Auditorium Job Number: 10369
Meeting Topic: Route 161 Corridor Study

RECORD OF MEETING MINUTES:

I. Introductions

- A. Jim Butler from the Southeastern Connecticut Council of Governments (SCCOG) and First Selectman Kevin Seery introduced the project and thanked attendees for participating in the study.

II. PowerPoint presentation

- A. Joe Rimiller, BETA's Project Manager, gave a presentation that included a project introduction, recap of the existing & future conditions assessment, summary of stakeholder input, overview of the draft alternative recommendations, review of access management strategies, and discussion of the next steps in the study process. A recording of the presentation and draft recommendations have been posted on the project website (www.route161corridorstudy.com).

III. Public Input

- A. The following comments were provided by members of the community during the Q&A period following the presentation and in more intimate conversations that occurred at the various exhibits that were displayed:
- Consider rerouting bicyclists down Hope Street since conflicts could occur with adjacent vehicles parked to the south of Hope Street.
 - Bicyclists should be encouraged to stay on Route 161 in the downtown area as that is where many of the businesses and amenities that they would like to visit are located.
 - Additional traffic calming measures beyond the proposed speed radar signs should be considered in the area between Roxbury Road and Society Road. Speeds are excessive.
 - Consider modified fog lines between Roxbury Road and Society Road.
 - Although a roundabout at the East Pattagansett Road intersection may help reduce speeds and improve intersection safety, residents in this area already have difficulty pulling out of their driveways. They rely on the traffic signal to create gaps in oncoming traffic that allow them to enter Route 161. There may be an increase in accidents downstream of the intersection if a roundabout is implemented and gaps are harder to come by.
 - The alternative bike route that was suggested along Roxbury Road, Riverview Road, and Society Road includes challenging terrain. Most bicyclists will have too much difficulty using this route and continue down Route 161 instead.

- Some bicyclists may not be comfortable using bike lanes or a shared use path due to high volumes and speeds.
- Reconsider relocating the Cartier Optical driveway from Route 161 to Chapman Woods Road. Chapman Woods Road is a private roadway which may make such a relocation impractical.
- Mr. Seery indicated that the town would be responsible for snow removal at new sidewalks and paths installed along Route 161.
- Consider widening the roadway if necessary.
- Cross traffic between Citizen’s Bank and Hope Street can be hazardous.
- Better pedestrian accommodations are needed along Route 156. Residents would like to walk to the beach but streets along the Route 156 corridor lack sidewalks, are narrow, and don’t have shoulders.
- Consider making East Pattagansett Road one-way southbound and adding a bicycle lane. This would simplify operations at the Route 161, Bush Hill Drive, and Hope Street intersections.
- Construction costs for improvements involving pavement marking restriping may be higher than estimated if the improvement is not implemented as part of a VIP program. If this is the case, milling and paving will also be required.
- Consider a wider sidewalk or bike facility along Gorton Pond. Can an 8’ path be accommodated? Consider providing handrails on both sides and widening to at least 6’.

IV. Voting

- A. Residents were asked to vote for a preferred alternative at four locations where multiple alternatives were under consideration. The following votes were received:
1. Route 161 at East Pattagansett Road intersection
 - a. Roundabout – 5 votes
 - b. Traffic Signal Replacement – 17 votes
 2. South end of Gorton Pond
 - a. Concrete Sidewalk – 19 votes
 - b. Timber Boardwalk – 0 votes
 3. Society Road to Industrial Park Road
 - a. Shared Use Path – 8 votes
 - b. Buffered Bike Lanes – 5 votes
 4. Boston Post Road to East Lyme High School
 - a. Shared Use Path – 5 votes
 - b. Buffered Bike Lanes – 2 votes

Public Comments Submitted Through Project Website

Location	Comment
General	Roundabouts are needed at corridor intersections.
General	Turning left out of businesses on the east side of Route 161 is difficult.
General	Add Sidewalk on 'resident' side of road.
General	Extend the lamp post lighting that exists downtown further up to Oswegatchie to increase safe walking/transit at night and extend 'downtown access feel'.
General	I would like to see street trees being added.
General	The corridor needs to have a walkable route (on one side or the other) running all the way from ELHS to Route 156/Main Street. This includes the area along Gorton Pond.
General	Bury the utility lines, eliminating down poles / wires during severe weather events.
General	Too much road salt in the winter by the State, the Town & private contractors while a good portion of Rt 161 is in an aquifer / wet lands.
General	Provide bus service between East Lyme High School and Main Street
General	The proposed senior housing development may increase traffic volumes and noise levels
Downtown Niantic	Many of these business have dedicated entry/exit points and increases turning/traffic concerns.
Hope Street Intersection	Turning left from Hope Street to Penn Avenue is difficult with the liquor store parking lot, crosswalk, bank exits, and oncoming traffic. Parked vehicles in front of Grace obstruct sight lines.
State Road Intersection	Utilize this area as the main entry/egress from the Town Hall to take turning traffic off of main drag and terminate it at a stop sign.
State Road Intersection	Turning from this intersection is a bit blind to the north due to the trees.
Jo Anne Street	Jo Anne St is the only side street in downtown Niantic that does not have a cross walk.
Lake View Heights	It is difficult to cross Route 161 near Lake View Heights as a pedestrian because drivers rarely yield.
Lake View Heights	It is difficult to make a left turn out of Lake View Heights due to the curve in the roadway and speeding. Many Lake View Residents use the church parking lot to make the left turn.
Niantic Community Church (170 Pennsylvania Ave)	Consider removal of this entry/exit point on main road to filter traffic to Lakeview (at stop sign) and increase distance from traffic turning at that intersection

Public Comments Submitted Through Project Website

Oswegatchie Hills Road Intersection	Consider use of Roundabout in this location to break-up the speeding that occurs from both directions.
Oswegatchie Hills Road Intersection	Install a pedestrian activated RRFB to improve safety at this crossing.
Sunoco (188 Pennsylvania Avenue)	Turning out of the Sunoco Lot is a blind turn. Increased visibility needed for oncoming traffic.
Sleepy Hollow Road	Install a pedestrian activated RRFB to provide a higher level of safety for residents and visitors to cross the street in this location.
East Pattagansett Road	Consider use of roundabout in this location.
East Pattagansett Road Intersection	A roundabout is unnecessary at the intersectino of East Pattagansett Road. Residents relay on the traffic signal to provide gaps allowing them to turn from driveways.
Roxbury Road Intersection	The traffic going north before the Roxbury Road light almost always stays in the left lane. This triggers the signal for the southbound light to turn red, even though the northbound traffic doesn't want to turn left.
Roxbury Road Intersection	We need a left turn lane for northbound cars turning into Roxbury Road.
Society Road to Roxbury	Sidewalks are needed near Gorton Pond.
Society Road to Roxbury	Scare to ride a bike here. Need bike path to Society Road
Gorton Pond	Piles of tree limbs are blocking pedestrian access along Gorton Pond.
Gorton Pond	There is a lack of parking available for visitors to Gorton Pond.
Gorton Pond	Consider widening the proposed boardwalk near Gorton Pond to better accommodate bicyclists. A crosswalk at Oak Hill Drive would improve access to the boardwalk.
Oak Hill Drive Intersection	There needs to be a light at Roxbury Raod that halts traffic to allow left and right turns from Oak Hill Dirve.
Oak Hill Drive Intersection	It is difficult exiting from Oak Hill Drive due to the timing of the traffic signal at Roxbury Road and East Pattagansett Road.
Oak Hill Drive Intersection	It is difficult to exit from Oak Hill Drive due to timing patterns of the lights at Roxbury and East Pattagansett.
Society Road Intersection	Difficulty crossing by foot.
Society Road to Oak Hill Dr	Would love to have the sidewalk extended along the length of Flanders Road here.
Citgo (200 Flanders Road)	Turning out of CITGO is difficult due to traffic in both directions.
Stop & Shop (248 Flanders	Many drivers turn left despite road design.
Industrial Park Road/Chapman Woods	A pedestrian signal head and button are needed on the north side of the intersection.
Chapman Woods Road	Chapman Woods Road is privately owned and relocating the Cartier Optical access from Route 161 Road would require resident approval.

Public Comments Submitted Through Project Website

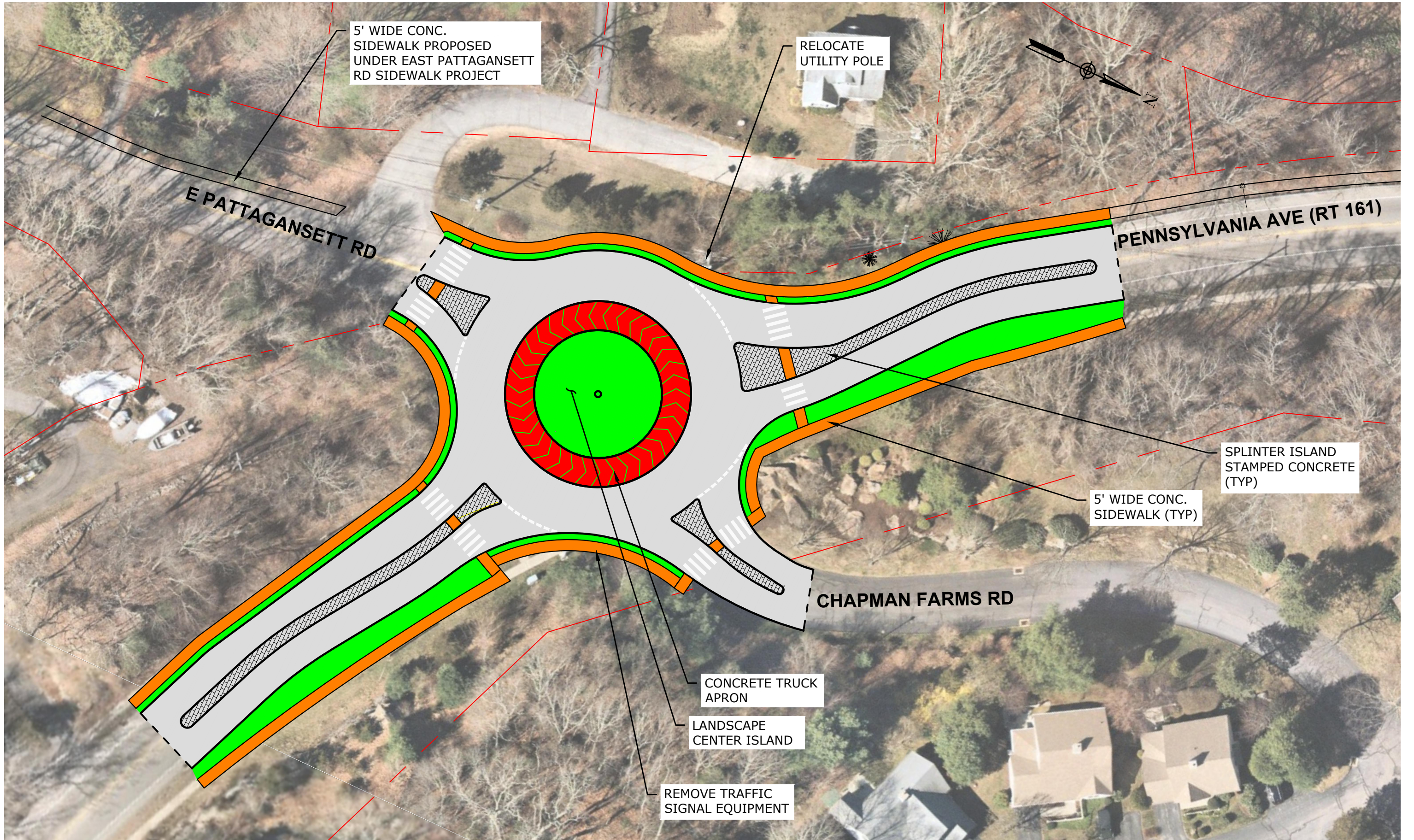
Chapman Woods Road Intersection	Residents of Chapman Woods Road may be reluctant to use the proposed bus shelter near the intersection due to Chapman Woods Road being on a steep hill. Sight lines for vehicles making right turns out of Chapman Woods Road should be taken into consideration if a bus shelter is added.
Boston Post Road Intersection	Drivers turning south onto Route 161 are the cause for much congestion in this area.
East Lyme High School Intersection	Put a stop light in at the high school to assist with left turns and help backup trying to get into ELHS.
East Lyme High School	Area optimal for roundabout.

APPENDIX B

CONCEPT PLANS



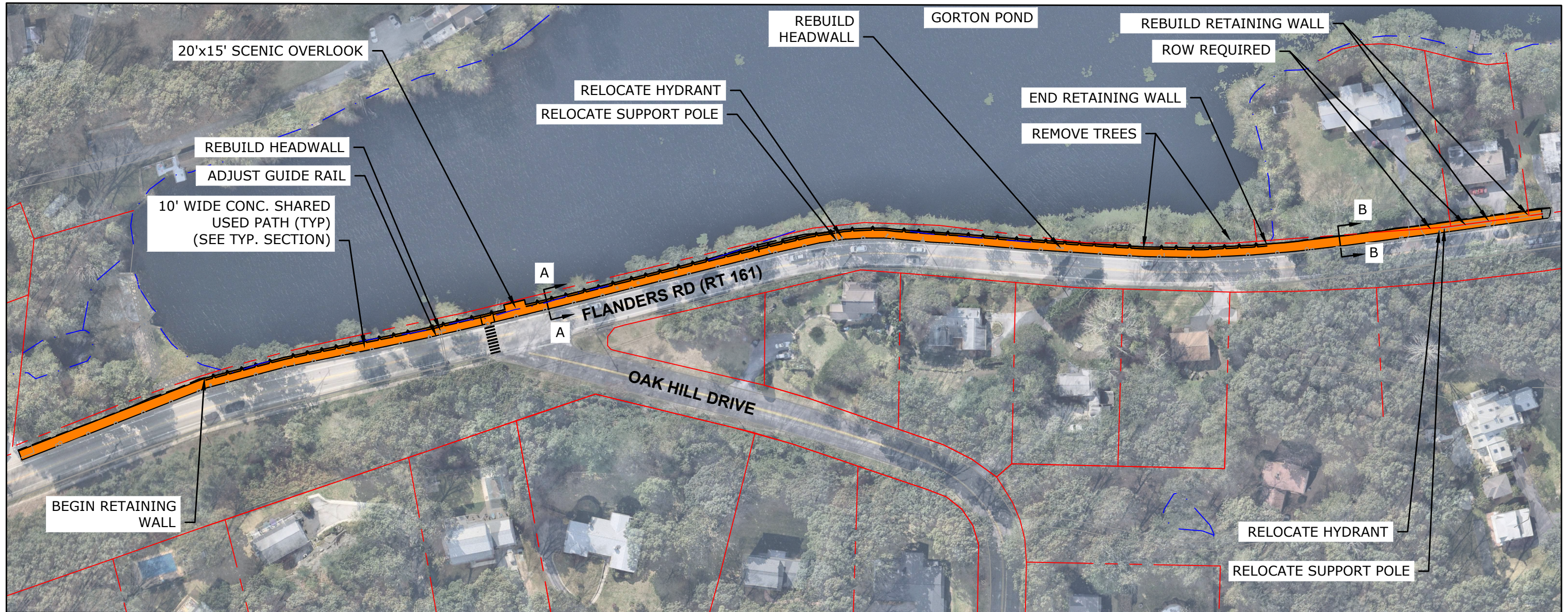
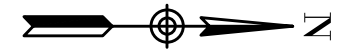
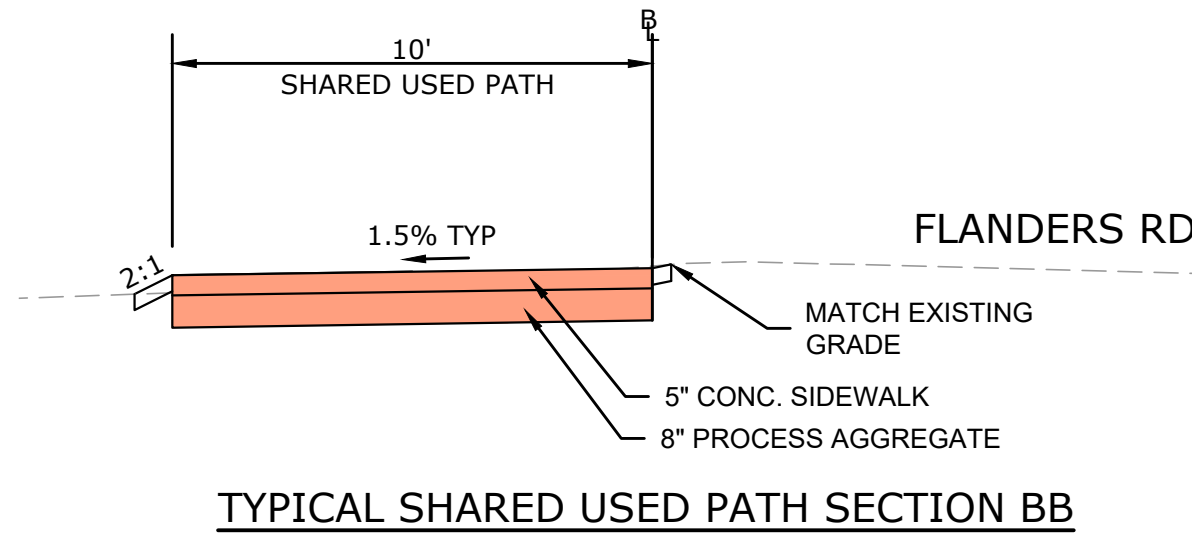
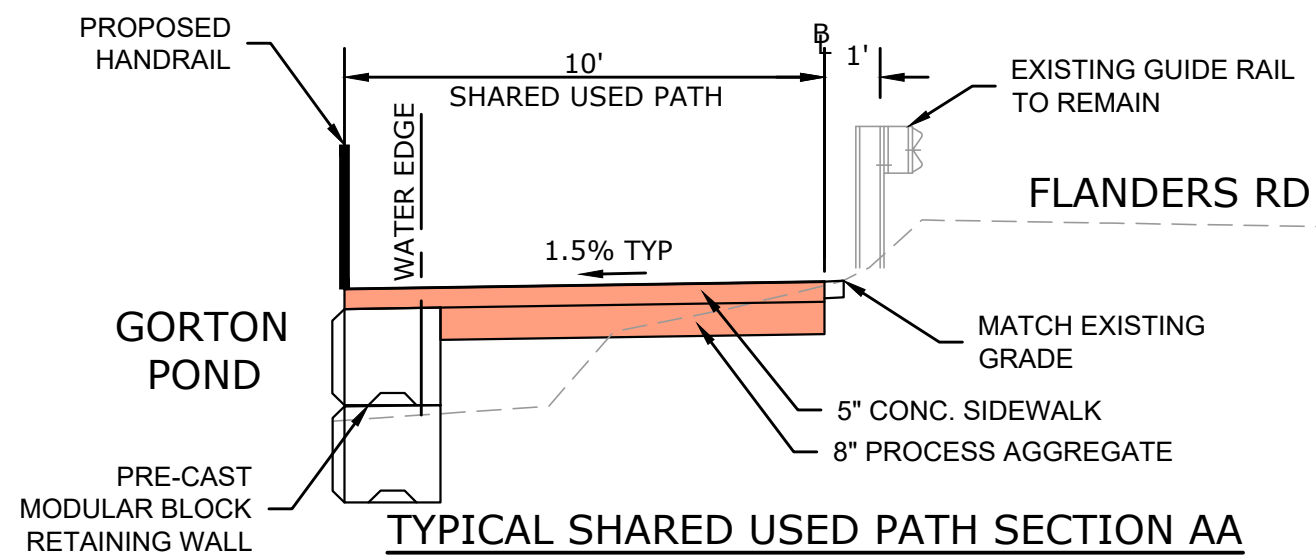
**BIKE LANES AND POCKET PARKING
ROUTE 161 - ROUTE 156 (MAIN STREET)
TO HOPE STREET**
SCALE: 1"=50'



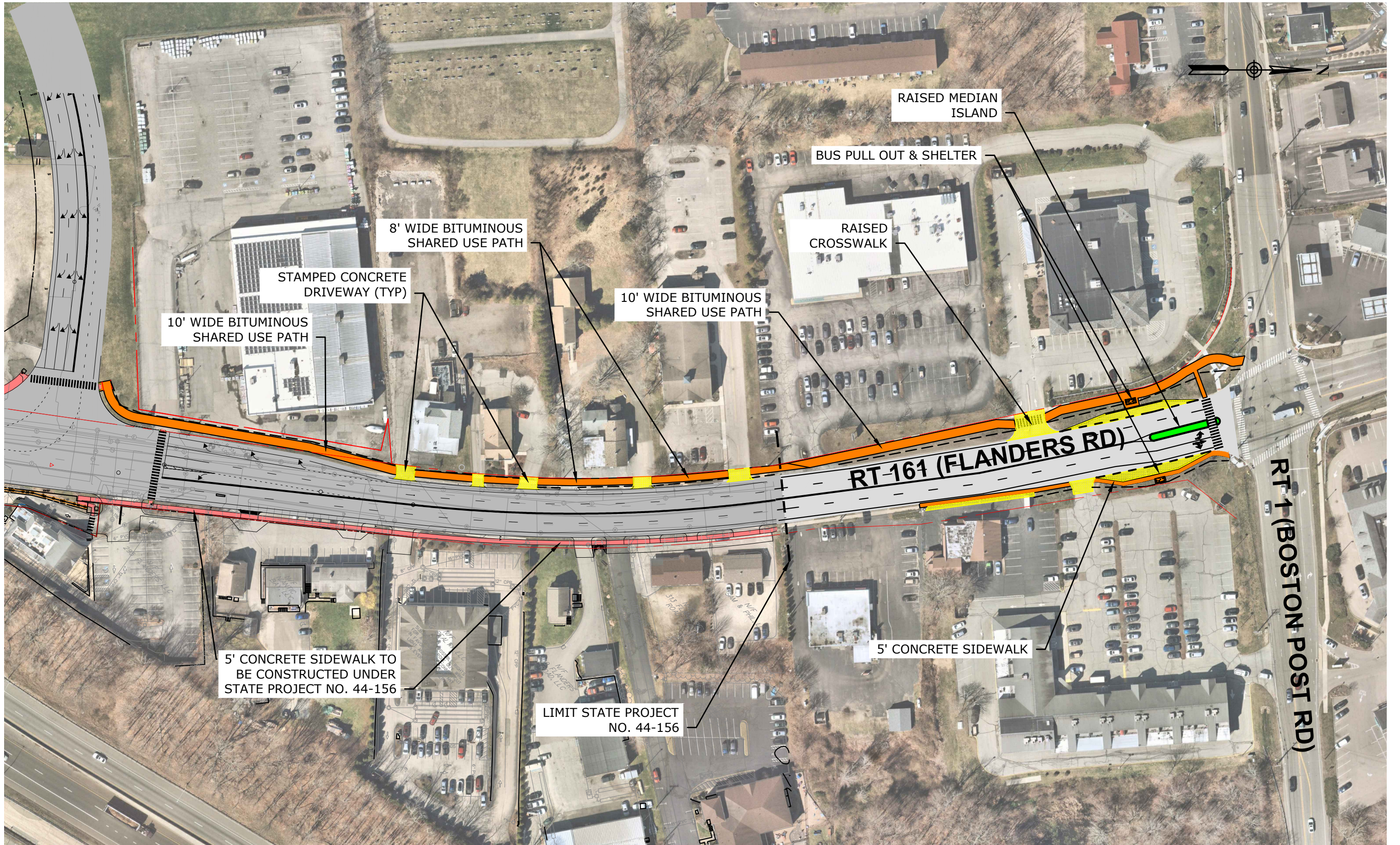
ROUNDBABOUT
ROUTE 161 AT EAST PATTAGANSETT ROAD &
CHAPMAN FARMS RD
 SCALE: 1"=40'



East Pattagansett Road Roundabout



**SHARED USE PATH AND
RETAINING WALLS
ROUTE 161 AT GORTON POND**
SCALE: 1"=100'



10' WIDE BITUMINOUS SHARED USE PATH

STAMPED CONCRETE DRIVEWAY (TYP)

8' WIDE BITUMINOUS SHARED USE PATH

10' WIDE BITUMINOUS SHARED USE PATH

RAISED CROSSWALK

BUS PULL OUT & SHELTER

RAISED MEDIAN ISLAND

RT-161 (FLANDERS RD)

RT-1 (BOSTON POST RD)

5' CONCRETE SIDEWALK TO BE CONSTRUCTED UNDER STATE PROJECT NO. 44-156

LIMIT STATE PROJECT NO. 44-156

5' CONCRETE SIDEWALK

SHARED USE PATH, BUS SHETLERS, AND PEDESTRIAN REFUGE ISLAND
ROUTE 161 - FRONTAGE ROAD TO U.S. ROUTE 1 (BOSTON POST ROAD)

SCALE: 1"=100'

APPENDIX C CAPACITY ANALYSIS REPORTS

HCM Signalized Intersection Capacity Analysis

37: Rt 156 (Main St) & Route 161

07/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	170	280	410	230	220	190
Future Volume (vph)	170	280	410	230	220	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	13	13
Total Lost time (s)	4.0	5.8	5.8	5.8	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	1.00	0.93	0.96	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.94	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1724	1881	1818	1444	1728	
Flt Permitted	0.19	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	347	1881	1818	1444	1728	
Peak-hour factor, PHF	0.92	0.92	0.80	0.80	0.91	0.91
Adj. Flow (vph)	185	304	512	288	242	209
RTOR Reduction (vph)	0	0	0	166	32	0
Lane Group Flow (vph)	185	304	513	122	419	0
Confl. Peds. (#/hr)	31			31	31	31
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	1	2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	32.4	27.2	27.2	27.2	21.7	
Effective Green, g (s)	32.4	27.2	27.2	27.2	21.7	
Actuated g/C Ratio	0.39	0.33	0.33	0.33	0.26	
Clearance Time (s)	4.0	5.8	5.8	5.8	4.0	
Vehicle Extension (s)	1.5	2.5	2.5	2.5	1.5	
Lane Grp Cap (vph)	223	620	599	476	454	
v/s Ratio Prot	c0.05	0.16	c0.28		c0.24	
v/s Ratio Perm	0.27			0.08		
v/c Ratio	0.83	0.49	0.86	0.26	0.92	
Uniform Delay, d1	20.8	22.1	25.8	20.3	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	20.9	0.4	11.4	0.2	23.9	
Delay (s)	41.7	22.6	37.3	20.5	53.4	
Level of Service	D	C	D	C	D	
Approach Delay (s)		29.8	31.2		53.4	
Approach LOS		C	C		D	

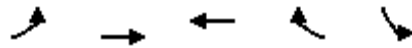
Intersection Summary

HCM 2000 Control Delay	36.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	82.5	Sum of lost time (s)	17.8
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Queues

37: Rt 156 (Main St) & Route 161

07/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	185	304	513	288	451
v/c Ratio	0.80	0.48	0.84	0.45	0.92
Control Delay	46.7	26.8	41.9	7.8	55.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	26.8	41.9	7.8	55.8
Queue Length 50th (ft)	68	146	287	17	-270
Queue Length 95th (ft)	#175	227	#389	54	#460
Internal Link Dist (ft)		576	456		584
Turn Bay Length (ft)	170			170	
Base Capacity (vph)	232	675	653	675	492
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.45	0.79	0.43	0.92

