



Traffic Impact Study

Proposed Bear Mountain Triangle Rezoning and Crompond Terraces

Old Crompond Road and NYS Route 35/U.S. Route 202
Town of Yorktown, Westchester County, New York

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TABLE OF CONTENTS **PAGE NO.**

I. INTRODUCTION..... 1

A. PROJECT DESCRIPTION AND LOCATION (FIGURE No. 1)..... 1

B. SCOPE OF STUDY 1

II. EXISTING ROADWAY AND TRAFFIC DESCRIPTIONS 3

A. DESCRIPTION OF EXISTING ROADWAY NETWORK (FIGURES No. 1 AND 1A)..... 3

B. EXISTING TRAFFIC VOLUMES (FIGURES No. 2, 3. AND 4)..... 6

C. EXISTING PUBLIC TRANSPORTATION SERVICES (APPENDIX E) 7

III. EVALUATION OF FUTURE TRAFFIC CONDITIONS..... 9

A. NO-BUILD TRAFFIC VOLUMES (FIGURE No. 5 THROUGH 13 AND TABLE 1-O) 9

B. SITE GENERATED TRAFFIC VOLUMES (TABLES No. 1E, 1 AND 1R) 10

C. ARRIVAL/DEPARTURE DISTRIBUTION (FIGURES No. 14 AND 15) 10

D. BUILD TRAFFIC VOLUMES WITHOUT REZONING (FIGURES No. 17 THROUGH 22 AND TABLE No. 1E)..... 10

E. BUILD TRAFFIC VOLUMES WITH REZONING (FIGURES No. 22 THROUGH 30)..... 11

F. DESCRIPTION OF ANALYSIS PROCEDURES 11

G. RESULTS OF ANALYSIS (TABLE No. 2) 12

H. OTHER POTENTIAL TRANSPORTATION IMPROVMENTS 19

I. OTHER CONSIDERATIONS..... 20

IV. SUMMARY AND CONCLUSION 23

APPENDICES

APPENDIX A..... FIGURES

APPENDIX B..... TABLES

APPENDIX C..... LEVEL OF SERVICE STANDARDS

APPENDIX D CAPACITY ANALYSIS

APPENDIX E..... EXISTING PUBLIC TRANSPORTATION SERVICES

APPENDIX F POTENTIAL IMPROVEMENT PLANS

APPENDIX G CONSIDERATION OF POTENTIAL STATE LAND DEVELOPMENT

I. INTRODUCTION

A. PROJECT DESCRIPTION AND LOCATION (Figure No. 1)

As requested by the Town of Yorktown in association with the potential rezoning of the properties located in the “Bear Mountain Triangle” (See Figure No. 1) including the land herein referred to as Crompond Terraces, an overall assessment of traffic conditions in the area as a result of this potential rezoning has been completed. This evaluation also considers the effect of the potential traffic generation from other parcels located along Old Crompond Road based on information compiled which identified potential levels of development under both existing and proposed zoning scenarios including for the Bauso property and the Antenaros property. In addition, traffic from other developments in the area, which are either proposed and/or potential developments which are likely to take place regardless of the rezoning, were also considered to provide an overall summary of expected future traffic volumes and operating conditions. The rezoning of the Crompond Terraces property would allow the potential for approximately 86 residential dwelling units and approximately 45,000± square feet of commercial space including office and neighborhood retail as well as some community space totaling approximately 12,000 square feet. The following sections describe the procedures completed in evaluating the potential traffic impacts for the area with or without the rezoning.

B. SCOPE OF STUDY

This study has been prepared to identify current and future traffic operating conditions on the surrounding roadway network and to assess the potential traffic impacts of the proposed rezoning of the various parcel located in what is referred to as the Bear Mountain Triangle and to identify improvements to accommodate the future traffic generation with and without the rezoning.

Available traffic count data were obtained for the NYS Route 35/U.S. Route 202 Corridor from previous reports prepared by Jacobs-Edwards and Kelcey as part of the Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study as well as data contained in the Traffic Studies prepared for the proposed Costco development. These data were supplemented with new traffic counts collected by representatives of Maser Consulting, P.A. in December 2014. These data were also compared to other count data obtained from the New York State Department of Transportation (NYSDOT)



and count data contained in previous traffic studies conducted in the area. Together these data were utilized to establish the Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site. Note that the new counts were collected to also confirm any effects of the recently completed NYSDOT Route 35/202 corridor improvements.

The Existing Traffic Volumes were then projected to the Design Year to take into account background traffic growth. In addition, traffic for other specific potential approved developments in the area as were estimated and then added to the Projected Traffic Volumes to obtain the No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the various parcels included in the proposed rezoning area would generate (see Section III-C for further discussion). These site generated traffic volumes, which were developed based on both the existing and proposed zoning were then added to the roadway system and combined with the No-Build Traffic Volumes resulting in the Build Traffic Volumes for conditions both with and without the rezoning.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were identified as necessary to serve the existing and/or future traffic volumes.

II. EXISTING ROADWAY AND TRAFFIC DESCRIPTIONS

A. DESCRIPTION OF EXISTING ROADWAY NETWORK (Figures No. 1 and 1A)

As shown on Figure No. 1, the area of the proposed rezoning will be accessed from NYS Route 35/U.S. Route 202 as well as from Stony Street and Old Crompond Road. The following is a brief description of the roadways located within the study area including the Taconic State Parkway. Figure No. 1A summarizes the lane geometry, lane widths, posted speed limits, traffic control, etc. for each of the studied intersections. Appendix “D” contains copies of the capacity analyses, which indicate the existing geometrics (including lane widths) and other characteristics, for each of the individual intersections studied.

1. Taconic State Parkway

The Taconic State Parkway is a major regional highway, which traverses throughout Westchester, Putnam, Dutchess and Columbia Counties running in a north/south direction. The Taconic State Parkway (TSP), in the immediate vicinity of the site, is a six lane divided highway with paved shoulders and has a full diamond type interchange with NYS Route 35/U.S. Route 202 and a limited access interchange with the Bear Mountain Parkway Extension to the north. It has a posted speed limit of 55 mph.

2. Bear Mountain Parkway Extension

The Bear Mountain Parkway Extension intersects with NYS Route 35/U.S. Route 202 to form an unsignalized “T” shaped intersection. The Bear Mountain Parkway Extension serves as a connector road to and from the Taconic State Parkway northbound and southbound exit movements as well as Taconic State Parkway southbound entry movements. It also has a signalized full movement intersection with Stony Street, which has recently been upgraded as part of the NYSDOT improvements in this area. The roadway consists of two lanes in each direction and has a posted speed limit of 40 MPH. In addition, the New York State Department of Transportation has longer term plans for the extension of this roadway and/or upgrades to Routes 35/202 from this location west to the portion of the Bear Mountain Parkway located in the Town of Cortlandt. There is currently no specific time frame for the completion of this work. No parking is permitted along this roadway.

3. NYS Route 35/U.S. Route 202

NYS Route 35/U.S. Route 202 is a major east/west roadway, under the jurisdiction of the NYSDOT, which in Westchester County extends from Peekskill to the west, through the Town of Cortlandt, the Town of Yorktown and then the Town of Somers to the east. In the vicinity of the study area, this roadway intersects with the Bear Mountain Parkway, Stony Street and the BJ's/Staples Plaza, Old Crompond Road, Mohansic Avenue and the Taconic State Parkway Northbound and Southbound Ramps. The roadway has unsignalized intersections with the Bear Mountain Parkway Extension and Old Crompond Road. The posted speed limit, in the vicinity of the site, is 45 mph. On-street parking is not permitted along NYS Route 35/U.S. Route 202. Existing sidewalks along NYS Route 35/U.S. Route 202 are shown on Figure CP-1.

The NYSDOT has recently constructed improvements on NYS Route 35/U.S. Route 202 from Old Crompond Road and continuing to the west past the Parkside Corner Shopping Center including at the intersections of NYS Route 35/U.S. Route 202 at BJ's/Staples Shopping Center, NYS Route 35/U.S. Route 202 at Pine Grove Court, NYS Route 35/U.S. Route 202 at Bear Mountain Parkway Extension, and Bear Mountain Parkway Extension at Stony Street. These improvements were completed to address major safety and capacity related conditions at these intersections.

The NYS Route 202/35 improvements, which were completed in the Summer of 2014 at a cost of approximately \$11.5 Million, now provides two through lanes in each direction beginning in the area of the existing Parkside Corner Shopping Center continuing to the west to the Old Crompond Road intersection. (Note that the work in the section from Stony Street to Old Crompond road was subsequently added to match the improvements which are proposed by the Applicant for the Costco development). The area between the BMP and Parkside Corner also now has a center turn lane providing a dedicated lane for left turns into the businesses located along the south side of NYS Route 35/U.S. Route 202. At the BMP intersection with, NYS Route 35/U.S. Route 202, there is a separate left turn lane on the eastbound approach. The southbound approach has been modified from a two lane approach to a single lane and left turns are prohibited. The southbound right turn movement is channelized with striping and an acceleration lane will be provided for vehicles entering the traffic stream along NYS Route 35/U.S. Route 202 westbound. This modification has enhanced the ease of access for the BMP traffic destined to the west and has eliminated the extensive queues, which



previously existed at this location. The intersection of NYS Route 35/U.S. Route 202 and Pine Grove Court now has two through lanes in each direction and a separate left turn lane westbound and a separate right turn lane eastbound and the intersection has also been signalized.

The intersection of NYS Route 35/U.S. Route 202 and the BJ's/Staples Plaza and Stony Street was modified to have separate right turn lane and two through lanes in the eastbound direction. In the westbound direction an additional lane was extended to a point just west of Old Crompond Road and now operates a shared through/right turn lane in the westbound direction. The traffic signal at this intersection was also upgraded and coordinated with the new signal at the Pine Grove Court intersection.

The Stony Street and Bear Mountain Parkway was improved by providing one lane in each direction along the BMP as well as a dedicated left turn lane at the intersection. The center median along the BMP was eliminated to reduce conflicts at this intersection. The eastbound Stony Street approach was widened to provide a separate right turn lane and the intersection has been signalized. It should also be noted that some new sidewalks have been provided with the improvements.

Finally, long term plans have been identified by NYSDOT to possibly connect the two ends of the Bear Mountain Parkway with a limited access roadway to alleviate congestion and safety issues through the NYS Route 35/U.S. Route 202 and Route 6 Corridors. No specific timetable for this work is scheduled.

There are several Bee-Line bus stops located along the NYS Route 35/U.S. Route 202 corridor. The Route 15 Bus has stop locations near the existing Curry Honda between the Bear Mountain Parkway Extension and Lexington Avenue. There are also stops at the BJ's-Staples Plaza intersection, the Strang Boulevard intersection, the NYS Route 132 intersection, near the Yorktown Police station and between Baldwin Road and NYS Route 118. The Route 15 Bus also stops along NYS Route 35/U.S. Route 202 at the intersection with NYS Route 132. The closest bus stops for the Bee-Line Bus System are located near the Chase Bank and Staples Plaza. (See Section II-C below for more details on Existing Public Transportation services.)

4. Stony Street

Stony Street intersects with NYS Route 35/U.S. Route 202 opposite the BJ's/Staples Plaza driveway at a full movement, signalized intersection. Stony Street is generally a north/south road and also intersects with Old Crompond Road and then with the Bear Mountain Parkway Extension at a full movement signalized intersection. It also intersects with several other local roadways before terminating at East Main Street in the Shrub Oak area of Yorktown. The posted speed limit is 30 mph. No parking is permitted along this section of Stony Street.

5. Old Crompond Road

Old Crompond Road is a town roadway which intersects NYS Route 35/U.S. Route 202 at an unsignalized "T" shaped intersection. It runs west from here, generally parallel to NYS Route 35/U.S. Route 202 to its terminus at an unsignalized "T" intersection with Stony Street. The roadway currently serves several residential homes, the Adrian Auto body Property and the Crompond Corners Development. The roadway, which consists of a single lane in each direction, has a speed limit of 30 MPH. The existing roadway has an inconsistent width and some severe changes in horizontal and vertical alignment.

B. EXISTING TRAFFIC VOLUMES (Figures No. 2, 3, and 4)

Historical traffic count data for the NYS Route 35/U.S. Route 202 Corridor were obtained from the Jacobs-Edwards and Kelcey *Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study* as well as other previous traffic studies for other developments in the area including the recent Costco traffic studies. These count data were supplemented with new peak hour traffic counts collected during December 2014 by representatives of Maser Consulting, P.A.

The Traffic Study analyzes three (3) peak periods including the Weekday AM and PM Peak Hours and the Saturday afternoon Peak Hour. The AM Peak Hour, which occurs between 7:00 - 9:00 AM represents the highest level of activity which coincides with the peak commuter traffic, school bus traffic. The PM Peak Hour, which generally occurs between 4:00 – 6:00 PM represents the time period of the highest commuter traffic along the corridor as well as the highest shopping generated traffic due to other existing facilities in the area including BJ's, etc. The Saturday Peak Hour, which occurs between 11:00 AM and 2:00 PM, includes the time period which reflects peak shopping related trips and also includes the time periods with peak trips for other weekend activities, i.e. children's sporting events, and other trips related to residential activities.



Based on the above information, the Existing Traffic Volumes were established for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours at the following study area intersections.

Note that as anticipated in the Costco Traffic Studies and the New York State Department of Transportation (NYSDOT) studies, a portion of the traffic exiting the Taconic State Parkway at the Route 202 Northbound ramp has been diverted to the new Bear Mountain Parkway connection to Route 202, which is now accommodated via the new acceleration lane and elimination of the former stop control. This diversion is especially apparent during the Weekday PM Peak Hour when commuter traffic destined to Cortlandt and Peekskill has shifted to the reconstructed intersection.

1. Bear Mountain Extension and Stony Street
2. Stony Street and Old Crompond Road
3. NYS Route 35/U.S. Route 202 and Stony Street/BJ's-Staples Plaza Driveway
4. NYS Route 35/U.S. Route 202 and Old Crompond Road
5. NYS Route 35/U.S. Route 202 and Mohansic Avenue
6. NYS Route 35/U.S. Route 202 and Taconic State Parkway SB On/Off Ramp
7. NYS Route 35/U.S. Route 202 and Taconic State Parkway NB On/Off Ramp

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

- | | |
|------------------------|--------------------|
| • Weekday Peak AM Hour | 7:15 AM – 8:15 AM |
| • Weekday Peak PM Hour | 5:00 PM – 6:00 PM |
| • Saturday Peak Hour | 12:00 PM – 1:00 PM |

The resulting Existing Traffic Volumes are shown on Figure No. 2 for the Weekday Peak AM Hour, Figure No. 3 for the Weekday Peak PM Hour and Figure No. 4 for the Saturday Peak Hour.

C. EXISTING PUBLIC TRANSPORTATION SERVICES (Appendix E)

Bus Service in the area is provided by the Westchester County Bee-Line Bus System operated by the Westchester County Department of Transportation. The locations of existing bus stops within the study area are shown on Figure No. 2. Local service is provided along NYS Route 35/U.S. Route 202 via the Route 15 Bus with the nearest bus



stop to the project located at the intersection of NYS Route 35/U.S. Route 202 and Stony Street. The bus stops at this location are positioned on both sides of NYS Route 35/U.S. Route 202 and service is included for both directions of travel.

The Route 15 Bus provides service from Downtown Peekskill continuing along Route 6 to Lexington Avenue and then continuing south to NYS Route 35/U.S. Route 202. The bus service continues to the east through the Town of Yorktown and continues south along Route 118 to Route 100 in Somers. It then connects with Route 9A further south. It terminates at the White Plains station (Metro-North Harlem Line). The Route 15 Bus Service is provided regularly during the AM and PM Hours and limited service is provided on Saturday. The Route 15 Bus Schedule and Map are included in Appendix E of this report.

Two other Westchester County Bee-Line busses provide service in the study area. These include the Route 10 Bus and the Route 77 Express Bus, however these busses do not serve the immediate area of the site. The Route 10 Bus provides commuter service between the Cortlandt Town Center and the Croton Harmon Train Station. Within the study area it has scheduled stops at the intersection of NYS Route 132 and NYS Route 35/U.S. Route 202 as well as along Commerce Street near the intersection with Downing Drive in Yorktown Heights. The Route 77 Express Bus is also a commuter bus, which runs between Carmel in Putnam County and White Plains. In the town of Yorktown the bus stops at several locations including FDR State Park and at the intersection of NYS Route 132 and U.S. Route 6 in Shrub Oak.

III. EVALUATION OF FUTURE TRAFFIC CONDITIONS

A. NO-BUILD TRAFFIC VOLUMES (Figure No. 5 through 13 and Table 1-O)

The Existing Traffic Volumes were increased by a growth factor of 2% per year to account for general background growth resulting in the Projected Traffic Volumes shown on Figures No. 5, 6 and 7. NYSDOT growth projections based on Average Annual Daily Traffic volume (AADT's) projections indicated a growth rate of less than 0.5% per year. However, in order to account for any miscellaneous additional background traffic growth and to account for any traffic from vacancies at area facilities as discussed in Section II.B above, a 2% per year growth rate was used for developing the background traffic projections.

In addition to the general background growth, traffic from other specific approved and/or potential developments in the area including the currently under construction and partly operating Crompond Crossings Development. The Crompond Crossing (partially occupied), a proposed CVS/Bank, the Staples Plaza/BJ's fueling and other expansion, the Costco Development, the Yorktown Temple and the Field Home Expansion. In addition, there are other parcels which are located within the Crompond Triangle, which are currently zoned as retail and could potentially be developed without any rezoning. These include the Nazzarro property and the Adrian/Mazzola/Mujaj properties. Table No. 1-O summarizes both the proposed and potential developments for the area. Note that for Costco, the higher trip generation estimates based on the sensitivity analysis as contained in the Costco FEIS were used in the evaluation contained herein. The Other Development Traffic Volumes are shown on Figures No. 8, 9 and 10. These volumes were added to the projected volumes to obtain the No-Build Traffic Volumes shown on Figures No. 11, 12 and 13.

Also, note that a separate analysis, as described in Section III-I.4, includes traffic from the potential development of the State Land property which has been rezoned to commercial and is located to the west on Route 202/35. Note that there is currently no site plan application for the development of this property.

B. SITE GENERATED TRAFFIC VOLUMES (Tables No. 1E, 1 and 1R)

Estimates of the amount of traffic to be generated by the various development parcels during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled “Trip Generation”, 9th Edition, 2012, based on the appropriate Land Use Categories. Table No. 1E summarizes the trip generation rates and corresponding total external site generated traffic volumes for the Weekday Peak AM, Peak PM and Saturday Peak Hours under existing zoning conditions. Table No. 1 and 1R show the traffic under the rezoned conditions for the Crompond Terraces and other parcels that are part of the rezoning action, respectively.

C. ARRIVAL/DEPARTURE DISTRIBUTION (Figures No. 14 and 15)

The traffic generated by the Crompond Terraces and the potential development on the other parcels affected by the rezoning were assigned to the roadway system based on a review of the existing traffic patterns and consideration of the development type and other access considerations. Figures No. 14 and 15 show the general anticipated Arrival and Departure Distributions. These were used to assign the traffic associated with the potential development traffic from Tables 1 and 1R to the roadway system.

D. BUILD TRAFFIC VOLUMES WITHOUT REZONING (Figures No. 17 through 22 and Table No. 1E)

The site generated traffic volumes for the existing zoning conditions for the various properties included as part of the rezoning application are shown in Table No. 1E, which indicates a total of approximately 30 single family dwelling units could be constructed on these properties. These volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 16, 17 and 18 and for each of the peak hours, respectively. The site generated traffic volumes were then added to the No-Build Traffic Volumes to obtain the Build Traffic Volumes without rezoning. The resulting Build Traffic Volumes are shown on Figure No. 19 for the Weekday Peak AM Hour, Figures No. 20 for the Weekday Peak PM Hour and Figure No. 21 and for the Saturday Peak Hour.

E. BUILD TRAFFIC VOLUMES WITH REZONING (Figures No. 22 through 30)

The trip estimates for the parcels included in the rezoning petition were added to the roadway network based on the arrival and departure distributions. The volumes associated with the potential development on the other rezoned properties including Bauso and Antenaros properties (Figures 22, 23 and 24) and the proposed Crompond Terraces Development (Figures No. 25, 26 and 27) and the resulting “Build Traffic Volumes with Rezoning” are shown on Figures No. 28, 29 and 30.

F. DESCRIPTION OF ANALYSIS PROCEDURES

It was necessary to perform capacity analyses in order to determine existing and future Levels of Service and traffic operating conditions at the study area intersections. The following is a brief description of the analysis method utilized in this report:

- **Signalized Intersection Capacity Analysis**

The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the *2010 Highway Capacity Manual*, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service “A” represents the best condition and a Level of Service “F” represents the worst condition. A Level of Service “C” is generally used as a design standard while a Level of Service “D” is acceptable during peak periods. A Level of Service “E” represents an operation near capacity. In order to identify an intersection’s Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

- **Unsignalized Intersection Capacity Analysis**

The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the *2010 Highway Capacity Manual*. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix C of this report.

G. RESULTS OF ANALYSIS (Table No. 2)

Capacity analyses which take into consideration appropriate truck percentages, pedestrian activity and roadway grades and other factors were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below are a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service as well as any recommended improvements. The capacity analysis contained in Appendix D accounts for the most current lane geometry and traffic signal timings. All existing signal timings for the study area intersections were obtained from the New York State Department of Transportation. These were also verified by manually timing the signals in the field. The signal timings presented in the analysis are those obtained from NYSDOT.

Table No. 2 summarizes the results of the capacity analysis for the Existing, No-Build and Build Conditions. Appendix D contains copies of the capacity analysis conducted using the Synchro Version 8 analysis software, which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. NYS Route 35/U.S. Route 202 and Bear Mountain Parkway Extension

The Bear Mountain Parkway Extension (BMP) intersects NYS Route 35/U.S. Route 202 at an unsignalized, “T” shaped intersection.

A capacity analysis was conducted for this intersection utilizing the Existing Traffic Volumes. The results of this analysis indicate that the intersection is currently operating at a Level of Service “F” on the southbound approach during each of the Peak Hours, while a Level of Service “B” or better is experienced for the eastbound left turn movement. It should be noted that due to the delays on the southbound approach during the PM Peak Hour the queues generally extend to the BMP intersection with Stony Street. This intersection was reanalyzed using the No-Build and Build Traffic Volumes and existing geometry. The results indicate that similar Levels of Service and operating conditions will be experienced during peak hours under future conditions.

