

TRAFFIC IMPACT ANALYSIS

Pare Project No. 23142.00

**Peoples Credit Union
703 Kingstown Road
South Kingstown, Rhode Island**



Submitted to:

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JULY 2024

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INTRODUCTION

The following report represents the traffic study completed for the proposed redevelopment of the property located at 703 Kingstown Road in South Kingstown, Rhode Island. The site is the location of the former Bobby G's Pub which closed after 39 years of business in February 2022. It is proposed to raze the existing building and construct a new 2,835 square foot bank with 3 drive-thru windows on-site. The existing access to the site had two full access driveways. The northern driveway was shared with a Midas Auto Repair Shop and the southern driveway provided access to the former Bobby G's exclusively. It is proposed for future use to allow only one full access driveway to provide enter and exit movements for the site.

Presented within this study are an assessment of the existing conditions in the vicinity of the project site, a safety analysis of the study area, and an analysis of the traffic based on existing (2023) conditions, future (2028) no-build conditions and future (2028) build conditions. A locus map of the study area is provided in **Figure 1** and the proposed site layout is shown in **Figure 2**.

DATA COLLECTION

Three study intersections have been identified for examination with regards to traffic capacity and safety as part of this study. The study intersections include:

- Kingstown Road (Route 108) at Wakefield Liquors/Indian Run Village Apartments/Filippou's Pizza/Ace Hardware Driveway
- Kingstown Road at Main Street /Old Tower Hill Road (Route 1 A)
- The Proposed Site Driveway

Pare performed manual turning movement counts (MTMC's) on a typical weekday and weekend day in the summer. The weekday and weekend summer counts were performed at the following locations and times.

- *Wednesday August 16, 2023*
 - 7:00 a.m. to 9:00 a.m. Kingstown Road/Old Tower Hill Road/Main Street
 - 4:00 p.m. to 6:00 p.m. Kingstown Road/Old Tower Hill Road/Main Street
 - 7:00 a.m. to 9:00 a.m. Kingstown Road/Dental-Liquor-Bank-Apt Drive
 - 4:00 p.m. to 6:00 p.m. Kingstown Road-Dental-Liquor-Bank- Apt Drive
- *Saturday August 12, 2023*
 - 11:00 a.m. to 1:00 p.m. Kingstown Road/Old Tower Hill Road/Main Street
 - 11:00 a.m. to 1:00 p.m. Kingstown Road/Dental-Liquor-Bank-Apt Drive

Pare also performed, for comparison, MTMC's turning movement counts on a typical weekday and weekend during the fall to take into consideration traffic during the school year. The school year counts were performed at the following location and times.

- *Wednesday October 25, 2023*
 - 7:00 a.m. to 9:00 a.m. Kingstown Road/Old Tower Hill Road/Main Street
 - 4:00 p.m. to 6:00 p.m. Kingstown Road/Old Tower Hill Road/Main Street
 - 7:00 a.m. to 9:00 a.m. Kingstown Road/Dental-Liquor-Bank-Apt Drive
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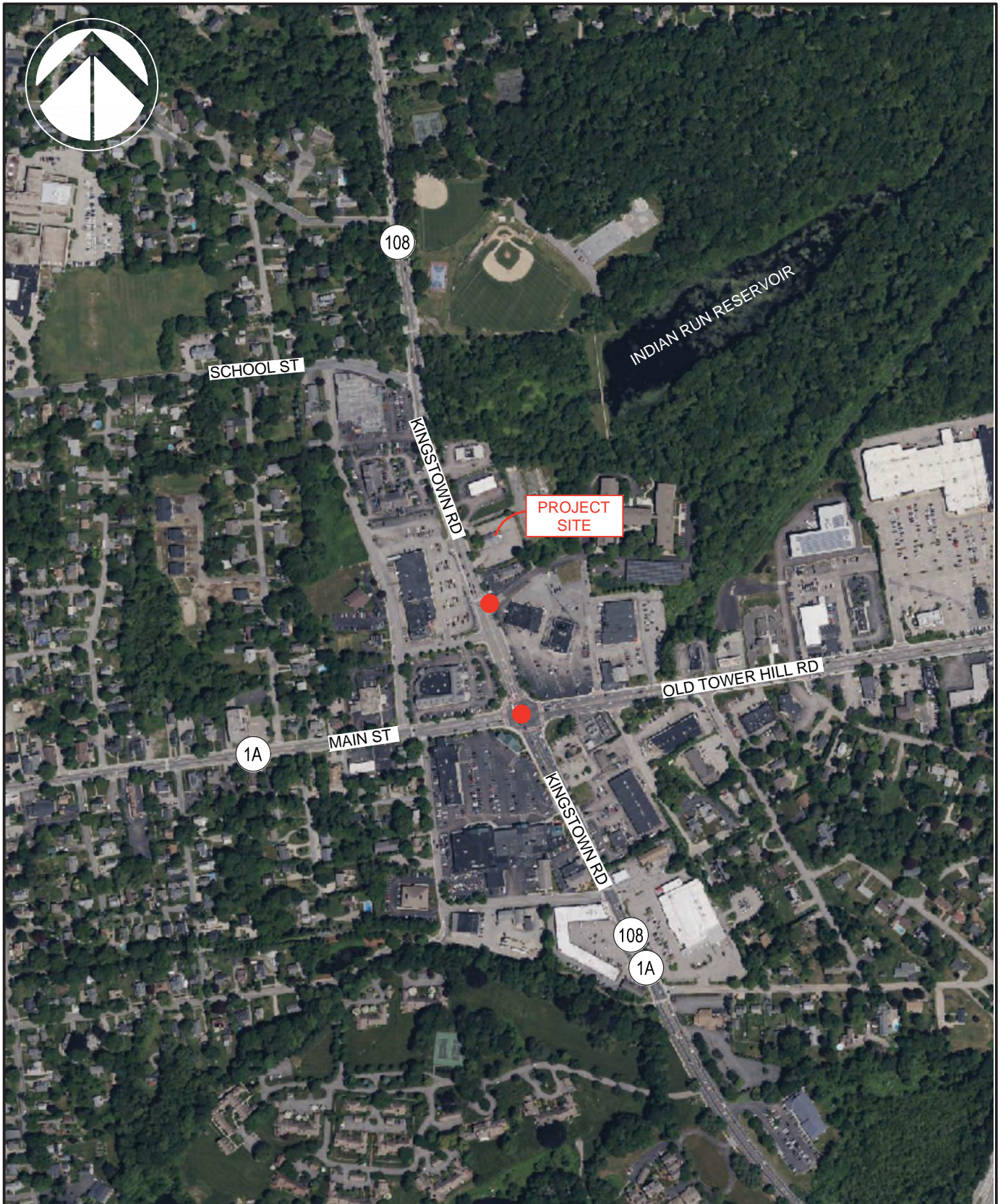
- *Saturday October 28, 2023*
 - 11:00 a.m. to 1:00 p.m. Kingstown Road/Old Tower Hill Road/Main Street

Crash data for the roadway network in the vicinity of the project site on Kingstown Road between School Street and the Old Tower Hill Road was requested from the South Kingstown Police Department for the latest 3-year period (January 2020 through October 1, 2023). The crash data request included copies of the accident reports and supplemental narratives for each record. The number of crashes, the location, the date, time of day, the accident type, the number of injuries and/or fatalities, and the roadway surface condition were all requested to adequately analyze the data. A crash review is included in this report to identify if there are any potential trends that may require mitigation.

Field reviews of the study area were conducted on Wednesday August 16, 2023 and Wednesday October 25, 2023. Geometric measurements and other field observations were recorded at the significant intersections in the vicinity of the project site. The information obtained was used in the analysis of the study area intersections.

Lastly, the Planning Department for the Town of South Kingstown was contacted to determine if there are currently any developments proposed whose trip generation information should be included in the study.





● = STUDY INTERSECTIONS

PROJECT NO. 23142.00

DATE: JULY 2024



FIGURE 1
LOCUS MAP

WAKEFIELD PEOPLE'S CREDIT UNION
SOUTH KINGSTOWN, RHODE ISLAND

EXISTING CONDITIONS

The study area is defined as the significant roadways and intersections in the vicinity of the site that may be impacted by the construction of the proposed bank. Listed below are the roadways and intersections that were reviewed as part of this study.

Study Area Roadways:

- Kingstown Road (Route 108)
- Old Tower Hill

Study Area Intersections:

- Kingstown Road (Route 108) at the Wakefield Liquors/Indian Run Village Apartments/Filippou's Pizza/Ace Hardware Driveway
- Kingstown Road at Main Street /Old Tower Hill Road (Route 1 A)
- Kingstown Road at the Proposed Site Driveway

Study Area Roadways

Roadways

Kingstown Road (Route 108): Kingstown Road is a principal arterial and is owned and maintained by the Rhode Island Department of Transportation (RIDOT). In the vicinity of project site, Kingstown Road runs in a north/south direction and its typical section has an approximate 44-foot paved width consisting of two 10.5-foot travel lanes in each direction and a 1-foot wide curb offset in each direction, granite curb and 5-foot concrete sidewalks on both sides of the roadway. Within the study area, Old Tower Hill Road's posted speed limit is 25 miles per hour. Pavement conditions are generally good.

Old Tower Hill Road (Route 1A): Old Tower Hill Road (Route 1A) is a principal arterial and is owned and maintained by the RIDOT. Old Tower Hill Road runs in the east/west direction and the cross-section has an approximate 51-foot paved width consisting of 11-foot travel lanes in each direction, a 13-foot center two-way left turn lane, 5-foot bike lanes with 3-foot bike path buffers in each direction and granite curb and 5-foot concrete sidewalks on both sides of the roadway. Within the study area, Old Tower Hill Road's posted speed limit is 25 miles per hour. Old Tower Hill Road has recently been reconstructed by RIDOT therefore the pavement is in excellent condition.

Main Street (Route 1A): Main Street is an urban collector road. The roadway runs in an east/west direction and typically has an approximate striped curb-to-curb 36-foot pavement width with concrete curb and 5-foot concrete sidewalks on both sides. Parking is provided on both sides of the road. There are 1-hour parking restrictions between 9 a.m. and 6 p.m. in the designated parking spaces. There is a posted speed limit of 25 mph along Main Street. In general, pavement conditions on Main Street are good.



Intersections

Old Tower Hill Road/Main Street/Kingstown Road (Route 108): The intersection of Old Tower Hill Road/Main Street/Kingstown Road forms a four-legged signalized intersection. Kingstown Road forms the north and south legs, Main Street forms the west leg and Old Tower Hill Road forms the east leg.

The north leg of Kingstown Road consists of two 12-foot travel lanes in the northbound direction and three 11-foot travel lanes, one dedicated for thru movements, one for shared thru/right turn movements, and a dedicated left turn lane in the southbound direction. Concrete curb and sidewalks are on both sides of the roadway.

The south leg of Kingstown Road consists of two 12-foot travel lanes in the southbound direction and a 12-foot dedicated left turn lane, a dedicated 12-foot thru lane and a 12-foot shared right turn/thru lane. Concrete curb and sidewalks are on both sides of the roadway.

The east leg of Old Tower Hill Road consists of two 11-foot lanes heading eastbound and three 11-foot lanes westbound consisting of an 11-foot left turn lane, an 11-foot thru lane and a 11-foot shared right turn /bike lane. Curbing and concrete sidewalk are on both sides of the roadway.

The west leg, Main Street, consists of a one 11-foot lane heading towards downtown Wakefield, and an 11-foot dedicated left turn lane, an 11-foot dedicated thru lane and an 11-foot shared thru/right turn lane heading eastbound. Curbing and concrete sidewalk are on both sides of the roadway.

Crosswalks exist at each leg of the intersection. The signal operates under five phases. Phase one serves the protected eastbound and westbound left-turn movements. Phase two serves the eastbound and westbound approaches. The third phase serves the northbound and southbound left turn movements. The fourth phase serves the northbound and southbound movements concurrently and the fifth phase serves the pedestrian movements.

Kingstown Road (Route 108) at the Wakefield Liquors/Indian Run Village Apartments/Filippou's Pizza/Ace Hardware Driveway: The intersection of Kingstown Road with the shared driveway to the retail/residential properties forms a three-legged signalized intersection. Kingstown Road runs in the north/south direction and the driveway, the east leg, runs in an east/west direction. The east leg is approximately 25 feet wide and provides traffic in both directions. The lanes are not striped to delineate the travel ways.

Kingstown Road south leg has two (2) approximate 11-foot travel lanes, providing a thru lane and a shared thru/right turn lane, and an 1-foot curb offset heading northbound and two (2) 12-foot lanes with a 1-foot curb offset southbound. The travel ways are separated by an approximate 7-foot-wide striped median. Concrete curbing and concrete sidewalks exist on both sides of the road on this leg.

Kingstown Road north leg has two (2) approximate 10.5-foot travel lanes, providing a thru lane and a shared left turn/thru lane along with a 1-foot curb offset heading southbound and two (2) 11-foot lanes with a 1-foot curb offset northbound. The travel ways are separated by a double yellow centerline. Concrete curbing and concrete sidewalks exist on both sides of the road on this leg.



Crosswalks exist at the east and north legs of the intersection. The signal operates under three phases. Phase one serves the northbound and southbound movements, the second phase is for the westbound movements and the third phase is for pedestrian movements.

Kingstown Road (Route 108)/Proposed Site Driveway: The intersection of Kingstown Road and the proposed site driveway will form a four-legged unsignalized intersection consisting of Kingstown Road forming the north and south legs, the driveway to the Ocean State Job Lot being the west leg and the proposed site driveway forming the east leg to the proposed bank.

The north and south legs of Kingstown Road consist of two approximate 10.5-foot travel lanes in the northbound and southbound directions and 1-foot curb offsets in each direction. The southbound leg will allow a shared left turn/thru lane and a shared right turn/thru lane. The northbound leg will also allow a shared left turn/thru lane and a shared right turn/thru lane. The driveways for the Ocean State Job Lot and the proposed PCU Bank will allow both entering and exit movements. The exit movements from each driveway will allow shared right/left turn movements.

Approximately 40 feet north of the proposed site driveway, there is a striped median that forms a dual left turn lane.

EXISTING TRAFFIC VOLUMES

Pare performed manual turning movement counts (MTMC's) on a typical weekday and weekend day in the summer. The weekday and weekend summer counts were performed at the following locations and times.

- Wednesday August 16, 2023
 - 7:00 a.m. to 9:00 a.m. Kingstown Road/Old Tower Hill Road/Main Street
 - 4:00 p.m. to 6:00 p.m. Kingstown Road/Old Tower Hill Road/Main Street
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- Saturday August 12, 2023
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Pare also performed, for comparison, MTMC's turning movement counts on a typical weekday and weekend during the fall to take into consideration traffic during the school year. The school year counts were performed at the following location and times.

- Wednesday October 25, 2023
 - 7:00 a.m. to 9:00 a.m. Kingstown Road/Old Tower Hill Road/Main Street
 - 4:00 p.m. to 6:00 p.m. Kingstown Road/Old Tower Hill Road/Main Street
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- Saturday October 28, 2023
 - 11:00 a.m. to 1:00 p.m. Kingstown Road/Old Tower Hill Road/Main Street



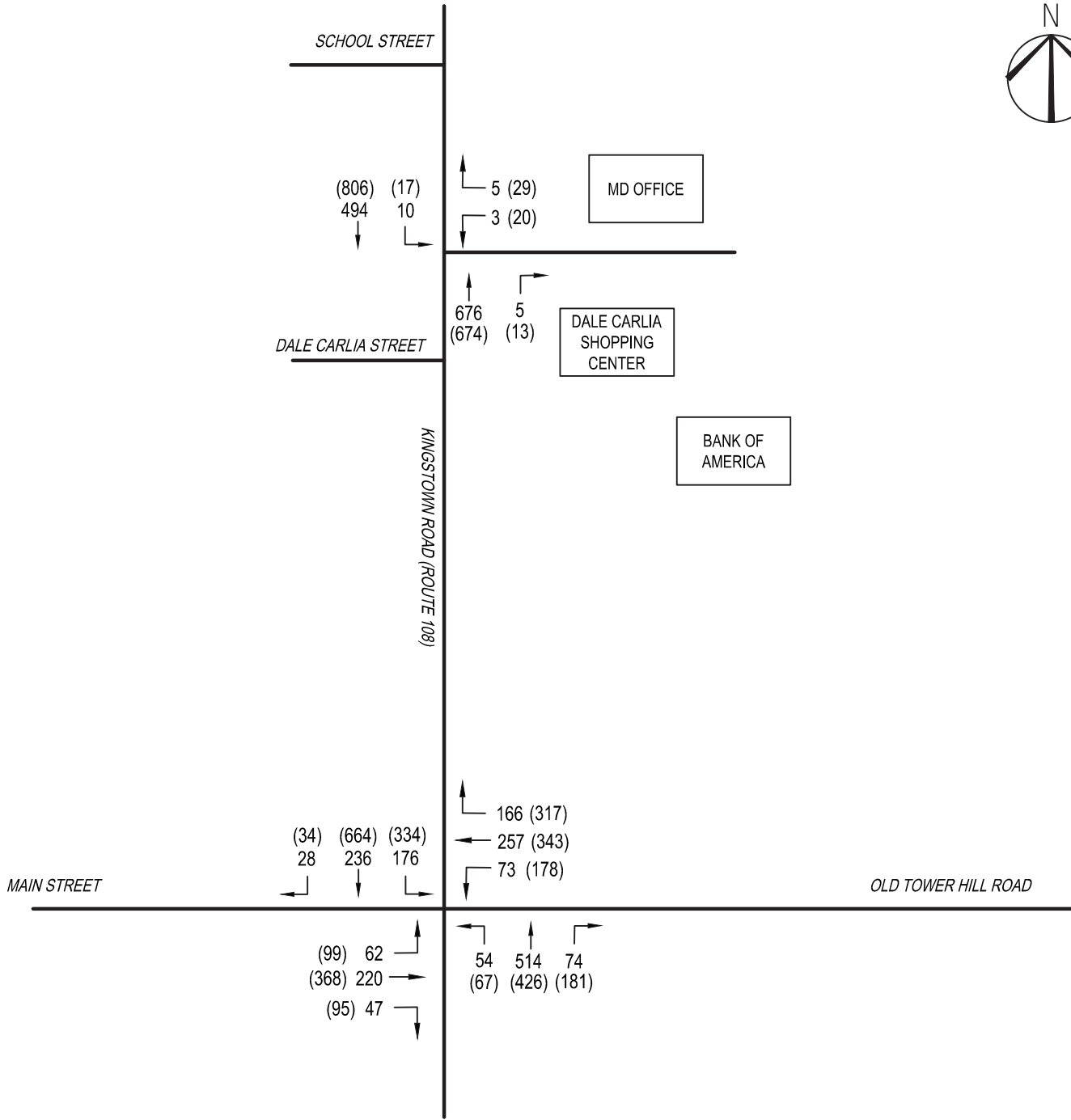
The summer counts were compared with the counts performed during the school year to determine the worst-case volumes and to use those numbers for analyses.

Table 1: Summer vs. School Year Traffic Volume Comparison

	Summer Counts-Weekday Morning Peak Hour (August 2023)	School Year Counts-Weekday Morning Peak Hour (October 2023)	Summer Counts-Weekday Afternoon (August 2023)	School Year Counts-Weekday Afternoon Peak Hour (October 2023)	Summer Counts-Saturday (August 2023-midday)	School Year Counts-Saturday (October 2023-midday)	% Difference
Kingstown Road (Route 108)/Old Tower Hill Road (Route 1A)/Main Street (Route 1A)	1,585 veh.	1,907 veh.	2,142 veh.	3,106 veh.	2,404 veh.	2,901 veh	+21%
Kingstown Road (Route 108)/Dental/Liquor Store/Apartment access (Route 1A)	851 veh.	1193 veh.	1,191 veh.	1559 veh.	1,327 veh.	1,605 veh	Est +21%

Based on the data obtained, the school year volumes were the higher volumes during peak hours and were used for the traffic capacity analyses. The actual counts for the school year during the weekday morning and afternoon peak hours and the Saturday mid-day peak hour were used for the Kingstown Road/Old Tower Hill Road/Main Street intersection. The actual counts for the school year were also used for the weekday morning and afternoon peak hours for the Kingstown Road/Old Tower Hill Road/Main Street intersection. To obtain the school year volume at the Kingstown Road/Dental/Liquor Store/Apartment access road a 21% increase of the summer counts at this location was used similar to those experienced at the Kingstown Road (Route 108)/Main Street/Old Tower Hill Road intersection. Copies of all count data are provided in **Appendix A**. Existing traffic volumes for the weekday morning peak hour and afternoon peak hour are shown in **Figure 3**. Existing traffic volumes for the Saturday mid-day peak hour are shown in **Figure 4**.





LEGEND

XXX (XXX) AM PEAK HOUR VOLUMES (PM PEAK HOUR VOLUMES)



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Project No. 23142.00

Date: July 2024

Figure 3

Existing Conditions Weekday Volumes

People's Credit Union
 South Kingstown, Rhode Island



SCHOOL STREET

DALE CARLIA STREET

KINGSTOWN ROAD (ROUTE 108)

MAIN STREET

OLD TOWER HILL ROAD

MD OFFICE

DALE CARLIA SHOPPING CENTER

BANK OF AMERICA

898 33

34 31

600 11

42 480 303

261 304 231

124 357 95

118 339 247

LEGEND

XXX SATURDAY PEAK HOUR VOLUMES

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Date: July 2024

Figure 4

Existing Conditions Saturday Volumes

People's Credit Union
South Kingstown, Rhode Island



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SAFETY ANALYSIS

Crash Data

Crash data was collected from the South Kingstown Police Department from January 1, 2020 to September 2023 for the study area. **Table 2** below provides a breakdown of the crashes based on type and severity. The crash data request letter and a complete crash data summary is provided in Appendix B.

Table 2: Crash Data Summary

Roadway/ Intersection	Total Crashes	Non-Fatal Injuries	Angle	Head On	Single Vehicle	Rear End	Sideswipe	Loss of Control
Kingstown Rd/Dale Carlia Street	19	4	9	0	1	2	6	1
Kingstown Road/Old Tower Hill Road/Main Street	18	2	2	0	0	13	2	1
Site/Job Lot Entrance	5	2	3	0	0	2	0	0
School Street/Kingstown Road	6	2	3	0	0	3	0	0
TOTAL	48	10	17	0	1	20	8	2

From January 1, 2020 through September 2023, a total of 48 crashes occurred within the study area on Kingstown Road, Old Tower Hill Road, Main Street, School Street and Dale Carlia Street. Of the 48 crashes, ten resulted in non-fatal minor injuries. The most notable intersection with crashes is the Kingstown Road/Dale Carlia Street intersection with 19 total crashes over the 45-month period that data was collected. The reasons for the crashes include:

Kingstown Road/Dale Carlia Street

- Car making left turn from Kingstown Road northbound into Dale Carlia Street. Car in inner lane southbound stopped to let car make left turn. Car in outer lane southbound did not stop. (3 crashes)
- A vehicle heading southbound was changing lanes and got hit by second car. (3 crashes)
- Accident at intersection, left turning vehicle cut in front of southbound travelling vehicle. (2 crashes)
- Vehicle heading northbound was changing lanes and got hit by second car.(2 crashes)
- Car cut in front of another car heading northbound that went from left lane to right lane at signalized intersection to go into Indian Run
- Single car taking left turn into Dale Carlia Street lost control making turn
- Car pulled out of roadway from Wakefield Liquors and car heading southbound sideswiped the car pulling out of roadway.
- Rear ender at traffic light.
- Vehicle taking right out of Dale Carlia Street pulled out in front of vehicle heading southbound.
- Car turning into CVS sideswiped a vehicle turning into Wakefield Liquors.



- Vehicle ran a green light and had an angle crash with second vehicle.
- Vehicle 1 rear ended Vehicle 2 coming out of Dale Carlia Street.
- Vehicle exiting CVS onto Dale Carlia Street was hit by vehicle heading eastbound on Dale Carlia Street.

Kingstown/Old Tower Hill Road/Main Street

- Rear end at intersection on Old Tower Hill Road (6 crashes)
- On Kingstown Road approaching intersection. Vehicle 1 was rear ended at signal. (3 crashes)
- Rear end on Main Street approach. (2 crashes)
- Vehicle 1 exiting Twisted Pizza. Vehicle 2 travelling westbound had the right blinker on. Vehicle 1 thought Vehicle 2 was turning and pulled out to create a crash.
- Road rage incident on Old Tower Hill and vehicle forced into curb.
- Snowy conditions. Vehicle 1 stopped on Old tower Hill Road. Vehicle did not stop on time.
- Vehicle ran red light at intersection.
- Vehicle approached intersection on Main Street. Vehicle 1 was rearended by Vehicle 2.
- Vehicle pulling out of Belmont onto Main Street. Vehicle was waved into traffic and was struck by vehicle heading in other direction.
- Vehicle heading westbound on Old Tower Hill Road merged into adjacent lane and hit another vehicle.
- Travelling southbound on Kingstown Road. Took left turn from middle lane and was hit by Vehicle 2.

Site/Job Lot Entrance

- Vehicle turning into Ocean State Job Lot. Crossed in front of southbound travelling vehicle. (2 crashes)
- Vehicle taking left turn into Ocean State Job Lot. Vehicle in inner lane heading southbound stopped to let car turn. Left turning vehicle did not see car approaching on outside lane.
- Vehicle pulled out of Bobby G's hit northbound travelling vehicle
- Vehicle heading northbound turning into Ocean State Job Lot was rear ended.

School Street/Kingstown Road

- Vehicle 1 exited School Street and did not see Vehicle 2 (2 crashes)
- Vehicle pulled out of Old Mountain Lanes. Driver stated he did not see vehicle heading southbound.
- Vehicle taking left turn into northern Ocean State Job Lot had collision with vehicle heading southbound.
- Vehicle 1 was turning. Vehicle 2 reached down to grab water bottle and did not see turning making turn
- Vehicle turning into School Street was rear ended

Based on the number of crashes over the 45-month period data was collected, the distribution of crashes in the roadway network and the type of crashes there was no identified pattern of accidents. Most of the crashes that occurred were related to driver inattention.

Sight Distance

The posted speed limit on Kingstown Road (Route 108) is 25 miles per hour. Actual speeds were



measured on Kingstown Road and the average speed was 30 miles per hour. The 85th percentile speed was 33 miles per hour. A summary of the speed data results is shown in **Table 3** below. The most notable metric presented in the table is the 85th percentile speed, which was utilized for the sight distance analysis. Based on the speeds observed, the sight distance analysis was conducted using an operating speed of 35 miles per hour.

Table 3: Kingstown Road Speed Study Summary

	Posted Speed	Average Speed	True Median (50 th Percentile)	85 th Percentile	10 MPH Pace	% over Posted
Northbound	25	29	29	33	23-32	80
Southbound	25	30	31	35	26-35	82

In conjunction with the spot speed study conducted, the available sight distance at the proposed entrance location was measured. According to the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) publication *A Policy on the Geometric Design of Highways and Streets*, the minimum safe stopping sight distances (SSD) for operating speeds of 35 miles per hour is 250 feet. The required intersection sight distance to avoid a collision is equal to the stopping sight distance. In addition, AASHTO gives guidance for a more desirable intersection sight distance (ISD) for these speeds, which will not only avoid collisions, but maintain vehicular flow of at least 70 percent of the original operating speed. Meeting the desirable criteria for sight distance is more applicable to heavily traveled roadways, where maintaining steady traffic flow is important. A summary of the sight distance available for the proposed entrance can be seen in **Table 4** below.

Table 4: Sight Distance Summary

		Required SSD (ft)	Measured SSD (ft)	Required ISD (ft)	Measured SSD (ft)
Site Entrance	Looking South (left)	250	>500	390	>500
	Looking North (right)	250	>500	390	>500

ISD = Intersection Sight Distance

As shown, all sight distances exceed both minimum and desirable intersection sight distance standards.

NO-BUILD CONDITIONS

Future no-build traffic volumes are determined by projecting the existing traffic volumes based on a determined annual growth rate and including known potential developments within the study area. The South Kingstown Planning Department was contacted to determine if there are currently any developments proposed within the vicinity of the site whose trip generation information should be included in this study. It was reported that there was a marijuana dispensary on Pershing Avenue that is not likely to happen. It was also mentioned that on Old Tower Hill Road there are two existing properties- a commercial development and a restaurant - that are being proposed. It was felt that traffic from these projects will result in being small generators and the volumes from these

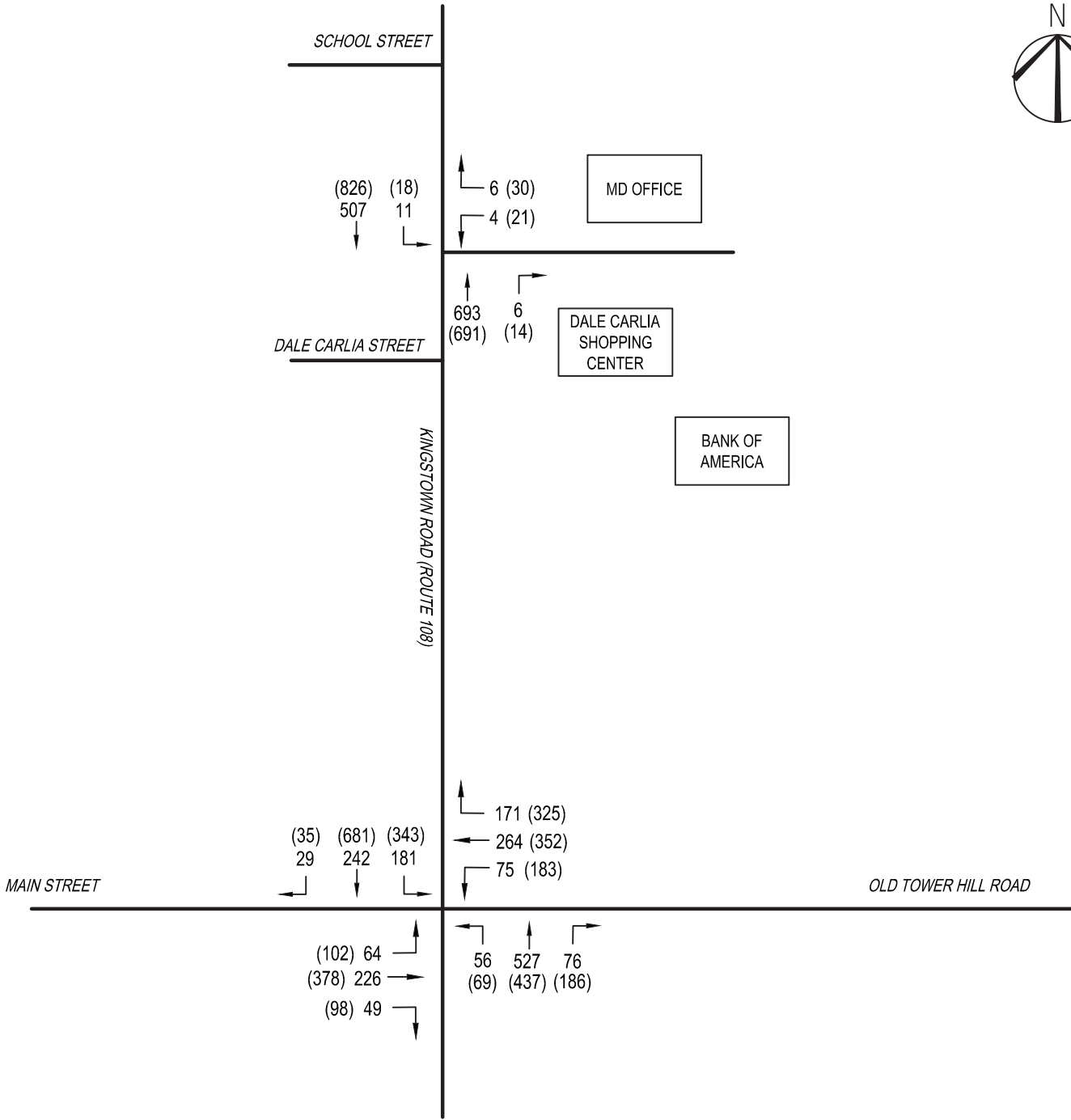


developments should be included as part of the overall growth factor.

To account for background growth along the roadways within the vicinity of the project site, the existing traffic volumes were projected forward over a five-year horizon from 2023 to 2028. Recent census data was reviewed to determine the appropriate growth rate. The census data showed a population increase of approximately 0.38% per year from 2010 to 2022 for the Town of South Kingstown. To be conservative a 0.5% growth rate was used for the five-year projection.

Figure 5 provides the 2028 no-build volumes for the morning and afternoon peak hours and **Figure 6** provides the 2028 no-build volumes for the Saturday mid-day peak hour.





LEGEND

XXX (XXX) AM PEAK HOUR VOLUMES (PM PEAK HOUR VOLUMES)



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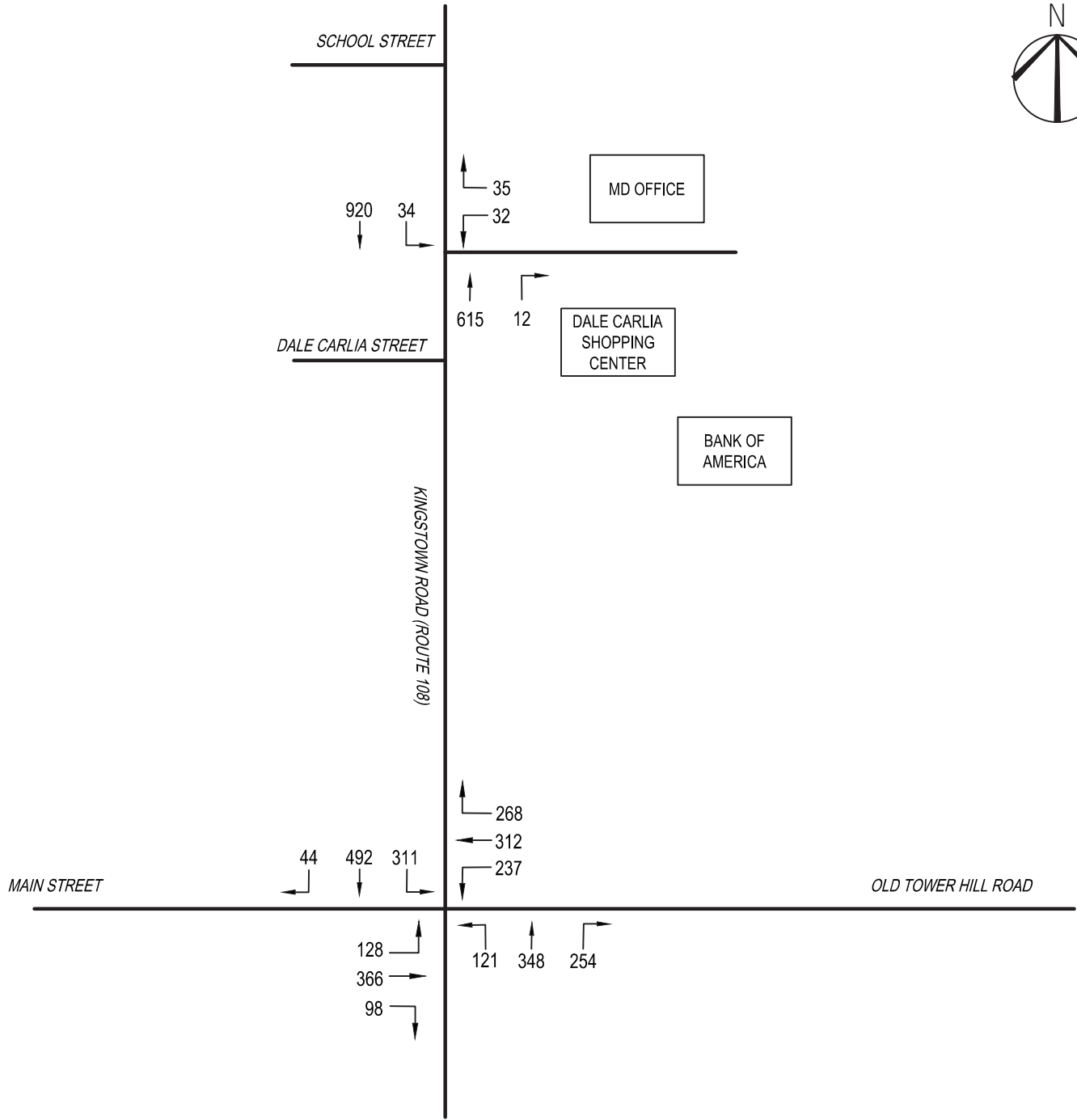
Project No. 23142.00

Date: July 2024

Figure 5

Future No-Build Weekday Volumes

People's Credit Union
 South Kingstown, Rhode Island



LEGEND
XXX SATURDAY PEAK HOUR VOLUMES



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Figure 6
Future No-Build Saturday Volumes
People's Credit Union
South Kingstown, Rhode Island

BUILD CONDITIONS

The future 2028 build condition represents the future 2028 no-build condition plus the anticipated trips due to the proposed Peoples Credit Union.