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

35: Route 161 & Hope St

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	60	50	370	370	80
Future Volume (Veh/h)	60	60	50	370	370	80
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.84	0.84	0.91	0.91
Hourly flow rate (vph)	69	69	60	440	407	88
Pedestrians	19			19	19	
Lane Width (ft)	14.0			16.0	16.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			2	2	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume	1049	489	514			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1049	489	514			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	70	88	94			
cM capacity (veh/h)	229	557	1034			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	138	500	495			
Volume Left	69	60	0			
Volume Right	69	0	88			
cSH	324	1034	1700			
Volume to Capacity	0.43	0.06	0.29			
Queue Length 95th (ft)	51	5	0			
Control Delay (s)	24.1	1.6	0.0			
Lane LOS	C	A				
Approach Delay (s)	24.1	1.6	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			3.7			
Intersection Capacity Utilization			67.4%	ICU Level of Service	C	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 30: Route 161 & State Rd/Lincoln St

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	20	0	10	10	0	10	0	410	10	10	450	10
Future Volume (Veh/h)	20	0	10	10	0	10	0	410	10	10	450	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.75	0.75	0.75	0.91	0.91	0.91	0.88	0.88	0.88
Hourly flow rate (vph)	26	0	13	13	0	13	0	451	11	11	511	11
Pedestrians		19			19			19			19	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1046	1038	554	1046	1038	494	541			481		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1046	1038	554	1046	1038	494	541			481		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	100	97	93	100	98	100			99		
cM capacity (veh/h)	189	222	516	187	220	554	1014			1067		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	39	26	462	533								
Volume Left	26	13	0	11								
Volume Right	13	13	11	11								
cSH	240	280	1014	1067								
Volume to Capacity	0.16	0.09	0.00	0.01								
Queue Length 95th (ft)	14	8	0	1								
Control Delay (s)	22.9	19.2	0.0	0.3								
Lane LOS	C	C		A								
Approach Delay (s)	22.9	19.2	0.0	0.3								
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			47.1%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

28: Route 161 & Oswegatchie Hills Rd

06/01/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	440	450	50	40	70
Future Volume (Veh/h)	60	440	450	50	40	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.83	0.83
Hourly flow rate (vph)	70	512	500	56	48	84
Pedestrians		6	6		6	
Lane Width (ft)		11.0	11.0		11.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	562				1192	540
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	562				1192	540
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				75	84
cM capacity (veh/h)	1009				192	540
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	582	556	132			
Volume Left	70	0	48			
Volume Right	0	56	84			
cSH	1009	1700	326			
Volume to Capacity	0.07	0.33	0.41			
Queue Length 95th (ft)	6	0	47			
Control Delay (s)	1.8	0.0	23.4			
Lane LOS	A		C			
Approach Delay (s)	1.8	0.0	23.4			
Approach LOS			C			
Intersection Summary						
Average Delay			3.3			
Intersection Capacity Utilization			71.3%		ICU Level of Service	C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

25: Route 161 & Sleepy Hollow Rd

06/01/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	20	470	480	20	20	10
Future Volume (Veh/h)	20	470	480	20	20	10
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.69	0.69
Hourly flow rate (vph)	22	516	527	22	29	14
Pedestrians		4	4		4	
Lane Width (ft)		11.0	11.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		853				
pX, platoon unblocked					0.79	
vC, conflicting volume	553				1106	546
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	553				1003	546
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				86	97
cM capacity (veh/h)	1018				205	530
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	538	549	43			
Volume Left	22	0	29			
Volume Right	0	22	14			
cSH	1018	1700	256			
Volume to Capacity	0.02	0.32	0.17			
Queue Length 95th (ft)	2	0	15			
Control Delay (s)	0.6	0.0	21.9			
Lane LOS	A		C			
Approach Delay (s)	0.6	0.0	21.9			
Approach LOS			C			
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			52.2%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
 24: E Pattagansett Rd/Chapman Farms Rd & Route 161

06/01/2023



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↖	↗		↖			↖	↗		↕	
Traffic Volume (vph)	10	450	350	20	470	10	290	10	30	10	10	10
Future Volume (vph)	10	450	350	20	470	10	290	10	30	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	16	16	16
Grade (%)		0%			0%			2%				-4%
Total Lost time (s)		6.1	6.1		6.1			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00	
Frbp, ped/bikes		1.00	0.98		1.00			1.00	0.97		0.99	
Flpb, ped/bikes		1.00	1.00		1.00			0.99	1.00		1.00	
Frt		1.00	0.85		1.00			1.00	0.85		0.95	
Flt Protected		1.00	1.00		1.00			0.95	1.00		0.98	
Satd. Flow (prot)		1942	1614		1871			1763	1538		2041	
Flt Permitted		0.99	1.00		0.97			0.70	1.00		0.89	
Satd. Flow (perm)		1917	1614		1820			1302	1538		1854	
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95	0.92	0.92	0.92	0.75	0.75	0.75
Adj. Flow (vph)	11	500	389	21	495	11	315	11	33	13	13	13
RTOR Reduction (vph)	0	0	101	0	1	0	0	0	20	0	8	0
Lane Group Flow (vph)	0	511	288	0	526	0	0	326	13	0	31	0
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			5 6		5 6		5 6
Permitted Phases	2		2	2			5 6		5 6	5 6		
Actuated Green, G (s)		27.9	27.9		27.9			24.7	24.7		24.7	
Effective Green, g (s)		27.9	27.9		27.9			24.7	24.7		24.7	
Actuated g/C Ratio		0.44	0.44		0.44			0.39	0.39		0.39	
Clearance Time (s)		6.1	6.1		6.1							
Vehicle Extension (s)		3.0	3.0		3.0							
Lane Grp Cap (vph)		853	718		809			512	605		730	
v/s Ratio Prot												
v/s Ratio Perm		0.27	0.18		c0.29			c0.25	0.01		0.02	
v/c Ratio		0.60	0.40		0.65			0.64	0.02		0.04	
Uniform Delay, d1		13.2	11.8		13.6			15.4	11.6		11.7	
Progression Factor		1.00	1.00		1.00			1.00	1.00		1.00	
Incremental Delay, d2		1.1	0.4		1.9			1.9	0.0		0.0	
Delay (s)		14.3	12.1		15.5			17.3	11.6		11.7	
Level of Service		B	B		B			B	B		B	
Approach Delay (s)		13.4			15.5			16.8			11.7	
Approach LOS		B			B			B			B	
Intersection Summary												
HCM 2000 Control Delay			14.6								HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			62.7								Sum of lost time (s)	14.1
Intersection Capacity Utilization			73.3%								ICU Level of Service	D
Analysis Period (min)			15									

c Critical Lane Group

Queues

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

06/01/2023



Lane Group	SET	SER	NWT	NET	NER	SWT
Lane Group Flow (vph)	511	389	527	326	33	39
v/c Ratio	0.60	0.48	0.65	0.64	0.05	0.05
Control Delay	17.7	9.0	19.1	23.1	4.6	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	9.0	19.1	23.1	4.6	10.2
Queue Length 50th (ft)	126	43	133	88	0	5
Queue Length 95th (ft)	286	135	306	219	14	21
Internal Link Dist (ft)	476		773	540		361
Turn Bay Length (ft)		50			50	
Base Capacity (vph)	1219	1093	1158	723	872	1038
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.36	0.46	0.45	0.04	0.04

Intersection Summary

HCM 2010 Roundabout
 24: E Pattagansett Rd/Chapman Farms Rd & Route 161

07/06/2023

Intersection				
Intersection Delay, s/veh	18.9			
Intersection LOS	C			
Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	900	527	359	39
Demand Flow Rate, veh/h	909	532	362	39
Vehicles Circulating, veh/h	47	340	529	839
Vehicles Exiting, veh/h	831	551	427	33
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	3	3	3	3
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	22.6	16.2	14.5	8.4
Approach LOS	C	C	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	909	532	362	39
Cap Entry Lane, veh/h	1078	804	666	488
Entry HV Adj Factor	0.990	0.991	0.991	1.000
Flow Entry, veh/h	900	527	359	39
Cap Entry, veh/h	1067	796	660	488
V/C Ratio	0.844	0.662	0.544	0.080
Control Delay, s/veh	22.6	16.2	14.5	8.4
LOS	C	C	B	A
95th %tile Queue, veh	11	5	3	0

HCM Signalized Intersection Capacity Analysis

22: Route 161 & Roxbury Rd

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	50	60	740	790	60
Future Volume (vph)	30	50	60	740	790	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12
Grade (%)	2%			0%	0%	
Total Lost time (s)	4.0		4.0	6.1	6.1	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frb, ped/bikes	0.98		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.92		1.00	1.00	0.99	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1572		1728	1818	1860	
Flt Permitted	0.98		0.09	1.00	1.00	
Satd. Flow (perm)	1572		172	1818	1860	
Peak-hour factor, PHF	0.79	0.79	0.92	0.92	0.93	0.93
Adj. Flow (vph)	38	63	65	804	849	65
RTOR Reduction (vph)	58	0	0	0	3	0
Lane Group Flow (vph)	43	0	65	804	911	0
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		D.P+P	NA	NA	
Protected Phases	5		6	2	6	2
Permitted Phases			2			
Actuated Green, G (s)	6.0		57.6	61.6	42.3	
Effective Green, g (s)	6.0		57.6	57.6	42.3	
Actuated g/C Ratio	0.08		0.74	0.74	0.54	
Clearance Time (s)	4.0		4.0		6.1	
Vehicle Extension (s)	1.5		1.5		3.0	
Lane Grp Cap (vph)	121		433	1347	1012	
v/s Ratio Prot	c0.03		0.03	c0.44	c0.49	
v/s Ratio Perm			0.08			
v/c Ratio	0.35		0.15	0.60	0.90	
Uniform Delay, d1	34.0		9.4	4.7	15.8	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.7		0.1	0.7	10.9	
Delay (s)	34.7		9.4	5.4	26.7	
Level of Service	C		A	A	C	
Approach Delay (s)	34.7			5.7	26.7	
Approach LOS	C			A	C	

Intersection Summary

HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	14.1
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

22: Route 161 & Roxbury Rd

06/01/2023



Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	101	65	804	914
v/c Ratio	0.49	0.15	0.54	0.89
Control Delay	24.3	2.8	5.1	32.1
Queue Delay	0.0	0.0	0.5	0.0
Total Delay	24.3	2.8	5.5	32.1
Queue Length 50th (ft)	17	4	101	382
Queue Length 95th (ft)	51	13	232	#765
Internal Link Dist (ft)	1120		476	697
Turn Bay Length (ft)		150		
Base Capacity (vph)	279	545	1473	1025
Starvation Cap Reductn	0	0	274	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.12	0.67	0.89

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

19: Route 161 & Society Rd

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	130	100	100	640	740	140
Future Volume (vph)	130	100	100	640	740	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	14	14
Grade (%)	0%			0%	3%	
Total Lost time (s)	4.0		4.0	4.0	5.6	5.6
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1628		1727	1818	1977	1642
Flt Permitted	0.97		0.14	1.00	1.00	1.00
Satd. Flow (perm)	1628		253	1818	1977	1642
Peak-hour factor, PHF	0.76	0.76	0.86	0.86	0.91	0.91
Adj. Flow (vph)	171	132	116	744	813	154
RTOR Reduction (vph)	33	0	0	0	0	46
Lane Group Flow (vph)	270	0	116	744	813	108
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		1	1 2	2	
Permitted Phases			1 2			2
Actuated Green, G (s)	16.2		54.4	58.4	44.4	44.4
Effective Green, g (s)	16.2		54.4	58.4	44.4	44.4
Actuated g/C Ratio	0.19		0.65	0.69	0.53	0.53
Clearance Time (s)	4.0		4.0		5.6	5.6
Vehicle Extension (s)	3.0		1.5		2.5	2.5
Lane Grp Cap (vph)	313		338	1260	1042	865
v/s Ratio Prot	c0.17		0.04	c0.41	c0.41	
v/s Ratio Perm			0.18			0.07
v/c Ratio	0.86		0.34	0.59	0.78	0.13
Uniform Delay, d1	32.9		11.0	6.7	16.0	10.1
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	20.9		0.2	0.5	3.7	0.0
Delay (s)	53.8		11.2	7.2	19.7	10.1
Level of Service	D		B	A	B	B
Approach Delay (s)	53.8			7.7	18.2	
Approach LOS	D			A	B	

Intersection Summary

HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	84.2	Sum of lost time (s)	13.6
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues

19: Route 161 & Society Rd

06/01/2023



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	303	116	744	813	154
v/c Ratio	0.88	0.34	0.57	0.78	0.17
Control Delay	55.3	6.9	8.2	22.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	6.9	8.2	22.9	4.9
Queue Length 50th (ft)	137	16	167	332	14
Queue Length 95th (ft)	#198	30	231	492	43
Internal Link Dist (ft)	1539		3382	952	
Turn Bay Length (ft)		105			120
Base Capacity (vph)	361	343	1295	1042	911
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.34	0.57	0.78	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis
 17: Route 161 & Laurel Hill Dr

06/01/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	30	790	20	50	890
Future Volume (Veh/h)	10	30	790	20	50	890
Sign Control	Stop		Free		Free	
Grade	-3%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	11	34	888	22	53	937
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	1					
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	1032					
pX, platoon unblocked	0.75	0.75			0.75	
vC, conflicting volume	1942	899			910	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2089	699			714	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	73	90			92	
cM capacity (veh/h)	40	330			669	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	45	910	53	937		
Volume Left	11	0	53	0		
Volume Right	34	22	0	0		
cSH	164	1700	669	1700		
Volume to Capacity	0.27	0.54	0.08	0.55		
Queue Length 95th (ft)	26	0	6	0		
Control Delay (s)	43.7	0.0	10.8	0.0		
Lane LOS	E		B			
Approach Delay (s)	43.7	0.0	0.6			
Approach LOS	E					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			56.8%	ICU Level of Service	B	
Analysis Period (min)	15					

HCM Signalized Intersection Capacity Analysis

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	240	10	120	10	10	50	90	750	20	50	900	140
Future Volume (vph)	240	10	120	10	10	50	90	750	20	50	900	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	13	14	14	14	11	12	13	11	11	11
Grade (%)		2%			-4%			0%				0%
Total Lost time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.90		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3285	1536			1854		1711	3526		1711	3352	
Flt Permitted	0.95	1.00			0.93		0.15	1.00		0.29	1.00	
Satd. Flow (perm)	3285	1536			1740		264	3526		514	3352	
Peak-hour factor, PHF	0.86	0.86	0.86	0.76	0.76	0.76	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	279	12	140	13	13	66	100	833	22	55	989	154
RTOR Reduction (vph)	0	123	0	0	58	0	0	2	0	0	11	0
Lane Group Flow (vph)	279	29	0	0	34	0	100	853	0	55	1132	0
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	8			8		1	6		5	2	
Permitted Phases		8		8			6			2		
Actuated Green, G (s)	5.6	9.3			9.3		42.0	37.1		39.2	35.8	
Effective Green, g (s)	5.6	9.3			9.3		42.0	37.1		39.2	35.8	
Actuated g/C Ratio	0.07	0.12			0.12		0.56	0.49		0.52	0.48	
Clearance Time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Vehicle Extension (s)	2.5	1.5			1.5		1.5	2.5		1.5	2.5	
Lane Grp Cap (vph)	245	190			215		242	1744		322	1600	
v/s Ratio Prot	c0.08	0.02					c0.03	0.24		0.01	c0.34	
v/s Ratio Perm					c0.02		0.20			0.08		
v/c Ratio	1.14	0.15			0.16		0.41	0.49		0.17	0.71	
Uniform Delay, d1	34.7	29.3			29.4		9.7	12.6		9.0	15.5	
Progression Factor	1.00	1.00			1.00		1.00	1.00		0.42	0.30	
Incremental Delay, d2	100.1	0.1			0.1		0.4	1.0		0.1	2.2	
Delay (s)	134.8	29.5			29.5		10.1	13.6		3.9	6.8	
Level of Service	F	C			C		B	B		A	A	
Approach Delay (s)		97.6			29.5			13.3			6.7	
Approach LOS		F			C			B			A	

Intersection Summary

HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Queues

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

06/01/2023



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	279	152	92	100	855	55	1143
v/c Ratio	1.14	0.49	0.34	0.37	0.47	0.15	0.70
Control Delay	135.3	12.9	16.1	9.8	13.6	3.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	135.3	12.9	16.1	9.8	13.6	3.2	6.9
Queue Length 50th (ft)	~79	5	11	16	136	2	41
Queue Length 95th (ft)	#142	49	37	36	201	m7	82
Internal Link Dist (ft)		619	594		240		743
Turn Bay Length (ft)	150			200		100	
Base Capacity (vph)	245	605	624	273	1821	378	1644
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.25	0.15	0.37	0.47	0.15	0.70

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

40: Route 161 & I-95 NB Exit Ramp/Burger King Driveway

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↗		↖		↗		↖↗		↖	↖↖	
Traffic Volume (vph)	280	20	90	30	0	60	0	1080	20	50	1100	0
Future Volume (vph)	280	20	90	30	0	60	0	1080	20	50	1100	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		4.0		4.0		7.0		4.5	7.0	
Lane Util. Factor	0.97	1.00		1.00		1.00		0.95		1.00	0.95	
Frt	1.00	0.88		1.00		0.85		1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3433	1635		1770		1583		3529		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.11	1.00	
Satd. Flow (perm)	3433	1635		1770		1583		3529		200	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	304	22	98	33	0	65	0	1174	22	54	1196	0
RTOR Reduction (vph)	0	82	0	0	0	60	0	2	0	0	0	0
Lane Group Flow (vph)	304	38	0	33	0	5	0	1194	0	54	1196	0
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		8				6		5	2	
Permitted Phases						8				2		
Actuated Green, G (s)	12.0	12.0		5.7		5.7		32.7		40.9	40.9	
Effective Green, g (s)	12.0	12.0		5.7		5.7		32.7		40.9	40.9	
Actuated g/C Ratio	0.16	0.16		0.08		0.08		0.44		0.55	0.55	
Clearance Time (s)	5.4	5.4		4.0		4.0		7.0		4.5	7.0	
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	549	261		134		120		1538		186	1929	
v/s Ratio Prot	c0.09	0.02		c0.02				c0.34		0.01	c0.34	
v/s Ratio Perm						0.00				0.14		
v/c Ratio	0.55	0.14		0.25		0.04		0.78		0.29	0.62	
Uniform Delay, d1	29.0	27.1		32.6		32.1		18.0		11.1	11.7	
Progression Factor	1.00	1.00		1.00		1.00		0.76		0.72	0.41	
Incremental Delay, d2	1.2	0.3		1.0		0.1		2.0		0.8	1.3	
Delay (s)	30.2	27.3		33.6		32.3		15.8		8.8	6.1	
Level of Service	C	C		C		C		B		A	A	
Approach Delay (s)		29.4			32.7			15.8			6.2	
Approach LOS		C			C			B			A	

Intersection Summary

HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.9
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

40: Route 161 & I-95 NB Exit Ramp/Burger King Driveway

06/01/2023



Lane Group	EBL	EBT	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	304	120	33	65	1196	54	1196
v/c Ratio	0.55	0.35	0.20	0.20	0.72	0.22	0.61
Control Delay	32.7	11.6	34.1	1.4	18.9	8.1	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	11.6	34.1	1.4	18.9	8.1	6.5
Queue Length 50th (ft)	68	9	15	0	150	5	64
Queue Length 95th (ft)	100	50	39	0	m#364	m13	108
Internal Link Dist (ft)		426			743		431
Turn Bay Length (ft)	250					240	
Base Capacity (vph)	823	466	162	328	1659	244	1966
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.26	0.20	0.20	0.72	0.22	0.61

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

10: Route 161 & Park and Ride Lot/King Arthur Dr

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↕↕		↕	↕↕	
Traffic Volume (vph)	30	0	20	90	0	50	0	1360	60	60	1190	10
Future Volume (vph)	30	0	20	90	0	50	0	1360	60	60	1190	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	8	11	11	11
Total Lost time (s)		4.2			4.2	4.0		6.6		4.0	6.1	
Lane Util. Factor		1.00			1.00	1.00		0.91		1.00	0.95	
Frbp, ped/bikes		0.99			1.00	0.99		1.00		1.00	1.00	
Flpb, ped/bikes		1.00			0.99	1.00		1.00		1.00	1.00	
Frt		0.95			1.00	0.85		0.99		1.00	1.00	
Flt Protected		0.97			0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		1677			1743	1549		5048		1711	3416	
Flt Permitted		0.81			0.80	1.00		1.00		0.12	1.00	
Satd. Flow (perm)		1406			1477	1549		5048		213	3416	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.98	0.98	0.98
Adj. Flow (vph)	33	0	22	99	0	55	0	1417	62	61	1214	10
RTOR Reduction (vph)	0	44	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	11	0	0	99	17	0	1480	0	61	1224	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4	4		8		8	2			6		
Actuated Green, G (s)		15.0			15.0	20.6		39.6		49.7	49.7	
Effective Green, g (s)		15.0			15.0	20.6		39.6		49.7	49.7	
Actuated g/C Ratio		0.20			0.20	0.27		0.53		0.66	0.66	
Clearance Time (s)		4.2			4.2	4.0		6.6		4.0	6.1	
Vehicle Extension (s)		1.5			1.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)		281			295	425		2665		252	2263	
v/s Ratio Prot						0.00		0.29		0.02	c0.36	
v/s Ratio Perm		0.01			c0.07	0.01				0.14		
v/c Ratio		0.04			0.34	0.04		0.56		0.24	0.54	
Uniform Delay, d1		24.2			25.7	20.0		11.8		5.8	6.7	
Progression Factor		1.00			1.00	1.00		0.51		0.76	0.65	
Incremental Delay, d2		0.0			0.2	0.0		0.7		0.3	0.2	
Delay (s)		24.2			26.0	20.0		6.7		4.7	4.5	
Level of Service		C			C	B		A		A	A	
Approach Delay (s)		24.2			23.8			6.7			4.5	
Approach LOS		C			C			A			A	

Intersection Summary

HCM 2000 Control Delay	7.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Queues

10: Route 161 & Park and Ride Lot/King Arthur Dr

06/01/2023



Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	55	99	55	1480	61	1224
v/c Ratio	0.15	0.34	0.11	0.54	0.21	0.54
Control Delay	1.7	29.5	6.4	6.8	4.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	29.5	6.4	6.8	4.4	5.3
Queue Length 50th (ft)	0	40	1	67	4	187
Queue Length 95th (ft)	6	82	23	72	m8	66
Internal Link Dist (ft)	104	603		431		69
Turn Bay Length (ft)			110			
Base Capacity (vph)	418	350	495	2720	286	2264
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.28	0.11	0.54	0.21	0.54

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↘		↗↗		↖	↗	↗↗	↖↗		↘	↖↖	↗	
Traffic Volume (vph)	150	0	630	0	0	0	220	670	0	0	630	230	
Future Volume (vph)	150	0	630	0	0	0	220	670	0	0	630	230	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12	
Total Lost time (s)	5.9		5.9				4.0	5.5			7.0	5.9	
Lane Util. Factor	1.00		0.88				0.97	0.95			0.95	1.00	
Frbp, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99	
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00	
Frt	1.00		0.85				1.00	1.00			1.00	0.85	
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (prot)	1728		2814				3433	3539			3539	1568	
Flt Permitted	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (perm)	1728		2814				3433	3539			3539	1568	
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.96	0.96	0.92	0.92	0.93	0.93	
Adj. Flow (vph)	158	0	663	0	0	0	229	698	0	0	677	247	
RTOR Reduction (vph)	0	0	350	0	0	0	0	0	0	0	0	91	
Lane Group Flow (vph)	158	0	313	0	0	0	229	698	0	0	677	156	
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3	
Heavy Vehicles (%)	1%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Turn Type	Prot		pt+ov				Prot	Prot	NA		pm+pt	NA	pm+ov
Protected Phases	8		8	4	4	4	1	6			5	2	8
Permitted Phases											2		2
Actuated Green, G (s)	13.7		30.3				10.7	49.9			33.7	47.4	
Effective Green, g (s)	13.7		30.3				10.7	49.9			33.7	47.4	
Actuated g/C Ratio	0.18		0.40				0.14	0.67			0.45	0.63	
Clearance Time (s)	5.9						4.0	5.5			7.0	5.9	
Vehicle Extension (s)	2.5						2.5	2.5			2.5	2.5	
Lane Grp Cap (vph)	315		1136				489	2354			1590	990	
v/s Ratio Prot	c0.09		0.11				c0.07	0.20			c0.19	0.03	
v/s Ratio Perm												0.07	
v/c Ratio	0.50		0.28				0.47	0.30			0.43	0.16	
Uniform Delay, d1	27.6		15.0				29.5	5.2			14.1	5.6	
Progression Factor	1.00		1.00				0.72	1.07			1.00	1.00	
Incremental Delay, d2	0.9		0.1				0.5	0.0			0.8	0.1	
Delay (s)	28.5		15.1				21.7	5.6			14.9	5.7	
Level of Service	C		B				C	A			B	A	
Approach Delay (s)		17.7			0.0			9.6			12.4		
Approach LOS		B			A			A			B		
Intersection Summary													
HCM 2000 Control Delay			13.1				HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.49										
Actuated Cycle Length (s)			75.0				Sum of lost time (s)			22.0			
Intersection Capacity Utilization			51.2%				ICU Level of Service			A			
Analysis Period (min)			15										
c Critical Lane Group													

Queues

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway
























06/01/2023



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	158	663	229	698	677	247
v/c Ratio	0.50	0.46	0.47	0.30	0.43	0.22
Control Delay	32.3	3.1	23.6	6.5	16.7	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	3.1	23.6	6.5	16.7	1.2
Queue Length 50th (ft)	67	12	38	47	108	0
Queue Length 95th (ft)	110	36	51	161	192	19
Internal Link Dist (ft)				824	1287	
Turn Bay Length (ft)						160
Base Capacity (vph)	355	1389	508	2355	1590	1132
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.48	0.45	0.30	0.43	0.22
Intersection Summary						

HCM Signalized Intersection Capacity Analysis
 4: Route 161 & U.S. Route 1 (Boston Post Rd)