The NYSDOT improvements in this area upgraded this intersection to improve operating conditions. The eastbound approach now consists of a separate left turn lane and two through lanes. The westbound approach consists of two through lanes with a shared right turn lane. The southbound BMP approach consists of a single lane, which allows right turn movements onto NYS Route 35/U.S. Route 202. This movement is striped as a channelized right turn movement with an acceleration lane in the westbound direction onto NYS Route 35/U.S. Route 202 for merging traffic. Left turns from the BMP to NYS Route 35/U.S. Route 202 were to be prohibited but only striping was used and it appears that additional “No Left Turn” signs should be posted. Also, the roadway traveling away from the intersection destined eastbound on the BMP toward Stony Street is now a single lane.

The NYSDOT improvement of the BMP connection to NYS Route 35/U.S. Route 202 eliminated the extensive queues which occurred during peak hours especially during the Weekday PM Peak Hour. This increase in capacity should make the direct movement from the TSP northbound to the BMP to NYS Route 35/U.S. Route 202 westbound more efficient and a more desirable path which has diverted some of the traffic which previously used the TSP northbound off ramp at NYS Route 35/U.S. Route 202.

2. Bear Mountain Parkway Extension and Stony Street

The Bear Mountain Parkway Extension (BMP) and Stony Street intersect at a signalized full movement intersection.

As part of the improvements recently constructed by the New York State Department of Transportation the geometry of the intersection has been modified so that the northbound and southbound approaches now consist of one lane in each direction with separate left turn lanes. The eastbound approach consists of a shared left turn/through lane and a separate right turn lane while the westbound approach remains as a single lane approach. The intersection operates at an overall Level of Service “C” or better during the AM, PM and Saturday Peak Hours under No-Build and Build conditions.

3. Stony Street and Old Crompond Road

This intersection is currently a “T” intersection with all approaches consisting of one lane. It is controlled by “Stop” signs on the eastbound Stony Street approach and the westbound Old Crompond Road approach. The intersection currently operates at a Level of Service “A” during peak periods. The analysis indicates that under future

No-Build and Build conditions, the intersection can be expected to operate at Levels of Service “C” or better. Restriping of the approaches at this location including new stop bars and centerline striping were identified in previous traffic studies completed for other area developments to improve existing conditions. It is expected that these will be coordinated with the improvements planned in association with the Crompond Crossing project which is currently under construction and whose access is located in this vicinity. In order to accommodate future development along on Old Crompond Road, it is anticipated that the sidewalk system would have to be extended from the CVS site and several portions of the existing roadway would have to be widened to provide increased pavement width and to address existing geometric constraints. Other improvements would include provision of turning lanes at individual access driveways along Old Crompond Road.

4. NYS Route 35/U.S. Route 202 and Stony Street/BJ’S - Staples Plaza

Stony Street intersects with NYS Route 35/U.S. Route 202 opposite the driveway to BJ’s/Staples Plaza to form a full movement, signalized intersection. As part of the New York State Department of Transportation Improvements, this intersection was upgraded with geometric improvements to eliminate the capacity constraint at the Pine Grove Court intersection, which currently impacts this intersection. An additional right turn lane was added to the eastbound approach. Also the westbound approach now has one through lane and a shared through/right turn lane.

Capacity analysis conducted utilizing the Existing and No-Build and Volumes indicates an overall Level of Service “B” will continue to be experienced during the AM Peak Hour, while an overall Level of Service “D” will be experienced during the PM and an overall Level of Service “E” will be experienced during the Saturday Peak Hour without any improvements. Associated with the Staples Plaza/BJ’s application, they will be improving the operation by restriping and modifying the traffic signal phasing. However, as other development continues to occur it appears that a widening of the Stony Street approach will also be needed to provide three lanes southbound. In addition, the preliminary site plans for the CVS indicate the inclusion of sidewalks along Stony Street and extending along their frontage on Old Crompond Road, however, Old Crompond Road should also be widened to provide an additional lane.

5. NYS Route 35/U.S. Route 202 and Old Crompond Road

Old Crompond Road and NYS Route 35/U.S. Route 202 intersect at an unsignalized “T” shaped intersection. The eastbound approach consists of two through lanes while the westbound approach is a single lane approach. The southbound Old Crompond Road approach consists of a single lane and is controlled by a “Stop” sign. Capacity analysis indicates that the left turn exiting Old Crompond Road at this intersection currently operates at a Level of Service “E” during the AM Peak Hour, while a Level of Service “F” is experienced during the PM and Saturday Peak Hours. It is expected that the left turn exiting Old Crompond Road at this intersection will experience a Level of Service “F” during each of the Peak Hours under future conditions both with and without the proposed project. It should be noted that these Levels of Service are only experienced for the southbound left turn movement, which also has the ability to be more easily completed via the signalized intersection of Stony Street and NYS Route 35/US Route 202.

As part of the improvements associated with the proposed Costco project an additional westbound through lane will be provided at this intersection. This lane will match with the westbound through lane extension from the BJ’s/Stony Street intersection which was constructed as part of the NYSDOT improvement project. With these improvements the left turn exiting Old Crompond Road at this intersection is expected to operate at a Level of Service “D” during the AM Peak Hour while it is expected to experience a Level of Service “F” during the PM and Saturday Peak Hours. The entering and exiting radius to/from NYS Route 35/US Route 202 should be improved. The potential signalization of the westerly leg of Old Crompond Road and Route 202/35 to accommodate left turns exiting from Old Crompond Road was also considered. This improvement would allow traffic from the Old Crompond Road corridor, which is destined to the east on Route 202/35 to be handled as a left turn exiting movement directly onto Route 202/3 so they would not have to traverse through the Stony Street and Old Crompond Road intersection onto Route 202/35. This improvement would require approval from NYSDOT, but would function as a simple two-phase traffic signal operation and would be coordinated with the other traffic signals along Route 202/35. No left turns would be allowed from Route 202/35 onto Old Crompond Road because of the lack of a separate left turn lane. The eastbound left turn movements from Route 202/35 destined to the Old Crompond Road corridor would continue to be accommodated at the Stony Street intersection. In addition to this new signal, the geometry at Route 202/35 and Old Crompond Road would also have to be upgraded to provide an improved radius for the entering and

exiting right turn movements as well as a potential separate right turn lane on Route 202 onto Old Crompond Road.

6. NYS Route 35/U.S. Route 202 and Mohansic Avenue

Mohansic Avenue intersects with NYS Route 35/U.S. Route 202 at a signalized, “T” shaped intersection. The NYS Route 35/U.S. Route 202 eastbound approach consists of one through lane and a separate right turn lane. This right turn lane also accommodates vehicles traveling through the intersection and continuing as a right turn lane onto the Taconic State Parkway Southbound entry ramp. The NYS Route 35/U.S. Route 202 westbound approach consists of two lanes in the form of a separate left turn lane and a separate through lane. The Mohansic Avenue northbound approach consists of a single lane for left and right turn movements. Capacity analysis conducted utilizing the Existing Traffic Volumes indicates that the intersection should be operating at an overall Level of Service “A” during the Weekday Peak AM Hour, however traffic is typically impeded during this time period due to the queuing at the adjacent southbound Taconic State Parkway ramp intersection. An overall Level of Service “D” is currently experienced during the Weekday Peak PM and an overall Level of Service “C” is currently experienced during the Saturday Peak Hour, but the operation is occasionally impacted by queuing from the adjacent southbound Taconic State Parkway Ramp intersection.

The intersection was reanalyzed utilizing the No-Build Traffic Volumes. The results of these capacity analyses indicate delays will increase and the impact of queuing from the southbound Taconic State Parkway ramp intersection will worsen until the improvements proposed by the Applicant for Costco are completed.

The Applicant for Costco has proposed that a separate eastbound left turn lane for traffic entering the site will be constructed and the driveway approach (southbound approach) will be constructed to consist of two lanes in the form of a separate left turn lane and a shared left/through/right turn lane. In addition, the Mohansic Avenue northbound approach will be widened to two lanes in the form of a shared through/left turn lane and a separate right turn lane. The westbound approach would also be widened to provide an additional through/right turn lane and the eastbound approach would be widened to be coordinated with improvements at the Taconic State Parkway Interchange as described below. Corresponding signal improvements will be made to accommodate the new intersection geometrics and interconnected with the adjacent Taconic State Parkway Ramp intersections. New pedestrian signals and crosswalks will be provided on all approaches as required by NYSDOT.

Capacity analysis conducted utilizing the No-Build and Build Traffic Volumes, assuming completion of the Costco funded improvements, indicates an overall Level of Service “A” will be experienced during the Weekday Peak AM Hour, an overall Level of Service “B” will be experienced during the Weekday Peak PM Hour and an overall Level of Service “D” will be maintained during the Saturday Peak Hour under the Build Conditions with or without the rezoning.

7. NYS Route 35/U.S. Route 202 and Taconic State Parkway Southbound Ramps

The Taconic State Parkway southbound off ramp intersects with NYS Route 35/U.S. Route 202 at a signalized intersection. The NYS Route 35/U.S. Route 202 eastbound approach consists of two lanes in the form of a separate through lane and a separate channelized right turn lane and the NYS Route 35/U.S. Route 202 westbound approach consists of two lanes in the form of a separate left turn lane and a separate through lane. The Taconic State Parkway southbound ramp consists of two lanes in the form of a separate left turn lane and a separate right turn lane. Capacity analysis conducted utilizing the Existing Traffic Volumes indicates that an overall Level of Service “C” is currently experienced during the Weekday Peak AM and Saturday Peak Hours while overall Level of Service “E” is experienced during the Weekday Peak PM Hour. It should be noted however that under existing conditions during peak hours, this intersection is affected by vehicle queues in the eastbound direction at the Northbound Ramp intersection.

The intersection was reanalyzed utilizing the No-Build Traffic Volumes. The results of these capacity analyses indicate that the construction, of the added westbound lane by the applicant for Costco as described above, which will also continue through this intersection and through the Mohansic Avenue intersection, will improve this condition. In addition, the Costco proposed improvements will provide a new eastbound left turn storage lane for left turn movements at the northbound ramp. This lane will begin prior to the southbound ramp intersection resulting in a total storage area in excess of 360 ft. which is a significant increase over the existing approximately 100 ft. eastbound left turn storage lane. This new lane will allow for vehicles destined to the Taconic State Parkway northbound to queue without impeding the eastbound traffic continuing past the interchange area. This will also result in the length of the westbound left turn lane increasing from approximately 100 ft. to 330 ft. A pedestrian crosswalk will also be provided on the north side of NYS Route 35/U.S. Route 202 across the exit ramp approach.

Capacity Analyses conducted utilizing the No-Build and Build Traffic Volumes with/or without the proposed rezoning with the addition of the above improvements as proposed by Costco indicate that the intersection will operate at an overall Level of Service “B” or better during each of the peak hours. .

8. NYS Route 35/U.S. Route 202 and Taconic Parkway Northbound Ramps

The Taconic Parkway northbound ramps intersect with NYS Route 35/U.S. Route 202 at a signalized intersection. The NYS Route 35/U.S. Route 202 eastbound approach consists of two lanes in the form of a separate left turn lane and separate through lane and the NYS Route 35/U.S. Route 202 westbound approach consists of one lane in the form of a shared through/right turn lane. The Taconic State Parkway northbound ramp consists of two lanes in the form of a separate left turn lane and a separate right turn lane. Capacity analysis conducted utilizing the Existing Traffic Volumes indicates that an overall Level of Service “D” is currently experienced during the Weekday Peak AM Hour, an overall Level of Service “F” is currently experienced during the Weekday Peak PM and Saturday Peak Hours. During the PM Peak Hour, westbound traffic on NYS Route 35/U.S. Route 202 sometimes extends past the NYS Route 132 intersection.

The Applicant for Costco identified certain improvements which would be funded and constructed in association with that proposed store. These include the reconstruction of the area between Strang Boulevard and Old Crompond Road to provide an additional westbound through lane. A new eastbound left turn storage lane will be constructed to provide additional storage area for vehicles entering the Taconic State Parkway northbound, increasing the existing storage lane length from approximately 100’ to 360’, which will reduce delays to through vehicles in the eastbound direction. Note that these improvements will also result in the lengthening of the westbound left turn lane at the southbound ramp as described above. Also, a pedestrian crosswalk will be provided on the north side of NYS Route 35/U.S. Route 202 crossing the entry ramp approach. The existing traffic signal will have to be upgraded to reflect the improved geometry. These improvements will also allow a reallocation of the signal green time to help alleviate existing queuing problems at this intersection. With these improvements and included signal coordination, improved Levels of Service will be experienced along this section of NYS Route 35/U.S. Route 202 during the peak hours under No-Build and Build Conditions.

H. OTHER POTENTIAL TRANSPORTATION IMPROVEMENTS

1. ROUTE 202/35/6 AND BEAR MOUNTAIN PARKWAY SUSTAINABLE DEVELOPMENT STUDY IMPROVEMENTS

The *Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study* had identified a series of recommended roadway upgrade improvements, which would be completed by NYSDOT in the future as well as signal timing improvements to accommodate existing and future traffic volumes in the area. Some of those specific to the NYS Route 35/U.S. Route 202 corridor and the intersections analyzed in this report include the following.

- **Taconic State Parkway Interchange Improvements**

When the Taconic State Parkway was reconstructed by NYSDOT, the bridge structure crossing NYS Route 35/U.S. Route 202 corridor was designed to accommodate up to six lanes crossing under the Taconic State Parkway on the NYS Route 35/U.S. Route 202 corridor. The typical section included in the original construction drawings included two through lanes per direction plus two turn lanes. (See section H.6, 7 and 8 for a description of the improvements which are proposed to be funded and constructed by the applicant for the proposed Costco) The *Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study* had considered these improvements as well as other ramp improvements. It also identified the need for additional eastbound and westbound through lanes at the Mohansic Avenue intersection. There is currently no scheduled timetable for the completion of these improvements.

- **NYS Route 35/U.S. Route 202 Center Turn Lane**

The *Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study* proposed the construction of a center turn lane or wide median that could contain left turn bays on NYS Route 35/U.S. Route 202 between the Bear Mountain Parkway in Cortlandt and the Taconic State Parkway Ramps in Yorktown. This turn lane would allow for access to the businesses and roadways along this section as well as improved through capacity by removing the left turn movements from the through lanes. As mentioned previously the NYSDOT Improvements currently under construction will include a center turn lane between Pine Grove Court and

the Parkside Corner shopping center to the west. There are currently no plans to extend this turn lane to the Bear Mountain Parkway in Cortlandt.

- Bear Mountain Parkway Connection

As a long term future improvement the *Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study* identified the need to connect the eastern and western sections of the Bear Mountain Parkway with a limited access two lane roadway. This project (PIN 800404) is currently listed as a future development by the New York State Department of Transportation.

2. TOWN OF YORKTOWN COMPREHENSIVE PLAN

The Town of Yorktown adopted a new comprehensive plan in 2010 which defined policies to be used in the planning and improving of the Town to support future growth. The transportation portion of the Comprehensive Plan restated many improvements recommended in the *Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study* many of which are described above or in previous sections of this report as well as making new recommendations for improvements throughout the Town.

I. OTHER CONSIDERATIONS

1. Potential Impacts on Bee-Line Bus Service

The closest existing bus stop to the site is located at the intersection of NYS Route 35/U.S. Route 202 and Stony Street and Staples Plaza. A bus stop is located on both sides of NYS Route 35/U.S. Route 202. The pedestrian/bicycle connection that was constructed as part of the NYS Route 35/U.S. Route 202 improvements together with those proposed by Costco will provide a sidewalk connection along Route 202/35 to the bus stops. The upgrading of Old Crompond Road including increased width and sidewalks as discussed in the section below would also provide the opportunity for the Beeline bus to also use this roadway as an alternate to stopping on Route 35/202.

2. Consideration of Bike and Pedestrian Traffic

According to information obtained from the Sustainable Development Study, the Town of Yorktown Comprehensive Plan and the Mid-Hudson South Region Bicycle and Pedestrian Master Plan there is a long term plan for a walking/bicycle path to connect Yorktown Heights with the Bear Mountain Parkway Annsville Circle. The western portion of the trail will be built on Bear Mountain Parkway and Bear Mountain Parkway Extension right-of-way land. Near the Taconic State Parkway it will utilize an existing pedestrian overpass to connect to Strang Boulevard. The path will continue along Strang Boulevard to the south to connect with FDR State Park. From here the path will join a Town spur that will connect with the North County Trailway via Downing Drive. Consistent with the recommendations of the Town of Yorktown Comprehensive Plan, the Sustainable Development Study and the NYSDOT's policy for the treatment of bicycle and pedestrian paths, associated with the proposed Costco funded road widening in the vicinity of the TSP interchange, the provision of a sidewalk on NYS Route 35/U.S. Route 202 connecting to Strang Boulevard with a pedestrian signal controlled crosswalk to the FDR State Park will be provided subject to review and approval by NYSDOT. This would provide a connection from the site to the proposed trail way through FDR Park and along Strang Boulevard.

3. Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study Improvements

Several other intersections which had been identified for potential improvements as part of the Route 202/35/6 and Bear Mountain Parkway Sustainable Development Study and the Town of Yorktown Comprehensive Plan (see Section III.F of this report) should continue to be explored by the Town of Yorktown and NYSDOT to ensure that these improvements are completed in the future to accommodate additional traffic in the area. This includes the center turn lane that was constructed by NYSDOT between Pine Grove Court and the Parkside Corner shopping center. It should be noted that in association with other developments in the area of Garden Lane, conceptual plans for constructing turn lanes have been developed and it is expected that the Town will continue to coordinate these with NYSDOT (see Drawing CP-3 contained in Appendix F).



4. Consideration of State Land Development (Figures No. 31 through 39 and Appendix G)

A separate analysis was prepared to consider the potential traffic from the State Land property, which has been rezoned to accommodate commercial development. Although no site plan application is currently pending for this site, Appendix G contains the analysis of the development of an approximately 200,000 s.f. retail complex. Figures No. 31 through 39 show the volumes for this potential future condition.

Associated with this development, access and other related improvements would have to be completed to accommodate that additional traffic. This would possibly include the widening of the Taconic State Parkway northbound off ramp at Route 202 to provide a double left turn lane. It should be noted that as a result of the construction of the additional westbound through lane proposed by Costco NYS Route 35/U.S. Route 202 would be wide enough to accommodate a dual left turn exit from the ramp. In order to accomplish this, the ramp approach would have to be upgraded from a two lane to a three lane cross section. The capacity analysis results, which are included in Appendix "G", indicate that the intersection would experience shorter delays for vehicles exiting the Taconic State Parkway turning left onto NYS Route 35/U.S. Route 202 with the additional left turn lane.



IV. SUMMARY AND CONCLUSION

Based on the analysis contained herein, in addition to the traffic and roadway improvements that are already planned to be completed by the proposed Costco development, certain other improvements will be required to accommodate other planned or potential developments in the area even without the implementation of the proposed rezoning referenced herein.

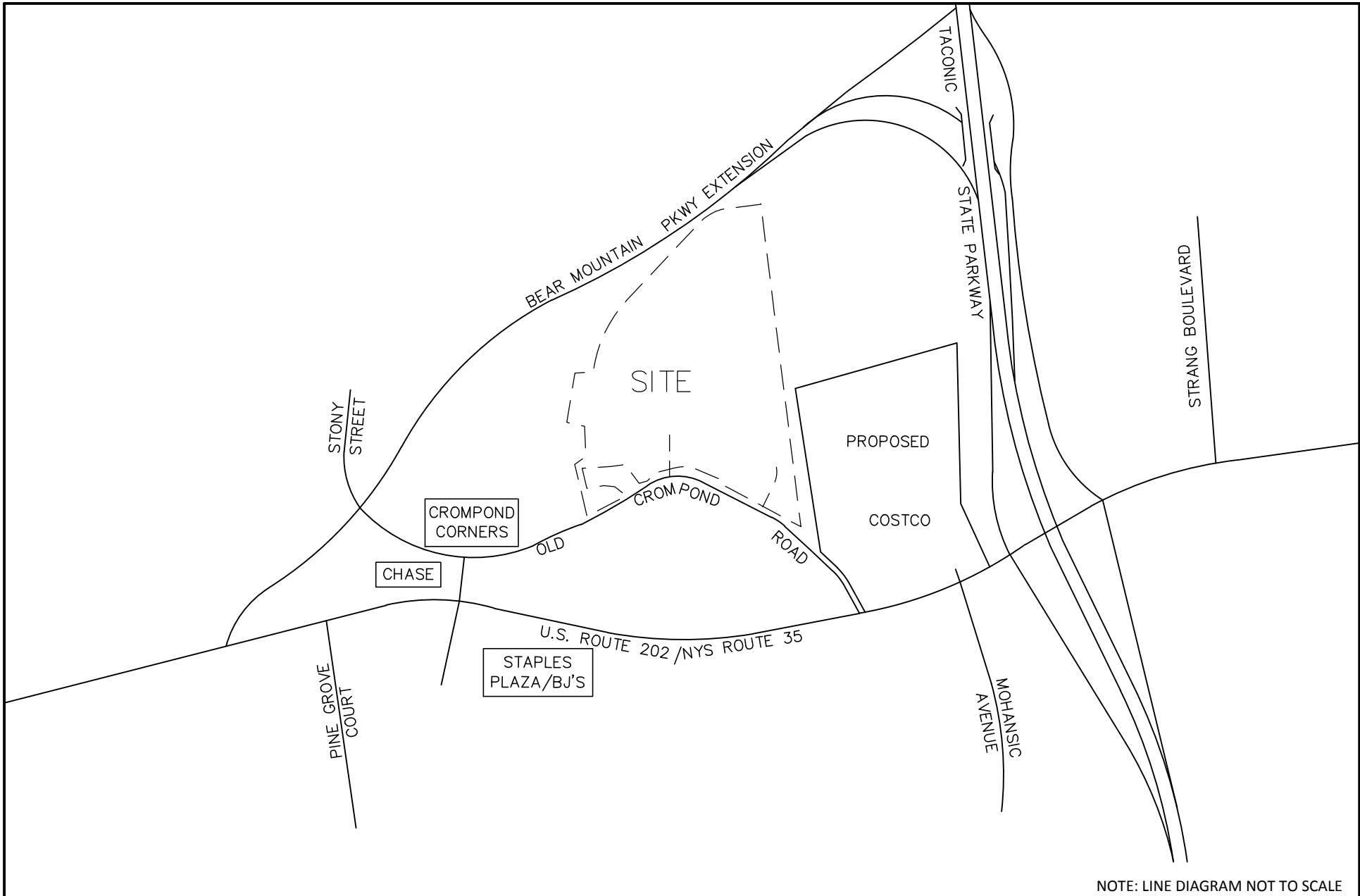
With respect to implementation of the recommended roadway and pedestrian improvements summarized in this report for the area as shown on the drawing entitled “Overall Area Conceptual Traffic and Pedestrian Improvement Plan” including those along Old Crompond Road and Stony Street, the Town could require individual projects to undertake or contribute financially towards these improvements to ensure that they are implemented as needed and are not the sole responsibility of one particular project.