Trip Generation

The estimated trips for the proposed credit union were determined through the use of the 11th edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE). Land Use Code (LUC) 912 for a 2,835 square foot drive-in bank with 3 drive-thru lanes. **Table 5** below summarizes the expected trips for this facility throughout a typical weekday, during the weekday morning peak and afternoon peak hour, a typical Saturday and a Saturday mid-day peak hour.

Table 5: Trip Generation Summary

		Weekday	AM Peak	PM Peak	Saturday	Saturday Peak
LUC 912 – Drive-In Bank w 3 lanes (2,835 square feet)	Entering	142	16	30	122	38
	Exiting	142	12	29	123	37
	Total	284	28	59	245	75

Not all of the trips generated by the site will be new trips added into the traffic stream. A portion of these trips will be pass-by trips. The ITE *Trip Generation Handbook*¹ defines pass-by trips as intermediate stops on the way from an origin to a primary destination. Pass-by trips are attracted from the traffic passing the site on an adjacent street when the adjacent street provides direct access to the generator. These trips do not add to the overall traffic volumes on the roadway network but will add to the turning traffic at the site driveways only.

Pass-by trips were calculated based on data presented in the ITE *Trip Generation Handbook, 3rd Edition*. Pass-by trip data are present for LUC 912: Drive-In Bank to determine pass-by rates of the proposed development. The traffic volumes used to calculate pass-by trips were calculated by the trip generation summary in Table 5. A detailed breakdown of the pass-by trips and primary trips associated with the development are presented in **Table 6**.

Table 6: LUC 912 – Pass-by Trip Summary

	Weekday, AM Peak Hour		Weekday, PM Peak Hour		Saturday Midday Peak Hour	
Pass-By Rate	29%		26%		38%	
	Entering	Exiting	Entering	Exiting	Entering	Exiting
Pass-By Trips	5	4	8	8	15	14
Primary Trips	11	8	22	21	23	23
Total Trips	16	12	30	29	38	37

Trip generation data was also provided for a similar bank. The data is included in Appendix C. Based on the daily trip information provided, it is safe to say that the trips proposed through ITE are very conservative.

¹ Trip Generation Handbook, Third Edition; Institute of Transportation Engineers; Washington, D.C.; September 2017.

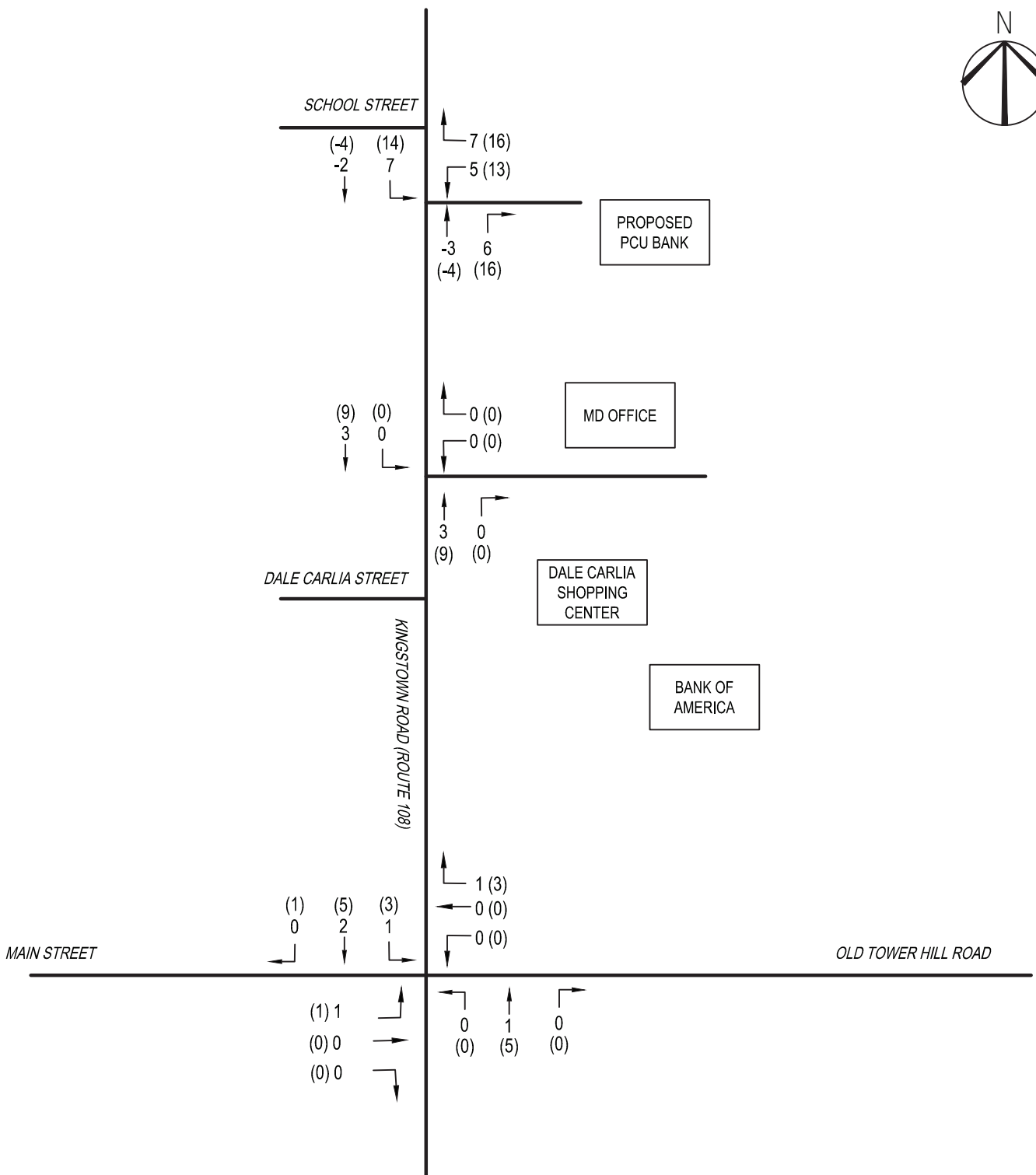


Trip Distribution

With the proposed land use, it is anticipated that trip distribution for traffic associated with the redevelopment is expected to follow the existing traffic patterns of the adjacent roadway.

Site-generated traffic volumes are shown in **Figure 7 (weekday volumes) and Figure 8 (Saturday volumes)** for new traffic to the bank, while **Figure 9 and Figure 10** displays the future (2028) build condition volumes.





LEGEND

XXX (XXX) AM PEAK HOUR VOLUMES (PM PEAK HOUR VOLUMES)

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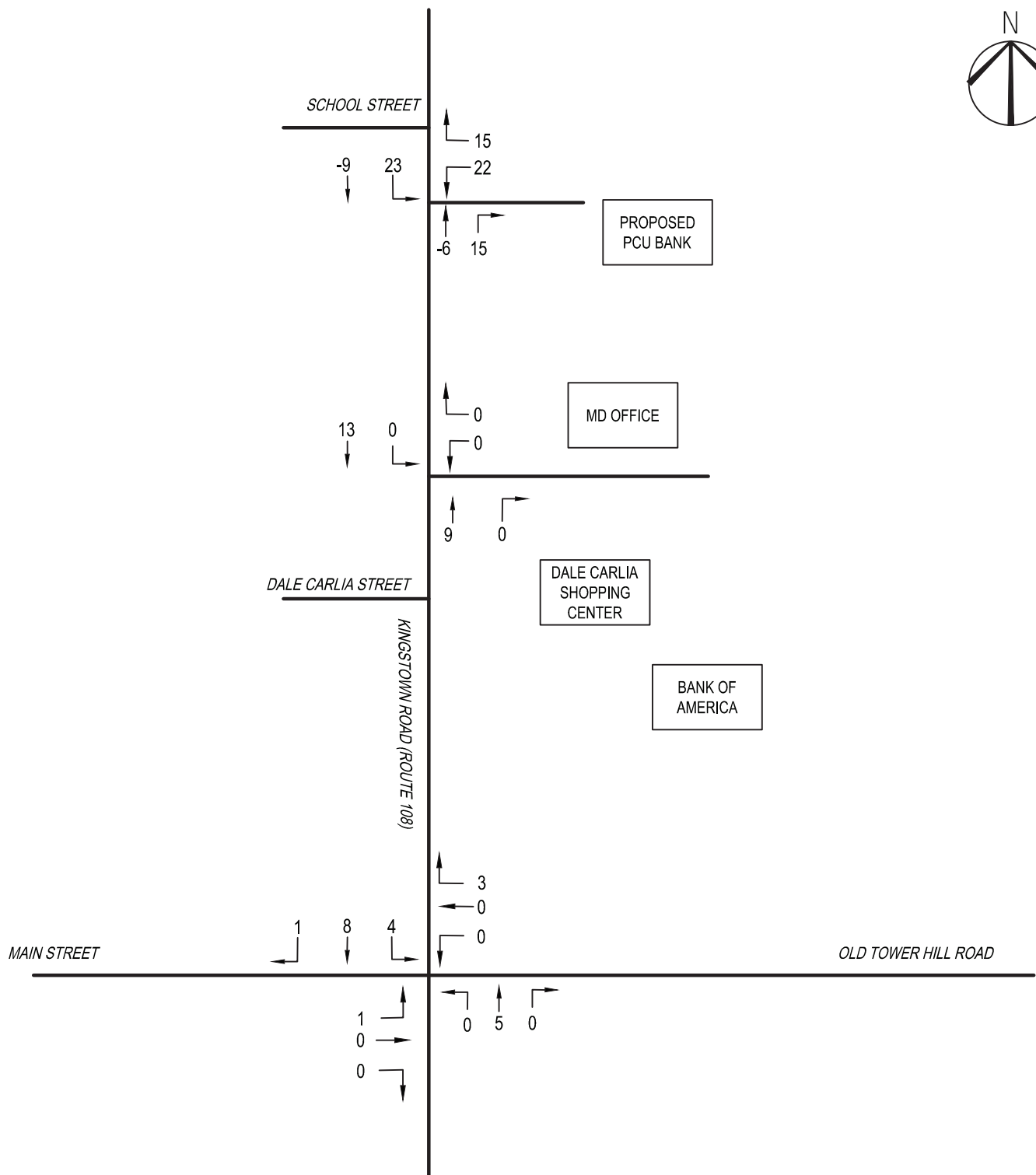
Figure 7

Site Generated Weekday Volumes

People's Credit Union
 South Kingstown, Rhode Island



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XXX SATURDAY PEAK HOUR VOLUMES

Project No. 23142.00 Date: July 2024

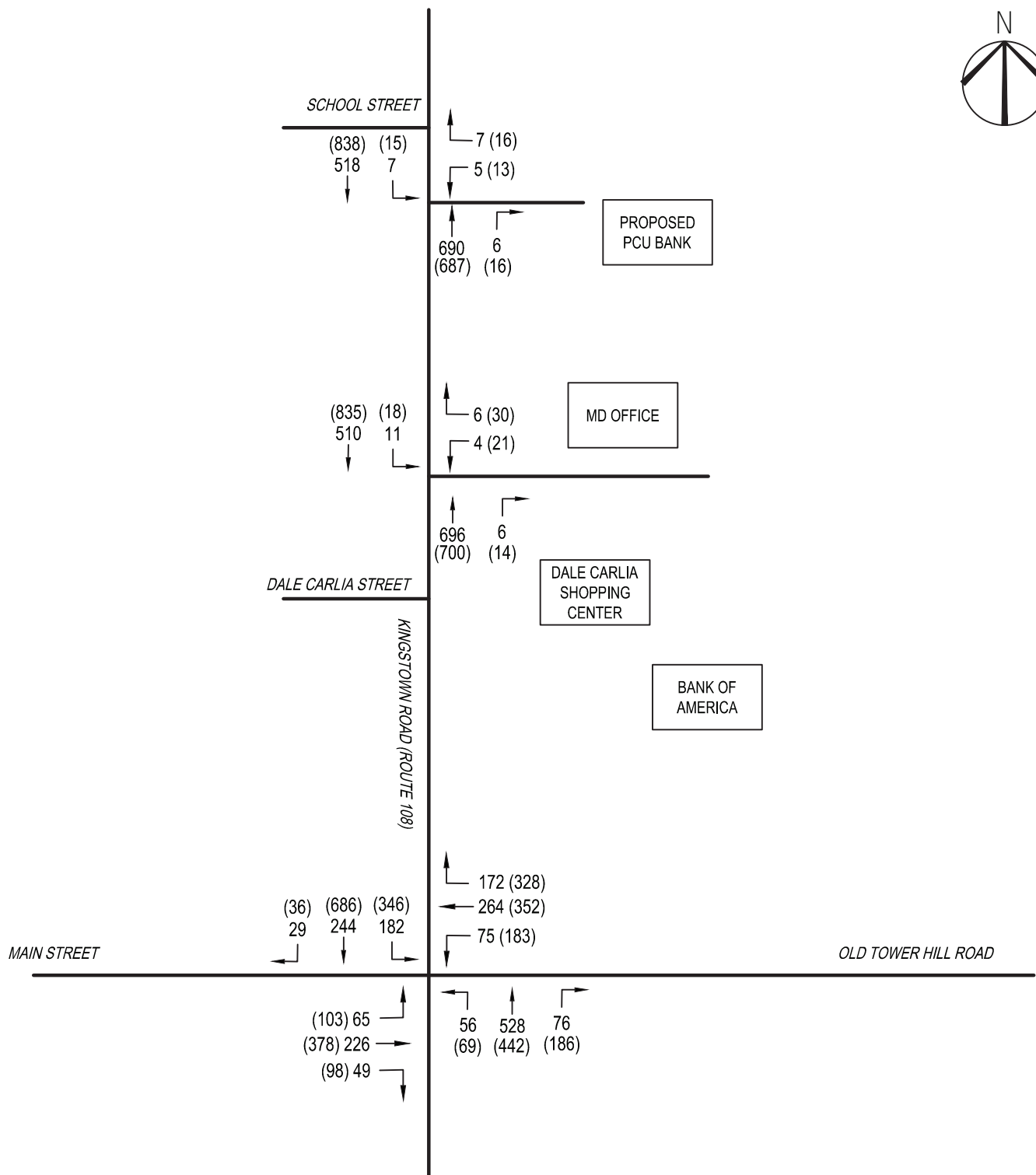
Figure 8

Site Generated Saturday Volumes

People's Credit Union
South Kingstown, Rhode Island



PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100



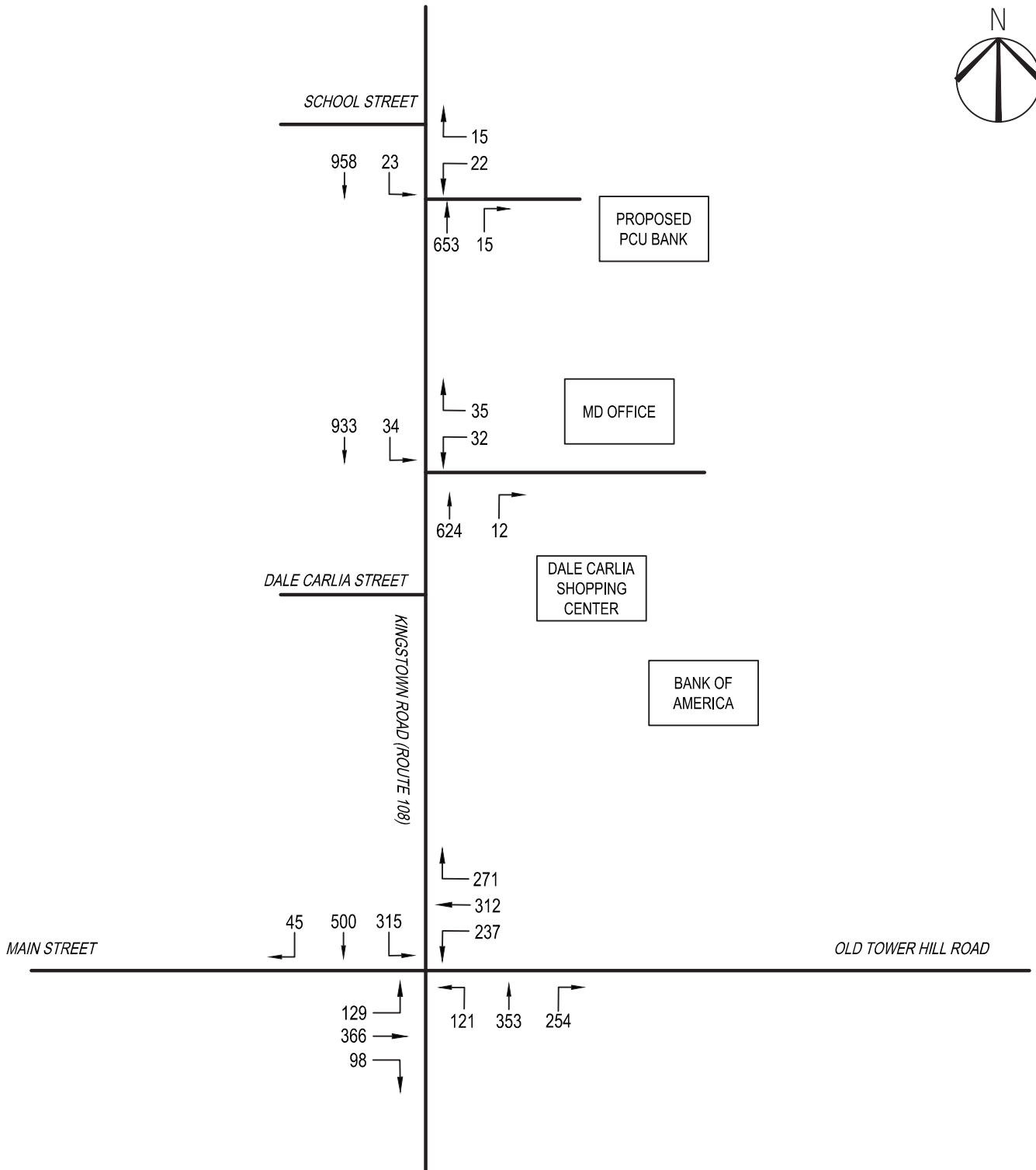
LEGEND
 XXX (XXX) AM PEAK HOUR VOLUMES (PM PEAK HOUR VOLUMES)



PARE CORPORATION
 ENGINEERS - SCIENTISTS - PLANNERS
 8 BLACKSTONE VALLEY PLACE
 LINCOLN, RI 02865
 401-334-4100

Project No. 23142.00 Date: July 2024

Figure 9
Future Build Weekday Volumes
 People's Credit Union
 South Kingstown, Rhode Island



LEGEND
 XXX SATURDAY PEAK HOUR VOLUMES

Project No. 23142.00 Date: July 2024



PARE CORPORATION
 ENGINEERS - SCIENTISTS - PLANNERS
 8 BLACKSTONE VALLEY PLACE
 LINCOLN, RI 02865
 401-334-4100

Figure 10
Future Build Saturday Volumes
 People's Credit Union
 South Kingstown, Rhode Island

CAPACITY ANALYSES

Capacity analyses were completed for all study intersections for existing, future no-build, and future build conditions. Capacity analyses characterize intersections based on their level of service (LOS). LOS is a quality measure describing operational conditions within a traffic stream, generally in terms of service measures such as speed, travel times, traffic interruptions, etc. Six LOS values, from A to F, are defined for each type of facility, with A representing the best operating conditions and F representing the worst operating conditions. The LOS criteria for signalized and unsignalized intersections is provided in **Table 7** below. **Tables 8, 9 and 10** summarize the capacity analysis results for the morning and afternoon peak hours and the Saturday Mid-day peak hour, respectively.

Table 7: LOS Criteria for Signalized and Unsignalized Intersections

LOS	Signalized Intersection	Unsignalized Intersection
	Delay Time (sec/veh)	Delay Time (sec/veh)
A	≤ 10	0-10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50

As shown in the tables below, there is not expected to be any change in overall LOS at the signalized intersections between no-build and build conditions during either the morning or afternoon peak hours. Further, all three signalized intersections are anticipated to operate at LOS C or better during the morning peak hour and LOS D or better during the afternoon peak hour. The overall impact of the proposed development is anticipated to be less than two seconds of additional delay at all signalized intersections during both peak hours. The analysis did indicate some difficult movements/approaches, including the Dedham Avenue northbound left approach and southbound left approach during both peak hours. These are existing conditions, and the proposed development is not anticipated to significantly exacerbate the delays experienced for these approaches.



Table 8: Weekday Morning Peak Hour LOS Summary

Intersection	Movement		Existing (2023)		Future (2028) No-Build		Future (2028) Build	
			LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²
Kingstown Road (Route 108)/Main Street/Old Tower Hill Road	EB	L	D (53.3)	103	D (53.8)	107	D (53.8)	107
		TR	C (35.0)	160	C (34.8)	165	C (34.8)	165
	WB	L	D (53.6)	125	D (53.9)	128	D (54.0)	128
		T	D (45.5)	406	D (45.1)	422	D (45.2)	422
		R	A (4.0)	45	A (4.0)	46	A (4.0)	46
	NB	L	C (34.3)	85	C (34.6)	88	D (52.4)	94
		TR	D (37.3)	391	D (38.6)	407	D (38.8)	409
	SB	L	D (52.3)	323	D (54.2)	336	D (54.5)	339
		TR	C (35.0)	164	D (35.1)	167	C (25.0)	155
	Intersection		D (37.3)		D (37.9)		D (37.3)	
Kingstown Road(Route 108)/Retail-Residential Drive (Wakefield Liquors/Indian Run Village/MD Office	WB	LR	B (12.4)	8	B (12.3)	10	B (12.6)	10
	NB	TR	A (1.0)	43	A (1.1)	45	A (1.1)	46
	SB	TL	A (1.0)	32	A (1.0)	34	A (1.0)	34
	Intersection		A (1.1)		A (1.2)		A (1.1)	
Kingstown Road (Route 108)/Proposed Site Entrance	WB	LR	-	-	-	-	B (10.9)	25
	NB	TR	-	-	-	-	-	-
	SB	L	-	-	-	-	A (9.3)	25



Table 9: Weekday Afternoon Peak Hour LOS Summary

Intersection	Movement		Existing (2023)		Future (2028) No-Build		Future (2028) Build	
			LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²
Kingstown Road (Route 108)/Main Street/Old Tower Hill Road	EB	L	E (60.2)	156	E (60.2)	164	E (58.2)	161
		TR	D (48.8)	306	D (51.0)	332	D (49.3)	322
	WB	L	E (60.8)	352	E (63.8)	371	E (63.1)	365
		T	D (53.6)	621	E (58.6)	657	E (58.0)	642
		R	A (3.1)	47	A (3.2)	48	A (3.2)	48
	NB	L	E (56.8)	115	E (57.3)	118	E (56.0)	117
		TR	F (81.0)	514	F (96.1)	547	F (93.3)	539
	SB	L	F (97.1)	626	F (103.0)	641	F (108.5)	655
		TR	D (35.7)	526	D (36.6)	563	D (37.4)	576
	Intersection		D (54.8)		E (59.7)		E (59.3)	
Kingstown Road(Route 108)/Retail-Residential Drive (Wakefield Liquors/Indian Run Village/MD Office	WB	LR	A (9.9)	21	A (9.8)	21	A (9.9)	21
	NB	TR	A (4.6)	121	A (4.7)	124	A (4.6)	126
	SB	TL	A (5.1)	153	A (5.2)	157	A (5.1)	160
	Intersection		A (5.1)		A (5.1)		A (5.1)	
Kingstown Road (Route 108)/Proposed Site Entrance	WB	LR	-	-	-	-	B (11.0)	25
	NB	TR	-	-	-	-	-	-
	SB	L	-	-	-	-	A (9.3)	25

1. Delay shown in seconds per vehicle.
 2. Queue Length shown in feet, assuming 25 feet per vehicle at unsignalized intersections.
 # - 95th percentile volume exceeds capacity, value shown is queue after two consecutive 95th percentile cycles.



Table 10: Saturday Midday Peak Hour LOS Summary

Intersection	Movement		Existing (2023)		Future (2030) No-Build		Future (2030) Build	
			LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²
Kingstown Road (Route 108)/Main Street/Old Tower Hill Road	EB	L	E (59.3)	197	E (59.3)	206	E (57.5)	216
		TR	D (42.4)	272	D (42.5)	279	D (42.0)	287
	WB	L	E (71.3)	441	E (75.2)	456	E (76.9)	456
		T	D (45.7)	477	D (46.6)	496	D (47.2)	496
		R	A (3.1)	47	A (3.1)	48	A (3.1)	48
	NB	L	E (58.7)	199	E (58.7)	208	E (57.2)	208
		TR	D (46.6)	437	D (49.8)	457	D (52.2)	464
	SB	L	E (67.6)	537	E (71.9)	554	E (74.3)	556
		TR	D (36.0)	320	D (36.6)	344	D (37.6)	346
	Intersection		D (45.3)		D (47.0)		D (47.9)	
Kingstown Road(Route 108)/Retail-Residential Drive (Wakefield Liquors/Indian Run Village/MD Office	WB	LR	B (12.8)	33	B (12.8)	34	B (13.4)	35
	NB	TR	A (2.6)	48	A (2.7)	50	A (2.6)	53
	SB	TL	A (3.2)	83	A (3.3)	86	A (3.3)	93
	Intersection		A (3.4)		A (3.5)		A (3.5)	
Kingstown Road (Route 108)/Proposed Site Entrance	WB	LR	-	-	-	-	B (11.0)	25
	NB	TR	-	-	-	-	-	-
	SB	L	-	-	-	-	A (9.3)	25

Based on the analyses, comparing the Future No-Build Conditions to Future Build Conditions, the development of a bank with 3 drive-thru lanes will have little to no impact on the traffic on the adjacent roadway system. This proposed use is not anticipated to generate much traffic during weekday morning and afternoon peak hours and also during the Saturday mid-day peak hour. In the morning peak hour 19 new trips can be anticipated to be added in the traffic stream in which 11 will enter and 8 will exit. In the afternoon peak hour 43 new trips consisting of 22 new trips entering and 21 new trips exiting can be anticipated and lastly the Saturday mid-day peak can anticipate 46 new trips with 23 entering and 23 exiting trips can be anticipated.

The trip generation numbers for Land Use Code 912 Drive-In Bank were obtained during surveys in the 2000s and 2010s. It should be recognized that the operations of these type of facilities have dropped significantly with more persons doing most of their banking on-line.



CONCLUSIONS

Pare Corporation conducted analyses of the potential impacts of the redevelopment of the property located at 703 Kingstown Road.

A safety review was conducted for the study roadways and intersections. Crash data was obtained for the South Kingstown Police Department. The results indicated that there were 48 crashes within the study area over the 45-month period that data was provided. Of the 48 crashes, 42% of the crashes were rear end crashes which are typical in areas with traffic signals. Most of these are due to driver inattentiveness. Seventeen of the crashes (36%) of the crashes were due to vehicles switching lanes within the study area. In the area of the proposed site driveway there were only 5 crashes reported in the vicinity of the driveway. Based on our review, it appears that of the crashes that resulted in injuries, none of the injuries appeared to be serious. Based on the volume of traffic, that passes through this corridor, the number of crashes that occurred do not appear to be significant.

In addition to the crash data analysis, sight distances reviewed for the site driveway indicate more than adequate sight distances allowing vehicles exiting the driveways ample time to safely enter onto Kingstown Road.

Capacity analyses conducted at the Kingstown Road/Main Street/Old Tower Hill Road and the Kingstown Road/Indian Run Village Road results in no significant increase in delays due to the redevelopment of this property into a bank. There are during peak times significant delays that currently occur due to the amount of traffic generate during the school year and also during the summer months. With the development of a bank at 703 Kingstown Road, this use will not be a significant generator of traffic, and with its construction, there will be limited impact to the traffic capacity in the surrounding area.

In summary, Pare Corporation is of the opinion that the proposed development can be safely accommodated on the roadways and through the intersections within the study area.



APPENDIX A

TRAFFIC COUNTS

Summer Counts
August 2023

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744AAA

Site Code : 23048.00

Start Date : 8/12/2023

Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	15	115	62	1	49	58	53	3	45	62	21	0	26	79	20	1	610
11:15 AM	18	110	75	0	61	54	48	0	42	53	22	7	24	70	22	0	606
11:30 AM	14	121	67	0	44	59	50	0	43	53	22	1	31	80	14	0	599
11:45 AM	16	114	56	0	55	59	42	0	55	66	30	1	24	62	23	3	606
Total	63	460	260	1	209	230	193	3	185	234	95	9	105	291	79	4	2421
12:00 PM	12	107	53	0	44	58	61	0	46	66	16	3	24	63	27	0	580
12:15 PM	8	82	68	1	58	57	44	1	37	61	15	0	20	61	11	0	524
12:30 PM	14	84	56	0	53	56	50	1	32	70	18	0	23	64	19	0	540
12:45 PM	15	94	44	0	43	60	42	2	44	53	15	3	21	77	19	0	532
Total	49	367	221	1	198	231	197	4	159	250	64	6	88	265	76	0	2176
Grand Total	112	827	481	2	407	461	390	7	344	484	159	15	193	556	155	4	4597
Apprch %	7.9	58.2	33.8	0.1	32.2	36.4	30.8	0.6	34.3	48.3	15.9	1.5	21.3	61.2	17.1	0.4	
Total %	2.4	18	10.5	0	8.9	10	8.5	0.2	7.5	10.5	3.5	0.3	4.2	12.1	3.4	0.1	
Cars & Peds	111	820	480	2	406	455	388	7	343	478	159	15	193	551	154	4	4566
% Cars & Peds	99.1	99.2	99.8	100	99.8	98.7	99.5	100	99.7	98.8	100	100	100	99.1	99.4	100	99.3
Trucks & Buses	1	1	0	0	0	2	1	0	1	3	0	0	0	0	1	0	10
% Trucks & Buses	0.9	0.1	0	0	0	0.4	0.3	0	0.3	0.6	0	0	0	0	0.6	0	0.2
Bikes by Direction	0	6	1	0	1	4	1	0	0	3	0	0	0	5	0	0	21
% Bikes by Direction	0	0.7	0.2	0	0.2	0.9	0.3	0	0	0.6	0	0	0	0.9	0	0	0.5

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	15	115	62	1	193	49	58	53	3	163	45	62	21	0	128	26	79	20	1	126	610
11:15 AM	18	110	75	0	203	61	54	48	0	163	42	53	22	7	124	24	70	22	0	116	606
11:30 AM	14	121	67	0	202	44	59	50	0	153	43	53	22	1	119	31	80	14	0	125	599
11:45 AM	16	114	56	0	186	55	59	42	0	156	55	66	30	1	152	24	62	23	3	112	606
Total Volume	63	460	260	1	784	209	230	193	3	635	185	234	95	9	523	105	291	79	4	479	2421
% App. Total	8	58.7	33.2	0.1		32.9	36.2	30.4	0.5		35.4	44.7	18.2	1.7		21.9	60.8	16.5	0.8		
PHF	.875	.950	.867	.250	.966	.857	.975	.910	.250	.974	.841	.886	.792	.321	.860	.847	.909	.859	.333	.950	.992
Cars & Peds	63	455	260	1	779	208	227	193	3	631	185	232	95	9	521	105	287	79	4	475	2406
% Cars & Peds	100	98.9	100	100	99.4	99.5	98.7	100	100	99.4	100	99.1	100	100	99.6	100	98.6	100	100	99.2	99.4
Trucks & Buses	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
% Trucks & Buses	0	0.2	0	0	0.1	0	0	0	0	0	0	0.4	0	0	0.2	0	0	0	0	0	0.1
Bikes by Direction	0	4	0	0	4	1	3	0	0	4	0	1	0	0	1	0	4	0	0	4	13
% Bikes by Direction	0	0.9	0	0	0.5	0.5	1.3	0	0	0.6	0	0.4	0	0	0.2	0	1.4	0	0	0.8	0.5

Transportation Data Corporation

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E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744AAA

Site Code : 23048.00

Start Date : 8/12/2023

Page No : 1

Groups Printed- Cars & Peds

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	15	113	62	1	49	58	53	3	45	62	21	0	26	79	20	1	608
11:15 AM	18	109	75	0	61	54	48	0	42	53	22	7	24	68	22	0	603
11:30 AM	14	121	67	0	43	57	50	0	43	52	22	1	31	78	14	0	593
11:45 AM	16	112	56	0	55	58	42	0	55	65	30	1	24	62	23	3	602
Total	63	455	260	1	208	227	193	3	185	232	95	9	105	287	79	4	2406
12:00 PM	12	106	52	0	44	58	61	0	45	64	16	3	24	63	27	0	575
12:15 PM	8	82	68	1	58	56	43	1	37	60	15	0	20	60	11	0	520
12:30 PM	14	84	56	0	53	54	50	1	32	69	18	0	23	64	19	0	537
12:45 PM	14	93	44	0	43	60	41	2	44	53	15	3	21	77	18	0	528
Total	48	365	220	1	198	228	195	4	158	246	64	6	88	264	75	0	2160
Grand Total	111	820	480	2	406	455	388	7	343	478	159	15	193	551	154	4	4566
Apprch %	7.9	58	34	0.1	32.3	36.2	30.9	0.6	34.5	48	16	1.5	21.4	61.1	17.1	0.4	
Total %	2.4	18	10.5	0	8.9	10	8.5	0.2	7.5	10.5	3.5	0.3	4.2	12.1	3.4	0.1	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	15	113	62	1	191	49	58	53	3	163	45	62	21	0	128	26	79	20	1	126	608
11:15 AM	18	109	75	0	202	61	54	48	0	163	42	53	22	7	124	24	68	22	0	114	603
11:30 AM	14	121	67	0	202	43	57	50	0	150	43	52	22	1	118	31	78	14	0	123	593
11:45 AM	16	112	56	0	184	55	58	42	0	155	55	65	30	1	151	24	62	23	3	112	602
Total Volume	63	455	260	1	779	208	227	193	3	631	185	232	95	9	521	105	287	79	4	475	2406
% App. Total	8.1	58.4	33.4	0.1		33	36	30.6	0.5		35.5	44.5	18.2	1.7		22.1	60.4	16.6	0.8		
PHF	.875	.940	.867	.250	.964	.852	.978	.910	.250	.968	.841	.892	.792	.321	.863	.847	.908	.859	.333	.942	.989

Transportation Data Corporation

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City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744AAA

Site Code : 23048.00

Start Date : 8/12/2023

Page No : 1

Groups Printed- Trucks & Buses

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
12:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	3
12:45 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	3
Total	1	0	0	0	0	2	1	0	1	2	0	0	0	0	1	0	8
Grand Total	1	1	0	0	0	2	1	0	1	3	0	0	0	0	1	0	10
Apprch %	50	50	0	0	0	66.7	33.3	0	25	75	0	0	0	0	100	0	
Total %	10	10	0	0	0	20	10	0	10	30	0	0	0	0	10	0	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3
12:45 PM	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	3
Total Volume	1	0	0	0	1	0	2	1	0	3	1	2	0	0	3	0	0	1	0	1	8
% App. Total	100	0	0	0		0	66.7	33.3	0		33.3	66.7	0	0		0	0	100	0		
PHF	.250	.000	.000	.000	.250	.000	.250	.250	.000	.375	.250	.500	.000	.000	.375	.000	.000	.250	.000	.250	.667

Transportation Data Corporation

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N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744AAA