06/01/2023

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		 									 		
Traffic Volume (vph)	110	260	200	280	430	220	220	460	150	200	370	120	
Future Volume (vph)	110	260	200	280	430	220	220	460	150	200	370	120	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	11	12	11	11	11	11	11	11	11	12	12	
Total Lost time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5		4.0	5.0		
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	1.00		1.00	0.95		
Frbp, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00		1.00	0.99		
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00		
Frt	1.00	0.93		1.00	1.00	0.85	1.00	0.96		1.00	0.96		
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1694	3147		1710	1801	1495	1710	1728		1694	3357		
Flt Permitted	0.21	1.00		0.24	1.00	1.00	0.38	1.00		0.10	1.00		
Satd. Flow (perm)	373	3147		431	1801	1495	676	1728		174	3357		
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.97	0.97	0.97	
Adj. Flow (vph)	117	277	213	315	483	247	234	489	160	206	381	124	
RTOR Reduction (vph)	0	127	0	0	0	112	0	11	0	0	28	0	
Lane Group Flow (vph)	117	363	0	315	483	135	234	638	0	206	477	0	
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2	
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	3%	3%	3%	
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		
Protected Phases	1	6		5	2		3	8		7	4		
Permitted Phases	6			2		2	8			4			
Actuated Green, G (s)	27.5	22.2		42.5	33.2	33.2	54.2	41.8		52.3	41.1		
Effective Green, g (s)	27.5	22.2		42.5	33.2	33.2	54.2	41.8		52.3	41.1		
Actuated g/C Ratio	0.25	0.20		0.39	0.30	0.30	0.49	0.38		0.48	0.37		
Clearance Time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5		4.0	5.0		
Vehicle Extension (s)	2.0	2.5		2.0	2.5	2.5	2.0	2.0		2.0	2.0		
Lane Grp Cap (vph)	156	635		350	543	451	449	656		237	1254		
v/s Ratio Prot	0.04	0.12		c0.13	0.27		0.06	c0.37		c0.09	0.14		
v/s Ratio Perm	0.15			c0.22		0.09	0.20			0.32			
v/c Ratio	0.75	0.57		0.90	0.89	0.30	0.52	0.97		0.87	0.38		
Uniform Delay, d1	35.6	39.6		26.6	36.6	29.5	16.8	33.6		27.3	25.2		
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2	16.3	3.7		24.6	19.2	1.7	0.5	28.2		26.1	0.1		
Delay (s)	51.9	43.3		51.2	55.9	31.2	17.3	61.8		53.5	25.2		
Level of Service	D	D		D	E	C	B	E		D	C		
Approach Delay (s)		45.0			48.6			50.0			33.4		
Approach LOS		D			D			D			C		
Intersection Summary													
HCM 2000 Control Delay			45.0									HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.96										
Actuated Cycle Length (s)			110.0									Sum of lost time (s)	19.0
Intersection Capacity Utilization			89.5%									ICU Level of Service	E
Analysis Period (min)			15										
c Critical Lane Group													

Queues

4: Route 161 & U.S. Route 1 (Boston Post Rd)

06/01/2023



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	117	490	315	483	247	234	649	206	505
v/c Ratio	0.72	0.64	0.89	0.89	0.44	0.51	0.97	0.87	0.40
Control Delay	52.0	31.1	53.9	56.5	13.6	18.5	62.5	60.0	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	31.1	53.9	56.5	13.6	18.5	62.5	60.0	24.6
Queue Length 50th (ft)	52	112	161	321	45	87	431	97	125
Queue Length 95th (ft)	#124	170	#283	#494	113	135	#674	#249	177
Internal Link Dist (ft)		985		299			1287		769
Turn Bay Length (ft)	90		310		140	190		260	
Base Capacity (vph)	162	782	356	556	572	495	678	237	1278
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.63	0.88	0.87	0.43	0.47	0.96	0.87	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

2: Route 161 & East Lyme High School

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	60	50	700	540	20
Future Volume (Veh/h)	30	60	50	700	540	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	36	72	52	729	600	22
Pedestrians	5			5	5	
Lane Width (ft)	13.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				849		
pX, platoon unblocked	0.72					
vC, conflicting volume	1454	621	627			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1436	621	627			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	63	85	95			
cM capacity (veh/h)	98	477	950			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	36	72	52	729	622	
Volume Left	36	0	52	0	0	
Volume Right	0	72	0	0	22	
cSH	98	477	950	1700	1700	
Volume to Capacity	0.37	0.15	0.05	0.43	0.37	
Queue Length 95th (ft)	37	13	4	0	0	
Control Delay (s)	61.8	13.9	9.0	0.0	0.0	
Lane LOS	F	B	A			
Approach Delay (s)	29.9		0.6	0.0		
Approach LOS	D					
Intersection Summary						
Average Delay			2.4			
Intersection Capacity Utilization			48.4%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis

37: Rt 156 (Main St) & Route 161

07/06/2023

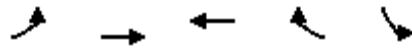


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	200	290	300	180	250	200
Future Volume (vph)	200	290	300	180	250	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	12	11	11	13	13
Total Lost time (s)	4.0	5.8	5.8	5.8	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00	1.00	0.92	0.97	
Flpb, ped/bikes	0.99	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	0.94	
Flt Protected	0.95	1.00	1.00	1.00	0.97	
Satd. Flow (prot)	1718	1881	1818	1426	1741	
Flt Permitted	0.29	1.00	1.00	1.00	0.97	
Satd. Flow (perm)	522	1881	1818	1426	1741	
Peak-hour factor, PHF	0.92	0.92	0.80	0.80	0.91	0.91
Adj. Flow (vph)	217	315	375	225	275	220
RTOR Reduction (vph)	0	0	0	166	30	0
Lane Group Flow (vph)	217	315	375	59	465	0
Confl. Peds. (#/hr)	31			31	31	31
Heavy Vehicles (%)	1%	1%	1%	1%	0%	0%
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	1	2	2		4	
Permitted Phases	2			2		
Actuated Green, G (s)	27.6	21.3	21.3	21.3	25.1	
Effective Green, g (s)	27.6	21.3	21.3	21.3	25.1	
Actuated g/C Ratio	0.34	0.26	0.26	0.26	0.31	
Clearance Time (s)	4.0	5.8	5.8	5.8	4.0	
Vehicle Extension (s)	1.5	2.5	2.5	2.5	1.5	
Lane Grp Cap (vph)	271	495	478	375	540	
v/s Ratio Prot	c0.06	0.17	0.21		c0.27	
v/s Ratio Perm	c0.21			0.04		
v/c Ratio	0.80	0.64	0.78	0.16	0.86	
Uniform Delay, d1	22.5	26.4	27.7	22.9	26.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	14.7	2.3	8.0	0.1	12.9	
Delay (s)	37.2	28.7	35.6	23.1	39.1	
Level of Service	D	C	D	C	D	
Approach Delay (s)		32.2	30.9		39.1	
Approach LOS		C	C		D	
Intersection Summary						
HCM 2000 Control Delay			33.8		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.69			
Actuated Cycle Length (s)			80.9		Sum of lost time (s)	17.8
Intersection Capacity Utilization			65.7%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Queues

37: Rt 156 (Main St) & Route 161

07/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	217	315	375	225	495
v/c Ratio	0.76	0.62	0.77	0.41	0.86
Control Delay	41.3	34.5	41.7	6.7	43.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	34.5	41.7	6.7	43.7
Queue Length 50th (ft)	88	165	206	0	266
Queue Length 95th (ft)	#202	257	#268	36	#474
Internal Link Dist (ft)		576	456		584
Turn Bay Length (ft)	170			170	
Base Capacity (vph)	285	572	553	589	597
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.76	0.55	0.68	0.38	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

35: Route 161 & Hope St

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	80	60	340	400	90
Future Volume (Veh/h)	60	80	60	340	400	90
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.84	0.84	0.91	0.91
Hourly flow rate (vph)	69	92	71	405	440	99
Pedestrians	19			19	19	
Lane Width (ft)	14.0			16.0	16.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			2	2	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				664		
pX, platoon unblocked						
vC, conflicting volume	1074	528	558			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1074	528	558			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	68	83	93			
cM capacity (veh/h)	218	530	996			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	161	476	539			
Volume Left	69	71	0			
Volume Right	92	0	99			
cSH	328	996	1700			
Volume to Capacity	0.49	0.07	0.32			
Queue Length 95th (ft)	64	6	0			
Control Delay (s)	26.1	2.0	0.0			
Lane LOS	D	A				
Approach Delay (s)	26.1	2.0	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			4.4			
Intersection Capacity Utilization			69.3%	ICU Level of Service	C	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

30: Route 161 & State Rd/Lincoln St

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	10	0	0	10	0	10	0	360	10	10	460	0
Future Volume (Veh/h)	10	0	0	10	0	10	0	360	10	10	460	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.78	0.78	0.78	0.75	0.75	0.75	0.91	0.91	0.91	0.88	0.88	0.88
Hourly flow rate (vph)	13	0	0	13	0	13	0	396	11	11	523	0
Pedestrians		19			19			19			19	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	998	990	561	984	984	440	542			426		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	998	990	561	984	984	440	542			426		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	100	100	94	100	98	100			99		
cM capacity (veh/h)	205	237	512	212	237	595	1013			1118		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	13	26	407	534								
Volume Left	13	13	0	11								
Volume Right	0	13	11	0								
cSH	205	312	1013	1118								
Volume to Capacity	0.06	0.08	0.00	0.01								
Queue Length 95th (ft)	5	7	0	1								
Control Delay (s)	23.8	17.6	0.0	0.3								
Lane LOS	C	C		A								
Approach Delay (s)	23.8	17.6	0.0	0.3								
Approach LOS	C	C										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			46.9%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

28: Route 161 & Oswegatchie Hills Rd

06/01/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Volume (veh/h)	70	480	440	40	40	60
Future Volume (Veh/h)	70	480	440	40	40	60
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.83	0.83
Hourly flow rate (vph)	81	558	489	44	48	72
Pedestrians		6	6		6	
Lane Width (ft)		11.0	11.0		11.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	539				1243	523
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	539				1243	523
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				73	87
cM capacity (veh/h)	1029				177	552
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	639	533	120			
Volume Left	81	0	48			
Volume Right	0	44	72			
cSH	1029	1700	299			
Volume to Capacity	0.08	0.31	0.40			
Queue Length 95th (ft)	6	0	46			
Control Delay (s)	2.0	0.0	24.9			
Lane LOS	A		C			
Approach Delay (s)	2.0	0.0	24.9			
Approach LOS			C			
Intersection Summary						
Average Delay			3.3			
Intersection Capacity Utilization			72.3%		ICU Level of Service	C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

25: Route 161 & Sleepy Hollow Rd

06/01/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↕	
Traffic Volume (veh/h)	20	540	470	20	10	20
Future Volume (Veh/h)	20	540	470	20	10	20
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.69	0.69
Hourly flow rate (vph)	22	593	516	22	14	29
Pedestrians		4	4		4	
Lane Width (ft)		11.0	11.0		12.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		853				
pX, platoon unblocked					0.77	
vC, conflicting volume	542				1172	535
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	542				1075	535
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				92	95
cM capacity (veh/h)	1028				181	538
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	615	538	43			
Volume Left	22	0	14			
Volume Right	0	22	29			
cSH	1028	1700	327			
Volume to Capacity	0.02	0.32	0.13			
Queue Length 95th (ft)	2	0	11			
Control Delay (s)	0.6	0.0	17.7			
Lane LOS	A		C			
Approach Delay (s)	0.6	0.0	17.7			
Approach LOS			C			
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization		55.9%		ICU Level of Service		B
Analysis Period (min)		15				

HCM Signalized Intersection Capacity Analysis

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

06/01/2023



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↖	↗		↖			↖	↗		↕	
Traffic Volume (vph)	10	520	280	20	480	10	260	0	30	10	10	10
Future Volume (vph)	10	520	280	20	480	10	260	0	30	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	13	13	12	12	12	12	12	12	16	16	16
Grade (%)		0%			0%			2%				-4%
Total Lost time (s)		6.1	6.1		4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00	
Frbp, ped/bikes		1.00	0.98		1.00			1.00	0.97		0.99	
Flpb, ped/bikes		1.00	1.00		1.00			0.99	1.00		1.00	
Frt		1.00	0.85		1.00			1.00	0.85		0.95	
Flt Protected		1.00	1.00		1.00			0.95	1.00		0.98	
Satd. Flow (prot)		1942	1615		1871			1757	1540		2042	
Flt Permitted		0.99	1.00		0.97			0.73	1.00		0.88	
Satd. Flow (perm)		1921	1615		1826			1354	1540		1835	
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95	0.92	0.92	0.92	0.75	0.75	0.75
Adj. Flow (vph)	11	578	311	21	505	11	283	0	33	13	13	13
RTOR Reduction (vph)	0	0	71	0	1	0	0	0	23	0	9	0
Lane Group Flow (vph)	0	589	240	0	536	0	0	283	10	0	30	0
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4		4	8		
Actuated Green, G (s)		26.5	26.5		28.6			15.0	15.0		15.0	
Effective Green, g (s)		26.5	26.5		28.6			15.0	15.0		15.0	
Actuated g/C Ratio		0.51	0.51		0.55			0.29	0.29		0.29	
Clearance Time (s)		6.1	6.1		4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0		1.5			1.5	1.5		1.5	
Lane Grp Cap (vph)		986	829		1012			393	447		533	
v/s Ratio Prot												
v/s Ratio Perm		c0.31	0.15		0.29			c0.21	0.01		0.02	
v/c Ratio		0.60	0.29		0.53			0.72	0.02		0.06	
Uniform Delay, d1		8.8	7.2		7.3			16.4	13.1		13.2	
Progression Factor		1.00	1.00		1.00			1.00	1.00		1.00	
Incremental Delay, d2		1.0	0.2		0.2			5.4	0.0		0.0	
Delay (s)		9.8	7.4		7.5			21.8	13.1		13.2	
Level of Service		A	A		A			C	B		B	
Approach Delay (s)		9.0			7.5			20.9			13.2	
Approach LOS		A			A			C			B	

Intersection Summary

HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	51.6	Sum of lost time (s)	10.1
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues

24: E Pattagansett Rd/Chapman Farms Rd & Route 161

06/01/2023



Lane Group	SET	SER	NWT	NET	NER	SWT
Lane Group Flow (vph)	589	311	537	283	33	39
v/c Ratio	0.60	0.35	0.53	0.73	0.07	0.09
Control Delay	13.4	6.1	11.0	28.8	5.3	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	6.1	11.0	28.8	5.3	11.9
Queue Length 50th (ft)	107	23	84	67	0	6
Queue Length 95th (ft)	281	86	238	178	14	21
Internal Link Dist (ft)	476		773	540		361
Turn Bay Length (ft)		50			50	
Base Capacity (vph)	1690	1438	1648	784	909	1071
Starvation Cap Reductn	5	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.22	0.33	0.36	0.04	0.04

Intersection Summary

HCM 2010 Roundabout
 24: E Pattagansett Rd/Chapman Farms Rd & Route 161

07/06/2023

Intersection				
Intersection Delay, s/veh	18.6			
Intersection LOS	C			
Approach	SE	NW	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	900	537	316	39
Demand Flow Rate, veh/h	909	542	319	39
Vehicles Circulating, veh/h	47	297	608	817
Vehicles Exiting, veh/h	809	630	348	22
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	3	3	3	3
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	22.6	15.1	14.7	8.2
Approach LOS	C	C	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	909	542	319	39
Cap Entry Lane, veh/h	1078	840	615	499
Entry HV Adj Factor	0.990	0.991	0.991	1.000
Flow Entry, veh/h	900	537	316	39
Cap Entry, veh/h	1067	831	609	499
V/C Ratio	0.844	0.646	0.519	0.078
Control Delay, s/veh	22.6	15.1	14.7	8.2
LOS	C	C	B	A
95th %tile Queue, veh	11	5	3	0

HCM Signalized Intersection Capacity Analysis

22: Route 161 & Roxbury Rd

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	60	60	50	700	750	50
Future Volume (vph)	60	60	50	700	750	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	12	12
Grade (%)	2%			0%	0%	
Total Lost time (s)	4.0		4.0	6.1	4.0	
Lane Util. Factor	1.00		1.00	1.00	1.00	
Frbp, ped/bikes	0.99		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1599		1728	1818	1863	
Flt Permitted	0.98		0.16	1.00	1.00	
Satd. Flow (perm)	1599		293	1818	1863	
Peak-hour factor, PHF	0.79	0.79	0.92	0.92	0.93	0.93
Adj. Flow (vph)	76	76	54	761	806	54
RTOR Reduction (vph)	45	0	0	0	3	0
Lane Group Flow (vph)	107	0	54	761	857	0
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	7.0		43.1	43.1	37.4	
Effective Green, g (s)	7.0		43.1	43.1	37.4	
Actuated g/C Ratio	0.12		0.72	0.72	0.62	
Clearance Time (s)	4.0		4.0	6.1	4.0	
Vehicle Extension (s)	1.5		1.5	3.0	1.5	
Lane Grp Cap (vph)	185		300	1301	1157	
v/s Ratio Prot	c0.07		0.01	c0.42	c0.46	
v/s Ratio Perm			0.12			
v/c Ratio	0.58		0.18	0.58	0.74	
Uniform Delay, d1	25.2		6.5	4.2	8.0	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	2.7		0.1	0.7	2.3	
Delay (s)	27.9		6.6	4.9	10.3	
Level of Service	C		A	A	B	
Approach Delay (s)	27.9			5.0	10.3	
Approach LOS	C			A	B	

Intersection Summary

HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

22: Route 161 & Roxbury Rd

06/01/2023



Lane Group	EBL	NBL	NBT	SBT
Lane Group Flow (vph)	152	54	761	860
v/c Ratio	0.55	0.14	0.57	0.69
Control Delay	27.3	3.3	6.9	13.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.3	3.3	6.9	13.8
Queue Length 50th (ft)	30	4	108	216
Queue Length 95th (ft)	94	13	235	497
Internal Link Dist (ft)	1120		476	697
Turn Bay Length (ft)		150		
Base Capacity (vph)	427	396	1704	1646
Starvation Cap Reductn	0	0	88	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.36	0.14	0.47	0.52

Intersection Summary

HCM Signalized Intersection Capacity Analysis

19: Route 161 & Society Rd

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	90	60	700	720	130
Future Volume (vph)	110	90	60	700	720	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	14	14
Grade (%)	0%			0%	3%	
Total Lost time (s)	4.0		4.0	4.0	5.6	5.6
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1626		1727	1818	1977	1641
Flt Permitted	0.97		0.12	1.00	1.00	1.00
Satd. Flow (perm)	1626		211	1818	1977	1641
Peak-hour factor, PHF	0.76	0.76	0.86	0.86	0.91	0.91
Adj. Flow (vph)	145	118	70	814	791	143
RTOR Reduction (vph)	39	0	0	0	0	41
Lane Group Flow (vph)	224	0	70	814	791	102
Confl. Peds. (#/hr)	3	3	3			3
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%
Turn Type	Prot		pm+pt	NA	NA	Perm
Protected Phases	4		1	1 2	2	
Permitted Phases			1 2			2
Actuated Green, G (s)	15.6		46.6	50.6	34.5	34.5
Effective Green, g (s)	15.6		46.6	50.6	34.5	34.5
Actuated g/C Ratio	0.21		0.61	0.67	0.46	0.46
Clearance Time (s)	4.0		4.0		5.6	5.6
Vehicle Extension (s)	3.0		1.5		2.5	2.5
Lane Grp Cap (vph)	334		371	1213	899	746
v/s Ratio Prot	c0.14		0.03	c0.45	c0.40	
v/s Ratio Perm			0.09			0.06
v/c Ratio	0.67		0.19	0.67	0.88	0.14
Uniform Delay, d1	27.7		11.0	7.6	18.8	12.0
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	5.2		0.1	1.2	9.8	0.1
Delay (s)	33.0		11.1	8.7	28.5	12.1
Level of Service	C		B	A	C	B
Approach Delay (s)	33.0			8.9	26.0	
Approach LOS	C			A	C	

Intersection Summary

HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	75.8	Sum of lost time (s)	13.6
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Queues

19: Route 161 & Society Rd

06/01/2023



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	263	70	814	791	143
v/c Ratio	0.71	0.19	0.65	0.88	0.18
Control Delay	33.0	6.4	11.0	33.7	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	6.4	11.0	33.7	8.0
Queue Length 50th (ft)	93	9	181	323	17
Queue Length 95th (ft)	131	27	365	#639	57
Internal Link Dist (ft)	1539		3382	952	
Turn Bay Length (ft)		105			120
Base Capacity (vph)	570	374	1250	899	787
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.46	0.19	0.65	0.88	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

17: Route 161 & Laurel Hill Dr

06/01/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	10	30	800	10	30	840
Future Volume (Veh/h)	10	30	800	10	30	840
Sign Control	Stop		Free		Free	
Grade	-3%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.95	0.95
Hourly flow rate (vph)	11	34	899	11	32	884
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)	1					
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked	0.69	0.69			0.69	
vC, conflicting volume	1852	904			910	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2011	637			645	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	90			95	
cM capacity (veh/h)	43	329			652	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	45	910	32	884		
Volume Left	11	0	32	0		
Volume Right	34	11	0	0		
cSH	174	1700	652	1700		
Volume to Capacity	0.26	0.54	0.05	0.52		
Queue Length 95th (ft)	25	0	4	0		
Control Delay (s)	41.5	0.0	10.8	0.0		
Lane LOS	E		B			
Approach Delay (s)	41.5	0.0	0.4			
Approach LOS	E					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			54.2%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
 12: Route 161 & Industrial Park Rd/Chapman Woods Rd

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔			↔↔		↔	↔↔		↔	↔↔	
Traffic Volume (vph)	150	10	100	10	0	10	100	780	10	10	850	90
Future Volume (vph)	150	10	100	10	0	10	100	780	10	10	850	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	13	14	14	14	11	12	13	11	11	11
Grade (%)		2%			-4%			0%				0%
Total Lost time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.93		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3285	1540			1881		1711	3533		1711	3372	
Flt Permitted	0.95	1.00			0.77		0.18	1.00		0.31	1.00	
Satd. Flow (perm)	3285	1540			1480		327	3533		562	3372	
Peak-hour factor, PHF	0.86	0.86	0.86	0.76	0.76	0.76	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	174	12	116	13	0	13	111	867	11	11	934	99
RTOR Reduction (vph)	0	105	0	0	23	0	0	1	0	0	8	0
Lane Group Flow (vph)	174	23	0	0	3	0	111	877	0	11	1026	0
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	8			8		1	6		5	2	
Permitted Phases		8		8			6			2		
Actuated Green, G (s)	5.6	7.4			7.4		46.4	41.4		38.5	37.5	
Effective Green, g (s)	5.6	7.4			7.4		46.4	41.4		38.5	37.5	
Actuated g/C Ratio	0.07	0.10			0.10		0.62	0.55		0.51	0.50	
Clearance Time (s)	4.4	5.0			5.0		4.0	6.2		4.0	6.0	
Vehicle Extension (s)	2.5	1.5			1.5		1.5	2.5		1.5	2.5	
Lane Grp Cap (vph)	245	151			146		296	1950		303	1686	
v/s Ratio Prot	c0.05	c0.02					c0.03	0.25		0.00	c0.30	
v/s Ratio Perm					0.00		0.21			0.02		
v/c Ratio	0.71	0.16			0.02		0.38	0.45		0.04	0.61	
Uniform Delay, d1	33.9	30.9			30.5		7.6	10.0		9.0	13.5	
Progression Factor	1.00	1.00			1.00		1.00	1.00		0.42	0.30	
Incremental Delay, d2	8.7	0.2			0.0		0.3	0.8		0.0	1.4	
Delay (s)	42.6	31.1			30.5		7.9	10.8		3.7	5.5	
Level of Service	D	C			C		A	B		A	A	
Approach Delay (s)		37.7			30.5			10.4			5.5	
Approach LOS		D			C			B			A	

Intersection Summary

HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Queues

12: Route 161 & Industrial Park Rd/Chapman Woods Rd

06/01/2023



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	174	128	26	111	878	11	1033
v/c Ratio	0.71	0.44	0.08	0.34	0.41	0.03	0.58
Control Delay	51.5	13.2	0.5	8.5	9.8	2.5	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	13.2	0.5	8.5	9.8	2.5	5.6
Queue Length 50th (ft)	41	5	0	18	103	0	39
Queue Length 95th (ft)	#79	46	0	38	196	m1	67
Internal Link Dist (ft)		619	594		240		743
Turn Bay Length (ft)	150			200		100	
Base Capacity (vph)	245	590	606	329	2149	415	1773
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.22	0.04	0.34	0.41	0.03	0.58

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

40: Route 161 & I-95 NB Exit Ramp/Burger King Driveway

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↗		↖		↗		↖↗		↖	↖↗	
Traffic Volume (vph)	240	20	60	30	0	60	0	980	20	50	980	0
Future Volume (vph)	240	20	60	30	0	60	0	980	20	50	980	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.4	5.4		4.0		4.0		7.0		4.5	7.0	
Lane Util. Factor	0.97	1.00		1.00		1.00		0.95		1.00	0.95	
Frt	1.00	0.89		1.00		0.85		1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3433	1654		1770		1583		3528		1770	3539	
Flt Permitted	0.95	1.00		0.95		1.00		1.00		0.14	1.00	
Satd. Flow (perm)	3433	1654		1770		1583		3528		269	3539	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	22	65	33	0	65	0	1065	22	54	1065	0
RTOR Reduction (vph)	0	55	0	0	0	60	0	2	0	0	0	0
Lane Group Flow (vph)	261	32	0	33	0	5	0	1085	0	54	1065	0
Turn Type	Split	NA		Prot		Perm		NA		pm+pt	NA	
Protected Phases	4	4		8				6		5	2	
Permitted Phases						8				2		
Actuated Green, G (s)	11.2	11.2		5.8		5.8		33.2		41.6	41.6	
Effective Green, g (s)	11.2	11.2		5.8		5.8		33.2		41.6	41.6	
Actuated g/C Ratio	0.15	0.15		0.08		0.08		0.44		0.55	0.55	
Clearance Time (s)	5.4	5.4		4.0		4.0		7.0		4.5	7.0	
Vehicle Extension (s)	3.0	3.0		3.0		3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	512	246		136		122		1561		227	1962	
v/s Ratio Prot	c0.08	0.02		c0.02				c0.31		0.01	c0.30	
v/s Ratio Perm						0.00				0.12		
v/c Ratio	0.51	0.13		0.24		0.04		0.70		0.24	0.54	
Uniform Delay, d1	29.4	27.7		32.5		32.0		16.8		9.8	10.6	
Progression Factor	1.00	1.00		1.00		1.00		0.76		0.47	0.38	
Incremental Delay, d2	0.8	0.2		0.9		0.1		1.2		0.5	1.0	
Delay (s)	30.2	27.9		33.5		32.2		14.0		5.1	5.0	
Level of Service	C	C		C		C		B		A	A	
Approach Delay (s)		29.6			32.6			14.0			5.0	
Approach LOS		C			C			B			A	

Intersection Summary

HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	20.9
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Queues

40: Route 161 & I-95 NB Exit Ramp/Burger King Driveway

06/01/2023



Lane Group	EBL	EBT	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	261	87	33	65	1087	54	1065
v/c Ratio	0.51	0.29	0.20	0.20	0.64	0.19	0.53
Control Delay	32.7	13.7	33.8	1.3	16.5	5.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	13.7	33.8	1.3	16.5	5.2	5.4
Queue Length 50th (ft)	58	9	15	0	114	4	43
Queue Length 95th (ft)	89	45	39	0	#346	m12	92
Internal Link Dist (ft)		426			743		431
Turn Bay Length (ft)	250					240	
Base Capacity (vph)	823	446	164	330	1686	283	1999
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.20	0.20	0.20	0.64	0.19	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis

10: Route 161 & Park and Ride Lot/King Arthur Dr

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕↗↖		↖	↕	
Traffic Volume (vph)	0	0	0	100	0	60	0	1210	70	70	1110	0
Future Volume (vph)	0	0	0	100	0	60	0	1210	70	70	1110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	8	11	11	11
Total Lost time (s)					4.2	4.0		6.6		4.0	6.1	
Lane Util. Factor					1.00	1.00		0.91		1.00	0.95	
Frbp, ped/bikes					1.00	0.99		1.00		1.00	1.00	
Flpb, ped/bikes					0.99	1.00		1.00		1.00	1.00	
Frt					1.00	0.85		0.99		1.00	1.00	
Flt Protected					0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)					1742	1549		5037		1711	3421	
Flt Permitted					0.76	1.00		1.00		0.15	1.00	
Satd. Flow (perm)					1388	1549		5037		265	3421	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.98	0.98	0.98
Adj. Flow (vph)	0	0	0	110	0	66	0	1260	73	71	1133	0
RTOR Reduction (vph)	0	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	110	28	0	1333	0	71	1133	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type				Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4	4		8		8	2			6		
Actuated Green, G (s)					15.0	20.6		39.6		49.7	49.7	
Effective Green, g (s)					15.0	20.6		39.6		49.7	49.7	
Actuated g/C Ratio					0.20	0.27		0.53		0.66	0.66	
Clearance Time (s)					4.2	4.0		6.6		4.0	6.1	
Vehicle Extension (s)					1.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)					277	425		2659		283	2266	
v/s Ratio Prot						0.00		0.26		0.02	c0.33	
v/s Ratio Perm					c0.08	0.01				0.15		
v/c Ratio					0.40	0.07		0.50		0.25	0.50	
Uniform Delay, d1					26.1	20.1		11.4		5.4	6.4	
Progression Factor					1.00	1.00		0.55		0.62	0.48	
Incremental Delay, d2					0.3	0.0		0.6		0.3	0.1	
Delay (s)					26.4	20.1		6.8		3.7	3.2	
Level of Service					C	C		A		A	A	
Approach Delay (s)		0.0			24.1			6.8			3.2	
Approach LOS		A			C			A			A	
Intersection Summary												
HCM 2000 Control Delay			6.3		HCM 2000 Level of Service					A		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)				14.8			
Intersection Capacity Utilization			59.3%		ICU Level of Service				B			
Analysis Period (min)			15									
c Critical Lane Group												

Queues

10: Route 161 & Park and Ride Lot/King Arthur Dr

06/01/2023



Lane Group	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	110	66	1333	71	1133
v/c Ratio	0.40	0.13	0.49	0.22	0.50
Control Delay	31.1	7.7	6.9	3.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	7.7	6.9	3.9	3.9
Queue Length 50th (ft)	45	4	68	4	46
Queue Length 95th (ft)	91	29	63	9	58
Internal Link Dist (ft)	603		431		69
Turn Bay Length (ft)		110			
Base Capacity (vph)	329	496	2711	318	2266
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.13	0.49	0.22	0.50

Intersection Summary

HCM Signalized Intersection Capacity Analysis

10: Route 161 & Park and Ride Lot/King Arthur Dr

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↕↕		↕	↕↕	
Traffic Volume (vph)	0	0	0	100	0	60	0	1210	70	70	1110	0
Future Volume (vph)	0	0	0	100	0	60	0	1210	70	70	1110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	8	11	11	11
Total Lost time (s)					4.2	4.0		6.6		4.0	6.1	
Lane Util. Factor					1.00	1.00		0.91		1.00	0.95	
Frbp, ped/bikes					1.00	0.99		1.00		1.00	1.00	
Flpb, ped/bikes					0.99	1.00		1.00		1.00	1.00	
Frt					1.00	0.85		0.99		1.00	1.00	
Flt Protected					0.95	1.00		1.00		0.95	1.00	
Satd. Flow (prot)					1742	1549		5037		1711	3421	
Flt Permitted					0.76	1.00		1.00		0.15	1.00	
Satd. Flow (perm)					1388	1549		5037		265	3421	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.96	0.96	0.96	0.98	0.98	0.98
Adj. Flow (vph)	0	0	0	110	0	66	0	1260	73	71	1133	0
RTOR Reduction (vph)	0	0	0	0	0	38	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	110	28	0	1333	0	71	1133	0
Confl. Peds. (#/hr)	4		4	4		4	4		4	4		4
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	2%	2%	2%	2%	2%	2%
Turn Type				Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4	4		8		8	2			6		
Actuated Green, G (s)					15.0	20.6		39.6		49.7	49.7	
Effective Green, g (s)					15.0	20.6		39.6		49.7	49.7	
Actuated g/C Ratio					0.20	0.27		0.53		0.66	0.66	
Clearance Time (s)					4.2	4.0		6.6		4.0	6.1	
Vehicle Extension (s)					1.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)					277	425		2659		283	2266	
v/s Ratio Prot						0.00		0.26		0.02	c0.33	
v/s Ratio Perm					c0.08	0.01				0.15		
v/c Ratio					0.40	0.07		0.50		0.25	0.50	
Uniform Delay, d1					26.1	20.1		11.4		5.4	6.4	
Progression Factor					1.00	1.00		0.55		0.62	0.48	
Incremental Delay, d2					0.3	0.0		0.6		0.3	0.1	
Delay (s)					26.4	20.1		6.8		3.7	3.2	
Level of Service					C	C		A		A	A	
Approach Delay (s)		0.0			24.1			6.8			3.2	
Approach LOS		A			C			A			A	

Intersection Summary

HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Queues

10: Route 161 & Park and Ride Lot/King Arthur Dr

06/01/2023



Lane Group	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	110	66	1333	71	1133
v/c Ratio	0.40	0.13	0.49	0.22	0.50
Control Delay	31.1	7.7	6.9	3.9	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	7.7	6.9	3.9	3.9
Queue Length 50th (ft)	45	4	68	4	46
Queue Length 95th (ft)	91	29	63	9	58
Internal Link Dist (ft)	603		431		69
Turn Bay Length (ft)		110			
Base Capacity (vph)	329	496	2711	318	2266
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.13	0.49	0.22	0.50

Intersection Summary

HCM Signalized Intersection Capacity Analysis

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway

06/01/2023



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖		↗↘		↖	↗	↗↘	↕↔		↖	↕↕	↗	
Traffic Volume (vph)	130	0	530	0	0	0	250	570	0	0	650	280	
Future Volume (vph)	130	0	530	0	0	0	250	570	0	0	650	280	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12	
Total Lost time (s)	5.9		5.9				4.0	5.5			7.0	5.9	
Lane Util. Factor	1.00		0.88				0.97	0.95			0.95	1.00	
Frbp, ped/bikes	1.00		1.00				1.00	1.00			1.00	0.99	
Flpb, ped/bikes	1.00		1.00				1.00	1.00			1.00	1.00	
Frt	1.00		0.85				1.00	1.00			1.00	0.85	
Flt Protected	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (prot)	1728		2814				3433	3539			3539	1568	
Flt Permitted	0.95		1.00				0.95	1.00			1.00	1.00	
Satd. Flow (perm)	1728		2814				3433	3539			3539	1568	
Peak-hour factor, PHF	0.95	0.92	0.95	0.92	0.92	0.92	0.96	0.96	0.92	0.92	0.93	0.93	
Adj. Flow (vph)	137	0	558	0	0	0	260	594	0	0	699	301	
RTOR Reduction (vph)	0	0	336	0	0	0	0	0	0	0	0	113	
Lane Group Flow (vph)	137	0	222	0	0	0	260	594	0	0	699	188	
Confl. Peds. (#/hr)	3		3	3		3	3		3	3		3	
Heavy Vehicles (%)	1%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	
Turn Type	Prot		pt+ov				Prot	Prot	NA		pm+pt	NA	pm+ov
Protected Phases	8		8 1	4	4	4	1	6			5	2	8
Permitted Phases										2			2
Actuated Green, G (s)	12.6		29.8				11.3	51.0			34.2	46.8	
Effective Green, g (s)	12.6		29.8				11.3	51.0			34.2	46.8	
Actuated g/C Ratio	0.17		0.40				0.15	0.68			0.46	0.62	
Clearance Time (s)	5.9						4.0	5.5			7.0	5.9	
Vehicle Extension (s)	2.5						2.5	2.5			2.5	2.5	
Lane Grp Cap (vph)	290		1118				517	2406			1613	978	
v/s Ratio Prot	c0.08		0.08				c0.08	0.17			c0.20	0.03	
v/s Ratio Perm												0.09	
v/c Ratio	0.47		0.20				0.50	0.25			0.43	0.19	
Uniform Delay, d1	28.2		14.8				29.3	4.6			13.8	6.0	
Progression Factor	1.00		1.00				0.71	1.18			1.00	1.00	
Incremental Delay, d2	0.9		0.1				0.5	0.0			0.9	0.1	
Delay (s)	29.1		14.8				21.4	5.5			14.7	6.1	
Level of Service	C		B				C	A			B	A	
Approach Delay (s)		17.7			0.0			10.3			12.1		
Approach LOS		B			A			B			B		
Intersection Summary													
HCM 2000 Control Delay			13.0				HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.50										
Actuated Cycle Length (s)			75.0				Sum of lost time (s)			22.0			
Intersection Capacity Utilization			51.5%				ICU Level of Service			A			
Analysis Period (min)			15										
c Critical Lane Group													

Queues

8: Route 161 & Frontage Road to I-95 SB Ramps/Daddy's Noodles Driveway

06/01/2023

























Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	137	558	260	594	699	301
v/c Ratio	0.47	0.40	0.50	0.25	0.43	0.27
Control Delay	32.8	2.1	23.7	6.3	16.3	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	2.1	23.7	6.3	16.3	1.3
Queue Length 50th (ft)	59	0	41	45	108	0
Queue Length 95th (ft)	101	25	60	96	193	22
Internal Link Dist (ft)				824	1287	
Turn Bay Length (ft)						160
Base Capacity (vph)	343	1368	530	2406	1614	1149
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.41	0.49	0.25	0.43	0.26

Intersection Summary

HCM Signalized Intersection Capacity Analysis

4: Route 161 & U.S. Route 1 (Boston Post Rd)

06/01/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	240	200	300	280	120	190	340	150	190	420	100
Future Volume (vph)	110	240	200	300	280	120	190	340	150	190	420	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	12	11	11	11	11	11	11	11	12	12
Total Lost time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5		4.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00	1.00	1.00		1.00	0.95	
Frbp, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.93		1.00	1.00	0.85	1.00	0.95		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1692	3136		1710	1801	1495	1710	1711		1694	3389	
Flt Permitted	0.57	1.00		0.28	1.00	1.00	0.35	1.00		0.14	1.00	
Satd. Flow (perm)	1014	3136		512	1801	1495	636	1711		255	3389	
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.97	0.97	0.97
Adj. Flow (vph)	117	255	213	337	315	135	202	362	160	196	433	103
RTOR Reduction (vph)	0	130	0	0	0	90	0	16	0	0	19	0
Lane Group Flow (vph)	117	338	0	337	315	45	202	506	0	196	517	0
Confl. Peds. (#/hr)	2		2	2		2	2		2	2		2
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6			2		2	8			4		
Actuated Green, G (s)	32.1	24.7		47.6	36.2	36.2	47.1	35.6		49.2	36.9	
Effective Green, g (s)	32.1	24.7		47.6	36.2	36.2	47.1	35.6		49.2	36.9	
Actuated g/C Ratio	0.29	0.22		0.43	0.33	0.33	0.43	0.32		0.45	0.34	
Clearance Time (s)	4.0	5.5		4.0	5.0	5.0	4.0	5.5		4.0	5.0	
Vehicle Extension (s)	2.0	2.5		2.0	2.5	2.5	2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	341	704		421	592	491	384	553		274	1136	
v/s Ratio Prot	0.02	0.11		c0.13	0.17		0.05	c0.30		c0.08	0.15	
v/s Ratio Perm	0.08			c0.21		0.03	0.17			0.24		
v/c Ratio	0.34	0.48		0.80	0.53	0.09	0.53	0.92		0.72	0.45	
Uniform Delay, d1	29.6	37.1		23.1	30.0	25.5	20.8	35.8		22.9	28.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	2.3		9.9	3.4	0.4	0.6	19.6		7.2	0.1	
Delay (s)	29.9	39.4		33.0	33.4	25.9	21.4	55.3		30.1	28.8	
Level of Service	C	D		C	C	C	C	E		C	C	
Approach Delay (s)		37.5			31.9			45.8			29.1	
Approach LOS		D			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			35.9								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			110.0								Sum of lost time (s)	19.0
Intersection Capacity Utilization			83.2%								ICU Level of Service	E
Analysis Period (min)			15									
c	Critical Lane Group											

Queues

4: Route 161 & U.S. Route 1 (Boston Post Rd)

06/01/2023



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	117	468	337	315	135	202	522	196	536
v/c Ratio	0.33	0.56	0.79	0.53	0.23	0.51	0.92	0.71	0.46
Control Delay	24.8	28.4	37.7	35.5	6.1	20.8	56.3	33.4	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	28.4	37.7	35.5	6.1	20.8	56.3	33.4	28.0
Queue Length 50th (ft)	52	107	174	197	1	74	329	71	138
Queue Length 95th (ft)	90	160	#259	274	43	122	#503	#172	192
Internal Link Dist (ft)		985		299			1287		769
Turn Bay Length (ft)	90		310		140	190		260	
Base Capacity (vph)	359	874	448	617	600	405	629	281	1242
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.54	0.75	0.51	0.23	0.50	0.83	0.70	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

HCM Unsignalized Intersection Capacity Analysis

2: Route 161 & East Lyme High School

06/01/2023



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	30	30	460	610	10
Future Volume (Veh/h)	10	30	30	460	610	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.96	0.96	0.90	0.90
Hourly flow rate (vph)	12	36	31	479	678	11
Pedestrians	5			5	5	
Lane Width (ft)	13.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)	849					
pX, platoon unblocked						
vC, conflicting volume	1234	694	694			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1234	694	694			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	92	97			
cM capacity (veh/h)	184	434	897			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	12	36	31	479	689	
Volume Left	12	0	31	0	0	
Volume Right	0	36	0	0	11	
cSH	184	434	897	1700	1700	
Volume to Capacity	0.07	0.08	0.03	0.28	0.41	
Queue Length 95th (ft)	5	7	3	0	0	
Control Delay (s)	26.0	14.1	9.2	0.0	0.0	
Lane LOS	D	B	A			
Approach Delay (s)	17.0		0.6	0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			44.3%	ICU Level of Service	A	
Analysis Period (min)	15					

APPENDIX D
ENVIRONMENTAL PERMITTING OVERVIEW

Date: July 7, 2023 Job No.: 22.10369
To: James S. Butler, AICP, SCCOG
Senior Advisor, Project Manager
Cc:
From: Joe Rimiller, PE, PTOE, LEED AP, BETA
Laura Krause, BETA
Elyse Tripp, BETA
Subject: Environmental Permitting Overview
Route 161 Corridor Improvement Project – East Lyme, Connecticut

BETA has been retained by the Southeastern Connecticut Council of Governments (SCCOG), in cooperation with the Town of East Lyme and the Connecticut Department of Transportation (CTDOT), to participate in the Connecticut State Route 161 Corridor Study to assess existing and forecasted conditions on the corridor and develop a comprehensive plan to guide future transportation improvements along the corridor.

The purpose of this memorandum is to provide an overview of the anticipated environmental impacts and required environmental permitting associated with conceptual plans developed to improve the Route 161 Corridor.

PROJECT / SITE DESCRIPTION

Route 161 is a major north-south arterial that is vital to transportation in the Town of East Lyme. The Corridor Study included an approximately 3.7-mile section of Route 161 from Route 156 (Main Street) to the driveway of East Lyme High School (Figure 1). Proposed pedestrian improvements along the Project Corridor have been broken up into the following seven segments, starting from the south:

Segment 1 – Route 156 (Main Street) to Smith Street

This segment starts at the intersection of Pennsylvania Avenue (Route 161) and Main Street (Route 156) and ends at Smith Street. Improvements proposed within this segment include:

- Stripe on-street parking spaces and bike lanes;
- Install a new traffic signal at the Route 161 and Route 156 (Main Street) intersection;
- Install crosswalks across side streets with high pedestrian volumes including Grand Street, Hope Street, State Street, and Lincoln Street;
- Reconstruct pedestrian curb ramps at various locations;
- Construct a pocket parking area on the west of the corridor, just south of Hope Street;
- Install pedestrian scale lighting between Smith Street and Hope Street;
- Plant street trees within the public right-of-way; and
- Widen the existing sidewalk along the west side of Route 161.

Segment 2 – Smith Street to East Pattagansett Road

This segment of Route 161 starts at Smith Street and ends at East Pattagansett Road. Improvements proposed within this segment include:

- Construct pedestrian curb ramps where none are provided;
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations;

- Stripe bike lanes along both sides of Route 161;
- Construct a new sidewalk along the east side of Route 161 between Smith Street and Oswegatchie Hills Road;
- Construct a new sidewalk along the north side of Route 161 between Oswegatchie Hills Road and Sleepy Hollow Road; and
- Widen the existing sidewalk along both sides of Route 161.

Segment 3 – East Pattagansett Road to Society Road

This segment starts at East Pattagansett Road and ends at Society Road. Improvements proposed within this segment include:

- Install speed feedback signs to discourage speeding;
- Restripe the existing shoulder with 6" - wide shoulder markings;
- Reconstruct pedestrian curb ramps at various locations;
- Install new traffic signals at the Route 161/East Pattagansett Road and Route 161/Roxbury Road intersections;
- Install a dedicated northbound left turn lane at the Roxbury Road signal;
- Install crosswalks across both roadways at the intersection of Route 161 and Roxbury Road;
- Install a crosswalk across Route 161 at Oak Hill Drive to improve access to the proposed sidewalk;
- Widen the existing sidewalk along the east side of Route 161; and
- Install a 10'-wide shared use path along the west side of Route 161. Retaining walls will be necessary to support the sidewalk along the south end of Gorton Pond.

Segment 4 – Society Road to Industrial Park Road

This segment starts at Society Road and ends at Industrial Park Road. Improvements proposed within this segment include:

- Install accessible pedestrian signals, implement exclusive pedestrian phasing, and stripe a crosswalk across Society Road at the intersection of Route 161 and Society Road;
- Construct pedestrian curb ramps where none are provided including the Laurel Hill Drive and Damon Heights Road crossings;
- Reconstruct pedestrian curb ramps and install detectable warning panels at various locations;
- Install an intersection warning sign on the northbound approach to Laurel Hill Drive;
- Restripe the roadway to incorporate a two-way left turn lane;
- Install a 10'-wide shared use path along the west side of Route 161;
- Realign the Laurel Hill Drive approach to Route 161; and
- Widen the existing sidewalk along the east side of Route 161.

Segment 5 – Industrial Park Road to Frontage Road

This segment starts at Industrial Park Road and ends at Frontage Road. Improvements proposed within this segment include:

- Install a crosswalk with pedestrian signals across Industrial Park Road and implement exclusive pedestrian phasing;
- Incorporate adaptive signal control at the new traffic signals to be installed at Industrial Park Road, the Exit 74 Off Ramp, and King Arthur Drive under the I-95 Interchange 74 Improvement project;
- Install a bus shelter northeast of Chapman Wood Road; and
- Install an 8'-wide shared use path along the west side of Route 161.

Segment 6 – Frontage Road to U.S. Route 1 (Boston Post Road)

This segment starts at Frontage Road and ends at U.S. Route 1 (Boston Post Road). Improvements proposed within this segment include:

- Incorporate adaptive signal control at the new traffic signal to be installed at Frontage Road under the I-95 Interchange 74 Improvement project;
- Install fiber optic interconnect to facilitate communication between the traffic signal at U.S. Route 1 (Boston Post Road) and the signals at Frontage Road, King Arthur Drive, the I-95 Exit 74 Off Ramp, and Industrial Park Road;
- Construct a new 5'-wide concrete sidewalk on the east side of the corridor in front of Latimer Brook Commons;
- Install bus pull outs on both sides of the corridor just south of U.S. Route 1 (Boston Post Road);
- Install a bus shelter at each pull out to promote transit use;
- Construct a raised median island on the southern leg of the Route 161/U.S. Route 1 (Boston Post Road) intersection;
- Restripe the northbound approach to include an exclusive left turn lane and shared through/right turn lane to accommodate the median island; and
- Install a 10'-wide shared use path along the west side of Route 161.

Segment 7 - U.S. Route 1 (Boston Post Road) to East Lyme High School

This segment starts at U.S. Route 1 (Boston Post Road) and ends at East Lyme High School. Improvements proposed within this segment include:

- Implement a left-turn lane on the northbound approach to East Lyme High School;
- Incorporate adaptive signal control at Route 161/U.S. Route 1 (Boston Post Road) traffic signal; and
- Install a 10'-wide shared use path along the west side of Route 161.

ENVIRONMENTAL CONTEXT, IMPACTS AND CONSIDERATIONS

Below is a brief overview of the environmental context of each of the segments described above and the Project's Impacts to various environmental resources. BETA also conducted a field visit to confirm the presence of wetlands along the Corridor on March 17, 2023. Table 1 provides a summary of the various environmental resources present within each segment.

Table. 1 Environmental Impact Summary

	Seg. 1	Seg. 2	Seg. 3	Seg. 4	Seg. 5	Seg. 6	Seg. 7
Wetlands and Watercourses		✓*	✓	✓*			
Upland Review Area	✓	✓	✓	✓	✓	✓	✓
NDDB Habitat	✓	✓	✓				
Floodplain			✓				
Aquifer Protection Area			✓	✓	✓	✓	✓
Historic Structures**							
Coastal Management Area	✓						

*Segments marked with an asterisk require a formal delineation to confirm whether the Project will impact wetlands or watercourses.

** To determine the presence of historic structures in the Project Corridor, the Historic Property Database provided by the State Historic Preservation Office (SHPO) was consulted.

Segment 1 – Route 156 (Main Street) to Smith Street

This segment is within a primarily commercial area north of Niantic Bay (Figure 2a). Segment 1 is located within the Coastal Management Area until just north of Hope Street. Additionally, NDDDB mapped habitat extends into the intersection of Main Street (Route 156) and Route 161 at the southern limit of this segment. No other environmentally sensitive or wetland resource areas were identified within or adjacent to Segment 1.

Work proposed within Segment 1 will be partially within NDDDB Habitat, Coastal Management Area, and Upland Review Area. Work within 300 feet of wetlands and watercourses, known as the Upland Review Area, would be considered a Regulated Activity¹ under the Town of East Lyme Bylaw (the “Bylaw”) and is subject to jurisdiction under Section 4.3 of the Bylaw. The Upland Review Area extends into the intersection of Main Street (Route 156) and Route 161 but is not present in any other portion of this segment. Additionally, work proposed at the southern end of this segment is partially within mapped NDDDB habitat, and Coastal Management Area. Work within the Upland Review Area is not anticipated to impact any vegetated wetlands or watercourses.

Segment 2 – Smith Street to East Pattagansett Road

This segment is within a residential area east of Bush Pond and the Pattagansett River (Figure 2b). NDDDB mapped habitat is present within the corridor north of Cove Drive and continues through Segment 2 and into Segment 3. An unnamed watercourse was observed during field review that flows underneath Pennsylvania Avenue east of 202 Pennsylvania Avenue. Vegetated wetlands were also observed on either side of the roadway associated with this watercourse, and additional vegetated wetlands were observed west of 202 Pennsylvania Avenue abutting the roadway.

Vegetated wetlands, as well as a Coastal Management Area, are mapped east of Pennsylvania Avenue between Penncove Drive and Oswegatchie Hills Road; however, these wetlands are located at the rear of multiple residential parcels and as such field confirmation of approximate limits could not be evaluated.

Work proposed within Segment 2 will be partially within NDDDB Habitat and within Upland Review Area. Upland Review Area is present associated with the unnamed watercourse and associated vegetated wetlands on either side of Route 161 east of 202 Pennsylvania Avenue (Route 161) and the vegetated wetlands observed west of 202 Pennsylvania Avenue abutting the roadway. Widening of the existing sidewalk as well as the construction and reconstruction of pedestrian curb ramps will impact the Upland Review Area and NDDDB habitat in some locations within Segment 2. This work may also impact wetlands; however, a formal wetland and watercourse delineation, as well as design plans are required to evaluate impacts.

Additionally, construction of the new sidewalk along the east side of Route 161 may also be within Upland Review Area associated with vegetated wetlands observed at the rear of the residential properties

¹ A Regulated Activity as defined in Section 2 of the Bylaw means *any operation within or use of a wetland or watercourse involving removal or deposition of material, or any obstruction, construction, alteration or pollution, of such wetlands or watercourses [...]* Furthermore, *any clearing, grubbing, filling, grading, paving, excavating, constructing, depositing or removing of material and discharging storm water on the land within 300-feet measured horizontally from the boundary of any wetland or watercourse is a regulated activity.*

between Penncove Drive and Oswegatchie Hills Road. Work within the Upland Review Area is not anticipated to impact any vegetated wetlands or watercourses.

Segment 3 – East Pattagansett Road to Society Road

This segment is within a residential area east of Gorton Pond, the Pattagansett River, and associated bordering wetlands (Figure 2c). A concrete dam is present at the southern end of Gorton Pond where it becomes the Pattagansett River and continues to flow south towards Bush Pond. During field review, BETA observed that the bank/ordinary high water of Gorton Pond was located less than 10 feet from the edge of pavement of Route 161 (Flanders Road) from north of 6 Flanders Road at the concrete dam to 44 Flanders Road. BETA also observed vegetated wetlands along the bank of Gorton Pond.

According to the FEMA Flood Insurance Rate Map (FIRM) community panel number 09011C0479J, dated effective August 5, 2013, Segment 3 from East Pattagansett Road to 143 Flanders Road is adjacent to, and may be partially within, a Flood Hazard Zone AE with a Base Flood Elevation (BFE) ranging from 25 to 27.6' (NAVD88).

Segment 3 is located almost entirely within a Primary Aquifer Protection District, and an Aquifer Protection Area is present at the northern end of this segment. Additionally, NDDDB habitat is mapped within the corridor until just south of 143 Flanders Road. No other sensitive or wetland resource areas were identified within or adjacent to Segment 3.

Work proposed within Segment 3 will occur within vegetated wetlands, a Watercourse, Upland Review Area, NDDDB Habitat, an Aquifer Protection Area and may also occur within floodplain. An Upland Review Area is present throughout Segment 3 associated with Gorton Pond, the Pattagansett River, and associated vegetated wetlands present to the west of the roadway. Construction of the new sidewalk west of Route 161, widening of the existing sidewalk east of Route 161, as well as the construction and reconstruction of pedestrian curb ramps will impact the Upland Review Area.

Additionally, impacts to vegetated wetlands, a watercourse (Gorton Pond), and floodplain is anticipated to construct a shared use path along the western side of Route 161. This sidewalk is proposed to be supported by a retaining wall. Anticipated impacts include approximately 1,775 sf of vegetation clearing, a cut of 650 cubic yards (CY) of material and the use of 175 CY of fill.

Segment 4 – Society Road to Industrial Park Road

This segment transitions from residential to primarily commercial properties (Figure 2d). The Pattagansett River and Gorton Pond are present along the entire length of this segment, generally located at the rear of existing residences and commercial properties west of the Route 161. Although these watercourses were only observable from the public right of way, it appeared during field review that vegetated wetlands bordering the watercourses were also present as mapped by the Town of East Lyme GIS maps.

Additionally, a small stream with associated vegetated wetlands was observed in the field, directly abutting the roadway north of 208 Flanders Road. This segment is outside of the floodplain but is located entirely within an Aquifer Protection Area. No other sensitive or wetland resource areas were identified within or adjacent to Segment 4.

Work proposed within Segment 4 will occur within Upland Review Area and an Aquifer Protection Area. Upland Review Area appears to be present throughout Segment 4 associated with Gorton Pond, the Pattagansett River, and associated vegetated wetlands present to the west of the roadway. Installation of an ten-foot wide shared use path, as well as the construction and reconstruction of pedestrian curb ramps will impact the Upland Review Area. Additionally, the proposed shared use path may impact the unnamed watercourse and associated vegetated wetlands that abut the roadway north of 208 Flanders Road;

however, a formal wetland and watercourse delineation, as well as design plans are required to evaluate impacts.

