

TRAFFIC IMPACT STUDY AND ACCESS PLAN

PROPOSED MIXED-USE DEVELOPMENT
4 STATE ROAD VINEYARD HAVEN, MA.
02568

PREPARED FOR:

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1.0 EXECUTIVE SUMMARY

Fraser PolyEngineering Services (FPES) has been consulted to conduct a Transportation Impact Assessment (TIA) for a proposed mixed used development located at 4 State Road in Vineyard Haven/Tisbury, Massachusetts. The site is located at a “Y” shaped intersection where the beginning of Main St. meets with State Rd. There is an additional northwest leg driveway entrance that provides parking to various businesses in the area.

The proposed site improvements include the renovation of the existing Educomp building and an addition to the rear of the building. The site will have 14 residential units, 22 bedrooms and three (3) commercial office units on the first floor totaling approximately 3,000 square feet. The property will have 21 parking spaces along with indoor storage for 18 bicycles.

This report documents existing traffic operational, and safety-related characteristics of key roadways around the project site where users are likely to perceive a change in the existing Level of Service (LOS). The current year (2022), and future year (2029) operating characteristics of these roadways with, and without the project will be evaluated in this report. Estimates of project-related trip generation, the anticipated traffic volume increases that this development brings to the area’s traffic patterns, and the resulting Level of Service (LOS) for the five unsignalized intersections is the focus of this report.

This TIA conforms with the guidelines for the preparation of transportation studies as issued by the Massachusetts Department of Transportation (MassDOT). This study focuses on roadways and intersections that will sustain most of the traffic impact from the project. In summary, the study area includes the following intersections:

- EDGARTOWN ROAD/ STATE ROAD
- LOOK STREET/ STATE ROAD
- MAIN STREET/STATE ROAD/BEACH STREET
- BEACH STREET/LAGOON POND ROAD/ BEACH ROAD/ BEACH STREET EXTENSION/ WATER STREET
- STATE ROAD/CAUSEWAY ROAD

With the network of roadways

- EDGARTOWN ROAD
- LOOK STREET
- STATE ROAD
- MAIN STREET
- BEACH STREET
- LAGOON POND ROAD
- BEACH ROAD
- WATER STREET
- BEACH STREET EXTENSION
- CAUSEWAY ROAD

Traffic count data was provided via a study performed by Vanasse and Associates, for the proposed mixed used development at 61 Beach Road in Vineyard Haven, MA. Turning movement counts and capacity analyses were performed during the critical weekday morning (7:00AM-9:00AM), weekday evening (4:00PM-6:00PM) and Midday Saturday peak hours for the above study area intersections. This was done to determine the existing and future year operations with and without the project. These peak time periods generate the most critical impact periods of residential related traffic. The capacity analyses indicate that project-related traffic will not adversely affect traffic operations of the area intersections. The development is expected to generate the following:

- (1) 105 new weekday average trips (53 entering and 52 exiting)
 - a. 76 Weekday average trips for Multifamily residential (38 entering and 38 exiting)
 - b. 29 Weekday average trips for Mixed Use Office (15 entering and 14 exiting)
- (2) 8 Weekday am peak hour trips (5 entering and 3 exiting)
- (3) 10 weekday pm peak hour trips (5 entering and 5 exiting)
- (4) 3 transit trips and 7 pedestrian/bicycle trips are expected per 24-hour volumes
- (5) 76 daily trips (39 entering and 37 exiting) and 8 midday peak-hour trips (4 entering and 4 exiting) are expected during the Saturday weekend generation time period.

Stopping Sight Distance (SSD), or the length of roadway ahead that is visible to the driver was studied at 4 State Road driveway access and egress points. Our study results showed that the requirements for adequate SSD were met for vehicles turning left out of the site driveway but was not met for vehicles making the right turn onto Beach Street. It should also be noted that vehicles may have to enter the Beach Street/Main Street intersection to improve their line of sight when making the left turning movement. This in turn would make vehicles travelling east on State Road move into the opposing traffic stream to avoid them. There is adequate site distance for vehicles travelling east on State Road that make the right turn onto the site driveway, and for vehicles travelling west on state road to make the left turn onto the site driveway. While this left turning movement is allowed, it poses safety concerns to pedestrian, since vehicles travelling west on State Road will have to traverse over the crosswalk, at the same time paying attention to two opposing sets of traffic movements. Since the development generates less trips than the existing land use it is construed that crashes are less likely to occur (see crash history discussion below), and an alternative to the current intersection geometry should be explored in the future.

Crash Rate Analysis was performed at the State Road, Main Street, Beach Street intersection utilizing the most recent five-year data available. Data was provided using the Crash Query and Visualization Tool Kit provided by MassDOT for years 2016 to years 2021. The data provided showed that the intersection of Main Street, State Road, and Beach Street had a crash rate of 0.06. This rate is below the state average of 0.57 for Unsignalized intersections. Along the study corridor, the intersection of State Road, Look Street and Edgartown Road had the highest crash rate of 0.38, followed by the intersection of Water Street, Beach Street and Lagoon Pond Road with a crash rate of 0.30. All the other intersections had crash rates well below the state average.

Independent of the Project, the Beach Street/Beach Street Extension/Beach Road/ Water Street/Lagoon Pond Road (a.k.a. Five Corners); intersections were included on MassDOT's Highway Safety Improvement Program (HSIP) listing as high crash locations for 2016-2020. Road Safety Audits (RSAs) have been completed at both Five Corners and the State Road/Edgartown-Vineyard Haven Road/Look Street intersection that identify safety-related improvements for advancement at both intersections.

Some of the measures that were identified in the 2015 RSA were:

- (1) Use of police control when the ferries arrive to help relieve heavy queues on Water Street.

- (2) Installation of centerline “elephant tracks” through the intersection of Beach Street and Beach Road.
- (3) Consider reversing the direction of Union Street on a trial basis. Our study showed that this measure may have been implemented.
- (4) Implement more appropriate signage to guide vehicles of certain pick up and drop off areas.
- (5) Consider installing yellow rectangular rapid flashing beacons to aid pedestrians.
- (6) Consider implementing high visibility crosswalk treatments and updating all pedestrian ramps to adhere with MassDOT and ADA standards.
- (7) Redesign the intersection to improve drainage and reduce standing water.
- (8) Consider implementing aa traffic signal at this intersection or turning the intersection into a roundabout.
- (9) Consider implementing an exclusive left turn lane for Beach Street eastbound drivers wishing to turn left unto Water Street.

The potential safety enhancement summary for “Five Corners” is included in Appendix A-5.

The site will have a separate entrance and egress. Access to the project will be provided via an existing driveway located at the southeast corner of the site. Egress will be provided via a proposed driveway realignment located along the northeast corner of the site. Since State Road is under the authority of MassDOT, the driveway reconfiguration will require the issuance of a State Highway Access Permit from this agency. The following improvements are proposed for the driveway:

- (1) The proposed width of the driveway will be a minimum of 10-feet.
- (2) The proponent will ensure that the driveway has adequate turning radius for emergency vehicular access
- (3) The proponent will clear any shrubbery and other landscape items that obstruct the clear line of sight for vehicles.
- (4) Careful consideration will be taken to ensure that snow windrows do not impede the line of sight of motor vehicles.
- (5) Both driveways will have “Do Not Enter,” and “One Way” signage

The site access geometry recommendation is based on separate access and egress points on to State Road.

The development impact has been insignificant as measured by the Level of Service (LOS) between the build and no-build scenarios (see table 8). There is no change in LOS with the addition of not only the 4 State Road Site development but two other developments, i.e., 75 Main Street, and 61 Beach Road included, except for the weekday midday peak changing from LOS C to LOS D. A reduction in generated trips is also predicted from the trip generation for the proposed land use. Conservative estimate was done by ignoring modal shifts on generated trips and utilizing a unity occupancy factor.

The 4 State Road site has unique geometric challenges that exist and are outlined below:

- (1) The crosswalk at the intersection of Main Street and Beach Street (where State Road becomes Beach Street) terminates into an egress driveway making an unsafe situation for pedestrians.
- (2) The crosswalk at the intersection of State Road at Main Street is in such a manner that vehicles making a left turn into the site driveway will have to cross the pedestrian path while having to pay attention to opposing traffic streams.
- (3) The crosswalks at all approaches are not American with Disability Act (ADA) compliant.

- (4) During the traffic study pavement markings were either faded or gone completely. Pavement marking visibility maybe an issue both during the day, and at night.
- (5) The site distance (site-lines) for vehicles making a right turn out of the site driveway is limited. Vehicles making a right and left turn out of the site may inch forward into the intersection to increase their line of site.

Proposed mitigative measures include the following:

- (1) Reconfiguration of the egress driveway at 4 State Road to current MassDOT standards will create a more perpendicular exit. This geometric change will provide enough space to install an ADA compliant wheelchair ramp to the right of the driveway.
- (2) Even though contribution of site traffic volume is less than previous land use, safety related geometric improvements at the site intersection and possible reconfiguration of the intersection is recommended. As a long-term solution and in coordination with MassDOT consider a small modern traffic circle to improve overall traffic flow, and access to the site.
- (3) Install ADA compliant wheelchair ramps at all approaches along the site.
- (4) Install Retroreflective thermoplastic crosswalks at all approaches or consider increasing the pavement marking painting schedule. Consider installing “Ladders” to the crosswalk to increase visibility at night.
- (5) Install a striped edge line along the curb of the 4 State Road site to better align the eastbound travel lane and provide a buffer for vehicles edging out of the egress driveway.

Transportation demand management or the application of strategies and policies to reduce travel demand¹ should strongly be utilized as part of the project development. The site location has the unique opportunity to mitigate a lot of potential vehicle trips provided by the site. The project site has ample transit access, and it is recommended that residents be provided incentives to use alternatives to automobile travel. The Route #1, #2, #3, and the Route #13 buses travel along State Road and Beach Street with stations that are within walking distance of the site. It is recommended that the proponent should provide information to the potential tenants that would make them aware of alternative transit options. It is also recommended that they may provide to the employees of the commercial portion of the development incentives such as transit passes to reduce the amount of vehicle trips made. The following are list of specific actions that could mitigate and reduce automobile dependence and increase transit patronage:

- Transit maps and schedules should be provided to the tenants.
- Bicycling and Walking: - Provision for bicycles facilities such as bicycle racks should be provided
- Car/Ridesharing: Encourage tenants, and employees of the commercial portion of the building to carshare/rideshare to and from work by connecting them with websites that promote carpooling.
- Teleworking: With the ongoing COVID 19 pandemic, teleworking has become an increasingly viable option for employees and employers. It is recommended that information be provided on the benefits of teleworking or teleconferencing from home. This may also include a provision within the building for an internet enabled shared office space for residents.

¹ https://en.wikipedia.org/wiki/Transportation_demand_management
FPES - March 2022

1.1 INTRODUCTION

This report presents a transportation impact and access evaluation for 4 State Road, Vineyard Haven, Massachusetts (Figure 1). The traffic analysis includes existing traffic operations within the project area, assesses incremental traffic impacts on adjacent roadways and intersections under future year conditions with and without the project, and identifies physical roadway improvements that address project-related traffic and safety impacts.

1.2 PROJECT LOCATION AND DESCRIPTION

The proposed development, 4 State Road, will consist of 14 residential condominium units with 22 bedrooms and 3 commercial office units. The property will have 21 parking spaces along with indoors storage for 18 bicycles.

The existing parcel sits on an approximately 21,818 square foot parcel of land that is bounded by Beach Street to the north, Main Street to the West and State Road to the South. (Figure 1). A parking facility will be provided for 21 vehicles and access to the driveway will be provided via a site driveway off State Road.

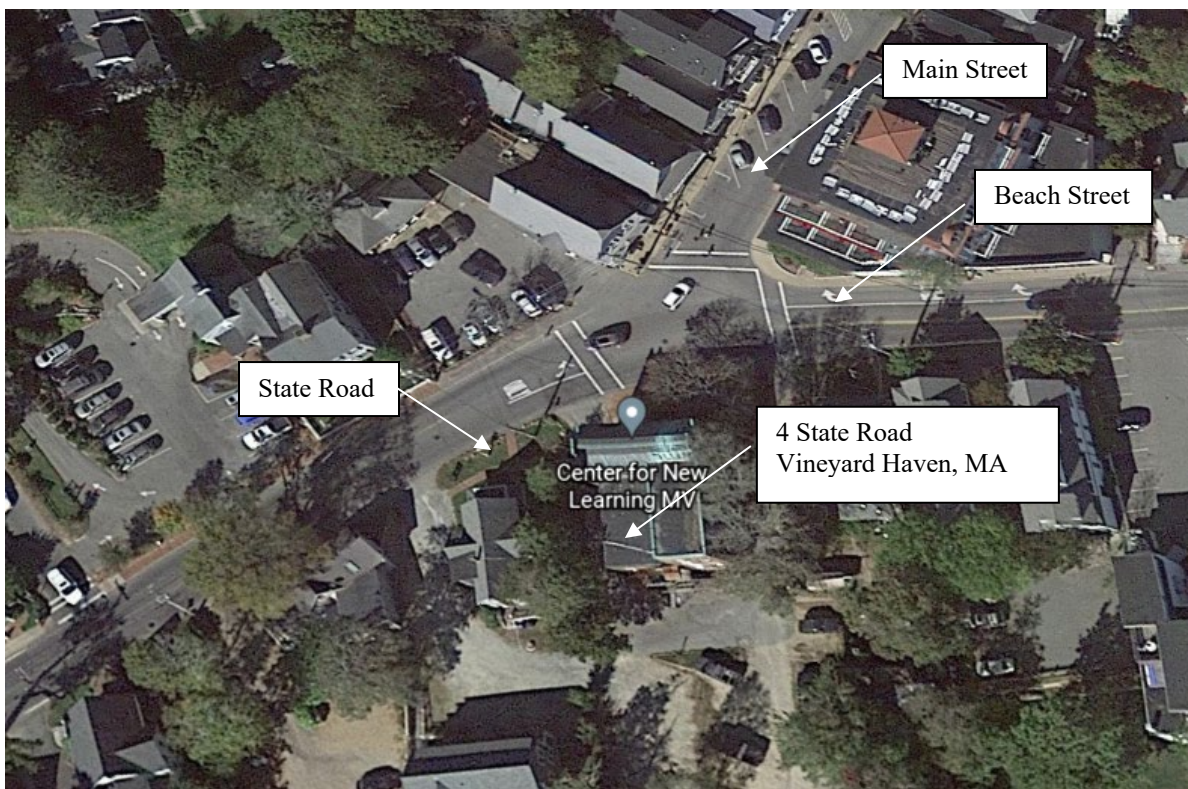


Figure 1- Mixed Use Development, 4 State Road, Vineyard Haven

1.3 STUDY METHODOLOGY

This study was performed in accordance with State guidelines for the preparation of Traffic Impact Assessments (TIA), including guidelines issued by MassDOT. The guidelines for the preparation of TIA states that a seven-year study period be considered for the analysis of the future traffic impact. The study included four phases.

The phases in the process include:

- ❖ Phase one includes documenting existing conditions in the study area including:
 - Inventory of roadway geometry
 - Traffic volumes counts and characteristics
 - Historical accident characteristics

- ❖ Phase two includes analysis of future year traffic forecast conditions including:
 - Changes in VMT (vehicle miles traveled) in the area, Average Annual Daily Traffic.
 - Project-related traffic increases
 - Account for other planned area development projects

- ❖ The third phase of the analysis includes:
 - Calculation of operating characteristics of study intersections
 - Identification of existing and future year deficiencies
 - Identification of warranted improvements.
 - Impacts of the proposed project.

- ❖ The final phase includes mitigation measures identified to remedy project-related traffic impacts and other deficiencies.

1.4 EXISTING CONDITIONS

A comprehensive field inventory of existing conditions within the study area was conducted in February 2022. The field investigation consisted of an inventory of existing roadway geometries; pedestrian and bicycle facilities; public transportation services; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The study area for the project was selected to contain the major roadways providing access to the project site, including State Road and Beach Street, and the following specific intersections:

- (1) Edgartown Vineyard/Haven Road at State Road, Look Street at State Road
- (2) Causeway Road at State Road,
- (3) Main Street (Private Driveway) at State Road/Beach Street
- (4) Beach Street at Lagoon Pond Road, Beach Road at Beach Street and Beach Street Extension at Lagoon Pond Road (Five Corners).

EXISTING TRAFFIC DATA

Traffic data for this study was accumulated from a combination of sources including Census Data, MassDOT traffic data collection stations, and a recent study conducted by Vanasse & Associates, Inc (collected in June 2020) at the following intersections:

- EDGARTOWN ROAD/ STATE ROAD
- LOOK STREET/ STATE ROAD
- MAIN STREET/STATE ROAD/BEACH STREET
- BEACH STREET/LAGOON POND ROAD/ BEACH ROAD/ BEACH STREET EXTENSION/ WATER STREET
- CAUSEWAY ROAD

And Roadways:

- EDGARTOWN ROAD
- LOOK STREET
- STATE ROAD
- MAIN STREET
- BEACH STREET
- LAGOON POND ROAD
- BEACH ROAD
- WATER STREET
- BEACH STREET EXTENSION
- CAUSEWAY ROAD

To determine the transportation impacts of the project, the existing roadway system and the existing traffic operations of study area roadways were analyzed. This section describes the existing traffic characteristics and operations of the roadways and intersections within the study area. Subsequent to this section will be an overview of the road network, data collection program, existing traffic volumes, and safety related issues.

1.5 GEOMETRY

SITE AREA ROAD NETWORK

A brief description of roadways within the study area and intersections is provided in this section. General description of the roadway physical features and intersection features is given below. The study area includes roadways under state and local jurisdictions in Vineyard Haven.

ROADWAYS

State Road

State Road is an urban principal arterial road that traverses in the north-east direction of Tisbury/Vineyard Haven. Land use along this roadway is composed of residential and commercial uses. The limits of State Road are Beach Street to the northeast and Aquinnah circle to the southwest. The overall roadway alignment width at State Road at Main Street is

approximately 37'. This includes a 6' sidewalk, an 11' southbound through lane, a 10' left turn lane unto Main Street, and a 10' through lane towards Beach Street. There are no shoulders provided at this location. The speed limit is posted at 20 mile per hour around the project area.

Beach Road

Beach Road is a two-lane urban principal arterial road under MassDOT's jurisdiction and provides access to Oak Bluffs. The overall roadway alignment width is 15-foot with 3-foot-wide marked shoulder. The speed limit is posted 30 miles per hour.

Main Street

Main Street is an urban principal arterial road that traverses in the north-east direction. Main Street makes up the Williams Street Historic District. The limits of Main Street are Sagamore Ave to the west and State Road/Beach Street/Main Street intersection to the east. Land use along this roadway is composed of residential, and some commercial uses. The overall roadway alignment width is approximately 30 feet which includes one travel lane, and parking lane. Main Street is one way, then turns to two-way road at its intersection with Woodlawn Avenue. The sidewalk widths vary between five, and six feet in this area.

Beach Street

Beach Street is a two-way local road that traverses in the north-east direction. The limits of Beach Street are State Road to the west and Beach Street extension to the east. The land use along this roadway is composed of residential and commercial usage. The overall roadway alignment width is approximately 35' which includes two travel lane, which becomes three lanes (two travel lanes, and a right turn lane) at its intersection with Main Street and State Road. The sidewalk width is approximately 5-feet along the west bound side and a varying length of 3 to 5-feet along the east side of Beach Street. The speed limit is posted at 20 mph within the roadway limits.

Lagoon Pond Road

Lagoon Pond Road at the five corners intersection is a two-lane road that traverses in a north south direction. The roadway is separated by a double yellow centerline that separates the roadway into two 11-foot travel lanes. There are no shoulders on either side of the roadway. Lagoon Pond Road is functionally classified as a local road under the jurisdiction of the Town of Tisbury. During our inventory of this roadway there were no speed limit signs observed.

Causeway Road

Causeway Road is a two-lane local road that traverses in the east-west direction. The approximate width of Causeway Road is 24 feet which creates two 12-foot travel lanes that are separated by a single yellow centerline. There are no sidewalks on either side of Causeway Road, only tree lawn areas on either side of the roadway. Causeway Road terminates at State Road forming a "T" intersection. The roadway is a low-speed low traffic road that provides a route for those heading towards Veterans Memorial Park, Martha's Vineyard Museum, or other southerly points of interest.

INTERSECTIONS

State Road at Main Street at Beach Street

State Road, Main Street and Beach Street form a three-way, unsignalized intersection (Figure 2). There are crosswalks located along the southbound State Road at Main Street approach and at the northbound Beach Street at Main Street approach. It should be noted that the crosswalk at Beach Street and Main Street flows into the driveway serving as an egress point for 4 State Road and 5 Beach Street. There were no shoulders provided at any of the approaches.