***PROPOSED BEAR MOUNTAIN TRIANGLE
REZONING AND CROMPOND TERRACES***

APPENDIX A

FIGURES



NOTE: LINE DIAGRAM NOT TO SCALE



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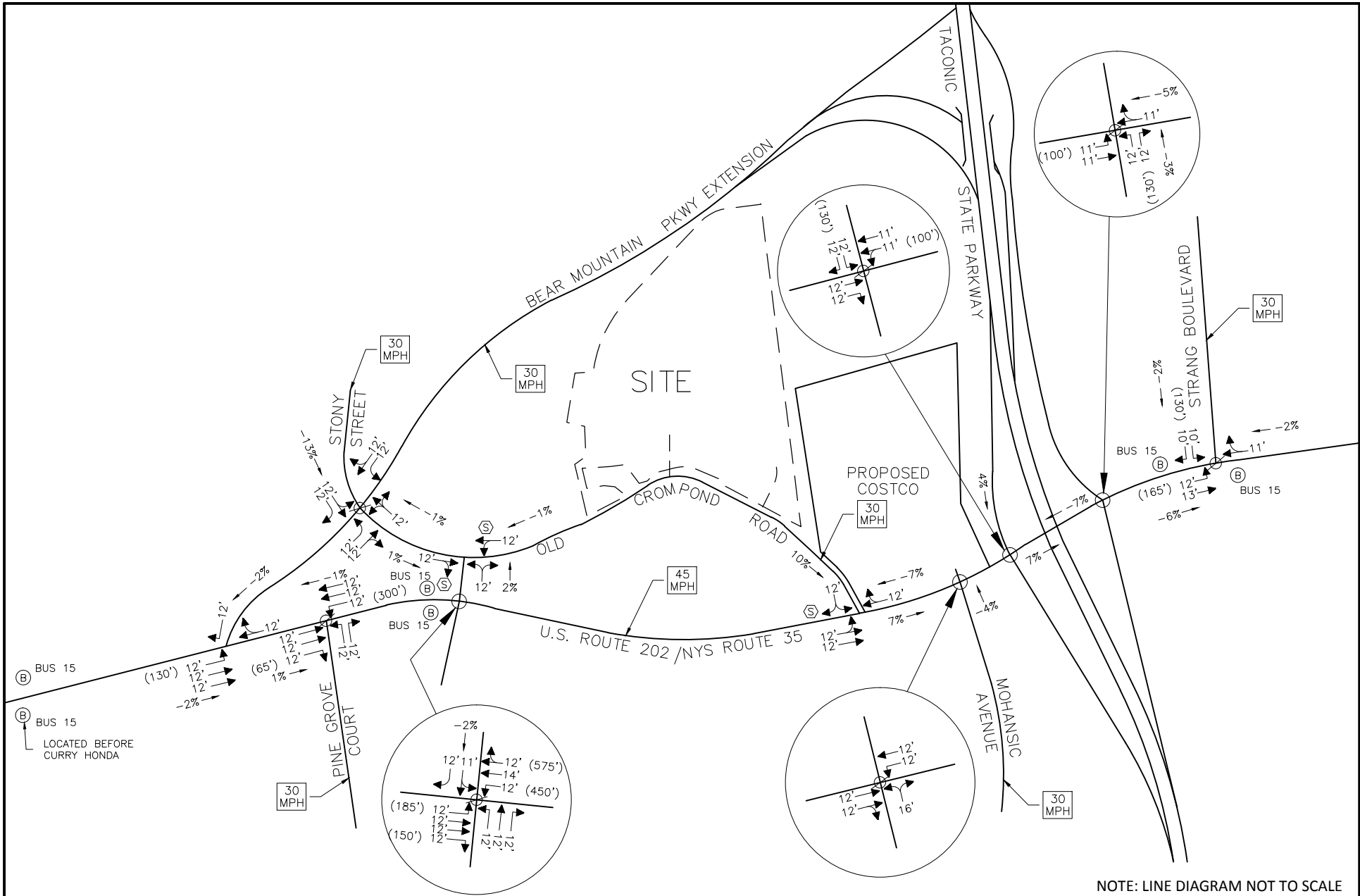
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CROMPOND TERRACES (MANDALAY DEVELOPMENT)
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SITE LOCATION MAP



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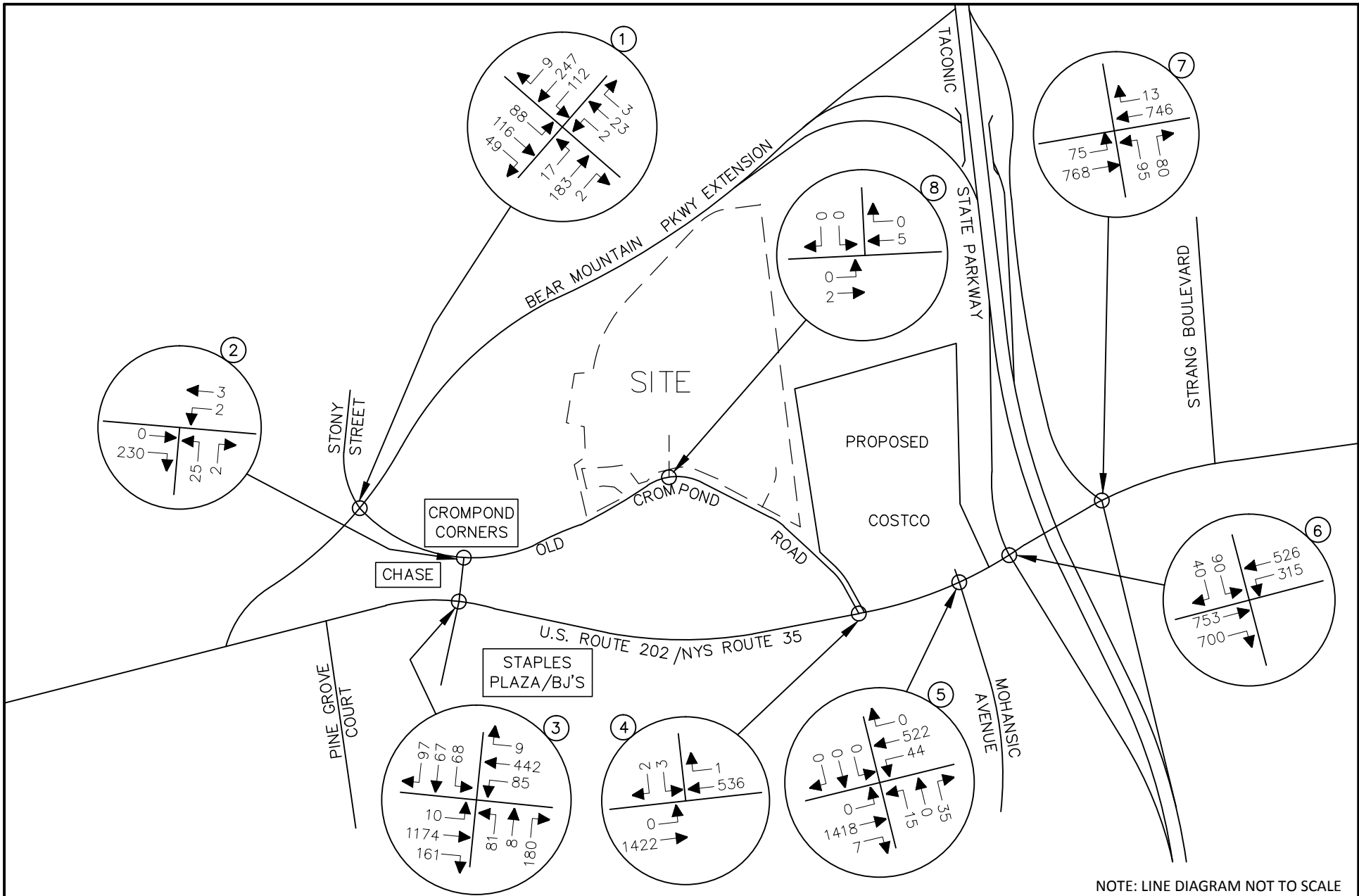
EXISTING GEOMETRY



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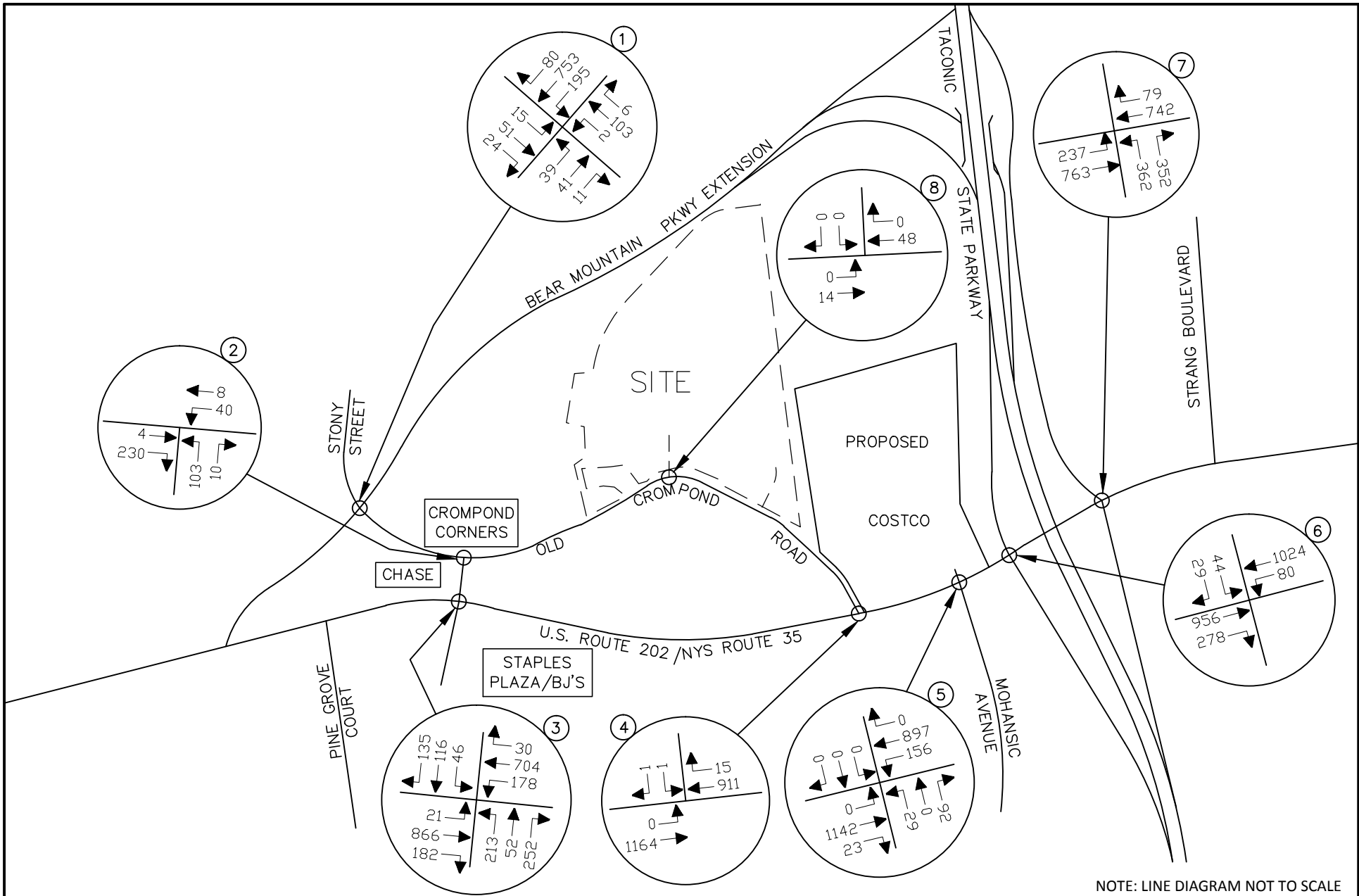
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**2014 EXISTING TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
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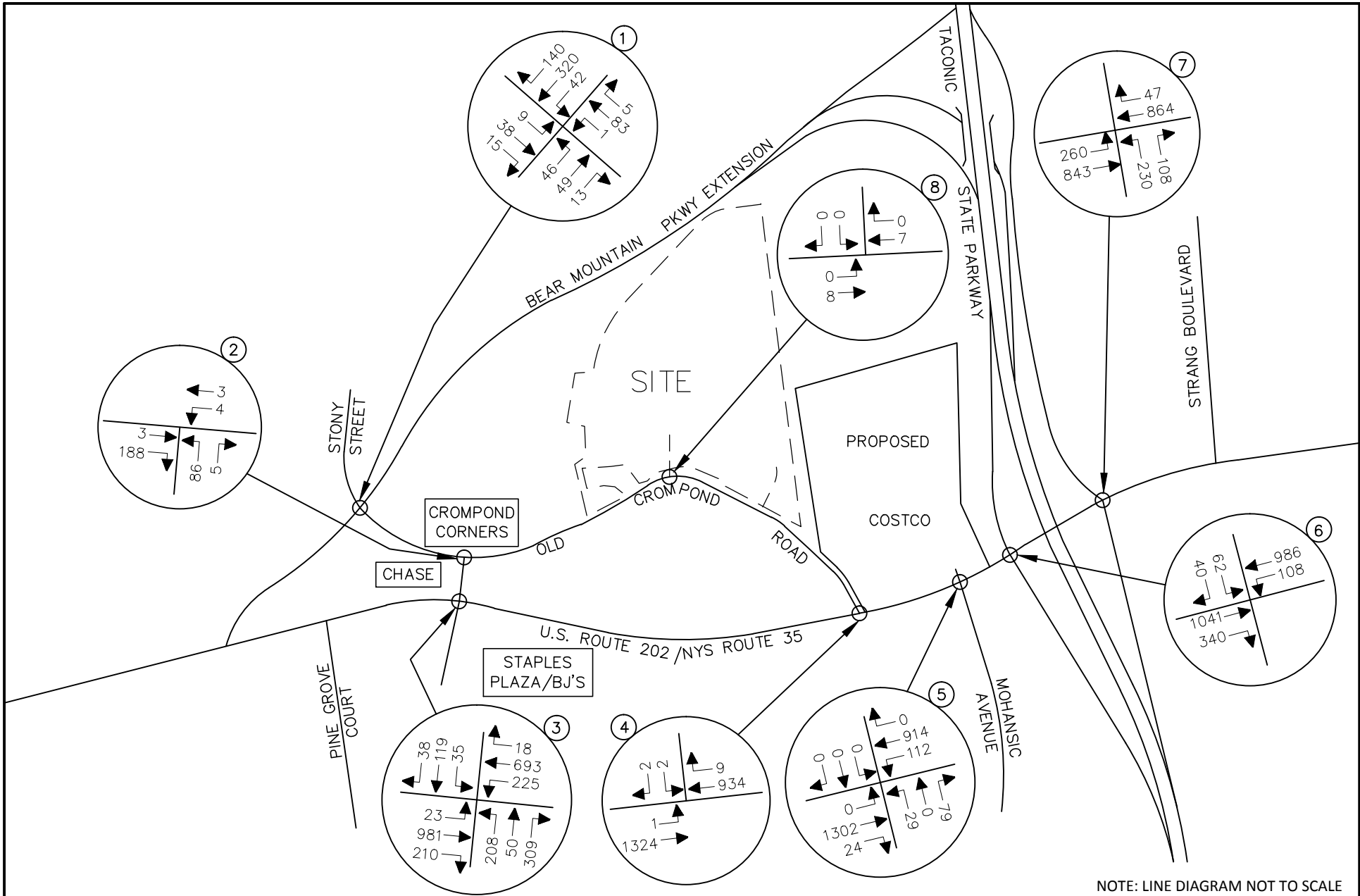
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**2014 EXISTING TRAFFIC VOLUMES
 WEEKDAY PEAK PM HOUR**



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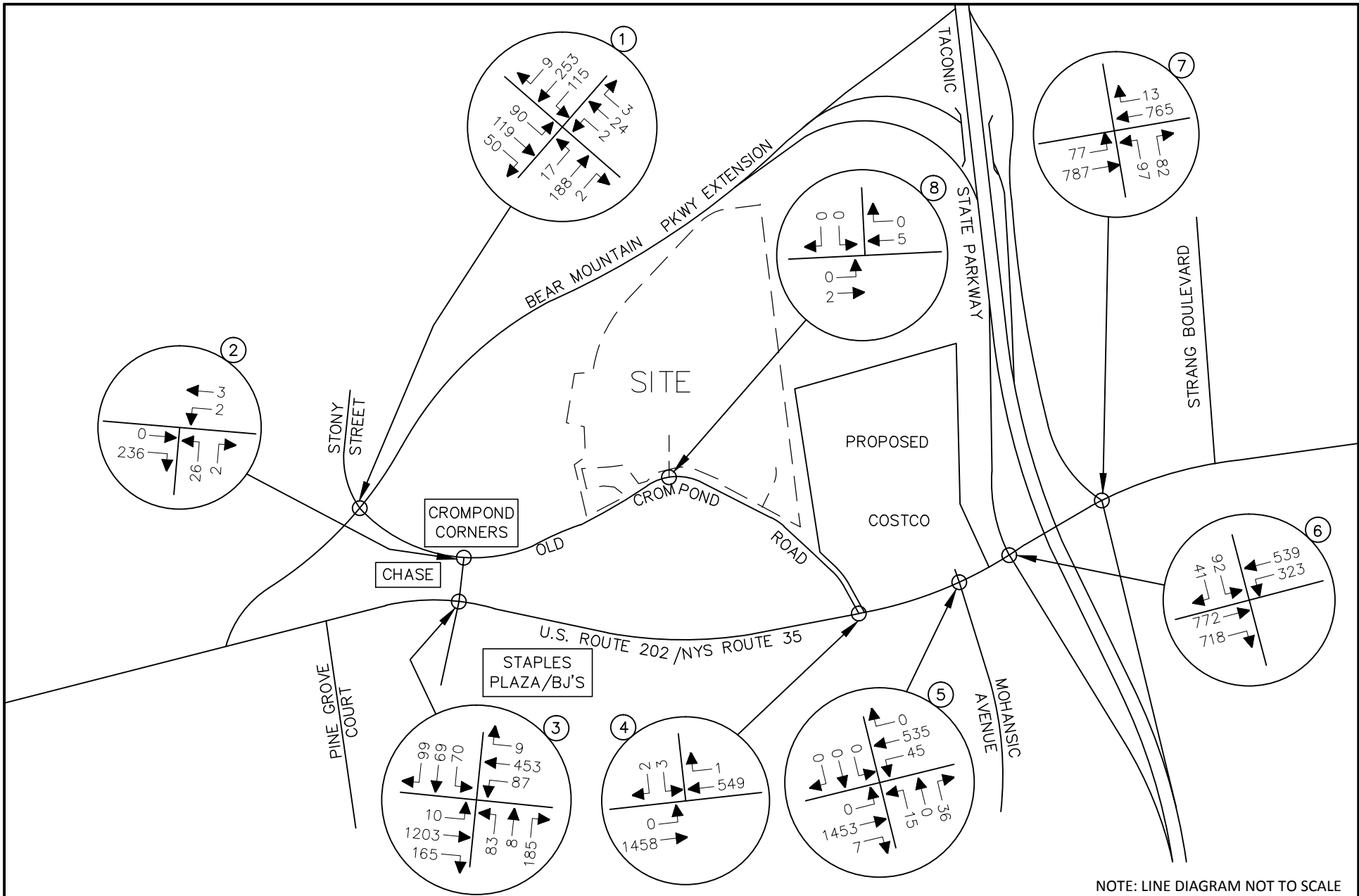
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2014 EXISTING TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR



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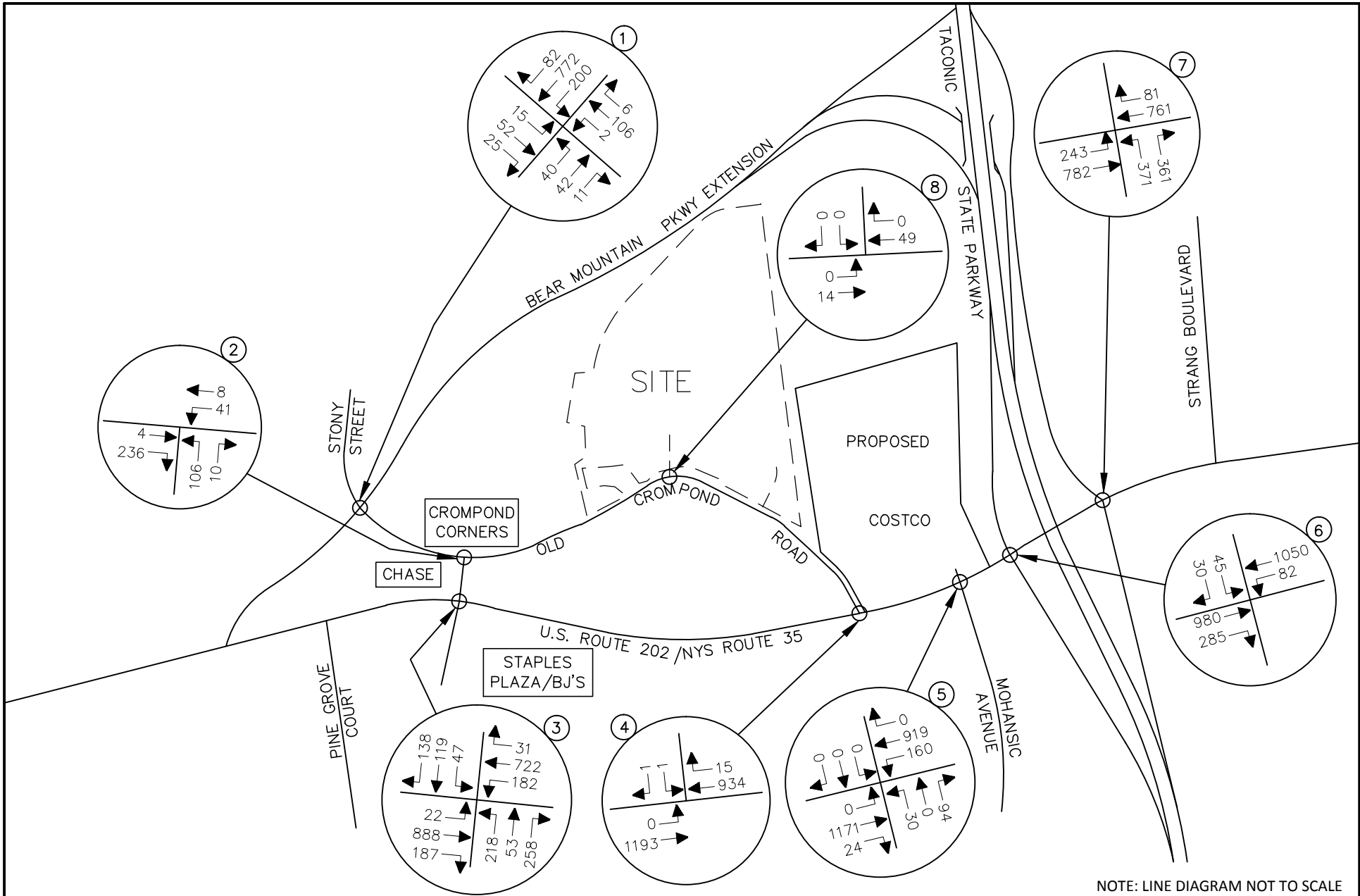
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**2019 PROJECTED TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