Segment 5 – Industrial Park Road to Frontage Road

This segment is within a commercial area surrounding the I-95 interchange (Figure 2e). A stone lined drainage swale visible from the roadway was observed during the field review. This swale is mapped as a stream by the Town of East Lyme GIS maps along Chapman Woods Road and was observed to be dry. This channel appears to be connected to a larger stream complex east of the Project Corridor; however, the presence of associated vegetated wetlands could not be confirmed. Where intermittent flow within this channel could not be confirmed nor denied, the channel would meet the definition of a watercourse under the Bylaw².

Another series of stormwater drainage features, consisting of three (3) connected drainage swales, was observed south of Frontage Road between the overpass and the roadway. These drainage ditches also meet the definition of a watercourse. Although no flow was observed at the time of the field review, evidence of flow, including scour and sediment deposition, was observed. This segment is outside of the floodplain but is located entirely within an Aquifer Protection Area. No other sensitive or wetland resource areas were identified within or adjacent to Segment 5.

Work proposed within Segment 5 will occur within Upland Review Area and an Aquifer Protection Area. Upland Review Area within this segment is associated with watercourses observed along Chapman Woods Road and south of Frontage Road. Work to install a bus shelter and the eight-foot wide shared use path will impact Upland Review Area. Work within the Upland Review Area is not anticipated to impact any vegetated wetlands or watercourses.

Segment 6 – Frontage Road to U.S. Route 1 (Boston Post Road)

This segment is within a commercial area (Figure 2f). Vegetated wetlands are mapped within the Project Corridor at the northern end of this segment between Flanders Donut & Bake Shop and Latimer Brook Commons. This wetland area is located at the rear of existing commercial businesses, accordingly, a visual inspection during field review was not feasible. This segment is outside of the floodplain but is located partially within an Aquifer Protection Area. No other sensitive or wetland resource areas were identified within or adjacent to Segment 6.

Work proposed within Segment 6 will occur within Upland Review Area and an Aquifer Protection Area. Upland Review Area appears to be present associated with vegetated wetlands at the northern end of this segment between Flanders Donut & Bake Shop and Latimer Brook Commons. Work to install the shared used path west of Route 161, construct the sidewalk east of Route 161, and install bus pull out shelters and pull outs may be within Upland Review Area. Work within the Upland Review Area is not anticipated to impact any vegetated wetlands or watercourses.

Segment 7 - U.S. Route 1 (Boston Post Road) to East Lyme High School

This segment is within commercial area that transitions to residential areas north of this segment (Figure 2g). A mapped vegetated wetland associated with Latimer Brook was observed east of this segment located at the rear of residential and commercial properties. An Aquifer Protection Area is mapped along the western side of this segment but remains outside of the Project Corridor. This segment is outside of

² A Watercourse as defined in Section 2 of the Bylaw means *rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs, and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through, or border upon the Town...*

the floodplain, and no other sensitive or wetland resource areas were identified within or adjacent to Segment 7.

Work proposed within Segment 7 will occur within Upland Review Area and an Aquifer Protection Area. Upland Review Area associated with the vegetated wetlands is present at the northern extent of this segment. Installation of the shared use path west of Route 161 will partially be within the Upland Review Area. Work within the Upland Review Area is not anticipated to impact any vegetated wetlands or watercourses.

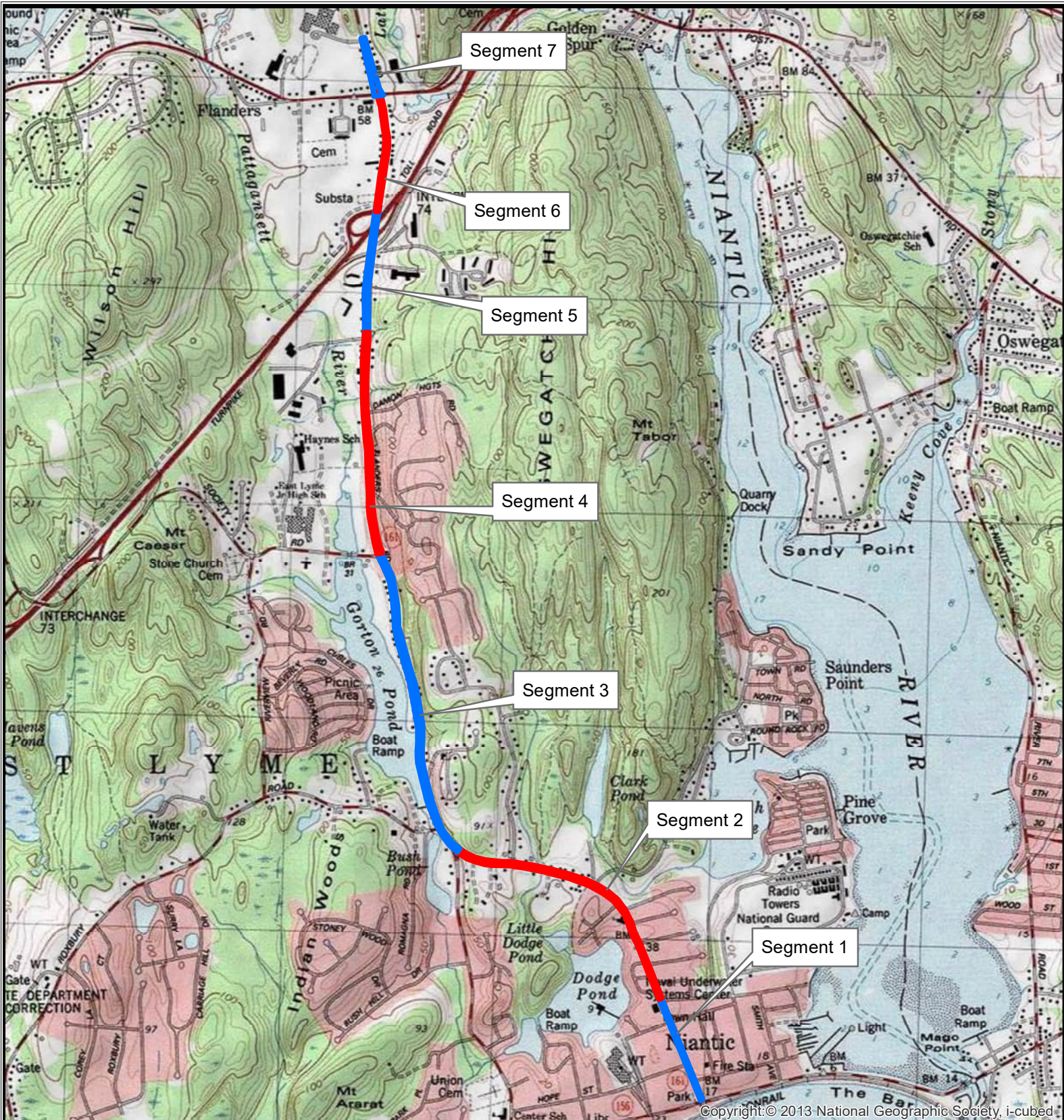
ENVIRONMENTAL PERMITS REQUIRED

Given the impacts associated with the proposed improvements and because it is anticipated that CTDOT funding will be pursued for implementation, the following environmental permits will be required to complete permitting for each of the Project segments.

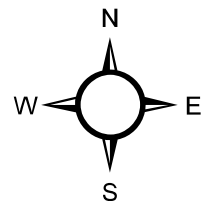
- Town of East Lyme Inland Wetlands Permit for all Segments;
- Self-Verification Notification Form or Pre-Construction Notification under the US Army Corps of Engineers Section 404 Connecticut General Permits 17A for Segment 3, and potentially Segments 2 and 4, depending on final impacts;
- Submission of the Land and Water Resource Division (LWRD) License Application (Form L) to CTDEEP for Inland Wetlands and Watercourses and required attachments for Segment 3, and potentially Segments 2 and 4. Coordination with CTDEEP will be conducted during preliminary design to confirm CTDEEP filing requirements;
- NDDDB Consultation Submission for Segments 1, 2 and 3;
- DEEP Stormwater Permit for the Project as a whole, as earth disturbance is anticipated to exceed two acres;
- Coastal Management Act Site Plan Review for Segment 1;
- East Lyme Floodplain Development Permit Application for Segment 3; and
- For state-funded projects, the work will require review and confirmation that the project will not have an effect or adverse effect on historic and / or archaeological resources. A Project Notification Form is required to be submitted to CT State Historic Preservation Office (SHPO), as required for state-funded projects, to comply with the Connecticut Environmental Policy Act (CEPA).

Attachments:

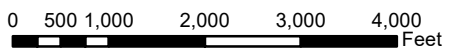
1. Figure 1: Site Locus
2. Figure 2a to 2g: Environmental Resource Maps
3. Figure 3: FEMA Flood Maps



Copyright: © 2013 National Geographic Society, i-cubed



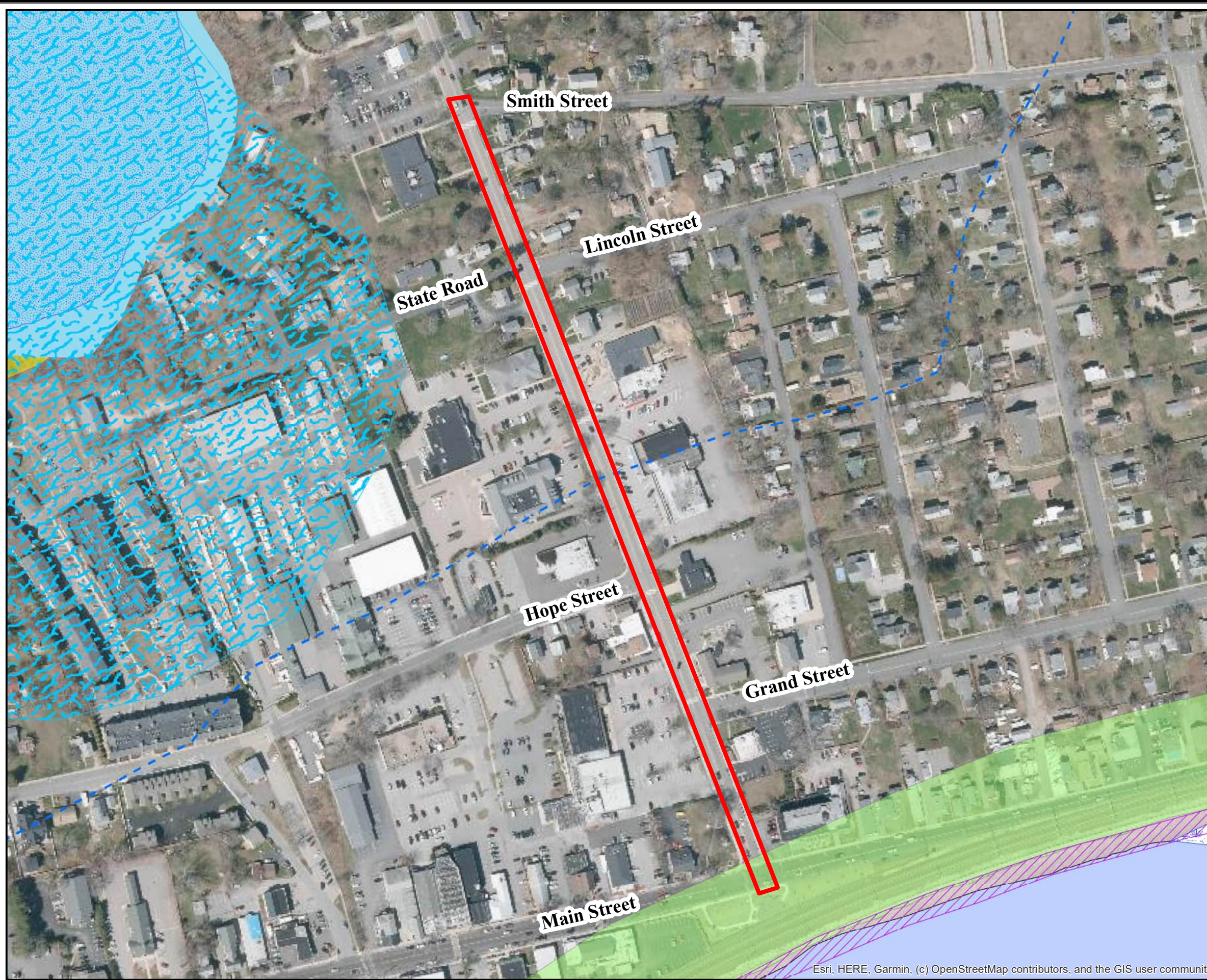
Legend
 Site Locus














1 inch = 2,000 feet

Figure 1
Overview Map
Route 161
East Lyme, CT

Figure 2a
Environmental Resources Map Segment 1
Route 156 to Smith Street
East Lyme, CT



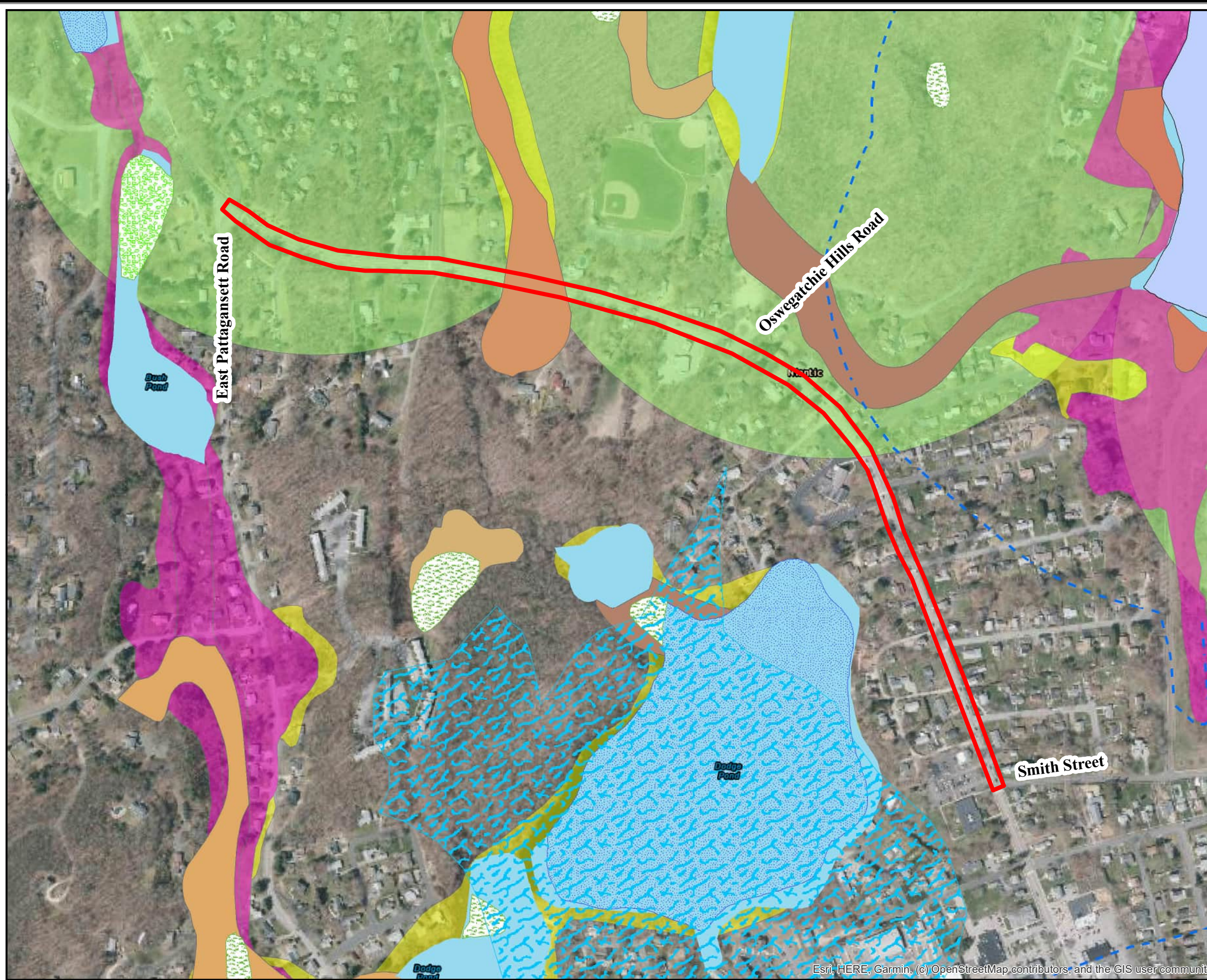
Legend

-  Site Locus - Segment 1
-  Coastal Area Boundary
-  Aquifer Protection Area
-  Critical Habitat
-  Natural Diversity Database Area
- National Wetlands Inventory**
-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland
-  Lake
- CTDEP Wetlands**
-  Water
- FEMA Floodplains**
-  0.2% Annual Flood Hazard
-  VE

Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).

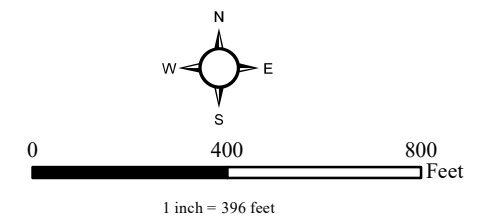


Figure 2b
Environmental Resources Map Segment 2
Smith Street to East Pattagansett Road
East Lyme, CT



Legend

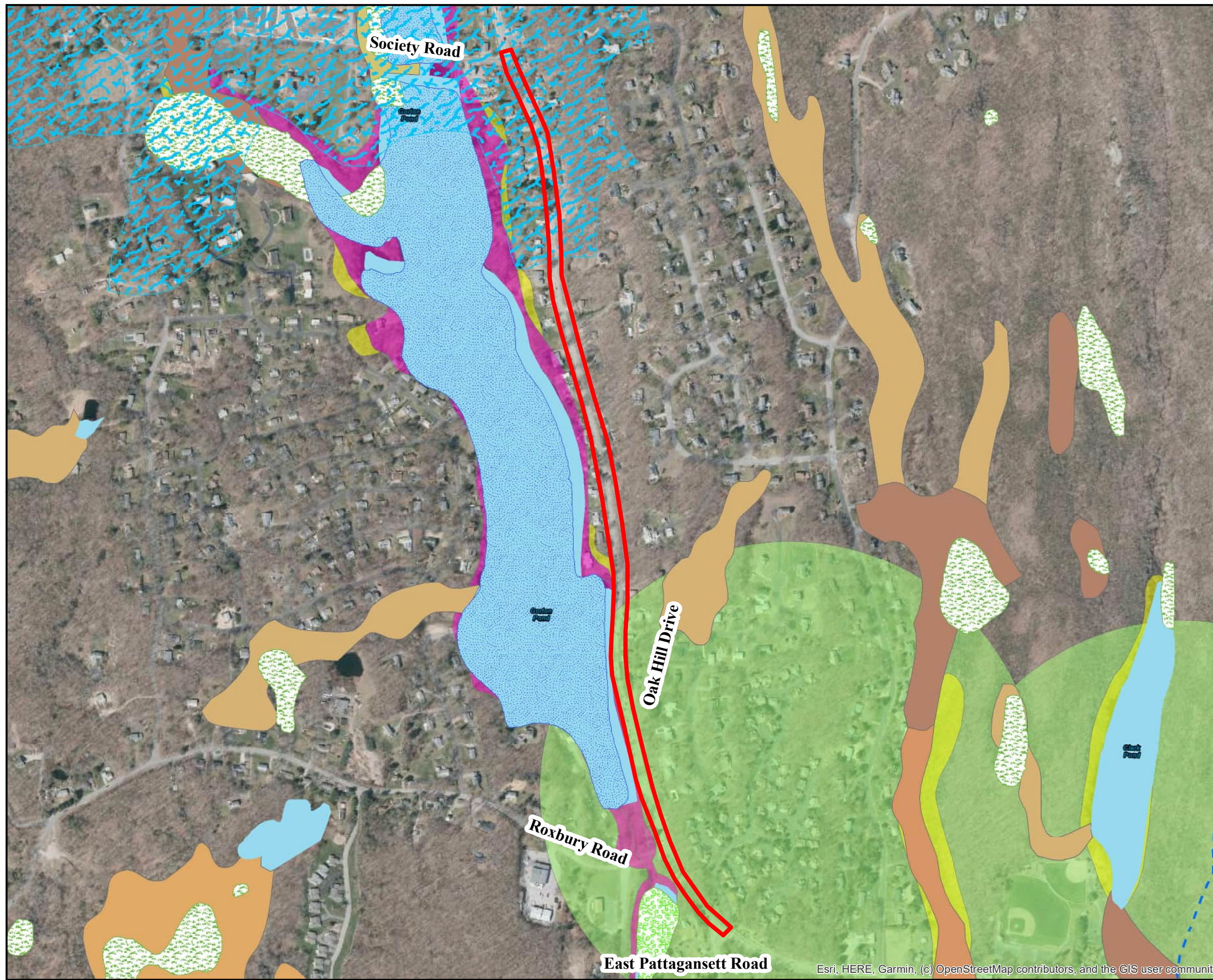
- Site Locus - Segment 2
- Coastal Area Boundary
- Aquifer Protection Area
- Natural Diversity Database Area
- National Wetlands Inventory**
- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- CTDEP Wetlands**
- Ipswich mucky peat
- Raypol silt loam
- Ridgebury, Leicester, and Whitman soils, extremely stony
- Scarboro muck
- Timakwa and Natchaug soils
- Water
- FEMA Floodplains**
- 0.2% Annual Flood Hazard
- AE



Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).

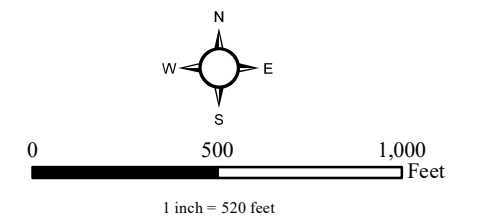


Figure 2c
Environmental Resources Map Segment 3
East Pattagansett Road to Society Road
East Lyme, CT



Legend

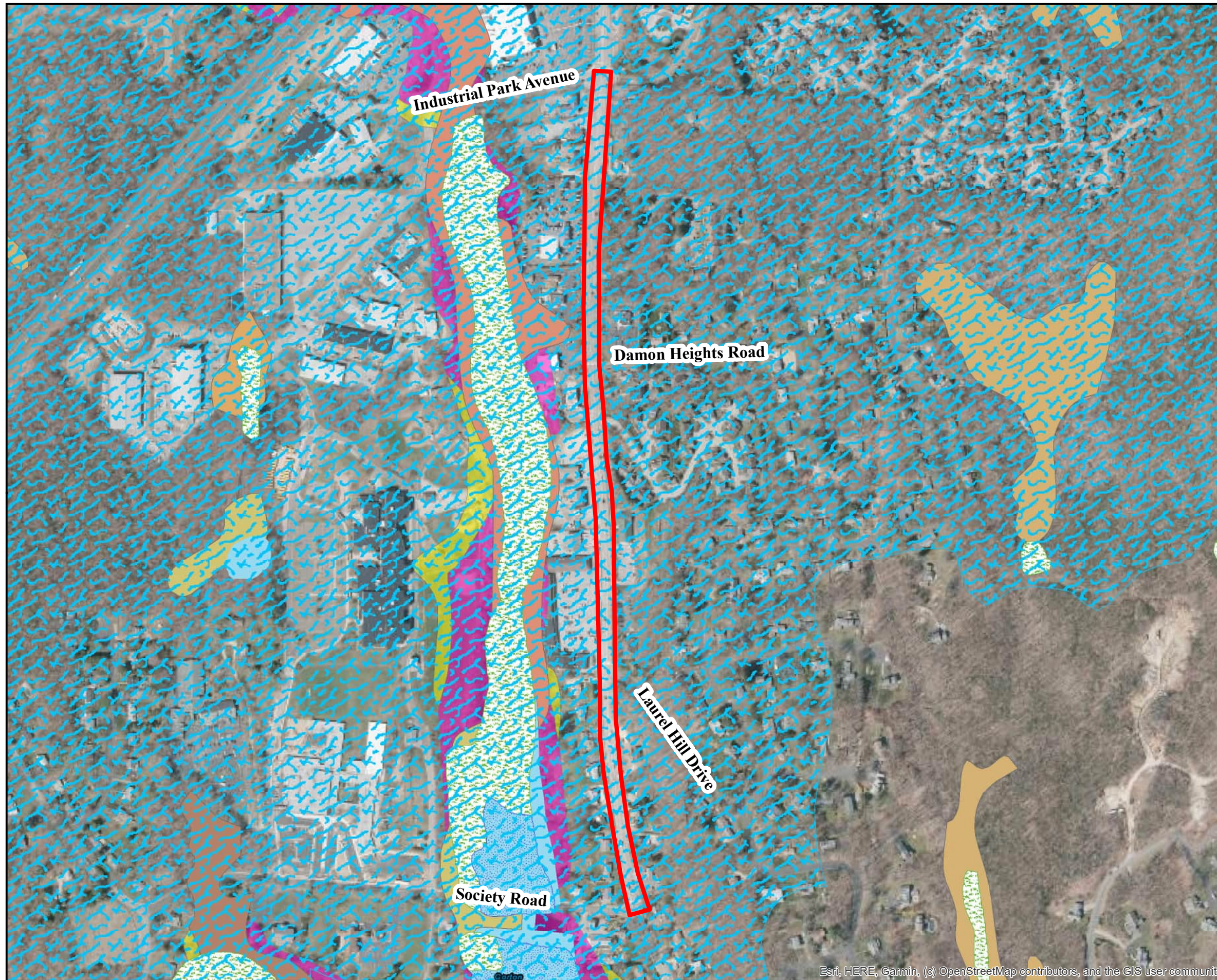
- Site Locus - Segment 3
- Aquifer Protection Area
- Coastal Area Boundary
- Natural Diversity Database Area
- National Wetlands Inventory**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- CTDEP Wetlands**
- Raypol silt loam
- Ridgebury, Leicester, and Whitman soils, extremely stony
- Scarborough muck
- Timakwa and Natchaug soils
- Walpole sandy loam
- Water
- FEMA Floodplains**
- 0.2% Annual Flood Hazard
- AE



Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).