Figure 2 – State Road at Main Street Intersection

Beach Street/ Lagoon Pond Road/Beach Road/Beach Street Ext/Water Street (Five Corners)

This intersection also known as “Five Corners is a five (5) way un-signalized intersection (See Figure #3). This intersection is stop controlled at Lagoon Pond Road, Water Street, and Beach Street Extension and operating under free-flowing conditions at Beach Street, and Beach Road. The unconventional roadway geometry creates unpredictable driving maneuvers in the area. As one of the main access points to the steamship authority ferry, this intersection is often congested with motorist looking to board and onboard the ferry via Water Street.

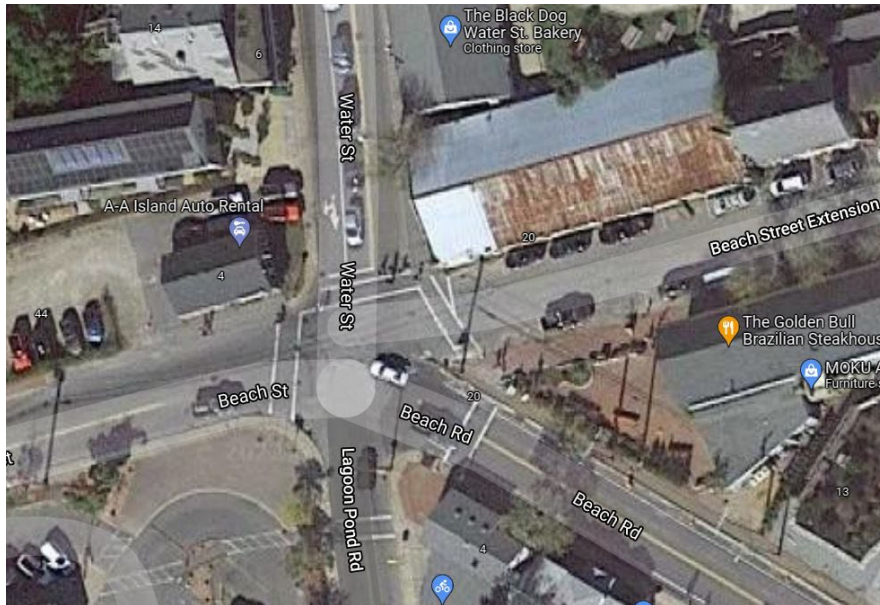


Figure 3 – “Five Corners” Intersection

Edgartown Road at State Road and Look Street at State Road

The intersections of Edgartown Road at State Road and Look Street at State Road form an offset (dog-legged) unsignalized 4 Way Intersection (See Figure 4) The Intersection of Look Street at State Road and Edgartown Road at State Road both experience heavy queuing as a result of the congestion that occur on State Road. The roadway geometry of this intersection makes access from Look Street to Edgartown Road and the reverse movement difficult because drivers have to make an “S” curve maneuver at both approaches.

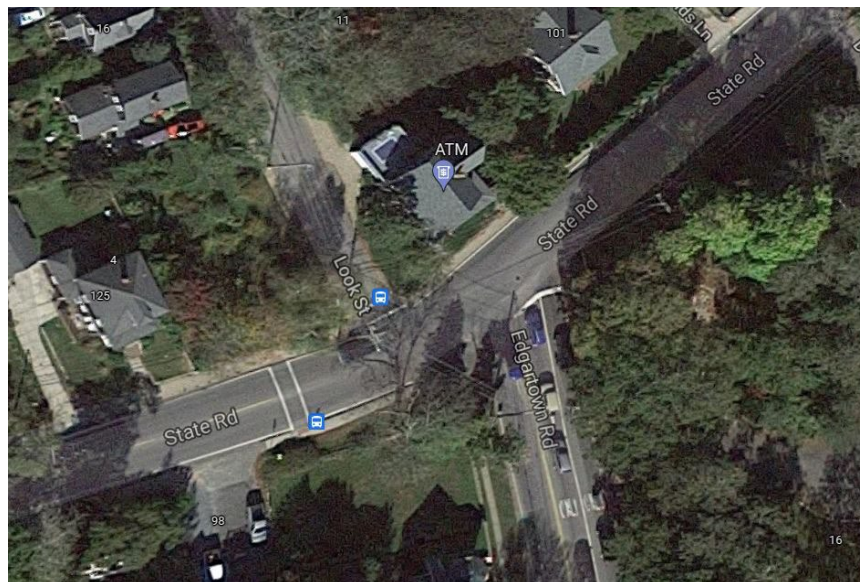


Figure 4 – Intersection of Look Street Edgartown Road and State Road

1.6 EXISTING TRAFFIC DATA

Existing traffic count data was provided from a study performed by Vanasse and Associates in June 2020 for a proposed mixed-use development at 61 Beach Road in Vineyard Haven. The data provided included automatic traffic recorder (ATR) counts, and manual turning movement counts (TMC's). The counts were performed in April of 2019 while public schools were in regular session.

TRAFFIC VOLUMES

Based on the traffic data the weekday morning peak hour occurs between 7:30am and 8:30am, and the weekday evening peak hour occurs between 4:15pm and 5:15pm. The MassDOT count Station Id. 7154 (Edgartown-West Tisbury Rd) provides a 2018 AADT value of 7,545 vehicles per day (vpd) (Table 1) and Station MVC216 (State Road) AADT 2020 4,705 vpd.

Table 1: Average Annual Daily Traffic (AADT)

State Road* (Stn MVC216) / Edgartown-West Tisbury Road (Stn 7154)						
Year	AADT	DHV-30	K %	D %	PA	BC
2021*	6,022					
2020*	4,705	711	15	53	4,400 (94%)	305 (6%)
2019						
2018	7,545				7,313 (97%)	228 (3%)
2017	7,248				6,821 (94%)	427 (6%)
2016	7,106				6,882 (97%)	223 (3%)
2015	5,656	751	13	53	4,558 (81%)	1,097 (19%)
2014	5,483		12	53		

DHV-30: Design Hour Volume – For Permanent Stations this is the 30th Highest Hour for the year. For non-Perm Stations, this is the highest hour. The accuracy of either of them are dependent on when or how much raw data was collected.

K%: K-Factor – DHV as a percentage of the AADT

D%: Directional Factor – Percentage of peak hour volume (24-hour peak) in the peak direction during that hour

PA: Passenger vehicles (FHWA Class 1-3) shown in number of vehicles and percentage of AADT

BC: Business/commercial vehicles (FHWA Class 4 and above) shown in number of vehicles and percentage of AADT

As can be observed from the above data points, traffic volume has been steadily increasing even though there was a slight decline between 2019, 2020 and 2021 for obvious reasons, the travel disruption due to the mandates for the last two years. The high value for the K-factor indicates the seasonal nature of the travel demand on the Island.

PEAK-HOUR TRAFFIC

Peak Hour data was derived from 2019 counts done by Vanasse & Associates Inc., because of the potential bias that was introduced into the traffic pattern and the changes experienced during mandatory travel restrictions.

VEHICLE SPEEDS

Speed measurement data was provided by Vanasse & Associates Inc. from the 61 Beach Road Traffic Impact Assessment conducted in June 2020. Table 2 below summarizes the posted/ de-facto speed limit, as well as the measured travel speeds (85th percentile speed) along State Road and Edgartown Road – West Tisbury Road.

Table 2: Observed Vehicle Speeds (MPH) 85th Percentile Speeds

Location	Direction	Posted/de-facto Speed Limit	85th Percentile Speed
State Road	Northbound	20 MPH	27
	Southbound	20 MPH	27
Beach Street	Westbound	20 MPH	26
	Eastbound	20 MPH	26

PEDESTRIAN ACTIVITY

By virtue of being an Island, Martha’s Vineyard is a relatively calm and safe place to walk. Posted automobile travel speed in the vicinity of the proposed development is 20 miles per hour (mph). The Island is also a destination for tourists who for the most part may be new to the area and may drive with caution. Being on an Island also brings with it a general lack of adequate resources and space to serve all the various modes of travel, especially access opportunities for disabled persons.

Besides these challenges, there is a good opportunity to comprehensively look at the facilities that are currently available for all non-motorized travel. The Census Transportation Plan for 2012-2016 shows walk mode carries 4% of the total daily trips and bicycle is about 2.5%. The most popular methodology of characterizing a travel network’s fitness to non-motorized travel is the Low Stress Networks model. This model utilizes facility attributes such as lane width and travel speed to model the entire network within a municipality. The key concept of the model is connectivity at an acceptable stress level. One methodology used to measure the comfort level of which Pedestrians and Bicyclists are willing to ride and walk on a segment of roadway or sidewalk is “Level of Stress” analysis. This methodology is based on analysis performed by Drs. Peter Furth, and Maaza Mekuria in their research report “Low Stress Bicycling and Network Connectivity.” In their report they created the Bicycle Level of Comfort (BLOC) measure for how stressful a given network is. An expansion of this methodology is the Pedestrian Level of Comfort (PLOC) analysis developed by Howard Stein Hudson in their Complete Street Prioritization Plan. The analysis for determining PLOC is divided into two categories, Facility Level of Comfort, and Surrounding Level of Comfort. Facility Level of comfort includes such

measures as the width of sidewalks, location of obstacles impeding the path of travel for persons with disabilities, or the narrowest points of each sidewalk area. In order to determine the Surroundings Level of Comfort, analysis is pointed towards the existing roadway conditions such as prevailing speed, exposure to crashes based on average daily traffic volume, presence of non-motorized travel facilities such as pedestrian walkways and bicycle path/lanes/boulevards, proximity to a business district or other high-volume corridors.

The presence of vertical or lateral buffers (curbs, etc.) between sidewalk and traffic including vegetation and whether there is a continuous network (low stress) connection between origin and destination pairs are input criteria used to measure pedestrian level of comfort. State Road, Beach Street and Beach Road are the main corridors connecting “Up Island” West Tisbury with Down Island areas (Vineyards Haven, Edgartown, and Oaks Bluffs). Edgartown Road –Vineyard Haven Road is the other main corridor connecting West Tisbury to Oaks Bluffs, and Edgartown and areas such as Chappaquiddick.

BICYCLE ACTIVITY

Speeds are an important criterion in determining what the BLOC would be for a given segment of roadway. The western portion of State Road where the speed limit is 30 mph according to studies performed has a low Bicycle Level of Comfort. Along the eastern portion of State Road between Look Street and just past “Five Corners” the speed limit drops from 30 mph to 20 mph. Based on this and other factors, one can deduce that the “Level of Comfort” to be between Medium and Low.

SIGHT DISTANCE ANALYSIS

Stopping Sight Distance SSD is defined as the length of roadway ahead that is visible to the driver, and is a function of two distances, the distance a driver travels from the time a driver spots an object necessitating a stop to the time the brakes are applied, and the distance needed to stop the vehicle from the instant brake application begins² It can be summarized by the formula:

$$SSD = 1.47Vt + 1.075 \frac{V^2}{a}$$

Where V is equal to the 85th percentile design speed, t is equal to the brake reaction time (2.5s) and is equal to the deceleration rate (11.2 ft/s²). ISD is the distance for a driver to perceive a potentially conflicting vehicle in enough time to stop or adjust their speed in an appropriate manner to avoid colliding in the intersection³. It can be summarized by the formula:

Sight distance analysis were performed at the project site driveways along State Road and Main Street in Table 3 below.

² AASHTO, A Policy on the Geometric Design of Highways and Street 2004

³ AASHTO, A Policy on the Geometric Design of Highways and Street 2004

Table 3: Available Stopping Sight Distance

Location	Stopping Sight Distance				
	Direction	Posted Speed Limit	85th Percentile Speed	Required SSD (Per 85th Percentile Speed)	Available SSD
Driveway Entrance – Northwest Quadrant	Left turn into	20 MPH	27	169'	> 400'
	Right turn into	20 MPH	26	----	----
Driveway Exit – Northeast Quadrant	Left turn	20 MPH	26	160'	>300'
	Right turn	20 MPH	27	169'	160'

ACCESS AND CIRCULATION

The site will have a separate entrance and egress. Access to the project will be provided via an existing driveway located at the southeast corner of the site. Egress will be provided via a proposed driveway realignment located along the northeast corner of the site.

There are site access issues that have to be worked out between the proponent and the abutters on both sides of the 4 State Road site. We will update the TIA as more definitive information is made available.

1.7 MOTOR VEHICLE CRASH DATA

Motor vehicle crash data was analyzed to help identify crash trends and/or roadway safety deficiencies around the study area. The latest available crash data was obtained from Crash Query and Visualization Tool Kit provided by MassDOT for the Town of Tisbury between 2016 to 2020 (See Table 4).

Crash Rate Analysis was performed at the State Road, Main Street, and Beach Street Intersection utilizing the most recent five-year data available. The data provided showed that this intersection had a crash rate of 0.06. This rate is below the state average of 0.57 for Unsignalized intersections. Along the study corridor, the intersection of State Road, Look Street and Edgartown Road had the highest crash rate of 0.38, followed by the intersection of Water Street, Beach Street, Beach Street Extension, Beach Road, and Lagoon Pond Road with a crash rate of 0.30. Based on the results of the analysis, all of the other intersections exhibited a crash rate less than MassDOT’s average for an unsignalized intersection of 0.57

Table 4: Intersection Crash Rate Analysis Summary

Count of Crashes	Intersection					Grand Total
	MAIN ST/STATE RD/BEACH ST	EDGARTOWN RD/STATE RD	LOOK ST/STATE RD	CAUSEWAY RD/STATE RD	BEACH RD/WATER ST/BEACH ST/LAGOON POND RD/BEACH ST EXT	
2015		3			4	7
2016	1	5				6
2017	3	5	1		2	11
2018		1			3	4
2019		2			3	5
2020		1			2	3
2021		4			4	8
Grand Total	4	21	1		18	44

Averages Crashes	0.6	2.71	2.8	0.2	2	
Crash Rate - MassDOT Worksheet	0.1	0.42	0.38	0.04	0.3	

Manner of Collision						
Angle	2	8			6	16
Rear-end		9	1		3	13
Rear-to-rear						
Head-on		2			2	4
Sideswipe, opposite direction		1			1	2
Sideswipe, same direction	1				3	4
Single vehicle crash	1	1			3	5
Grand Total	4	21	1		18	44

Count of Crash Severity						
Crash Severity						
Non-fatal injury		5			1	6
Property damage only (none injured)	4	16	1		16	37
Not reported					1	1
Grand Total	4	21	1		18	44

Ambient Light						
Dark - lighted roadway		1			1	2
Dusk					1	1
Dawn		1			2	3
Daylight	4	19	1		14	38
Grand Total	4	21	1		18	44

Weather Condition						
Clear	3	16			15	34
Cloudy	1	2	1		1	5
Rain		3			1	4
Snow					1	1
Grand Total	4	21	1		18	44

Sunday		1			6	7
Saturday	1	3			1	5
Weekday	3	17	1		11	32
Grand Total	4	21	1		18	44

1.8 FUTURE CONDITIONS

In order to determine the impact of site-generated traffic volumes on the roadway network under future conditions, baseline traffic volumes in the study area were projected to future year 2029 which reflects a seven-year planning horizon from the current year (Figures 5-8). This methodology is consistent with the current state traffic study guidelines.

Traffic volumes on the roadway network, in the absence of the project (that is, the No-Build condition), would include existing traffic, new traffic due to general background traffic growth, and traffic related to specific development by others, and currently under review at the local and/or state level. Consideration of these factors resulted in the development of the No-Build traffic volumes. Anticipated site-generated traffic volumes were then superimposed upon these No-Build traffic-flow networks to develop the 2029 future Build conditions (Figures 9-10).

PLANNED AND ACTIVE ROADWAY IMPROVEMENT PROJECTS

The Martha's Vineyard Planning Commission, as well as MassDOT was contacted to see if there were any planned roadway improvement projects in the vicinity of the site. As of this study date a response was not received. A review of potential projects was also researched online. This research did yield one potential roadway projects.

(1) **Beach Road Improvement Project - MassDOT Project No. 607411.**

According to Mass DOT documents this project consists of roadway reconstruction and shared use path extension and related work along a section of Beach Road. Further review of plans provided show that approximately 2600 feet of roadway will be reconstructed in this area. This includes a shared use path approximately 8-10 feet along the southwest side of Beach Road. There were no other planned roadway improvement projects in the vicinity of the site.

DEVELOPMENT RELATED GROWTH

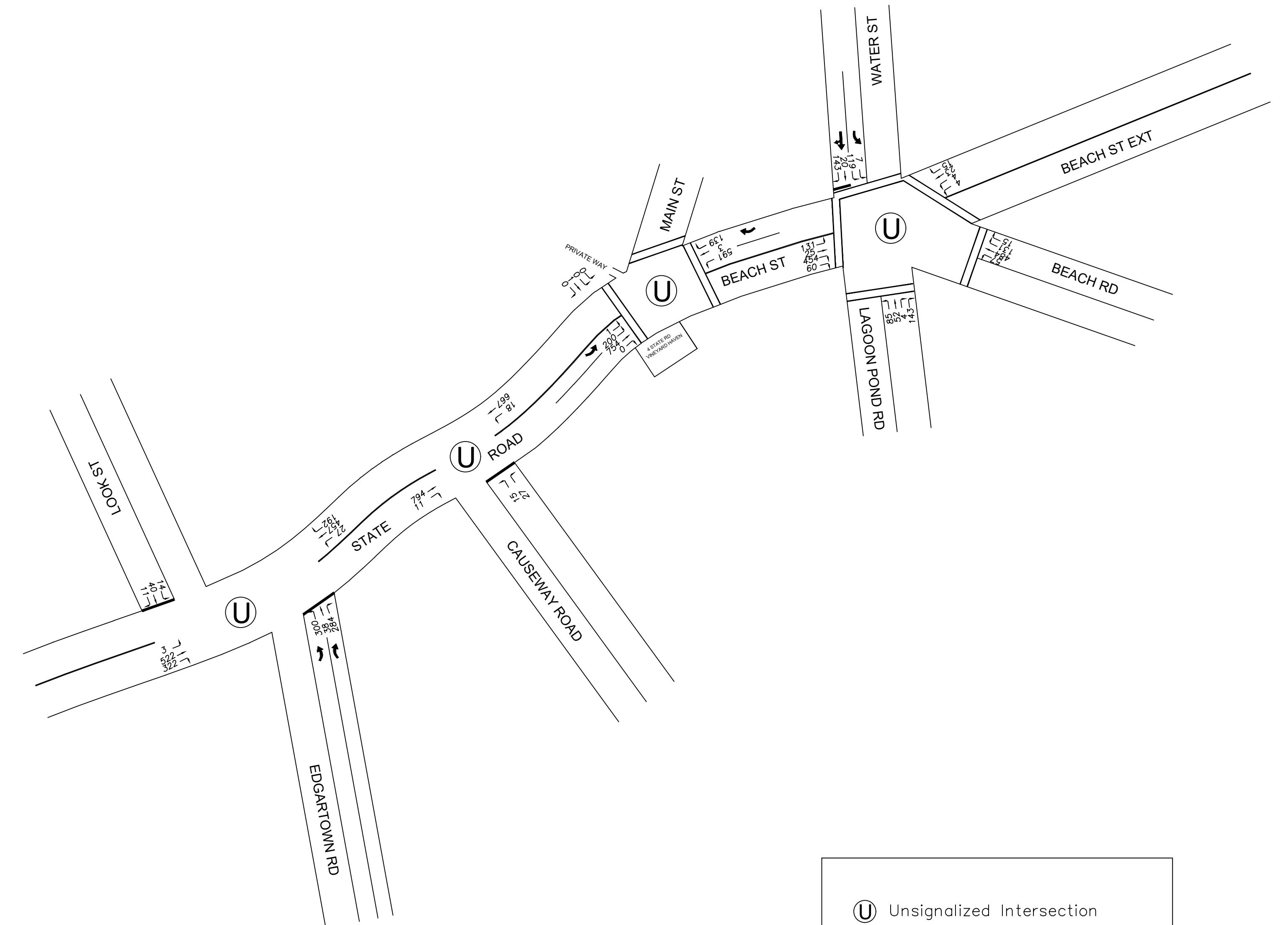
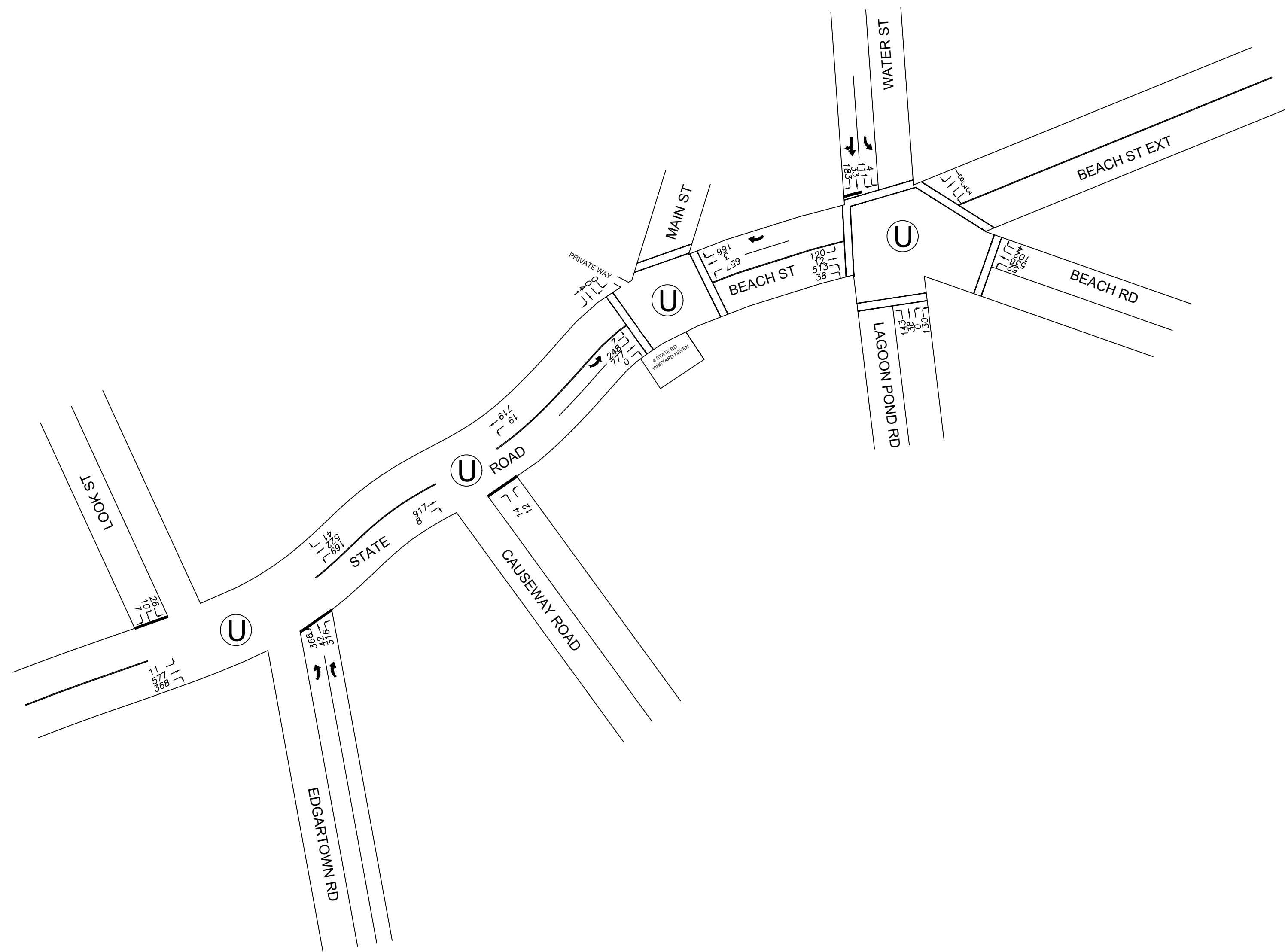
The final element of future No-Build traffic volumes is traffic generated from specific area developments. Based on a review with the Town of Tisbury Planning Department, it was determined that there were two other proposed development on the horizon that could potentially impact the traffic volume within the study area. These projects were identified as:



- (1) **61 Beach Road** – The Project will entail the construction of a mixed-use development located at 61 Beach Road in Vineyard Haven, Massachusetts. As proposed, the Project will include the construction of 52 multifamily residential units and 5,100± square feet (sf) of retail space.
- (2) **75 Main Street** – This project will consist of 670 square feet of outdoor fast casual dining, creating a Taqueria style restaurant.

The impact of these projects within the vicinity of the site is expected to be minimal. The volumes generated by these projects during the peak times (AM, PM, and Midday weekend) is included in the proposed development project build volume.

2022 NO-BUILD WEEKDAY AM PEAK HOUR

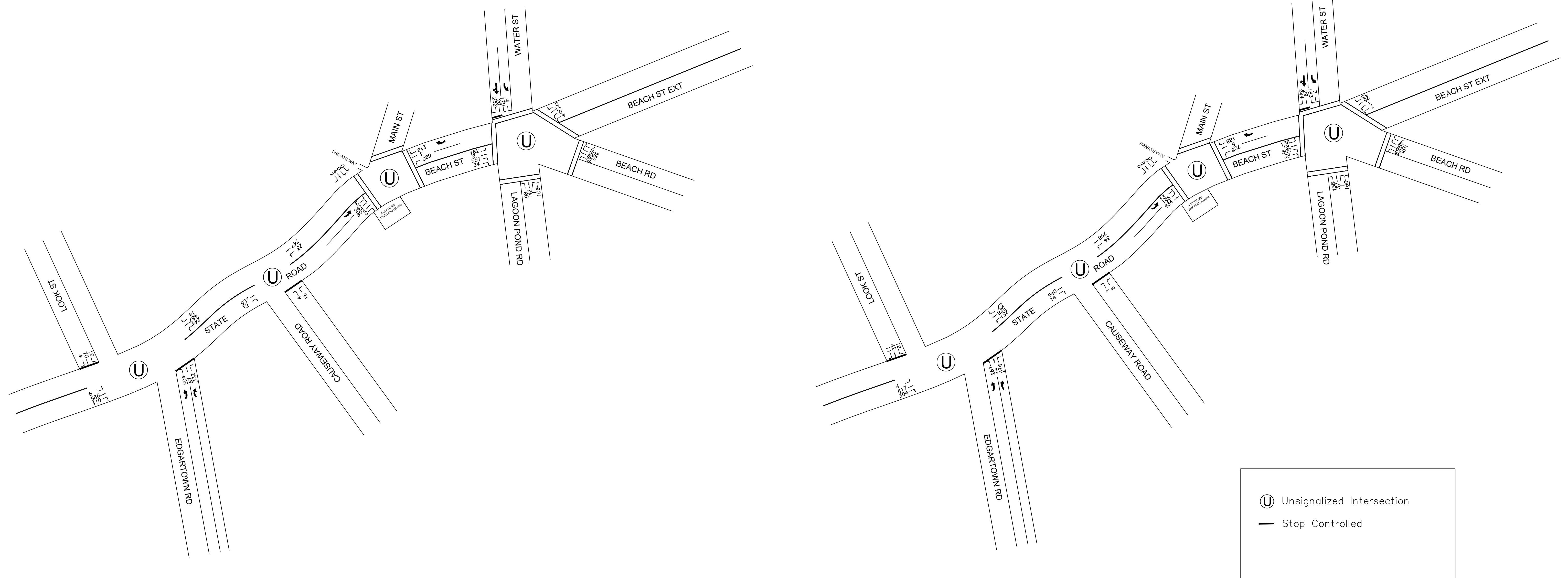
2022 NO-BUILD WEEKDAY MIDDAY PEAK HOUR



 Unsignalized Intersection
 Stop Controlled

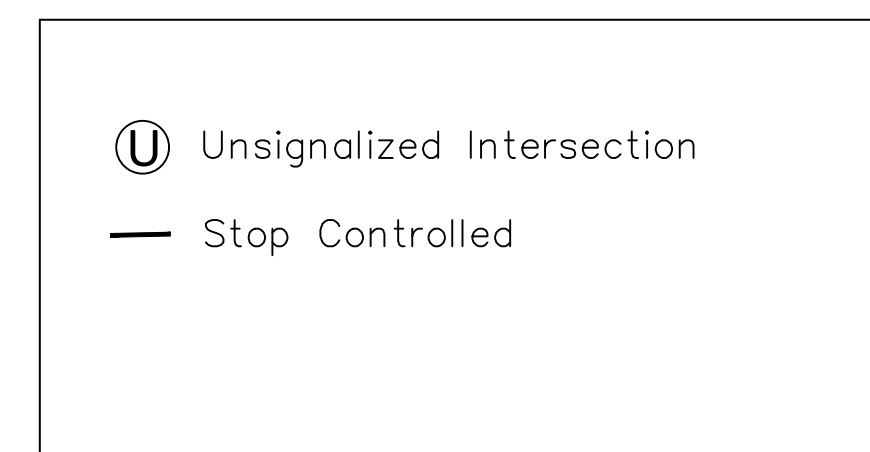
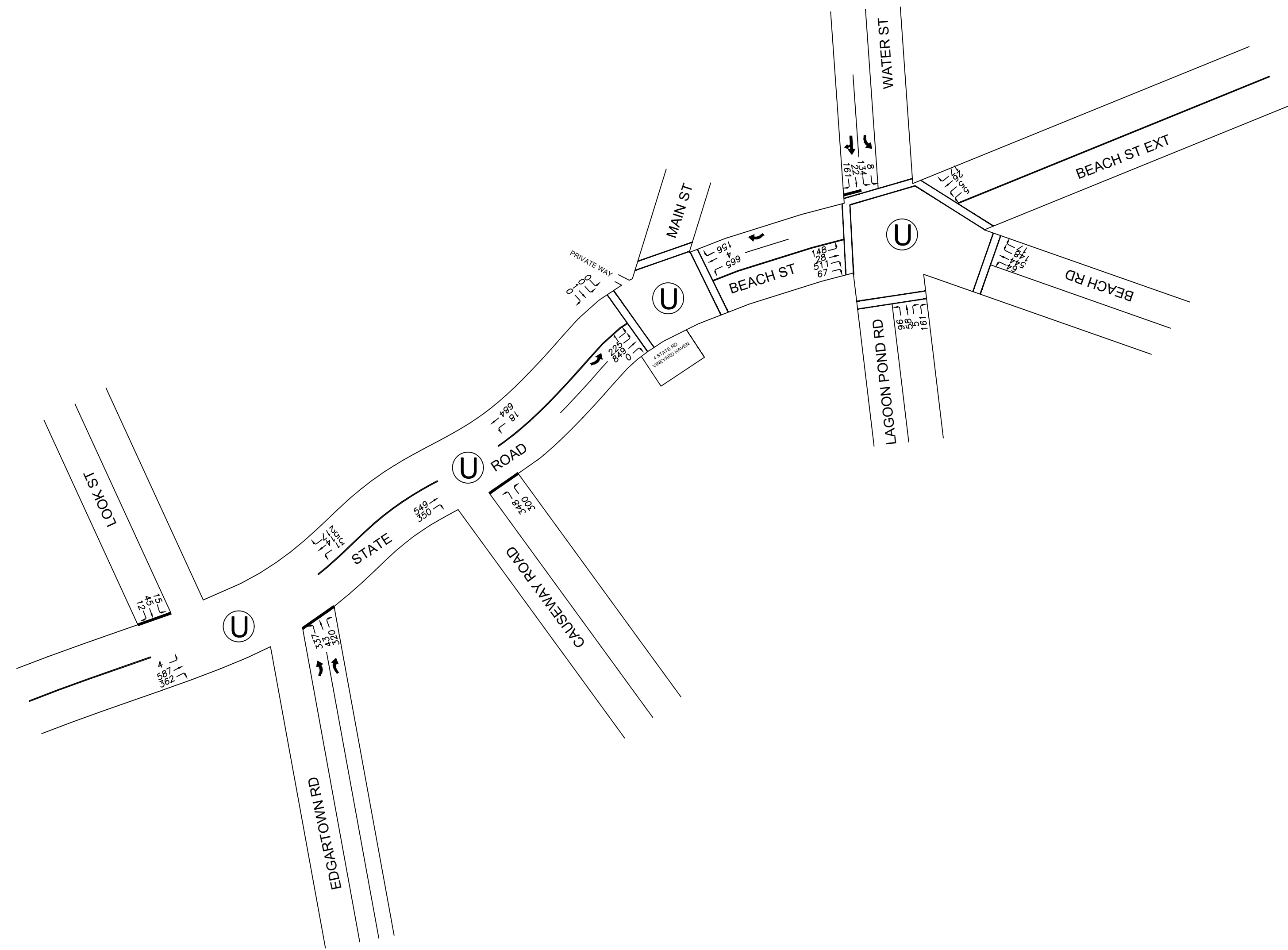
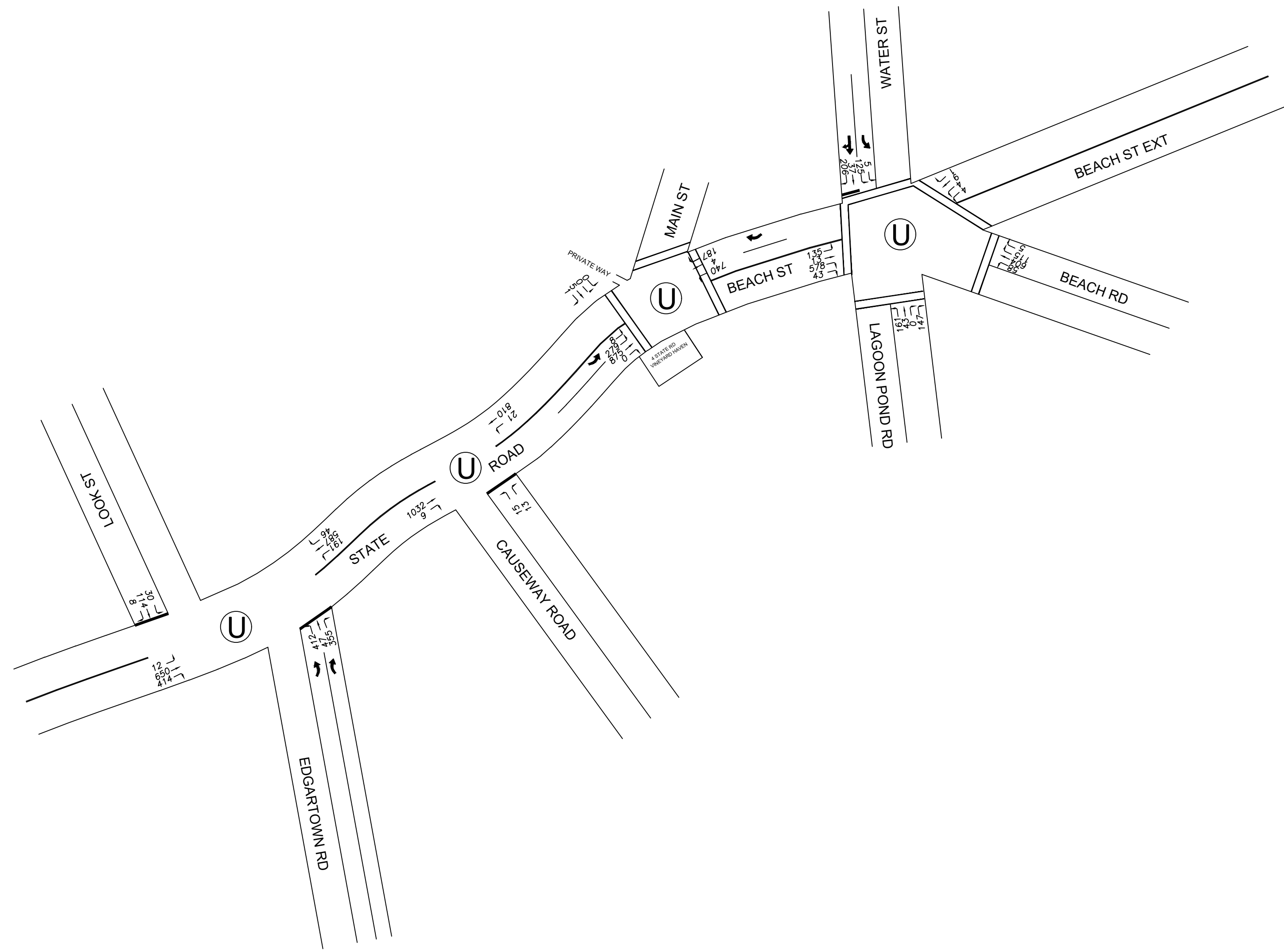
2022 NO-BUILD WEEKDAY PM PEAK HOUR