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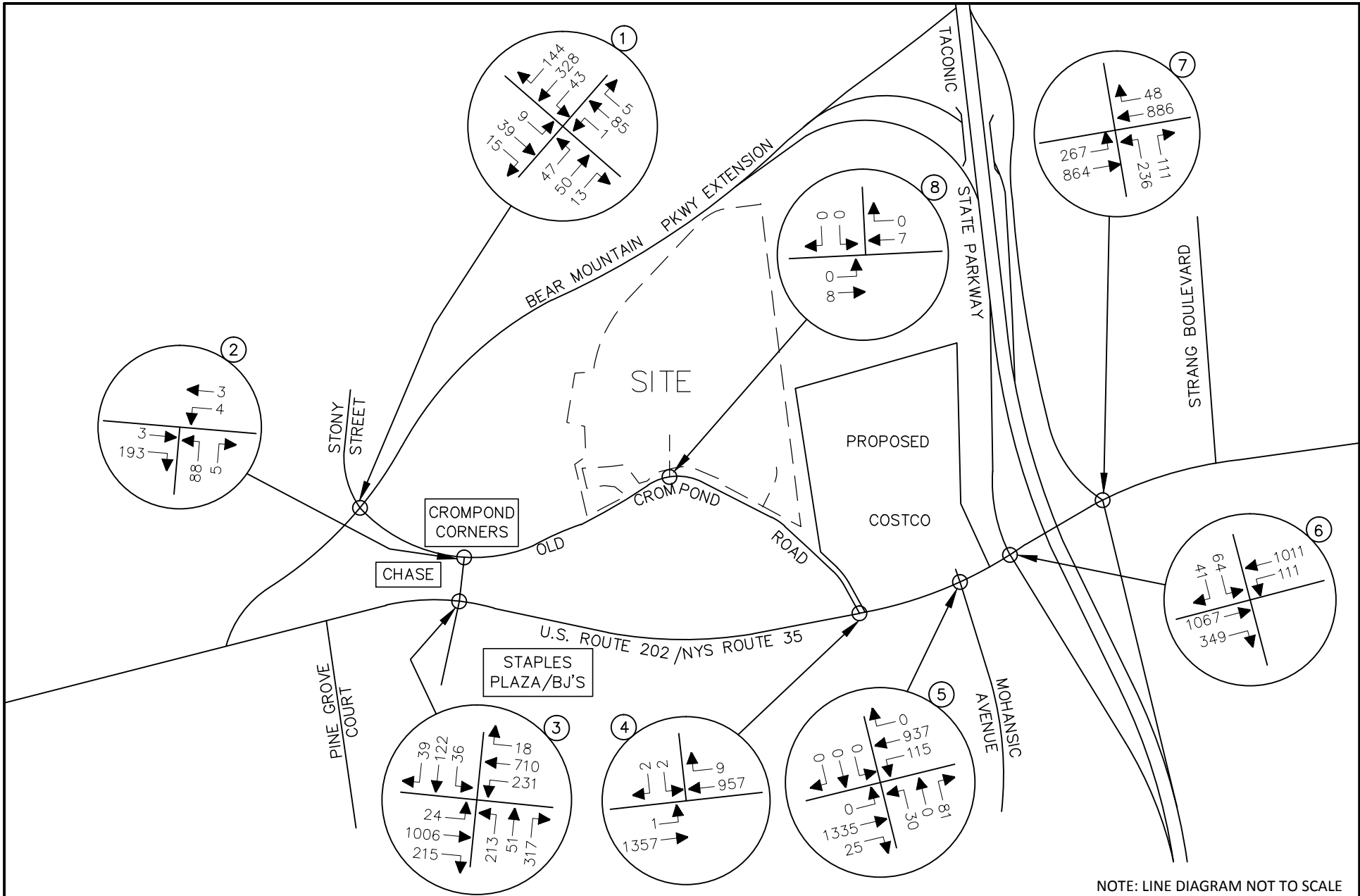
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**2019 PROJECTED TRAFFIC VOLUMES
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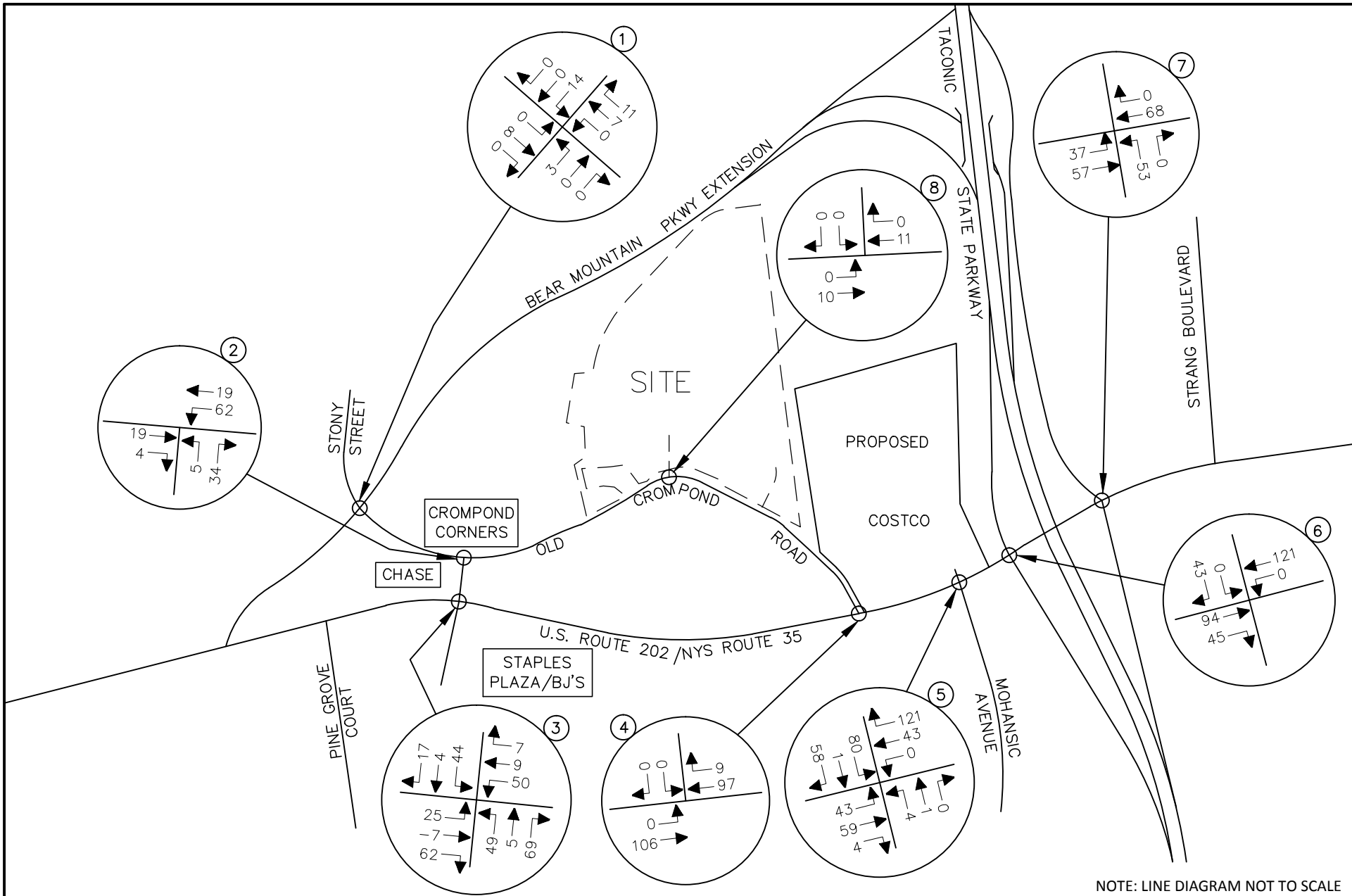
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**2019 PROJECTED TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR**



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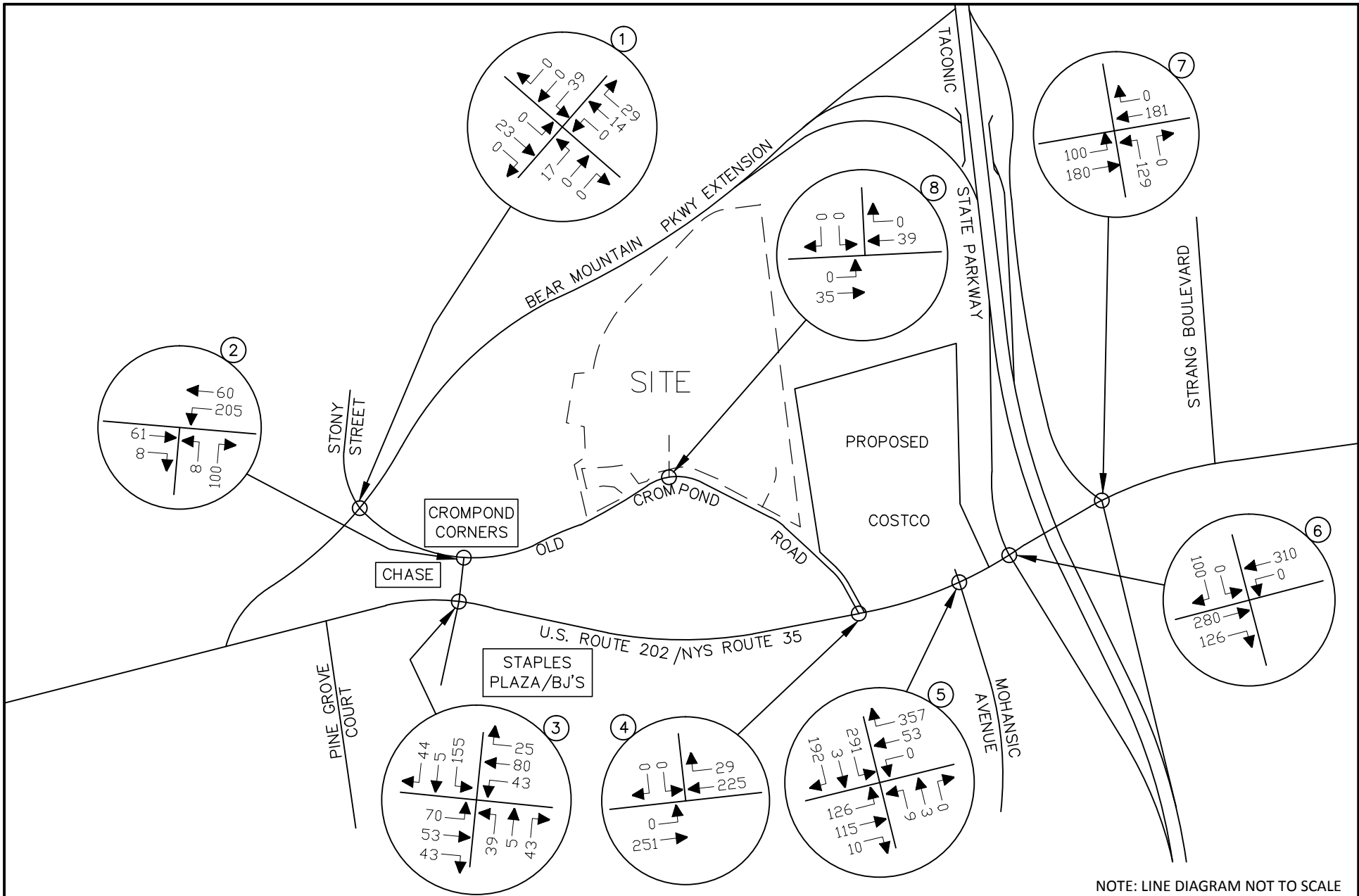
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**OTHER DEVELOPMENT TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
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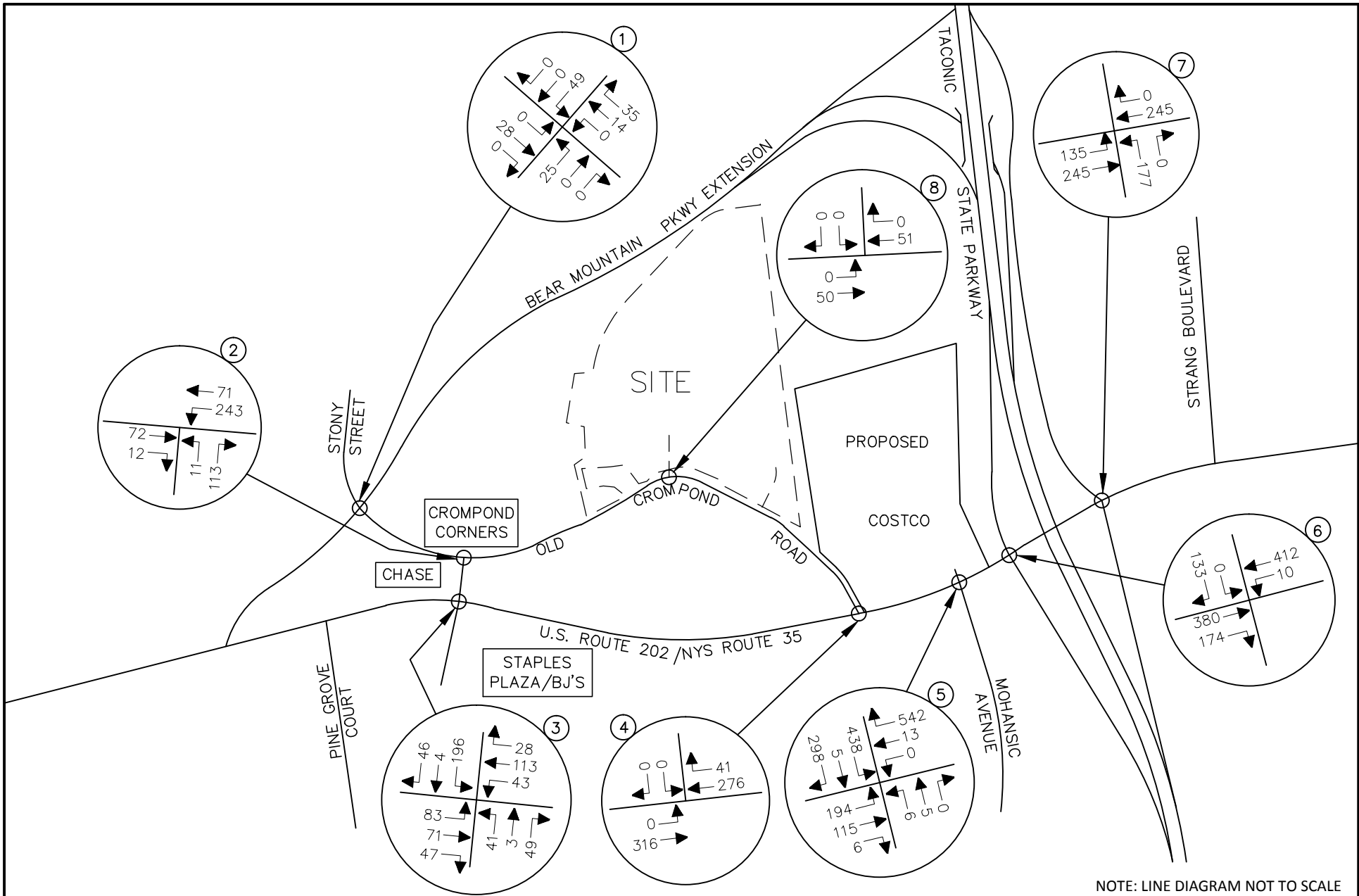
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**OTHER DEVELOPMENT TRAFFIC VOLUMES
 WEEKDAY PEAK PM HOUR**



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FIGURE NUMBER: 9



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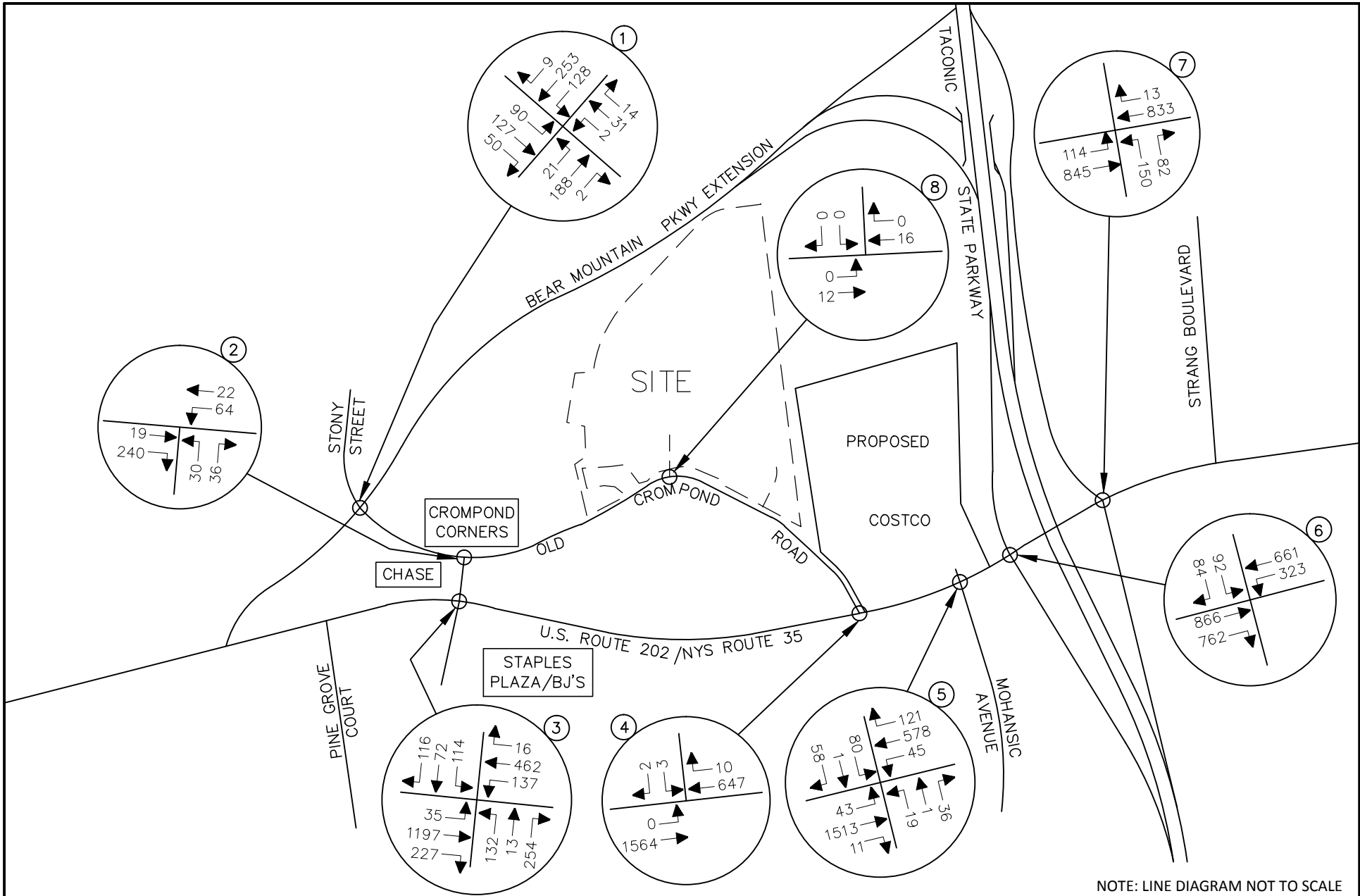
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**OTHER DEVELOPMENT TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR**