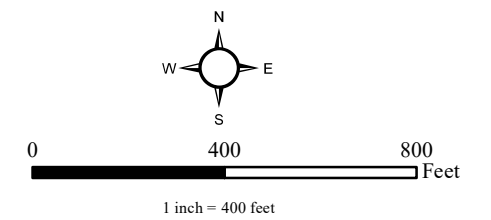


Figure 2d
Environmental Resources Map Segment 4
Society Road to Industrial Park Road
East Lyme, CT



Legend

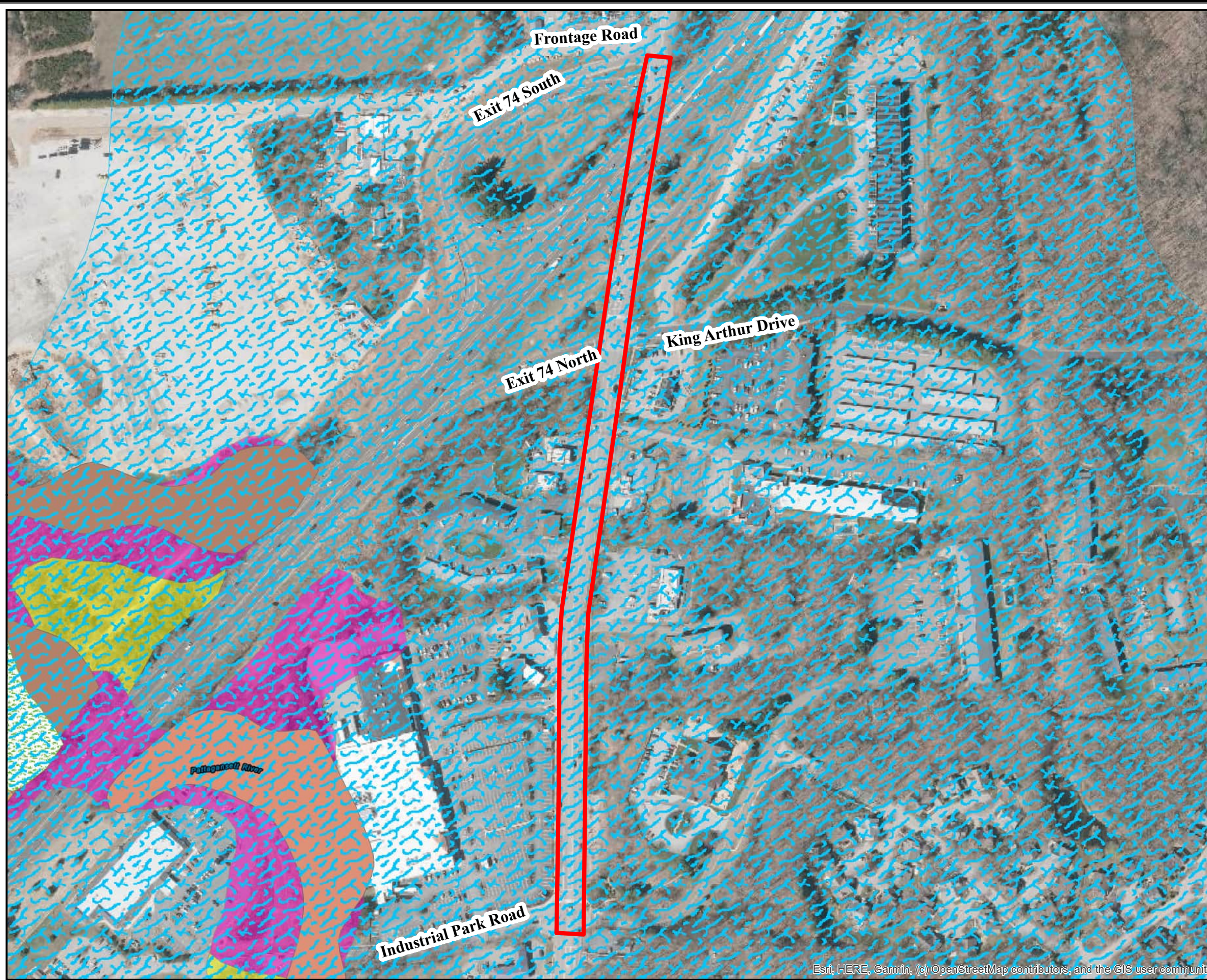
- Site Locus - Segment 4
- Aquifer Protection Area
- National Wetlands Inventory**
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- CTDEP Wetlands**
- Ridgebury, Leicester, and Whitman soils, extremely stony
- Rippowam fine sandy loam
- Scarboro muck
- Timakwa and Natchaug soils
- Walpole sandy loam
- Water
- FEMA Floodplains**
- 0.2% Annual Flood Hazard
- AE



Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).

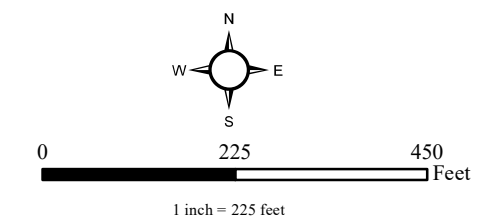


Figure 2e
Environmental Resources Map Segment 5
Industrial Park Road to Frontage Road
East Lyme, CT



Legend

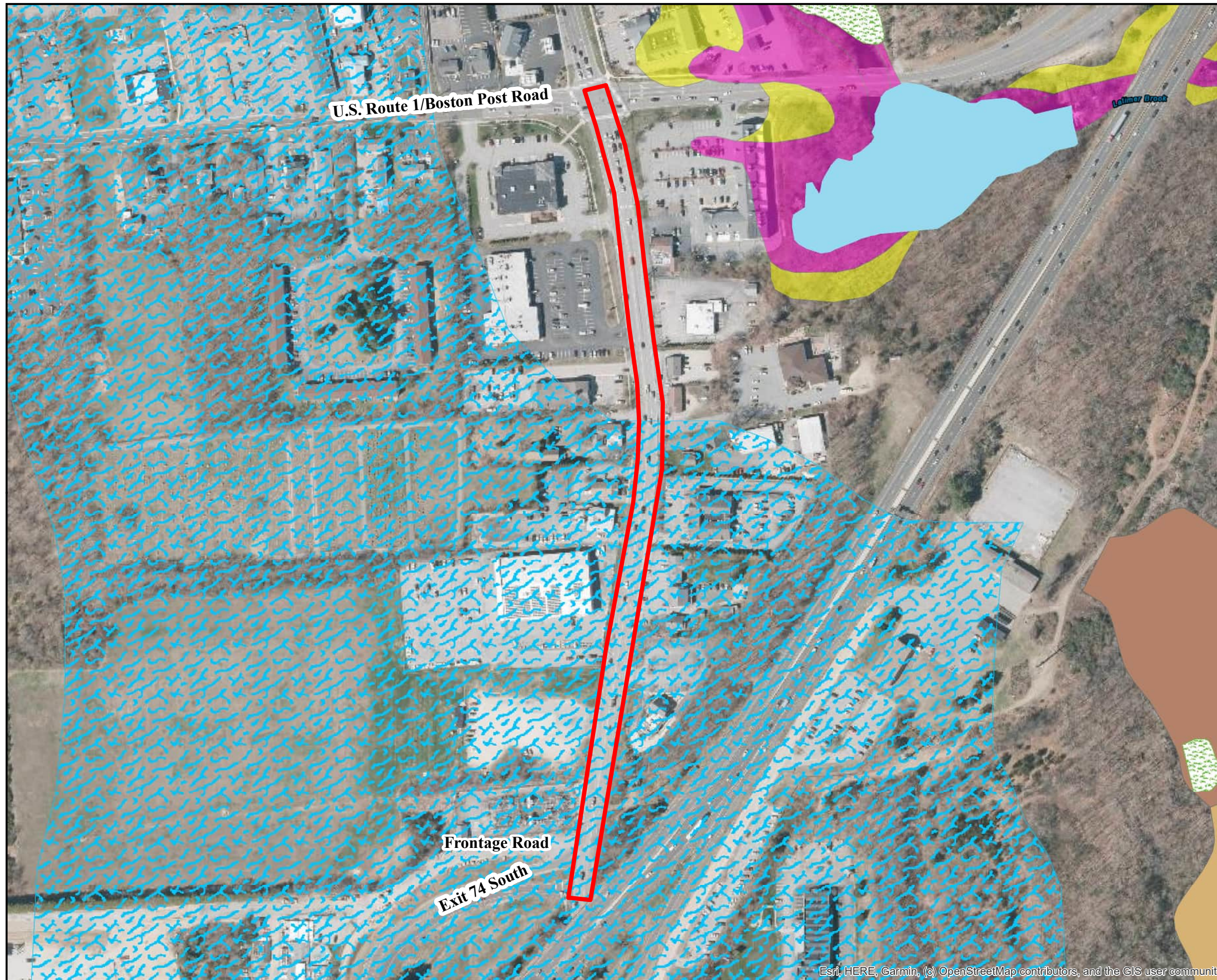
- Site Locus - Segment 5
- Aquifer Protection Area
- National Wetlands Inventory**
- Freshwater Forested/Shrub Wetland
- CTDEP Wetlands**
- Rippowam fine sandy loam
- Scarboro muck
- Timakwa and Natchaug soils
- FEMA Floodplains**
- 0.2% Annual Flood Hazard
- AE



Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).

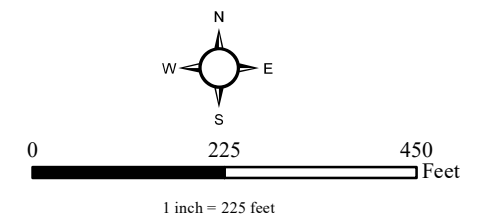


Figure 2f
Environmental Resources Map Segment 6
Frontage Road to U.S. Route 1
East Lyme, CT



Legend

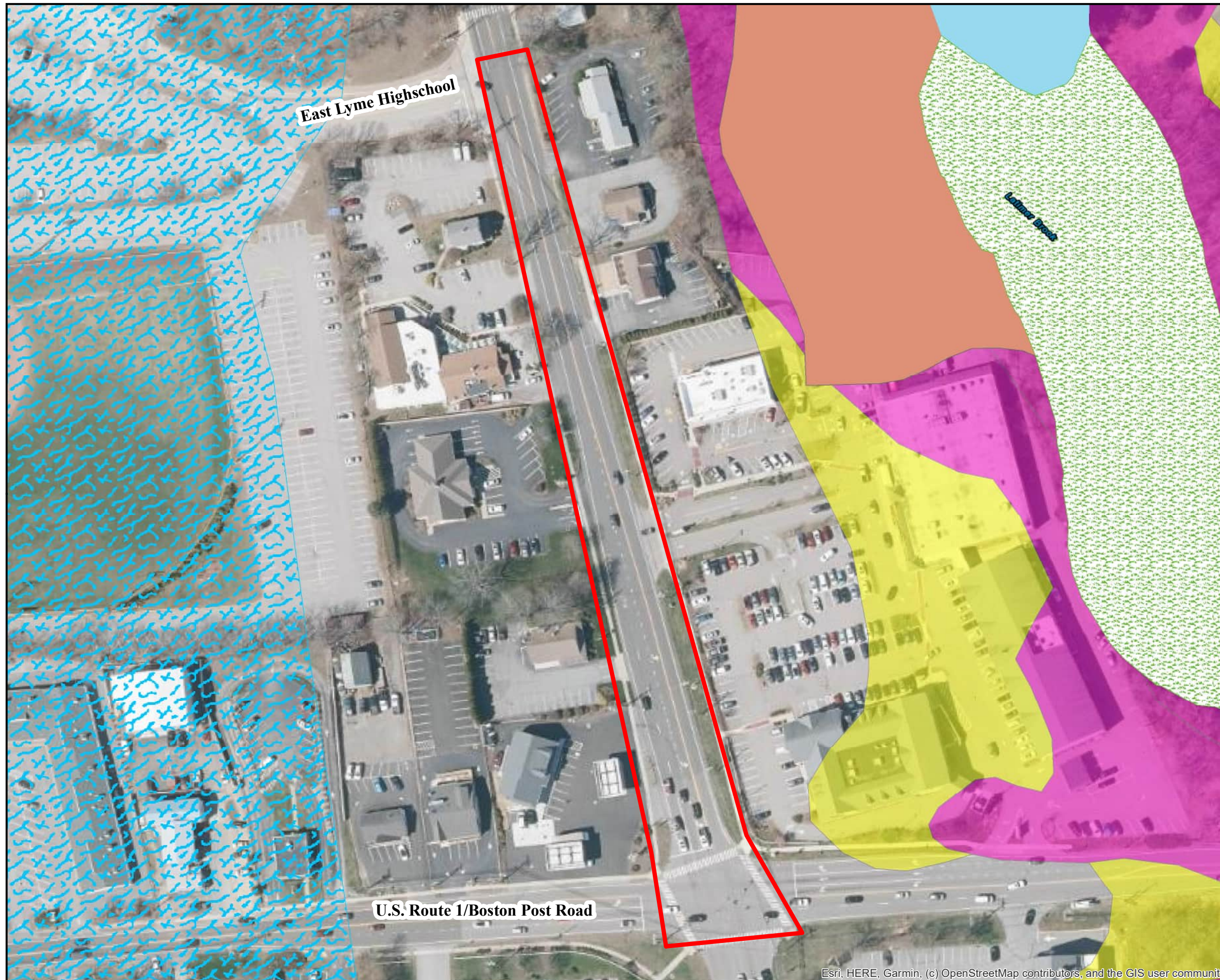
- Site Locus Segment 6
- Aquifer Protection Area
- National Wetlands Inventory**
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- CTDEP Wetlands**
- Ridgebury, Leicester, and Whitman soils, extremely stony
- Rippowam fine sandy loam
- Timakwa and Natchaug soils
- Water
- FEMA Floodplains**
- 0.2% Annual Flood Hazard
- AE



Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).

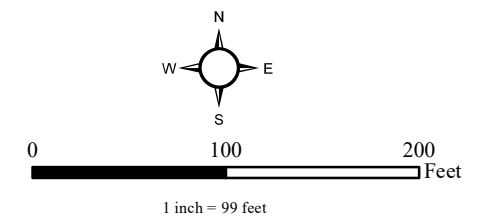


Figure 2g
Environmental Resources Map Segment 7
U.S. Route 1 to East Lyme High School
East Lyme, CT



Legend

- Site Locus - Segment 7
- Aquifer Protection Area
- National Wetlands Inventory**
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- CTDEP Wetlands**
- Rippowam fine sandy loam
- FEMA Floodplains**
- 0.2% Annual Flood Hazard
- AE



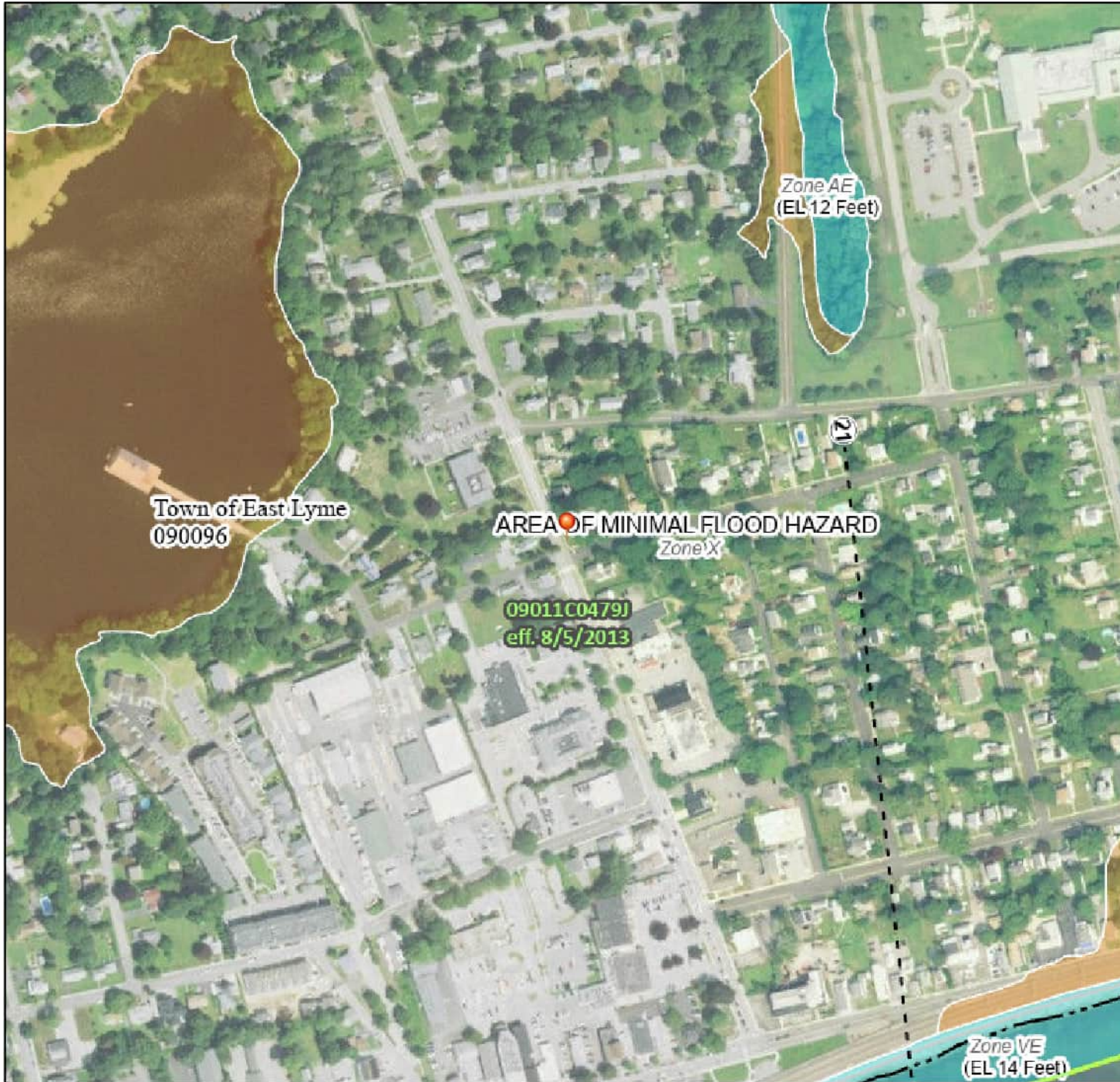
Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).



National Flood Hazard Layer FIRMMette



72°11'56"W 41°19'51"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

72°11'18"W 41°19'24"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

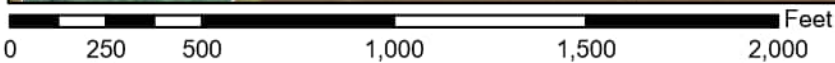
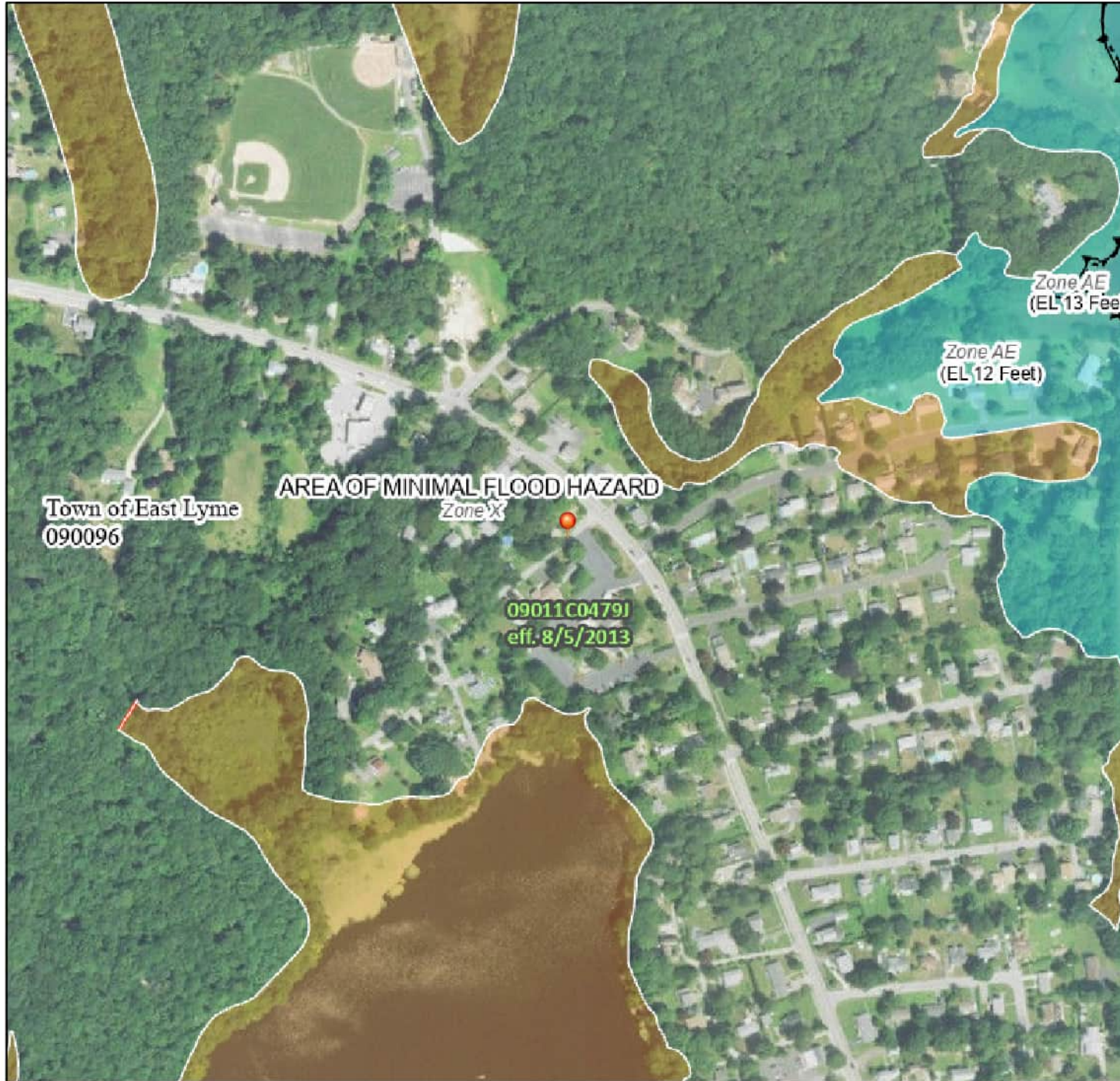
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **6/12/2023 at 2:40 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette



72°12'7"W 41°20'8"N



1:6,000

72°11'30"W 41°19'41"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
	Hydrographic Feature	
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

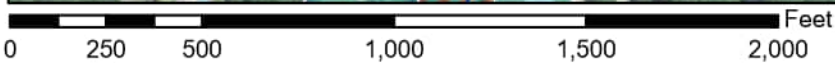
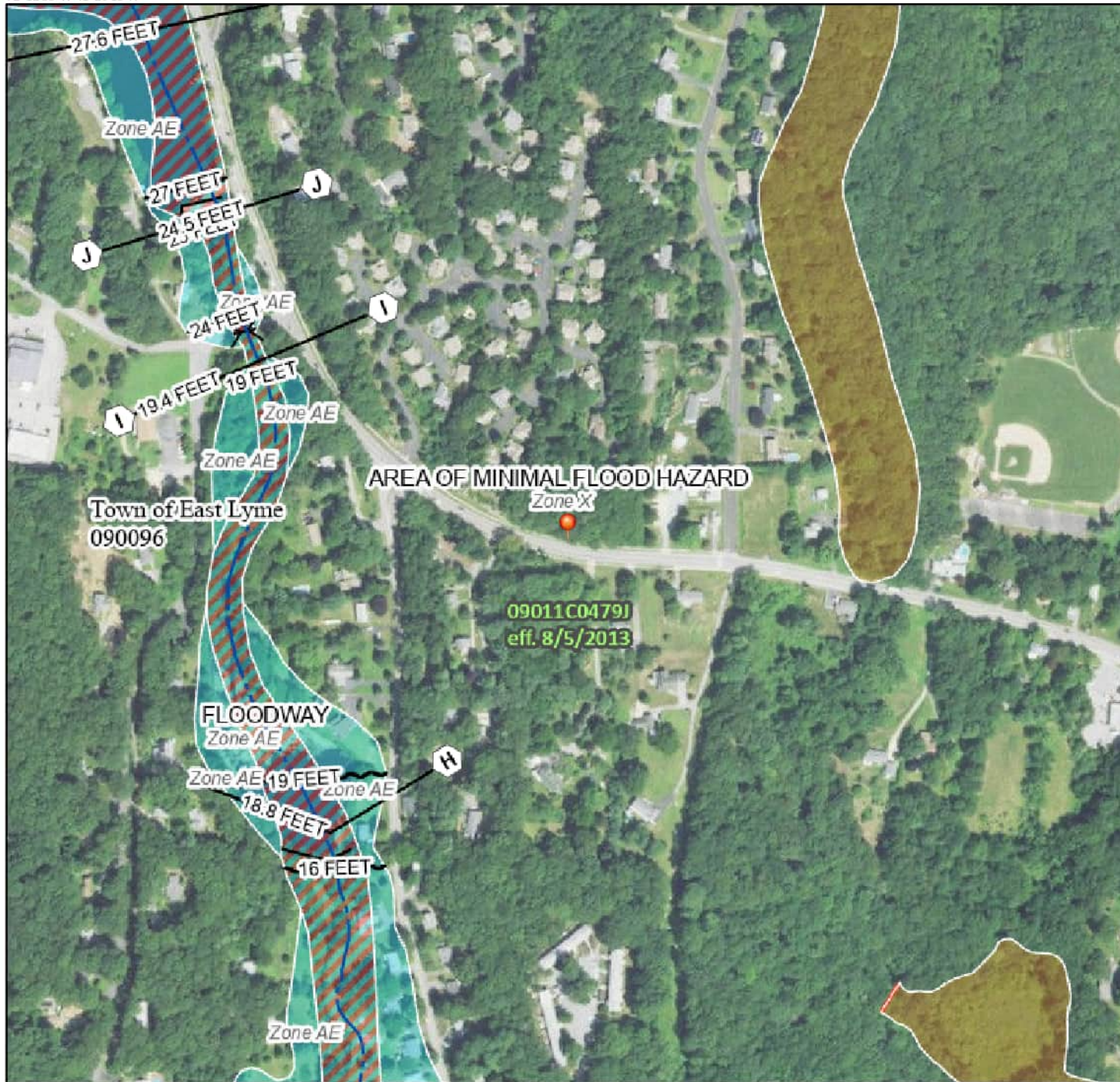
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **6/12/2023 at 2:45 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette



72°12'33"W 41°20'15"N



1:6,000

72°11'55"W 41°19'48"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		29.2 Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		17.5 Coastal Transect
		312 Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 2:45 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette



72°12'46"W 41°20'33"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
OTHER FEATURES		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
OTHER FEATURES		Hydrographic Feature
		Digital Data Available
MAP PANELS		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

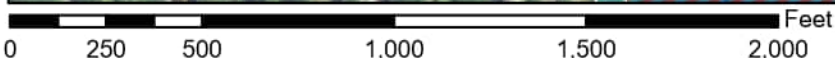
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 3:04 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette



72°12'52"W 41°20'53"N



1:6,000 72°12'15"W 41°20'26"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway	

		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS OF FLOOD HAZARD	NO SCREEN	Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall

		Cross Sections with 1% Annual Chance Water Surface Elevation
		Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

OTHER AREAS	Digital Data Available
	No Digital Data Available
	Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