2022 NO-BUILD SATURDAY MIDDAY PEAK HOUR

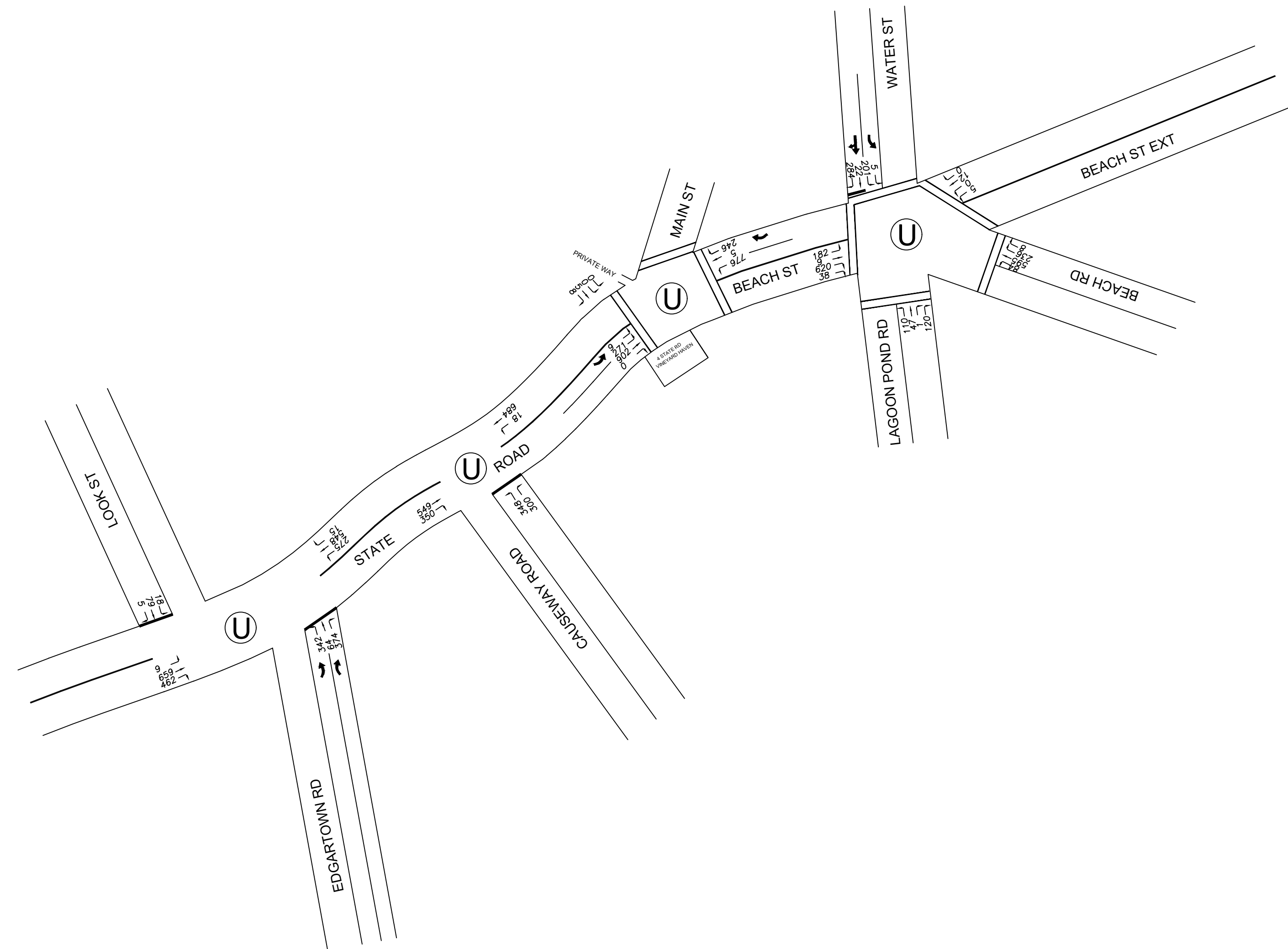


2029 NO-BUILD WEEKDAY AM PEAK HOUR

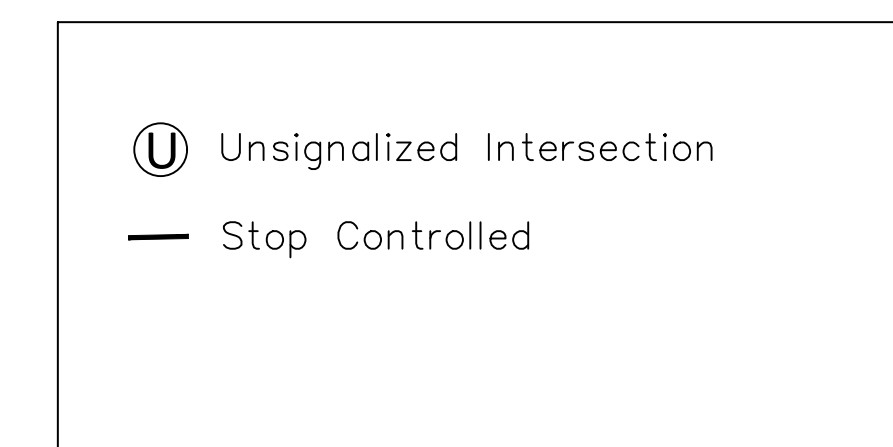
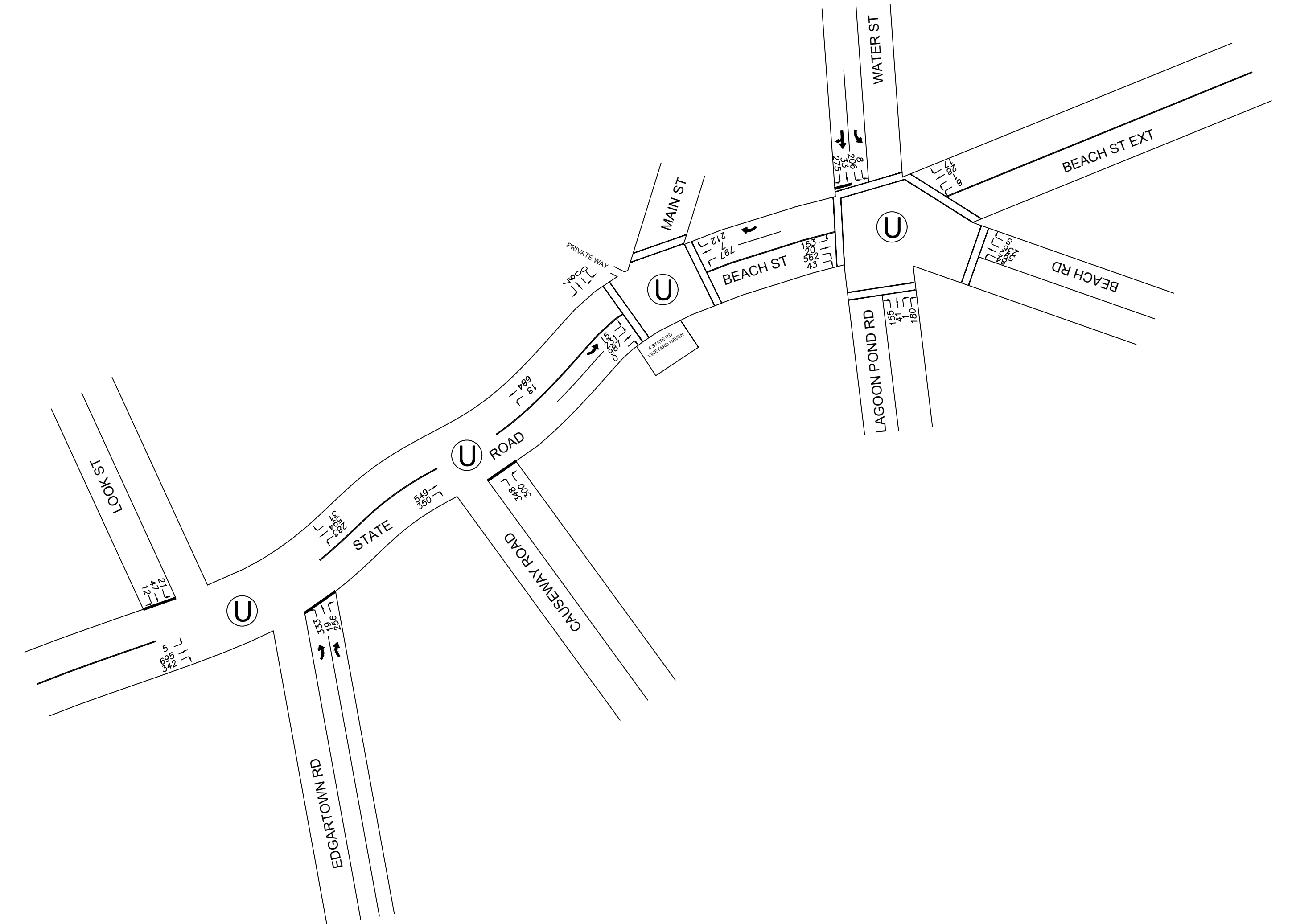
2029 NO-BUILD WEEKDAY MIDDAY PEAK HOUR



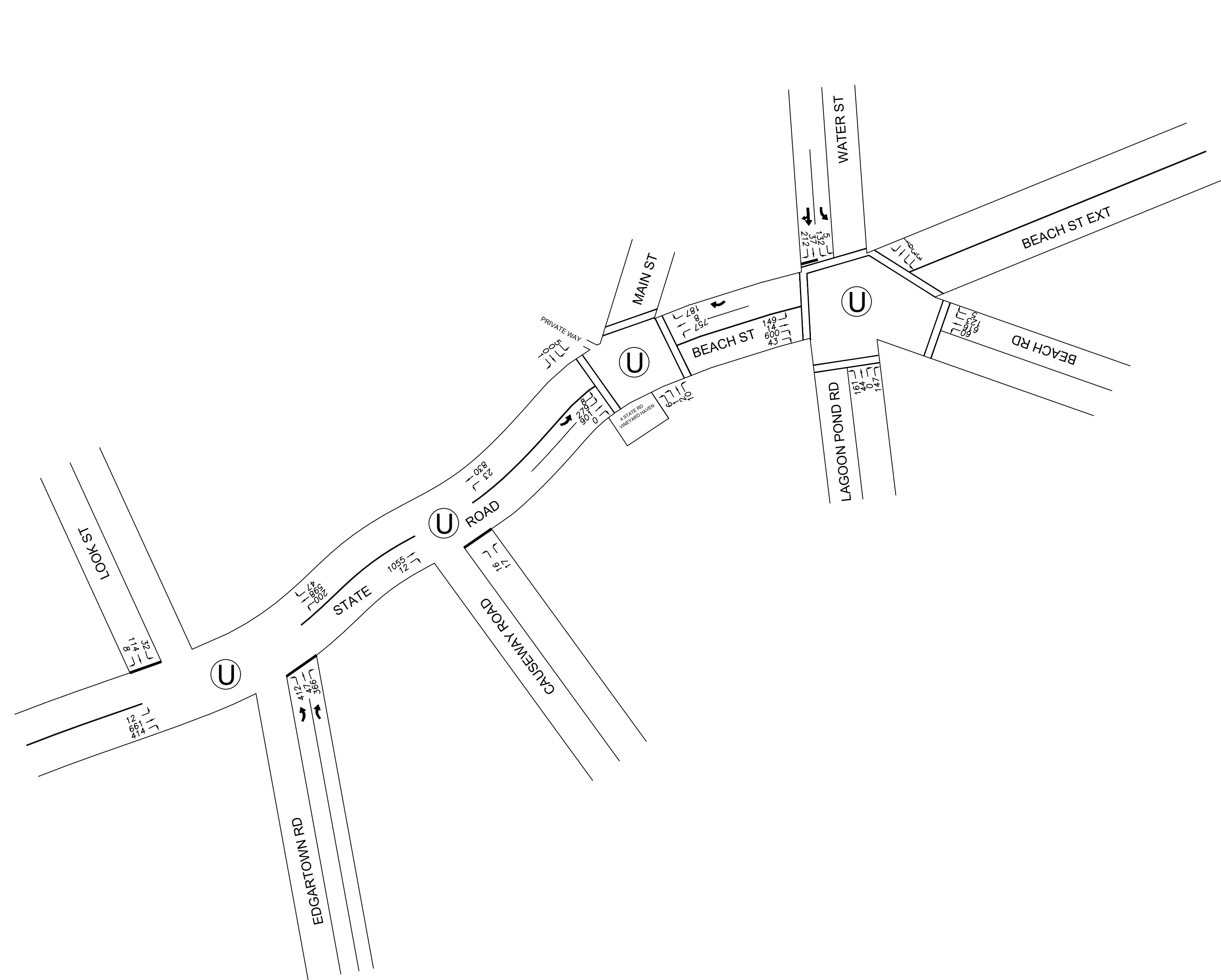
2029 NO-BUILD WEEKDAY PM PEAK HOUR



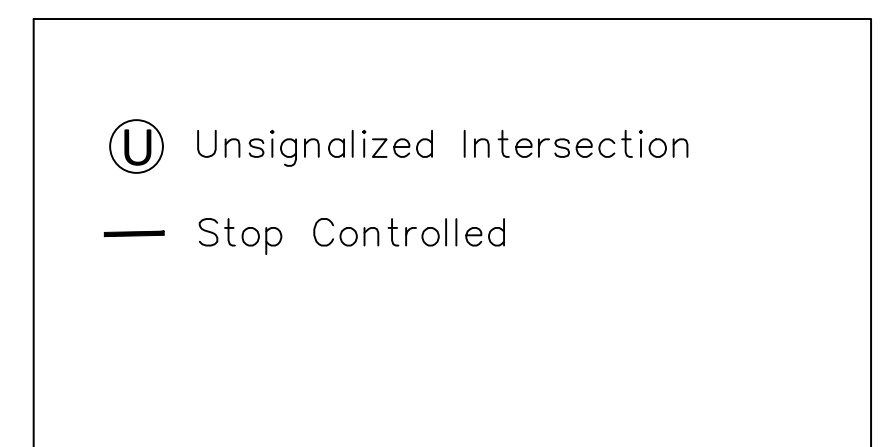
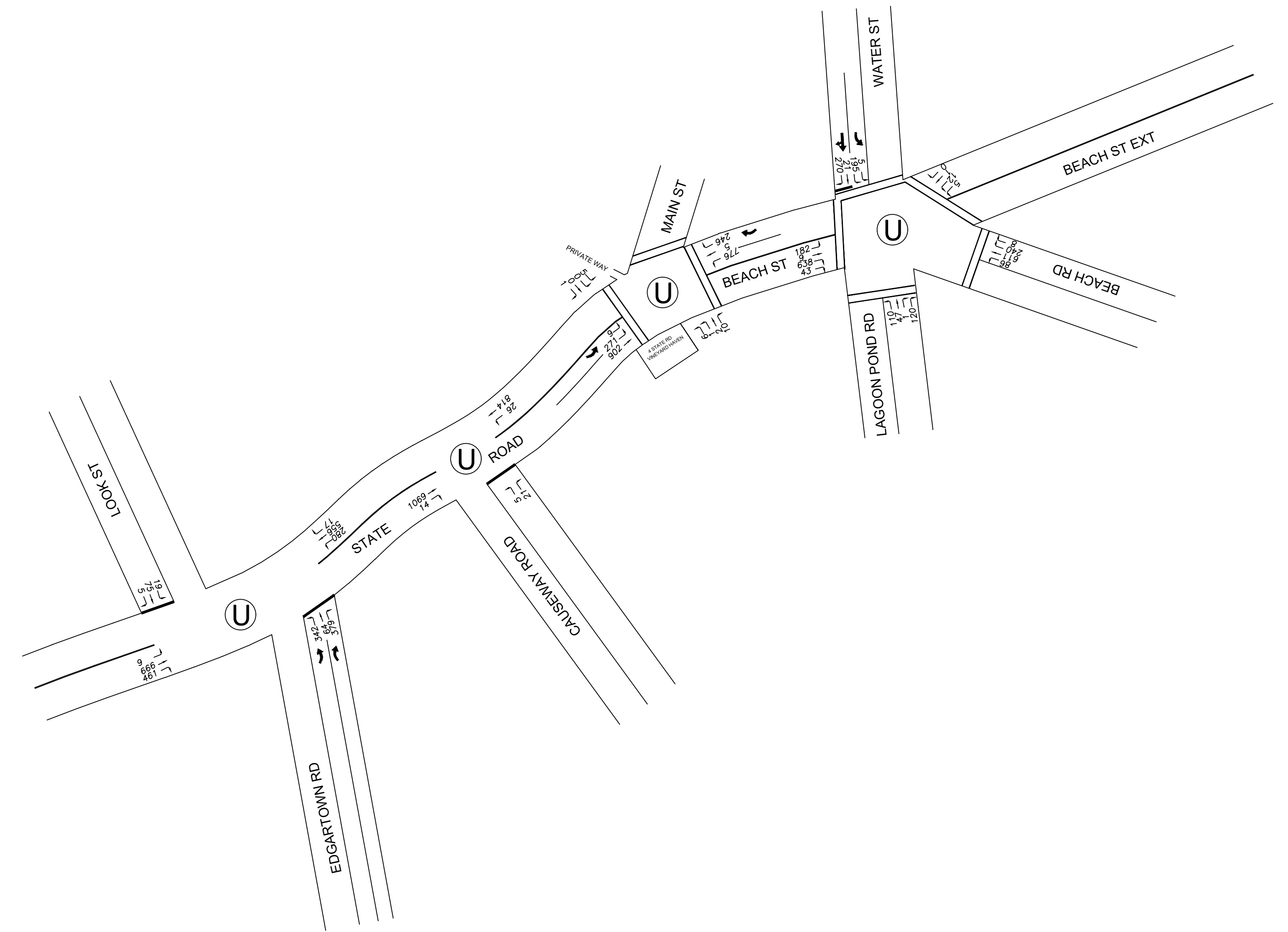
2029 NO-BUILD SATURDAY MIDDAY PEAK HOUR



2029 BUILD WEEKDAY AM PEAK HOUR



2029 BUILD WEEKDAY PM PEAK HOUR



BACKGROUND TRAFFIC GROWTH

Background traffic includes demand generated by other planned projects in the area as well as demand increases caused by external factors. External factors are general increases in traffic not attributable to a specific development and are determined using historical data. Background growth is accounted by increasing the existing traffic volumes compounding by 1.7 percent annually for date of the duration of the study horizon (seven years). This growth rate was formulated by Traffic-volume data compiled as a part of the July 2015 Martha's Vineyard Transportation Plan (MVTP) for the 2016-2040 horizon. This data was reviewed in order to determine general background traffic growth trends. The MVTP noted that historically, traffic on the island grew at a 1.7 percent annual rate between 1981 and 1996. (The Cape Cod Commission Traffic Report (2018 Traffic Counting Report)).

The final element of future No-Build traffic volumes is traffic generated from specific area developments.

NO BUILD TRAFFIC VOLUMES

To account for future traffic growth along the corridor, the 1.7 percent annual growth rate mentioned previously was applied to 2022 baseline existing traffic volumes over a five-year period. Using this methodology, the 2029 Future No-Build peak hour traffic volumes were developed.

SITE GENERATED TRAFFIC VOLUMES

The proposed development will consist of the construction of a 3,000 square foot building for Office Space, and 14 dwelling units. Future Build condition traffic volumes were developed by estimating the number of peak-hour trips expected to be generated by the proposed development and distributing this additional traffic onto the local roadway network. These future project related trips were added to future No-Build traffic volumes to allow for examination of future traffic operations with the proposed development built. The methodology utilized to estimate the future trip-generation characteristics of the proposed development are summarized below.

TRIP GENERATION

In order to estimate the trip generation characteristics of the proposed development, the ITE Trip Generation manual (10th ed.) was utilized. The manual provides trip-generation rates for several Land Use Codes (LUC) including LUC 221 Multi-Family Midrise Apartment Building as the most appropriate category for this development and LUC 710 Mixed Use Office Building. On a daily basis, the project is estimated to generate approximately 105 new vehicle trips (Table 5), with a total of 8 trips during the weekday morning peak hour (5 entering and 3 exiting, see table 5) and 10 new vehicle trips (5 entering and 5 exiting) during the weekday evening peak hour.

Table 5: Trips Generated by Occupied Dwelling Units

ITE	Land Use	Weekday Average Daily Trips			Weekday AM Peak Hour of Generator			Weekday PM Peak Hour of Generator		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
221	Four State Rd Multifamily Residential 14 Dwelling Units	38	38	76	1	3	4	4	2	6
710	Four State Rd Office Space 3000 Sq. Ft. GFA	15	14	29	4	0	4	1	3	4
	Unadjusted Volume	53	52	105	5	3	8	5	5	10
	Internal Capture Trips	0	0	0	0	0	0	0	0	0
	Pass-By Trips	0	0	0	0	0	0	0	0	0
	Volume Added to Adjacent Streets	53	52	105	5	3	8	5	5	10

TRIP DISTRIBUTION AND ASSIGNMENT

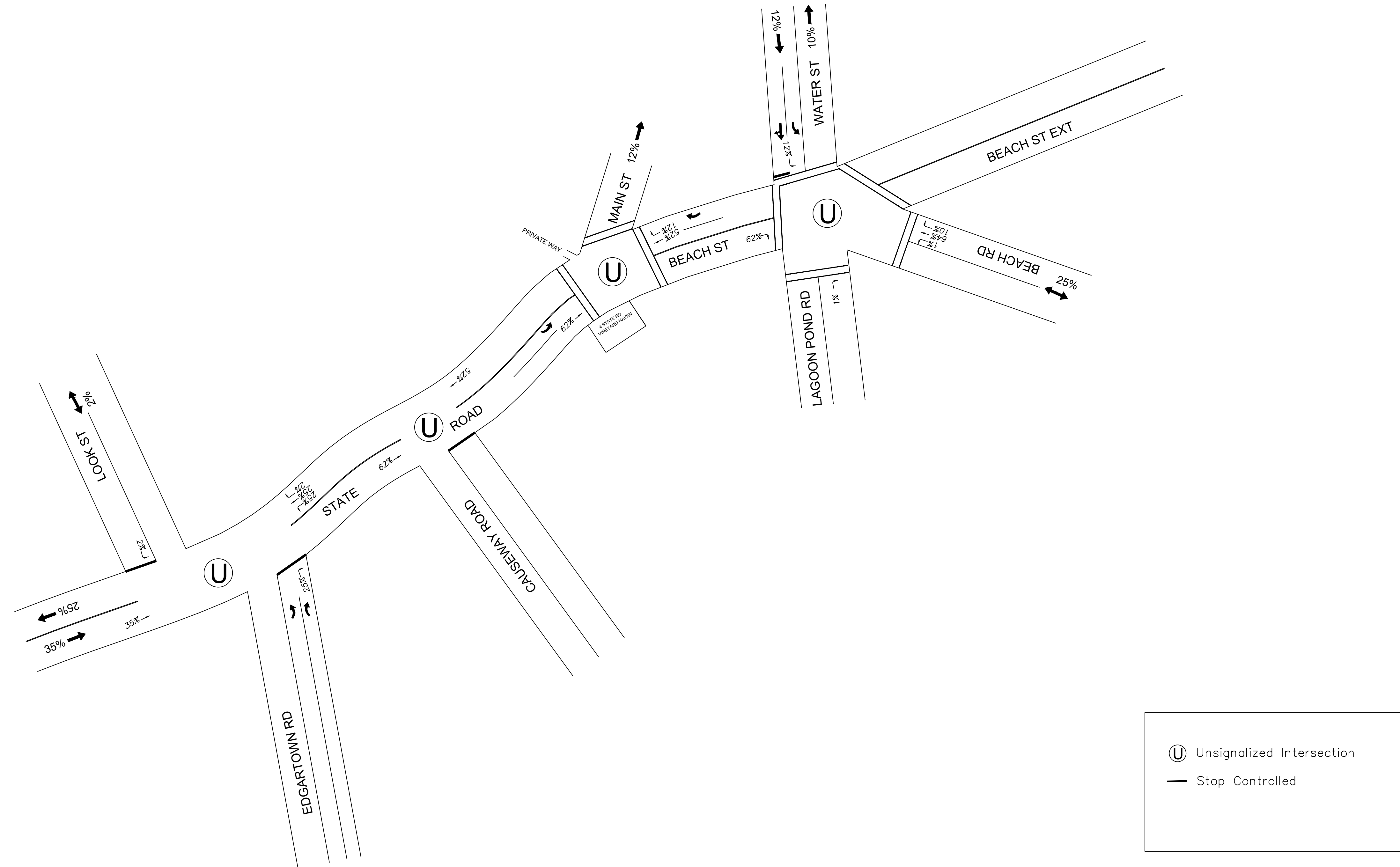
Once project-generated trips have been estimated, trip distribution is executed. Trip distribution is the second step in the conventional transportation forecasting model, following trip generation, and followed by mode choice route assignment. The directional distribution of vehicles arriving at the site and departing from the site varies with several variables, including the employment characteristics of the towns surrounding the development, existing travel patterns along area roadways, and the existing level of service of the road approaches to the site. The additional traffic volumes are distributed onto the local roadway network.