Site Code : 23048.00

Start Date : 8/12/2023

Page No : 1

Groups Printed- Bikes by Direction

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
11:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11:30 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	2	0	0	5
11:45 AM	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	4
Total	0	4	0	0	1	3	0	0	0	1	0	0	0	4	0	0	13
12:00 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3
12:15 PM	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	0	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	1	0	0	1	1	0	0	2	0	0	0	1	0	0	8
Grand Total	0	6	1	0	1	4	1	0	0	3	0	0	0	5	0	0	21
Apprch %	0	85.7	14.3	0	16.7	66.7	16.7	0	0	100	0	0	0	100	0	0	
Total %	0	28.6	4.8	0	4.8	19	4.8	0	0	14.3	0	0	0	23.8	0	0	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	2	0	0	2	5
11:45 AM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	4
12:00 PM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
12:15 PM	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	1	0	0	1	4
Total Volume	0	3	1	0	4	1	4	1	0	6	0	3	0	0	3	0	3	0	0	3	16
% App. Total	0	75	25	0		16.7	66.7	16.7	0		0	100	0	0		0	100	0	0		
PHF	.000	.375	.250	.000	.500	.250	.500	.250	.000	.500	.000	.750	.000	.000	.750	.000	.375	.000	.000	.375	.800

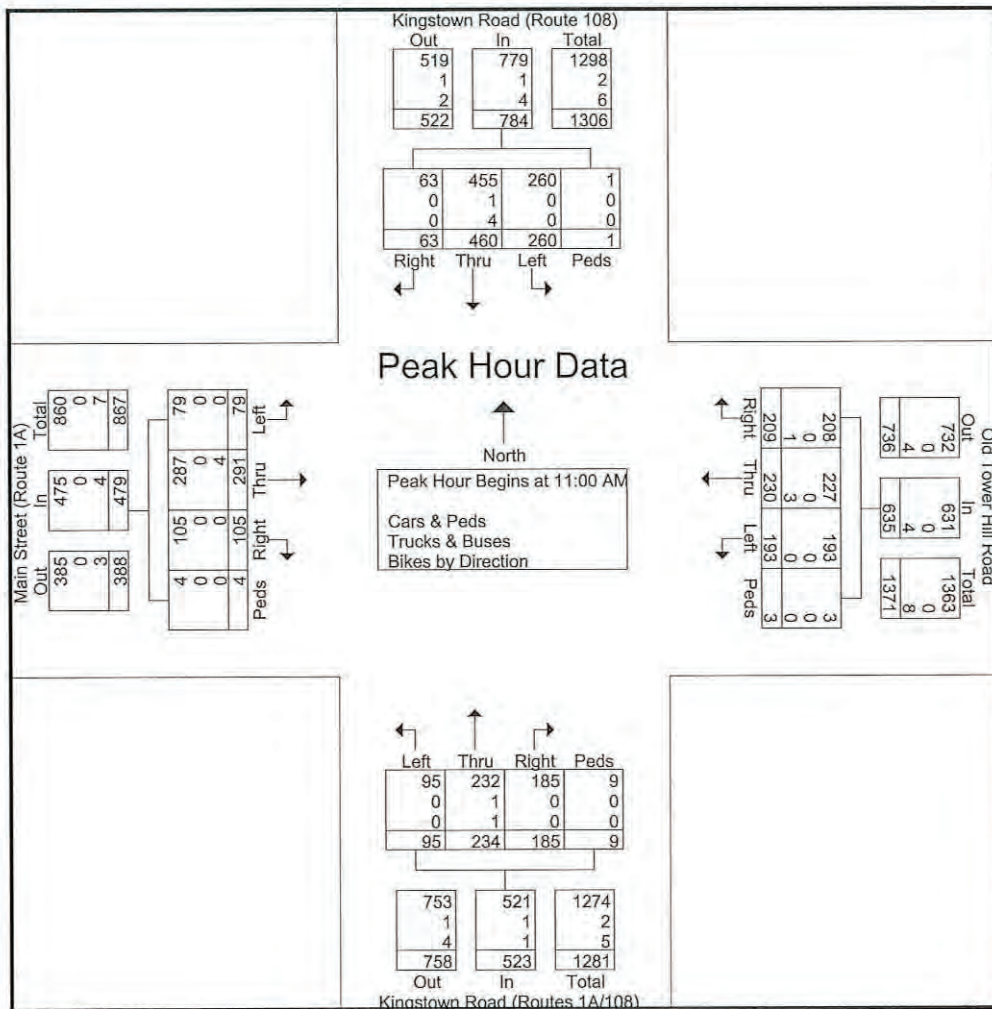
Transportation Data Corporation

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N/S: Kingstown Road (Route 108)
E/W: Old Tower Hill/Main Street
City, State: Wakefield, RI
Client: Pare/J. Shevlin

File Name : 05744AAA
Site Code : 23048.00
Start Date : 8/12/2023
Page No : 1

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 11:00 AM																						
11:00 AM	15	115	62	1	193	49	58	53	3	163	45	62	21	0	128	26	79	20	1	126	610	
11:15 AM	18	110	75	0	203	61	54	48	0	163	42	53	22	7	124	24	70	22	0	116	606	
11:30 AM	14	121	67	0	202	44	59	50	0	153	43	53	22	1	119	31	80	14	0	125	599	
11:45 AM	16	114	56	0	186	55	59	42	0	156	55	66	30	1	152	24	62	23	3	112	606	
Total Volume	63	460	260	1	784	209	230	193	3	635	185	234	95	9	523	105	291	79	4	479	2421	
% App. Total	8	58.7	33.2	0.1		32.9	36.2	30.4	0.5		35.4	44.7	18.2	1.7		21.9	60.8	16.5	0.8			
PHF	.875	.950	.867	.250	.966	.857	.975	.910	.250	.974	.841	.886	.792	.321	.860	.847	.909	.859	.333	.950	.992	
Cars & Peds	63	455	260	1	779	208	227	193	3	631	185	232	95	9	521	105	287	79	4	475	2406	
% Cars & Peds	100	98.9	100	100	99.4	99.5	98.7	100	100	99.4	100	99.1	100	100	99.6	100	98.6	100	100	99.2	99.4	
Trucks & Buses	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
% Trucks & Buses	0	0.2	0	0	0.1	0	0	0	0	0	0	0.4	0	0	0.2	0	0	0	0	0	0	0.1
Bikes by Direction	0	4	0	0	4	1	3	0	0	4	0	1	0	0	1	0	4	0	0	4	13	
% Bikes by Direction	0	0.9	0	0	0.5	0.5	1.3	0	0	0.6	0	0.4	0	0	0.2	0	1.4	0	0	0.8	0.5	



Transportation Data Corporation

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N/S: Kingstown Road (Route 108)
E: #673-691 Signalized Access Road
City, State: Wakefield, RI
Client: Pare/J. Shevlin

File Name : 05744BBB
Site Code : 23048.00
Start Date : 8/12/2023
Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
11:00 AM	179	4	0	12	3	0	2	120	0	320
11:15 AM	186	6	0	5	9	0	2	129	0	337
11:30 AM	198	6	0	5	6	0	2	112	0	329
11:45 AM	179	11	0	6	7	0	3	135	0	341
Total	742	27	0	28	25	0	9	496	0	1327
12:00 PM	156	10	1	9	3	1	2	129	0	311
12:15 PM	146	15	1	3	7	0	3	126	0	301
12:30 PM	144	6	1	8	6	0	2	136	0	303
12:45 PM	144	5	0	2	5	1	4	108	0	269
Total	590	36	3	22	21	2	11	499	0	1184
Grand Total	1332	63	3	50	46	2	20	995	0	2511
Apprch %	95.3	4.5	0.2	51	46.9	2	2	98	0	
Total %	53	2.5	0.1	2	1.8	0.1	0.8	39.6	0	
Cars & Peds	1322	63	3	50	46	2	20	988	0	2494
% Cars & Peds	99.2	100	100	100	100	100	100	99.3	0	99.3
Trucks & Buses	3	0	0	0	0	0	0	4	0	7
% Trucks & Buses	0.2	0	0	0	0	0	0	0.4	0	0.3
Bikes by Direction	7	0	0	0	0	0	0	3	0	10
% Bikes by Direction	0.5	0	0	0	0	0	0	0.3	0	0.4

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:00 AM													
11:00 AM	179	4	0	183	12	3	0	15	2	120	0	122	320
11:15 AM	186	6	0	192	5	9	0	14	2	129	0	131	337
11:30 AM	198	6	0	204	5	6	0	11	2	112	0	114	329
11:45 AM	179	11	0	190	6	7	0	13	3	135	0	138	341
Total Volume	742	27	0	769	28	25	0	53	9	496	0	505	1327
% App. Total	96.5	3.5	0		52.8	47.2	0		1.8	98.2	0		
PHF	.937	.614	.000	.942	.583	.694	.000	.883	.750	.919	.000	.915	.973
Cars & Peds	736	27	0	763	28	25	0	53	9	494	0	503	1319
% Cars & Peds	99.2	100	0	99.2	100	100	0	100	100	99.6	0	99.6	99.4
Trucks & Buses	2	0	0	2	0	0	0	0	0	1	0	1	3
% Trucks & Buses	0.3	0	0	0.3	0	0	0	0	0	0.2	0	0.2	0.2
Bikes by Direction	4	0	0	4	0	0	0	0	0	1	0	1	5
% Bikes by Direction	0.5	0	0	0.5	0	0	0	0	0	0.2	0	0.2	0.4

Transportation Data Corporation

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N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744BBB
 Site Code : 23048.00
 Start Date : 8/12/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
11:00 AM	177	4	0	12	3	0	2	120	0	318
11:15 AM	185	6	0	5	9	0	2	129	0	336
11:30 AM	198	6	0	5	6	0	2	111	0	328
11:45 AM	176	11	0	6	7	0	3	134	0	337
Total	736	27	0	28	25	0	9	494	0	1319
12:00 PM	155	10	1	9	3	1	2	127	0	308
12:15 PM	146	15	1	3	7	0	3	125	0	300
12:30 PM	143	6	1	8	6	0	2	135	0	301
12:45 PM	142	5	0	2	5	1	4	107	0	266
Total	586	36	3	22	21	2	11	494	0	1175
Grand Total	1322	63	3	50	46	2	20	988	0	2494
Apprch %	95.2	4.5	0.2	51	46.9	2	2	98	0	
Total %	53	2.5	0.1	2	1.8	0.1	0.8	39.6	0	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:00 AM													
11:00 AM	177	4	0	181	12	3	0	15	2	120	0	122	318
11:15 AM	185	6	0	191	5	9	0	14	2	129	0	131	336
11:30 AM	198	6	0	204	5	6	0	11	2	111	0	113	328
11:45 AM	176	11	0	187	6	7	0	13	3	134	0	137	337
Total Volume	736	27	0	763	28	25	0	53	9	494	0	503	1319
% App. Total	96.5	3.5	0		52.8	47.2	0		1.8	98.2	0		
PHF	.929	.614	.000	.935	.583	.694	.000	.883	.750	.922	.000	.918	.978

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N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744BBB
 Site Code : 23048.00
 Start Date : 8/12/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
11:00 AM	0	0	0	0	0	0	0	0	0	0
11:15 AM	1	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	1	0	1
11:45 AM	1	0	0	0	0	0	0	0	0	1
Total	2	0	0	0	0	0	0	1	0	3
12:00 PM	0	0	0	0	0	0	0	1	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	1	0	1
12:45 PM	1	0	0	0	0	0	0	1	0	2
Total	1	0	0	0	0	0	0	3	0	4
Grand Total	3	0	0	0	0	0	0	4	0	7
Apprch %	100	0	0	0	0	0	0	100	0	
Total %	42.9	0	0	0	0	0	0	57.1	0	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:15 AM													
11:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
11:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	2	0	0	2	0	0	0	0	0	2	0	2	4
% App. Total	100	0	0	100	0	0	0	0	0	100	0	100	100
PHF	.500	.000	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	1.00

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N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744BBB
 Site Code : 23048.00
 Start Date : 8/12/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
11:00 AM	2	0	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	2	0	0	0	0	0	0	1	0	3
Total	4	0	0	0	0	0	0	1	0	5
12:00 PM	1	0	0	0	0	0	0	1	0	2
12:15 PM	0	0	0	0	0	0	0	1	0	1
12:30 PM	1	0	0	0	0	0	0	0	0	1
12:45 PM	1	0	0	0	0	0	0	0	0	1
Total	3	0	0	0	0	0	0	2	0	5
Grand Total	7	0	0	0	0	0	0	3	0	10
Apprch %	100	0	0	0	0	0	0	100	0	
Total %	70	0	0	0	0	0	0	30	0	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:45 AM													
11:45 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
12:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
12:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	4	0	0	4	0	0	0	0	0	3	0	3	7
% App. Total	100	0	0	100	0	0	0	0	0	100	0	100	100
PHF	.500	.000	.000	.500	.000	.000	.000	.000	.000	.750	.000	.750	.583

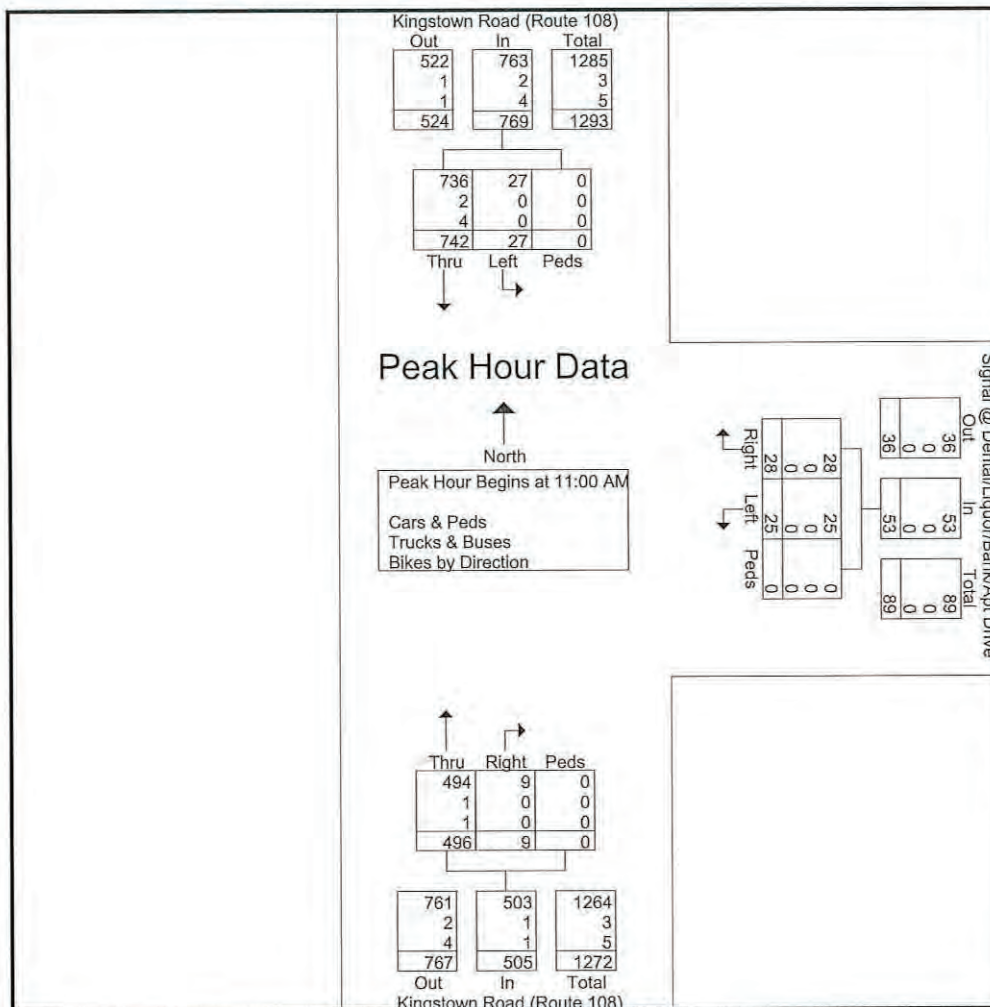
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N/S: Kingstown Road (Route 108)
E: #673-691 Signalized Access Road
City, State: Wakefield, RI
Client: Pare/J. Shevlin

File Name : 05744BBB
Site Code : 23048.00
Start Date : 8/12/2023
Page No : 1

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:00 AM													
11:00 AM	179	4	0	183	12	3	0	15	2	120	0	122	320
11:15 AM	186	6	0	192	5	9	0	14	2	129	0	131	337
11:30 AM	198	6	0	204	5	6	0	11	2	112	0	114	329
11:45 AM	179	11	0	190	6	7	0	13	3	135	0	138	341
Total Volume	742	27	0	769	28	25	0	53	9	496	0	505	1327
% App. Total	96.5	3.5	0		52.8	47.2	0		1.8	98.2	0		
PHF	.937	.614	.000	.942	.583	.694	.000	.883	.750	.919	.000	.915	.973
Cars & Peds	736	27	0	763	28	25	0	53	9	494	0	503	1319
% Cars & Peds	99.2	100	0	99.2	100	100	0	100	100	99.6	0	99.6	99.4
Trucks & Buses	2	0	0	2	0	0	0	0	0	1	0	1	3
% Trucks & Buses	0.3	0	0	0.3	0	0	0	0	0	0.2	0	0.2	0.2
Bikes by Direction	4	0	0	4	0	0	0	0	0	1	0	1	5
% Bikes by Direction	0.5	0	0	0.5	0	0	0	0	0	0.2	0	0.2	0.4



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N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744A

Site Code : 23048.00

Start Date : 8/16/2023

Page No : 1

Groups Printed- Cars & Peds

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	2	27	24	0	20	16	6	0	7	22	1	0	7	28	7	0	167
07:15 AM	5	38	19	1	23	32	8	0	13	37	3	0	10	40	6	1	236
07:30 AM	8	43	38	1	25	42	8	0	12	33	7	0	10	32	4	0	263
07:45 AM	8	50	36	0	30	54	19	0	11	46	14	0	10	54	4	0	336
Total	23	158	117	2	98	144	41	0	43	138	25	0	37	154	21	1	1002
08:00 AM	6	52	39	0	33	50	24	0	18	44	10	0	12	48	9	0	345
08:15 AM	1	64	48	0	43	39	19	0	25	43	14	0	13	51	9	1	370
08:30 AM	8	69	35	0	42	59	25	0	26	50	14	0	15	52	10	0	405
08:45 AM	10	81	42	0	41	48	27	0	24	49	23	0	20	65	18	0	448
Total	25	266	164	0	159	196	95	0	93	186	61	0	60	216	46	1	1568
Grand Total	48	424	281	2	257	340	136	0	136	324	86	0	97	370	67	2	2570
Apprch %	6.4	56.2	37.2	0.3	35.1	46.4	18.6	0	24.9	59.3	15.8	0	18.1	69	12.5	0.4	
Total %	1.9	16.5	10.9	0.1	10	13.2	5.3	0	5.3	12.6	3.3	0	3.8	14.4	2.6	0.1	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	6	52	39	0	97	33	50	24	0	107	18	44	10	0	72	12	48	9	0	69	345
08:15 AM	1	64	48	0	113	43	39	19	0	101	25	43	14	0	82	13	51	9	1	74	370
08:30 AM	8	69	35	0	112	42	59	25	0	126	26	50	14	0	90	15	52	10	0	77	405
08:45 AM	10	81	42	0	133	41	48	27	0	116	24	49	23	0	96	20	65	18	0	103	448
Total Volume	25	266	164	0	455	159	196	95	0	450	93	186	61	0	340	60	216	46	1	323	1568
% App. Total	5.5	58.5	36	0		35.3	43.6	21.1	0		27.4	54.7	17.9	0		18.6	66.9	14.2	0.3		
PHF	.625	.821	.854	.000	.855	.924	.831	.880	.000	.893	.894	.930	.663	.000	.885	.750	.831	.639	.250	.784	.875

Transportation Data Corporation

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N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744A

Site Code : 23048.00

Start Date : 8/16/2023

Page No : 1

Groups Printed- Trucks & Buses

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
07:15 AM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2
07:30 AM	0	1	1	0	1	2	0	0	0	0	0	0	0	2	0	0	7
07:45 AM	0	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	5
Total	0	2	2	0	2	4	0	0	2	1	0	0	0	3	0	0	16
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	4
08:30 AM	0	1	0	0	0	2	2	0	1	2	0	0	0	1	0	0	9
08:45 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0	4
Total	0	3	1	0	0	7	2	0	1	2	0	0	0	2	0	0	18
Grand Total	0	5	3	0	2	11	2	0	3	3	0	0	0	5	0	0	34
Apprch %	0	62.5	37.5	0	13.3	73.3	13.3	0	50	50	0	0	0	100	0	0	
Total %	0	14.7	8.8	0	5.9	32.4	5.9	0	8.8	8.8	0	0	0	14.7	0	0	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	5
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
08:30 AM	0	1	0	0	1	0	2	2	0	4	1	2	0	0	3	0	1	0	0	1	9
Total Volume	0	3	1	0	4	0	7	2	0	9	1	3	0	0	4	0	2	0	0	2	19
% App. Total	0	75	25	0		0	77.8	22.2	0		25	75	0	0		0	100	0	0		
PHF	.000	.750	.250	.000	1.00	.000	.583	.250	.000	.563	.250	.375	.000	.000	.333	.000	.500	.000	.000	.500	.528

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N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744A

Site Code : 23048.00

Start Date : 8/16/2023

Page No : 1

Groups Printed- Bikes by Direction

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

Transportation Data Corporation

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N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

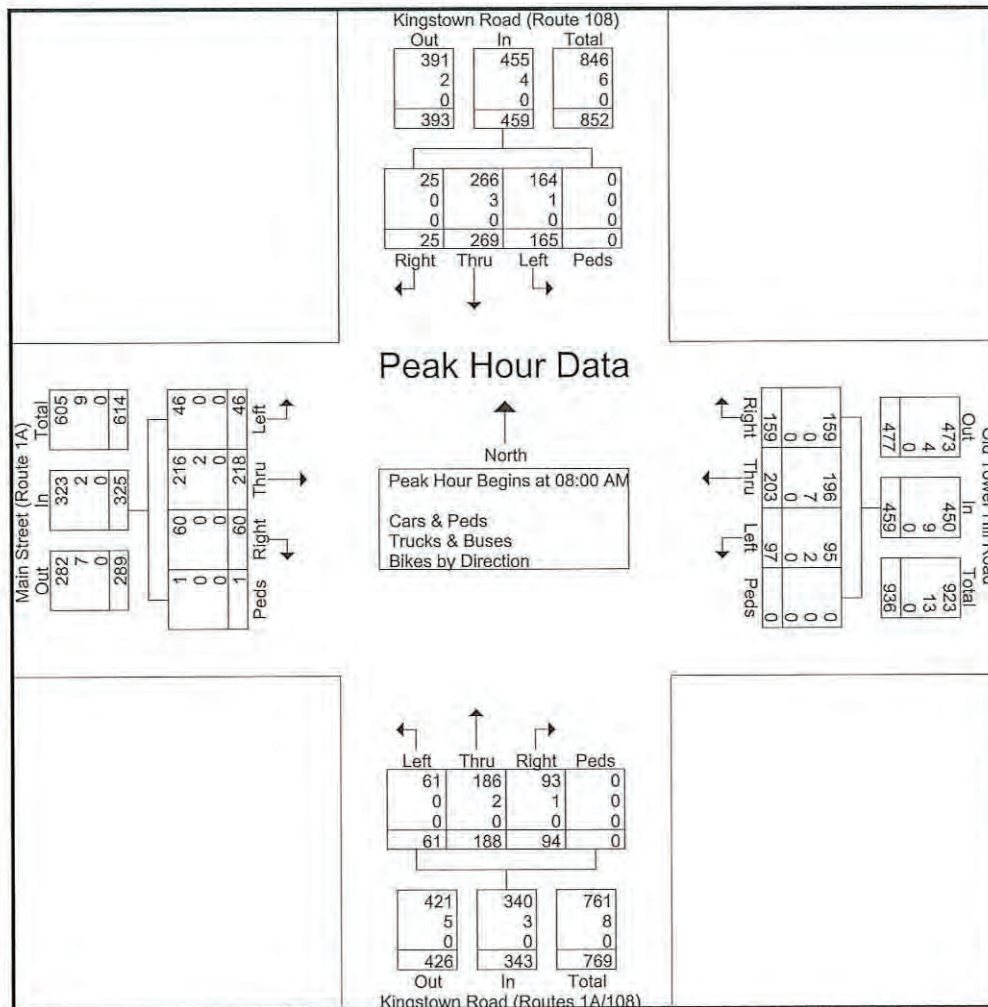
File Name : 05744A

Site Code : 23048.00

Start Date : 8/16/2023

Page No : 1

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	6	53	39	0	98	33	50	24	0	107	18	44	10	0	72	12	48	9	0	69	346
08:15 AM	1	64	49	0	114	43	42	19	0	104	25	43	14	0	82	13	51	9	1	74	374
08:30 AM	8	70	35	0	113	42	61	27	0	130	27	52	14	0	93	15	53	10	0	78	414
08:45 AM	10	82	42	0	134	41	50	27	0	118	24	49	23	0	96	20	66	18	0	104	452
Total Volume	25	269	165	0	459	159	203	97	0	459	94	188	61	0	343	60	218	46	1	325	1586
% App. Total	5.4	58.6	35.9	0		34.6	44.2	21.1	0		27.4	54.8	17.8	0		18.5	67.1	14.2	0.3		
PHF	.625	.820	.842	.000	.856	.924	.832	.898	.000	.883	.870	.904	.663	.000	.893	.750	.826	.639	.250	.781	.877
Cars & Peds	25	266	164	0	455	159	196	95	0	450	93	186	61	0	340	60	216	46	1	323	1568
% Cars & Peds	100	98.9	99.4	0	99.1	100	96.6	97.9	0	98.0	98.9	98.9	100	0	99.1	100	99.1	100	100	99.4	98.9
Trucks & Buses	0	3	1	0	4	0	7	2	0	9	1	2	0	0	3	0	2	0	0	2	18
% Trucks & Buses	0	1.1	0.6	0	0.9	0	3.4	2.1	0	2.0	1.1	1.1	0	0	0.9	0	0.9	0	0	0.6	1.1
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



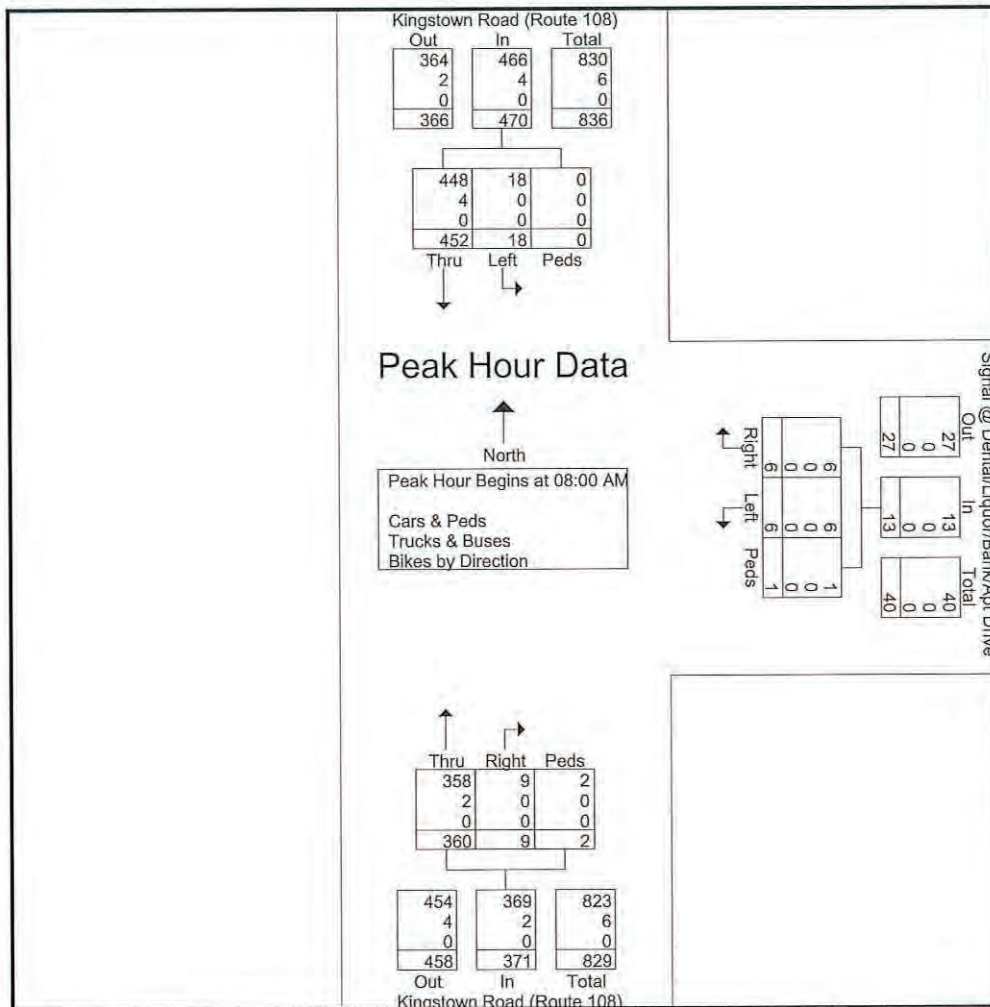
Transportation Data Corporation

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N/S: Kingstown Road (Route 108)
E: #673-691 Signalized Access Road
City, State: Wakefield, RI
Client: Pare/J. Shevlin

File Name : 05744B
Site Code : 23048.00
Start Date : 8/16/2023
Page No : 1

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	92	2	0	94	0	3	0	3	5	76	0	81	178
08:15 AM	118	5	0	123	1	0	1	2	1	85	0	86	211
08:30 AM	112	5	0	117	5	1	0	6	2	100	0	102	225
08:45 AM	130	6	0	136	0	2	0	2	1	99	2	102	240
Total Volume	452	18	0	470	6	6	1	13	9	360	2	371	854
% App. Total	96.2	3.8	0		46.2	46.2	7.7		2.4	97	0.5		
PHF	.869	.750	.000	.864	.300	.500	.250	.542	.450	.900	.250	.909	.890
Cars & Peds	448	18	0	466	6	6	1	13	9	358	2	369	848
% Cars & Peds	99.1	100	0	99.1	100	100	100	100	100	99.4	100	99.5	99.3
Trucks & Buses	4	0	0	4	0	0	0	0	0	2	0	2	6
% Trucks & Buses	0.9	0	0	0.9	0	0	0	0	0	0.6	0	0.5	0.7
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0



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N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

File Name : 05744AA

Site Code : 23048.00

Start Date : 8/16/2023

Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	17	80	68	1	62	59	38	1	27	70	17	0	11	76	20	0	547
04:15 PM	12	70	55	0	62	73	29	1	39	65	27	1	18	68	17	0	537
04:30 PM	9	84	57	0	51	76	40	0	30	59	13	0	22	73	29	0	543
04:45 PM	14	77	56	0	61	57	33	0	28	78	10	0	12	71	22	0	519
Total	52	311	236	1	236	265	140	2	124	272	67	1	63	288	88	0	2146
05:00 PM	8	79	47	2	57	62	32	1	35	65	15	1	7	69	24	0	504
05:15 PM	8	64	37	1	58	46	33	0	34	58	13	0	7	71	25	0	455
05:30 PM	10	64	61	2	43	60	22	1	23	47	16	0	19	45	25	0	438
05:45 PM	9	66	52	1	55	66	32	0	16	51	20	0	16	46	18	0	448
Total	35	273	197	6	213	234	119	2	108	221	64	1	49	231	92	0	1845
Grand Total	87	584	433	7	449	499	259	4	232	493	131	2	112	519	180	0	3991
Apprch %	7.8	52.6	39	0.6	37.1	41.2	21.4	0.3	27	57.5	15.3	0.2	13.8	64	22.2	0	
Total %	2.2	14.6	10.8	0.2	11.3	12.5	6.5	0.1	5.8	12.4	3.3	0.1	2.8	13	4.5	0	
Cars & Peds	87	584	433	7	449	495	256	4	231	489	130	2	112	515	178	0	3972
% Cars & Peds	100	100	100	100	100	99.2	98.8	100	99.6	99.2	99.2	100	100	99.2	98.9	0	99.5
Trucks & Buses	0	0	0	0	0	3	3	0	0	3	1	0	0	2	0	0	12
% Trucks & Buses	0	0	0	0	0	0.6	1.2	0	0	0.6	0.8	0	0	0.4	0	0	0.3
Bikes by Direction	0	0	0	0	0	1	0	0	1	1	0	0	0	2	2	0	7
% Bikes by Direction	0	0	0	0	0	0.2	0	0	0.4	0.2	0	0	0	0.4	1.1	0	0.2

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
04:00 PM	17	80	68	1	166	62	59	38	1	160	27	70	17	0	114	11	76	20	0	107	547	
04:15 PM	12	70	55	0	137	62	73	29	1	165	39	65	27	1	132	18	68	17	0	103	537	
04:30 PM	9	84	57	0	150	51	76	40	0	167	30	59	13	0	102	22	73	29	0	124	543	
04:45 PM	14	77	56	0	147	61	57	33	0	151	28	78	10	0	116	12	71	22	0	105	519	
Total Volume	52	311	236	1	600	236	262	140	2	643	124	270	67	1	464	63	288	88	0	439	2146	
% App. Total	8.7	51.8	39.3	0.2		36.7	41.2	21.8	0.3		26.7	58.6	14.4	0.2		14.4	65.6	20	0			
PHF	.765	.926	.868	.250	.904	.952	.872	.875	.500	.963	.795	.872	.620	.250	.879	.716	.947	.759	.000	.885	.981	
Cars & Peds	52	311	236	1	600	236	262	140	2	640	124	270	67	1	462	63	287	88	0	438	2140	
% Cars & Peds	100	100	100	100	100	100	98.9	100	100	99.5	100	99.3	100	100	99.6	100	99.7	100	0	99.8	99.7	
Trucks & Buses	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	1	0	0	0	1	4
% Trucks & Buses	0	0	0	0	0	0	0.8	0	0	0.3	0	0.4	0	0	0.2	0	0.3	0	0	0	0.2	0.2
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2
% Bikes by Direction	0	0	0	0	0	0	0.4	0	0	0.2	0	0.4	0	0	0.2	0	0	0	0	0	0	0.1

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

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N/S: Kingstown Road (Route 108)
 E/W: Old Tower Hill/Main Street
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744AA
 Site Code : 23048.00
 Start Date : 8/16/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	17	80	68	1	62	58	38	1	27	69	17	0	11	76	20	0	545
04:15 PM	12	70	55	0	62	73	29	1	39	64	27	1	18	68	17	0	536
04:30 PM	9	84	57	0	51	74	40	0	30	59	13	0	22	72	29	0	540
04:45 PM	14	77	56	0	61	57	33	0	28	78	10	0	12	71	22	0	519
Total	52	311	236	1	236	262	140	2	124	270	67	1	63	287	88	0	2140
05:00 PM	8	79	47	2	57	62	29	1	35	64	15	1	7	68	22	0	497
05:15 PM	8	64	37	1	58	46	33	0	34	58	13	0	7	69	25	0	453
05:30 PM	10	64	61	2	43	60	22	1	22	46	16	0	19	45	25	0	436
05:45 PM	9	66	52	1	55	65	32	0	16	51	19	0	16	46	18	0	446
Total	35	273	197	6	213	233	116	2	107	219	63	1	49	228	90	0	1832
Grand Total	87	584	433	7	449	495	256	4	231	489	130	2	112	515	178	0	3972
Apprch %	7.8	52.6	39	0.6	37.3	41.1	21.3	0.3	27.1	57.4	15.3	0.2	13.9	64	22.1	0	
Total %	2.2	14.7	10.9	0.2	11.3	12.5	6.4	0.1	5.8	12.3	3.3	0.1	2.8	13	4.5	0	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	17	80	68	1	166	62	58	38	1	159	27	69	17	0	113	11	76	20	0	107	545
04:15 PM	12	70	55	0	137	62	73	29	1	165	39	64	27	1	131	18	68	17	0	103	536
04:30 PM	9	84	57	0	150	51	74	40	0	165	30	59	13	0	102	22	72	29	0	123	540
04:45 PM	14	77	56	0	147	61	57	33	0	151	28	78	10	0	116	12	71	22	0	105	519
Total Volume	52	311	236	1	600	236	262	140	2	640	124	270	67	1	462	63	287	88	0	438	2140
% App. Total	8.7	51.8	39.3	0.2		36.9	40.9	21.9	0.3		26.8	58.4	14.5	0.2		14.4	65.5	20.1	0		
PHF	.765	.926	.868	.250	.904	.952	.885	.875	.500	.970	.795	.865	.620	.250	.882	.716	.944	.759	.000	.890	.982

Transportation Data Corporation

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N/S: Kingstown Road (Route 108)
E/W: Old Tower Hill/Main Street
City, State: Wakefield, RI
Client: Pare/J. Shevlin