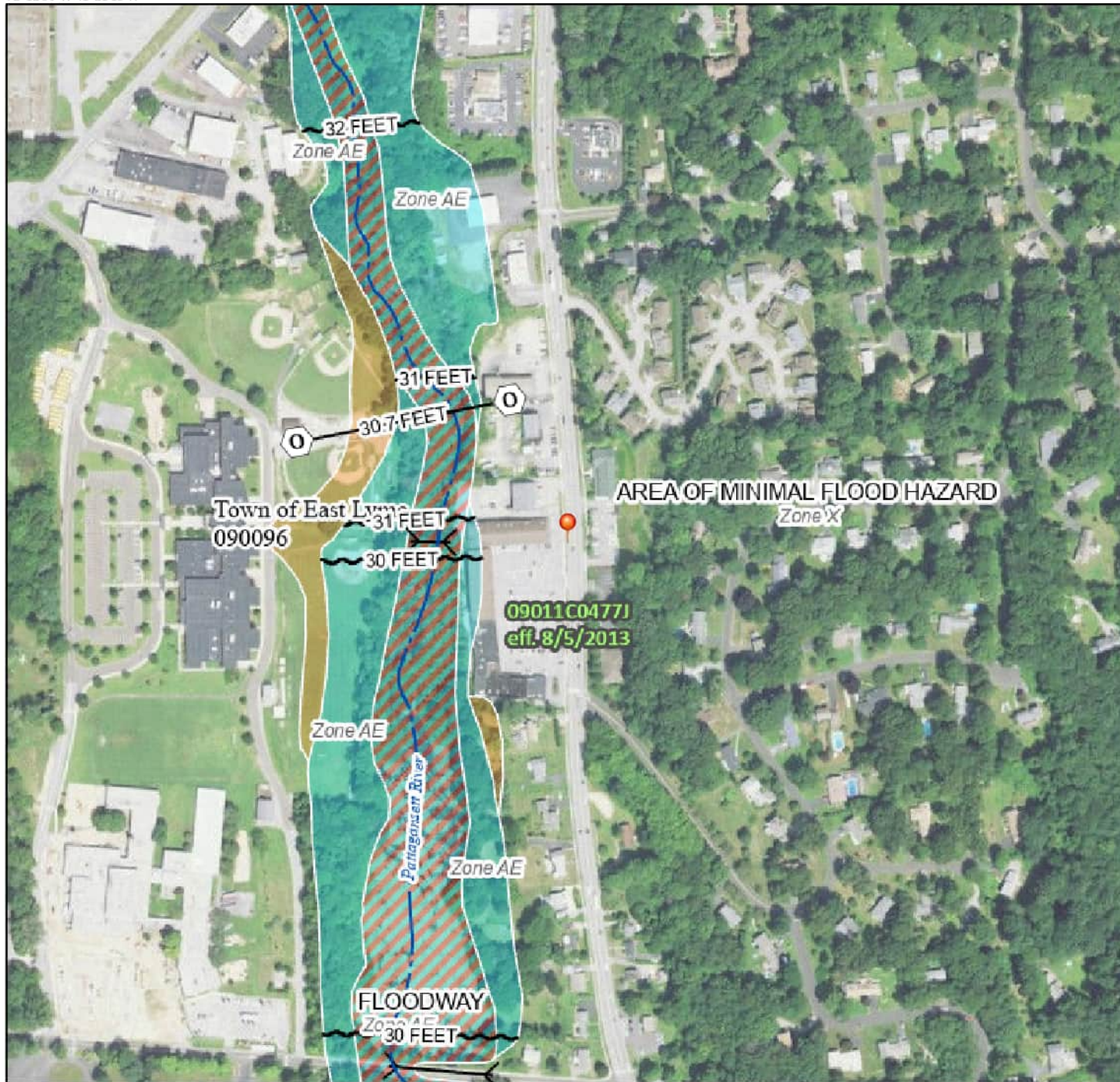
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 3:05 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette



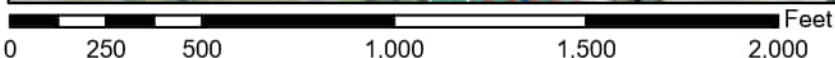
72°12'56"W 41°21'15"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		29.2 Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



1:6,000

72°12'18"W 41°20'48"N

Basemap Imagery Source: USGS National Map 2023

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

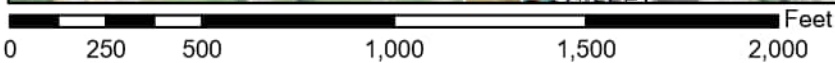
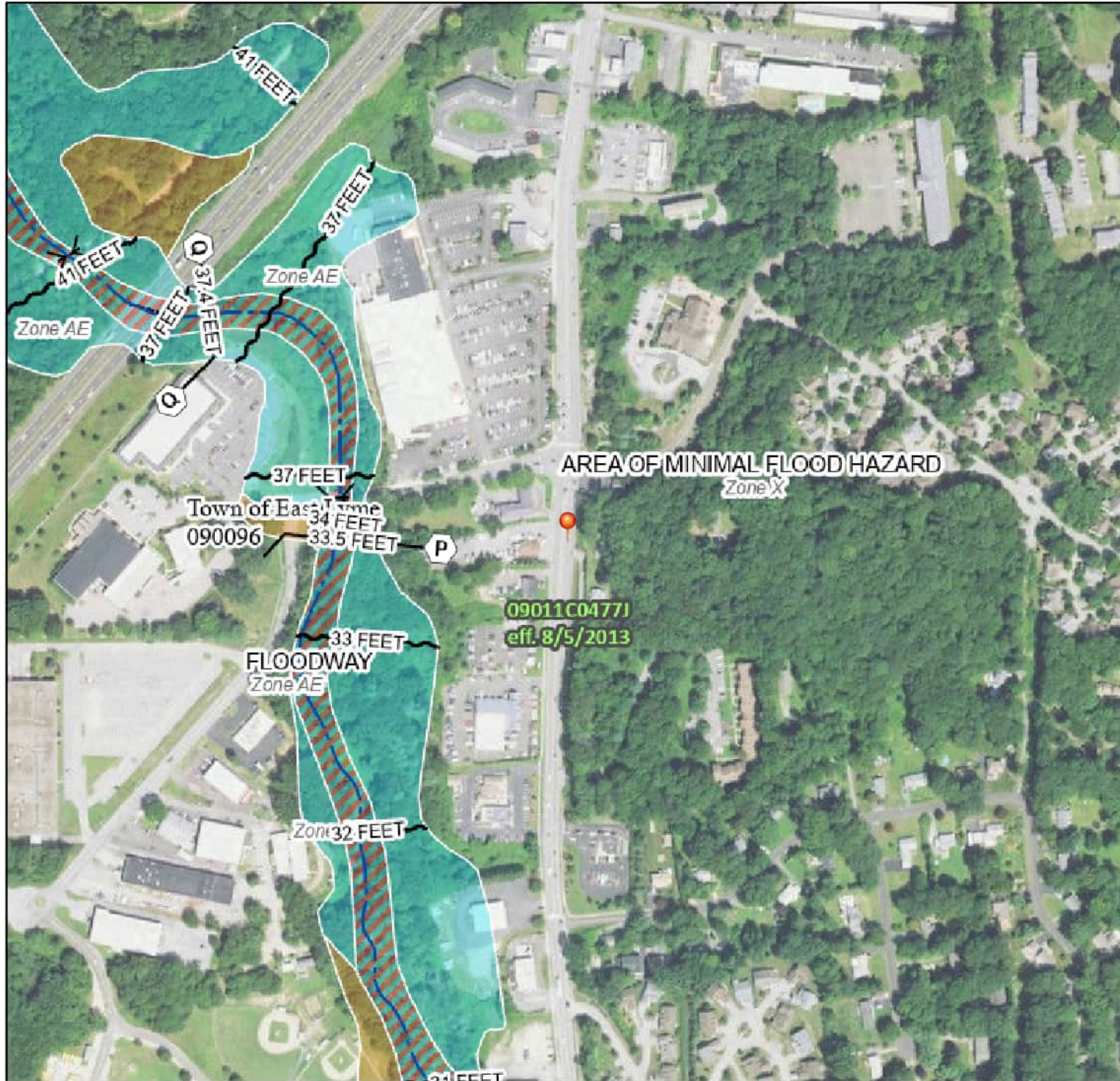
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 3:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette



72°12'56"W 41°21'33"N



1:6,000

72°12'18"W 41°21'16"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		29.2 Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 3:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette



72°12'55"W 41°21'46"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		29.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 3:18 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet

1:6,000

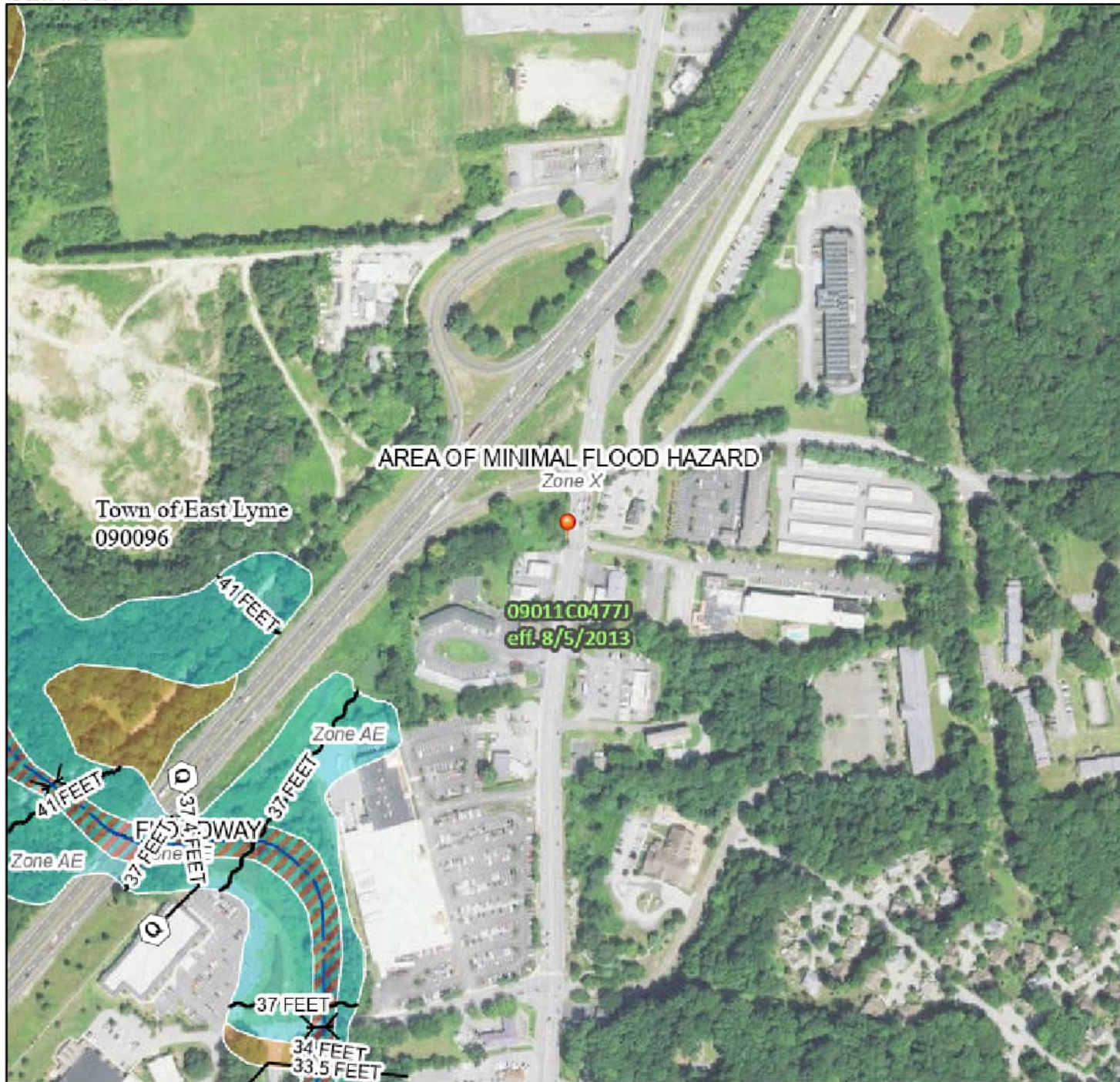
72°12'18"W 41°21'19"N

Basemap Imagery Source: USGS National Map 2023

National Flood Hazard Layer FIRMMette



72°12'55"W 41°21'46"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 3:18 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

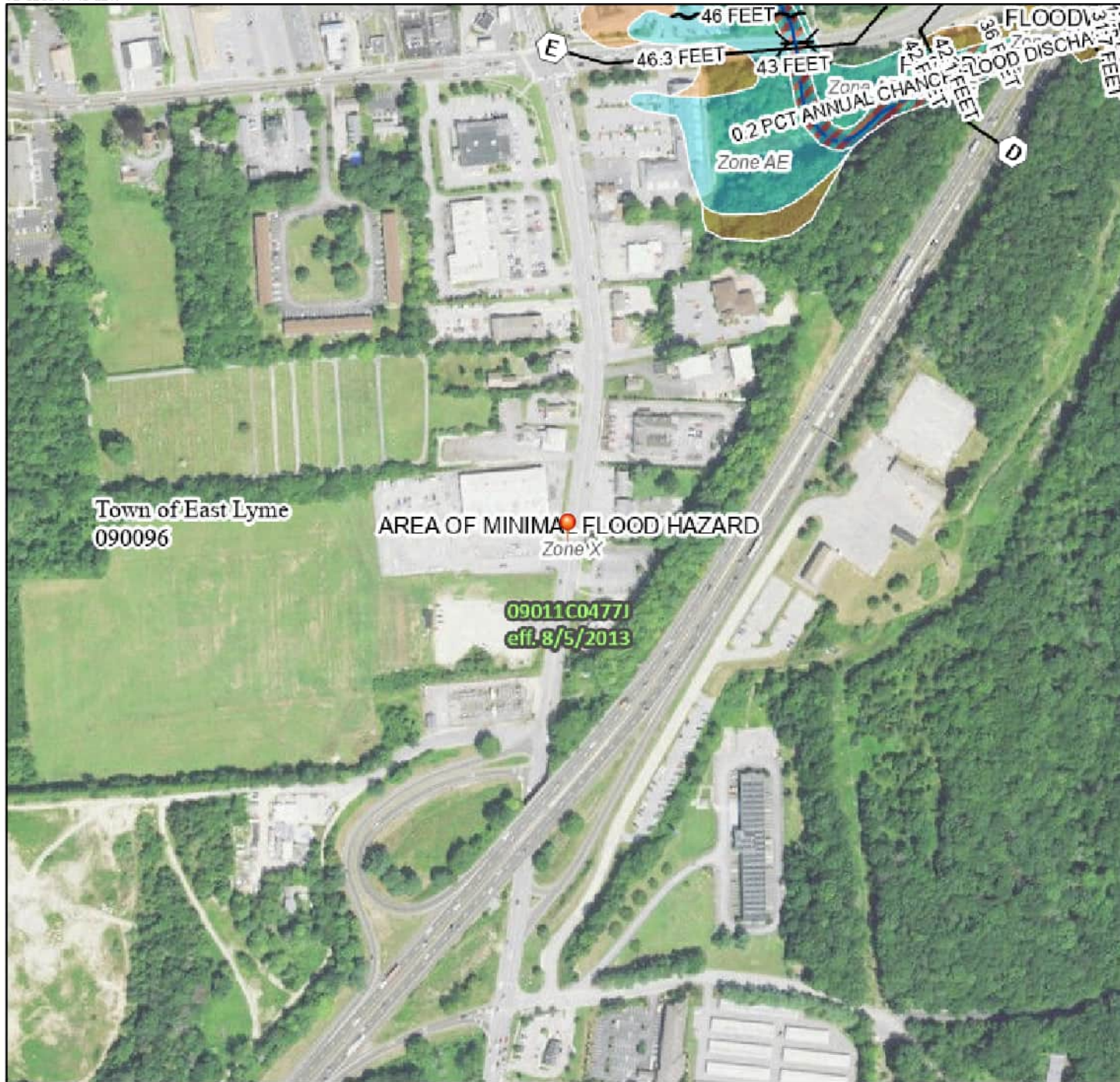
72°12'18"W 41°21'19"N

Basemap Imagery Source: USGS National Map 2023

National Flood Hazard Layer FIRMMette



72°12'53"W 41°22'N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

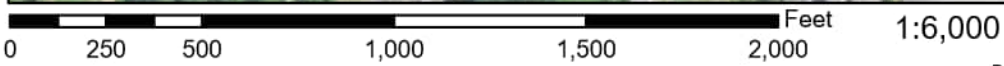
SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		29.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
	Profile Baseline	
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **6/12/2023 at 3:22 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



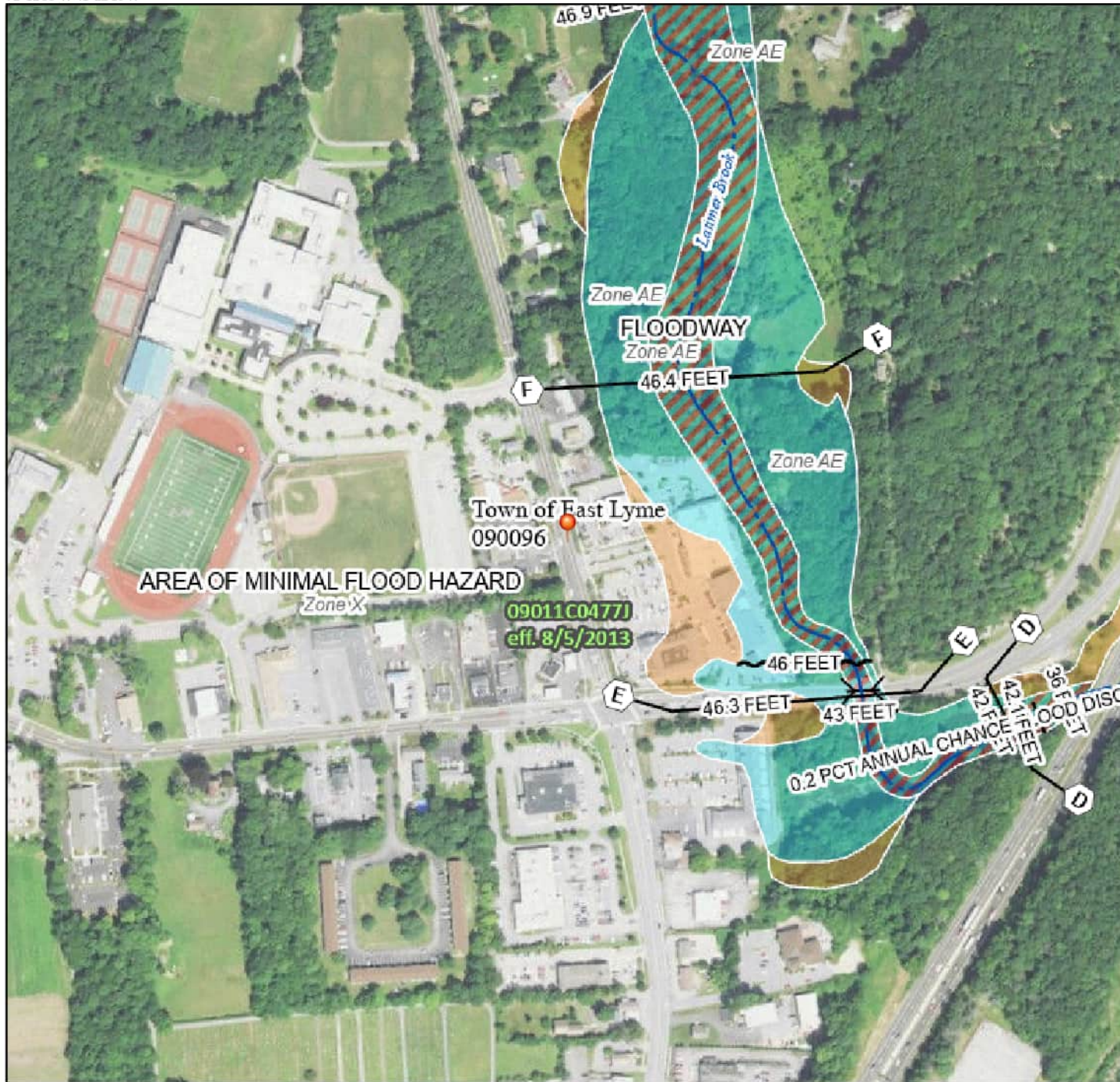
72°12'15"W 41°21'33"N

Basemap Imagery Source: USGS National Map 2023

National Flood Hazard Layer FIRMMette



72°12'55"W 41°22'16"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/12/2023 at 3:23 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

72°12'17"W 41°21'49"N

Basemap Imagery Source: USGS National Map 2023

APPENDIX E
CONSTRUCTION COST ESTIMATES

Bike Lanes and Pocket Parking
Route 161 - Route 156 (Main Street) to Hope Street
Construction Cost Estimate

Major and Minor Contract Items

Item No.	Item	Unit	Quantity	Unit \$	Total Cost
0202000	EARTH EXCAVATION	CY	720	\$ 25.00	\$ 18,000.00
0209001	FORMATION OF SUBGRADE	SY	32	\$ 3.30	\$ 105.60
0304002	PROCESSED AGGREGATE BASE	CY	11	\$ 60.00	\$ 660.00
0406170	HMA S1	TON	7	\$ 150.00	\$ 1,050.00
0406171	HMA S0.5	TON	7	\$ 128.00	\$ 896.00
0406236A	MATERIAL FOR TACK COAT	GAL	3	\$ 8.00	\$ 24.00
0586600	RESET CATCH BASIN	EA	5	\$ 1,500.00	\$ 7,500.00
0813012	5" X 18" GRANITE STONE CURBING	LF	140	\$ 42.00	\$ 5,880.00
0921001A	CONCRETE SIDEWALK	SF	380	\$ 14.00	\$ 5,320.00
0921005A	CONCRETE SIDEWALK RAMP	SF	285	\$ 28.00	\$ 7,980.00
0921048A	DETECTABLE WARNING STRIP	EA	2	\$ 72.00	\$ 144.00
0970006A	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	ALL	1	\$ 12,500.00	\$ 12,500.00
0970007A	TRAFFICPERSON (UNIFORMED FLAGGER)	HR	80	\$ 75.00	\$ 6,000.00
Major Items Subtotal					\$ 66,060
Minor Items Subtotal					\$ 13,212
Major and Minor Contract Items Subtotal (A + B)					\$ 79,272
Other Item Allowances					
0971001A	M & P of Traffic (suggested 2% - 5%)	2	% of Line "C"		\$ 1,585
0975004	Mobilization (suggested 4% - 10%)	5	% of Line "C"		\$ 3,964
0980001	Construction Staking (suggested 1% - 2%)	1	% of Line "C"		\$ 793
Other Items Subtotal					\$ 6,342
CONTRACT SUBTOTAL (C + D)					\$ 85,614
Inflation Costs (Simple Method)					
Date of Estimate (provide date of estimate)		Mar-23			
Anticipated Bid Date (provide anticipated bid date)					
Annual Inflation (4% annually)					
Inflation Subtotal					\$ -
TOTAL CONTRACT COST ESTIMATE (E + F) (Rounded to nearest \$1000)					\$ 86,000

LOT/CP Project Costs Summary

Contract Cost Estimate (Line "G")		\$ 86,000
Contingencies	25%	\$ 21,500
Incidentals	20%	\$ 17,200
ROW	LS	\$ -
Utilities	LS	\$ -
TOTAL PROJECT COST		\$ 124,700

Roundabout
Route 161 at East Pattagansett Road
Construction Cost Estimate

Major and Minor Contract Items

Item No.	Item	Unit	Quantity	Unit \$	Total Cost
0202000	EARTH EXCAVATION	CY	2470	\$ 25.00	\$ 61,750.00
0202529A	CUT BITUMINOUS CONCRETE PAVEMENT	LF	150	\$ 4.00	\$ 600.00
0209001	FORMATION OF SUBGRADE	SY	3690	\$ 3.40	\$ 12,546.00
0212000	SUBBASE	CY	1230	\$ 52.00	\$ 63,960.00
0304002	PROCESSED AGGREGATE BASE	CY	440	\$ 60.00	\$ 26,400.00
0406170	HMA S1	TON	916	\$ 150.00	\$ 137,400.00
0406171	HMA S0.5	TON	628	\$ 123.00	\$ 77,244.00
0406236A	MATERIAL FOR TACK COAT	GAL	272	\$ 8.00	\$ 2,176.00
0406999A	ASPHALT ADJUSTMENT COST	EST	4	\$ 10,000.00	\$ 40,000.00
0601020	STAMPED CONCRETE	SF	3380	\$ 27.00	\$ 91,260.00
0811001	CONCRETE CURBING	LF	3110	\$ 42.00	\$ 130,620.00
0921001A	CONCRETE SIDEWALK	SF	5390	\$ 14.00	\$ 75,460.00
0921005A	CONCRETE SIDEWALK RAMP	SF	425	\$ 28.00	\$ 11,900.00
921013	CONCRETE DRIVEWAY APRON (AT ROUNDABOUT)	SF	2924	\$ 19.00	\$ 55,556.00
0921048A	DETECTABLE WARNING STRIP	EA	16	\$ 72.00	\$ 1,152.00
0944000A	FURNISHING AND PLACING TOPSOIL	SY	1570	\$ 7.50	\$ 11,775.00
0950019	TURF ESTABLISHMENT - LAWN	SY	1570	\$ 3.00	\$ 4,710.00
0970006A	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	ALL	1	\$ 24,500.00	\$ 24,500.00
0970007A	TRAFFICPERSON (UNIFORMED FLAGGER)	HR	137	\$ 75.00	\$ 10,275.00
1118012A	REMOVAL AND/OR RELOCATINO OF TRAFFIC SIGNAL EQUIPMENT	LS	1	\$ 8,000.00	\$ 8,000.00
	DRAINAGE IMPROVEMENTS	EST	1	\$ 160,000.00	\$ 160,000.00
Major Items Subtotal					\$ 1,007,284
Minor Items Subtotal					\$ 201,457
Major and Minor Contract Items Subtotal (A + B)					\$ 1,208,741
Other Item Allowances					
0971001A	M & P of Traffic (suggested 2% - 5%)	2	% of Line "C"		\$ 24,175
0975004	Mobilization (suggested 4% - 10%)	5	% of Line "C"		\$ 60,437
0980001	Construction Staking (suggested 1% - 2%)	1	% of Line "C"		\$ 12,087
Other Items Subtotal					\$ 96,699
CONTRACT SUBTOTAL (C + D)					\$ 1,305,440
Inflation Costs (Simple Method)					
Date of Estimate (provide date of estimate)		Mar-23			
Anticipated Bid Date (provide anticipated bid date)					
Annual Inflation (4% annually)					
Inflation Subtotal					\$ -
TOTAL CONTRACT COST ESTIMATE (E + F) (Rounded to nearest \$1000)					\$ 1,305,000
LOTICIP Project Costs Summary					
Contract Cost Estimate (Line "G")					\$ 1,305,000
Contingencies					\$ 326,250
Incidentals					\$ 130,500
ROW					\$ -
Utilities					\$ -
TOTAL PROJECT COST					\$ 1,761,750

Shared Used Path and Retaining Walls
Route 161 at Gorton Pond
Construction Cost Estimate