The trip-distribution patterns of the proposed development were determined based on 2012 to 2016 census data. Census Journey-to-Work data and observed travel patterns on study area roadways and an occupancy factor of 1.18 was obtained from the data. For mode choice in Martha's Vineyard, given the ample alternative transport trips taken, it is assumed (conservatively) that 3.03 % of all trips are taken by Transit, walk access is about 4% while work from home is over 8% (See Table 6)

Table 6: Trip Distribution

Means of Transportation (Workers 16 years and over)	
Bicycle	2.46%
Bus or trolley bus	3.03%
Car, truck, or van -- Drove alone	74.66%
Car, truck, or van -- In a 2+-person carpool	5.97%
Ferryboat	1.08%
Motorcycle	0.30%
Other method	0.22%
Railroad	0.18%
Streetcar or trolley car	0.00%
Subway or elevated	0.05%
Taxicab	0.00%
Walked	3.93%
Worked at home	8.12%
Total Result	100.00%

TRIP DISTRIBUTION MAP



A conservative estimate of trips was used in the analysis and trips are not factored using the occupancy value.

1.9 TRAFFIC OPERATIONS ANALYSIS

Roadway capacity analyses were conducted under Existing, No-Build, and Build traffic-volume conditions in order to quantify how the roadway facilities manages the traffic demands placed upon them.

METHODOLOGY

Levels of Service

The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

There are six levels of service defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F representing the worst. (Table 7)

Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

Un-signalized Intersections

The six levels of service for un-signalized intersections may be described as follows:

- LOS A represents a condition with little or no control delay to minor street traffic.
- LOS B represents a condition with short control delays to minor street traffic.
- LOS D represents a condition with long control delays to minor street traffic.
- LOS E represents operating conditions at or near capacity level, with exceedingly long control delays to minor street traffic.
- LOS F represents a condition where minor street demand volume exceeds capacity of an approach lane-width extreme control delays resulting.

The levels of service of un-signalized intersections are determined by concepts and procedures presented in the 2010 Highway Capacity Manual, Transportation Research Board, Washington, DC.

Level of Service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from

a stopped condition. The table below summarizes the relationship between level of service and average control delay.

**Table 7- Level of Service Criteria for Unsignalized Intersections
Average Control Delay**

Level of Service	(Seconds per vehicle)
A	<= 10
B	> 10-15
C	> 15-25
D	> 25-35
E	> 35-50
F	> 50

Source: Highway Capacity Manual 2010, TRB, National Research Council; Transportation Research Board; Washington, DC; 2010; page 17-2.

Level-of-service analyses were conducted for 2022 AM and PM No-Build, 2029 AM and PM No Build, and the 2029 AM and PM Build conditions for the intersections within the study area. The results of the intersection capacity analyses are summarized in Table xx, with detailed analysis results presented in the Appendix.

Table 8 shows that the development impact is not significant since the LOS between the build and no-build scenarios is effectively the same. A reduction in generated trips is also predicted from the trip generation for the proposed land use.

Table 8 – Unsignalized Intersection Level-Of-Service and Vehicle Queue Summary

Traffic Analysis Scenarios		No build 2022			No Build 2029			Build 2029		
		Delay	ICU %	LOS	Delay	ICU %	LOS	Delay	ICU %	LOS
Unsignalized Intersection/ Peak Hour/Movement										
State Road/Look Street/Edgartown – VH Road										
Weekday Morning:		>55	103.60	F	>55	103.60	F	>55	138.30	F
Weekday Midday:		>55	125.70	F	>55	125.70	F	>55	125.70	F
Weekday Evening:		>55	138.80	F	>55	138.80	F	>55	138.80	F
Saturday Midday:		>55	141.00	F	>55	141.00	F	>55	141.00	F
State Road/Causeway Road										
Weekday Morning:		<15	59.60	B	<15	59.60	B	<15	63.10	B
Weekday Midday:		<25	63.10	C	<25	63.10	C	<25	63.10	C
Weekday Evening:		<25	67.90	C	<25	67.90	C	<25	67.90	C
Saturday Midday:		<45	79.56	D	<45	79.56%	D	<45	79.56	D
State Road/Beach Street/Main Street										
Weekday Morning:		<45	67.70	C	<45	74.30	D	<45	74.30	D
Weekday Midday:		<45	66.90	C	<45	66.90	C	<45	74.30	D
Weekday Evening:		<45			76.70	D	<45	76.70	D	<45

Saturday Midday:		<45	75.50	D	<45	75.50	D	<45		
									76.70	D
Five-Corners									75.50	D
Weekday Morning:		>55	127.70%	F	>55	127.70%	F	>55		
Weekday Midday:		>55	125.50%	F	>55	125.50%	F	>55		
Weekday Evening:		>55	142.90%	F	>55	142.90%	F	>55	127.70%	F
Saturday Midday:		>55	136.50%	F	>55	136.50%	F	>55	125.50%	F
									142.90%	F
Main Street / Union Street									136.50%	F
Weekday Morning:		<10	25.10%	A	<10	25.10%	A	<10		
Weekday Midday:		<10	25.10%	A	<10	25.10%	A	<10		
Weekday Evening:		<10	25.10%	A	<10	25.10%	A	<10	25.10%	A
Saturday Midday:		<10	25.10%	A	<10	25.10%	A	<10	25.10%	A
									25.10%	A
Water Street / Union Street									25.10%	A
Weekday Morning:		<10	20.80%	A	<10	20.80%	A	<10		
Weekday Midday:		<10	20.80%	A	<10	20.80%	A	<10		
Weekday Evening:		<10	20.80%	A	<10	20.80%	A	<10	20.80%	A
Saturday Midday:		<10	20.80%	A	<10	20.80%	A	<10	20.80%	A
									20.80%	A

61 Beach Road / Beach Road									20.80%	A
Weekday Morning:		<10	46.00%	A	<10	46.00%	A	<10		
Weekday Midday:		<10	46.00%	A	<10	46.00%	A	<10		
Weekday Evening:		<10	46.00%	A	<10	46.00%	A	<10	46.00%	A
Saturday Midday:		<10	46.00%	A	<10	46.00%	A	<10	46.00%	A
									46.00%	A
									46.00%	A

2.0 RECOMMENDATIONS AND CONCLUSIONS

The site traffic analysis did not show any increases in vehicular trips produced by the site, in-fact there is a slight decrease (using the ITE trips generation version 10 data) for the proposed development (105 weekday trips) than the previous land use trips (107 weekday trips).

Additional facilities for safe crossings, markings, and a pedestrian friendly environment should be considered. More specifically, there are some geometric challenges that exist for the area and are listed below:

- (1) The crosswalk at the intersection of Main Street and Beach Street (where State Road becomes Beach Street) terminates into an egress driveway making an unsafe situation for pedestrians.
- (2) The crosswalk at the intersection of State Road at Main Street is located in such a manner that vehicles making a left turn into the site driveway will have to cross the pedestrian path while having to pay attention to opposing traffic streams.
- (3) The crosswalks at all approaches are not American with Disability Act (ADA) compliant.
- (4) During the traffic study pavement markings were either faded or gone completely. Pavement marking visibility maybe an issue both during the daytime, and at nighttime hours.
- (5) The site distance (site-lines) for vehicles making a right turn out of the site driveway is limited. Vehicles making a right and left turn out of the site may inch forward into the intersection to increase their line of site.
- (6) Even though contribution of site traffic volume is less than previous land use, safety related geometric improvements at the site intersection and possible reconfiguration of the intersection is recommended.

Proposed mitigative measures include the following:

- (1) The site will have a separate entrance and egress. Access to the project will be provided via an existing driveway located at the southeast corner of the site. Egress will be provided via a proposed driveway realignment located along the northeast corner of the site. Since State Road is under the jurisdiction of MassDOT, the driveway reconfiguration will require the issuance of a State Highway Access Permit.
- (2) The access an egress driveway will be designed to ensure that there is sufficient turning radii for commercial and non-commercial vehicles accessing the site
- (3) The proposed width of the driveway will be a minimum of 10-feet for one-way travel
- (4) Both driveways will have “Do Not Enter,” and “One Way” signage at the approaches.
- (5) As a long-term solution and in coordination with MassDOT consider a small modern traffic circle to improve overall traffic flow, and access to the site.
- (6) Install ADA compliant wheelchair ramps at all approaches along the site.
- (7) Install Retroreflective thermoplastic crosswalks at all approaches or consider increasing the pavement marking painting schedule. Consider installing “Ladders” to the crosswalk to increase visibility at night.
- (8) Install a striped edge line along the curb of the 4 State Road site to better align the eastbound traffic stream.

Transportation demand management or the application of strategies and policies to reduce travel demand⁴ should strongly be utilized as part of the project development. The site location has the unique opportunity to mitigate a lot of potential vehicle trips provided by the site. The project site has ample transit access, and it is recommended that residents be provided incentives to use alternatives to automobile travel. The Route #1, #2, #3, and the Route #13 buses travel along State Road and Beach Street with stations that are within walking distance of the site. It is recommended that the owner should provide information to the potential tenants that would make them aware of alternative transit options, and they may provide to the employees of the commercial portion of the development incentives such as transit passes to reduce the amount of vehicle trips. The following are list of specific actions that could mitigate and reduce automobile dependence and increase transit patronage:

- (1) Transit maps and schedules should be provided to the tenants.
- (2) Bicycling and Walking: - Provision for bicycles facilities such as bicycle racks, covered parking (already provided in the plan)
- (3) Car/Ridesharing: Encourage tenants, and employees of the commercial portion of the building to carshare/ridesharing to and from work by connecting them with websites that promote carpooling.
- (4) Teleworking: With the ongoing COVID pandemic, teleworking has become an increasingly viable option for employees and employers. It is recommended that information be provided on the benefits of Teleworking working or teleconferencing from home. This may also include a provision within the building for an internet enabled shared office space for residents.

⁴ https://en.wikipedia.org/wiki/Transportation_demand_management
FPES - March 2022

A-1 Traffic Count Data

State Road-Edgartown Road-Look Street Weekday AM Peak Hour Traffic Count

Year	EB			WB			NB			SB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	10	549	350	161	496	39	348	40	300	25	96	7
2022	11	577	368	169	522	41	366	42	316	26	101	7
2029	12	650	414	191	587	46	412	47	355	30	114	8
Lane	11	11	11	11	11	11	11	11	11	11	11	11

State Road-Edgartown Road-Look Street Weekday Midday Peak Hour Traffic Count

Year	EB			WB			NB			SB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	3	496	306	26	434	183	285	36	270	13	38	10
2022	3	522	322	27	457	192	300	38	284	14	40	11
2029	4	587	362	31	514	217	337	43	320	15	45	12
Lane	11	11	11	11	11	11	11	11	11	11	11	11

State Road-Edgartown Road-Look Street Weekday PM Peak Hour Traffic Count

Year	EB			WB			NB			SB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	8	557	390	232	463	13	289	54	316	15	67	4
2022	8	586	410	244	487	14	304	57	332	16	70	4
2029	9	659	462	275	548	15	342	64	374	18	79	5
Lane	11	11	11	11	11	11	11	11	11	11	11	11

State Road-Edgartown Road-Look Street Saturday Midday Peak Hour Traffic Count

Year	EB			WB			NB			SB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	4	587	289	239	502	26	281	21	284	18	40	10
2022	4	617	304	251	528	27	296	22	299	19	42	11
2029	5	695	342	283	594	31	333	25	336	21	47	12
Lane	11	11	11	11	11	11	11	11	11	11	11	11

State Road-Causeway Road Weekday AM Peak Hour Traffic Count

Year	EB			WB			NB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019		872	8	18	684		13		11
2022	0	917	8	19	719	0	14	0	12
2029	0	1032	9	21	810	0	15	0	13
Lane	11	11	11	11	11	11	11	11	11

State Road-Causeway Road Weekday Midday Peak Hour Traffic Count

Year	EB			WB			NB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019		755	10	17	634		14		26
2022	0	794	11	18	667	0	15	0	27
2029	0	894	12	20	750	0	17	0	31
Lane	11	11	11	11	11	11	11	11	11

State Road-Causeway Road Weekday PM Peak Hour Traffic Count

Year	EB			WB			NB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019		891	11	22	710		4		15
2022	0	937	12	23	747	0	4	0	16
2029	0	1055	13	26	840	0	5	0	18
Lane	11	11	11	11	11	11	11	11	11

State Road-Causeway Road Saturday Midday Peak Hour Traffic Count

Year	EB			WB			NB		
	Lt	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019		894	13	32	759		1		8
2022	0	940	14	34	798	0	1	0	8
2029	0	1058	15	38	898	0	1	0	9
Lane	11	11	11	11	11	11	11	11	11

State Road-Main Street-Beach Street-Private Driveway Weekday AM Peak Hour Traffic Count

Year	EB				WB			NB		
	Lt2	LtDr	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	0	0	4	1	625	3	158	7	236	739
2022	0	0	4	1	657	3	166	7	248	777
2029	0	0	5	1	740	4	187	8	279	875
Lane	11	11	11	11	11	11	11	11	11	11

State Road-Main Street-Beach Street-Private Driveway Weekday Midday Peak Hour Traffic Count

Year	EB				WB			NB		
	Lt2	LtDr	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	0	0	1	0	562	3	132	1	190	717
2022	0	0	1	0	591	3	139	1	200	754
2029	0	0	1	0	665	4	156	1	225	849
Lane	11	11	11	11	11	11	11	11	11	11

State Road-Main Street-Beach Street-Private Driveway Weekday PM Peak Hour Traffic Count

Year	EB				WB			NB		
	Lt	LtDr	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	0	0	4	7	656	4	208	8	229	762
2022	0	0	4	7	690	4	219	8	241	802
2029	0	0	5	8	776	5	246	9	271	902
Lane	11	11	11	11	11	11	11	11	11	11

State Road-Main Street-Beach Street-Private Driveway Saturday Midday Peak Hour Traffic Count

Year	EB				WB			NB		
	Lt	LtDr	Th	Rt	Lt	Th	Rt	Lt	Th	Rt
2019	0	0	8	6	673	6	179	13	195	834
2022	0	0	8	6	708	6	188	14	205	877
2029	0	0	9	7	797	7	212	15	231	987
Lane	11	11	11	11	11	11	11	11	11	11

Beach Street-Lagoon Pond Road-Beach Road-Beach Street Ext-Water Street Weekday AM Peak Hour Traffic Count

Year	EB				WB				NB				SB			NWB				
	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt
2019	114	11	488	36	3	3	8	1	136	36	0	124	4	106	31	174	49	510	97	4
2022	120	12	513	38	3	3	8	1	143	38	0	130	4	111	33	183	52	536	102	4
2029	135	13	578	43	4	4	9	1	161	43	0	147	5	125	37	206	58	604	115	5
Lane	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

Beach Street-Lagoon Pond Road-Beach Road-Beach Street Ext-Water Street Weekday Midday Peak Hour Traffic Count

Year	EB				WB				NB				SB				NWB			
	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt
2019	125	24	432	57	4	4	22	14	81	49	4	136	7	113	19	136	54	460	125	14
2022	131	25	454	60	4	4	23	15	85	52	4	143	7	119	20	143	57	484	131	15
2029	148	28	511	67	5	5	26	17	96	58	5	161	8	134	22	161	64	544	148	17
Lane	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

Beach Street-Lagoon Pond Road-Beach Road-Beach Street Ext-Water Street Weekday PM Peak Hour Traffic Count

Year	EB				WB				NB				SB				NWB			
	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt
2019	154	8	524	32	4	0	10	0	93	40	1	101	4	170	19	240	71	503	199	7
2022	162	8	551	34	4	0	11	0	98	42	1	106	4	179	20	252	75	529	209	7
2029	182	9	620	38	5	0	12	0	110	47	1	120	5	201	22	284	84	595	236	8
Lane	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

Beach Street-Lagoon Pond Road-Beach Road-Beach Street Ext-Water Street Saturday Midday Peak Hour Traffic Count


















Year	EB				WB				NB				SB				NWB			
	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt	2ndLt	Lt	Th	Rt	Lt	Th	Rt	2ndRt
2019	129	17	475	36	7	1	24	14	131	35	1	152	7	174	28	232	35	486	118	13
2022	136	18	500	38	7	1	25	15	138	37	1	160	7	183	29	244	37	511	124	14
2029	153	20	562	43	8	1	28	17	155	41	1	180	8	206	33	275	41	575	140	15
Lane	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11

A-2 Crash Rate Worksheets

A-3 Synchro Analysis Results

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/28/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	11	577	368	366	42	316	26	101	7	169	522	41
Future Volume (vph)	11	577	368	366	42	316	26	101	7	169	522	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948				0.850		0.993		0.896		
Flt Protected		0.970			0.957			0.991		0.989		
Satd. Flow (prot)	0	1713	0	0	1783	1583	0	1833	0	1651	0	0
Flt Permitted		0.970			0.957			0.991		0.989		
Satd. Flow (perm)	0	1713	0	0	1783	1583	0	1833	0	1651	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	12	627	400	398	46	343	28	110	8	184	567	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1039	0	0	444	343	0	146	0	796	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	138.3%					ICU Level of Service H						
Analysis Period (min)	15											

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	27	794	11	18	667
Future Volume (vph)	15	27	794	11	18	667
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913		0.998			
Flt Protected	0.983					0.999
Satd. Flow (prot)	1672	0	1859	0	0	1861
Flt Permitted	0.983					0.999
Satd. Flow (perm)	1672	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	29	863	12	20	725
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	875	0	0	745
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.6%			ICU Level of Service B		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBT	SEL	SER2	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	657	7	166	0	4	1	7	248	777
Future Volume (vph)	657	7	166	0	4	1	7	248	777
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0			50	0
Storage Lanes	1	1			1			1	1
Taper Length (ft)	25				25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850		0.973				0.850
Flt Protected	0.954				0.962			0.950	
Satd. Flow (prot)	1768	0	1504	1863	1744	0	0	1770	1583
Flt Permitted	0.954				0.962			0.950	
Satd. Flow (perm)	1768	0	1504	1863	1744	0	0	1770	1583
Link Speed (mph)	30			30	30			30	
Link Distance (ft)	620			121	79			506	
Travel Time (s)	14.1			2.8	1.8			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	714	8	180	0	4	1	8	270	845
Shared Lane Traffic (%)			10%						
Lane Group Flow (vph)	740	0	162	0	5	0	0	278	845
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12			0	12			12	
Link Offset(ft)	0			0	0			0	
Crosswalk Width(ft)	16			16	16			16	
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	9	15	15	9
Sign Control	Free			Stop	Stop			Free	

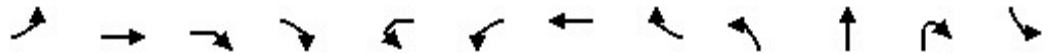
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	67.7%
ICU Level of Service	C
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL2
Lane Configurations		↕					↕			↕		
Traffic Volume (vph)	120	12	513	38	3	3	8	1	143	38	130	4
Future Volume (vph)	120	12	513	38	3	3	8	1	143	38	130	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.891					0.992			0.944		
Fl _t Protected		0.991					0.982			0.978		
Satd. Flow (prot)	0	1645	0	0	0	0	1815	0	0	1720	0	0
Fl _t Permitted		0.991					0.982			0.978		
Satd. Flow (perm)	0	1645	0	0	0	0	1815	0	0	1720	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	130	13	558	41	3	3	9	1	155	41	141	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	742	0	0	0	0	16	0	0	337	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	15
Sign Control		Free					Stop			Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	127.7%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Traffic Volume (vph)	111	33	183	52	536	102	4
Future Volume (vph)	111	33	183	52	536	102	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.873			0.979		
Fl _t Protected	0.950				0.959		
Satd. Flow (prot)	1770	1626	0	0	1749	0	0
Fl _t Permitted	0.950				0.959		
Satd. Flow (perm)	1770	1626	0	0	1749	0	0
Link Speed (mph)		25			30		
Link Distance (ft)		567			612		
Travel Time (s)		15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	121	36	199	57	583	111	4
Shared Lane Traffic (%)							
Lane Group Flow (vph)	125	235	0	0	755	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		12			12		
Link Offset(ft)		0			0		
Crosswalk Width(ft)		16			16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	15	9	9
Sign Control		Stop			Free		
Intersection Summary							

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	0	414	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	450	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	450	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 20: Water Street & Union St