File Name : 05744AA
Site Code : 23048.00
Start Date : 8/16/2023
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	0	0	0	1	0	0	0	1	0	0	4
05:00 PM	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Total	0	0	0	0	0	1	3	0	0	2	1	0	0	1	0	0	8
Grand Total	0	0	0	0	0	3	3	0	0	3	1	0	0	2	0	0	12
Approch %	0	0	0	0	0	50	50	0	0	75	25	0	0	100	0	0	
Total %	0	0	0	0	0	25	25	0	0	25	8.3	0	0	16.7	0	0	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	1	3	0	4	0	2	1	0	3	0	1	0	0	1	8
% App. Total	0	0	0	0	0	0	25	75	0	0	0	66.7	33.3	0	0	0	100	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.333	.000	.500	.250	.000	.750	.000	.250	.000	.000	.250	.500

Transportation Data Corporation

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N/S: Kingstown Road (Route 108)
E/W: Old Tower Hill/Main Street
City, State: Wakefield, RI
Client: Pare/J. Shevlin

File Name : 05744AA
Site Code : 23048.00
Start Date : 8/16/2023
Page No : 1

Groups Printed- Bikes by Direction

Start Time	Kingstown Road (Route 108) From North				Old Tower Hill Road From East				Kingstown Road (Routes 1A/108) From South				Main Street (Route 1A) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	0	5
Grand Total	0	0	0	0	0	1	0	0	1	1	0	0	0	2	2	0	7
Apprch %	0	0	0	0	0	100	0	0	50	50	0	0	0	50	50	0	
Total %	0	0	0	0	0	14.3	0	0	14.3	14.3	0	0	0	28.6	28.6	0	

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	2	0	4	5
% App. Total	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	50	50	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.500	.250	.000	.333	.417

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N/S: Kingstown Road (Route 108)

E/W: Old Tower Hill/Main Street

City, State: Wakefield, RI

Client: Pare/J. Shevlin

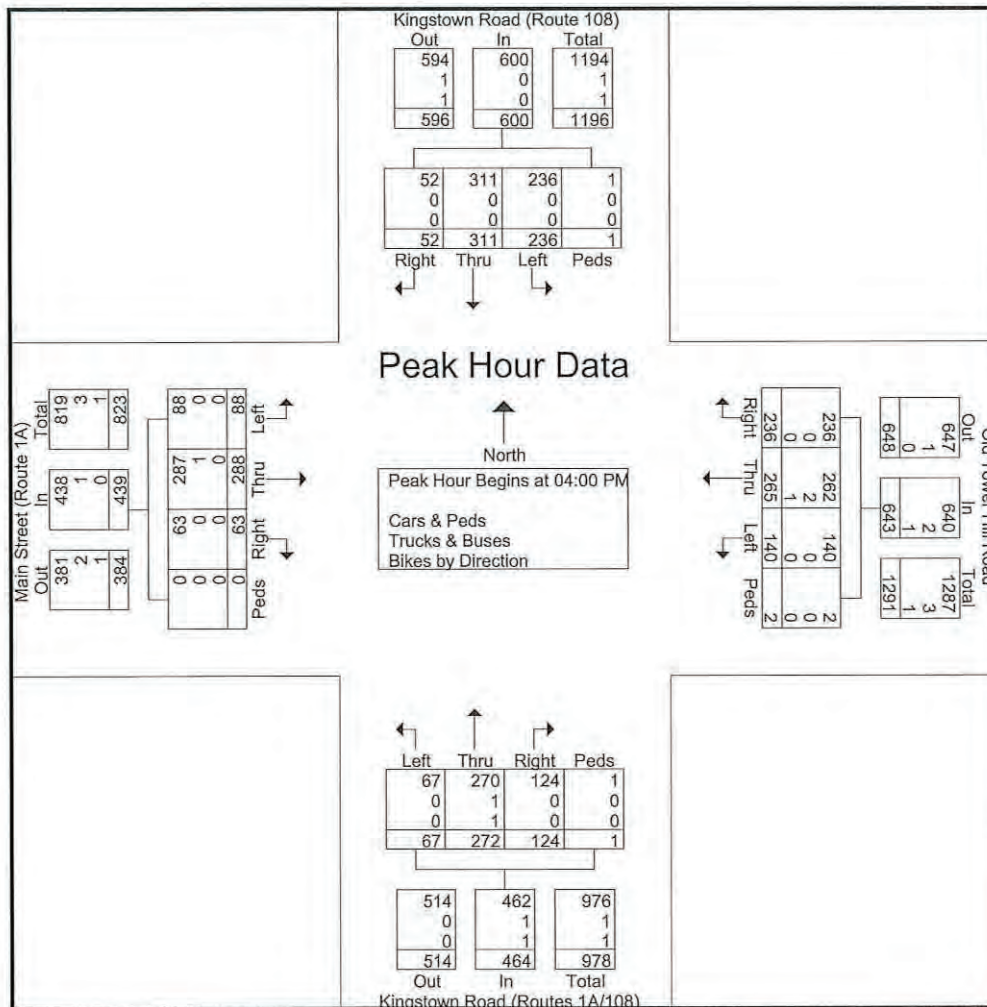
File Name : 05744AA

Site Code : 23048.00

Start Date : 8/16/2023

Page No : 1

Start Time	Kingstown Road (Route 108) From North					Old Tower Hill Road From East					Kingstown Road (Routes 1A/108) From South					Main Street (Route 1A) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	17	80	68	1	166	62	59	38	1	160	27	70	17	0	114	11	76	20	0	107	547
04:15 PM	12	70	55	0	137	62	73	29	1	165	39	65	27	1	132	18	68	17	0	103	537
04:30 PM	9	84	57	0	150	51	76	40	0	167	30	59	13	0	102	22	73	29	0	124	543
04:45 PM	14	77	56	0	147	61	57	33	0	151	28	78	10	0	116	12	71	22	0	105	519
Total Volume	52	311	236	1	600	236	265	140	2	643	124	272	67	1	464	63	288	88	0	439	2146
% App. Total	8.7	51.8	39.3	0.2		36.7	41.2	21.8	0.3		26.7	58.6	14.4	0.2		14.4	65.6	20	0		
PHF	.765	.926	.868	.250	.904	.952	.872	.875	.500	.963	.795	.872	.620	.250	.879	.716	.947	.759	.000	.885	.981
Cars & Peds	52	311	236	1	600	236	262	140	2	640	124	270	67	1	462	63	287	88	0	438	2140
% Cars & Peds	100	100	100	100	100	100	98.9	100	100	99.5	100	99.3	100	100	99.6	100	99.7	100	0	99.8	99.7
Trucks & Buses	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	4
% Trucks & Buses	0	0	0	0	0	0	0.8	0	0	0.3	0	0.4	0	0	0.2	0	0.3	0	0	0.2	0.2
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
% Bikes by Direction	0	0	0	0	0	0	0.4	0	0	0.2	0	0.4	0	0	0.2	0	0	0	0	0	0.1



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N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744B
 Site Code : 23048.00
 Start Date : 8/16/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	55	0	0	0	0	0	0	47	0	102
07:15 AM	62	1	1	1	1	0	1	62	0	129
07:30 AM	93	2	0	2	1	0	3	55	0	156
07:45 AM	97	3	0	1	1	1	1	71	0	175
Total	307	6	1	4	3	1	5	235	0	562
08:00 AM	91	2	0	0	3	0	5	76	0	177
08:15 AM	117	5	0	1	0	1	1	85	0	210
08:30 AM	111	5	0	5	1	0	2	98	0	222
08:45 AM	129	6	0	0	2	0	1	99	2	239
Total	448	18	0	6	6	1	9	358	2	848
Grand Total	755	24	1	10	9	2	14	593	2	1410
Apprch %	96.8	3.1	0.1	47.6	42.9	9.5	2.3	97.4	0.3	
Total %	53.5	1.7	0.1	0.7	0.6	0.1	1	42.1	0.1	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	91	2	0	93	0	3	0	3	5	76	0	81	177
08:15 AM	117	5	0	122	1	0	1	2	1	85	0	86	210
08:30 AM	111	5	0	116	5	1	0	6	2	98	0	100	222
08:45 AM	129	6	0	135	0	2	0	2	1	99	2	102	239
Total Volume	448	18	0	466	6	6	1	13	9	358	2	369	848
% App. Total	96.1	3.9	0		46.2	46.2	7.7		2.4	97	0.5		
PHF	.868	.750	.000	.863	.300	.500	.250	.542	.450	.904	.250	.904	.887

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 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744B
 Site Code : 23048.00
 Start Date : 8/16/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	0	0	0	1	0	0	0	1	0	2
07:15 AM	1	0	0	0	0	0	0	0	0	1
07:30 AM	2	0	0	0	0	0	0	1	0	3
07:45 AM	1	0	0	0	0	0	0	1	0	2
Total	4	0	0	1	0	0	0	3	0	8
08:00 AM	1	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	0	0	0	0	0	0	1
08:30 AM	1	0	0	0	0	0	0	2	0	3
08:45 AM	1	0	0	0	0	0	0	0	0	1
Total	4	0	0	0	0	0	0	2	0	6
Grand Total	8	0	0	1	0	0	0	5	0	14
Apprch %	100	0	0	100	0	0	0	100	0	
Total %	57.1	0	0	7.1	0	0	0	35.7	0	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
07:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
07:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	4	0	0	4	1	0	0	1	0	3	0	3	8
% App. Total	100	0	0	100	100	0	0	100	0	100	0	100	100
PHF	.500	.000	.000	.500	.250	.000	.000	.250	.000	.750	.000	.750	.667

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N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744B
 Site Code : 23048.00
 Start Date : 8/16/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	0	0	0	1	0	0	0	1	0	2
07:15 AM	1	0	0	0	0	0	0	0	0	1
07:30 AM	2	0	0	0	0	0	0	1	0	3
07:45 AM	1	0	0	0	0	0	0	1	0	2
Total	4	0	0	1	0	0	0	3	0	8
08:00 AM	1	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	0	0	0	0	0	0	1
08:30 AM	1	0	0	0	0	0	0	2	0	3
08:45 AM	1	0	0	0	0	0	0	0	0	1
Total	4	0	0	0	0	0	0	2	0	6
Grand Total	8	0	0	1	0	0	0	5	0	14
Apprch %	100	0	0	100	0	0	0	100	0	
Total %	57.1	0	0	7.1	0	0	0	35.7	0	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
07:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
07:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	4	0	0	4	1	0	0	1	0	3	0	3	8
% App. Total	100	0	0	100	100	0	0	100	0	100	0	100	100
PHF	.500	.000	.000	.500	.250	.000	.000	.250	.000	.750	.000	.750	.667

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N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744BB
 Site Code : 23048.00
 Start Date : 8/16/2023
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	150	4	0	5	6	0	1	150	0	316
04:15 PM	128	6	0	3	2	1	2	127	0	269
04:30 PM	148	4	0	8	2	0	3	131	0	296
04:45 PM	139	6	0	10	5	0	3	148	0	311
Total	565	20	0	26	15	1	9	556	0	1192
05:00 PM	127	5	0	5	4	0	1	136	0	278
05:15 PM	104	4	1	3	5	0	1	138	0	256
05:30 PM	138	2	1	9	2	1	1	115	0	269
05:45 PM	123	4	1	4	2	1	4	122	0	261
Total	492	15	3	21	13	2	7	511	0	1064
Grand Total	1057	35	3	47	28	3	16	1067	0	2256
Apprch %	96.5	3.2	0.3	60.3	35.9	3.8	1.5	98.5	0	
Total %	46.9	1.6	0.1	2.1	1.2	0.1	0.7	47.3	0	
Cars & Peds	1055	34	3	47	28	3	16	1063	0	2249
% Cars & Peds	99.8	97.1	100	100	100	100	100	99.6	0	99.7
Trucks & Buses	0	0	0	0	0	0	0	3	0	3
% Trucks & Buses	0	0	0	0	0	0	0	0.3	0	0.1
Bikes by Direction	2	1	0	0	0	0	0	1	0	4
% Bikes by Direction	0.2	2.9	0	0	0	0	0	0.1	0	0.2

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	150	4	0	154	5	6	0	11	1	150	0	151	316
04:15 PM	128	6	0	134	3	2	1	6	2	127	0	129	269
04:30 PM	148	4	0	152	8	2	0	10	3	131	0	134	296
04:45 PM	139	6	0	145	10	5	0	15	3	148	0	151	311
Total Volume	565	20	0	585	26	15	1	42	9	556	0	565	1192
% App. Total	96.6	3.4	0		61.9	35.7	2.4		1.6	98.4	0		
PHF	.942	.833	.000	.950	.650	.625	.250	.700	.750	.927	.000	.935	.943
Cars & Peds	565	19	0	584	26	15	1	42	9	554	0	563	1189
% Cars & Peds	100	95.0	0	99.8	100	100	100	100	100	99.6	0	99.6	99.7
Trucks & Buses	0	0	0	0	0	0	0	0	0	1	0	1	1
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.1
Bikes by Direction	0	1	0	1	0	0	0	0	0	1	0	1	2
% Bikes by Direction	0	5.0	0	0.2	0	0	0	0	0	0.2	0	0.2	0.2

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N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744BB
 Site Code : 23048.00
 Start Date : 8/16/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	150	4	0	5	6	0	1	149	0	315
04:15 PM	128	6	0	3	2	1	2	126	0	268
04:30 PM	148	4	0	8	2	0	3	131	0	296
04:45 PM	139	5	0	10	5	0	3	148	0	310
Total	565	19	0	26	15	1	9	554	0	1189
05:00 PM	126	5	0	5	4	0	1	135	0	276
05:15 PM	104	4	1	3	5	0	1	138	0	256
05:30 PM	137	2	1	9	2	1	1	114	0	267
05:45 PM	123	4	1	4	2	1	4	122	0	261
Total	490	15	3	21	13	2	7	509	0	1060
Grand Total	1055	34	3	47	28	3	16	1063	0	2249
Apprch %	96.6	3.1	0.3	60.3	35.9	3.8	1.5	98.5	0	
Total %	46.9	1.5	0.1	2.1	1.2	0.1	0.7	47.3	0	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
04:00 PM	150	4	0	154	5	6	0	11	1	149	0	150	315
04:15 PM	128	6	0	134	3	2	1	6	2	126	0	128	268
04:30 PM	148	4	0	152	8	2	0	10	3	131	0	134	296
04:45 PM	139	5	0	144	10	5	0	15	3	148	0	151	310
Total Volume	565	19	0	584	26	15	1	42	9	554	0	563	1189
% App. Total	96.7	3.3	0		61.9	35.7	2.4		1.6	98.4	0		
PHF	.942	.792	.000	.948	.650	.625	.250	.700	.750	.930	.000	.932	.944

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

Transportation Data Corporation

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

N/S: Kingstown Road (Route 108)
E: #673-691 Signalized Access Road
City, State: Wakefield, RI
Client: Pare/J. Shevlin

File Name : 05744BB
Site Code : 23048.00
Start Date : 8/16/2023
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Kingstown Road (Route 108) From North			Signal @ Dental/Liquor/Bank/Apt Drive From East			Kingstown Road (Route 108) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	1	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1
05:00 PM	0	0	0	0	0	0	0	1	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	2	0	2
Grand Total	0	0	0	0	0	0	0	3	0	3
Apprch %	0	0	0	0	0	0	0	100	0	
Total %	0	0	0	0	0	0	0	100	0	

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	2	0	2	2
% App. Total	0	0	0	0	0	0	0	0	0	100	0	100	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.500

Transportation Data Corporation

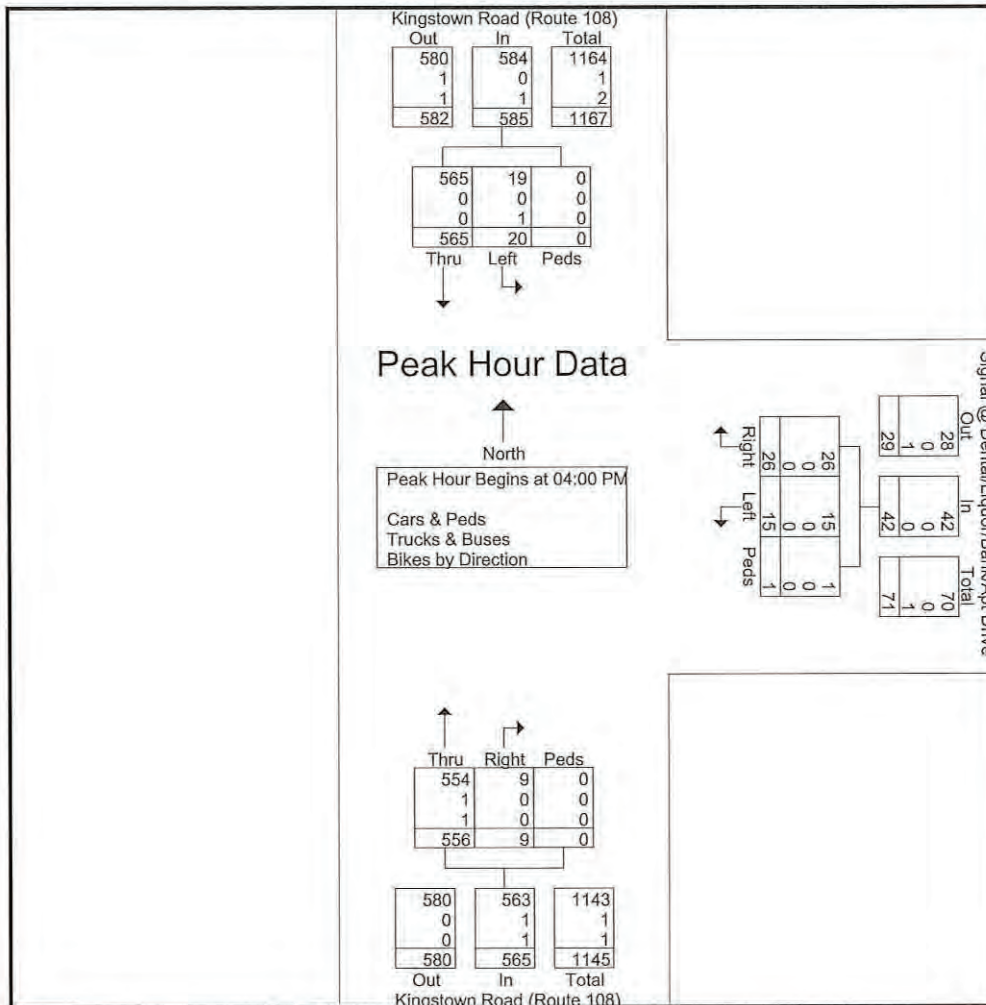
Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

N/S: Kingstown Road (Route 108)
 E: #673-691 Signalized Access Road
 City, State: Wakefield, RI
 Client: Pare/J. Shevlin

File Name : 05744BB
 Site Code : 23048.00
 Start Date : 8/16/2023
 Page No : 1

Start Time	Kingstown Road (Route 108) From North				Signal @ Dental/Liquor/Bank/Apt Drive From East				Kingstown Road (Route 108) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	150	4	0	154	5	6	0	11	1	150	0	151	316
04:15 PM	128	6	0	134	3	2	1	6	2	127	0	129	269
04:30 PM	148	4	0	152	8	2	0	10	3	131	0	134	296
04:45 PM	139	6	0	145	10	5	0	15	3	148	0	151	311
Total Volume	565	20	0	585	26	15	1	42	9	556	0	565	1192
% App. Total	96.6	3.4	0		61.9	35.7	2.4		1.6	98.4	0		
PHF	.942	.833	.000	.950	.650	.625	.250	.700	.750	.927	.000	.935	.943
Cars & Peds	565	19	0	584	26	15	1	42	9	554	0	563	1189
% Cars & Peds	100	95.0	0	99.8	100	100	100	100	100	99.6	0	99.6	99.7
Trucks & Buses	0	0	0	0	0	0	0	0	0	1	0	1	1
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.1
Bikes by Direction	0	1	0	1	0	0	0	0	0	1	0	1	2
% Bikes by Direction	0	5.0	0	0.2	0	0	0	0	0	0.2	0	0.2	0.2



School Year Counts

October 2023

Pare Corporation

8 Blackstone Valley Place
 Lincoln, RI, 02865
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 www.parecorp.com

NB/SB: Kingstown Road
 EB/WB: Main Street/Old Tower Hill Road
 City/State: South Kingstown, RI
 Taken By: BSO

File Name : AM Peak - Kingstown_Old Tower
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 1

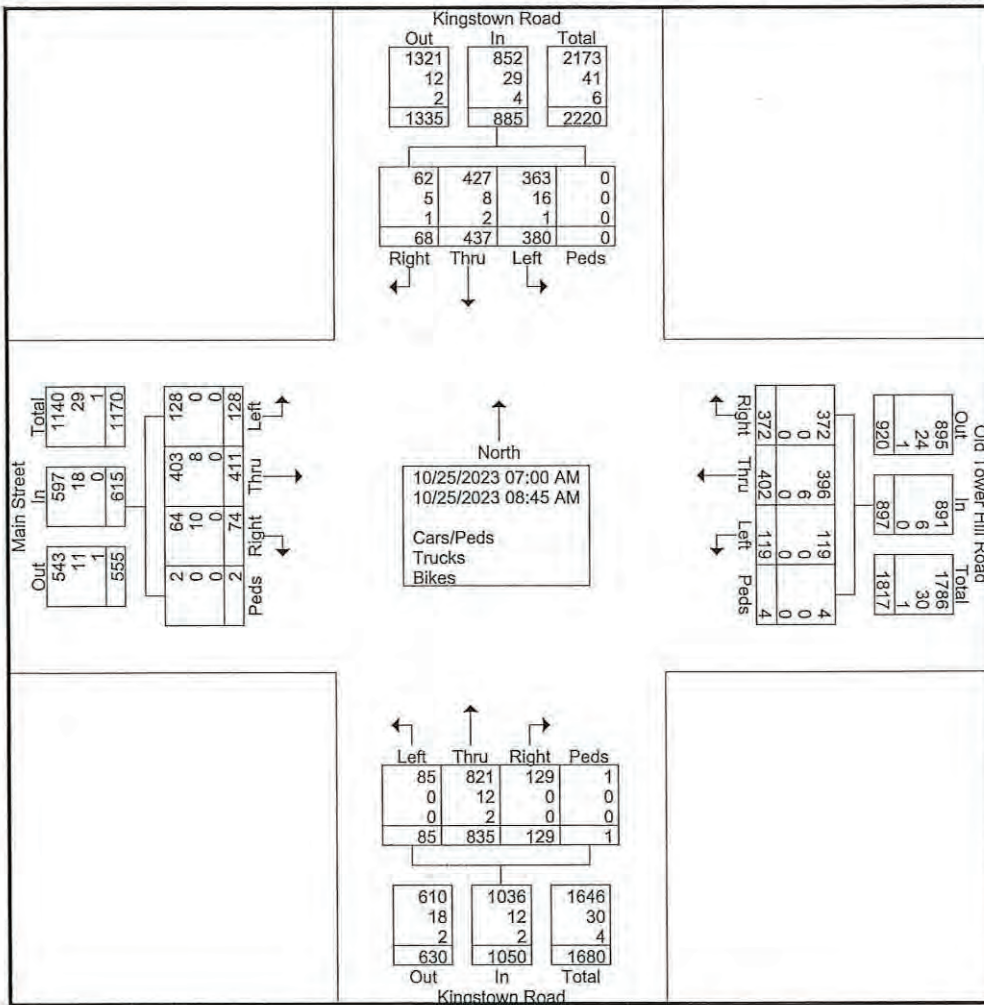
Groups Printed- Cars/Peds - Trucks - Bikes

Start Time	Kingstown Road From North					Old Tower Hill Road From East					Kingstown Road From South					Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	5	25	29	0	59	36	22	4	0	62	2	54	2	0	58	7	38	18	0	63	242
07:15 AM	14	54	59	0	127	80	33	11	2	126	15	86	9	0	110	10	46	28	1	85	448
07:30 AM	11	66	56	0	133	45	51	15	2	113	14	90	13	0	117	5	53	8	0	66	429
07:45 AM	10	56	60	0	126	45	39	16	0	100	24	91	7	0	122	5	54	12	0	71	419
Total	40	201	204	0	445	206	145	46	4	401	55	321	31	0	407	27	191	66	1	285	1538
08:00 AM	7	56	47	0	110	36	67	18	0	121	16	169	12	0	197	11	53	15	0	79	507
08:15 AM	9	58	50	0	117	38	69	16	0	123	18	176	14	0	208	15	59	10	0	84	532
08:30 AM	6	53	33	0	92	42	55	23	0	120	22	84	13	1	120	16	64	25	1	106	438
08:45 AM	6	69	46	0	121	50	66	16	0	132	18	85	15	0	118	5	44	12	0	61	432
Total	28	236	176	0	440	166	257	73	0	496	74	514	54	1	643	47	220	62	1	330	1909
Grand Total	68	437	380	0	885	372	402	119	4	897	129	835	85	1	1050	74	411	128	2	615	3447
Apprch %	7.7	49.4	42.9	0		41.5	44.8	13.3	0.4		12.3	79.5	8.1	0.1		12	66.8	20.8	0.3		
Total %	2	12.7	11	0	25.7	10.8	11.7	3.5	0.1	26	3.7	24.2	2.5	0	30.5	2.1	11.9	3.7	0.1	17.8	
Cars/Peds	62	427	363	0	852	372	396	119	4	891	129	821	85	1	1036	64	403	128	2	597	3376
% Cars/Peds	91.2	97.7	95.5	0	96.3	100	98.5	100	100	99.3	100	98.3	100	100	98.7	86.5	98.1	100	100	97.1	97.9
Trucks	5	8	16	0	29	0	6	0	0	6	0	12	0	0	12	10	8	0	0	18	65
% Trucks	7.4	1.8	4.2	0	3.3	0	1.5	0	0	0.7	0	1.4	0	0	1.1	13.5	1.9	0	0	2.9	1.9
Bikes	1	2	1	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6
% Bikes	1.5	0.5	0.3	0	0.5	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.2

Pare Corporation

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File Name : AM Peak - Kingstown_Old Tower
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 2

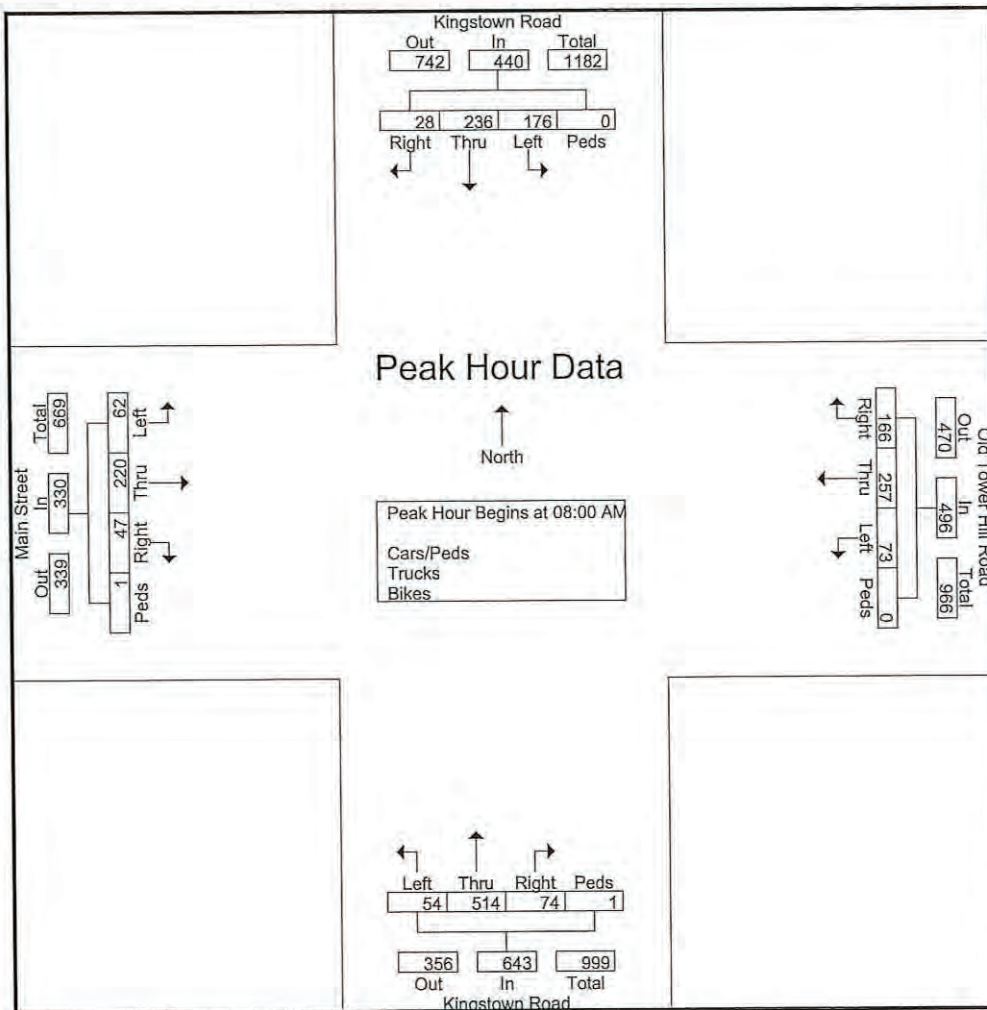


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File Name : AM Peak - Kingstown_Old Tower
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 3

Start Time	Kingstown Road From North					Old Tower Hill Road From East					Kingstown Road From South					Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	7	56	47	0	110	36	67	18	0	121	16	169	12	0	197	11	53	15	0	79	507
08:15 AM	9	58	50	0	117	38	69	16	0	123	18	176	14	0	208	15	59	10	0	84	532
08:30 AM	6	53	33	0	92	42	55	23	0	120	22	84	13	1	120	16	64	25	1	106	438
08:45 AM	6	69	46	0	121	50	66	16	0	132	18	85	15	0	118	5	44	12	0	61	432
Total Volume	28	236	176	0	440	166	257	73	0	496	74	514	54	1	643	47	220	62	1	330	1909
% App. Total	6.4	53.6	40	0		33.5	51.8	14.7	0		11.5	79.9	8.4	0.2		14.2	66.7	18.8	0.3		
PHF	.778	.855	.880	.000	.909	.830	.931	.793	.000	.939	.841	.730	.900	.250	.773	.734	.859	.620	.250	.778	.897

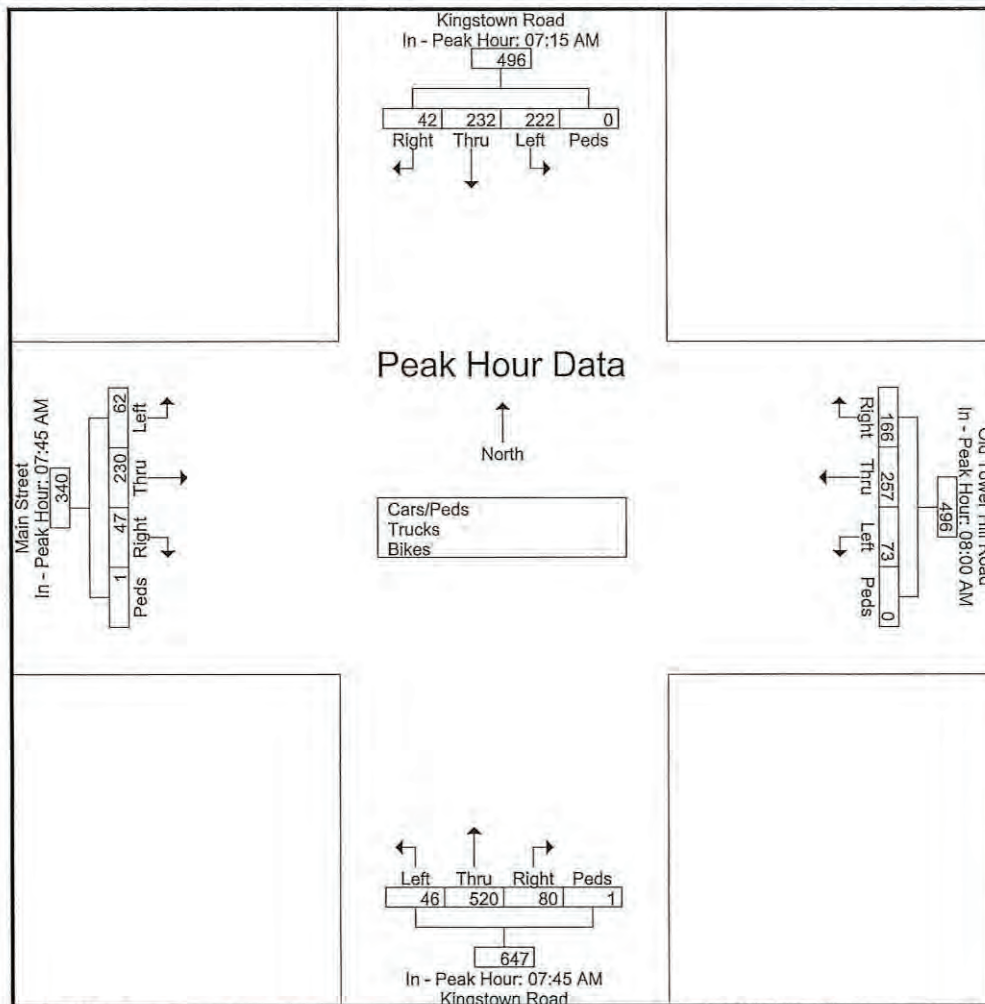


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File Name : AM Peak - Kingstown_Old Tower
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 4

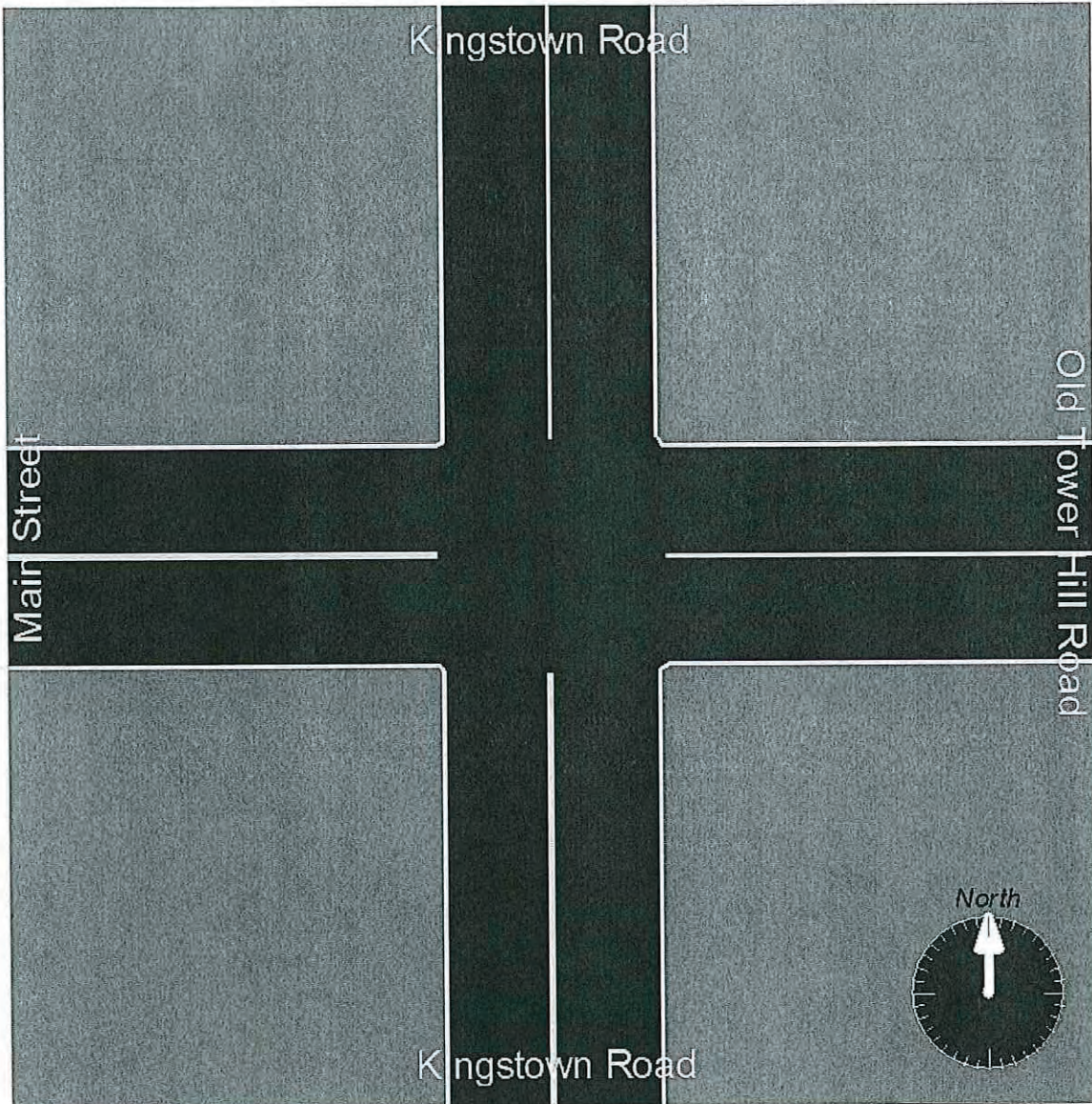
Start Time	Kingstown Road From North					Old Tower Hill Road From East					Kingstown Road From South					Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15 AM					08:00 AM					07:45 AM					07:45 AM					
+0 mins.	14	54	59	0	127	36	67	18	0	121	24	91	7	0	122	5	54	12	0	71	
+15 mins.	11	66	56	0	133	38	69	16	0	123	16	169	12	0	197	11	53	15	0	79	
+30 mins.	10	56	60	0	126	42	55	23	0	120	18	176	14	0	208	15	59	10	0	84	
+45 mins.	7	56	47	0	110	50	66	16	0	132	22	84	13	1	120	16	64	25	1	106	
Total Volume	42	232	222	0	496	166	257	73	0	496	80	520	46	1	647	47	230	62	1	340	
% App. Total	8.5	46.8	44.8	0		33.5	51.8	14.7	0		12.4	80.4	7.1	0.2		13.8	67.6	18.2	0.3		
PHF	.750	.879	.925	.000	.932	.830	.931	.793	.000	.939	.833	.739	.821	.250	.778	.734	.898	.620	.250	.802	