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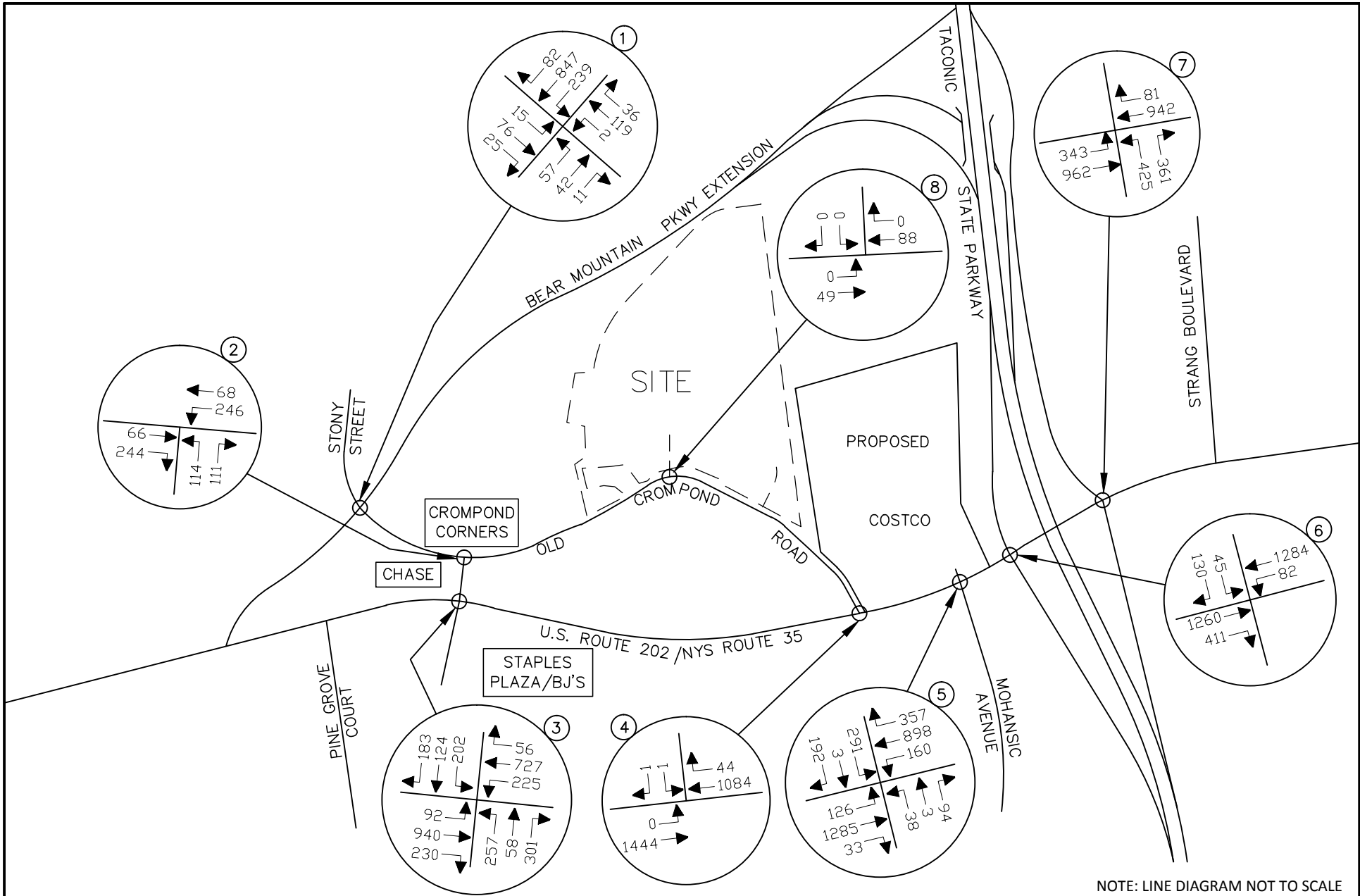
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**2019 NO-BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



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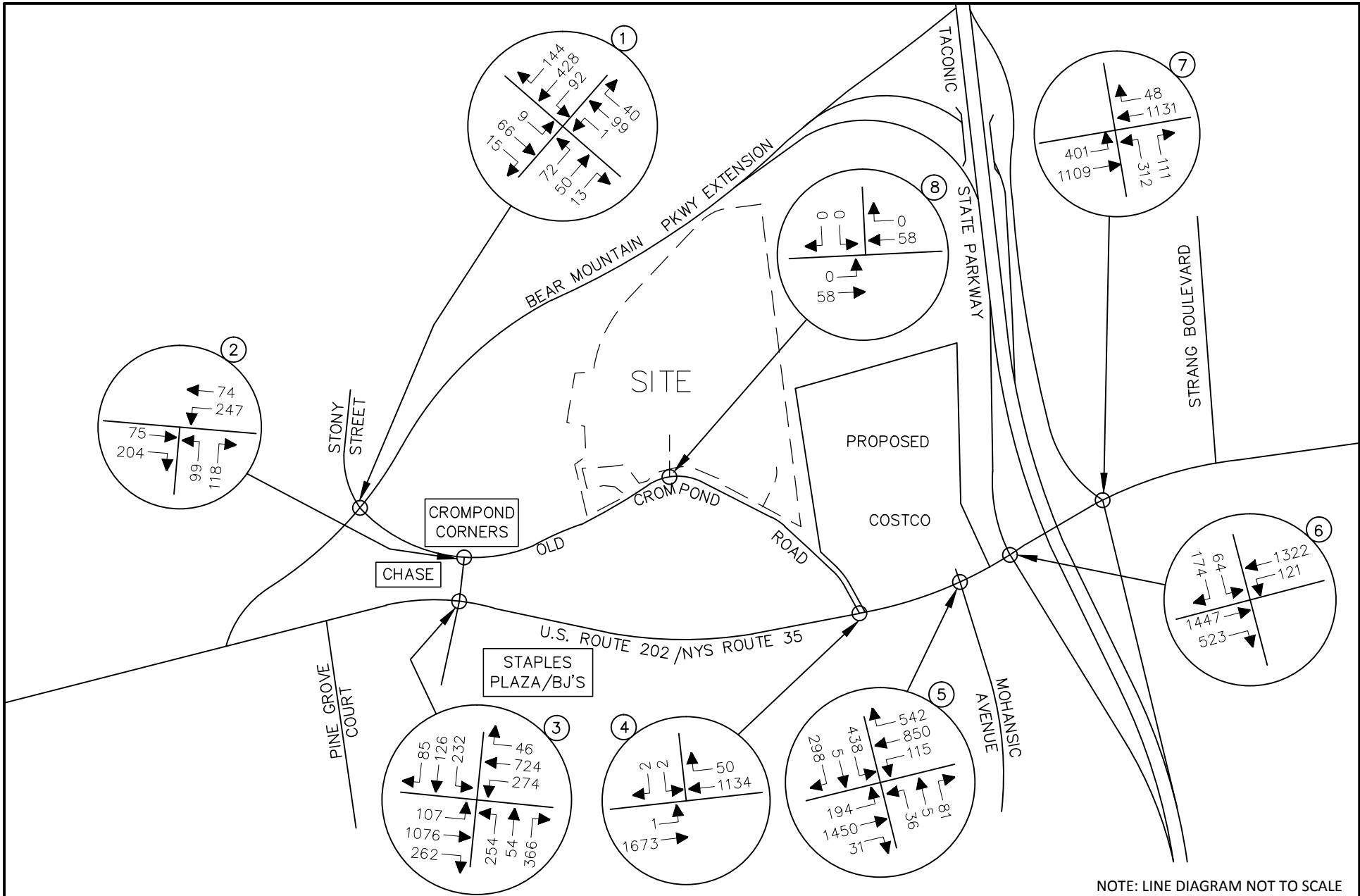
**2019 NO-BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HOUR**



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FIGURE NUMBER:

12



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**CROMPTON TERRACES (MANDALAY DEVELOPMENT)
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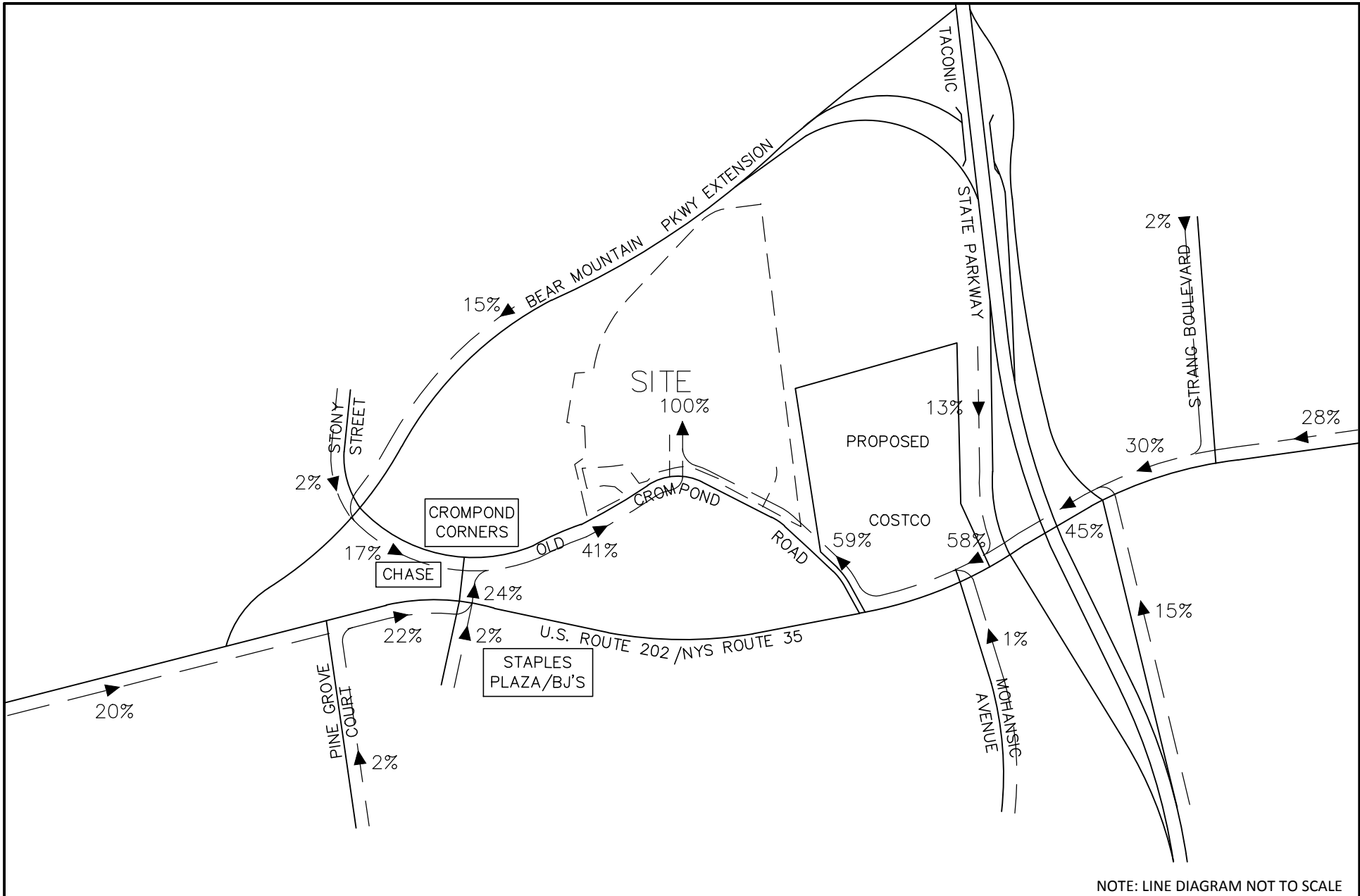
**2019 NO-BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
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FIGURE NUMBER:

13



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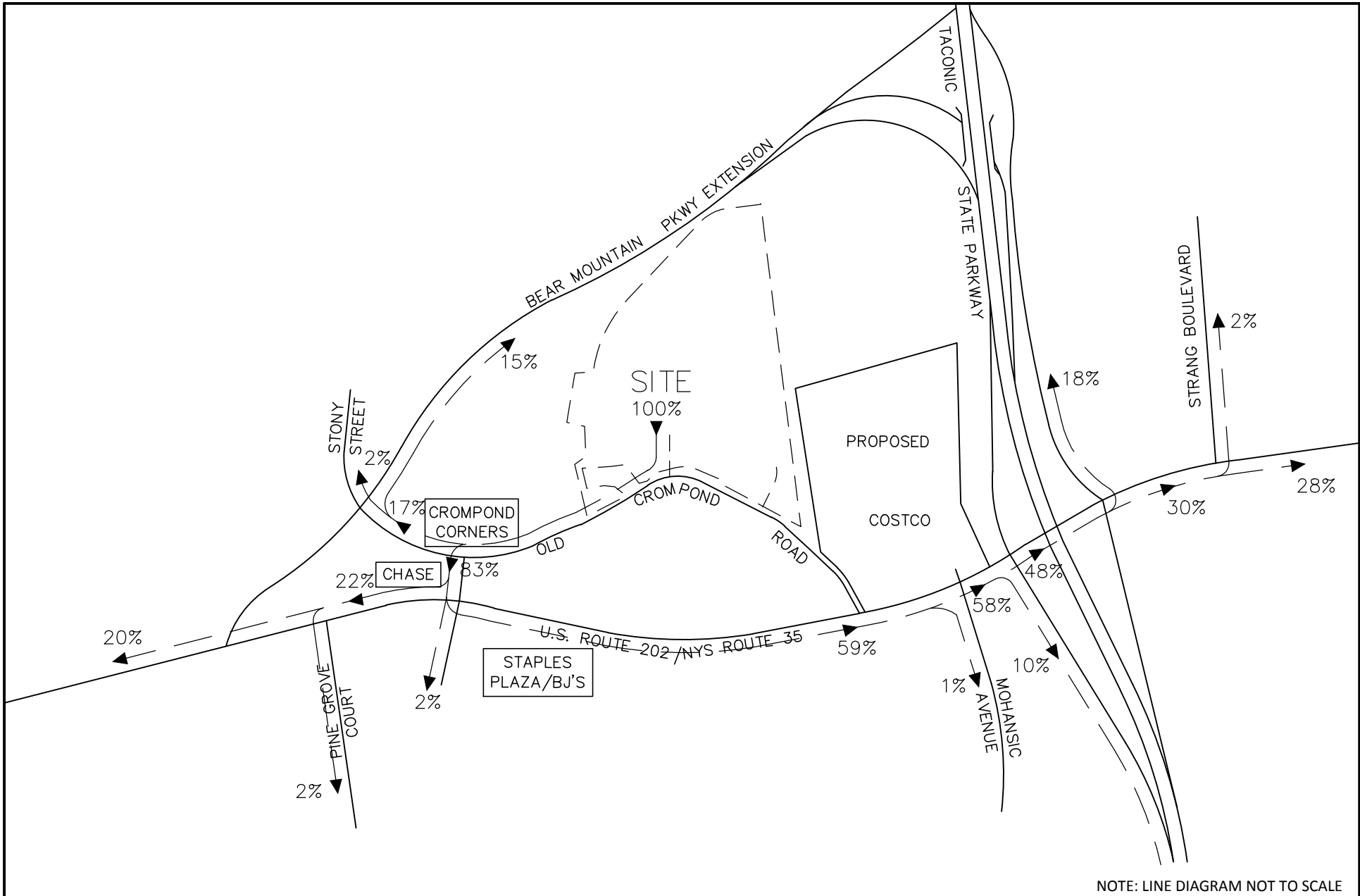
ARRIVAL DISTRIBUTION



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 YORKTOWN, NEW YORK**

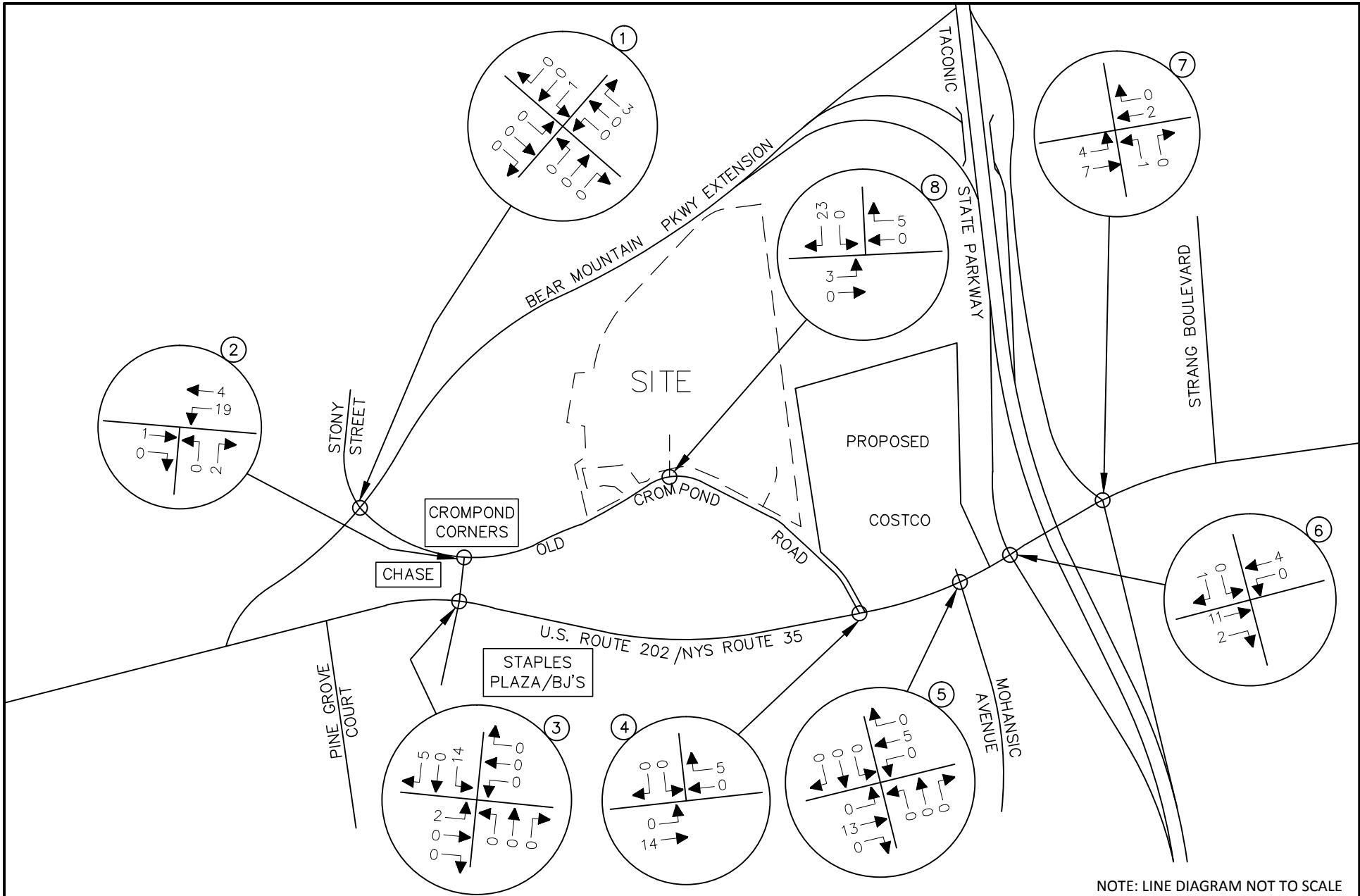
DEPARTURE DISTRIBUTION



JOB NUMBER:	DATE:
13001463A	4/2/15

FIGURE NUMBER:

15



NOTE: LINE DIAGRAM NOT TO SCALE



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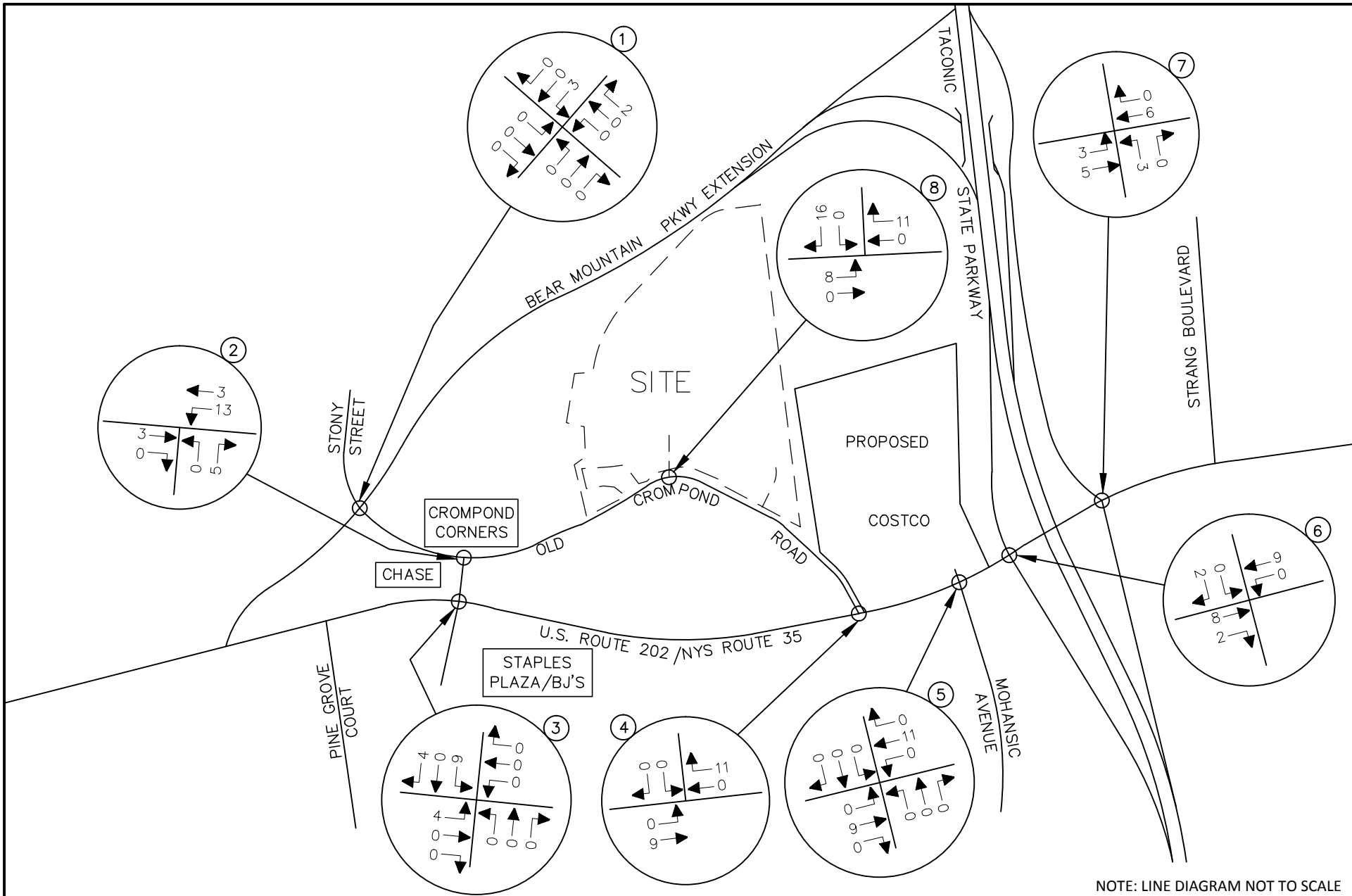
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CROMPTON TERRACES (MANDALAY DEVELOPMENT)
 YORKTOWN, NEW YORK

SITE GENERATED TRAFFIC VOLUMES
 (EXISTING ZONING)
 WEEKDAY PEAK AM HOUR



JOB NUMBER:	DATE:
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FIGURE NUMBER:	