03/28/2022






















Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↓	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	261	331	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	284	360	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	284	360	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	810	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	880	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	880	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/28/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	11	577	368	366	42	316	26	101	7	169	522	41
Future Volume (vph)	11	578	368	366	42	316	26	101	7	169	523	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948				0.850		0.993			0.850	
Flt Protected		0.970			0.957			0.990		0.950		
Satd. Flow (prot)	0	1713	0	0	1783	1583	0	1831	0	1770	1583	0
Flt Permitted		0.970			0.957			0.990		0.950		
Satd. Flow (perm)	0	1713	0	0	1783	1583	0	1831	0	1770	1583	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	12	628	400	398	46	343	28	110	8	184	568	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1168	0	0	499	387	0	165	0	207	688	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	103.6%					ICU Level of Service G						
Analysis Period (min)	15											

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	27	794	11	18	667
Future Volume (vph)	15	27	795	11	18	668
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913		0.998			
Flt Protected	0.983					0.999
Satd. Flow (prot)	1672	0	1859	0	0	1861
Flt Permitted	0.983					0.999
Satd. Flow (perm)	1672	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	29	864	12	20	726
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	984	0	0	838
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.6%			ICU Level of Service B		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBT	SEL	NEL2	NEL	NER
Lane Configurations								
Traffic Volume (vph)	591	3	139	1	1	1	200	754
Future Volume (vph)	592	3	139	1	1	1	200	755
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		50	0
Storage Lanes	1	1			1		1	1
Taper Length (ft)	25				25		25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Frt	0.996		0.850					0.850
Flt Protected	0.954				0.950		0.950	
Satd. Flow (prot)	1770	0	1504	1863	1770	0	1770	1583
Flt Permitted	0.954				0.950		0.950	
Satd. Flow (perm)	1770	0	1504	1863	1770	0	1770	1583
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	620			121	79		506	
Travel Time (s)	14.1			2.8	1.8		11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	643	3	151	1	1	1	217	821
Shared Lane Traffic (%)			10%					
Lane Group Flow (vph)	743	0	153	1	1	0	246	922
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Left	Right
Median Width(ft)	12			0	12		12	
Link Offset(ft)	0			0	0		0	
Crosswalk Width(ft)	16			16	16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	15	15	9
Sign Control	Free			Stop	Stop		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	66.9%
	ICU Level of Service C
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations		↕					↕			↕		
Traffic Volume (vph)	131	25	454	60	4	4	23	15	85	52	4	143
Future Volume (vph)	131	25	454	60	4	4	23	15	85	52	4	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896					0.957			0.930		
Flt Protected		0.990					0.991			0.985		
Satd. Flow (prot)	0	1652	0	0	0	0	1767	0	0	1706	0	0
Flt Permitted		0.990					0.991			0.985		
Satd. Flow (perm)	0	1652	0	0	0	0	1767	0	0	1706	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	142	27	493	65	4	4	25	16	92	57	4	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	819	0	0	0	0	56	0	0	348	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Sign Control		Free					Stop			Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	125.5%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Traffic Volume (vph)	7	119	20	143	57	484	131	15
Future Volume (vph)	7	119	20	143	57	484	131	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.869			0.971		
Flt Protected		0.950				0.962		
Satd. Flow (prot)	0	1770	1619	0	0	1740	0	0
Flt Permitted		0.950				0.962		
Satd. Flow (perm)	0	1770	1619	0	0	1740	0	0
Link Speed (mph)			25			30		
Link Distance (ft)			567			612		
Travel Time (s)			15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	129	22	155	62	526	142	16
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	155	200	0	0	840	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			12			12		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15	15	9	9
Sign Control			Stop			Free		
Intersection Summary								

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	0	414	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	450	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	507	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
20: Water Street & Union St

03/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	261	331	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	284	360	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	320	404	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	811	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	882	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	990	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
3: Edgartown Rd/Look St & State Rd

03/28/2022



Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	8	586	410	304	57	332	16	70	4	244	487	14
Future Volume (vph)	8	586	410	304	57	332	16	70	4	244	487	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945				0.850		0.994		0.909		
Flt Protected		0.971			0.960			0.991		0.984		
Satd. Flow (prot)	0	1709	0	0	1788	1583	0	1835	0	1666	0	0
Flt Permitted		0.971			0.960			0.991		0.984		
Satd. Flow (perm)	0	1709	0	0	1788	1583	0	1835	0	1666	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	9	637	446	330	62	361	17	76	4	265	529	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1092	0	0	392	361	0	97	0	809	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	138.8%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	27	937	12	23	747
Future Volume (vph)	15	27	937	12	23	747
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913		0.998			
Flt Protected	0.983					0.999
Satd. Flow (prot)	1672	0	1859	0	0	1861
Flt Permitted	0.983					0.999
Satd. Flow (perm)	1672	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	29	1018	13	25	812
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	1031	0	0	837
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	67.9%			ICU Level of Service C		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBT	SEL	SER2	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	690	4	219	0	4	7	8	241	802
Future Volume (vph)	690	4	219	0	4	7	8	241	802
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0			50	0
Storage Lanes	1	1			1			1	1
Taper Length (ft)	25				25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850		0.910				0.850
Flt Protected	0.954				0.984			0.950	
Satd. Flow (prot)	1768	0	1504	1863	1668	0	0	1770	1583
Flt Permitted	0.954				0.984			0.950	
Satd. Flow (perm)	1768	0	1504	1863	1668	0	0	1770	1583
Link Speed (mph)	30			30	30			30	
Link Distance (ft)	620			121	79			506	
Travel Time (s)	14.1			2.8	1.8			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	750	4	238	0	4	8	9	262	872
Shared Lane Traffic (%)			10%						
Lane Group Flow (vph)	778	0	214	0	12	0	0	271	872
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12			0	12			12	
Link Offset(ft)	0			0	0			0	
Crosswalk Width(ft)	16			16	16			16	
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	9	15	15	9
Sign Control	Free			Stop	Stop			Free	

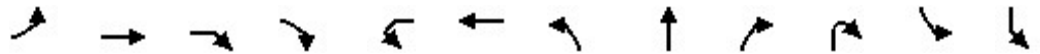
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	70.0%
ICU Level of Service	C
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

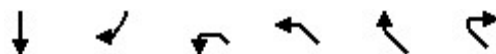
03/28/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBT	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations		↕				↕		↕				↕
Traffic Volume (vph)	162	8	551	34	4	11	98	42	1	106	4	179
Future Volume (vph)	162	8	551	34	4	11	98	42	1	106	4	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895						0.942				
Flt Protected		0.989				0.988		0.980				0.950
Satd. Flow (prot)	0	1649	0	0	0	1840	0	1720	0	0	0	1770
Flt Permitted		0.989				0.988		0.980				0.950
Satd. Flow (perm)	0	1649	0	0	0	1840	0	1720	0	0	0	1770
Link Speed (mph)		30				30		30				
Link Distance (ft)		620				312		478				
Travel Time (s)		14.1				7.1		10.9				
Peak Hour Factor	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)	176	9	599	37	4	12	107	46	1	115	4	195
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	821	0	0	0	16	0	269	0	0	0	199
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)		0				0		12				
Link Offset(ft)		0				0		0				
Crosswalk Width(ft)		16				16		16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		15		9	9	15	15
Sign Control		Free				Stop		Stop				

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	142.9%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations						
Traffic Volume (vph)	20	252	75	529	209	7
Future Volume (vph)	20	252	75	529	209	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.861			0.964		
Fl _t Protected				0.964		
Satd. Flow (prot)	1604	0	0	1731	0	0
Fl _t Permitted				0.964		
Satd. Flow (perm)	1604	0	0	1731	0	0
Link Speed (mph)	25			30		
Link Distance (ft)	567			612		
Travel Time (s)	15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	274	82	575	227	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	296	0	0	892	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right
Median Width(ft)	12			12		
Link Offset(ft)	0			0		
Crosswalk Width(ft)	16			16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15	15	9	9
Sign Control	Stop			Free		
Intersection Summary						

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	0	414	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	450	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	450	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings
 20: Water Street & Union St

03/28/2022






















Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	261	331	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	284	360	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	284	360	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	810	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	880	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	880	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/27/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	4	617	304	296	22	299	18	40	10	239	502	26
Future Volume (vph)	4	627	309	301	22	304	18	41	10	243	511	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956				0.850		0.980			0.850	
Flt Protected		0.968			0.955			0.987		0.950		
Satd. Flow (prot)	0	1724	0	0	1779	1583	0	1802	0	1770	1583	0
Flt Permitted		0.968			0.955			0.987		0.950		
Satd. Flow (perm)	0	1724	0	0	1779	1583	0	1802	0	1770	1583	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	4	682	336	327	24	330	20	45	11	264	555	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1022	0	0	351	330	0	76	0	264	583	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	100.4%					ICU Level of Service G						
Analysis Period (min)	15											

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/27/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	1	8	940	14	34	789
Future Volume (vph)	1	8	956	14	35	802
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878		0.998			
Flt Protected	0.995					0.998
Satd. Flow (prot)	1627	0	1859	0	0	1859
Flt Permitted	0.995					0.998
Satd. Flow (perm)	1627	0	1859	0	0	1859
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	9	1039	15	38	872
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	1054	0	0	910
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	79.1%			ICU Level of Service D		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/27/2022



Lane Group	WBL	WBR	WBR2	NBL2	NBL	NBT	NBR	SEL	SER2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	708	6	188	1	1	1	1	8	6	14	205	877
Future Volume (vph)	720	6	191	1	1	1	1	8	6	14	208	892
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		0	0			50	0
Storage Lanes	1	1			0		0	1			1	1
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850			0.966		0.941				0.850
Flt Protected	0.954					0.976		0.973			0.950	
Satd. Flow (prot)	1768	0	1504	0	0	1756	0	1706	0	0	1770	1583
Flt Permitted	0.954					0.976		0.973			0.950	
Satd. Flow (perm)	1768	0	1504	0	0	1756	0	1706	0	0	1770	1583
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	620					121		79			506	
Travel Time (s)	14.1					2.8		1.8			11.5	
Peak Hour Factor	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)	783	7	208	1	1	1	1	9	7	15	226	970
Shared Lane Traffic (%)			10%									
Lane Group Flow (vph)	811	0	187	0	0	4	0	16	0	0	241	970
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)	12					0		12			12	
Link Offset(ft)	0					0		0			0	
Crosswalk Width(ft)	16					16		16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15	15		9	15	9	15	15	9
Sign Control	Free					Stop		Stop			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	75.5%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/27/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations		↕					↕			↕		
Traffic Volume (vph)	136	18	500	38	7	1	24	14	138	37	1	160
Future Volume (vph)	138	18	509	39	7	1	24	14	140	38	1	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895					0.959			0.935		
Flt Protected		0.990					0.991			0.980		
Satd. Flow (prot)	0	1650	0	0	0	0	1770	0	0	1707	0	0
Flt Permitted		0.990					0.991			0.980		
Satd. Flow (perm)	0	1650	0	0	0	0	1770	0	0	1707	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	150	20	553	42	8	1	26	15	152	41	1	177
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	765	0	0	0	0	50	0	0	371	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Sign Control		Free					Stop			Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	136.5%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext







03/27/2022



Lane Group	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Traffic Volume (vph)	7	183	29	244	37	511	124	14
Future Volume (vph)	7	186	29	248	38	520	126	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.866			0.973		
Flt Protected		0.950				0.962		
Satd. Flow (prot)	0	1770	1613	0	0	1744	0	0
Flt Permitted		0.950				0.962		
Satd. Flow (perm)	0	1770	1613	0	0	1744	0	0
Link Speed (mph)			25			30		
Link Distance (ft)			567			612		
Travel Time (s)			15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	202	32	270	41	565	137	15
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	210	302	0	0	758	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			12			12		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15	15	9	9
Sign Control			Stop			Free		
Intersection Summary								

Lanes, Volumes, Timings
 19: Main Street & Union St

03/27/2022

								
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (vph)	0	0	414	0	0	0		
Future Volume (vph)	0	0	421	0	0	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Frt								
Flt Protected								
Satd. Flow (prot)	0	1863	1863	0	0	0		
Flt Permitted								
Satd. Flow (perm)	0	1863	1863	0	0	0		
Link Speed (mph)	30		30			30		
Link Distance (ft)	379		285			308		
Travel Time (s)	8.6		6.5			7.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	0	0	458	0	0	0		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	0	458	0	0	0		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Right	Left	Left		
Median Width(ft)	0		0			0		
Link Offset(ft)	0		0			0		
Crosswalk Width(ft)	16		16			16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	15	9		9	15			
Sign Control	Stop		Free			Stop		
Intersection Summary								
Area Type:	Other							
Control Type:	Unsignalized							
Intersection Capacity Utilization	25.1%		ICU Level of Service A					
Analysis Period (min)	15							

Lanes, Volumes, Timings
20: Water Street & Union St

03/27/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	265	337	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	288	366	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	288	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
27: 61 Beach Rd

03/27/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	824	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	896	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	896	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Vol, veh/h	0	0	414	0	0	0
Future Vol, veh/h	0	0	421	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	0	-	-	-	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	458	0	0	0

Major/Minor	Minor1	Major1		
Conflicting Flow All	-	458	0	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	6.22	-	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	3.318	-	-
Pot Cap-1 Maneuver	0	603	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %			-	
Mov Cap-1 Maneuver	-	603	-	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	0	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBWB	Ln1
Capacity (veh/h)	-	-
HCM Lane V/C Ratio	-	-
HCM Control Delay (s)	-	0
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↶	↷	
Traffic Vol, veh/h	0	0	0	261	331	0
Future Vol, veh/h	0	0	0	265	337	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	-	-
Veh in Median Storage,1#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	288	366	0

Major/Minor	Major1	Minor2
Conflicting Flow All	0	0 288 0
Stage 1	-	- 0 -
Stage 2	-	- 288 -
Critical Hdwy	4.12	- 6.52 6.22
Critical Hdwy Stg 1	-	- - -
Critical Hdwy Stg 2	-	- 5.52 -
Follow-up Hdwy	2.218	-4.018 3.318
Pot Cap-1 Maneuver	-	- 622 -
Stage 1	-	- - -
Stage 2	-	- 674 -
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 0 -
Mov Cap-2 Maneuver	-	- 0 -
Stage 1	-	- 0 -
Stage 2	-	- 0 -

Approach	NB	SB
HCM Control Delay, s	0	
HCM LOS		-

Minor Lane/Major Mvmt	NBL	NBTSBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	0	- -
HCM Lane LOS	A	- -
HCM 95th %tile Q(veh)	-	- -

Intersection

Int Delay, s/veh 0

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	810	0	0	0	0	0
Future Vol, veh/h	824	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	896	0	0	0	0	0

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	-	-	897	896
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	-3.518	3.318
Pot Cap-1 Maneuver	-	-	0	-	310	339
Stage 1	-	-	0	-	399	-
Stage 2	-	-	0	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	310	339
Mov Cap-2 Maneuver	-	-	-	-	310	-
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	1022	-

Approach EB WB NB



















HCM Control Delay, s 0 0 0
HCM LOS A

Minor Lane/Major MvmNBLn1 EBT EBR WBT

Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/29/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	11	577	368	366	42	316	26	101	7	169	522	41
Future Volume (vph)	12	649	414	412	47	356	29	114	8	190	587	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948				0.850		0.993		0.896		
Flt Protected		0.970			0.957			0.990		0.989		
Satd. Flow (prot)	0	1713	0	0	1783	1583	0	1831	0	1651	0	0
Flt Permitted		0.970			0.957			0.990		0.989		
Satd. Flow (perm)	0	1713	0	0	1783	1583	0	1831	0	1651	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	13	705	450	448	51	387	32	124	9	207	638	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1168	0	0	499	387	0	165	0	895	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	138.3%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/29/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	27	794	11	18	667
Future Volume (vph)	17	30	893	12	20	751
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913		0.998			
Flt Protected	0.983					0.999
Satd. Flow (prot)	1672	0	1859	0	0	1861
Flt Permitted	0.983					0.999
Satd. Flow (perm)	1672	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	33	971	13	22	816
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	984	0	0	838
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.6%			ICU Level of Service B		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/29/2022



Lane Group	WBL	WBR	WBR2	NBL2	NBL	NBT	NBR	SEL	SER2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	657	7	166	1	1	1	1	4	1	7	248	777
Future Volume (vph)	739	8	187	1	1	1	1	5	1	8	279	874
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		0	0			50	0
Storage Lanes	1	1			0		0	1			1	1
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850			0.966		0.977				0.850
Flt Protected	0.954					0.976		0.960			0.950	
Satd. Flow (prot)	1768	0	1504	0	0	1756	0	1747	0	0	1770	1583
Flt Permitted	0.954					0.976		0.960			0.950	
Satd. Flow (perm)	1768	0	1504	0	0	1756	0	1747	0	0	1770	1583
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	620					121		79			506	
Travel Time (s)	14.1					2.8		1.8			11.5	
Peak Hour Factor	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)	803	9	203	1	1	1	1	5	1	9	303	950
Shared Lane Traffic (%)			10%									
Lane Group Flow (vph)	832	0	183	0	0	4	0	6	0	0	312	950
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)	12					0		12			12	
Link Offset(ft)	0					0		0			0	
Crosswalk Width(ft)	16					16		16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15	15		9	15	9	15	15	9
Sign Control	Free					Stop		Stop			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	74.3%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/29/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL2
Lane Configurations		↕					↕			↕		
Traffic Volume (vph)	120	12	513	38	3	3	8	1	143	38	130	4
Future Volume (vph)	135	14	577	43	3	3	9	1	161	43	146	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.891					0.992			0.944		
Fl _t Protected		0.991					0.983			0.978		
Satd. Flow (prot)	0	1645	0	0	0	0	1816	0	0	1720	0	0
Fl _t Permitted		0.991					0.983			0.978		
Satd. Flow (perm)	0	1645	0	0	0	0	1816	0	0	1720	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	147	15	627	47	3	3	10	1	175	47	159	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	836	0	0	0	0	17	0	0	381	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	15
Sign Control		Free					Stop			Stop		

Intersection Summary









Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	127.7%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Traffic Volume (vph)	111	33	183	52	536	102	4
Future Volume (vph)	125	37	206	59	603	115	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.873			0.979		
Fl _t Protected	0.950				0.959		
Satd. Flow (prot)	1770	1626	0	0	1749	0	0
Fl _t Permitted	0.950				0.959		
Satd. Flow (perm)	1770	1626	0	0	1749	0	0
Link Speed (mph)		25			30		
Link Distance (ft)		567			612		
Travel Time (s)		15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	40	224	64	655	125	5
Shared Lane Traffic (%)							
Lane Group Flow (vph)	141	264	0	0	849	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		12			12		
Link Offset(ft)		0			0		
Crosswalk Width(ft)		16			16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	15	9	9
Sign Control		Stop			Free		
Intersection Summary							

Lanes, Volumes, Timings
 19: Main Street & Union St

03/29/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	0	466	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	507	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	507	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.1%		ICU Level of Service A			
Analysis Period (min)	15					

Lanes, Volumes, Timings
20: Water Street & Union St

03/29/2022






















Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	294	372	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	320	404	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	320	404	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	911	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	990	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	990	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/29/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	11	577	368	366	42	316	26	101	7	169	522	41
Future Volume (vph)	12	649	414	412	47	356	29	114	8	190	587	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948				0.850		0.993			0.850	
Flt Protected		0.970			0.957			0.991		0.950		
Satd. Flow (prot)	0	1713	0	0	1783	1583	0	1833	0	1770	1583	0
Flt Permitted		0.970			0.957			0.991		0.950		
Satd. Flow (perm)	0	1713	0	0	1783	1583	0	1833	0	1770	1583	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	13	705	450	448	51	387	32	124	9	207	638	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1057	0	0	451	349	0	148	0	187	623	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	103.6%					ICU Level of Service G						
Analysis Period (min)	15											

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/29/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	27	794	11	18	667
Future Volume (vph)	17	30	893	12	20	751
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913		0.998			
Flt Protected	0.983					0.999
Satd. Flow (prot)	1672	0	1859	0	0	1861
Flt Permitted	0.983					0.999
Satd. Flow (perm)	1672	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	33	971	13	22	816
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	889	0	0	757
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.6%			ICU Level of Service B		
Analysis Period (min)	15					



Lane Group	WBL	WBR	WBR2	NBT	SEL	NEL2	NEL	NER
Lane Configurations								
Traffic Volume (vph)	591	3	139	1	1	1	200	754
Future Volume (vph)	665	3	156	1	1	1	225	848
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		50	0
Storage Lanes	1	1			1		1	1
Taper Length (ft)	25				25		25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Frt	0.996		0.850					0.850
Flt Protected	0.954				0.950		0.950	
Satd. Flow (prot)	1770	0	1504	1863	1770	0	1770	1583
Flt Permitted	0.954				0.950		0.950	
Satd. Flow (perm)	1770	0	1504	1863	1770	0	1770	1583
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	620			121	79		506	
Travel Time (s)	14.1			2.8	1.8		11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	723	3	170	1	1	1	245	922
Shared Lane Traffic (%)			10%					
Lane Group Flow (vph)	671	0	138	1	1	0	222	834
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Left	Right
Median Width(ft)	12			0	12		12	
Link Offset(ft)	0			0	0		0	
Crosswalk Width(ft)	16			16	16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	15	15	9
Sign Control	Free			Stop	Stop		Free	