Pare Corporation

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Lincoln, RI, 02865
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File Name : AM Peak - Kingstown_Old Tower
Site Code : 23142.00
Start Date : 10/25/2023
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Pare Corporation

8 Blackstone Valley Place
 Lincoln, RI, 02865
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NB/SB: Kingstown Road
 EB/WB: Main Street/ Old Tower Hill Road
 City/State: South Kingstown, RI
 Taken By: BSO

File Name : PM Peak - Kingstown_Old Tower
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 1

Groups Printed- Cars/Peds - Trucks/Buses - Bikes

Start Time	Kingstown Road From North					Old Tower Hill Road From East					Kingstown Road From South					Main Street From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
04:00 PM	11	160	79	2	252	67	84	24	0	175	49	119	27	1	196	27	88	27	0	142	765	
04:15 PM	10	148	76	0	234	76	98	43	0	217	39	140	28	1	208	33	74	19	1	127	786	
04:30 PM	33	134	73	6	246	73	89	37	1	200	28	120	18	1	167	20	91	31	3	145	758	
04:45 PM	15	137	81	2	235	84	79	29	1	193	38	98	14	0	150	10	73	15	1	99	677	
Total	69	579	309	10	967	300	350	133	2	785	154	477	87	3	721	90	326	92	5	513	2986	
05:00 PM	5	188	71	0	264	90	93	54	1	238	40	116	17	0	173	20	138	32	0	190	865	
05:15 PM	4	163	89	2	258	71	85	50	0	206	45	83	15	0	143	27	68	36	1	132	739	
05:30 PM	10	176	93	0	279	72	86	45	0	203	58	129	21	0	208	38	89	16	1	144	834	
05:45 PM	9	124	61	1	195	77	89	34	2	202	30	80	18	0	128	7	79	21	0	107	632	
Total	28	651	314	3	996	310	353	183	3	849	173	408	71	0	652	92	374	105	2	573	3070	
Grand Total	97	1230	623	13	1963	610	703	316	5	1634	327	885	158	3	1373	182	700	197	7	1086	6056	
Apprch %	4.9	62.7	31.7	0.7		37.3	43	19.3	0.3		23.8	64.5	11.5	0.2		16.8	64.5	18.1	0.6			
Total %	1.6	20.3	10.3	0.2	32.4	10.1	11.6	5.2	0.1	27	5.4	14.6	2.6	0	22.7	3	11.6	3.3	0.1	17.9		
Cars/Peds	93	1223	617	13	1946	607	703	314	5	1629	326	879	158	3	1366	177	700	197	7	1081	6022	
% Cars/Peds	95.9	99.4	99	100	99.1	99.5	100	99.4	100	99.7	99.7	99.3	100	100	99.5	97.3	100	100	100	99.5	99.4	
Trucks/Buses	2	6	5	0	13	0	0	2	0	2	0	6	0	0	6	5	0	0	0	0	5	26
% Trucks/Buses	2.1	0.5	0.8	0	0.7	0	0	0.6	0	0.1	0	0.7	0	0	0.4	2.7	0	0	0	0	0.5	0.4
Bikes	2	1	1	0	4	3	0	0	0	3	1	0	0	0	1	0	0	0	0	0	0	8
% Bikes	2.1	0.1	0.2	0	0.2	0.5	0	0	0	0.2	0.3	0	0	0	0.1	0	0	0	0	0	0	0.1

Pare Corporation

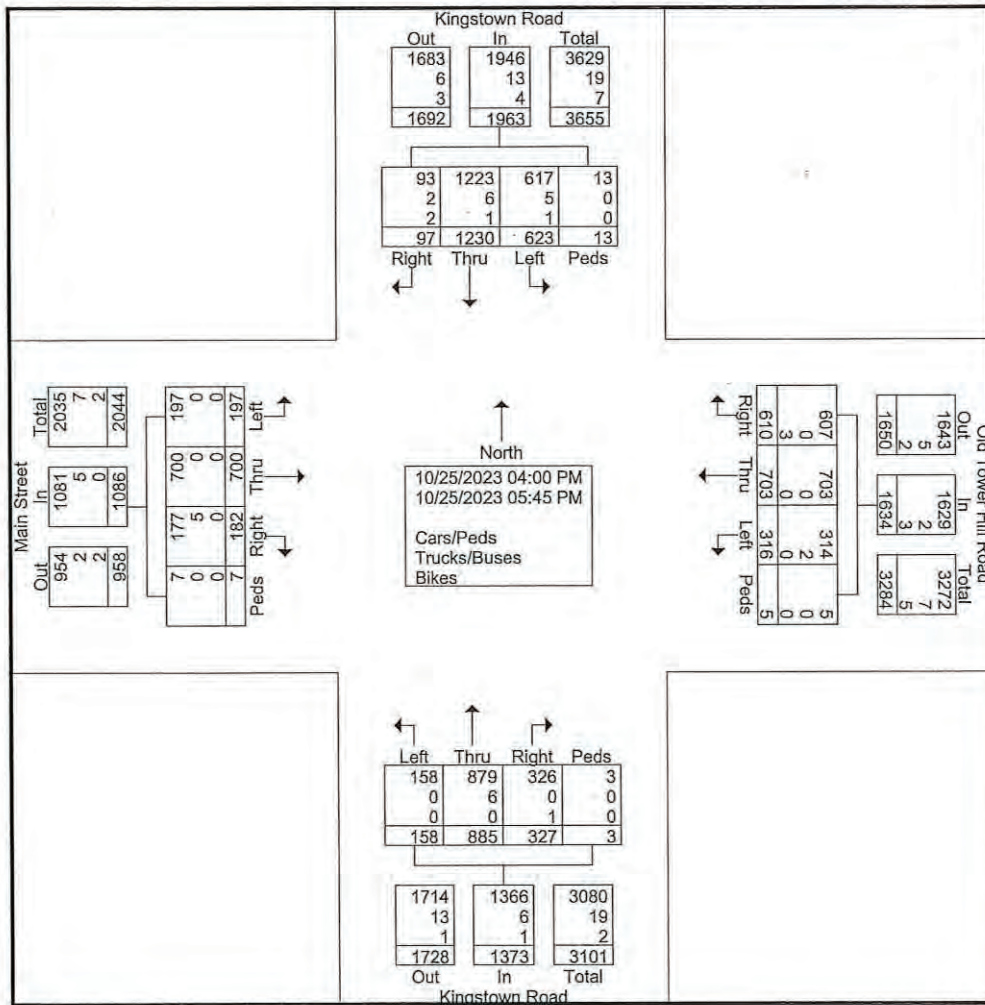
8 Blackstone Valley Place
 Lincoln, RI, 02865
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File Name : PM Peak - Kingstown_Old Tower

Site Code : 23142.00

Start Date : 10/25/2023

Page No : 2

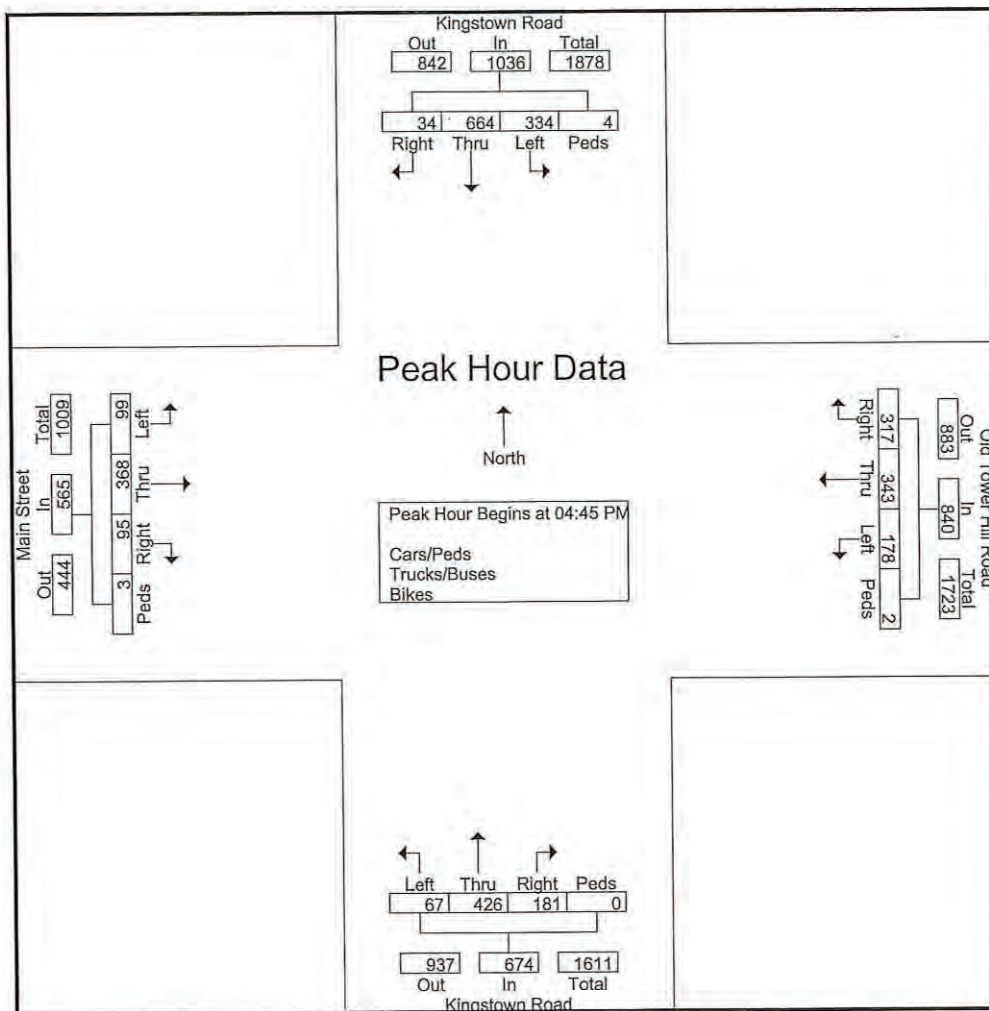


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File Name : PM Peak - Kingstown_Old Tower
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 3

Start Time	Kingstown Road From North					Old Tower Hill Road From East					Kingstown Road From South					Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	15	137	81	2	235	84	79	29	1	193	38	98	14	0	150	10	73	15	1	99	677
05:00 PM	5	188	71	0	264	90	93	54	1	238	40	116	17	0	173	20	138	32	0	190	865
05:15 PM	4	163	89	2	258	71	85	50	0	206	45	83	15	0	143	27	68	36	1	132	739
05:30 PM	10	176	93	0	279	72	86	45	0	203	58	129	21	0	208	38	89	16	1	144	834
Total Volume	34	664	334	4	1036	317	343	178	2	840	181	426	67	0	674	95	368	99	3	565	3115
% App. Total	3.3	64.1	32.2	0.4		37.7	40.8	21.2	0.2		26.9	63.2	9.9	0		16.8	65.1	17.5	0.5		
PHF	.567	.883	.898	.500	.928	.881	.922	.824	.500	.882	.780	.826	.798	.000	.810	.625	.667	.688	.750	.743	.900

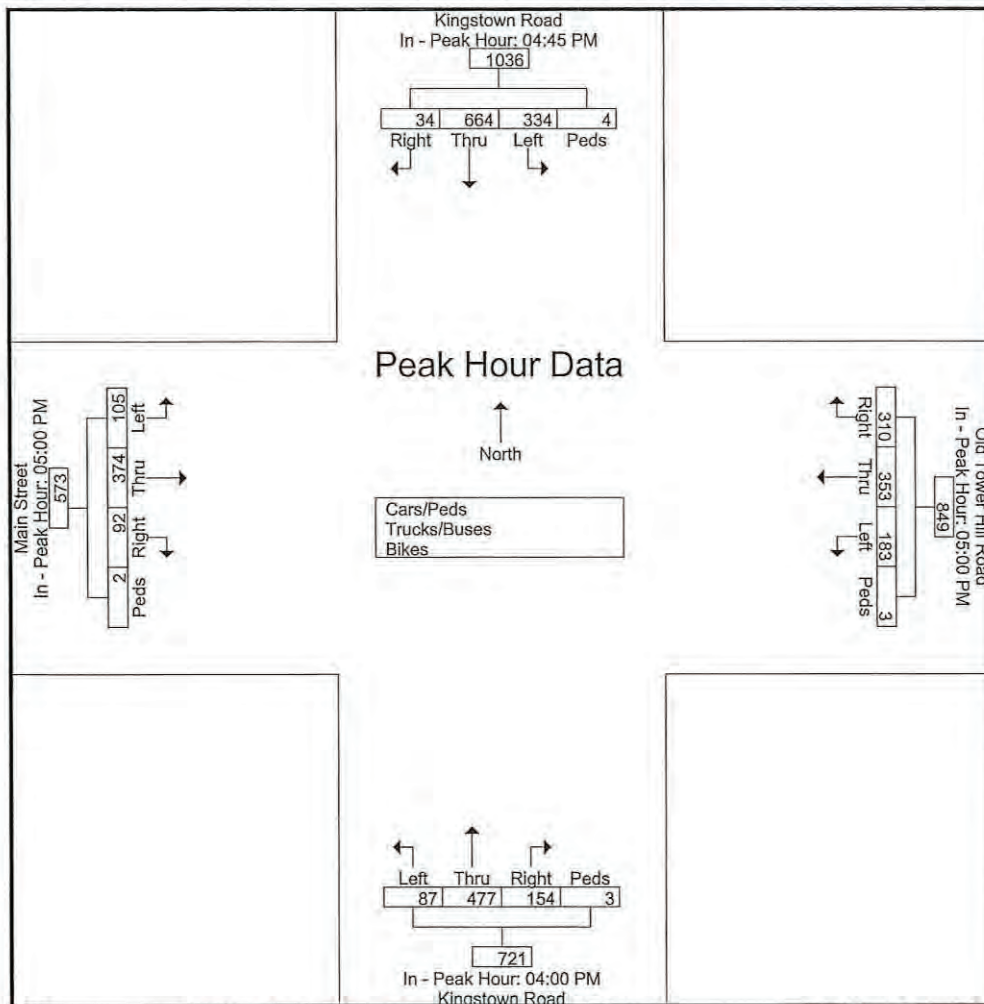


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File Name : PM Peak - Kingstown_Old Tower
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 4

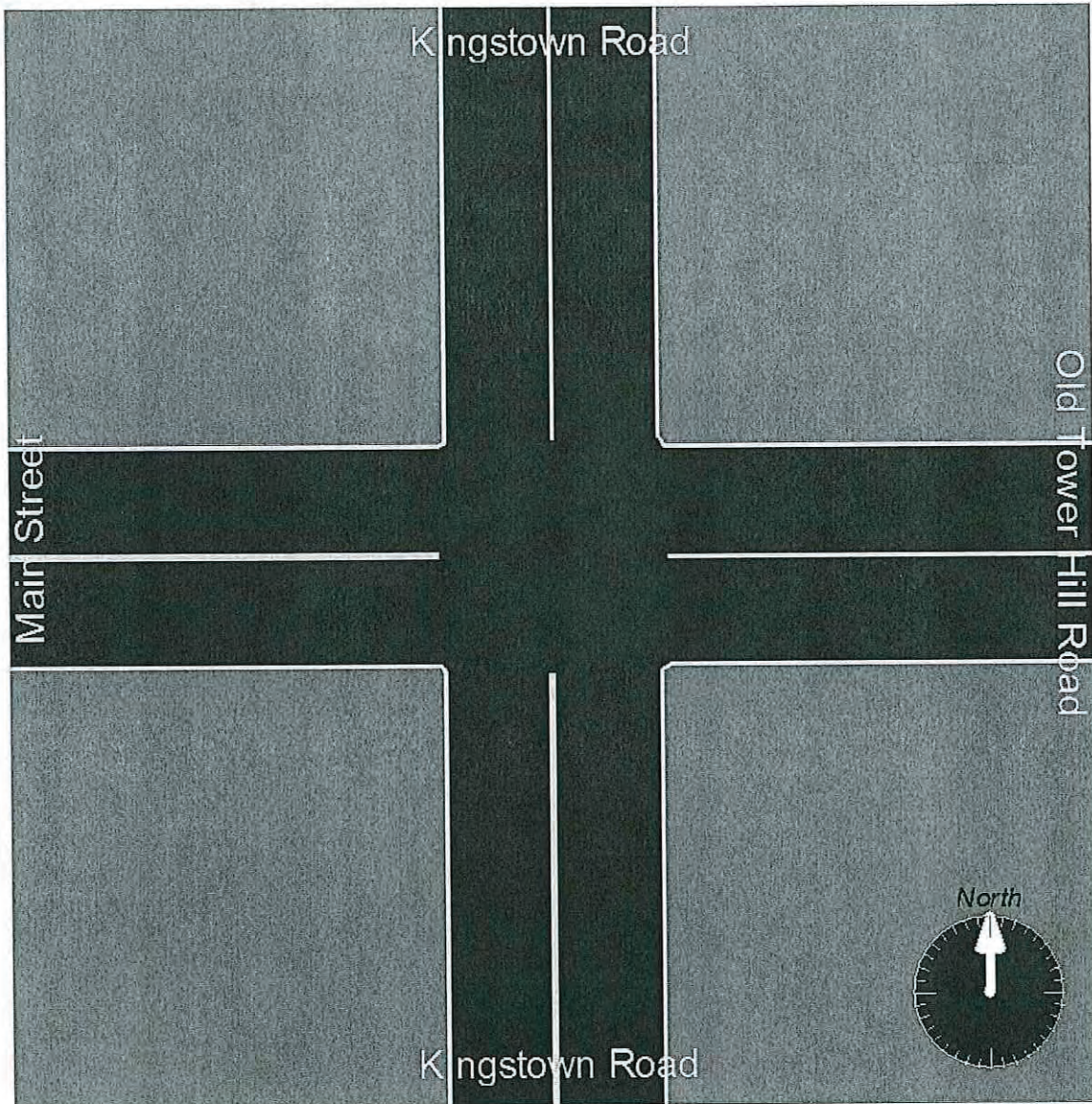
Start Time	Kingstown Road From North					Old Tower Hill Road From East					Kingstown Road From South					Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					05:00 PM					04:00 PM					05:00 PM					
+0 mins.	15	137	81	2	235	90	93	54	1	238	49	119	27	1	196	20	138	32	0	190	
+15 mins.	5	188	71	0	264	71	85	50	0	206	39	140	28	1	208	27	68	36	1	132	
+30 mins.	4	163	89	2	258	72	86	45	0	203	28	120	18	1	167	38	89	16	1	144	
+45 mins.	10	176	93	0	279	77	89	34	2	202	38	98	14	0	150	7	79	21	0	107	
Total Volume	34	664	334	4	1036	310	353	183	3	849	154	477	87	3	721	92	374	105	2	573	
% App. Total	3.3	64.1	32.2	0.4		36.5	41.6	21.6	0.4		21.4	66.2	12.1	0.4		16.1	65.3	18.3	0.3		
PHF	.567	.883	.898	.500	.928	.861	.949	.847	.375	.892	.786	.852	.777	.750	.867	.605	.678	.729	.500	.754	



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File Name : PM Peak - Kingstown_Old Tower
Site Code : 23142.00
Start Date : 10/25/2023
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NB/SB: Kingstown Road
 EB/WB: Plaza Driveway
 City/State: South Kingstown, RI
 Taken By: EY

File Name : AM Peak - Kingstown_Driveway
 Site Code : 23142.00
 Start Date : 10/25/2023
 Page No : 1

Groups Printed- Cars/Peds - Trucks/Buses - Bikes

Start Time	Kingstown Road From North					Plaza Driveway From East					Kingstown Road From South					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	68	1	0	69	0	0	2	0	2	1	93	0	1	95	166
07:15 AM	0	140	3	0	143	1	0	0	2	3	2	192	0	1	195	341
07:30 AM	0	126	1	0	127	0	0	0	0	0	0	136	0	0	136	263
07:45 AM	0	111	4	0	115	2	0	1	1	4	1	145	0	0	146	265
Total	0	445	9	0	454	3	0	3	3	9	4	566	0	2	572	1035
08:00 AM	0	117	2	0	119	2	0	2	0	4	2	203	0	1	206	329
08:15 AM	0	96	4	0	100	1	0	2	2	5	3	216	0	1	220	325
08:30 AM	0	95	5	0	100	1	0	5	0	6	1	131	0	1	133	239
08:45 AM	0	109	5	0	114	5	0	2	0	7	0	136	0	0	136	257
Total	0	417	16	0	433	9	0	11	2	22	6	686	0	3	695	1150
Grand Total	0	862	25	0	887	12	0	14	5	31	10	1252	0	5	1267	2185
Apprch %	0	97.2	2.8	0		38.7	0	45.2	16.1		0.8	98.8	0	0.4		
Total %	0	39.5	1.1	0	40.6	0.5	0	0.6	0.2	1.4	0.5	57.3	0	0.2	58	
Cars/Peds	0	829	23	0	852	12	0	12	5	29	7	1233	0	5	1245	2126
% Cars/Peds	0	96.2	92	0	96.1	100	0	85.7	100	93.5	70	98.5	0	100	98.3	97.3
Trucks/Buses	0	29	1	0	30	0	0	1	0	1	2	18	0	0	20	51
% Trucks/Buses	0	3.4	4	0	3.4	0	0	7.1	0	3.2	20	1.4	0	0	1.6	2.3
Bikes	0	4	1	0	5	0	0	1	0	1	1	1	0	0	2	8
% Bikes	0	0.5	4	0	0.6	0	0	7.1	0	3.2	10	0.1	0	0	0.2	0.4

Pare Corporation

8 Blackstone Valley Place

Lincoln, RI, 02865

401-334-4100

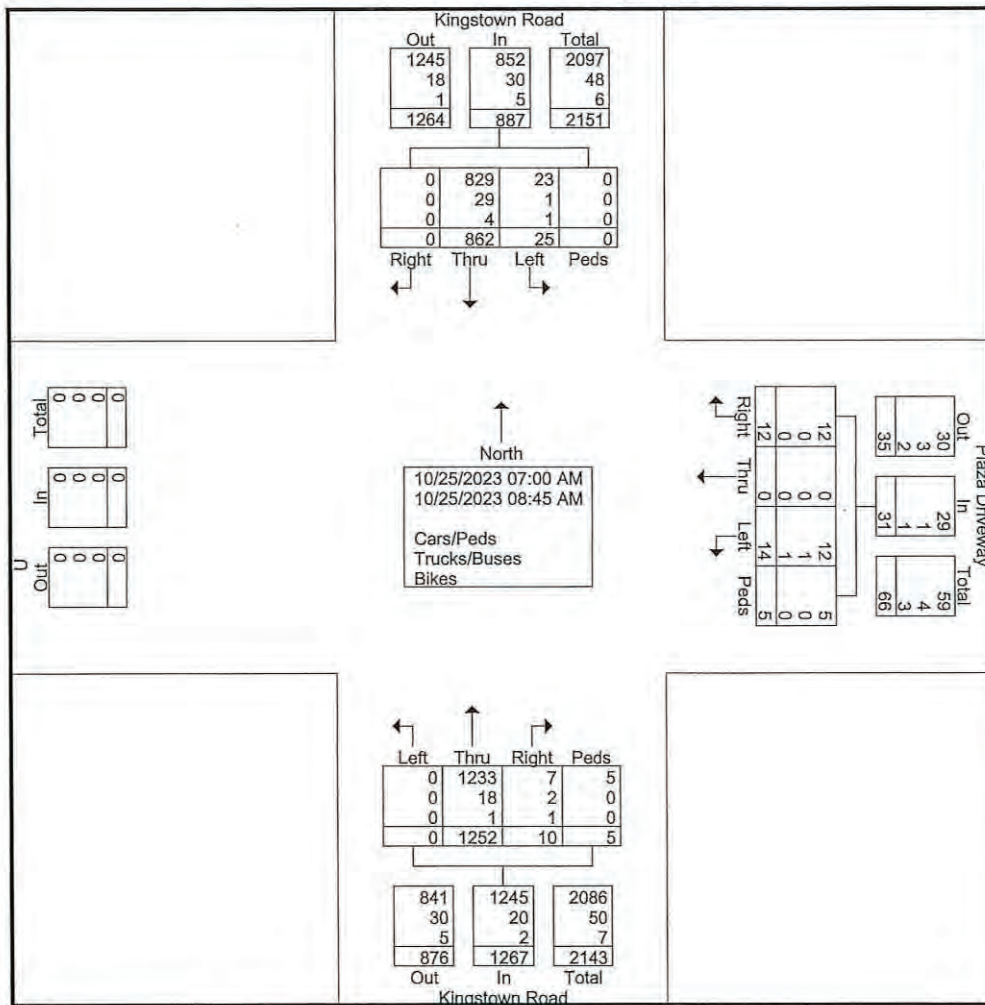
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File Name : AM Peak - Kingstown_Driveway

Site Code : 23142.00

Start Date : 10/25/2023

Page No : 2

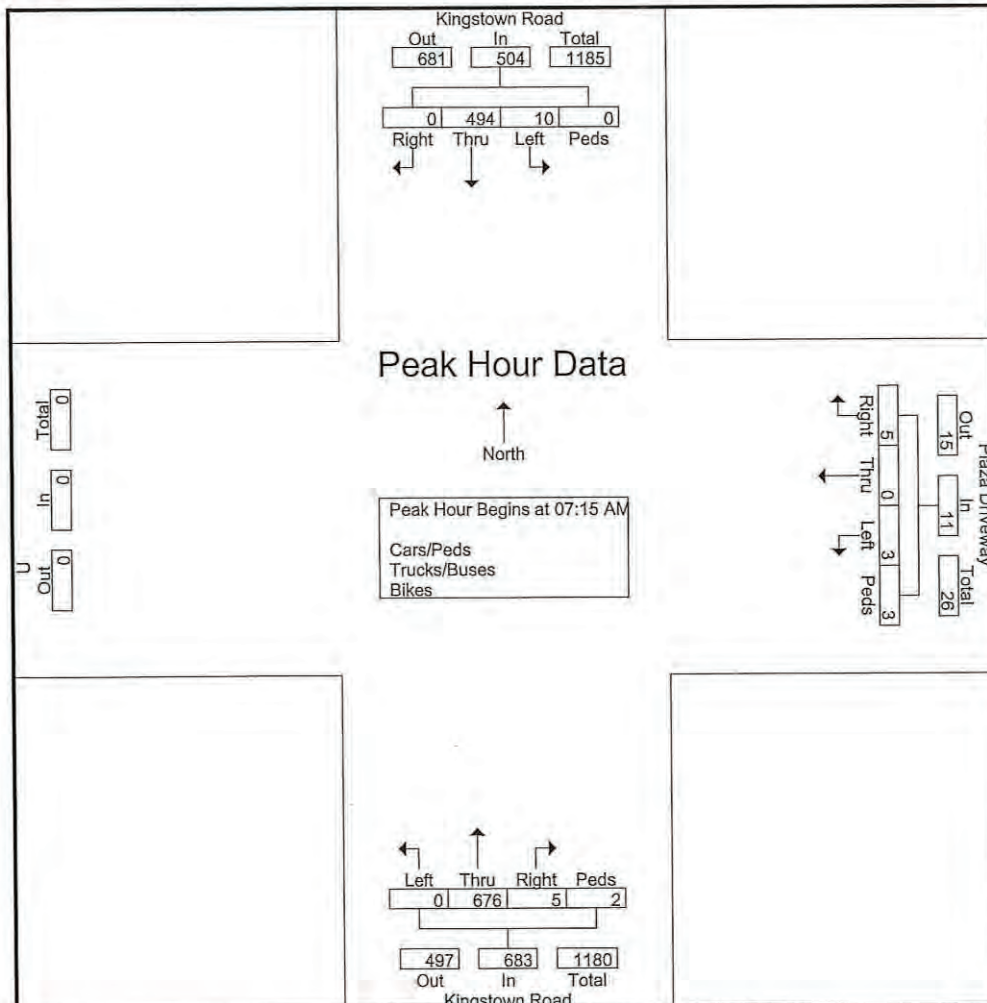


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File Name : AM Peak - Kingstown_Driveway
 Site Code : 23142.00
 Start Date : 10/25/2023
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Start Time	Kingstown Road From North					Plaza Driveway From East					Kingstown Road From South					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 07:15 AM																
07:15 AM	0	140	3	0	143	1	0	0	2	3	2	192	0	1	195	341
07:30 AM	0	126	1	0	127	0	0	0	0	0	0	136	0	0	136	263
07:45 AM	0	111	4	0	115	2	0	1	1	4	1	145	0	0	146	265
08:00 AM	0	117	2	0	119	2	0	2	0	4	2	203	0	1	206	329
Total Volume	0	494	10	0	504	5	0	3	3	11	5	676	0	2	683	1198
% App. Total	0	98	2	0		45.5	0	27.3	27.3		0.7	99	0	0.3		
PHF	.000	.882	.625	.000	.881	.625	.000	.375	.375	.688	.625	.833	.000	.500	.829	.878

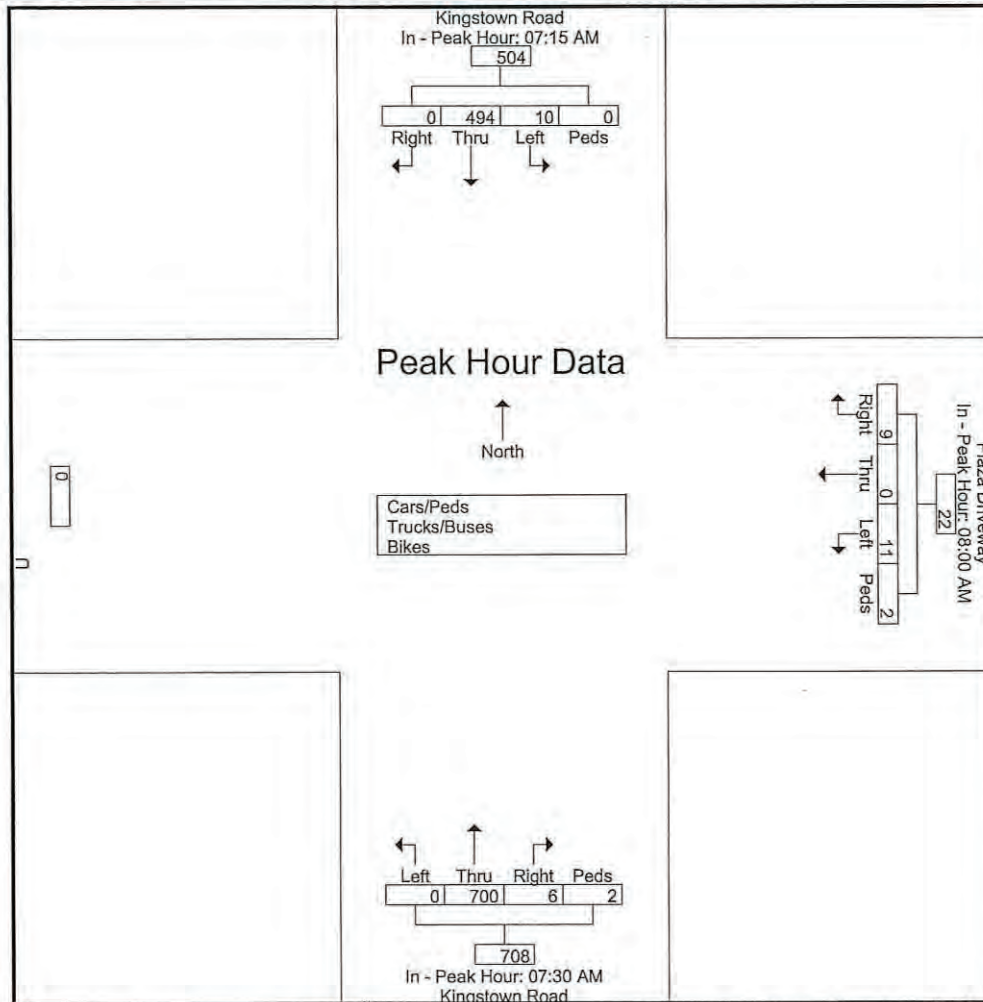


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File Name : AM Peak - Kingstown_Driveway
 Site Code : 23142.00
 Start Date : 10/25/2023
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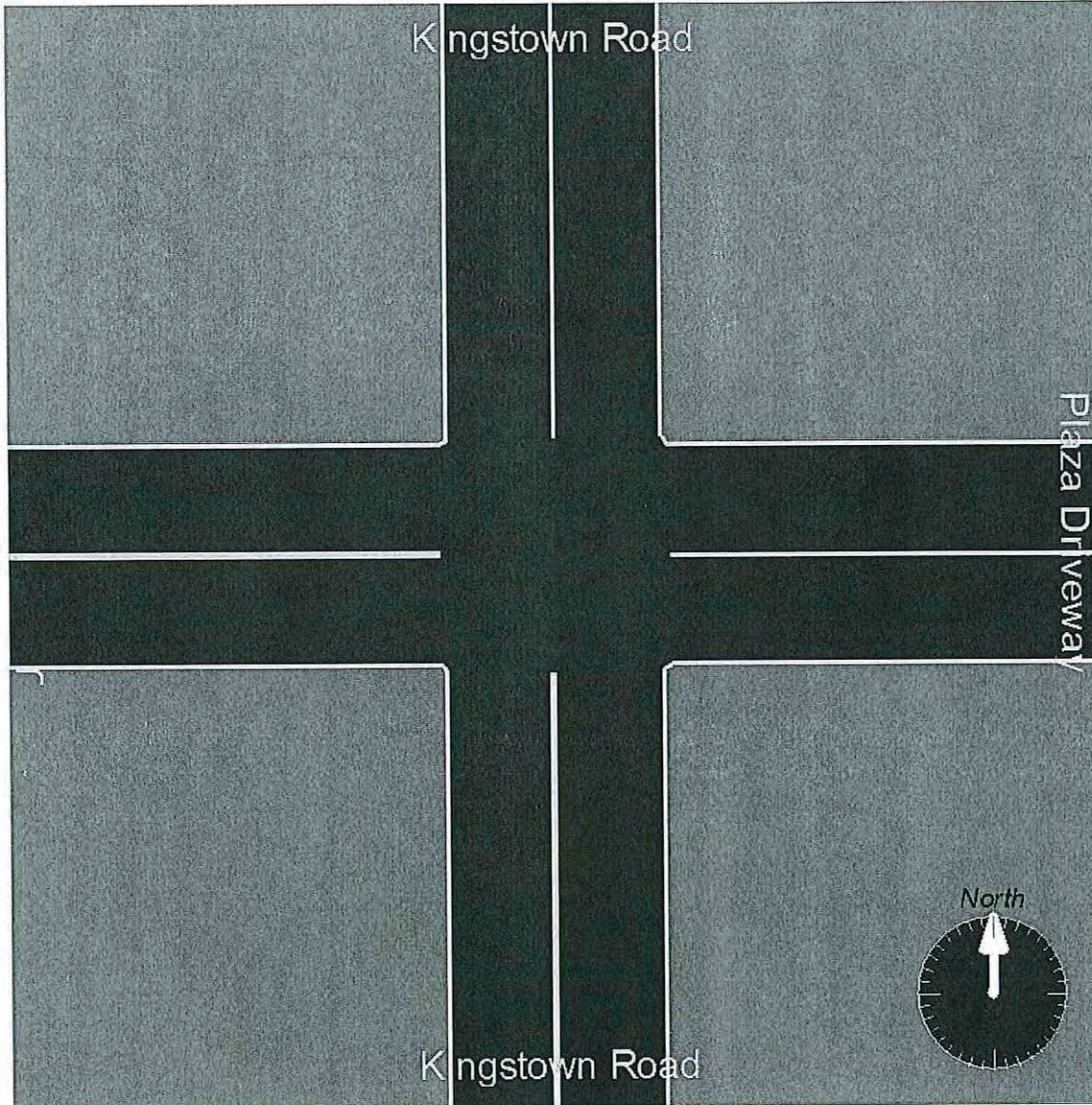
Start Time	Kingstown Road From North					Plaza Driveway From East					Kingstown Road From South					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	07:15 AM					08:00 AM					07:30 AM					
+0 mins.	0	140	3	0	143	2	0	2	0	4	0	136	0	0	136	
+15 mins.	0	126	1	0	127	1	0	2	2	5	1	145	0	0	146	
+30 mins.	0	111	4	0	115	1	0	5	0	6	2	203	0	1	206	
+45 mins.	0	117	2	0	119	5	0	2	0	7	3	216	0	1	220	
Total Volume	0	494	10	0	504	9	0	11	2	22	6	700	0	2	708	
% App. Total	0	98	2	0		40.9	0	50	9.1		0.8	98.9	0	0.3		
PHF	.000	.882	.625	.000	.881	.450	.000	.550	.250	.786	.500	.810	.000	.500	.805	