NOTE: LINE DIAGRAM NOT TO SCALE



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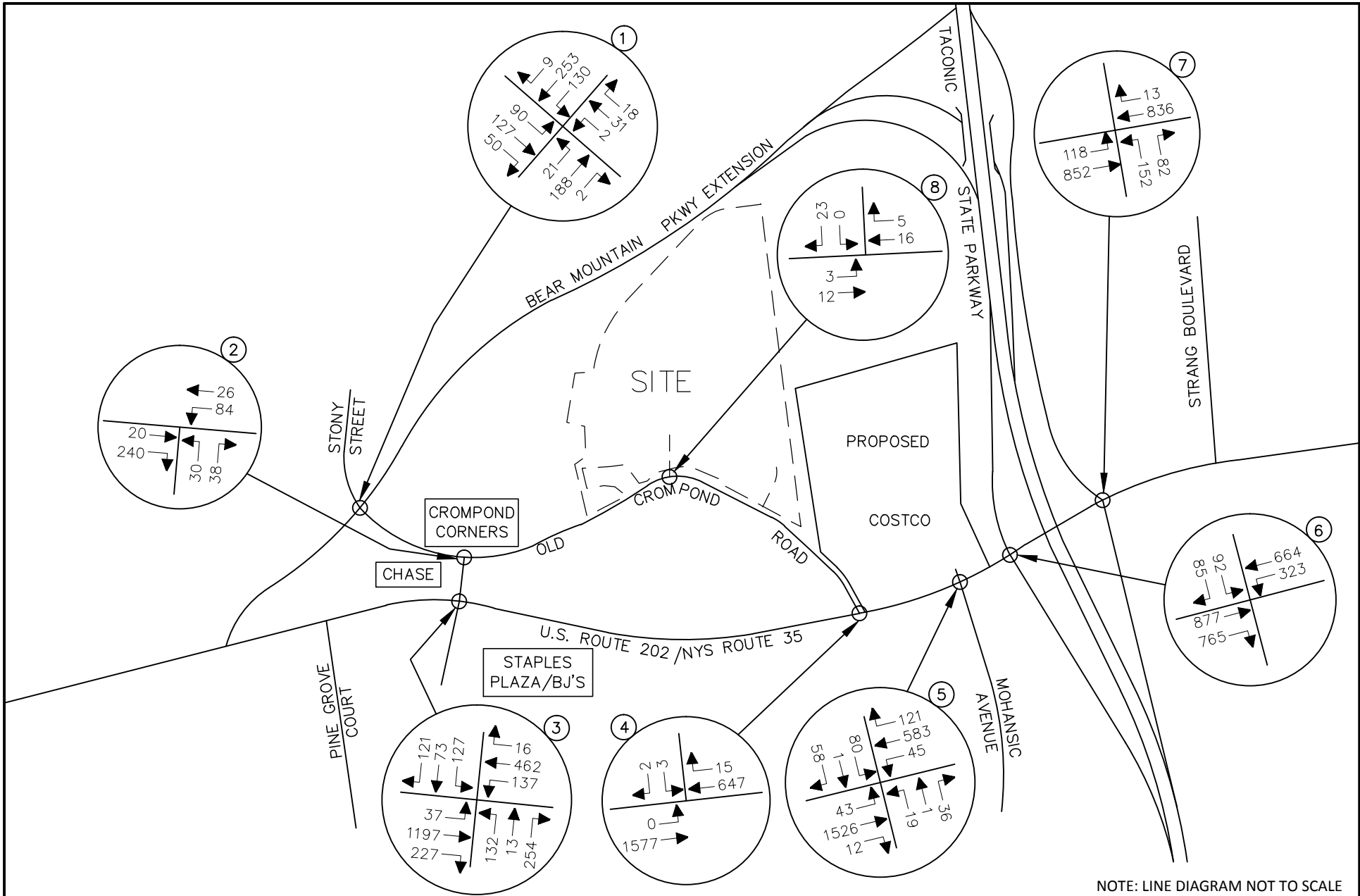
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 YORKTOWN, NEW YORK**

**SITE GENERATED TRAFFIC VOLUMES
 (EXISTING ZONING)
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	
	18



NOTE: LINE DIAGRAM NOT TO SCALE



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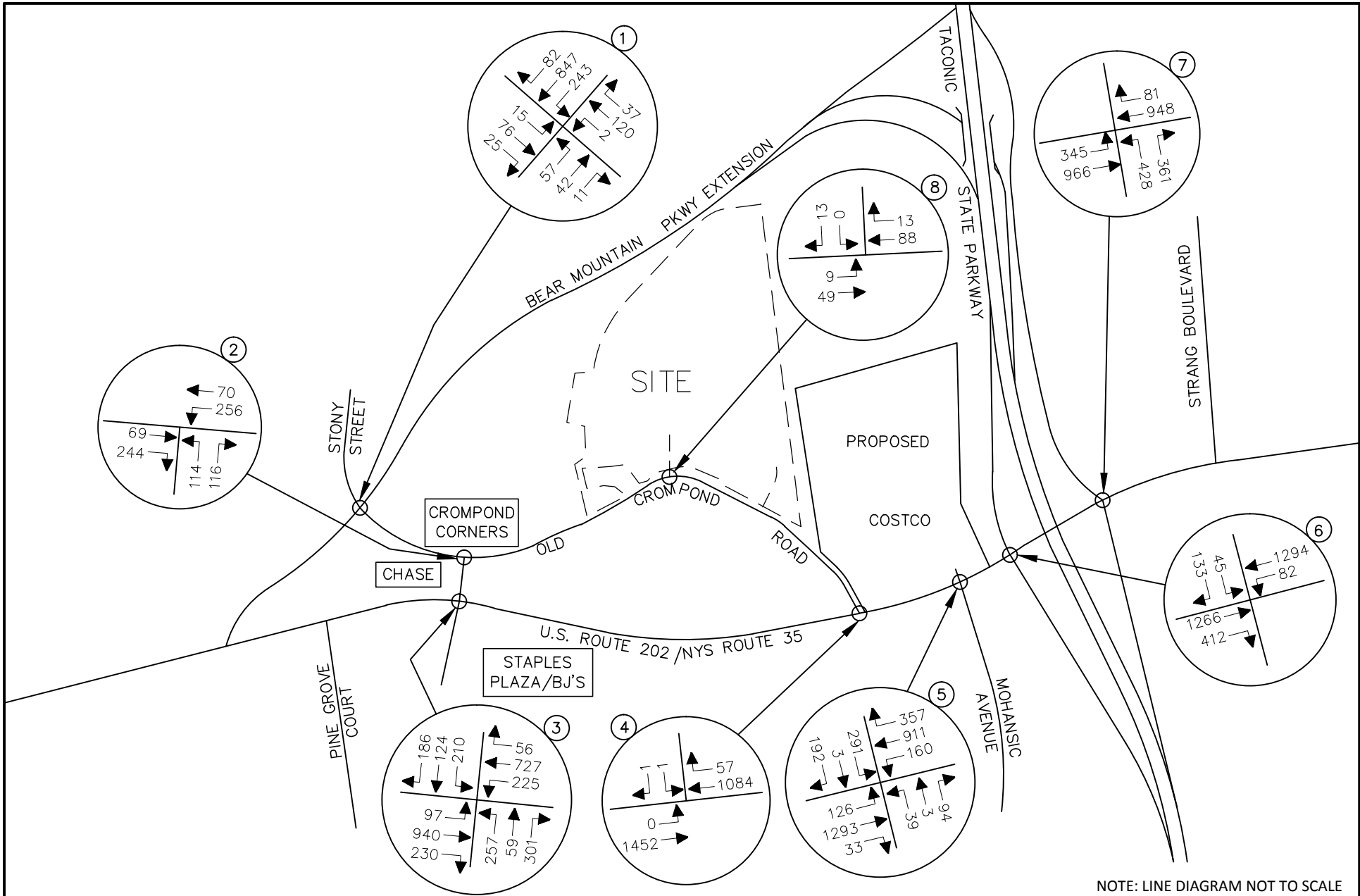
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**2019 BUILD TRAFFIC VOLUMES
 (EXISTING ZONING)
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
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FIGURE NUMBER:	



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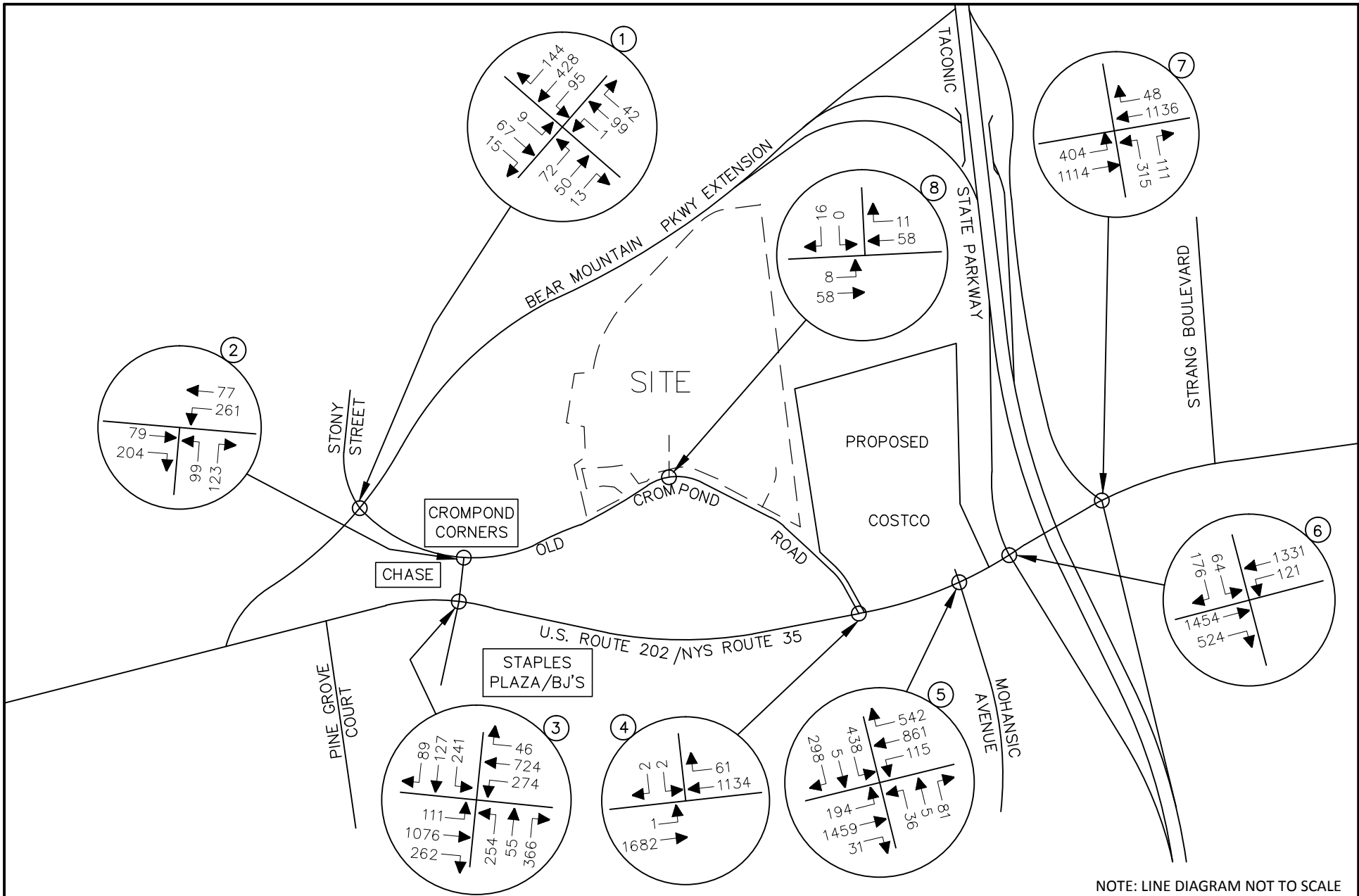
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**2019 BUILD TRAFFIC VOLUMES
 (EXISTING ZONING)
 WEEKDAY PEAK PM HOUR**



JOB NUMBER:	DATE:
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FIGURE NUMBER:



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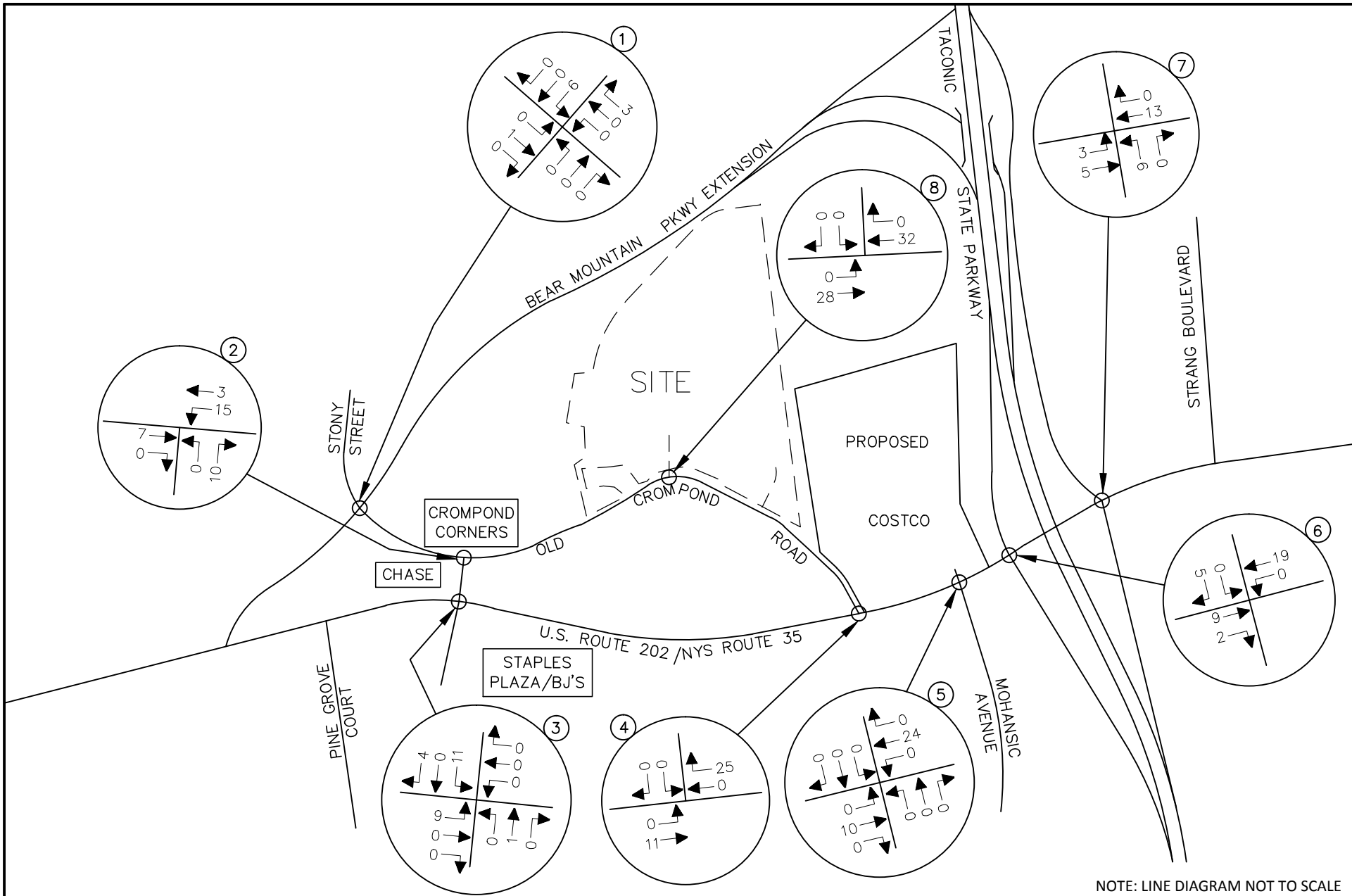
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**2019 BUILD TRAFFIC VOLUMES
 (EXISTING ZONING)
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	



NOTE: LINE DIAGRAM NOT TO SCALE



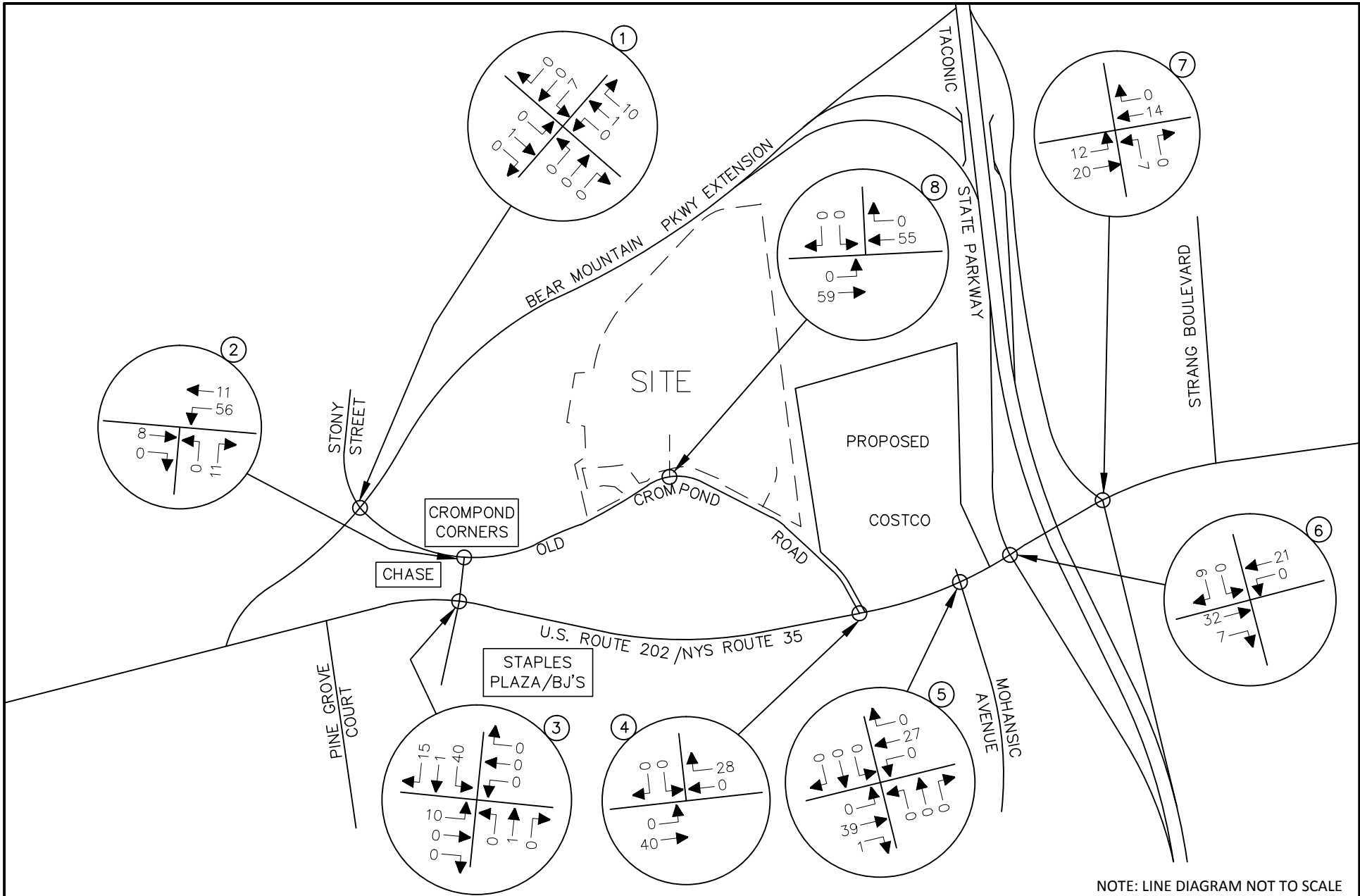
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**CROMPOND TERRACES (MANDALAY DEVELOPMENT)
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**OTHER REZONED PROPERTIES
 (BAUSO/DELVECCHIO/ANTENAROS PROPERTIES)
 SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	
22	



NOTE: LINE DIAGRAM NOT TO SCALE



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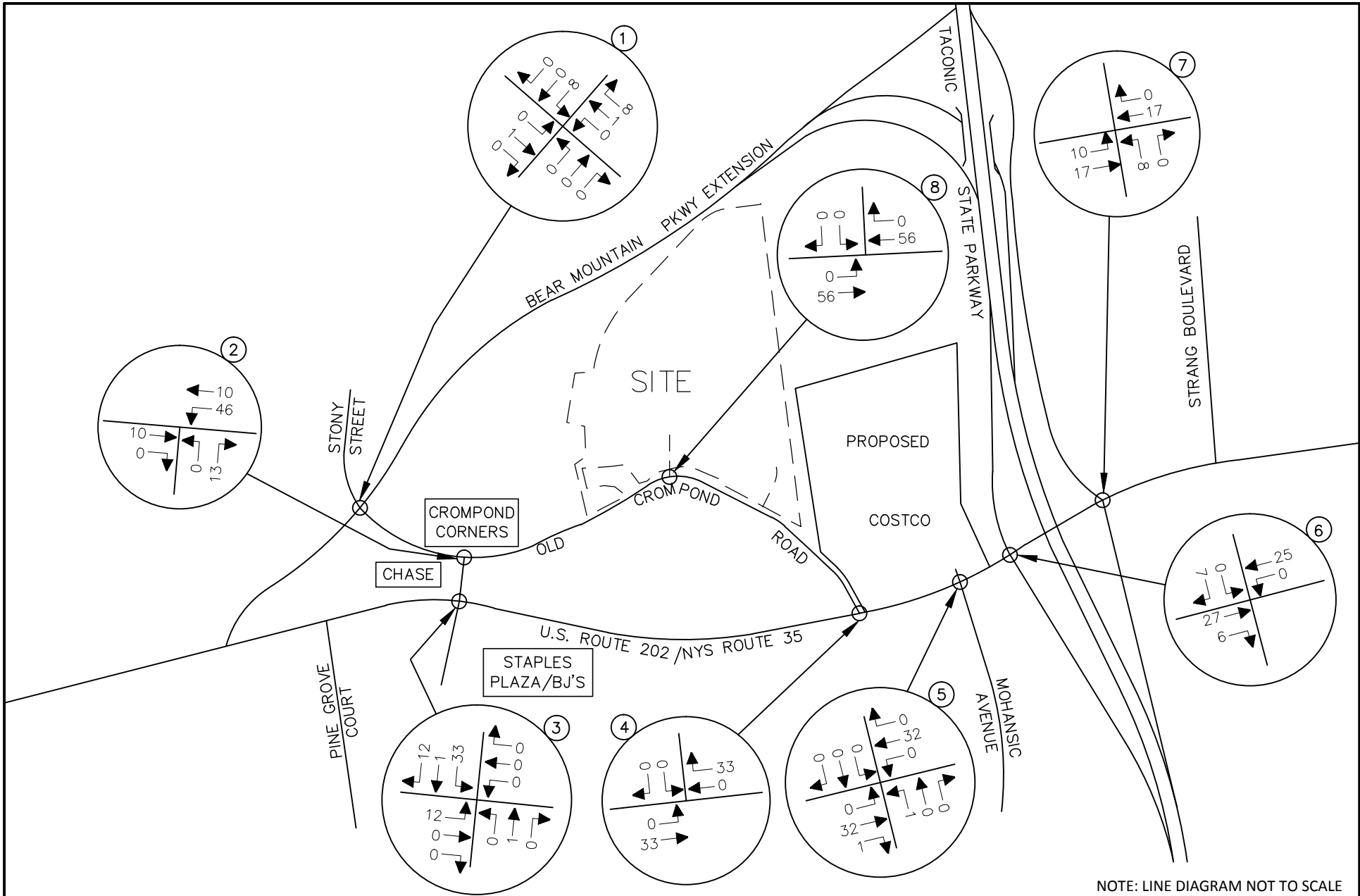
**OTHER REZONED PROPERTIES
 (BAUSO/DELVECCHIO/ANTENAROS PROPERTIES)
 SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HOUR**