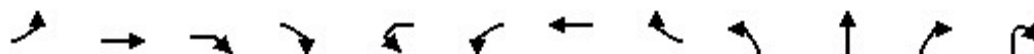
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	66.9%
ICU Level of Service	C
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/29/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	131	25	454	60	4	4	23	15	85	52	4	143
Future Volume (vph)	147	28	511	68	5	5	26	17	96	59	5	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896					0.956			0.930		
Flt Protected		0.990					0.992			0.985		
Satd. Flow (prot)	0	1652	0	0	0	0	1767	0	0	1706	0	0
Flt Permitted		0.990					0.992			0.985		
Satd. Flow (perm)	0	1652	0	0	0	0	1767	0	0	1706	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	160	30	555	74	5	5	28	18	104	64	5	175
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	740	0	0	0	0	49	0	0	313	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Sign Control		Free					Stop			Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	125.5%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Traffic Volume (vph)	7	119	20	143	57	484	131	15
Future Volume (vph)	8	134	23	161	64	545	147	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.868			0.971		
Flt Protected		0.950				0.962		
Satd. Flow (prot)	0	1770	1617	0	0	1740	0	0
Flt Permitted		0.950				0.962		
Satd. Flow (perm)	0	1770	1617	0	0	1740	0	0
Link Speed (mph)			25			30		
Link Distance (ft)			567			612		
Travel Time (s)			15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	146	25	175	70	592	160	18
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	140	180	0	0	759	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			12			12		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15	15	9	9
Sign Control			Stop			Free		
Intersection Summary								

Lanes, Volumes, Timings
19: Main Street & Union St

03/29/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	0	466	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	507	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	458	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 20: Water Street & Union St

03/29/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	294	372	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	320	404	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	288	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	911	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	990	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	896	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/28/2022



Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	8	586	410	304	57	332	16	70	4	244	487	14
Future Volume (vph)	9	659	461	342	64	374	18	79	5	275	548	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.945				0.850		0.994		0.909		
Fl _t Protected		0.971			0.960			0.991		0.984		
Satd. Flow (prot)	0	1709	0	0	1788	1583	0	1835	0	1666	0	0
Fl _t Permitted		0.971			0.960			0.991		0.984		
Satd. Flow (perm)	0	1709	0	0	1788	1583	0	1835	0	1666	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	10	716	501	372	70	407	20	86	5	299	596	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1227	0	0	442	407	0	111	0	912	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	138.8%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	27	937	12	23	747
Future Volume (vph)	17	30	1054	14	26	841
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.913		0.998			
Flt Protected	0.983					0.999
Satd. Flow (prot)	1672	0	1859	0	0	1861
Flt Permitted	0.983					0.999
Satd. Flow (perm)	1672	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	33	1146	15	28	914
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	1161	0	0	942
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	67.9%			ICU Level of Service C		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBT	SEL	SER2	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	690	4	219	0	4	7	8	241	802
Future Volume (vph)	776	5	246	0	5	8	9	271	902
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0			50	0
Storage Lanes	1	1			1			1	1
Taper Length (ft)	25				25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850		0.913				0.850
Flt Protected	0.954				0.982			0.950	
Satd. Flow (prot)	1768	0	1504	1863	1670	0	0	1770	1583
Flt Permitted	0.954				0.982			0.950	
Satd. Flow (perm)	1768	0	1504	1863	1670	0	0	1770	1583
Link Speed (mph)	30			30	30			30	
Link Distance (ft)	620			121	79			506	
Travel Time (s)	14.1			2.8	1.8			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	843	5	267	0	5	9	10	295	980
Shared Lane Traffic (%)			10%						
Lane Group Flow (vph)	875	0	240	0	14	0	0	305	980
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12			0	12			12	
Link Offset(ft)	0			0	0			0	
Crosswalk Width(ft)	16			16	16			16	
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	9	15	15	9
Sign Control	Free			Stop	Stop			Free	

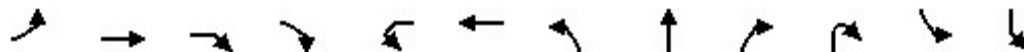
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	70.0%
ICU Level of Service	C
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

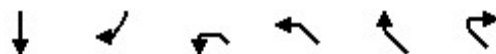
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Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBT	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations		↕				↕		↕				↕
Traffic Volume (vph)	162	8	551	34	4	11	98	42	1	106	4	179
Future Volume (vph)	182	9	620	38	5	12	110	47	1	119	5	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.895						0.942				
Fl _t Protected		0.989				0.986		0.980				0.950
Satd. Flow (prot)	0	1649	0	0	0	1837	0	1720	0	0	0	1770
Fl _t Permitted		0.989				0.986		0.980				0.950
Satd. Flow (perm)	0	1649	0	0	0	1837	0	1720	0	0	0	1770
Link Speed (mph)		30				30		30				
Link Distance (ft)		620				312		478				
Travel Time (s)		14.1				7.1		10.9				
Peak Hour Factor	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)	198	10	674	41	5	13	120	51	1	129	5	218
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	923	0	0	0	18	0	301	0	0	0	223
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)		0				0		12				
Link Offset(ft)		0				0		0				
Crosswalk Width(ft)		16				16		16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		15		9	9	15	15
Sign Control		Free				Stop		Stop				

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	142.9%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations						
Traffic Volume (vph)	20	252	75	529	209	7
Future Volume (vph)	23	284	84	595	235	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.861			0.964		
Fl _t Protected				0.964		
Satd. Flow (prot)	1604	0	0	1731	0	0
Fl _t Permitted				0.964		
Satd. Flow (perm)	1604	0	0	1731	0	0
Link Speed (mph)	25			30		
Link Distance (ft)	567			612		
Travel Time (s)	15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	309	91	647	255	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	334	0	0	1002	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right
Median Width(ft)	12			12		
Link Offset(ft)	0			0		
Crosswalk Width(ft)	16			16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15	15	9	9
Sign Control	Stop			Free		
Intersection Summary						

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	0	466	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	507	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	507	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
20: Water Street & Union St

03/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	294	372	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	320	404	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	320	404	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
27: 61 Beach Rd

03/28/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	911	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	990	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	990	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/29/2022



Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	4	617	304	296	22	299	18	40	10	239	502	26
Future Volume (vph)	5	694	342	333	25	336	20	45	11	269	565	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.956				0.850		0.980			0.850	
Fl _t Protected		0.968			0.955			0.987		0.950		
Satd. Flow (prot)	0	1724	0	0	1779	1583	0	1802	0	1770	1583	0
Fl _t Permitted		0.968			0.955			0.987		0.950		
Satd. Flow (perm)	0	1724	0	0	1779	1583	0	1802	0	1770	1583	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	5	754	372	362	27	365	22	49	12	292	614	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1022	0	0	351	330	0	76	0	264	583	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	100.4%
ICU Level of Service	G
Analysis Period (min)	15

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/29/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	1	8	940	14	34	789
Future Volume (vph)	1	9	1058	16	38	888
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878		0.998			
Flt Protected	0.995					0.998
Satd. Flow (prot)	1627	0	1859	0	0	1859
Flt Permitted	0.995					0.998
Satd. Flow (perm)	1627	0	1859	0	0	1859
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	10	1150	17	41	965
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	1054	0	0	910
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	79.1%			ICU Level of Service D		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/29/2022



Lane Group	WBL	WBR	WBR2	NBL2	NBL	NBT	NBR	SEL	SER2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	708	6	188	1	1	1	1	8	6	14	205	877
Future Volume (vph)	797	7	212	1	1	1	1	9	7	16	231	987
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		0	0			50	0
Storage Lanes	1	1			0		0	1			1	1
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850			0.966		0.941				0.850
Flt Protected	0.954					0.976		0.973			0.950	
Satd. Flow (prot)	1768	0	1504	0	0	1756	0	1706	0	0	1770	1583
Flt Permitted	0.954					0.976		0.973			0.950	
Satd. Flow (perm)	1768	0	1504	0	0	1756	0	1706	0	0	1770	1583
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	620					121		79			506	
Travel Time (s)	14.1					2.8		1.8			11.5	
Peak Hour Factor	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)	866	8	230	1	1	1	1	10	8	17	251	1073
Shared Lane Traffic (%)			10%									
Lane Group Flow (vph)	811	0	187	0	0	4	0	16	0	0	241	970
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)	12					0		12			12	
Link Offset(ft)	0					0		0			0	
Crosswalk Width(ft)	16					16		16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15	15		9	15	9	15	15	9
Sign Control	Free					Stop		Stop			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	75.5%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/29/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations		↕					↕			↕		
Traffic Volume (vph)	136	18	500	38	7	1	24	14	138	37	1	160
Future Volume (vph)	153	20	563	43	8	1	27	16	155	42	1	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895					0.959			0.935		
Flt Protected		0.990					0.991			0.980		
Satd. Flow (prot)	0	1650	0	0	0	0	1770	0	0	1707	0	0
Flt Permitted		0.990					0.991			0.980		
Satd. Flow (perm)	0	1650	0	0	0	0	1770	0	0	1707	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	166	22	612	47	9	1	29	17	168	46	1	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	765	0	0	0	0	50	0	0	371	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Sign Control		Free					Stop			Stop		

Intersection Summary









Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	136.5%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Traffic Volume (vph)	7	183	29	244	37	511	124	14
Future Volume (vph)	8	206	33	275	42	575	140	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.866			0.973		
Flt Protected		0.950				0.962		
Satd. Flow (prot)	0	1770	1613	0	0	1744	0	0
Flt Permitted		0.950				0.962		
Satd. Flow (perm)	0	1770	1613	0	0	1744	0	0
Link Speed (mph)			25			30		
Link Distance (ft)			567			612		
Travel Time (s)			15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	224	36	299	46	625	152	17
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	210	302	0	0	758	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			12			12		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15	15	9	9
Sign Control			Stop			Free		
Intersection Summary								

Lanes, Volumes, Timings
 19: Main Street & Union St

03/29/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	0	466	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	507	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	458	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.1%		ICU Level of Service A			
Analysis Period (min)	15					

Lanes, Volumes, Timings
20: Water Street & Union St

03/29/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↓	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	0	294	372	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	320	404	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	288	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					


















Lanes, Volumes, Timings
27: 61 Beach Rd

03/29/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	911	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	990	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	896	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/28/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	11	577	368	366	42	316	26	101	7	169	522	41
Future Volume (vph)	12	661	414	412	47	366	32	114	8	200	598	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.949				0.850		0.993		0.897		
Flt Protected		0.970			0.957			0.990		0.988		
Satd. Flow (prot)	0	1715	0	0	1783	1583	0	1831	0	1651	0	0
Flt Permitted		0.970			0.957			0.990		0.988		
Satd. Flow (perm)	0	1715	0	0	1783	1583	0	1831	0	1651	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	13	718	450	448	51	398	35	124	9	217	650	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1181	0	0	499	398	0	168	0	918	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	138.3%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	14	12	917	11	19	719
Future Volume (vph)	16	17	1055	12	23	830
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931		0.998			
Flt Protected	0.976					0.999
Satd. Flow (prot)	1693	0	1859	0	0	1861
Flt Permitted	0.976					0.999
Satd. Flow (perm)	1693	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	18	1147	13	25	902
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	1160	0	0	927
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.1% ICU Level of Service B
Analysis Period (min)	15

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBL2	NBL	NBT	NBR	SEL	SER2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	657	7	166	1	1	1	1	4	1	7	248	777
Future Volume (vph)	757	8	187	6	1	2	10	5	1	8	279	901
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		0	0			50	0
Storage Lanes	1	1			0		0	1			1	1
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850			0.929		0.977				0.850
Flt Protected	0.954					0.981		0.960			0.950	
Satd. Flow (prot)	1768	0	1504	0	0	1698	0	1747	0	0	1770	1583
Flt Permitted	0.954					0.981		0.960			0.950	
Satd. Flow (perm)	1768	0	1504	0	0	1698	0	1747	0	0	1770	1583
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	620					121		79			506	
Travel Time (s)	14.1					2.8		1.8			11.5	
Peak Hour Factor	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)	823	9	203	7	1	2	11	5	1	9	303	979
Shared Lane Traffic (%)			10%									
Lane Group Flow (vph)	852	0	183	0	0	21	0	6	0	0	312	979
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)	12					0		12			12	
Link Offset(ft)	0					0		0			0	
Crosswalk Width(ft)	16					16		16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15	15		9	15	9	15	15	9
Sign Control	Free					Stop		Stop			Free	

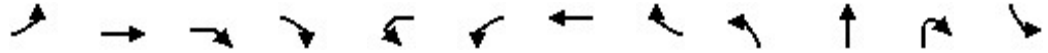
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	74.3%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL2
Lane Configurations		↕					↕			↕		
Traffic Volume (vph)	120	12	513	38	3	3	8	1	143	38	130	4
Future Volume (vph)	149	14	600	43	3	3	9	1	161	44	147	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.892					0.992			0.944		
Flt Protected		0.991					0.983			0.978		
Satd. Flow (prot)	0	1647	0	0	0	0	1816	0	0	1720	0	0
Flt Permitted		0.991					0.983			0.978		
Satd. Flow (perm)	0	1647	0	0	0	0	1816	0	0	1720	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	162	15	652	47	3	3	10	1	175	48	160	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	876	0	0	0	0	17	0	0	383	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	15
Sign Control		Free					Stop			Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	127.7%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Traffic Volume (vph)	111	33	183	52	536	102	4
Future Volume (vph)	132	37	212	60	616	123	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.872			0.979		
Fl _t Protected	0.950				0.960		
Satd. Flow (prot)	1770	1624	0	0	1751	0	0
Fl _t Permitted	0.950				0.960		
Satd. Flow (perm)	1770	1624	0	0	1751	0	0
Link Speed (mph)		25			30		
Link Distance (ft)		567			612		
Travel Time (s)		15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	143	40	230	65	670	134	5
Shared Lane Traffic (%)							
Lane Group Flow (vph)	148	270	0	0	874	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		12			12		
Link Offset(ft)		0			0		
Crosswalk Width(ft)		16			16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	15	9	9
Sign Control		Stop			Free		
Intersection Summary							

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	3	467	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	508	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	3	508	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
20: Water Street & Union St

03/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	2	314	385	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	2	341	418	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	343	419	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					


















Lanes, Volumes, Timings
27: 61 Beach Rd

03/28/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	919	23	0	3	18	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Flt	0.997				0.973	
Flt Protected					0.962	
Satd. Flow (prot)	1857	0	0	1863	1744	0
Flt Permitted					0.962	
Satd. Flow (perm)	1857	0	0	1863	1744	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	999	25	0	3	20	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1024	0	0	3	25	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
3: Edgartown Rd/Look St & State Rd

03/28/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	3	522	322	300	38	284	14	40	11	27	457	192
Future Volume (vph)	3	599	362	338	43	330	18	45	12	41	528	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.949				0.850		0.979		0.872		
Flt Protected		0.970			0.958			0.988		0.997		
Satd. Flow (prot)	0	1715	0	0	1785	1583	0	1802	0	1619	0	0
Flt Permitted		0.970			0.958			0.988		0.997		
Satd. Flow (perm)	0	1715	0	0	1785	1583	0	1802	0	1619	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	3	651	393	367	47	359	20	49	13	45	574	236
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1047	0	0	414	359	0	82	0	855	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	125.7%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	27	794	11	18	667
Future Volume (vph)	17	34	917	12	21	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.909		0.998			
Flt Protected	0.984					0.999
Satd. Flow (prot)	1666	0	1859	0	0	1861
Flt Permitted	0.984					0.999
Satd. Flow (perm)	1666	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	37	997	13	23	842
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	1010	0	0	865
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.6%			ICU Level of Service B		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBT	SEL	NEL2	NEL	NER
Lane Configurations								
Traffic Volume (vph)	591	3	139	1	1	1	200	754
Future Volume (vph)	686	3	156	2	1	1	225	875
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		50	0
Storage Lanes	1	1			1		1	1
Taper Length (ft)	25				25		25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Frt	0.996		0.850	0.921				0.850
Flt Protected	0.954			0.986	0.950		0.950	
Satd. Flow (prot)	1770	0	1504	1692	1770	0	1770	1583
Flt Permitted	0.954			0.986	0.950		0.950	
Satd. Flow (perm)	1770	0	1504	1692	1770	0	1770	1583
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	620			121	79		506	
Travel Time (s)	14.1			2.8	1.8		11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	746	3	170	2	1	1	245	951
Shared Lane Traffic (%)			10%					
Lane Group Flow (vph)	766	0	153	17	1	0	246	951
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Left	Right
Median Width(ft)	12			0	12		12	
Link Offset(ft)	0			0	0		0	
Crosswalk Width(ft)	16			16	16		16	
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		15	15	15	9
Sign Control	Free			Stop	Stop		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	66.9%
	ICU Level of Service C
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	131	25	454	60	4	4	23	15	85	52	4	143
Future Volume (vph)	161	28	533	68	5	5	26	17	96	60	5	162
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897					0.957			0.930		
Flt Protected		0.990					0.991			0.985		
Satd. Flow (prot)	0	1654	0	0	0	0	1767	0	0	1706	0	0
Flt Permitted		0.990					0.991			0.985		
Satd. Flow (perm)	0	1654	0	0	0	0	1767	0	0	1706	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	175	30	579	74	5	5	28	18	104	65	5	176
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	858	0	0	0	0	56	0	0	350	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Sign Control		Free					Stop			Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	125.5%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Traffic Volume (vph)	7	119	20	143	57	484	131	15
Future Volume (vph)	8	141	23	167	65	560	155	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.868			0.971		
Flt Protected		0.950				0.962		
Satd. Flow (prot)	0	1770	1617	0	0	1740	0	0
Flt Permitted		0.950				0.962		
Satd. Flow (perm)	0	1770	1617	0	0	1740	0	0
Link Speed (mph)			25			30		
Link Distance (ft)			567			612		
Travel Time (s)			15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	153	25	182	71	609	168	18
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	162	207	0	0	866	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			12			12		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15	15	9	9
Sign Control			Stop			Free		
Intersection Summary								

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	3	467	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Fl _t Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Fl _t Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	508	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	3	508	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
20: Water Street & Union St

03/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	2	314	385	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	2	341	418	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	343	419	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	919	23	0	3	21	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Flt	0.997				0.994	
Flt Protected					0.954	
Satd. Flow (prot)	1857	0	0	1863	1766	0
Flt Permitted					0.954	
Satd. Flow (perm)	1857	0	0	1863	1766	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	999	25	0	3	23	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1024	0	0	3	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/28/2022



Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	8	586	410	304	57	332	16	70	4	244	487	14
Future Volume (vph)	9	671	461	342	64	384	20	79	5	284	560	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.945				0.850		0.994		0.910		
Fl _t Protected		0.971			0.960			0.990		0.984		
Satd. Flow (prot)	0	1709	0	0	1788	1583	0	1833	0	1668	0	0
Fl _t Permitted		0.971			0.960			0.990		0.984		
Satd. Flow (perm)	0	1709	0	0	1788	1583	0	1833	0	1668	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Peak Hour Factor	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)	10	729	501	372	70	417	22	86	5	309	609	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1240	0	0	442	417	0	113	0	936	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	138.8%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	4	16	937	12	23	747
Future Volume (vph)	5	21	1078	14	27	863
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.889		0.998			
Flt Protected	0.991					0.999
Satd. Flow (prot)	1641	0	1859	0	0	1861
Flt Permitted	0.991					0.999
Satd. Flow (perm)	1641	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	23	1172	15	29	938
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	1187	0	0	967
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	67.9%			ICU Level of Service C		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBL2	NBL	NBT	NBR	SEL	SER2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	690	4	219	1	1	1	1	4	1	8	241	802
Future Volume (vph)	798	5	246	3	1	2	6	5	1	9	271	929
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100			0		0	0			50	0
Storage Lanes	1	1			0		0	1			1	1
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850			0.927		0.977				0.850
Flt Protected	0.954					0.985		0.960			0.950	
Satd. Flow (prot)	1768	0	1504	0	0	1701	0	1747	0	0	1770	1583
Flt Permitted	0.954					0.985		0.960			0.950	
Satd. Flow (perm)	1768	0	1504	0	0	1701	0	1747	0	0	1770	1583
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	620					121		79			506	
Travel Time (s)	14.1					2.8		1.8			11.5	
Peak Hour Factor	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)	867	5	267	3	1	2	7	5	1	10	295	1010
Shared Lane Traffic (%)			10%									
Lane Group Flow (vph)	899	0	240	0	0	13	0	6	0	0	305	1010
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(ft)	12					0		12			12	
Link Offset(ft)	0					0		0			0	
Crosswalk Width(ft)	16					16		16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15	15		9	15	9	15	15	9
Sign Control	Free					Stop		Stop			Free	