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File Name : AM Peak - Kingstown_Driveway
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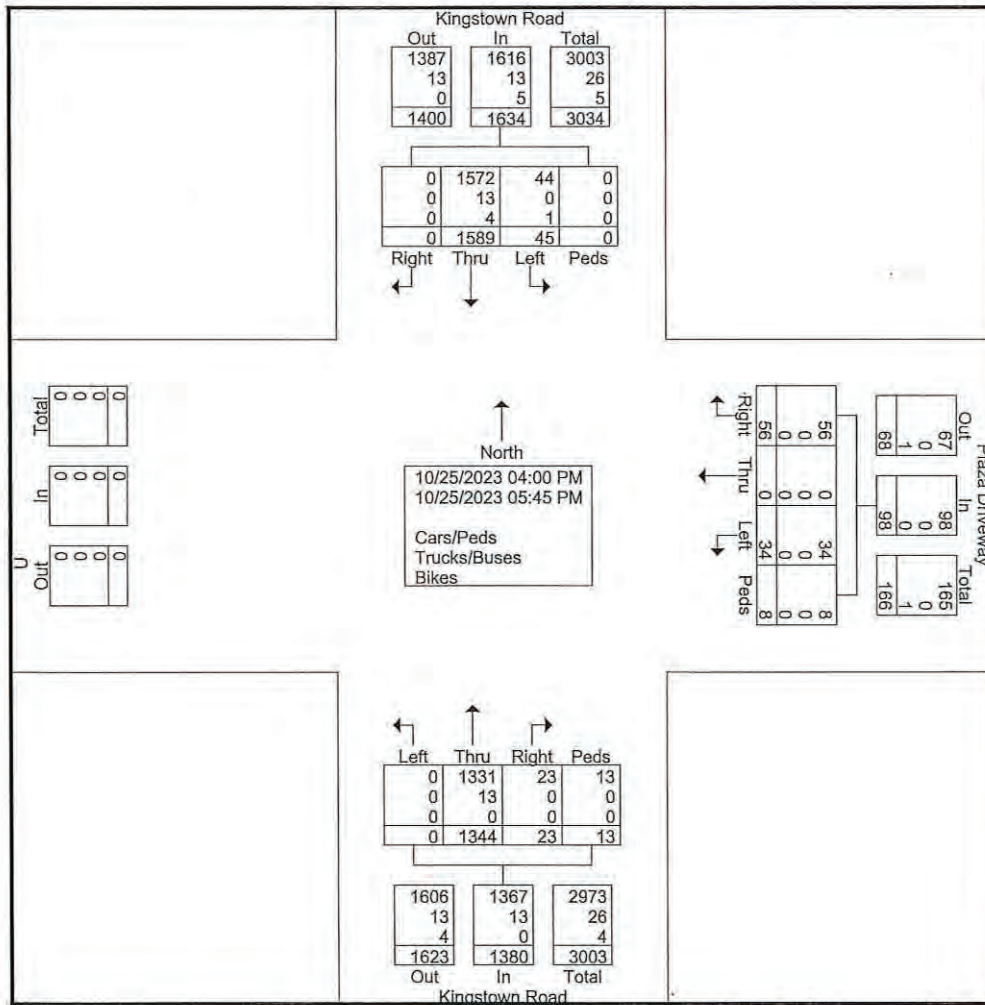
8 Blackstone Valley Place
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File Name : PM Peak - Kingstown_Driveway

Site Code : 23142.00

Start Date : 10/25/2023

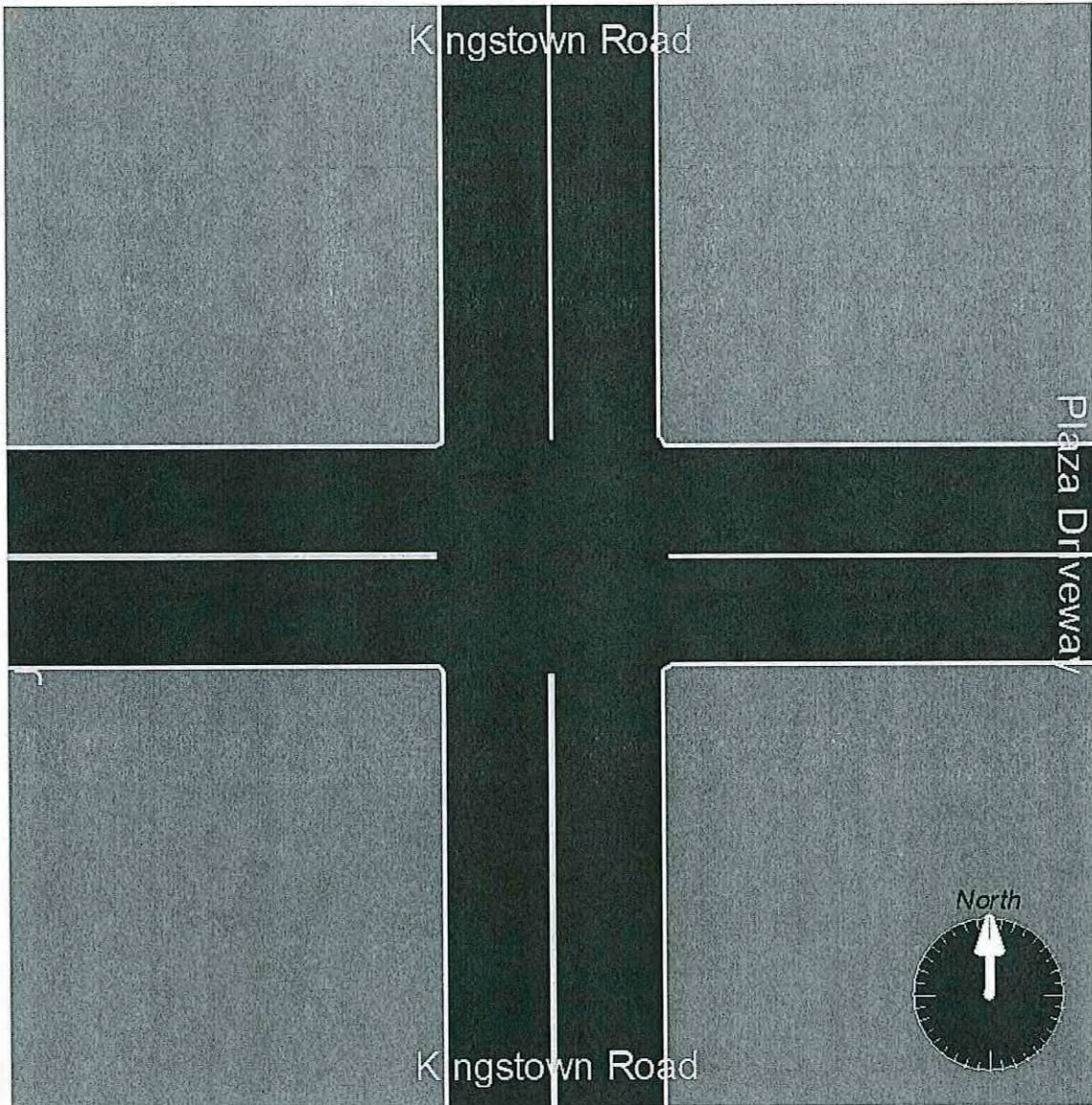
Page No : 2



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File Name : PM Peak - Kingstown_Driveway
Site Code : 23142.00
Start Date : 10/25/2023
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8 Blackstone Valley Place
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Start Date: 10/28/2023

N/S: Kingstown Road
 E/W: Old Tower Hill Road
 City, State: North Kingstown, RI
 Taken By: HA

Groups Printed- Cars/Peds - Heavy Vehicles/Buses - Bikes

Start Time	Kingstown Road From North					Old Tower Hill Road From East					Kingstown Road From South					Old Tower Hill Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	15	111	77	0	203	79	76	53	0	208	66	95	32	0	193	23	111	26	0	160	764
11:15 AM	7	125	69	0	201	69	76	56	0	201	65	71	26	0	162	30	96	28	0	154	718
11:30 AM	11	128	81	0	220	42	70	59	2	173	65	79	32	0	176	21	64	29	0	114	683
11:45 AM	9	116	76	0	201	71	82	63	0	216	51	94	28	1	174	21	86	41	0	148	739
Total	42	480	303	0	825	261	304	231	2	798	247	339	118	1	705	95	357	124	0	576	2904
12:00 PM	5	100	83	0	188	66	64	62	0	192	61	61	25	0	147	19	66	25	0	110	637
12:15 PM	10	113	67	0	190	61	64	69	2	196	63	93	22	0	178	29	85	17	1	132	696
12:30 PM	10	87	57	0	154	62	53	51	1	167	61	73	22	0	156	26	85	26	3	140	617
12:45 PM	20	119	90	1	230	68	69	62	3	202	52	99	43	0	194	20	90	31	7	148	774
Total	45	419	297	1	762	257	250	244	6	757	237	326	112	0	675	94	326	99	11	530	2724

APPENDIX B
CRASH DATA

Making your world **MORE**

parecorp.com

 **Engineers**  **Scientists**  **Planners**



September 18, 2023

Records Department
South Kingstown Police Department
1790 Kingstown Road
South Kingstown, RI 02879

Re: **Traffic Engineering Services**
Kingstown Road TIS
703 Kingstown Road
South Kingstown, Rhode Island
(Pare Project No.: 23142.00)

Records Department:

Pare Corporation (Pare) has been retained to perform a traffic analysis for the proposed development at 703 Kingstown Road. As part of this study, we are required to obtain crash information for roadways relative to this site.

We are requesting crash records for the most recent *three* years for:

- Kingstown Road – from Main Street/Old Tower Hill Road to School Street

If possible, the accident data should include copies of the accident reports and supplemental narratives for each record. The number of accidents, the location, time of day, the accident type, the number of injuries and/or fatalities, the date, and the roadway surface condition are all necessary to adequately analyze the accident data. Accidents that occurred within parking lots will not be required. It would be preferable if these reports could be emailed to the sender of this request, however, if that is not feasible, mailing them or picking up of the reports are options.

Should you have any questions, or if we can be of assistance in any way, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Aidan Michael Bennett'.

Aidan Michael Bennett
Transportation Department Engineer I
401.297.5853
abennett@parecorp.com


8 Blackstone Valley Place
Lincoln, RI 02865
401-334-4100

10 Lincoln Road, Suite 210
Foxborough, MA 02035
508-543-1755

14 Bobala Road, Suite 2B
Holyoke, MA 01040
413-507-3448

PEOPLES CREDIT UNION CRASH DATA

Date	Time	Location	Type of Roadway	Road Surface/Condition	Light Condition	Weather	No. of vehicles	Type of Impact	Contributing Circumstance	Damages/Injuries	Other
1/31/2020	2:27 PM	Kingstown Rd/School St	2-way divided unprotected	dry	daylight	clear	2	rear end	V1 slowed down/V2 did not notice turning/shide lane stopped outside did not turning into Ocean State job lot opp traffic L lane stopped other didn't	Substantial/none	
2/11/2020	3:54 PM	Dale Carls St/Kingstown Rd	2-way not divided	wet	daylight	clear	2	angle front to side	Car pulled out of Dale Carls St and was struck	Minor/none	
2/18/2020	2:29 PM	1688 Kingstown Rd	2-way not divided	dry	Daylight	clear	2	angle opposite direction	Van 1 turning into lot/Veh 2 hit from behind	Minor/none	
7/22/2020	12:02 PM	Kingstown Rd/Dale Carls St	2-way not divided	dry	Daylight	clear	2	angle	Van 1 turning into lot/Veh 2 hit from behind	Minor/none	
8/1/2020	5:29 PM	703 Kingstown Rd	2-way divided, unprotected median	dry	daylight	clear	2	rear end	Pull out of 703rd rd/liquors hit by 2 car	Minor/none	
8/17/2020	4:18 PM	Kingstown Rd/Dale Carls St	2-way not divided	dry	Daylight	clear	2	Side-swipe Same Direction	Stopped at light/V2 car did not enter properly	Minor/None	
10/7/2020	1:08 PM	Kingstown Rd/Dale Carls St	2-way not divided	dry	Daylight	clear	2	Side-swipe Same Direction	Stopped at light/V2 car did not enter properly	Minor/None	
10/12/2020	12:06 PM	Mains St/Kingstown Rd	2-way not divided	Dry	Daylight	clear	2	Rear end	Vehicle 2 hit stopped car	Minor/None	
11/17/2020	12:25 PM	621 Kingstown Rd At Intersection	2-way not divided	dry	Daylight	clear	2	rear end	hit car twice at light. Veh 2 operator under the influence	Significant/None	
12/11/2020	1:07 PM	Mains St/Kingstown Rd	2-way not divided	dry	dark-lighted	clear	2	angle	pulled out of Belmont lot	Minor/None	
12/18/2020	2:56 PM	Old Tower Hill Rd/Kingstown Rd	2-way not divided	wet	Daylight	cloudy	2	side-swipe same direction	Merged into other lane on OTHER	Minor/none	
12/23/2020	4:04 PM	Kingstown Dale Carls St	2-way not divided	dry	dark	clear	2	angle front to side		Minor/none	
12/29/2020	12:08 PM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	Dry	Daylight	Clear	1	road rage incident, struck curb		Disabling damage/none	
12/30/2020	4:04 PM	Dale Carls St/Kingstown Rd	2-way not divided	Daylight	Daylight	Clear	2	angle	left turn into DC L 30 car stopped inside lane didn't	Minor/None	
1/23/2021	12:31 PM	Kingstown Rd/Dale Carls St	2-way divided, unprotected median	dry	daylight	clear	2	angle front to side	left turn, veh in opp direction stopped, right lane did not	Minor/None	
2/14/2021	2:24 PM	Kingstown Rd/Dale Carls St	2-way not divided	wet	daylight	clear	2	angle front to side	turning vehicle cutting in front of opp traffic.	Disabling damage/knee injury & head pain	
3/18/2021	10:11 PM	Old Tower Hill Rd/Kingstown Rd	2-way not divided	snow	Dark-lighted	snow	2	rear end	Could not stop in snow. Sid	Minor/none	
3/26/2021	10:11 PM	Main Street/Kingstown Rd	2-way not divided	dry	Dark-lighted	clear	2	angle front to side	Car ran light and broad sided 2nd vehicle	1 vehicle towed/none	
4/8/2021	5:05 PM	Kingstown Rd/Dale Carls St	2-way not divided	Wet	daylight	rain	2	Angle Same Direction	???????	Minor/None	
5/30/2021	5:50 AM	Dale Carls St/5750 N of Intersection	2-way divided, Unprotected painted median	dry	Dark-light	clear	1	left turn from Kingstown to dale.	Crossed over lane to make turn	Minor/None	
6/5/2021	7:08 AM	Dale Carls St/Kingstown Rd Intersection	2-way not divided	dry	Daylight	clear	2	Side-swipe Same Direction	Failed to make turn properly	Heavy/head and adenine pain	
7/7/2021	10:29 PM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	dry	dark-lighted	clear	2	Side-swipe Same Direction	blinker on to turn but did not turn	Minor/None	
8/13/2021	10:52 AM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	dry	dark-lighted	clear	2	Side-swipe Same Direction	pulling out of 703rd rd into highway on into twisted. Didn't turn/Minor/None	Minor/None	
8/13/2021	10:52 AM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	dry	daylight	clear	2	Side-swipe same direction	switch lanes did not see oncoming car	Minor/None	
9/22/2021	9:13 AM	Main Street/Kingstown Rd	2-way not divided	Dry	daylight	cloudy	3	rear end	double rear end	Minor/None	
10/12/2021	3:53 AM	Kingstown Rd/School St	2-way not divided	Dry	Daylight	clear	2	Rear end	V1 stopped. V2 was grabbing water bottle	Significant/none	
11/9/2021	5:24 PM	Kingstown Rd/Dale Carls St	2-way not divided	Dry	dark-lighted	clear	2	Side-swipe/Opposite Direction	Misjudged room to turn. 2 cars opp dir turning left	Minor/none	
11/14/2021	6:45 PM	1688 Kingstown Rd	2-way not divided	Dry	dark-unknown lighting	clear	2	angle front to side	pulling out/loobby G's and hit car	Minor/none	
12/15/2021	12:14 PM	Kingstown Road/Dale Carls St	2-way not divided	Dry	Daylight	Clear	2	angle front to side	entered lighted intersection at same time. Question as to who had green	Minor/Leg and back	
12/20/2021	3:15 PM	Kingstown Rd/Dale Carls St	2-way not divided	Dry	Daylight	clear	2	rear end		Minor/None	
1/1/2022	1:05 PM	Mains St/Kingstown Rd	2-way not divided	dry	daylight	clear	2	rear end	stopped at light	Minor/None	
2/9/2022	2:24 PM	Kingstown Rd/Dale Carls St	2-way not divided	dry	Daylight	clear	2	side-swipe same direction	swayed into adjacent lane	Minor/None	
4/1/2022	7:57 PM	667 Kingstown Rd	2-way not divided	dry	Dark-lighted	clear	2	rear end	hit at stop light	Minor/None	
4/7/2022	12:28 PM	Kingstown Rd/School St	2-way not divided	dry	daylight	clear	2	angle front to side	Turning into Ocean State job lot hit by opposite travelling vehicle	Minor/None	
5/17/2022	2:30 PM	756 Kingstown Rd	2-way not divided	dry	daylight	clear	2	angle front to side	Pulled out into road and clipped passing vehicle	Minor/None	
5/19/2022	2:19 PM	Kingstown Rd/Dale Carls St	2-way not divided	Wet	Daylight	rain	2	angle front to side	turn left and sh vehicle clipped turning vehicle	Minor/None	
6/17/2022	10:11 AM	Dale Carls St/Kingstown Rd	2-way not divided	Dry	Daylight	cloudy	2	angle front to side	On Dale Carls Rd Car exiting lot was trying to merge	Minor/None	
7/22/2022	10:53 AM	Dale Carls St/Kingstown Rd	2-way not divided	Dry	daylight	clear	2	side-swipe	switch lanes to avoid turning traffic. Did not see car in adj lane	Minor/None	
8/20/2022	3:18 PM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	Dry	Daylight	Clear	2	Side-swipe Same Direction	Veh 2 dropped cigarette to base control	Minor/None	
8/20/2022	3:18 PM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	Dry	Daylight	Clear	2	Side-swipe Same Direction	Operator of 2nd car due to light, cut car out and Veh 1 was hit from behind	Minor/None	
11/26/2022	8:20 PM	Belous St/Kingstown Rd	2-way not divided	Dry	Dark-lighted	Clear	2	angle front to side	Left side of School Rd hit 2 car on Kingstown approaching	Minor/None	
1/10/2023	1:23 PM	Kingstown Rd/Dale Carls St	2-way not divided	Dry	Daylight	Clear	2	side-swipe same direction	Changing lane	Minor/None	
4/20/2023	9:03 PM	Old Tower Hill Rd/Kingstown Rd	2-way not divided	wet	dark-lighted	rain	2	rear end	Hit stopped at light	Minor/None	
5/5/2023	4:26 PM	Kingstown Rd/Dale Carls St	2-way not divided	dry	Daylight	Clear	2	angle front to side	Turn into Ocean State road was hit	Damages/both operators complained of pain	
6/12/2023	5:20 PM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	Dry	Daylight	Cloudy	2	Angle front to side	Turning into Indian Village. On-coming car hit turning vehicle	Disabling damage/Minor pain	
6/23/2023	9:30 AM	Kingstown Rd/Old Tower Hill Rd	2-way not divided	Dry	daylight	Clear	2	rear end	Veh 2 jumped green light	Minor/None	
9/25/2023	7:07 PM	621 Kingstown Rd	2-way not divided	wet	Dark-lighted	rain	2	rear end	Hit from behind heading in same direction	Minor/None	

APPENDIX C

Trip Generations / Growth Factor / Pass-by Trips

ITE LAND USE 912-DRIVE-IN BANK-2,835 SQUARE FEET w/ 3 LANES			
TIME PERIOD	ENTER	EXIT	TOTAL
Weekday	142	142	284
Saturday	122	123	245
Weekday Peak Hour of Adjacent Street Traffic One Hour Between 7 am-9 am	16	12	28
Weekday Peak Hour of Adjacent Street Traffic One Hour Between 4 pm-6 pm	30	29	59
Weekday A.M. Peak Hour of Generator	22	20	42
Weekday P.M. Peak Hour of Generator	30	29	59
Saturday Peak Hour of Generator*	38	37	75

LAND USE 912 PASS-BY TRIP SUMMARY						
	WEEKDAY AM PEAK HOUR		WEEKDAY PM PEAK HOUR		SATURDAY MID-DAY	
Average Pass-By Rate	29%		26%		38%	
	ENTER	EXIT	ENTER	EXIT	ENTER	EXIT
Pass-By Trips	5	4	8	8	15	14
Primary Trips	11	8	22	21	23	23
TOTAL	16	12	30	29	38	37

FUTURE NO-BUILD DEVELOPMENTS:

Spoke with Jason Parker on September 21, 2023 to inquire about other developments in the vicinity of the proposed redevelopment project. Mr. Parker mentioned there was a marijuana dispensary on Pershing Avenue that is not likely to happen. Also mentioned that on Old Tower Hill Road there are 2 existing properties- a commercial development and a restaurant - that are being proposed. He felt that these projects will result in being small generators and the volumes from these developments should be included as part of the overall growth factor.

GROWTH FACTOR

Date	Population
July 2022	32,052
April 2010	30,639
ANNUAL GROWTH FACTOR	0.38% SAY 0.5%

Branch Hourly Transactions - Average Member by Time Period

Please make sure **Date Range 2** is greater than **Date Range 1**

Tran Branch Name	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total	
WAKEFIELD OFFICE	7-8 am	0.2	0.2	0.1	0.2	0.2	0.0	0.9	
	8-9 am	4.2	4.1	3.5	3.4	5.0	4.2	24.4	
	9-10 am	8.4	7.7	6.9	6.5	9.6	9.1	48.1	
	10-11 am	10.0	8.0	8.1	6.9	9.0	12.0	54.0	
	11-12 pm	10.4	9.1	8.8	8.8	11.3	13.8	62.2	
	12-1 pm	10.2	9.1	8.2	8.6	13.2	10.5	59.8	
	1-2 pm	9.9	9.5	8.2	7.9	13.7	0.5	49.6	
	2-3 pm	11.3	10.4	10.3	10.1	13.6		55.7	
	3-4 pm	10.6	9.3	9.9	10.0	14.6		54.4	
	4-5 pm	4.7	4.4	4.2	5.2	12.0		30.4	
	5-6 pm		0.0		0.0	6.4			6.5
	6-7 pm					0.2			0.2
	Total		79.9	71.6	68.1	67.6	108.9	50.2	446.2
	Grand Total		79.9	71.6	68.1	67.6	108.9	50.2	446.2



Land Use: 912

Drive-in Bank

Description

A bank is a financial institution that can offer a wide variety of financial services. A drive-in bank provides banking services for a motorist through a teller station. A drive-in bank may also serve patrons who walk into the building. The drive-in lanes may or may not provide an automatic teller machine (ATM). Walk-in bank (Land Use 911) is a related use.

Additional Data

The independent variable—drive-in lanes—refers to all lanes at a banking facility used for financial transactions, including ATM-only lanes.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 2000s and the 2010s in Colorado, Kentucky, Minnesota, Nebraska, New Jersey, New York, Oregon, Pennsylvania, Texas, Vermont, Virginia, Washington, and Wisconsin.

To assist in the future analysis of this land use, it is important that Friday data be collected and reported separately from weekday data. It is also important to specify the date and month of the data collection period and the number of drive-through lanes that are open at the time of the study.

Source Numbers

535, 539, 553, 555, 573, 577, 600, 624, 626, 629, 630, 637, 656, 657, 710, 724, 728, 866, 869, 883, 884, 927, 935, 961, 1047

Drive-in Bank (912)

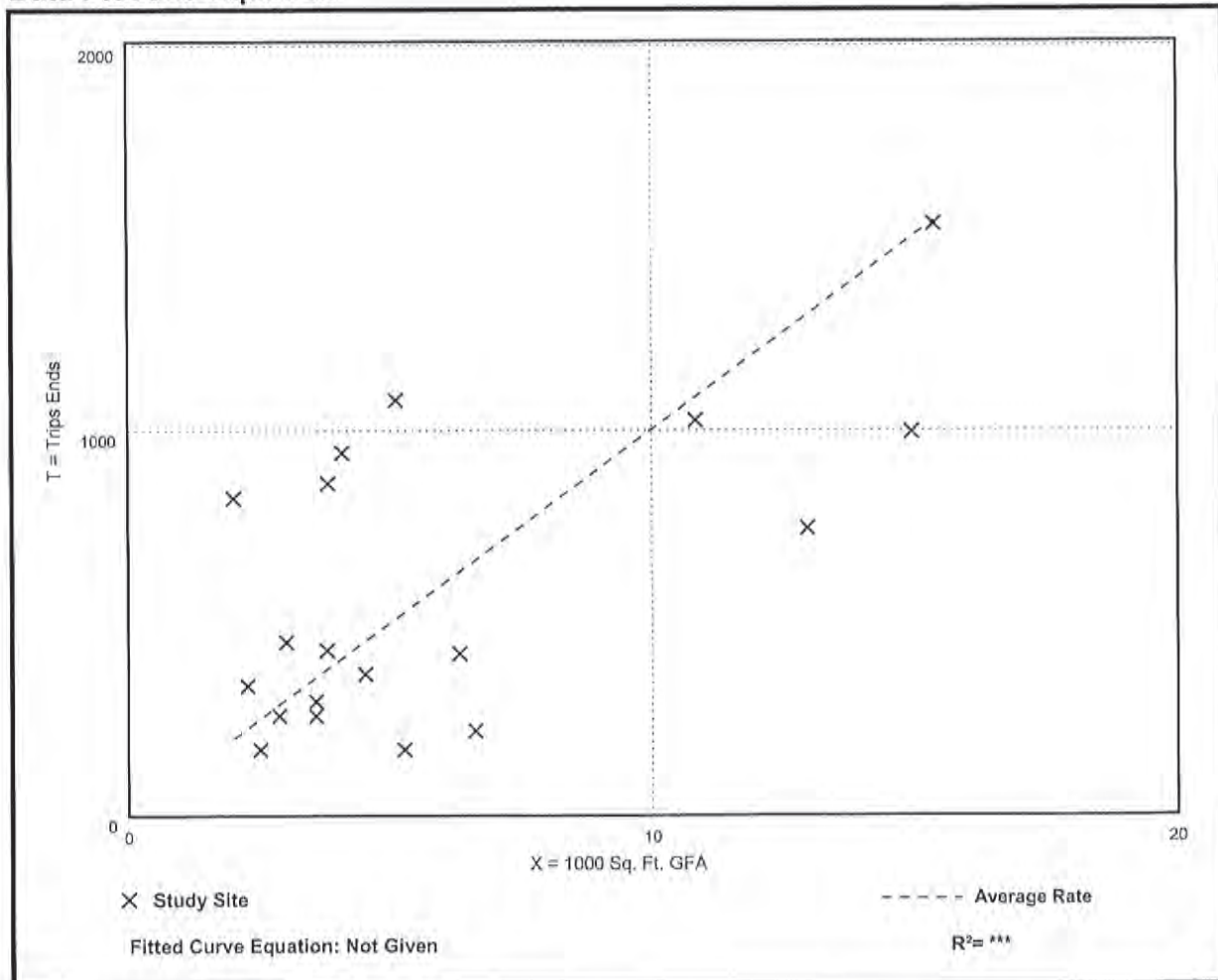
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 19
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
100.35	32.67 - 408.42	68.62

Data Plot and Equation



Drive-in Bank (912)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 44

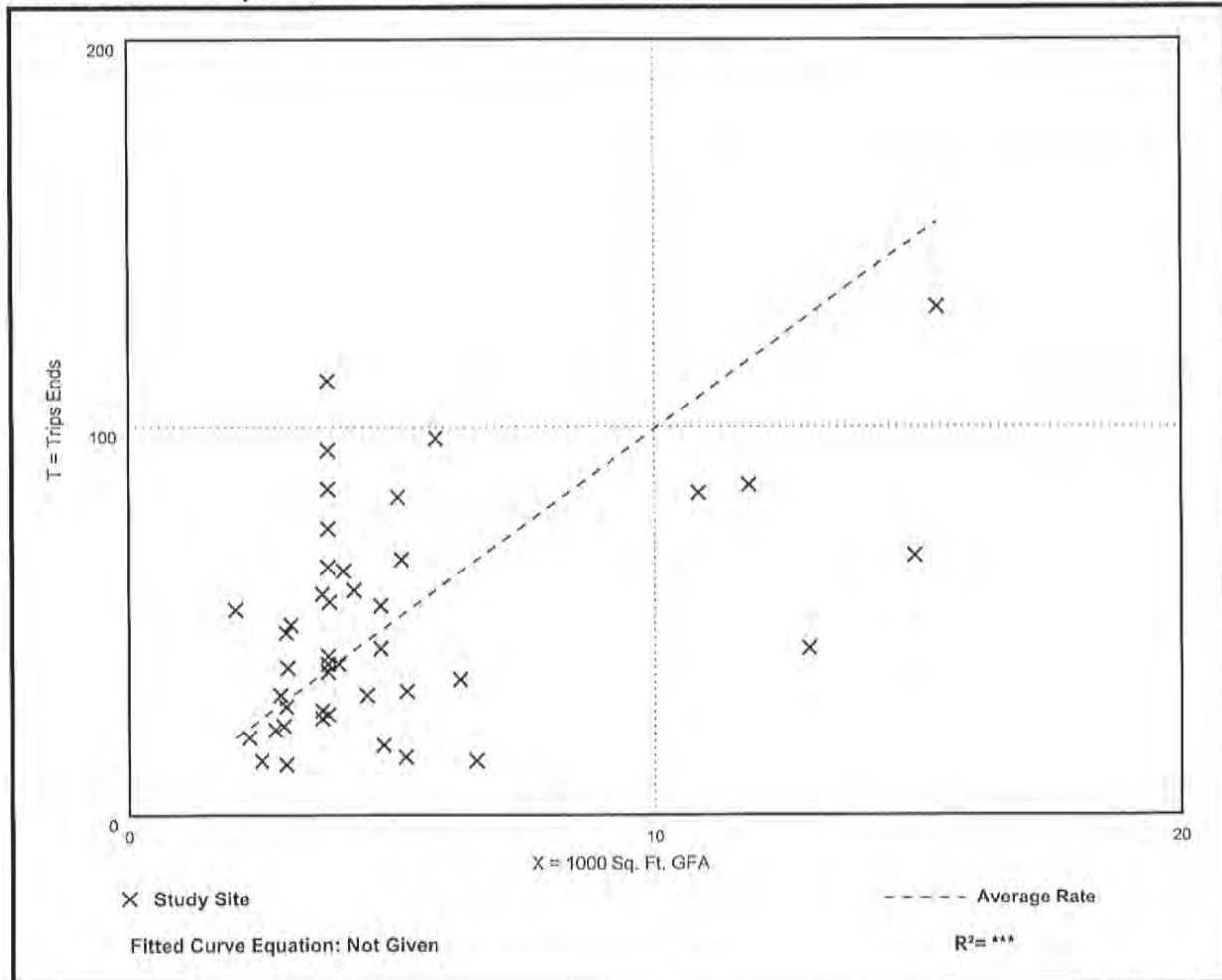
Avg. 1000 Sq. Ft. GFA: 5

Directional Distribution: 58% entering, 42% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.95	2.12 - 29.47	6.00

Data Plot and Equation



Drive-in Bank (912)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 114

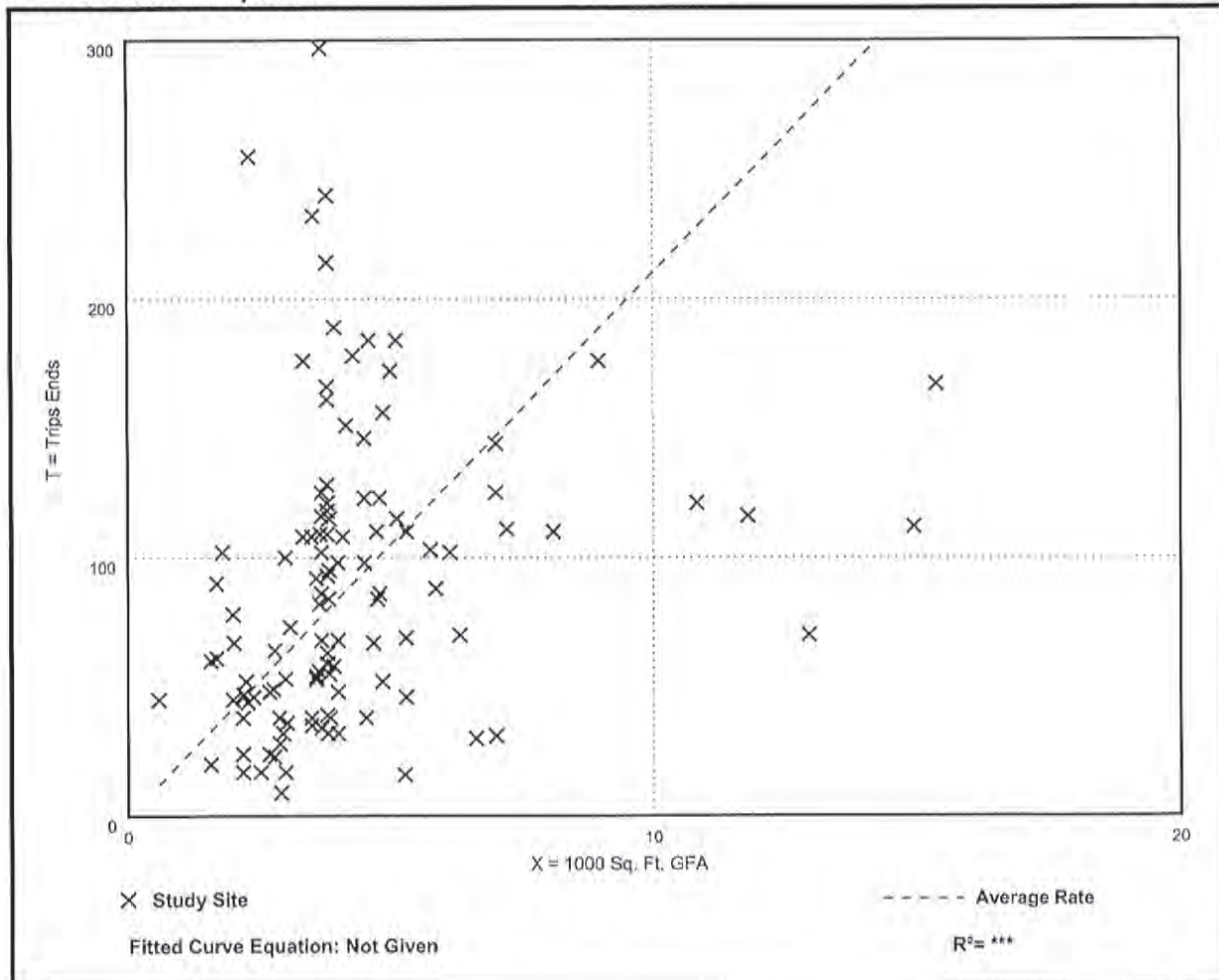
Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
21.01	3.04 - 109.91	15.13