JOB NUMBER: 13001463A DATE: 4/2/15

FIGURE NUMBER:

23



NOTE: LINE DIAGRAM NOT TO SCALE



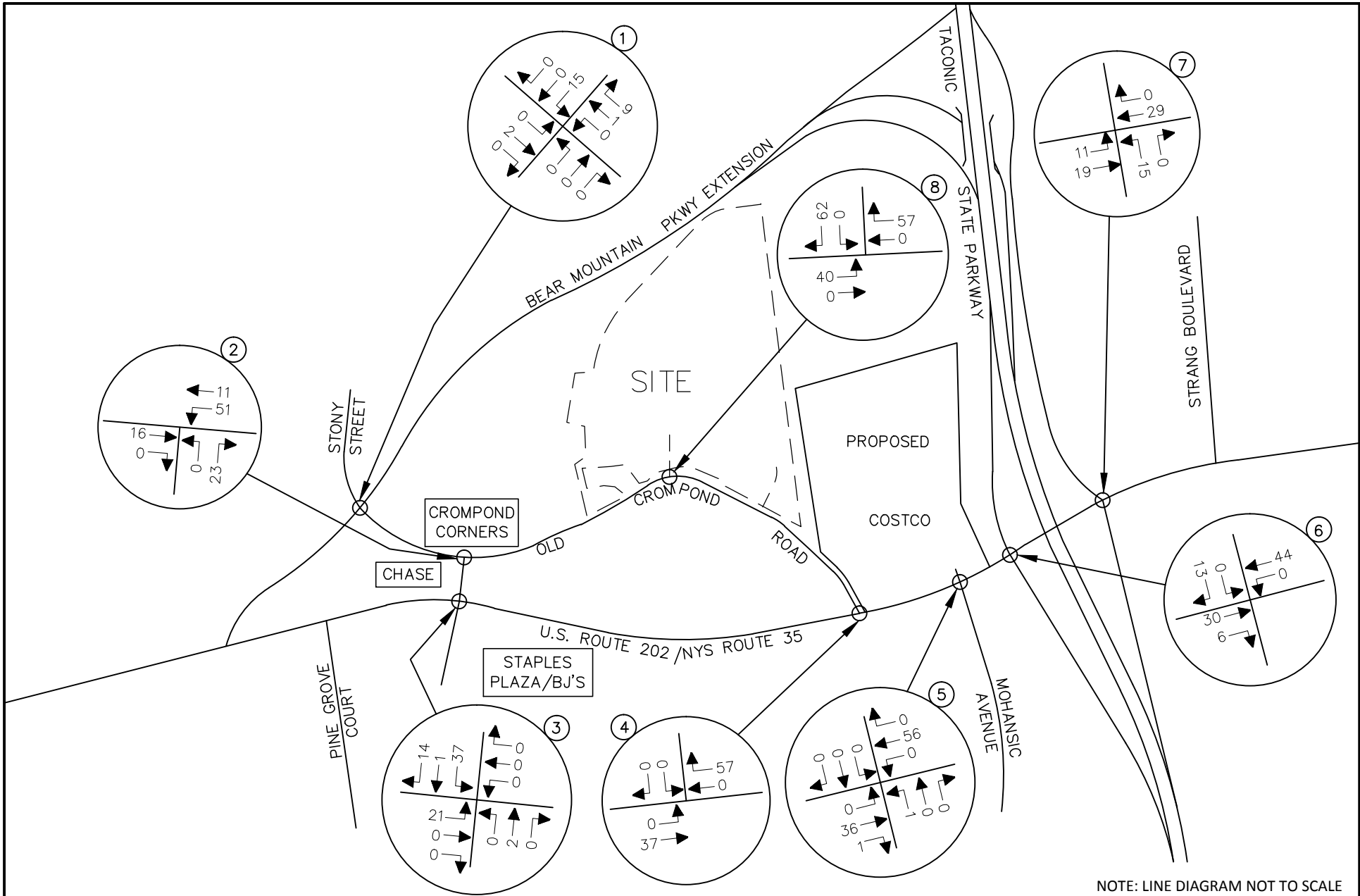
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**OTHER REZONED PROPERTIES
 (BAUSO/DELVECCHIO/ANTENAROS PROPERTIES)
 SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	
24	



NOTE: LINE DIAGRAM NOT TO SCALE



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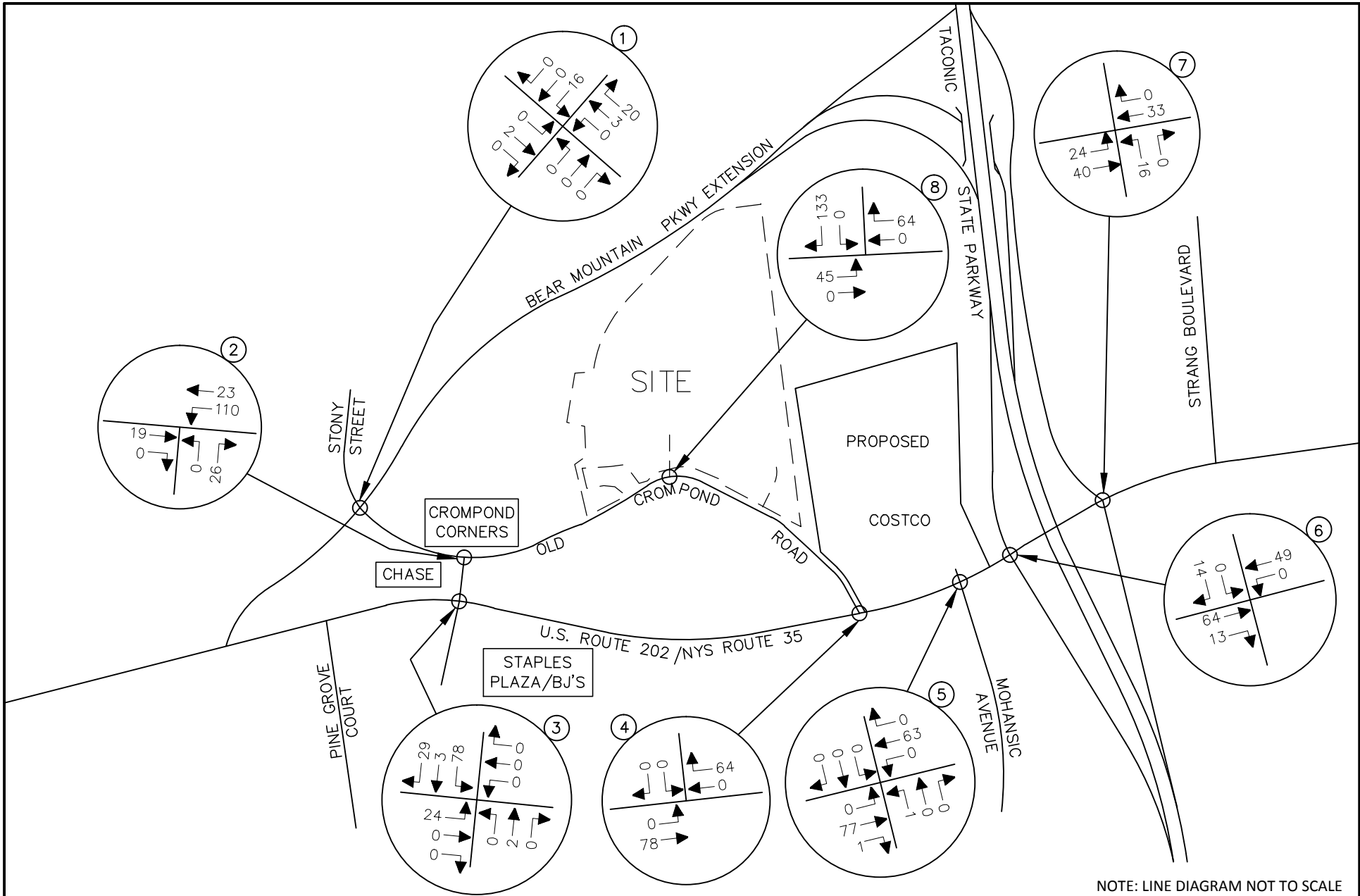
**CROMPOND TERRACES
 SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15

FIGURE NUMBER:

25



NOTE: LINE DIAGRAM NOT TO SCALE



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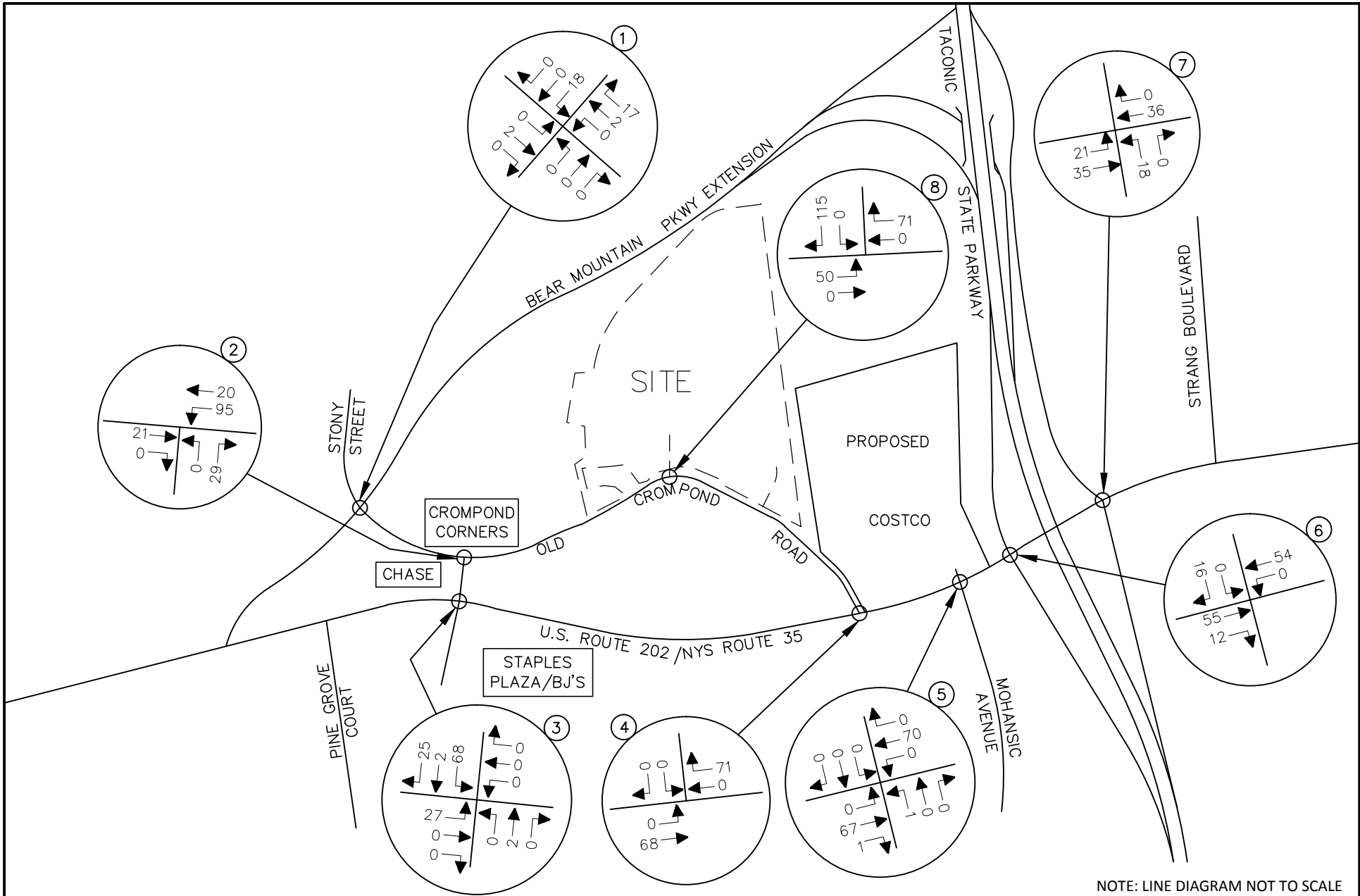
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**CROMPOND TERRACES
 SITE GENERATED TRAFFIC VOLUMES
 WEEKDAY PEAK PM HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	



NOTE: LINE DIAGRAM NOT TO SCALE



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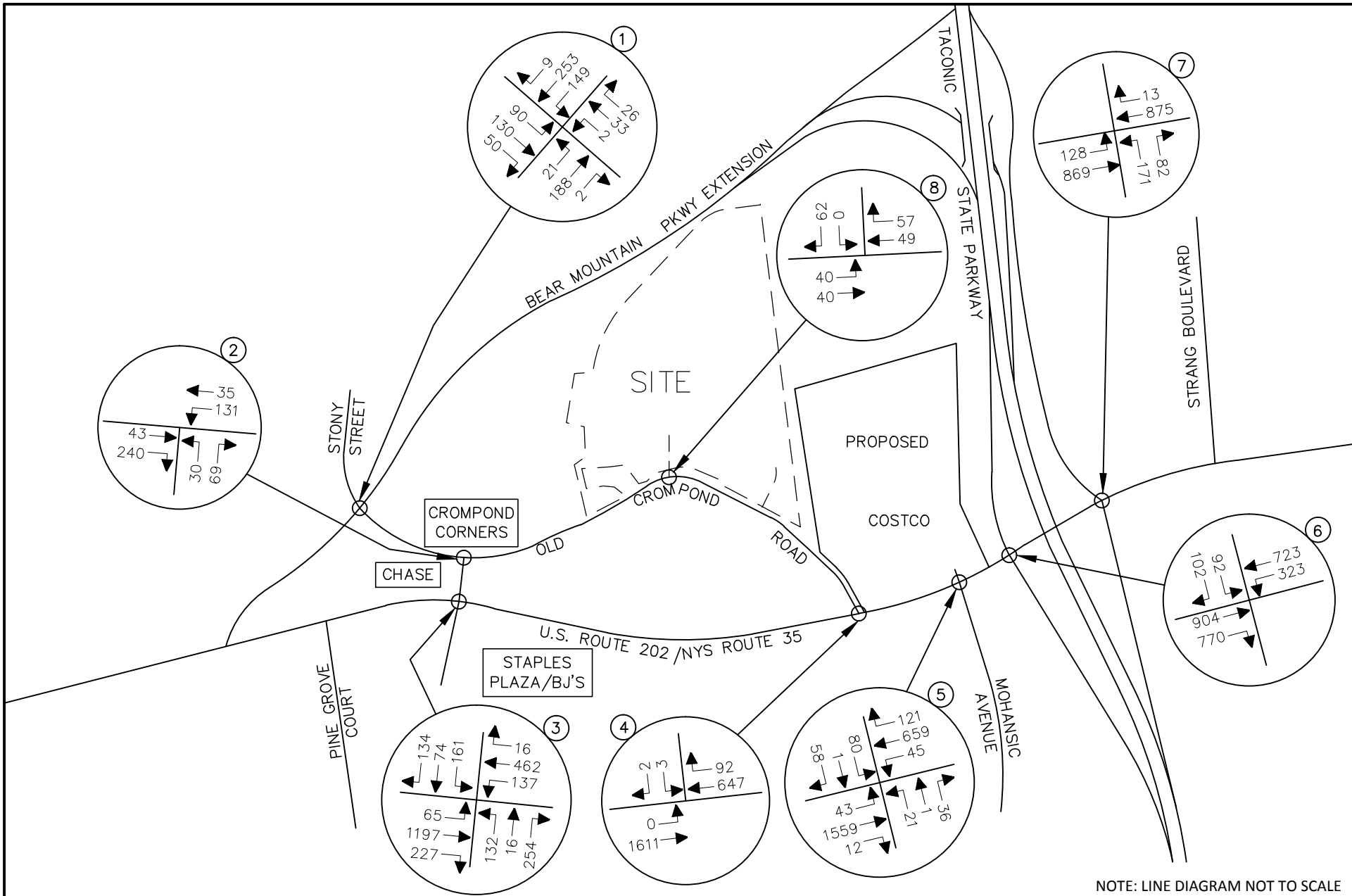
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**CROMPOND TERRACES
 SITE GENERATED TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	



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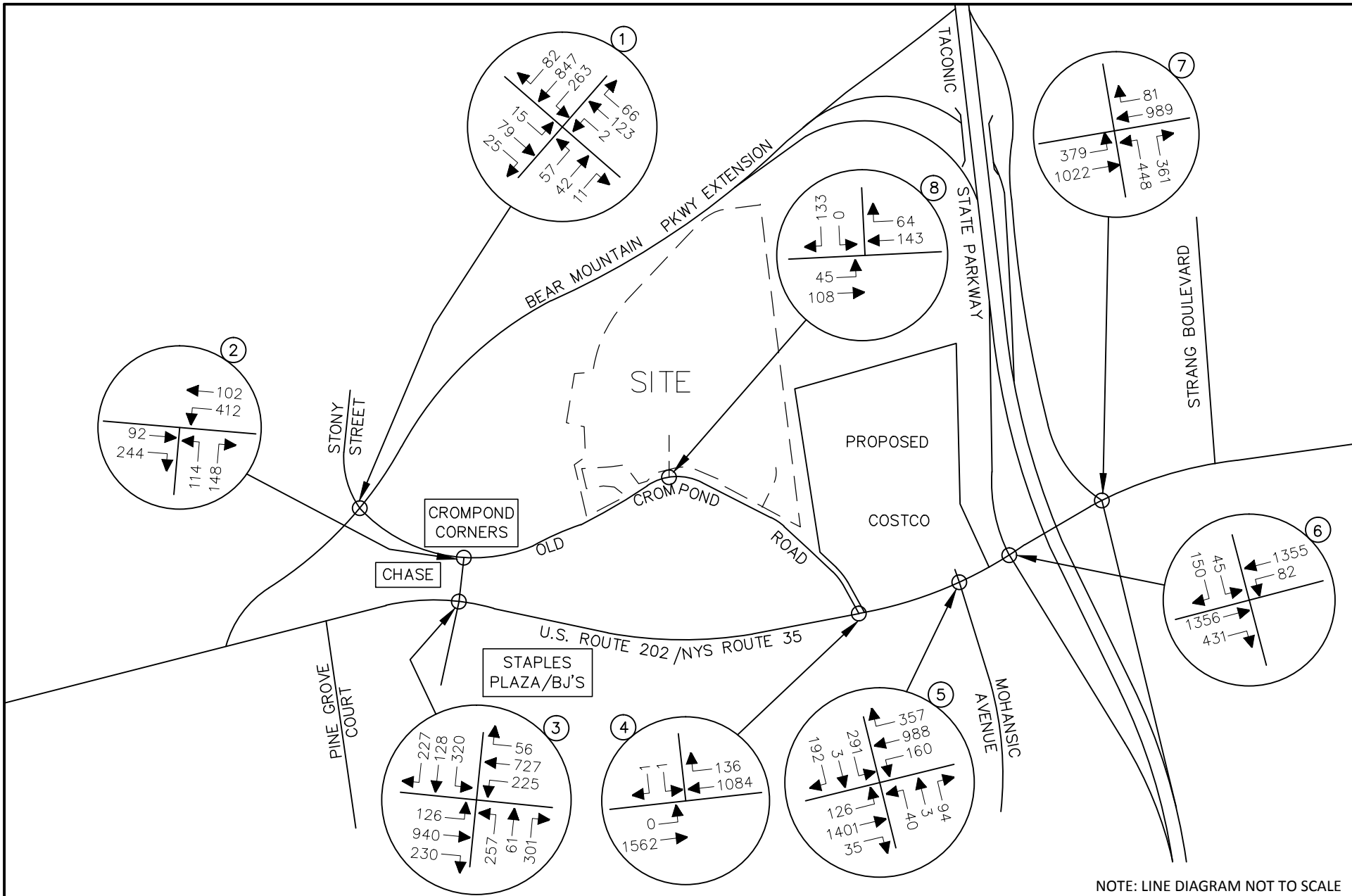
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**CROMPOND TERRACES (MANDALAY DEVELOPMENT)
 YORKTOWN, NEW YORK**