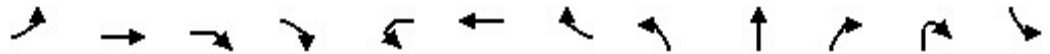
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	76.7%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations		↕				↕			↕			
Traffic Volume (vph)	162	8	551	34	4	11	1	98	42	1	106	4
Future Volume (vph)	194	9	640	38	5	12	1	110	48	1	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896				0.993			0.942			
Flt Protected		0.989				0.987			0.981			
Satd. Flow (prot)	0	1651	0	0	0	1826	0	0	1721	0	0	0
Flt Permitted		0.989				0.987			0.981			
Satd. Flow (perm)	0	1651	0	0	0	1826	0	0	1721	0	0	0
Link Speed (mph)		30				30			30			
Link Distance (ft)		620				312			478			
Travel Time (s)		14.1				7.1			10.9			
Peak Hour Factor	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)	211	10	696	41	5	13	1	120	52	1	130	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	958	0	0	0	19	0	0	303	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right	Right	Left
Median Width(ft)		0				0			12			
Link Offset(ft)		0				0			0			
Crosswalk Width(ft)		16				16			16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	9	15
Sign Control		Free				Stop			Stop			

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	142.9%
ICU Level of Service	H
Analysis Period (min)	15



Lane Group	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations							
Traffic Volume (vph)	179	20	252	75	529	209	7
Future Volume (vph)	208	23	289	86	611	243	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.861			0.964		
Fl _t Protected	0.950				0.965		
Satd. Flow (prot)	1770	1604	0	0	1733	0	0
Fl _t Permitted	0.950				0.965		
Satd. Flow (perm)	1770	1604	0	0	1733	0	0
Link Speed (mph)		25			30		
Link Distance (ft)		567			612		
Travel Time (s)		15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	226	25	314	93	664	264	9
Shared Lane Traffic (%)							
Lane Group Flow (vph)	231	339	0	0	1030	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		12			12		
Link Offset(ft)		0			0		
Crosswalk Width(ft)		16			16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15	15	9	9
Sign Control		Stop			Free		
Intersection Summary							

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑			
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	3	467	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30			30
Link Distance (ft)	379		285			308
Travel Time (s)	8.6		6.5			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	508	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	3	508	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
20: Water Street & Union St

03/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑	↑	
Traffic Volume (vph)	0	0	0	261	331	0
Future Volume (vph)	0	0	2	312	385	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	2	339	418	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	341	419	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					


















Lanes, Volumes, Timings
27: 61 Beach Rd

03/28/2022

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	917	23	0	3	21	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Flt	0.997				0.994	
Flt Protected					0.954	
Satd. Flow (prot)	1857	0	0	1863	1766	0
Flt Permitted					0.954	
Satd. Flow (perm)	1857	0	0	1863	1766	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	997	25	0	3	23	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1022	0	0	3	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings
 3: Edgartown Rd/Look St & State Rd

03/28/2022

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	4	617	304	296	22	299	19	42	11	251	528	27
Future Volume (vph)	5	706	342	333	25	347	24	47	12	293	608	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.956				0.850		0.980		0.907		
Flt Protected		0.967			0.956			0.986		0.985		
Satd. Flow (prot)	0	1722	0	0	1781	1583	0	1800	0	1664	0	0
Flt Permitted		0.967			0.956			0.986		0.985		
Satd. Flow (perm)	0	1722	0	0	1781	1583	0	1800	0	1664	0	0
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		1008			94			271		634		
Travel Time (s)		22.9			2.1			6.2		14.4		
Confl. Peds. (#/hr)										528	251	
Peak Hour Factor	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)	5	767	372	362	27	377	26	51	13	318	661	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1144	0	0	389	377	0	90	0	1014	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		12			0			0		12		
Link Offset(ft)		0			0			0		0		
Crosswalk Width(ft)		16			16			16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Sign Control		Free			Stop			Stop		Free		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	141.0%					ICU Level of Service H						
Analysis Period (min)	15											

Lanes, Volumes, Timings
6: State Rd & Causeway Rd

03/28/2022



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	1	8	940	14	34	798
Future Volume (vph)	1	12	1081	16	39	923
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875		0.998			
Flt Protected	0.996					0.998
Satd. Flow (prot)	1623	0	1859	0	0	1859
Flt Permitted	0.996					0.998
Satd. Flow (perm)	1623	0	1859	0	0	1859
Link Speed (mph)	30		30			30
Link Distance (ft)	360		634			506
Travel Time (s)	8.2		14.4			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	13	1175	17	42	1003
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	1192	0	0	1045
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	79.6%			ICU Level of Service D		
Analysis Period (min)	15					

Lanes, Volumes, Timings

7: State Rd & Site Access/Main Street & Beach St & Private Driveway

03/28/2022



Lane Group	WBL	WBR	WBR2	NBL2	NBT	SEL2	SEL	SER	SER2	NEL2	NEL	NER
Lane Configurations												
Traffic Volume (vph)	708	6	188	1	0	6	0	8	1	14	205	877
Future Volume (vph)	818	7	212	6	1	7	0	9	1	16	231	1014
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100					0	0			50	0
Storage Lanes	1	1					1	0			1	1
Taper Length (ft)	25						25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995		0.850		0.925		0.922					0.850
Flt Protected	0.954				0.981		0.979				0.950	
Satd. Flow (prot)	1768	0	1504	0	1690	0	1681	0	0	0	1770	1583
Flt Permitted	0.954				0.981		0.979				0.950	
Satd. Flow (perm)	1768	0	1504	0	1690	0	1681	0	0	0	1770	1583
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	620				121		79				506	
Travel Time (s)	14.1				2.8		1.8				11.5	
Peak Hour Factor	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)	889	8	230	7	1	8	0	10	1	17	251	1102
Shared Lane Traffic (%)			10%									
Lane Group Flow (vph)	920	0	207	0	18	0	19	0	0	0	268	1102
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Left	Right	Right	Left	Left	Right
Median Width(ft)	12				0		12				12	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15		15	15	9	9	15	15	9
Sign Control	Free				Stop		Stop				Yield	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	75.5%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext

03/28/2022



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations		↕					↕			↕		
Traffic Volume (vph)	136	18	500	38	7	1	25	15	138	37	1	160
Future Volume (vph)	167	20	585	43	8	1	28	17	155	43	1	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896					0.958			0.935		
Flt Protected		0.990					0.991			0.980		
Satd. Flow (prot)	0	1652	0	0	0	0	1768	0	0	1707	0	0
Flt Permitted		0.990					0.991			0.980		
Satd. Flow (perm)	0	1652	0	0	0	0	1768	0	0	1707	0	0
Link Speed (mph)		30					30			30		
Link Distance (ft)		620					312			478		
Travel Time (s)		14.1					7.1			10.9		
Peak Hour Factor	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)	182	22	636	47	9	1	30	18	168	47	1	197
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	887	0	0	0	0	58	0	0	413	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		16					16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Sign Control		Free					Stop			Stop		

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	136.5%
ICU Level of Service	H
Analysis Period (min)	15

Lanes, Volumes, Timings

8: Lagoon Pond Rd/Water Street & Beach St/Beach St Ext









03/28/2022



Lane Group	SBL2	SBL	SBT	SBR	NWL2	NWL	NWR	NWR2
Lane Configurations								
Traffic Volume (vph)	7	183	29	244	37	511	124	14
Future Volume (vph)	8	213	33	280	43	591	147	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.866			0.972		
Flt Protected		0.950				0.962		
Satd. Flow (prot)	0	1770	1613	0	0	1742	0	0
Flt Permitted		0.950				0.962		
Satd. Flow (perm)	0	1770	1613	0	0	1742	0	0
Link Speed (mph)			25			30		
Link Distance (ft)			567			612		
Travel Time (s)			15.5			13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	9	232	36	304	47	642	160	17
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	241	340	0	0	866	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			12			12		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	15	15	9	9
Sign Control			Stop			Free		
Intersection Summary								

Lanes, Volumes, Timings
 19: Main Street & Union St

03/28/2022

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	414	0	0	0
Future Volume (vph)	0	3	467	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865					
Flt Protected						
Satd. Flow (prot)	0	1611	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	0	0	0
Link Speed (mph)	30		30		30	
Link Distance (ft)	379		285		308	
Travel Time (s)	8.6		6.5		7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	3	508	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	3	508	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.1%		ICU Level of Service A			
Analysis Period (min)	15					

Lanes, Volumes, Timings
20: Water Street & Union St

03/28/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Traffic Volume (vph)	0	0	0	312	331	0
Future Volume (vph)	0	0	2	371	385	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr						
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	379			567	81	
Travel Time (s)	8.6			12.9	1.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	2	403	418	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	405	419	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.8%			ICU Level of Service A		
Analysis Period (min)	15					

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↗
Traffic Volume (vph)	810	0	0	0	0	0
Future Volume (vph)	919	23	0	3	21	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Flt	0.997				0.994	
Flt Protected					0.954	
Satd. Flow (prot)	1857	0	0	1863	1766	0
Flt Permitted					0.954	
Satd. Flow (perm)	1857	0	0	1863	1766	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	612			185	154	
Travel Time (s)	13.9			4.2	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	999	25	0	3	23	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1024	0	0	3	24	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.0%			ICU Level of Service A		
Analysis Period (min)	15					

A-4 EMAIL CORRESPONDENCE – EDUCOMP TRIP COUNTS

From: [Xerxes Agassi](#)
To: [Kurt Fraser](#); [Dan Carbon](#)
Cc: [Maaza Mekuria](#); [Tizita Negash](#)
Subject: 4 State Road - Daily Trip Counts Prior Use
Date: Thursday, March 31, 2022 4:55:34 AM

Kurt,

Below is the prior owners trip count data - I think this is useful information to include in the traffic study. I am sure Dan Carbon can provide more detail as needed - for the summer months they averaged 200 transactions (tills) at their retail store (Office Supplies) and the following additional daily trips per below. Please feel free to reach out to Dan for any additional detail on the below daily trip counts or data he provided.

Summer Months

Educomp Retail Office Supply Store - 400 Daily Trips

Educomp Retail Staff (5 People) - 10 Daily Trips

Educomp Offsite Tech Support (~ 5 People) - 40 Daily Trips

Commercial Offices (7 Offices) - 28 Daily Trips

Approx. total daily trips = 478 Daily Trips

Best,
Xerxes

4 State Road traffic impact

I started working at EduComp in 2010 and managed the business starting in 2012. In 2015 I became a partner in the ownership of the building and managed that business since that time also.

Regarding the proposed renovation of the 4 State Road building, traffic impact has been raised as a concern. I thought it may be helpful if I provided some information related to the actual parking lot usage.

As with any business, EduComp's sales fluctuated with the years and the seasons. However, the fluctuations occurred within a range, some years up, some years down, but never far in either direction. A measure of this is in the "daily tills" number, or

number of distinct sales per day. In the vast majority of cases (nearly all), each sale represented an individual customer. I rarely if ever saw customers car-pooling, but a small number came on foot or bike.

EduComp's average daily till, the number of customers who made a purchase in the store, was around 130 (close to 100 a day in the off-season and nearly 200 a day in the summer months). Even assuming that 10% of the customers came on foot or by bike, that would result in 117 cars coming and going from the parking lot every day for EduComp alone.

Adding to this was the traffic produced by Educomp's technical department, which generally had 5-7 full time technicians who went on calls all day to service clients. On average a technician would make 4 service calls a day, which would be the equivalent of 20 more cars coming and going each day. This is not even counting the 5 Educomp retail store staff, all of whom drove to work and parked in the lot.

Additionally, the EduComp building has 7 commercial office spaces for rent and has historically been close to fully occupied. In terms of traffic, each tenant had a car (sometimes two if they had multiple employees) and their clients also parked in the lot. One particular tenant operates an educational business with students being dropped off and picked up throughout the day, adding to the number of cars coming and going.

Another significant driver of traffic is the sports equipment retail store next door to the Educomp retail store (on a neighboring property). As that business has no parking, all of their customers used the 4 State Road parking lot, unless they walked or rode their bikes. I do not have information on that business' daily sales but just based on what could be observed in the parking lot, this would have added significantly to the total number of cars coming and going.

With the change in use of the parking lot, the vast majority of the cars coming and going from the lot, as described above, will be eliminated. This will have a strong positive impact on traffic and should in my opinion be taken into serious consideration by any traffic study related to the project.

Best regards,
Dan Carbon

Daniel Carbon
Educomp, Inc.
4 State Road
P.O. Box 2462
Vineyard Haven, MA 02568
tel: (508) 693-0803

fax: (508) 693-6077

A-5 ROAD SAFETY AUDIT (RSA) SAFETY ENHANCEMENT SUMMARY

Table 2. Potential Safety Enhancement Summary – State Road at Look Street/ Edgartown Vineyard Haven Road

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsible Agency
Offset Geometry	Evaluate the appropriateness of temporarily making Look Street one-way northbound to reduce the amount of vehicles entering the intersection and help reduce driver confusion	Medium	Medium	Low	MassDOT/ Tisbury
Offset Geometry	Consider making Look Street a dead end by completely closing off the street at State Road.	High	Medium	Medium	MassDOT/ Tisbury
Offset Geometry	Consider installing a modern roundabout or full signal at the intersection to provide a safe, controlled movement through the intersection and to reduce the occurrence of angle crashes.	High	Long	High	MassDOT
Sight Distance	Work with the owner of the property on the northwest corner of the intersection to relocate the retaining wall to improve sightlines to the west of the intersection.	High	Medium	High	MassDOT/ Tisbury
Sight Distance	Work with the owner of the property on the northwest corner of the intersection to cut back the tree line to improve sight lines west of the intersection. Continue to maintain that cut back line.	High	Short	Low	MassDOT/ Tisbury
Sight Distance	Evaluate the feasibility and appropriateness of relocating the utility pole located in the northwest corner of the intersection to improve sight lines west of the intersection.	High	Long	High	MassDOT/ Tisbury
Speeding	Consider re-evaluating the speed limit for the westbound approach of State Road. In the meantime, MassDOT could install the W3-5 Reduced Speed Limit Ahead sign west of the intersection in advance of the 20 mph speed limit sign. This will alert to motorists that the speed limit will drop and perhaps give more time for vehicles to start slowing down prior to the intersection. A speed trailer could also be installed.	High	Short	Low	MassDOT

Table 2. Potential Safety Enhancement Summary – State Road at Look Street/ Edgartown Vineyard Haven Road

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsible Agency
Speeding	Consider narrowing the roadway using white edge lines west of the intersection for eastbound drivers. A narrower road will provide a constricted feeling which will reduce driver speed.	Medium	Medium	Low	MassDOT
Speeding	Consider installing a geometric traffic calming measure west of the intersection to start slowing down drivers well in advance of the intersection.	Medium	Long	High	MassDOT
Speeding	Consider installing a modern roundabout at the intersection as part of long-term reconstruction efforts, as previously mentioned, to calm traffic and eliminate the occurrence of angle crashes.	High	Long	High	MassDOT
Signage	Consider the installation of W3-5 Reduced Speed Limit Ahead sign on eastbound approach of State Road.	Medium	Short	Low	MassDOT
Signage	Install street name sign for Edgartown Vineyard Haven Road that is clear and easy to see.	Medium	Short	Low	MassDOT
Signage	Evaluate the placement and size of the existing street name at Look Street to improve visibility.	Medium	Short	Low	MassDOT
Signage	Replace the existing intersection warning signs (W2-1) on State Road with a W2-7L on the westbound approach and a W2-7R on the eastbound approach in order to better depict the intersection as a skewed four way intersection.	Medium	Short	Low	MassDOT
Signage	Place street name plaques (W16-8aP) below the intersection warning signs on State Road to increase clarity and awareness of the intersection.	Medium	Short	Low	MassDOT
Signage	Replace STOP-sign and post on Edgartown Vineyard Haven Road and position so that it is standing upright and is visible to both lanes of traffic. Consider making this STOP sign larger to increase visibility. Consider adding BlinkerSign LED signs which are FHWA-MUTCD compliant and provide high-visibility advance warning of potentially dangerous traffic conflicts.	Medium	Short	Medium	MassDOT

Table 2. Potential Safety Enhancement Summary – State Road at Look Street/ Edgartown Vineyard Haven Road

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsible Agency
Signage	Consideration should be made to install an additional STOP sign on the western side of Edgartown Vineyard Haven Road as well so that left turning vehicles may have a better view. Advance Stop warning signs should be installed on the northbound approach of Edgartown Vineyard Haven Road to provide additional warning of the upcoming STOP control condition.	Medium	Short	Low	MassDOT
Signage	Remove the stickers on Look Street STOP-sign.	Medium	Short	Low	Tisbury
Pavement Conditions	Rehabilitate pavement to remove rutting along the Edgartown Vineyard Haven approach. This improvement may decrease the potential number of rear-end crashes in wet or icy roadway conditions.	High	Long	High	MassDOT
Pavement Markings	Refresh pavement markings especially along Look Street and Edgartown Vineyard Haven Road. Consider the possibility of installing center line rumble strips or flexible delineator posts along Edgartown Vineyard Haven Road to keep vehicles in appropriate lanes.	High	Short	Low	MassDOT
Excessive Queuing	Consider a bypass route that redirects traffic on Edgartown Vineyard Haven Road downstream and away from the intersection.	High	Long	High	MassDOT/ Tisbury
Excessive Queuing	Consider police detail at this intersection.	Medium	Short	Low	Tisbury Police
Excessive Queuing	Consider installing a modern roundabout or full signal at the intersection to provide a safe, controlled movement through the intersection and to reduce the occurrence of angle crashes.	High	Long	High	MassDOT
Excessive Queuing	As part of long term planning efforts, work to reduce cut-through traffic at this intersection by implementing traffic improvement network wide.	High	Long	Medium	Tisbury

Table 2. Potential Safety Enhancement Summary – State Road at Look Street/ Edgartown Vineyard Haven Road

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsible Agency
Bike Accommodations	This intersection experiences a considerable amount of bicycle activity, especially during the warmer months and therefore enhanced bicycle accommodations should be considered at this location. These accommodations could include bicycle lane pavement markings or sharrows, and associated signage.	High	Medium	Medium	MassDOT
Pedestrian Accommodations	Consider relocating the crosswalk on State Road west of the intersection or relocate the retaining wall and relocate the utility pole, both in the northwest corner, to provide better sight lines for Look Street drivers and pedestrians waiting to cross from the north side of State Road.	High	Medium	Medium	MassDOT
Pedestrian Accommodations	Consider installing rectangular rapid-flashing beacons for pedestrians at the crosswalk on Sate Road to further increase visibility and also act as a traffic calming measure for eastbound vehicles on State Road to reduce their speed in advance to the intersection.	Medium	Medium	Medium	MassDOT
Pedestrian Accommodations	Refresh crosswalk markings on Look Street to enhance visibility.	Medium	Short	Low	MassDOT
Pedestrian Accommodations	Consider providing crosswalks along Edgartown Vineyard Haven Road and across State Road east of the intersection. Demand is high at these locations according to audit team members. Special consideration as to their location should be made so that pedestrians feel comfortable and safe. The installation of these crosswalks would also require sidewalks and sidewalk ramps to adhere to MassDOT and ADA Compliance.	High	Medium	High	MassDOT
Pedestrian Accommodations	Consider implementing high-visibility crosswalk treatments which have been known to significantly increase both driver daytime yielding behavior and the percentage of pedestrians actually using the crosswalk.	High	Medium	Medium	MassDOT

Table 2. Potential Safety Enhancement Summary – State Road at Look Street/ Edgartown Vineyard Haven Road

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsible Agency
Pedestrian Accommodations	As part of long-term planning and reconstructive efforts, consider providing suitable sidewalks with ample width along both sides of all approaches for added pedestrian comfort and safety.	High	Long	High	MassDOT
Truck Traffic	As part of long-term reconstructive efforts, consider providing a larger turning radius at the southwest corner of the intersection. This will require land takings and easements but would provide ample room for trucks and heavy vehicles to safely execute the right run onto Edgartown Vineyard Haven Road from the west.	High	Long	High	MassDOT