Data Plot and Equation



Drive-in Bank (912)

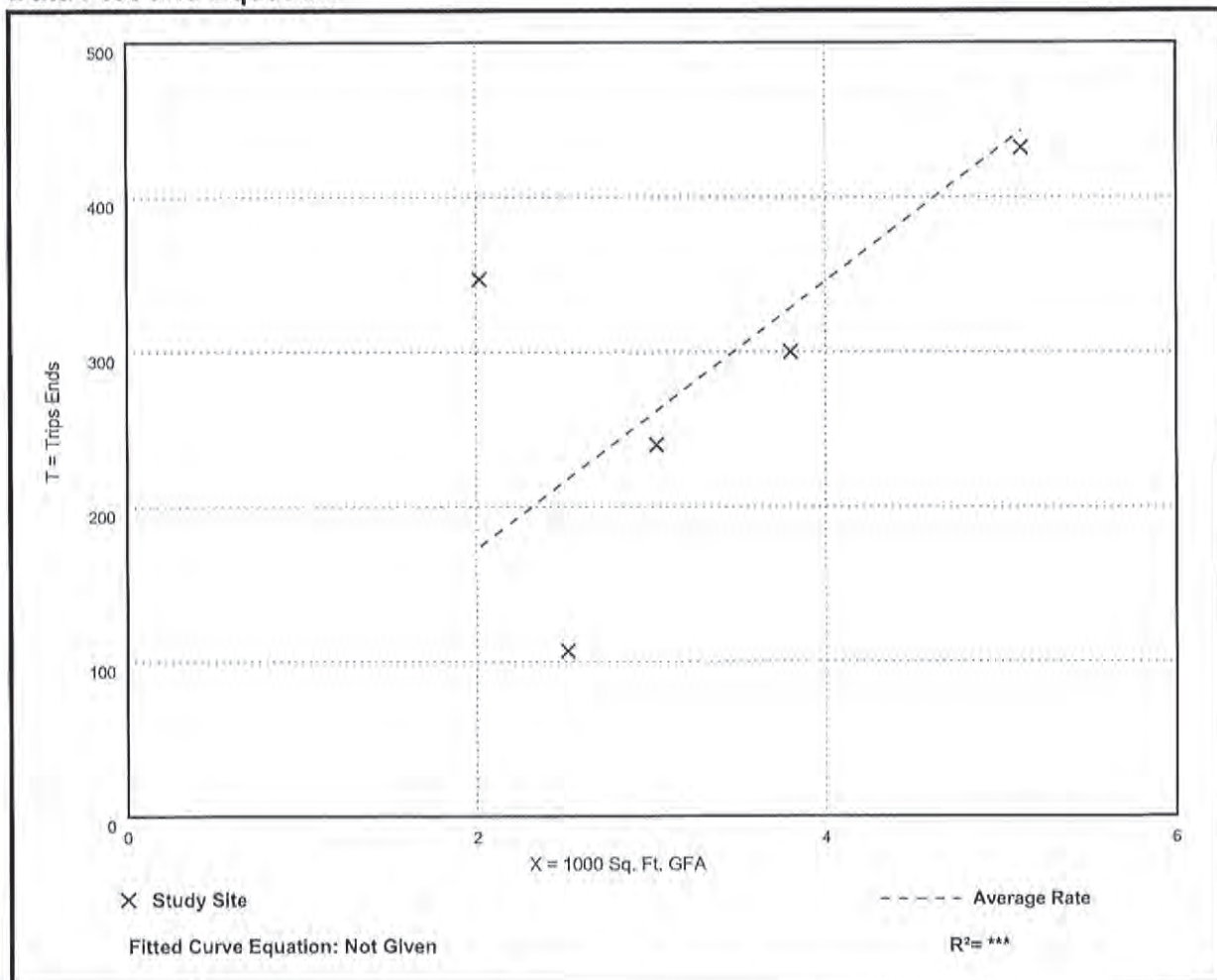
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
86.48	42.46 - 171.78	38.92

Data Plot and Equation



Drive-in Bank (912)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 41

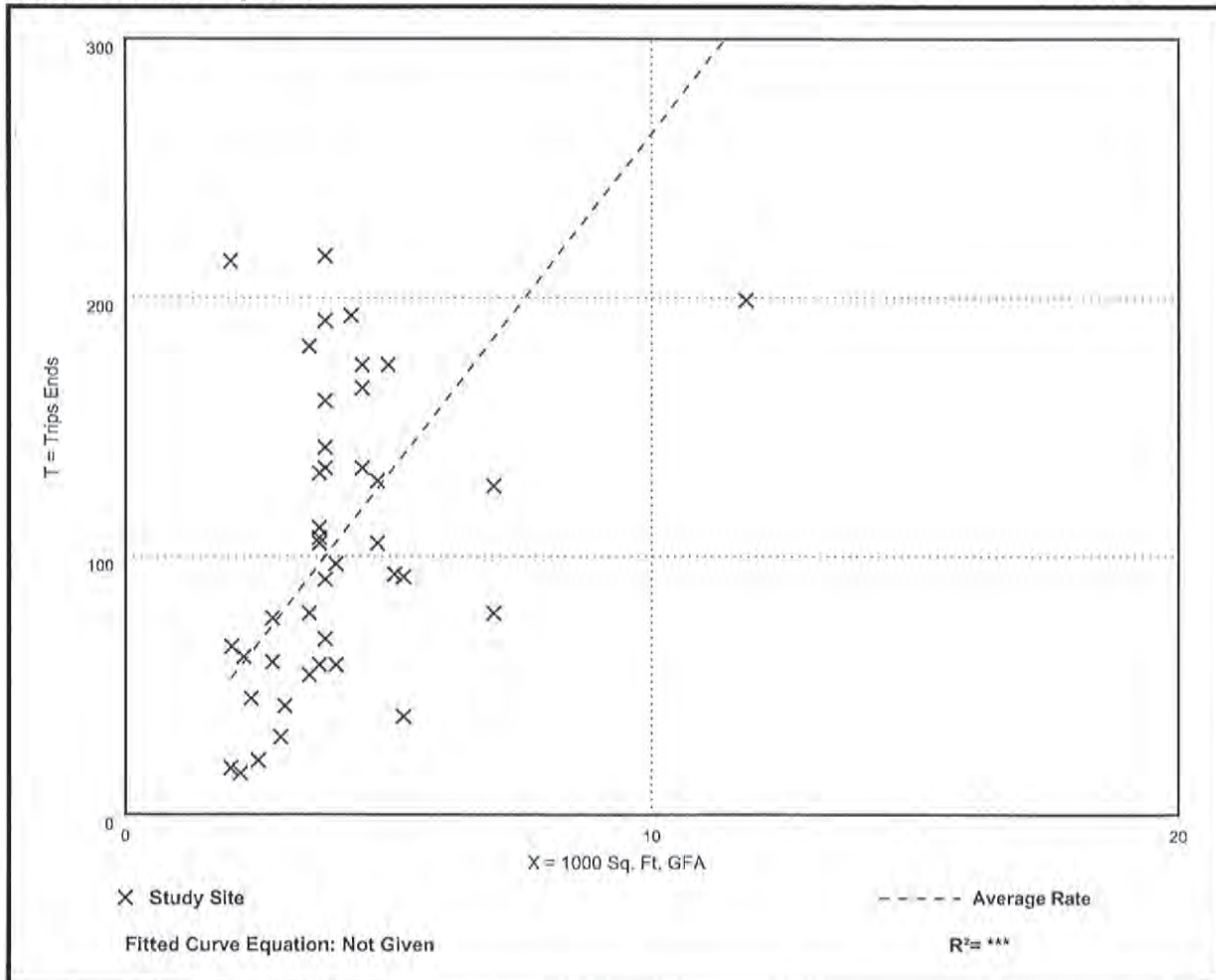
Avg. 1000 Sq. Ft. GFA: 4

Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
26.35	7.18 - 107.00	15.32

Data Plot and Equation



Vehicle Pass-By Rates by Land Use

Source: ITE Trip Generation Manual, 11th Edition

Land Use Code	912
Land Use	Drive-In Bank
Setting	General Urban/Suburban
Time Period	Weekday AM Peak Period
# Data Sites	8
Average Pass-By Rate	29%

Pass-By Characteristics for Individual Sites

GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
3.8	Pennsylvania	2005	11	27	—	—	73	—	19
3.8	Pennsylvania	2005	9	24	—	—	76	—	19
3.8	Pennsylvania	2005	22	34	—	—	66	—	19
3.8	Pennsylvania	2005	30	27	—	—	73	—	19
3.8	Pennsylvania	2005	34	40	—	—	60	—	19
3.8	Pennsylvania	2005	7	27	—	—	73	—	19
3.8	Pennsylvania	2005	15	16	—	—	84	—	19
3.8	Pennsylvania	2005	27	36	—	—	64	—	19

Vehicle Pass-By Rates by Land Use

Source: ITE Trip Generation Manual, 11th Edition

Land Use Code	912
Land Use	Drive-In Bank
Setting	General Urban/Suburban
Time Period	Weekday Midday
# Data Sites	4
Average Pass-By Rate	26%

Pass-By Characteristics for Individual Sites
























GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
2.7	Washington	2007	—	26	58	16	74	—	11
2.8	Washington	2007	—	30	53	17	70	—	11
3.6	Washington	2007	—	34	42	24	66	—	11
3.6	Washington	2007	—	15	—	—	85	—	11

Vehicle Pass-By Rates by Land Use

Source: ITE Trip Generation Manual, 11th Edition

Land Use Code	912							
Land Use	Drive-In Bank							
Setting	General Urban/Suburban							
Time Period	Saturday Midday							
# Data Sites	5							
Average Pass-By Rate	38%							
Pass-By Characteristics for Individual Sites								
GFA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips		Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)		
3.8	Pennsylvania	2005	63	33	—	—	67	19
3.8	Pennsylvania	2005	103	77	—	—	23	19
3.8	Pennsylvania	2005	34	37	—	—	63	19
3.8	Pennsylvania	2005	53	33	—	—	67	19
3.8	Pennsylvania	2005	25	12	—	—	88	19

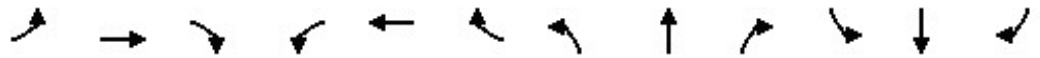
APPENDIX D
TRAFFIC CAPACITY ANALYSES

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	220	47	73	257	166	54	514	74	176	236	28
Future Volume (vph)	62	220	47	73	257	166	54	514	74	176	236	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.974				0.850		0.981			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3487	0	1770	1827	1615	1805	3506	0	1787	3521	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3487	0	1770	1827	1615	1805	3506	0	1787	3521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16				177		11			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Peak Hour Factor	0.78	0.78	0.78	0.94	0.94	0.94	0.77	0.77	0.77	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	2%	4%	0%	0%	1%	1%	1%	1%	0%
Adj. Flow (vph)	79	282	60	78	273	177	70	668	96	193	259	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	342	0	78	273	177	70	764	0	193	290	0
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	14.0	22.0		14.0	24.5		15.0	30.0		18.0	33.0	
Total Split (%)	10.8%	17.0%		10.8%	18.9%		11.6%	23.2%		13.9%	25.5%	
Maximum Green (s)	10.0	17.0		10.0	20.0		11.0	25.0		14.0	28.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.4	2.7		2.4	2.7		2.4	2.7		2.4	2.7	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.7	19.4		8.7	19.9	35.2	19.9	26.1		14.6	23.7	
Actuated g/C Ratio	0.10	0.21		0.10	0.22	0.39	0.22	0.29		0.16	0.26	
v/c Ratio	0.46	0.45		0.46	0.68	0.24	0.18	0.75		0.67	0.31	
Control Delay	53.3	35.0		53.6	45.5	4.0	34.3	37.3		52.3	35.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	33%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	2
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Weekday

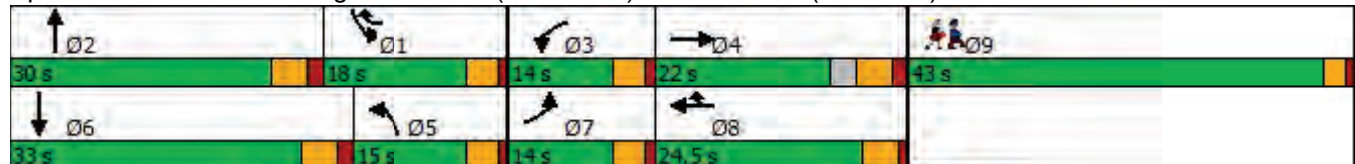


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	53.3	35.0		53.6	45.5	4.0	34.3	37.3		52.3	35.0	
LOS	D	C		D	D	A	C	D		D	C	
Approach Delay		38.4			32.8			37.0			41.9	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	40	78		40	132	0	28	190		98	71	
Queue Length 95th (ft)	103	160		#125	#406	45	85	#391		#323	164	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	207	794		203	420	749	417	1016		288	1293	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.38	0.43		0.38	0.65	0.24	0.17	0.75		0.67	0.22	

Intersection Summary

Area Type: Other
 Cycle Length: 129.5
 Actuated Cycle Length: 90.7
 Natural Cycle: 125
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 37.3
 Intersection LOS: D
 Intersection Capacity Utilization 60.3%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T	R		L
Traffic Volume (vph)	3	5	676	5	10	494
Future Volume (vph)	3	5	676	5	10	494
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.914		0.999			
Flt Protected	0.982					0.999
Satd. Flow (prot)	1705	0	3571	0	0	3571
Flt Permitted	0.982					0.941
Satd. Flow (perm)	1705	0	3571	0	0	3364
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	7		2			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			379
Travel Time (s)	26.5		11.4			10.3
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.69	0.69	0.83	0.83	0.88	0.88
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	4	7	814	6	11	561
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	0	820	0	0	572
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	27.0		22.5		22.5	22.5
Total Split (s)	27.0		34.5		34.5	34.5
Total Split (%)	43.9%		56.1%		56.1%	56.1%
Maximum Green (s)	23.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.2		2.8		2.8	2.8
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	5.3		31.2			31.2
Actuated g/C Ratio	0.16		0.94			0.94
v/c Ratio	0.04		0.24			0.18
Control Delay	12.4		1.0			1.0
Queue Delay	0.0		0.0			0.0
Total Delay	12.4		1.0			1.0



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B		A			A
Approach Delay	12.4		1.0			1.0
Approach LOS	B		A			A
Queue Length 50th (ft)	1		0			0
Queue Length 95th (ft)	8		43			32
Internal Link Dist (ft)	698		339			299
Turn Bay Length (ft)						
Base Capacity (vph)	1232		3319			3126
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.01		0.25			0.18

Intersection Summary

Area Type:	Other
Cycle Length:	61.5
Actuated Cycle Length:	33.2
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.24
Intersection Signal Delay:	1.1
Intersection LOS:	A
Intersection Capacity Utilization:	32.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive

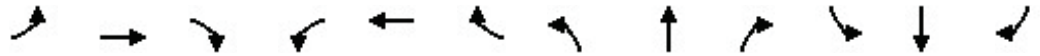


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	368	95	178	343	317	67	426	181	334	644	34
Future Volume (vph)	99	368	95	178	343	317	67	426	181	334	644	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.969				0.850		0.955			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3498	0	1805	1881	1615	1805	3448	0	1805	3581	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3498	0	1805	1881	1615	1805	3448	0	1805	3581	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				360		39			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Peak Hour Factor	0.74	0.74	0.74	0.88	0.88	0.88	0.81	0.81	0.81	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	134	497	128	202	390	360	83	526	223	359	692	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	134	625	0	202	390	360	83	749	0	359	729	0
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	19.0	25.0		19.0	28.5		19.0	25.0		23.0	31.0	
Total Split (%)	13.5%	17.8%		13.5%	20.3%		13.5%	17.8%		16.4%	22.1%	
Maximum Green (s)	15.0	20.0		15.0	24.0		15.0	20.0		19.0	26.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.4	2.7		2.4	2.7		2.4	2.7		2.4	2.7	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.8	21.6		15.4	25.7	45.0	9.7	20.6		19.8	33.2	
Actuated g/C Ratio	0.12	0.21		0.15	0.25	0.44	0.09	0.20		0.19	0.32	
v/c Ratio	0.64	0.83		0.74	0.82	0.39	0.49	1.03		1.03	0.63	
Control Delay	60.2	48.8		60.8	53.6	3.1	56.8	81.0		97.1	35.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.2	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	31%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Weekday

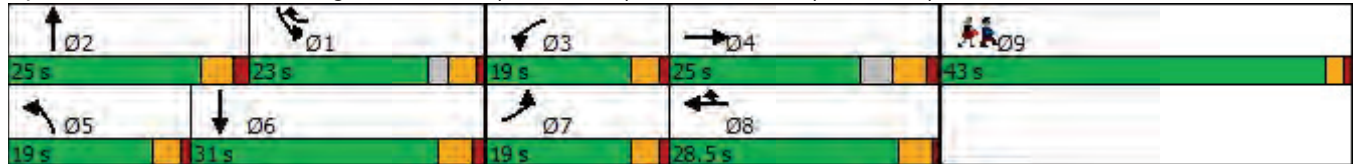


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	60.2	48.8		60.8	53.6	3.1	56.8	81.0		97.1	35.7	
LOS	E	D		E	D	A	E	F		F	D	
Approach Delay		50.8			36.0			78.6			56.0	
Approach LOS		D			D			E			E	
Queue Length 50th (ft)	75	177		113	213	0	47	218		210	187	
Queue Length 95th (ft)	156	#306		#352	#621	47	115	#514		#626	#526	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	272	842		272	473	934	272	725		381	1164	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	80	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.49	0.74		0.74	0.82	0.39	0.31	1.03		0.94	0.67	

Intersection Summary

Area Type:	Other
Cycle Length:	140.5
Actuated Cycle Length:	102.2
Natural Cycle:	145
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.03
Intersection Signal Delay:	54.8
Intersection LOS:	D
Intersection Capacity Utilization:	74.5%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙		↑	↘		↙
Traffic Volume (vph)	20	29	674	13	17	806
Future Volume (vph)	20	29	674	13	17	806
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.921		0.997			
Flt Protected	0.980					0.999
Satd. Flow (prot)	1715	0	3599	0	0	3606
Flt Permitted	0.980					0.938
Satd. Flow (perm)	1715	0	3599	0	0	3386
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	41		6			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			379
Travel Time (s)	26.5		11.4			10.3
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.70	0.70	0.94	0.94	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	29	41	717	14	18	848
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	0	731	0	0	866
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	9.0		12.5		12.5	12.5
Total Split (s)	19.0		34.5		34.5	34.5
Total Split (%)	35.5%		64.5%		64.5%	64.5%
Maximum Green (s)	15.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	9					
Act Effct Green (s)	8.8		32.4			32.4
Actuated g/C Ratio	0.21		0.77			0.77
v/c Ratio	0.18		0.26			0.33
Control Delay	9.9		4.6			5.1
Queue Delay	0.0		0.0			0.0
Total Delay	9.9		4.6			5.1

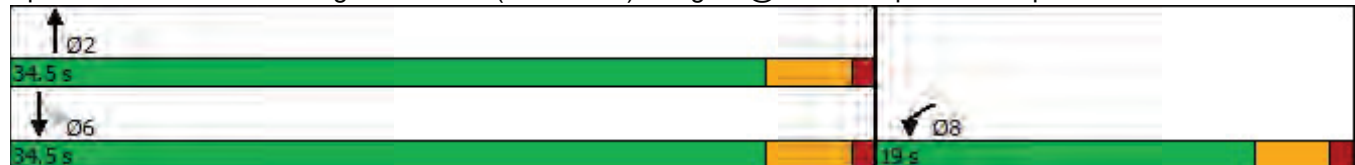


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		A			A
Approach Delay	9.9		4.6			5.1
Approach LOS	A		A			A
Queue Length 50th (ft)	7		28			37
Queue Length 95th (ft)	21		121			153
Internal Link Dist (ft)	698		339			299
Turn Bay Length (ft)						
Base Capacity (vph)	733		2776			2610
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.10		0.26			0.33

Intersection Summary

Area Type:	Other
Cycle Length:	53.5
Actuated Cycle Length:	42.3
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.33
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization:	45.7%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive

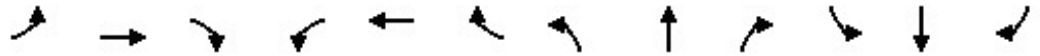


1: Kingstown Road (Route 1A/108)/Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	357	95	231	304	261	118	339	247	303	480	42
Future Volume (vph)	124	357	95	231	304	261	118	339	247	303	480	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor										1.00		
Frt		0.968				0.850		0.937			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3494	0	1805	1900	1615	1805	3383	0	1805	3567	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3494	0	1805	1900	1615	1805	3383	0	1804	3567	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				269		110			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Confl. Peds. (#/hr)										1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.86	0.86	0.86	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	128	368	98	238	313	269	137	394	287	316	500	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	466	0	238	313	269	137	681	0	316	544	0
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	19.0	25.0		19.0	28.5		19.0	25.0		23.0	31.0	
Total Split (%)	13.5%	17.8%		13.5%	20.3%		13.5%	17.8%		16.4%	22.1%	
Maximum Green (s)	15.0	20.0		15.0	24.0		15.0	20.0		19.0	26.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.4	2.7		2.4	2.7		2.4	2.7		2.4	2.7	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.5	19.8		15.5	24.4	43.8	12.1	20.6		19.9	28.5	
Actuated g/C Ratio	0.11	0.20		0.15	0.24	0.44	0.12	0.20		0.20	0.28	
v/c Ratio	0.62	0.66		0.86	0.68	0.31	0.63	0.87		0.89	0.54	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	31%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

1: Kingstown Road (Route 1A/108)/Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

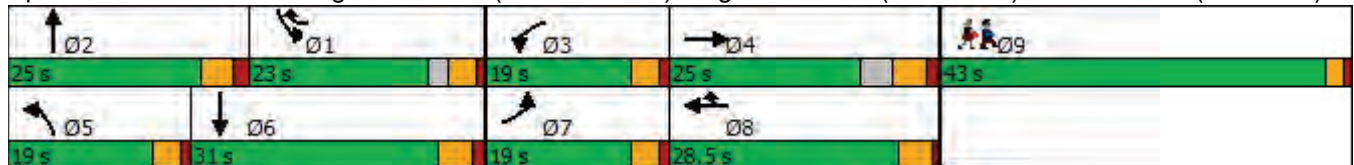


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	59.3	42.4		71.3	45.7	3.1	58.7	46.6		67.6	36.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	59.3	42.4		71.3	45.7	3.1	58.7	46.6		67.6	36.0	
LOS	E	D		E	D	A	E	D		E	D	
Approach Delay		46.0			39.1			48.6			47.6	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	71	123		135	161	0	76	169		178	137	
Queue Length 95th (ft)	#197	272		#441	#477	47	#199	#437		#537	320	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	277	858		277	467	883	277	781		389	1021	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	10	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.46	0.54		0.86	0.67	0.30	0.49	0.87		0.81	0.54	

Intersection Summary










Area Type:	Other
Cycle Length:	140.5
Actuated Cycle Length:	100.6
Natural Cycle:	145
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	45.3
Intersection LOS:	D
Intersection Capacity Utilization:	74.8%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Kingstown Road (Route 1A/108)/Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	34	600	11	33	898
Future Volume (vph)	31	34	600	11	33	898
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.929		0.997			
Flt Protected	0.977					0.998
Satd. Flow (prot)	1725	0	3599	0	0	3603
Flt Permitted	0.977					0.923
Satd. Flow (perm)	1725	0	3599	0	0	3332
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	39		5			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			379
Travel Time (s)	26.5		11.4			10.3
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.88	0.88	0.92	0.92	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	35	39	652	12	35	955
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	0	664	0	0	990
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	9.0		12.5		12.5	12.5
Total Split (s)	19.0		34.5		34.5	34.5
Total Split (%)	35.5%		64.5%		64.5%	64.5%
Maximum Green (s)	15.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.2		2.8		2.8	2.8
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	6.2		31.8			31.8
Actuated g/C Ratio	0.16		0.80			0.80
v/c Ratio	0.25		0.23			0.37
Control Delay	12.8		2.6			3.2
Queue Delay	0.0		0.0			0.0
Total Delay	12.8		2.6			3.2

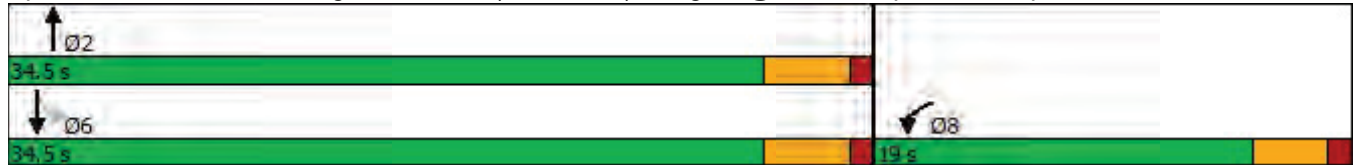

























Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B		A			A
Approach Delay	12.8		2.6			3.2
Approach LOS	B		A			A
Queue Length 50th (ft)	9		24			42
Queue Length 95th (ft)	33		48			83
Internal Link Dist (ft)	698		339			299
Turn Bay Length (ft)						
Base Capacity (vph)	707		2875			2661
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.10		0.23			0.37

Intersection Summary

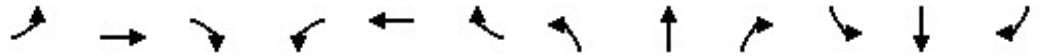
Area Type:	Other
Cycle Length:	53.5
Actuated Cycle Length:	39.7
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.37
Intersection Signal Delay:	3.4
Intersection LOS:	A
Intersection Capacity Utilization:	57.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	226	49	75	264	171	56	527	76	181	242	29
Future Volume (vph)	64	226	49	75	264	171	56	527	76	181	242	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.973				0.850		0.981			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3484	0	1770	1827	1615	1805	3506	0	1787	3521	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3484	0	1770	1827	1615	1805	3506	0	1787	3521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				182		11			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Peak Hour Factor	0.78	0.78	0.78	0.94	0.94	0.94	0.77	0.77	0.77	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	2%	4%	0%	0%	1%	1%	1%	1%	0%
Adj. Flow (vph)	82	290	63	80	281	182	73	684	99	199	266	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	82	353	0	80	281	182	73	783	0	199	298	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	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		75			84			90			82	
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	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	14.0	22.0		14.0	24.5		15.0	30.0		18.0	33.0	
Total Split (%)	10.8%	17.0%		10.8%	18.9%		11.6%	23.2%		13.9%	25.5%	
Maximum Green (s)	10.0	17.0		10.0	20.0		11.0	25.0		14.0	28.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lead		Lag	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.4	2.7		2.4	2.7		2.4	2.7		2.4	2.7	
Recall Mode	None	None		None	None		None	Min		None	Min	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	33%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None

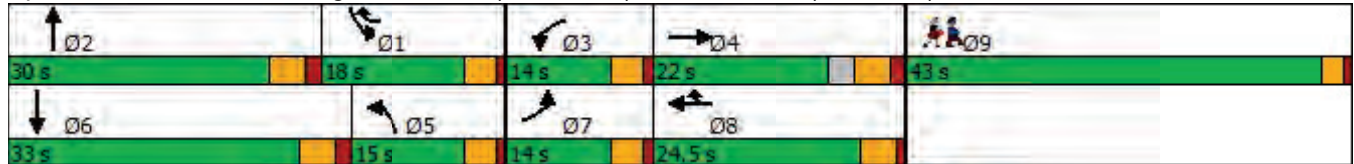


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.8	20.2		8.8	20.8	35.9	19.9	26.0		14.5	23.3	
Actuated g/C Ratio	0.10	0.22		0.10	0.23	0.39	0.22	0.28		0.16	0.25	
v/c Ratio	0.47	0.45		0.47	0.68	0.24	0.19	0.78		0.70	0.33	
Control Delay	53.8	34.8		53.9	45.1	4.0	34.6	38.6		54.2	35.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	53.8	34.8		53.9	45.1	4.0	34.6	38.6		54.2	35.1	
LOS	D	C		D	D	A	C	D		D	D	
Approach Delay		38.4			32.6			38.3			42.8	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	42	81		41	136	0	29	196		102	73	
Queue Length 95th (ft)	107	165		#128	#422	46	88	#407		#336	167	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	204	784		200	414	744	412	1002		283	1270	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.40	0.45		0.40	0.68	0.24	0.18	0.78		0.70	0.23	

Intersection Summary

Area Type: Other
 Cycle Length: 129.5
 Actuated Cycle Length: 91.5
 Natural Cycle: 135
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 37.9 Intersection LOS: D
 Intersection Capacity Utilization 61.3% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	2
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	6	691	6	11	507
Future Volume (vph)	4	6	691	6	11	507
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.919		0.999			
Flt Protected	0.980					0.999
Satd. Flow (prot)	1711	0	3571	0	0	3571
Flt Permitted	0.980					0.938
Satd. Flow (perm)	1711	0	3571	0	0	3353
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	9		2			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			379
Travel Time (s)	26.5		11.4			10.3
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.69	0.69	0.83	0.83	0.88	0.88
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	6	9	833	7	13	576
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	840	0	0	589
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	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	27.0		22.5		22.5	22.5
Total Split (s)	27.0		34.5		34.5	34.5
Total Split (%)	43.9%		56.1%		56.1%	56.1%
Maximum Green (s)	23.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.2		2.8		2.8	2.8
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					


























Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	5.4		31.3			31.3
Actuated g/C Ratio	0.16		0.94			0.94
v/c Ratio	0.05		0.25			0.19
Control Delay	12.3		1.1			1.0
Queue Delay	0.0		0.0			0.0
Total Delay	12.3		1.1			1.0
LOS	B		A			A
Approach Delay	12.3		1.1			1.0
Approach LOS	B		A			A
Queue Length 50th (ft)	1		0			0
Queue Length 95th (ft)	10		45			34
Internal Link Dist (ft)	698		339			299
Turn Bay Length (ft)						
Base Capacity (vph)	1233		3313			3110
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.01		0.25			0.19

Intersection Summary

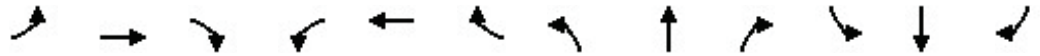
Area Type:	Other
Cycle Length:	61.5
Actuated Cycle Length:	33.3
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.25
Intersection Signal Delay:	1.2
Intersection LOS:	A
Intersection Capacity Utilization:	33.1%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	385	99	186	359	332	70	446	189	340	674	36
Future Volume (vph)	104	385	99	186	359	332	70	446	189	340	674	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.969				0.850		0.955			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3498	0	1805	1881	1615	1805	3448	0	1805	3581	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3498	0	1805	1881	1615	1805	3448	0	1805	3581	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				377		39			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Peak Hour Factor	0.74	0.74	0.74	0.88	0.88	0.88	0.81	0.81	0.81	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	141	520	134	211	408	377	86	551	233	366	725	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	654	0	211	408	377	86	784	0	366	764	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	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		75			84			90			82	
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	15		9	15		9	15		9
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	19.0	25.0		19.0	28.5		19.0	25.0		23.0	31.0	
Total Split (%)	13.5%	17.8%		13.5%	20.3%		13.5%	17.8%		16.4%	22.1%	
Maximum Green (s)	15.0	20.0		15.0	24.0		15.0	20.0		19.0	26.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.4	2.7		2.4	2.7		2.4	2.7		2.4	2.7	
Recall Mode	None	None		None	None		None	Min		None	Min	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	31%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None

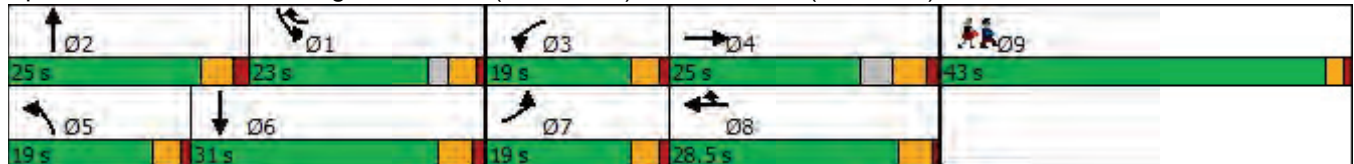


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	12.3	21.8		15.4	25.5	44.8	9.8	20.6		19.8	33.0	
Actuated g/C Ratio	0.12	0.21		0.15	0.25	0.44	0.10	0.20		0.19	0.32	
v/c Ratio	0.66	0.86		0.78	0.87	0.41	0.50	1.08		1.05	0.66	
Control Delay	60.2	51.0		63.8	58.6	3.2	57.3	96.1		103.0	36.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay	60.2	51.0		63.8	58.6	3.2	57.3	96.1		103.0	36.6	
LOS	E	D		E	E	A	E	F		F	D	
Approach Delay		52.6			38.7			92.3			58.1	
Approach LOS		D			D			F			E	
Queue Length 50th (ft)	79	187		119	228	0	49	~239		216	202	
Queue Length 95th (ft)	164	#332		#371	#657	48	118	#547		#641	#563	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	271	840		271	468	940	271	723		380	1157	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	74	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.52	0.78		0.78	0.87	0.40	0.32	1.08		0.96	0.71	

Intersection Summary

Area Type:	Other
Cycle Length:	140.5
Actuated Cycle Length:	102.4
Natural Cycle:	145
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	59.7
Intersection LOS:	E
Intersection Capacity Utilization:	76.5%
ICU Level of Service:	D
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	21	30	691	14	18	826
Future Volume (vph)	21	30	691	14	18	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.920		0.997			
Flt Protected	0.980					0.999
Satd. Flow (prot)	1713	0	3599	0	0	3606
Flt Permitted	0.980					0.937
Satd. Flow (perm)	1713	0	3599	0	0	3383
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	43		6			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			379
Travel Time (s)	26.5		11.4			10.3
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.70	0.70	0.94	0.94	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	30	43	735	15	19	869
Shared Lane Traffic (%)						
Lane Group Flow (vph)	73	0	750	0	0	888
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	
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	9.0		12.5		12.5	12.5
Total Split (s)	19.0		34.5		34.5	34.5
Total Split (%)	35.5%		64.5%		64.5%	64.5%
Maximum Green (s)	15.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					

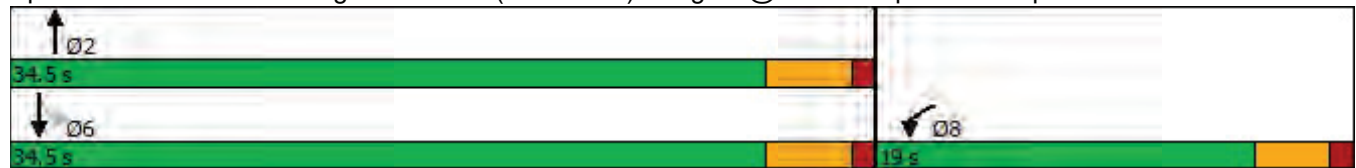


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	9					
Act Effct Green (s)	8.8		32.5			32.5
Actuated g/C Ratio	0.21		0.77			0.77
v/c Ratio	0.19		0.27			0.34
Control Delay	9.8		4.7			5.2
Queue Delay	0.0		0.0			0.0
Total Delay	9.8		4.7			5.2
LOS	A		A			A
Approach Delay	9.8		4.7			5.2
Approach LOS	A		A			A
Queue Length 50th (ft)	7		30			38
Queue Length 95th (ft)	21		124			157
Internal Link Dist (ft)	698		339			299
Turn Bay Length (ft)						
Base Capacity (vph)	731		2765			2598
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.10		0.27			0.34