Major and Minor Contract Items

Item No.	Item	Unit	Quantity	Unit \$	Total Cost
0202000	EARTH EXCAVATION	CY	680	\$ 25.00	\$ 17,000.00
0201009	REMOVAL OF TREE - 12" TO 24" CALIPER	EA	11	\$ 1,200.00	\$ 13,200.00
0601445A	EMBANKMENT WALL	LS	1	\$ 900,000.00	\$ 900,000.00
0686000.XXX	CULVERT HEADWALL REBUILT	EA	3	\$ 10,000.00	\$ 30,000.00
0905002	REBUILD STONE WALL	LF	95	\$ 86.00	\$ 8,170.00
0921001A	CONCRETE SIDEWALK	SF	16960	\$ 14.00	\$ 237,440.00
0921005A	CONCRETE SIDEWALK RAMP	SF	125	\$ 28.00	\$ 3,500.00
0921048A	DETECTABLE WARNING STRIP	EA	2	\$ 72.00	\$ 144.00
0922501	BITUMINOUS CONCRETE DRIVEWAY	SY	28	\$ 65.00	\$ 1,820.00
0944000A	FURNISHING AND PLACING TOPSOIL	SY	560	\$ 7.50	\$ 4,200.00
0950019	TURF ESTABLISHMENT - LAWN	SY	560	\$ 3.00	\$ 1,680.00
0970006A	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	ALL	1	\$ 12,500.00	\$ 12,500.00
0970007A	TRAFFICPERSON (UNIFORMED FLAGGER)	HR	80	\$ 75.00	\$ 6,000.00
Major Items Subtotal					\$ 1,235,654
Minor Items Subtotal					\$ 247,131
Major and Minor Contract Items Subtotal (A + B)					\$ 1,482,785
Other Item Allowances					
0971001A	M & P of Traffic (suggested 2% - 5%)	2	% of Line "C"		\$ 29,656
0975004	Mobilization (suggested 4% - 10%)	5	% of Line "C"		\$ 74,139
0980001	Construction Staking (suggested 1% - 2%)	1	% of Line "C"		\$ 14,828
Other Items Subtotal					\$ 118,623
CONTRACT SUBTOTAL (C + D)					\$ 1,601,408
Inflation Costs (Simple Method)					
Date of Estimate (provide date of estimate)		Mar-23			
Anticipated Bid Date (provide anticipated bid date)					
Annual Inflation (4% annually)					
Inflation Subtotal					\$ -
TOTAL CONTRACT COST ESTIMATE (E + F) (Rounded to nearest \$1000)					\$ 1,601,000
LOTICIP Project Costs Summary					
Contract Cost Estimate (Line "G")					\$ 1,601,000
Contingencies					\$ 400,250
Incidentals					\$ 320,200
ROW					\$ -
Utilities					\$ 6,000
TOTAL PROJECT COST					\$ 2,327,450

Shared Use Path, Bus Shelters, and Pedestrian Refuge Island
Route 161 - Frontage Road to U.S. Route 1 (Boston Post Road)
Construction Cost Estimate

Major and Minor Contract Items

Item No.	Item	Unit	Quantity	Unit \$	Total Cost
0202000	EARTH EXCAVATION	CY	710	\$ 25.00	\$ 17,750.00
0202529A	CUT BITUMINOUS CONCRETE PAVEMENT	LF	310	\$ 4.00	\$ 1,240.00
0209001	FORMATION OF SUBGRADE	SY	245	\$ 3.40	\$ 833.00
0212000	SUBBASE	CY	80	\$ 52.00	\$ 4,160.00
0304002	PROCESSED AGGREGATE BASE	CY	45	\$ 60.00	\$ 2,700.00
0406170	HMA S1	TON	85	\$ 150.00	\$ 12,750.00
0406171	HMA S0.5	TON	60	\$ 123.00	\$ 7,380.00
0406236A	MATERIAL FOR TACK COAT	GAL	25	\$ 8.00	\$ 200.00
0406999A	ASPHALT ADJUSTMENT COST	EST	1	\$ 10,000.00	\$ 10,000.00
0601020	STAMPED CONCRETE	SF	590	\$ 27.00	\$ 15,930.00
0811001	CONCRETE CURBING	LF	490	\$ 42.00	\$ 20,580.00
0921001A	CONCRETE SIDEWALK	SF	1830	\$ 14.00	\$ 25,620.00
0922001	BITUMINOUS CONCRETE SIDEWALK	SY	1370	\$ 61.00	\$ 83,570.00
0922501	BITUMINOUS CONCRETE DRIVEWAY	SY	465	\$ 67.00	\$ 31,155.00
0921048A	DETECTABLE WARNING STRIP	EA	6	\$ 72.00	\$ 432.00
0944000A	FURNISHING AND PLACING TOPSOIL	SY	1190	\$ 7.50	\$ 8,925.00
0947303	BUS SHELTER - TYPE - A	EA	2	\$ 33,000.00	\$ 66,000.00
0950019	TURF ESTABLISHMENT - LAWN	SY	1190	\$ 3.00	\$ 3,570.00
0970006A	TRAFFICPERSON (MUNICIPAL POLICE OFFICER)	ALL	1	\$ 24,500.00	\$ 24,500.00
0970007A	TRAFFICPERSON (UNIFORMED FLAGGER)	HR	137	\$ 75.00	\$ 10,275.00
TRAFFIC SIGNAL	TRAFFIC SIGNAL MODIFICATIONS	EST	1	\$ 80,000.00	\$ 80,000.00
DRAINAGE	DRAINAGE	EST	1	\$ 15,500.00	\$ 15,500.00
Major Items Subtotal					\$ 443,070
Minor Items Subtotal					\$ 88,614
Major and Minor Contract Items Subtotal (A + B)					\$ 531,684
Other Item Allowances					
0971001A M & P of Traffic (suggested 2% - 5%)		2	% of Line "C"	\$	10,634
0975004 Mobilization (suggested 4% - 10%)		5	% of Line "C"	\$	26,584
0980001 Construction Staking (suggested 1% - 2%)		1	% of Line "C"	\$	5,317
Other Items Subtotal					\$ 42,535
CONTRACT SUBTOTAL (C + D)					\$ 574,219
Inflation Costs (Simple Method)					
Date of Estimate (provide date of estimate)		Mar-23			
Anticipated Bid Date (provide anticipated bid date)					
Annual Inflation (4% annually)					
Inflation Subtotal					\$ -
TOTAL CONTRACT COST ESTIMATE (E + F) (Rounded to nearest \$1000)					\$ 574,000
LOT/CP Project Costs Summary					
Contract Cost Estimate (Line "G")					\$ 574,000
Contingencies					\$ 143,500
Incidentals					\$ 57,400
ROW					\$ -
Utilities					\$ -
TOTAL PROJECT COST					\$ 774,900

APPENDIX F
BICYCLE & PEDESTRIAN
FUNDING OPPORTUNITIES

Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds

September 9, 2022

This table indicates potential eligibility for pedestrian and bicycle activities and projects under U.S. Department of Transportation surface transportation funding programs. Activities and projects need to meet program eligibility requirements. See notes and basic program requirements below, with links to program information. Project sponsors should integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects.

Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds																													
Key: \$ = Activity may be eligible. Restrictions may apply, see program notes and guidance. ~\$ = Eligible, but not competitive unless part of a larger project.																													
	OST Programs							Federal Transit					NHTSA		Federal Highway Administration														
Activity or Project Type	RAISE	INFRA	RCP	SS4A	Thrive	RRIF	TIFIA	FTA	ATI	TOD	AoPP	402	405	BFP BIP BRR	CRP	CMAQ	HSIP	RHCP	NHPP	PRO TECT	STBG	TA	RTP	SRTS	PLAN	NSBP	ELTTP	TTP	TTPSF
Access enhancements to public transportation (benches, bus pads)	\$	\$	\$	\$		~\$	~\$	\$	\$		~\$				\$	\$			\$	\$	\$	\$				\$	\$	\$	
Americans with Disabilities Act (ADA)/504 Self Evaluation / Transition Plan				\$	TA					\$	\$				\$						\$	\$	\$		\$		\$	\$	
Barrier removal for ADA compliance	\$	\$	\$	\$		~\$	~\$	\$	\$	~\$	~\$			\$	\$				\$	\$	\$	\$	\$	\$		\$	\$	\$	
Bicycle plans			~\$	\$				\$		\$	\$				\$					\$	\$	\$		\$	\$		\$	\$	\$
Bicycle helmets (project or training related)												\$									\$	\$SRTS		\$				\$	
Bicycle helmets (safety promotion)																					\$	\$SRTS		\$				\$	
Bicycle lanes on road	~\$	~\$	\$	\$		~\$	~\$	\$	\$		~\$				\$	\$	\$	\$	\$	\$	\$	\$		\$			\$	\$	\$
Bicycle parking (see Bicycle Parking Solutions)	~\$	~\$	\$	\$		~\$	\$	\$	\$		~\$				\$	\$			\$		\$	\$	\$		\$	\$	\$		
Bike racks on transit	~\$		\$	~\$			~\$	\$	\$		~\$				\$	\$					\$	\$					\$	\$	
Bicycle repair station (air pump, simple tools)	~\$		\$	~\$		~\$	~\$	\$	\$						\$						\$	\$					\$	\$	
Bicycle share (capital and equipment; not operations)	~\$	~\$	\$	~\$		~\$	~\$	\$	\$						\$	\$			\$		\$	\$					\$	\$	
Bicycle storage or service centers (example: at transit hubs)	~\$		\$	~\$		~\$	\$	\$	\$						\$	\$					\$	\$					\$	\$	
Bridges / overcrossings for pedestrians and/or bicyclists	\$	\$	\$	\$		~\$	~\$	\$	\$					\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$
Bus shelters and benches	\$	\$	\$	~\$		~\$	~\$	\$	\$						\$	\$			\$	\$	\$	\$				\$	\$	\$	
Coordinator positions (State or local) (limits on CMAQ and STBG)				\$							\$					\$					\$	\$SRTS		\$					\$
Community Capacity Building (develop organizational skills/processes)				\$	TA					\$	\$														\$			\$	
Crosswalks for pedestrians, pedestrian refuge islands (new or retrofit)	\$	\$	\$	\$		~\$	~\$	\$	\$						\$	~\$	\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$
Curb ramps	\$	\$	\$	\$		~\$	~\$	\$	\$					\$	\$	~\$	\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$
Counting equipment		\$	\$	\$			~\$	\$	\$								\$		\$		\$	\$	\$	\$	\$		\$	\$	\$
Data collection and monitoring for pedestrians and/or bicyclists	\$	\$	\$	\$			~\$	\$	\$	\$	\$				\$		\$		\$		\$	\$	\$	\$	\$		\$	\$	\$
Emergency and evacuation routes for pedestrians and/or bicyclists	\$	\$	\$	~\$			\$	\$	\$	~\$	~\$				\$				\$	\$	\$	\$	\$	\$			\$	\$	
Historic preservation (pedestrian and bicycle and transit facilities)	~\$		~\$	~\$		~\$	~\$	\$	\$		~\$				\$						\$	\$				\$	\$	\$	
Landscaping, streetscaping (pedestrian/bicycle route; transit access); related amenities (benches, water fountains); usually part of larger project	~\$	~\$	~\$	~\$		~\$	~\$	\$	\$	~\$	~\$				\$				~\$	\$	\$	\$					\$	\$	
Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)	\$	\$	\$	\$		~\$	~\$	\$	\$		~\$				\$	~\$	\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$
Maps (for pedestrians and/or bicyclists)				\$				\$	\$	\$	~\$				\$	\$					\$	\$		\$	\$		\$	\$	
Micromobility projects (including scooter share)	\$		\$	~\$		~\$	~\$				~\$				\$	\$					\$	\$					\$	\$	
Paved shoulders for pedestrian and/or bicyclist use	\$	~\$	\$	\$		~\$	~\$							\$	\$	\$	\$	\$	\$	\$	\$	\$		\$		\$	\$	\$	\$
Pedestrian plans	\$	~\$	~\$	\$				\$		\$	\$				\$					\$	\$	\$		\$	\$		\$	\$	\$
Rail at-grade crossings	\$	\$	\$	~\$		\$	\$	\$	\$						\$		\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$
Recreational trails	\$		\$	~\$			~\$													\$	\$	\$	\$			\$	\$	\$	
Resilience Improvements for pedestrians and bicyclists	\$	\$	\$	~\$		~\$	~\$			\$	~\$			~\$	~\$	~\$			\$	\$	\$	\$	\$	\$		\$	\$	\$	
Road Diets (pedestrian and bicycle portions)	\$	\$	\$	\$		~\$	\$								\$	\$	\$		\$	\$	\$	\$		\$		\$	\$	\$	\$

Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds																													
Key: \$ = Activity may be eligible. Restrictions may apply, see program notes and guidance. ~\$ = Eligible, but not competitive unless part of a larger project.																													
Activity or Project Type	OST Programs							Federal Transit					NHTSA		Federal Highway Administration														
	RAISE	INFRA	RCP	SS4A	Thrive	RRIF	TIFIA	FTA	ATI	TOD	AoPP	402	405	BFP BIP BRR	CRP	CMAQ	HSIP	RHCP	NHPP	PROTECT	STBG	TA	RTP	SRTS	PLAN	NSBP	FLTTP	TTP	TTPSF
Road Safety Assessment for pedestrians and bicyclists			\$	\$	TA		~\$				~\$					\$	\$				\$	\$			\$		\$	\$	\$
Safety education and awareness activities and programs to inform pedestrians, bicyclists, and motorists on ped/bike traffic safety laws				\$							~\$	\$	\$				\$				\$SRTS	\$SRTS		\$	\$			\$	
Safety education positions				\$							~\$	\$									\$SRTS	\$SRTS		\$				\$	
Safety enforcement (including police patrols)				\$								\$	\$				\$				\$SRTS	\$SRTS		\$				\$	
Safety program technical assessment (for peds/bicyclists)			\$	~\$	TA						~\$	\$				\$					\$SRTS	\$SRTS		\$	\$		\$	\$	
Separated bicycle lanes	\$	\$	\$	\$		~\$	~\$	\$	\$		~\$			\$	\$	\$	\$	\$	\$	\$	\$	\$		\$		\$	\$	\$	\$
Shared use paths / transportation trails	\$	\$	\$	\$		~\$	~\$	\$	\$		~\$			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$
Sidewalks (new or retrofit)	\$	\$	\$	\$		~\$	~\$	\$	\$	~\$	~\$			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$
Signs, signals, signal improvements (incl accessible pedestrian signals) see note	\$	\$	\$	\$		~\$	~\$	\$	\$	~\$	~\$			\$	\$	\$	\$	\$	\$	\$	\$	\$		\$		\$	\$	\$	\$
Signing for pedestrian or bicycle routes	\$	\$	\$	\$		~\$	~\$	\$	\$		~\$			\$	\$	\$			\$	\$	\$	\$		\$		\$	\$	\$	\$
Spot improvement programs (for pedestrian and bicycle facilities)	\$	\$		\$		~\$	~\$	\$			~\$			\$		\$	\$	\$	\$		\$	\$	\$	\$			\$	\$	\$
Stormwater impacts related to pedestrian and bicycle project impacts	\$	\$	\$	~\$		~\$	~\$	\$	\$							\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$
Traffic calming	\$	\$	\$	\$		~\$	~\$	\$						\$		\$			\$	\$	\$	\$		\$			\$	\$	\$
Trail bridges	\$	\$	\$	~\$		~\$	\$							\$	~\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$
Trail construction and maintenance equipment				~\$		~\$	~\$							\$							\$	\$	\$				~\$	~\$	~\$
Trail/highway crossings and intersections	\$	\$	\$	\$		~\$	~\$							\$	\$	~\$	\$	\$	\$	\$	\$	\$	\$		\$	\$	\$	\$	\$
Trailside/trailhead facilities (restrooms, water, not general park amenities)	~\$					~\$	~\$							~\$							\$	\$	\$			\$	\$	\$	
Training				\$	TA						~\$	\$			\$	\$					\$	\$	\$	\$	\$			\$	
Training for law enforcement on ped/bicyclist safety laws				~\$								\$	\$		~\$	\$					\$SRTS	\$SRTS		\$				\$	
Tunnels / underpasses for pedestrians and/or bicyclists	\$	\$	\$	\$		\$	\$	\$	\$					\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$			\$	\$	\$
Vulnerable Road User Safety Assessment			\$	\$	TA												\$				\$	\$		\$			\$	\$	\$

Abbreviations

ADA/504: Americans with Disabilities Act of 1990 / Section 504 of the Rehabilitation Act of 1973
RAISE: Rebuilding American Infrastructure with Sustainability and Equity
INFRA: Infrastructure for Rebuilding America Discretionary Grant Program
RCP: Reconnecting Communities Pilot Program
SS4A: Safe Streets and Roads for All
Thrive: Thriving Communities Initiative (TA: Technical Assistance)
RRIF: Railroad Rehabilitation and Improvement Financing (loans)
TIFIA: Transportation Infrastructure Finance and Innovation Act (loans)
FTA: Federal Transit Administration Capital Funds
ATI: Associated Transit Improvement (1% set-aside of FTA)
TOD: Transit-Oriented Development
AoPP: Areas of Persistent Poverty Program
NHTSA **402**: National Highway Traffic Safety Administration State and Community Highway Safety Grant Program
NHTSA **405**: National Highway Traffic Safety Administration National Priority Safety Programs (Nonmotorized safety)
BFP: Bridge Formula Program; **BIP**: Bridge Investment Program; **BRR**: Bridge Replacement and Rehabilitation Program
CRP: Carbon Reduction Program

CMAQ: Congestion Mitigation and Air Quality Improvement Program
HSIP: Highway Safety Improvement Program
RHCP: Railway-Highway Crossings (Section 130) Program
NHPP: National Highway Performance Program
PROTECT: Promoting Resilient Operations for Transformative, Efficient, and Cost Saving Transportation
STBG: Surface Transportation Block Grant Program
TA: Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program, Transportation Enhancements)
RTP: Recreational Trails Program
SRTS: Safe Routes to School Program (and related activities)
PLAN: Statewide Planning and Research (SPR) or Metropolitan Planning funds
NSBP: National Scenic Byways Program
FLTTP: Federal Lands and Tribal Transportation Programs: [Federal Lands Access Program](#), [Federal Lands Transportation Program](#), [Tribal Transportation Program](#), [Federal Lands Planning Program](#) and related programs for Federal and Tribal lands such as the [Nationally Significant Federal Lands and Tribal Projects](#) program.
TTP: Tribal Transportation Program
TTPSF: Tribal Transportation Program Safety Fund

Cross-cutting notes

This table indicates potential eligibility for pedestrian, bicycle, and micromobility activities and projects under U.S. Department of Transportation surface transportation funding programs. Activities and projects must meet program eligibility requirements. See notes and links to program information below. Although the primary focus of this table is stand-alone activities and projects, programs also fund pedestrian and bicycle facilities as part of larger projects. Project sponsors are encouraged to consider [Complete Streets](#) and Networks that routinely integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects. In these instances, the Federal-aid eligibility of the pedestrian and bicycle elements are considered under the eligibility criteria applicable to the larger highway project. Pedestrian and bicycle activities also may be characterized as environmental mitigation for larger highway projects, especially in response to impacts to a Section 4(f) property or work zone safety, mobility, and accessibility impacts on bicyclists and pedestrians.

- See [FHWA Bicycle and Pedestrian Planning, Program, and Project Development](#) (Guidance)
- Bicycle Project Purpose: 23 U.S.C. 217(i) requires that bicycle facilities “be principally for transportation, rather than recreation, purposes”. However, 23 U.S.C. 133(b)(7) and 133(h) authorize recreational trails under [STBG](#) and the [TA Set-Aside](#), therefore, 23 U.S.C. 217(i) does not apply to trail projects (including for bicycle use) using [STBG](#) or [TA Set-Aside](#) funds. Section 217(i) applies to bicycle facilities other than trail-related projects, and section 217(i) applies to bicycle facilities using other programs ([NHPP](#), [HSIP](#), [CMAQ](#)). The transportation requirement under section 217(i) only applies to bicycle projects, not to any other trail use or transportation mode.
- Signs, signals, signal improvements includes ensuring accessibility for persons with disabilities. See [Accessible Pedestrian Signals](#). See also [Proven Safety Countermeasures](#), such as [Crosswalk Visibility Enhancements](#), [Leading Pedestrian Interval](#) signals, [Pedestrian Hybrid Beacons](#), and [Rectangular Rapid Flashing Beacons](#).
- Occasional DOT or agency incentive grants may be available for specific research or technical assistance purposes.
- Aspects of DOT initiatives may be eligible as individual projects. Activities above may benefit safe, comfortable, multimodal networks; environmental justice; and equity.
- The [DOT Navigator](#) is a resource to help communities understand the best ways to apply for grants, and to plan for and deliver transformative infrastructure projects and services.
- FHWA’s [Policy on Using Bipartisan Infrastructure Law Resources to Build a Better America](#).
- FHWA Links to [Technical Assistance and Local Support](#).

Program-specific notes

Federal-aid and other DOT funding programs have specific requirements that projects must meet, and eligibility must be determined on a case-by-case basis. See links to program guidance for more information.

- [RAISE](#) (Infrastructure Investment and Jobs Act (Pub. L. 117-58) (IIJA), also known as the Bipartisan Infrastructure Law (BIL), § 21202): Funds capital and planning grants.
- [INFRA](#) (IIJA § 11110): For projects that improve safety, generate economic benefits, reduce congestion, enhance resiliency, and hold the greatest promise to eliminate freight bottlenecks and improve critical freight movements.
- [RCP](#) (IIJA § 11509 and div. J, title VIII, Highway Infrastructure Programs, para. (7)): See [RCP Program Notice of Funding Opportunity](#) for full details. Planning grants and Capital Construction Grants must relate to a transportation facility that creates a barrier to community connectivity.
- [SS4A](#) (IIJA § 24112): Discretionary program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. Projects must be identified in a comprehensive safety action plan (§ 24112(a)(3)).
- [Thrive](#) (Department of Transportation Appropriations Act, 2022 (Pub. L. 117-103, div. L, title I): Technical assistance, planning, and capacity-building support in selected communities.
- [RRIF](#) (Chapter 224 of title 49 U.S.C.): Program offers direct loans and loan guarantees for capital projects related to rail facilities, stations, or crossings. Pedestrian and bicycle infrastructure components of “economic development” projects located within ½-mile of qualifying rail stations may be eligible. May be combined with other grant sources.
- [TIFIA](#) (Chapter 6 of title 23 U.S.C.): Program offers secured loans, loan guarantees, or standby lines of credit for capital projects. Minimum total project size is \$10 million; multiple surface transportation projects may be bundled to meet cost threshold, under the condition that all projects have a common repayment pledge. May be combined with other grant sources, subject to total Federal assistance limitations.
- [FTA / ATI](#) (49 U.S.C. 5307): Multimodal projects funded with FTA transit funds must provide access to transit. See [Bicycles and Transit](#), [Flex Funding for Transit Access](#), the FTA [Final Policy Statement on the Eligibility of Pedestrian and Bicycle Improvements Under Federal Transit Law](#), and [FTA Program & Bicycle Related Funding Opportunities](#).
 - Bicycle infrastructure plans and projects must be within a 3-mile radius of a transit stop or station. If more than 3 miles, within a distance that people could be expected to safely and conveniently bike to the particular stop or station.
 - Pedestrian infrastructure plans and projects must be within a ½ mile radius of a transit stop or station. If more than ½ mile, within a distance that people could be expected to safely and conveniently walk to the particular stop or station.
 - FTA funds cannot be used to purchase bicycles for bike share systems.
- [FTA TOD](#): Provides planning grants to support community efforts to improve safe access to public transportation for pedestrians and cyclists. The grants help organizations plan for transportation projects that connect communities and improve access to transit and affordable housing, not for capital purchases.
- [FTA AoPP](#) (Further Consolidated Appropriations Act, 2020 (Pub. L. 116-94); Consolidated Appropriations Act, 2021 (Pub. L. 116-260)): Promotes multimodal planning, engineering, and technical studies, or financial planning to improve transit services in areas experiencing long-term economic distress, not for capital purchases.
- NHTSA [402](#) (23 U.S.C. 402): Project activity must be included in the State’s Highway Safety Plan. Contact the [State Highway Safety Office](#) for details.
- NHTSA [405](#) (23 U.S.C. 405): Funds are subject to eligibility, application, and award. Project activity must be included in the State’s Highway Safety Plan. Contact the [State Highway Safety Office](#) for details. The [Bipartisan Infrastructure Law](#) expanded the eligible use of funds for a Section 405 Nonmotorized Safety grant beginning in FY 2024; however, for FY 2023 grants, FAST Act eligible uses remain in place.
- [BFP](#), (IIJA, Div. J, title VIII, para. (1)), [BIP](#) (23 U.S.C. 124), [BRR](#) (Department of Transportation Appropriations Act, 2022): For specific highway bridge projects and highway bridge projects that will replace or rehabilitate a bridge must consider pedestrian and bicycle access as part of the project and costs related to their inclusion are eligible under these programs.
- [CRP](#) (23 U.S.C. 175): Projects should support the reduction of carbon dioxide emissions from on-road highway sources.

- [CMAQ](#) (23 U.S.C. 149): Projects must demonstrate emissions reduction and benefit air quality. See the CMAQ guidance at www.fhwa.dot.gov/environment/air_quality/cmaq/ for a list of projects that may be eligible for CMAQ funds. CMAQ funds may be used for shared use paths, but not for trails that are primarily for recreational use.
- [HSIP](#) (23 U.S.C. 148): Projects must be consistent with a State's [Strategic Highway Safety Plan](#) and (1) correct or improve a hazardous road location or feature, or (2) address a highway safety problem. Certain non-infrastructure safety projects can also be funded using HSIP funds as specified safety projects.
- [RHCP](#) (23 U.S.C. 130): Projects at all public railroad crossings including roadways, bike trails, and pedestrian paths.
- [NHPP](#) (23 U.S.C. 119): Projects must benefit National Highway System (NHS) corridors and must be located on land adjacent to any highway on the National Highway System (23 U.S.C. 217(b)).
- [PROTECT](#) (23 U.S.C. 176): Funds can only be used for activities that are primarily for the purpose of resilience or inherently resilience related. With certain exceptions, the focus must be on supporting the incremental cost of making assets more resilient.
- [STBG](#) (23 U.S.C. 133) and [TA Set-Aside](#) (23 U.S.C. 133(h)): Activities marked "\$SRTS" means eligible only as an SRTS project benefiting schools for kindergarten through 12th grade. Bicycle transportation nonconstruction projects related to safe bicycle use are eligible under STBG, but not under TA (23 U.S.C. 217(a)). There is broad eligibility for projects under 23 U.S.C. 206, 208, and 217.
- [RTP](#) (23 U.S.C. 206): Projects for trails and trailside and trailhead facilities for any recreational trail use. RTP projects are eligible under TA Set-Aside and STBG.
- [SRTS](#) (23 U.S.C. 208): Projects for any SRTS activity. FY 2012 was the last year for dedicated - funds, but funds are available until expended. SRTS projects are eligible under TA Set-Aside and STBG.
- [PLAN](#) (23 U.S.C. 134 and 135): Funds must be used for planning purposes, for example: Maps: System maps and GIS; Safety education and awareness: for transportation safety planning; Safety program technical assessment: for transportation safety planning; Training: bicycle and pedestrian system planning training.
- [NSBP](#) (23 U.S.C. 162): Discretionary program subject to annual appropriations. Projects must directly benefit and be close to a designated scenic byway.
- [FLTTP](#) (23 U.S.C. 201-204): Projects must provide access to or within Federal or tribal lands. Programs include: Federal Lands and Tribal Transportation Programs ([Federal Lands Access Program](#), [Federal Lands Transportation Program](#), [Federal Lands Planning Program](#)) and related programs for Federal and Tribal lands such as the [Nationally Significant Federal Lands and Tribal Projects](#) (NSFLTTP) program.
 - [Federal Lands Transportation Program](#) (23 U.S.C. 203): For Federal agencies for projects that provide access within Federal lands.
 - [Federal Lands Access Program](#) (FLAP) (23 U.S.C. 204): For State and local entities for projects that provide access to or within Federal or tribal lands.
- [TTP](#) (23 U.S.C. 202): For federally-recognized tribal governments for projects within tribal boundaries and public roads that access tribal lands.
- [TTPSF](#) (23 U.S.C. 202(e)(1) and 23 U.S.C. 148(a)(4)): Grants available to [federally recognized Indian tribes](#) through a competitive, discretionary program to plan and implement transportation safety projects.



Rhode Island
Massachusetts
Connecticut
New Hampshire

www.BETA-Inc.com