Intersection Summary

Area Type:	Other
Cycle Length:	53.5
Actuated Cycle Length:	42.4
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	46.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive

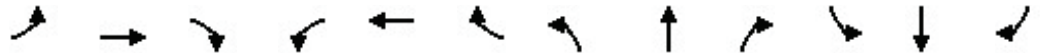


1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	366	98	237	312	268	121	348	254	311	492	44
Future Volume (vph)	128	366	98	237	312	268	121	348	254	311	492	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor										1.00		
Frt		0.968				0.850		0.937			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3494	0	1805	1900	1615	1805	3383	0	1805	3567	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3494	0	1805	1900	1615	1805	3383	0	1804	3567	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				276		109			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Confl. Peds. (#/hr)										1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.86	0.86	0.86	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	132	377	101	244	322	276	141	405	295	324	513	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	478	0	244	322	276	141	700	0	324	559	0
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	19.0	25.0		19.0	28.5		19.0	25.0		23.0	31.0	
Total Split (%)	13.5%	17.8%		13.5%	20.3%		13.5%	17.8%		16.4%	22.1%	
Maximum Green (s)	15.0	20.0		15.0	24.0		15.0	20.0		19.0	26.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.4	2.7		2.4	2.7		2.4	2.7		2.4	2.7	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.8	20.2		15.5	24.4	43.8	12.3	20.6		19.9	28.2	
Actuated g/C Ratio	0.12	0.20		0.15	0.24	0.43	0.12	0.20		0.20	0.28	
v/c Ratio	0.63	0.67		0.88	0.70	0.32	0.64	0.90		0.91	0.56	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	31%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

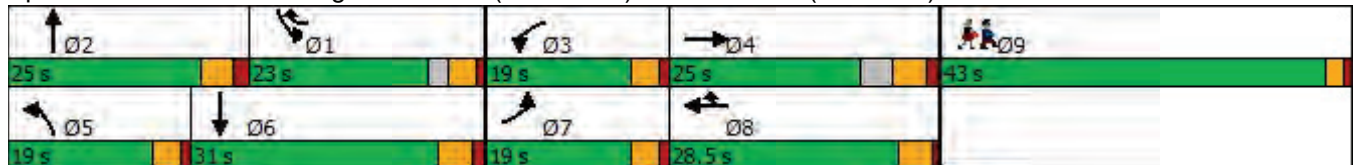


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	59.3	42.5		75.2	46.6	3.1	58.7	49.8		71.9	36.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	59.3	42.5		75.2	46.6	3.1	58.7	49.8		71.9	36.6	
LOS	E	D		E	D	A	E	D		E	D	
Approach Delay		46.1			40.6			51.3			49.6	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	74	127		140	168	0	78	177		185	143	
Queue Length 95th (ft)	#206	279		#456	#496	48	#208	#457		#554	#344	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	276	855		276	466	884	276	778		387	1010	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	4	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.48	0.56		0.88	0.69	0.31	0.51	0.90		0.84	0.56	

Intersection Summary

Area Type:	Other
Cycle Length:	140.5
Actuated Cycle Length:	100.9
Natural Cycle:	145
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	47.0
Intersection LOS:	D
Intersection Capacity Utilization:	76.4%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	32	35	615	12	34	920
Future Volume (vph)	32	35	615	12	34	920
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.929		0.997			
Flt Protected	0.977					0.998
Satd. Flow (prot)	1725	0	3599	0	0	3603
Flt Permitted	0.977					0.921
Satd. Flow (perm)	1725	0	3599	0	0	3325
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	40		6			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			379
Travel Time (s)	26.5		11.4			10.3
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.88	0.88	0.92	0.92	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	36	40	668	13	36	979
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	681	0	0	1015
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	9.0		12.5		12.5	12.5
Total Split (s)	19.0		34.5		34.5	34.5
Total Split (%)	35.5%		64.5%		64.5%	64.5%
Maximum Green (s)	15.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.2		2.8		2.8	2.8
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	6.2		32.1			32.1
Actuated g/C Ratio	0.16		0.80			0.80
v/c Ratio	0.25		0.24			0.38
Control Delay	12.8		2.7			3.3
Queue Delay	0.0		0.0			0.0
Total Delay	12.8		2.7			3.3

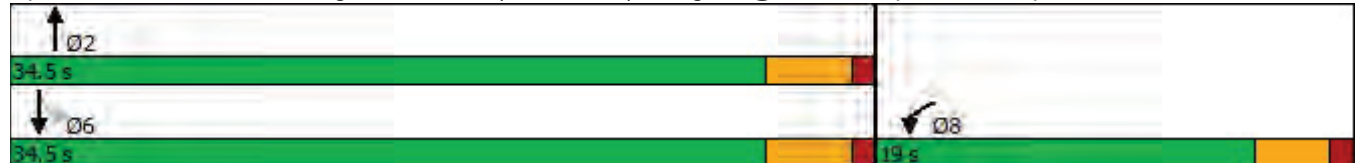


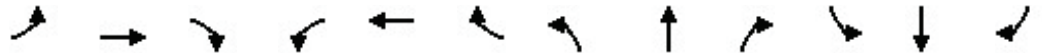
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B		A			A
Approach Delay	12.8		2.7			3.3
Approach LOS	B		A			A
Queue Length 50th (ft)	9		25			44
Queue Length 95th (ft)	34		50			86
Internal Link Dist (ft)	698		339			299
Turn Bay Length (ft)						
Base Capacity (vph)	701		2849			2631
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.11		0.24			0.39

Intersection Summary

Area Type:	Other
Cycle Length:	53.5
Actuated Cycle Length:	40
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.38
Intersection Signal Delay:	3.5
Intersection LOS:	A
Intersection Capacity Utilization:	58.8%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108) & Signal @ Dental/Liquor/Bank/Apt Drive



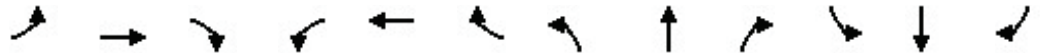


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	226	49	75	264	172	56	528	76	182	244	29
Future Volume (vph)	65	226	49	75	264	172	56	528	76	182	244	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor										1.00		
Frt		0.973				0.850		0.981			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3484	0	1770	1827	1615	1805	3506	0	1787	3521	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3484	0	1770	1827	1615	1805	3506	0	1785	3521	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				183		11			9	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Confl. Peds. (#/hr)										1		
Peak Hour Factor	0.78	0.78	0.78	0.94	0.94	0.94	0.77	0.77	0.77	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	2%	4%	0%	0%	1%	1%	1%	1%	0%
Adj. Flow (vph)	83	290	63	80	281	183	73	686	99	200	268	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	353	0	80	281	183	73	785	0	200	300	0
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	14.0	22.0		14.0	24.5		15.0	30.0		18.0	33.0	
Total Split (%)	10.8%	17.0%		10.8%	18.9%		11.6%	23.2%		13.9%	25.5%	
Maximum Green (s)	10.0	17.0		10.0	20.0		11.0	25.0		14.0	28.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.4	2.7		2.4	2.7		2.4	2.7		2.4	2.7	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.8	20.3		8.8	20.8	35.9	8.6	26.0		14.5	34.7	
Actuated g/C Ratio	0.10	0.22		0.10	0.23	0.39	0.09	0.28		0.16	0.38	
v/c Ratio	0.48	0.45		0.47	0.68	0.25	0.43	0.78		0.71	0.22	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	33%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	2
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Weekday

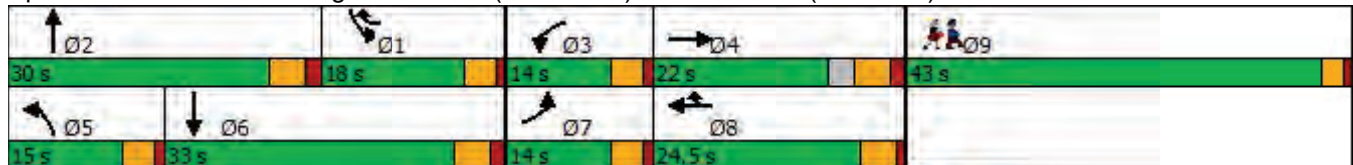


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	53.8	34.8		54.0	45.2	4.0	52.4	38.8		54.5	25.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	53.8	34.8		54.0	45.2	4.0	52.4	38.8		54.5	25.0	
LOS	D	C		D	D	A	D	D		D	C	
Approach Delay		38.4			32.6			39.9			36.8	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	43	81		41	137	0	38	197		102	56	
Queue Length 95th (ft)	107	165		#128	#422	46	94	#409		#339	155	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	204	786		200	414	744	225	1001		283	1338	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.41	0.45		0.40	0.68	0.25	0.32	0.78		0.71	0.22	

Intersection Summary

Area Type:	Other
Cycle Length:	129.5
Actuated Cycle Length:	91.6
Natural Cycle:	135
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	37.3
Intersection LOS:	D
Intersection Capacity Utilization:	61.4%
ICU Level of Service:	B
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	6	696	6	11	510
Future Volume (vph)	4	6	696	6	11	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.919		0.999			
Flt Protected	0.980					0.999
Satd. Flow (prot)	1711	0	3571	0	0	3571
Flt Permitted	0.980					0.938
Satd. Flow (perm)	1711	0	3571	0	0	3353
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	9		2			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			173
Travel Time (s)	26.5		11.4			4.7
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.69	0.69	0.83	0.83	0.88	0.88
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	6	9	839	7	13	580
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	846	0	0	593
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	9.0		12.5		12.5	12.5
Total Split (s)	19.0		34.5		34.5	34.5
Total Split (%)	35.5%		64.5%		64.5%	64.5%
Maximum Green (s)	15.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.2		2.8		2.8	2.8
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	5.4		31.8			31.8
Actuated g/C Ratio	0.16		0.94			0.94
v/c Ratio	0.05		0.25			0.19
Control Delay	12.6		1.1			1.0
Queue Delay	0.0		0.0			0.0
Total Delay	12.6		1.1			1.0

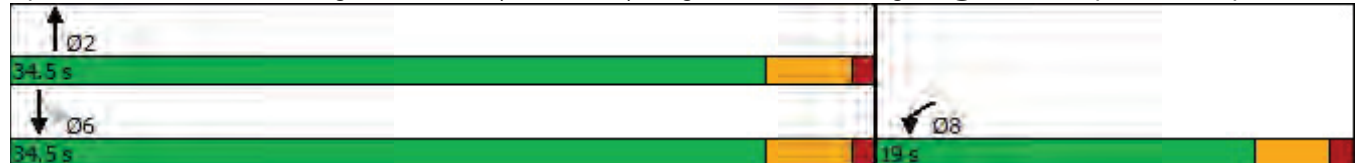


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B		A			A
Approach Delay	12.6		1.1			1.0
Approach LOS	B		A			A
Queue Length 50th (ft)	1		0			0
Queue Length 95th (ft)	10		46			34
Internal Link Dist (ft)	698		339			93
Turn Bay Length (ft)						
Base Capacity (vph)	799		3298			3096
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.02		0.26			0.19

Intersection Summary

Area Type:	Other
Cycle Length:	53.5
Actuated Cycle Length:	33.8
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.25
Intersection Signal Delay:	1.1
Intersection LOS:	A
Intersection Capacity Utilization:	33.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108)/Kingstown Road & Signal @ Dental/Liquor/Bank/Apt Drive



Intersection

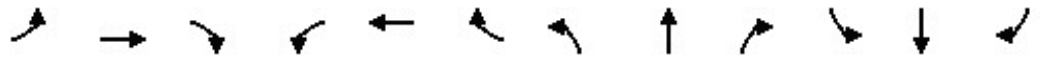
Int Delay, s/veh 0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↖
Traffic Vol, veh/h	5	7	690	6	7	518
Future Vol, veh/h	5	7	690	6	7	518
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- None	- None	- None	- 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	5	8	750	7	8	563

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1052	379	0
Stage 1	754	-	-
Stage 2	298	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuve	222	619	-
Stage 1	425	-	-
Stage 2	727	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuve	219	619	-
Mov Cap-2 Maneuve	219	-	-
Stage 1	425	-	-
Stage 2	717	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	619	850	-
HCM Lane V/C Ratio	-	-	0.012	0.009	-
HCM Control Delay (s)	-	-	10.9	9.3	0.1
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

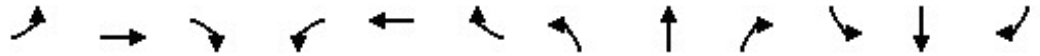


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	378	98	183	352	328	69	442	186	346	686	36
Future Volume (vph)	103	378	98	183	352	328	69	442	186	346	686	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor										1.00		
Frt		0.969				0.850		0.956			0.992	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3498	0	1805	1881	1615	1805	3451	0	1805	3581	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3498	0	1805	1881	1615	1805	3451	0	1804	3581	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				373		39			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Confl. Peds. (#/hr)										1		
Peak Hour Factor	0.74	0.74	0.74	0.88	0.88	0.88	0.81	0.81	0.81	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	139	511	132	208	400	373	85	546	230	372	738	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	643	0	208	400	373	85	776	0	372	777	0
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	19.0	25.0		19.0	28.5		19.0	25.0		23.0	31.0	
Total Split (%)	13.5%	17.8%		13.5%	20.3%		13.5%	17.8%		16.4%	22.1%	
Maximum Green (s)	15.0	20.0		15.0	24.0		15.0	20.0		19.0	26.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	12.7	22.1		15.4	25.3	44.6	10.1	20.5		19.8	32.7	
Actuated g/C Ratio	0.12	0.22		0.15	0.25	0.43	0.10	0.20		0.19	0.32	
v/c Ratio	0.63	0.84		0.77	0.86	0.41	0.48	1.07		1.07	0.68	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	31%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Weekday

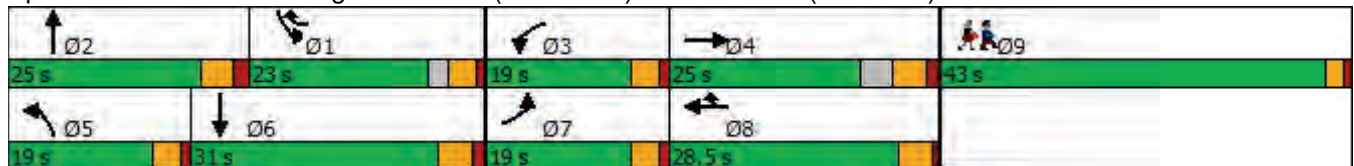


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	58.2	49.3		63.1	58.0	3.2	56.0	93.3		108.5	37.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay	58.2	49.3		63.1	58.0	3.2	56.0	93.3		108.5	37.4	
LOS	E	D		E	E	A	E	F		F	D	
Approach Delay		50.9			38.3			89.6			60.4	
Approach LOS		D			D			F			E	
Queue Length 50th (ft)	78	183		118	224	0	48	~236		~226	210	
Queue Length 95th (ft)	161	#322		#365	#642	48	117	#539		#655	#576	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	271	838		271	463	934	271	722		379	1143	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	64	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.51	0.77		0.77	0.86	0.40	0.31	1.07		0.98	0.72	

Intersection Summary

Area Type:	Other
Cycle Length:	140.5
Actuated Cycle Length:	102.6
Natural Cycle:	145
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.07
Intersection Signal Delay:	59.3
Intersection LOS:	E
Intersection Capacity Utilization:	76.3%
ICU Level of Service:	D
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	21	30	700	14	18	835
Future Volume (vph)	21	30	700	14	18	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.920		0.997			
Flt Protected	0.980					0.999
Satd. Flow (prot)	1713	0	3599	0	0	3606
Flt Permitted	0.980					0.937
Satd. Flow (perm)	1713	0	3599	0	0	3383
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	43		6			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			173
Travel Time (s)	26.5		11.4			4.7
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.70	0.70	0.94	0.94	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	30	43	745	15	19	879
Shared Lane Traffic (%)						
Lane Group Flow (vph)	73	0	760	0	0	898
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	5.0		8.0		8.0	8.0
Minimum Split (s)	9.0		12.5		12.5	12.5
Total Split (s)	19.0		34.5		34.5	34.5
Total Split (%)	35.5%		64.5%		64.5%	64.5%
Maximum Green (s)	15.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.2		2.8		2.8	2.8
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	8					
Act Effct Green (s)	8.2		32.0			32.0
Actuated g/C Ratio	0.20		0.77			0.77
v/c Ratio	0.20		0.27			0.35
Control Delay	9.9		4.6			5.1
Queue Delay	0.0		0.0			0.0
Total Delay	9.9		4.6			5.1

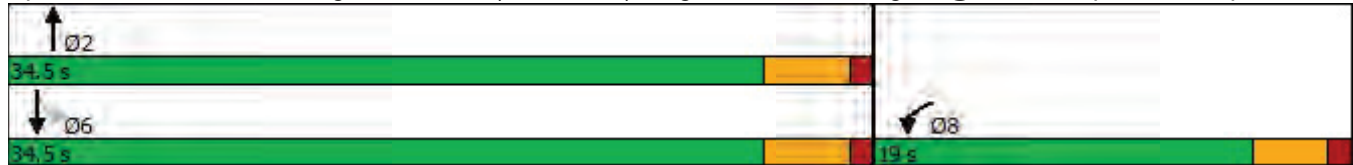


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	A		A		A	
Approach Delay	9.9		4.6		5.1	
Approach LOS	A		A		A	
Queue Length 50th (ft)	7		27		35	
Queue Length 95th (ft)	21		126		160	
Internal Link Dist (ft)	698		339		93	
Turn Bay Length (ft)						
Base Capacity (vph)	742		2802		2633	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.10		0.27		0.34	

Intersection Summary

Area Type:	Other
Cycle Length:	53.5
Actuated Cycle Length:	41.7
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization:	47.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108)/Kingstown Road & Signal @ Dental/Liquor/Bank/Apt Drive



Intersection

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↖
Traffic Vol, veh/h	13	16	687	16	15	838
Future Vol, veh/h	13	16	687	16	15	838
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- None	- None	- None	- 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	14	17	747	17	16	911

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1244	382	0	0	764	0
Stage 1	756	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	166	616	-	-	845	-
Stage 1	424	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	160	616	-	-	845	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	424	-	-	-	-	-
Stage 2	561	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	616	845	-
HCM Lane V/C Ratio	-	-	0.028	0.019	-
HCM Control Delay (s)	-	-	11	9.3	0.2
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	366	98	237	312	271	121	353	254	315	500	45
Future Volume (vph)	129	366	98	237	312	271	121	353	254	315	500	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	110		280	180		0	170		0	240		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor										1.00		
Frt		0.968				0.850		0.937			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3494	0	1805	1900	1615	1805	3383	0	1805	3567	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	3494	0	1805	1900	1615	1805	3383	0	1804	3567	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				279		107			6	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		4185			325			337			419	
Travel Time (s)		114.1			8.9			9.2			11.4	
Confl. Peds. (#/hr)										1		
Peak Hour Factor	0.95	0.95	0.95	0.97	0.97	0.97	0.86	0.86	0.86	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	136	385	103	244	322	279	141	410	295	325	515	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	488	0	244	322	279	141	705	0	325	561	0
Turn Type	Prot	NA		Prot	NA	pt+ov	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8	8 1	5	2		1	6	
Permitted Phases												
Detector Phase	7	4		3	8	8 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	15.0		7.0	15.0		7.0	15.0		7.0	15.0	
Minimum Split (s)	11.0	20.0		11.0	19.5		11.0	20.0		11.0	20.0	
Total Split (s)	19.0	25.0		19.0	28.5		19.0	25.0		23.0	31.0	
Total Split (%)	13.5%	17.8%		13.5%	20.3%		13.5%	17.8%		16.4%	22.1%	
Maximum Green (s)	15.0	20.0		15.0	24.0		15.0	20.0		19.0	26.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	1.0	1.5		1.0	1.0		1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.0		4.0	4.5		4.0	5.0		4.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	12.5	21.0		15.5	24.4	43.8	12.9	20.6		19.9	27.6	
Actuated g/C Ratio	0.12	0.21		0.15	0.24	0.43	0.13	0.20		0.20	0.27	
v/c Ratio	0.61	0.66		0.89	0.71	0.33	0.62	0.92		0.92	0.58	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Fr _t	
Fl _t Protected	
Satd. Flow (prot)	
Fl _t Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	43.0
Total Split (s)	43.0
Total Split (%)	31%
Maximum Green (s)	40.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

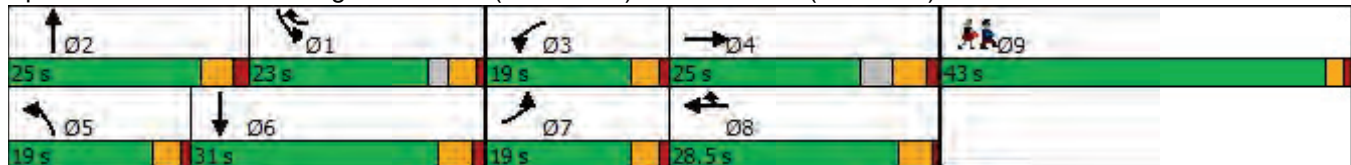
1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	57.5	42.0		76.9	47.2	3.1	57.2	52.2		74.3	37.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	57.5	42.0		76.9	47.2	3.1	57.2	52.2		74.3	37.6	
LOS	E	D		E	D	A	E	D		E	D	
Approach Delay		45.4			41.2			53.0			51.1	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	76	130		142	171	0	79	182		188	147	
Queue Length 95th (ft)	#216	#287		#456	#496	48	#208	#464		#556	#346	
Internal Link Dist (ft)		4105			245			257			339	
Turn Bay Length (ft)	110			180			170			240		
Base Capacity (vph)	274	847		274	461	881	274	770		383	988	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.50	0.58		0.89	0.70	0.32	0.51	0.92		0.85	0.57	

Intersection Summary

Area Type:	Other
Cycle Length:	140.5
Actuated Cycle Length:	101.7
Natural Cycle:	145
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	47.9
Intersection LOS:	D
Intersection Capacity Utilization:	76.7%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Kingstown Road (Route 108) & Main Street (Route 1A)/Old Tower Hill Road



Lane Group	Ø9
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

5: Kingstown Road (Route 108)/Kingstown Road & Signal @ Dental/Liquor/Bank/Apt Drive



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	32	37	653	12	35	973
Future Volume (vph)	32	37	653	12	35	973
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Ped Bike Factor						1.00
Frt	0.927		0.997			
Flt Protected	0.977					0.998
Satd. Flow (prot)	1721	0	3599	0	0	3603
Flt Permitted	0.977					0.919
Satd. Flow (perm)	1721	0	3599	0	0	3318
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	42		5			
Link Speed (mph)	20		25			25
Link Distance (ft)	778		419			173
Travel Time (s)	26.5		11.4			4.7
Confl. Peds. (#/hr)					1	
Peak Hour Factor	0.88	0.88	0.92	0.92	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	36	42	710	13	37	1035
Shared Lane Traffic (%)						
Lane Group Flow (vph)	78	0	723	0	0	1072
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Detector Phase	8		2		6	6
Switch Phase						
Minimum Initial (s)	4.5		8.0		8.0	8.0
Minimum Split (s)	9.0		12.5		12.5	12.5
Total Split (s)	19.0		34.5		34.5	34.5
Total Split (%)	35.5%		64.5%		64.5%	64.5%
Maximum Green (s)	15.0		30.0		30.0	30.0
Yellow Time (s)	3.0		3.5		3.5	3.5
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	4.0		4.5			4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.2		2.8		2.8	2.8
Recall Mode	None		Min		Min	Min
Walk Time (s)	7.0					
Flash Dont Walk (s)	16.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	6.1		33.2			33.2
Actuated g/C Ratio	0.15		0.81			0.81
v/c Ratio	0.27		0.25			0.40
Control Delay	13.4		2.6			3.3
Queue Delay	0.0		0.0			0.0
Total Delay	13.4		2.6			3.3

5: Kingstown Road (Route 108)/Kingstown Road & Signal @ Dental/Liquor/Bank/Apt Drive

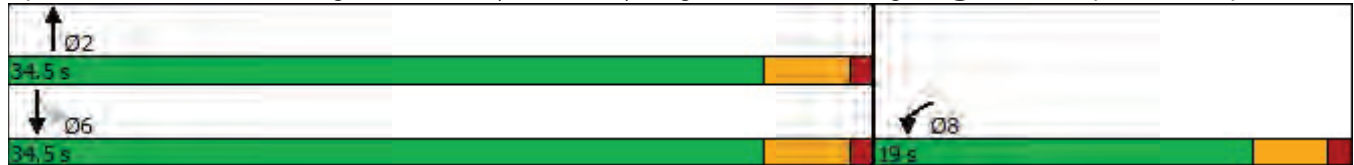


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B		A			A
Approach Delay	13.4		2.6			3.3
Approach LOS	B		A			A
Queue Length 50th (ft)	9		26			47
Queue Length 95th (ft)	35		53			93
Internal Link Dist (ft)	698		339			93
Turn Bay Length (ft)						
Base Capacity (vph)	687		2864			2640
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.11		0.25			0.41

Intersection Summary

Area Type:	Other
Cycle Length:	53.5
Actuated Cycle Length:	41.1
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	3.5
Intersection LOS:	A
Intersection Capacity Utilization:	61.2%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 5: Kingstown Road (Route 108)/Kingstown Road & Signal @ Dental/Liquor/Bank/Apt Drive



Intersection

Int Delay, s/veh 0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↖
Traffic Vol, veh/h	24	18	672	18	23	986
Future Vol, veh/h	24	18	672	18	23	986
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- None	- None	- None	- 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	26	20	730	20	25	1072

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1326	375	0	0	750	0
Stage 1	740	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	147	623	-	-	855	-
Stage 1	433	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	136	623	-	-	855	-
Mov Cap-2 Maneuver	136	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	482	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	623	855	-
HCM Lane V/C Ratio	-	-	0.031	0.029	-
HCM Control Delay (s)	-	-	11	9.3	0.3
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

APPENDIX E
TRAFFIC SIGNAL PLAN

TRAFFIC SIGNAL LEGEND

NO.	SYMBOL	DESCRIPTION
1	HH	PRECAST TYPE A HANDHOLE, STD. 18.2.0
1a	---	BREAK INTO EXISTING HANDHOLE
2	---	2 INCH RIGID STEEL CONDUIT - UNDERGROUND
2a	---	3 INCH RIGID STEEL CONDUIT - UNDERGROUND
2b	---	2 INCH RIGID STEEL CONDUIT - OVERHEAD
2c	---	3 INCH RIGID STEEL CONDUIT - OVERHEAD
2d	---	2 INCH SCHEDULE 40 PVC CONDUIT - UNDERGROUND
2e	---	3 INCH SCHEDULE 40 PVC CONDUIT - UNDERGROUND
2f	---	2 INCH POLYVINYL CHLORIDE PLASTIC CONDUIT - OVERHEAD
2g	---	3 INCH POLYVINYL CHLORIDE PLASTIC CONDUIT - OVERHEAD
2h	---	2 INCH SCHEDULE 80 PVC CONDUIT - UNDER EXISTING PAVEMENT
2i	---	3 INCH SCHEDULE 80 PVC CONDUIT - UNDER EXISTING PAVEMENT
3	■	ACTIVATED CONTROLLER TYPE-2, TYPE 1, W/A PHASE AND CABINET STD. 191.0 INCLUDING FOUNDATION
3a	■	METER SOCKET w/ MANUAL BY-PASS
3b	■	TRAFFIC SIGNAL DIAL-UP MODEM
3c	■	TRAFFIC SIGNAL STANDARD, 8 FT. STD 19.4.0 ALUMINUM PEDESTAL POLE AND FOUNDATION
3d	■	TRAFFIC SIGNAL STANDARD GALVANIZED STEEL AND FOUNDATION STD. 19.3.0
3e	---	TETHER WIRE 5/8" WITH BREAKAWAY DISCONNECTS
3f	---	SPAN AND MESSENGER WIRE 6/16"
3g	---	1-WAY 3-SECTION SPAN MOUNTED SIGNAL HEAD, 12 INCH
3h	---	2-WAY BRACKET MOUNTED COUNTDOWN L.E.D. PEDESTRIAN SIGNAL HEAD, 12 INCH
3i	---	2-WAY PEDESTAL MOUNTED COUNTDOWN L.E.D. PEDESTRIAN SIGNAL HEAD, 12 INCH
3j	---	1-WAY PEDESTAL MOUNTED COUNTDOWN L.E.D. PEDESTRIAN SIGNAL HEAD, 12 INCH
3k	---	2-WAY 3-SECTION SPAN MOUNTED SIGNAL HEAD, 12 INCH
3l	---	6 AWG SINGLE CONDUCTOR CABLE GROU INSULATION
3m	---	14 AWG 2 CONDUCTOR TWISTED SHIELDED CABLE
3n	---	14 AWG 3 CONDUCTOR CABLE
3o	---	14 AWG 5 CONDUCTOR CABLE
3p	---	14 AWG 7 CONDUCTOR CABLE
3q	---	14 AWG 9 CONDUCTOR CABLE
3r	---	TRAFFIC DETECTOR RELAY - LOOP & CHANNEL
3s	---	ACCESSIBLE PEDESTRIAN DETECTION SYSTEM
3t	---	TRAFFIC DETECTOR - QUADRUPOLE INDUCTIVE LOOP

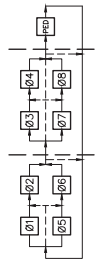
SEQUENCE AND TIMING DIAGRAM

APPROACH	DIRECTION	HOUSING	01	02	03	04	05	06	07	08	FLASING OPERATION
MINIMUM INTERVAL			7	15	7	15	7	15	7	15	RED
VEHICLE EXTENSION			2.4	2.7	2.4	2.7	2.4	2.7	2.4	2.7	
MAXIMUM 1			19	16	14	17	10	26	10	24	
MAXIMUM 2			14	25	10	17	11	28	10	20	
YELLOW CLEARANCE			3	3.5	3	3.5	3	3.5	3	3.5	
RED CLEARANCE			1	1.5	1	1.5	1	1.5	1	1.5	
PED. WALK/CLEARANCE											
KINGSTOWN ROAD	NB LT	A	+-	+-	+-	+-	+-	+-	+-	+-	+-
KINGSTOWN ROAD	NB TH	B,C	R	R	R	R	R	R	R	R	R
KINGSTOWN ROAD	SB LT	D	+G	+G	+G	+G	+G	+G	+G	+G	+G
KINGSTOWN ROAD	SB TH	E	R	R	R	R	R	R	R	R	R
MAIN STREET	EB LT/RT	G	+-	+-	+-	+-	+-	+-	+-	+-	+-
MAIN STREET	EB TH/RT	H,I	R	R	R	R	R	R	R	R	R
OLD TOWER HILL ROAD	WB LT	J	+-	+-	+-	+-	+-	+-	+-	+-	+-
OLD TOWER HILL ROAD	WB TH	K	R	R	R	R	R	R	R	R	R
OLD TOWER HILL ROAD	WB RT	L	R	R	R	R	R	R	R	R	R
PEDESTRIAN SIGNAL			NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK	NON-LOCK
RECALL			OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

GENERAL NOTES

- ALL EXISTING WIRING TO BE REMOVED.
- SIGNAL TO BE INITIALLY PROGRAMMED TO OPERATE FREE AT ALL TIMES.
- NOTES AND LEGEND FOR ADDITIONAL NOTES.
- PROPOSED SIGN DESIGNATIONS AND FACES SHOWN ON SIGNING & STRIPING PLAN NO. 5.
- PROPOSED PAVEMENT MARKING TYPES AND COLORS SHOWN ON SIGNING & STRIPING PLAN NO. 5.

PHASE SEQUENCE DIAGRAM



INDUCTIVE LOOP DETECTOR TABLE

LOOP	SIZE	SLOT	INDUCT	CHANNEL	COIL	WIRE	DELAY	MODE	REMARKS
01	6'x40'	2	1	5	5	3	PRES	PRES	
02	6'x40'	2	2	2	2	3	PRES	PRES	
03	6'x40'	2	3	2	2	3	PRES	PRES	
04	6'x40'	4	1	1	1	3	PRES	PRES	
05	6'x40'	4	2	6	6	3	PRES	PRES	
06	6'x40'	4	3	6	6	3	PRES	PRES	
07	6'x40'	6	1	3	3	3	PRES	PRES	
08	6'x40'	6	2	8	8	3	PRES	PRES	
09	6'x40'	6	3	8	8	3	PRES	PRES	
10	6'x40'	8	1	7	7	3	PRES	PRES	
11	6'x40'	8	2	4	4	3	PRES	PRES	
12	6'x40'	8	3	4	4	3	PRES	PRES	

REMOVE AND SALVAGE SIGNAL EQUIPMENT

QUANTITY	ITEM DESCRIPTION
8	TRAFFIC SIGNAL HEADS
8	PEDESTRIAN SIGNAL HEADS
8	PEDESTRIAN PUSHBUTTONS WITH SIGNS
4	PEDESTRIAN PEDESTAL POLES

SIGNAL NO. 022

REVISIONS
NO. DATE BY

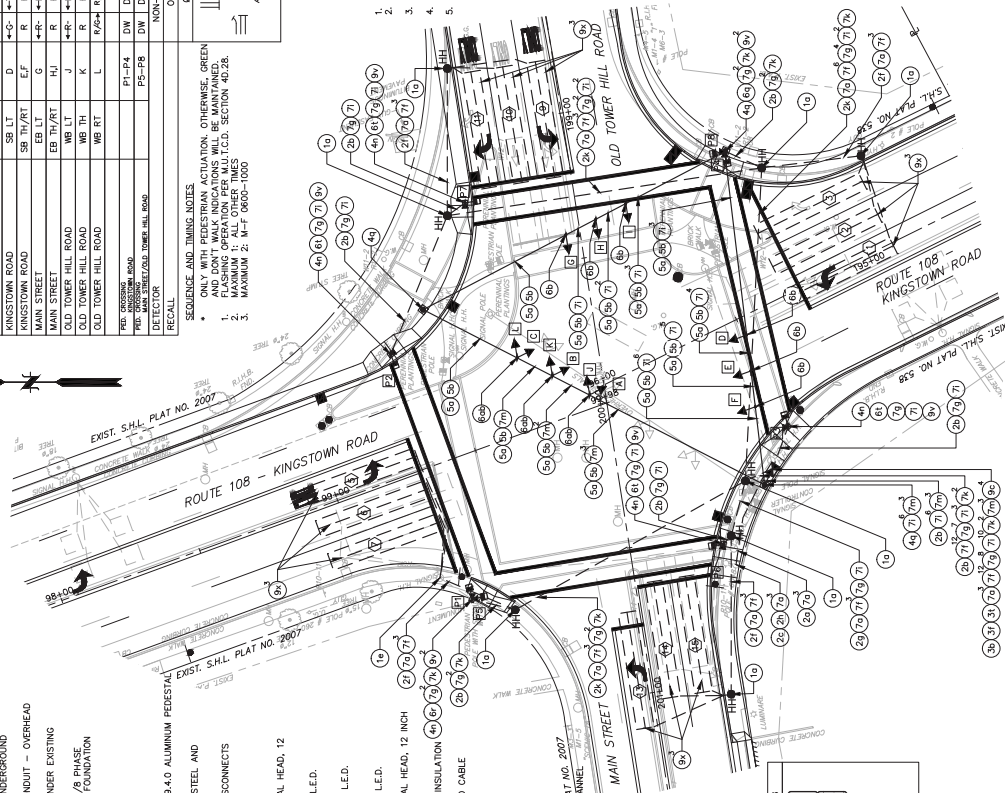
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NO. DATE BY

REMOVE AND DISPOSE SIGNAL EQUIPMENT

QUANTITY	ITEM DESCRIPTION
17	LOOP DETECTORS
2500 LF	TRAFFIC SIGNAL WIRE
6	HANDHOLES



TRAFFIC SIGNAL PLAN NO. 4
ROUTE 108 (KINGSTOWN ROAD) AT
OLD TOWER HILL ROAD/MAIN STREET



SIGNAL HEAD DATA

AD.G.I.	B.C.E.F.H.K.	L	P1-P8
(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)

- SIGNAL HEAD NOTES**
- ALL SIGNAL HEADS ARE TO BE REPLACED. TWO ROWS OF LED MODULES.
 - ...