**2019 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	
28	



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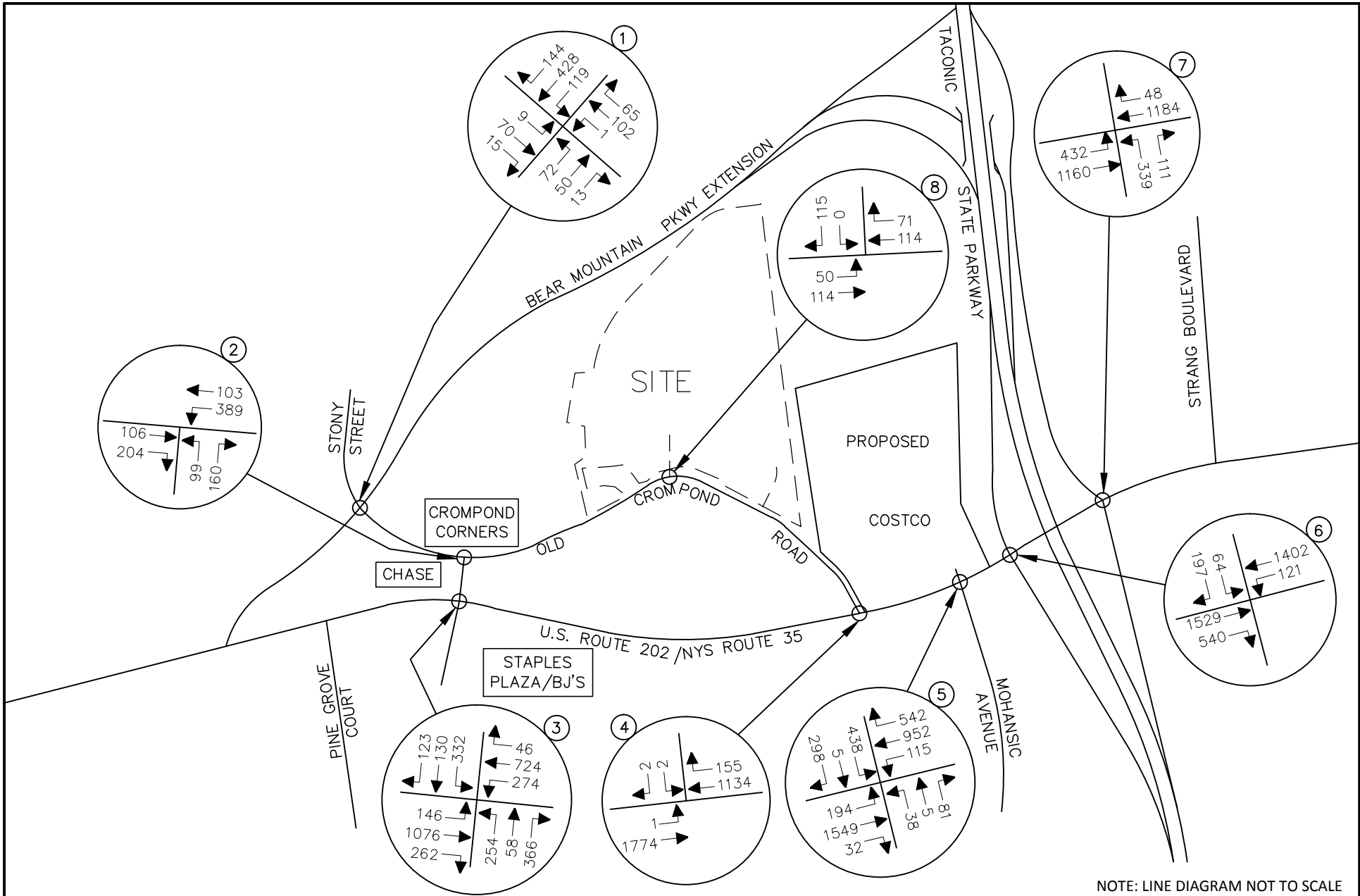
**2019 BUILD TRAFFIC VOLUMES
 WEEKDAY PEAK PM HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15

FIGURE NUMBER:

29



NOTE: LINE DIAGRAM NOT TO SCALE



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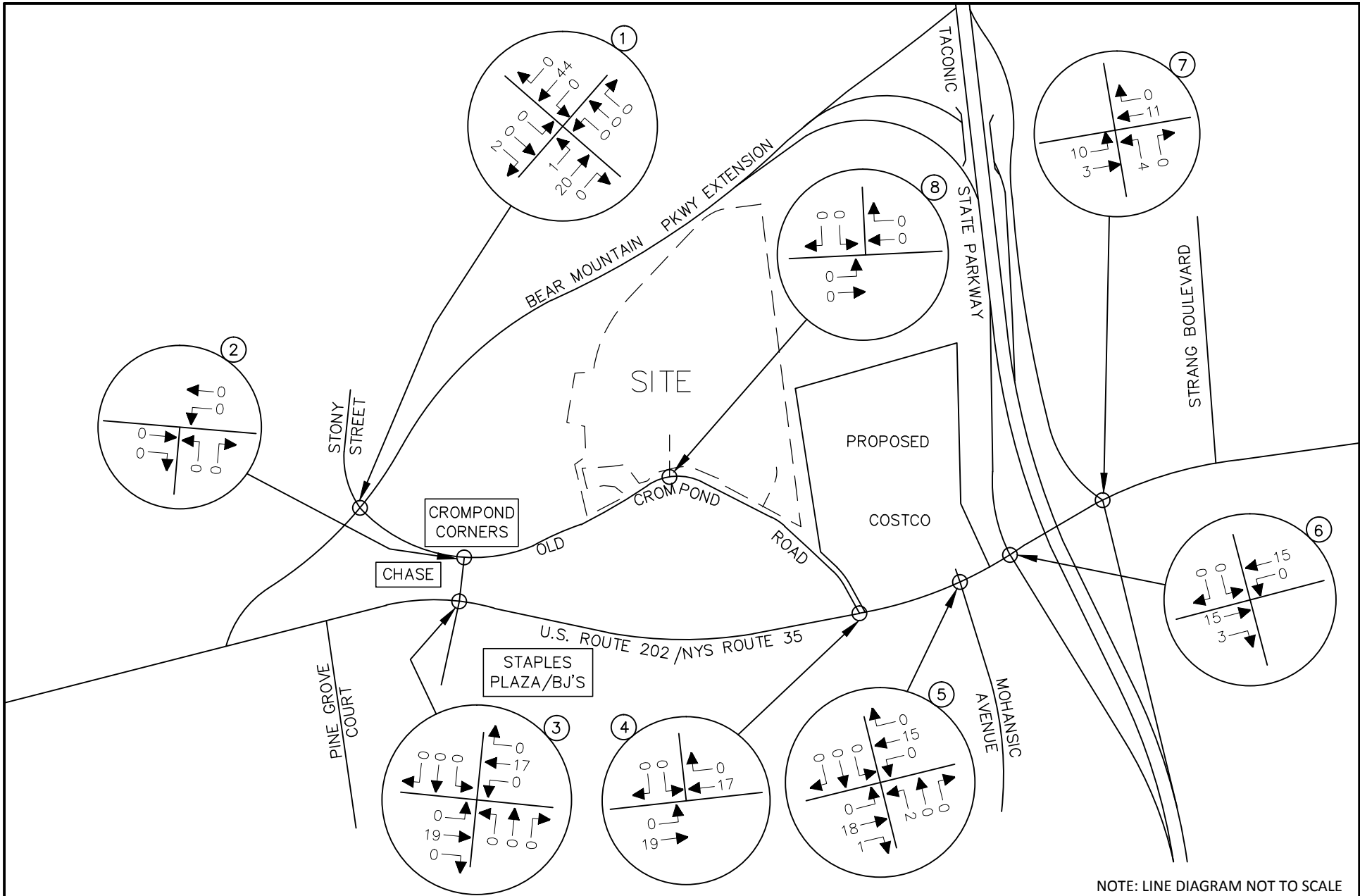
**2019 BUILD TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15

FIGURE NUMBER:

30



NOTE: LINE DIAGRAM NOT TO SCALE



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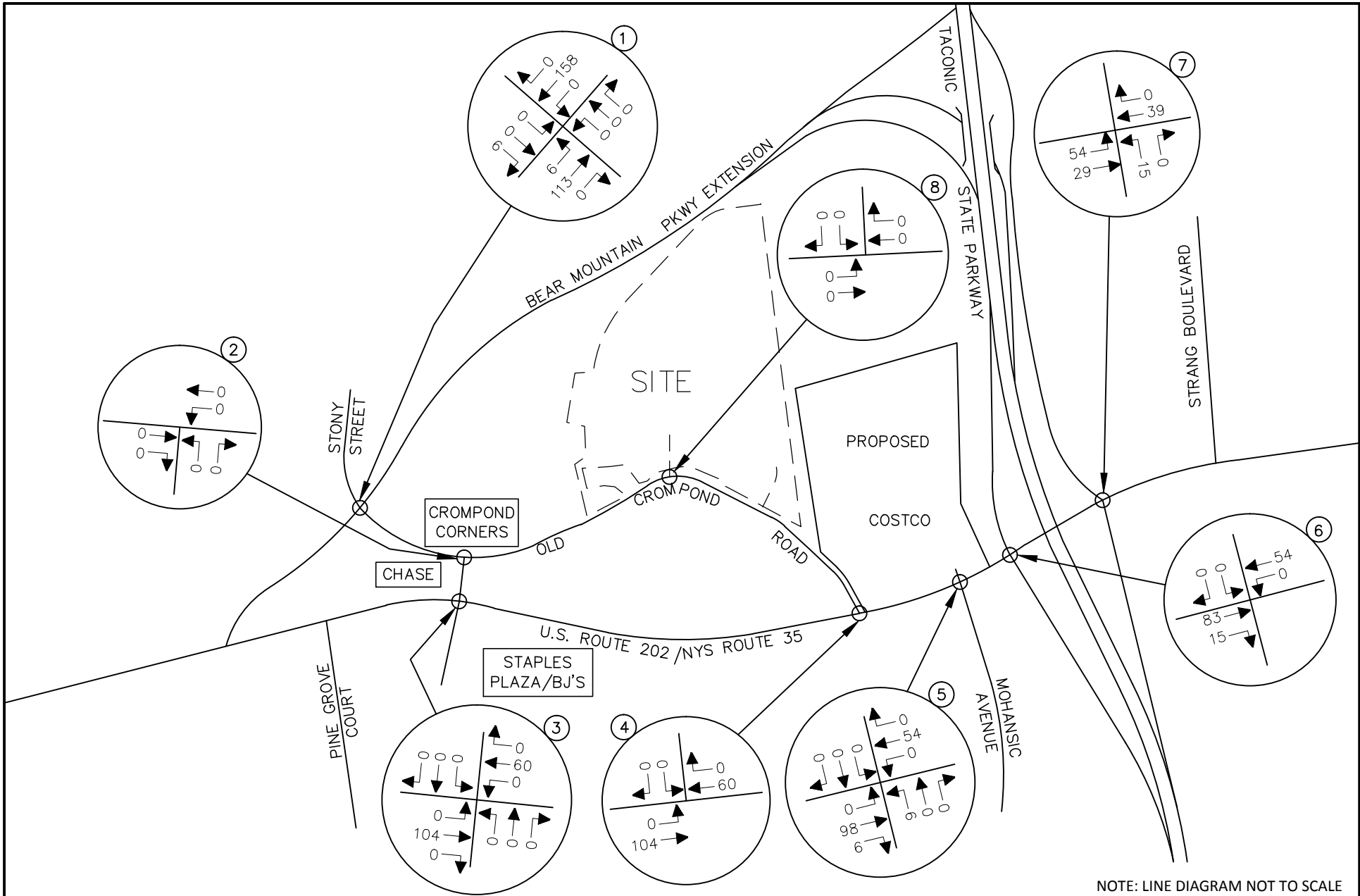
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**STATE LAND DEVELOPMENT TRAFFIC VOLUMES
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
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FIGURE NUMBER:	



NOTE: LINE DIAGRAM NOT TO SCALE



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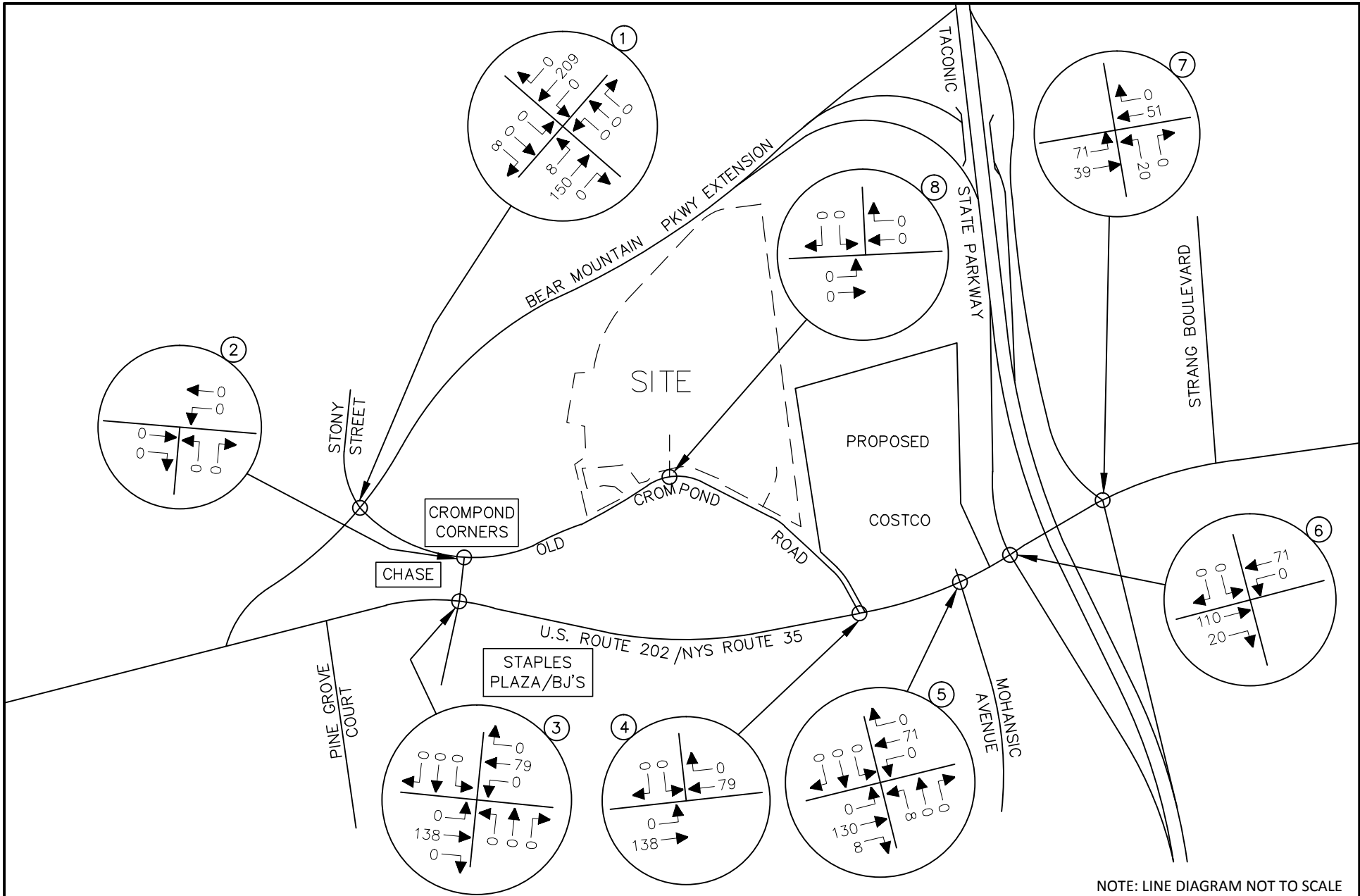
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**STATE LAND DEVELOPMENT TRAFFIC VOLUMES
 WEEKDAY PEAK PM HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	
32	



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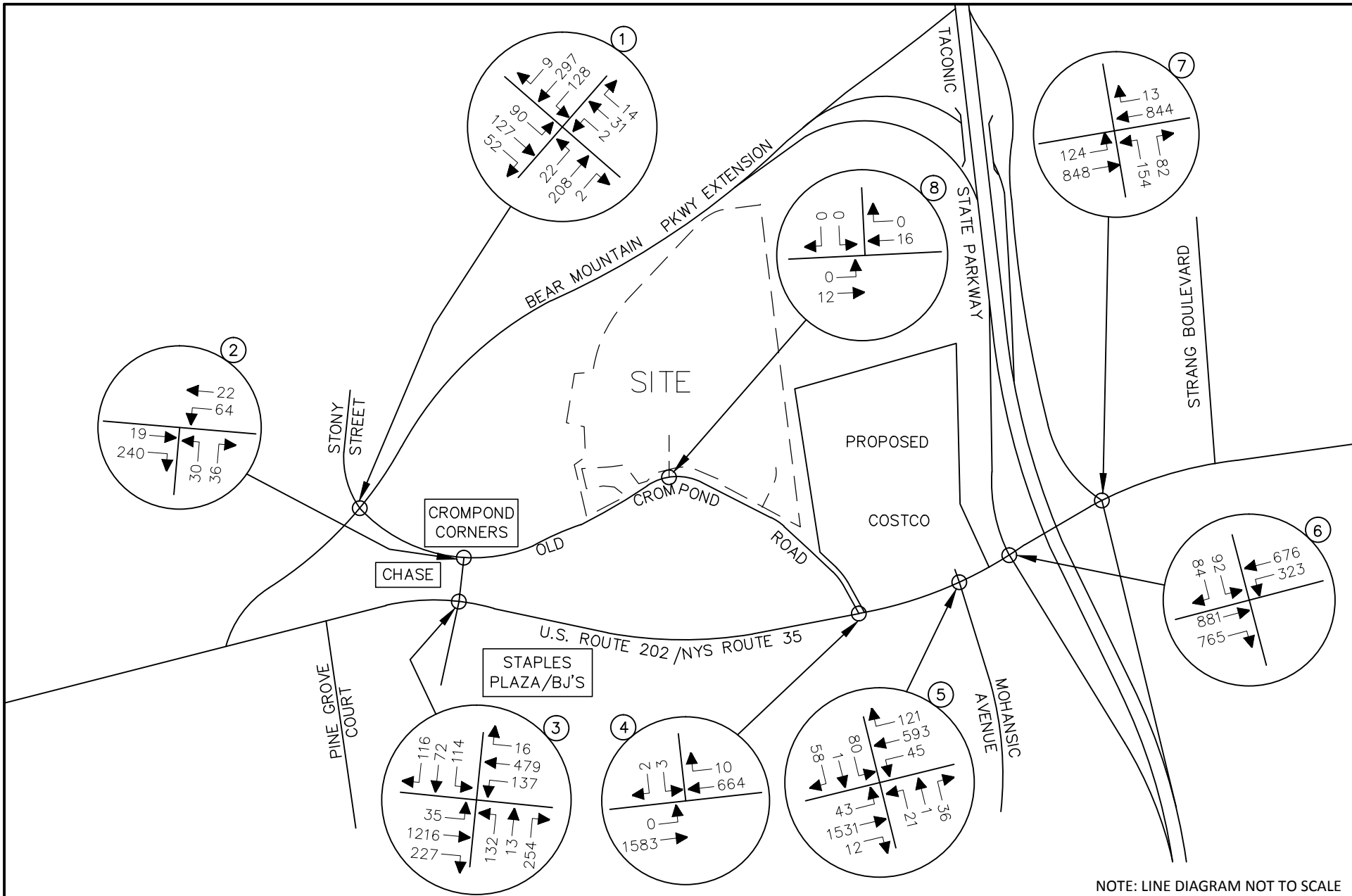
**STATE LAND DEVELOPMENT TRAFFIC VOLUMES
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
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FIGURE NUMBER:

33



NOTE: LINE DIAGRAM NOT TO SCALE



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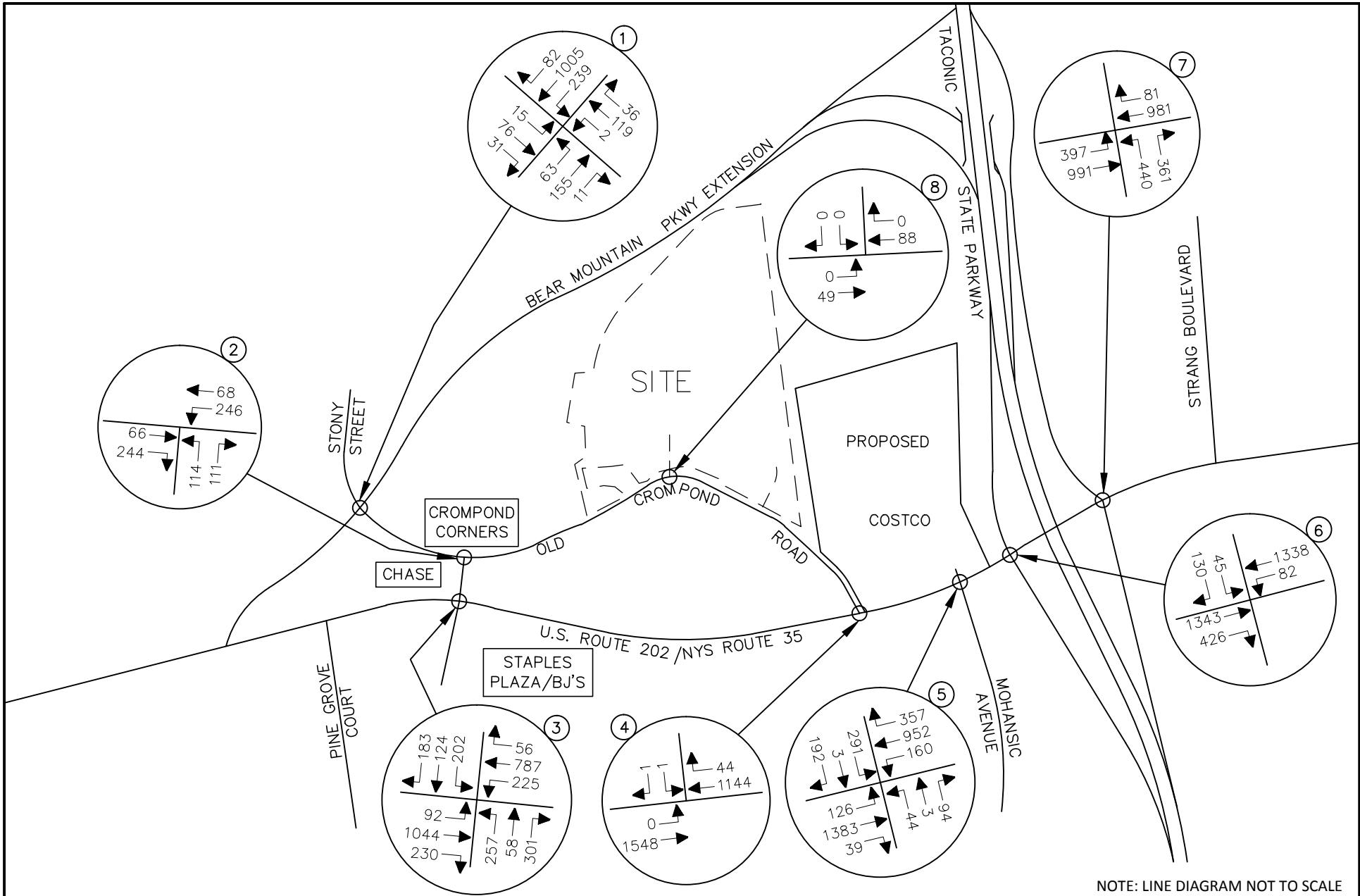
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**CROMPOND TERRACES (MANDALAY DEVELOPMENT)
 YORKTOWN, NEW YORK**

2019 NO-BUILD TRAFFIC VOLUMES
 WITH STATE LAND DEVELOPMENT
 WEEKDAY PEAK AM HOUR



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	



NOTE: LINE DIAGRAM NOT TO SCALE



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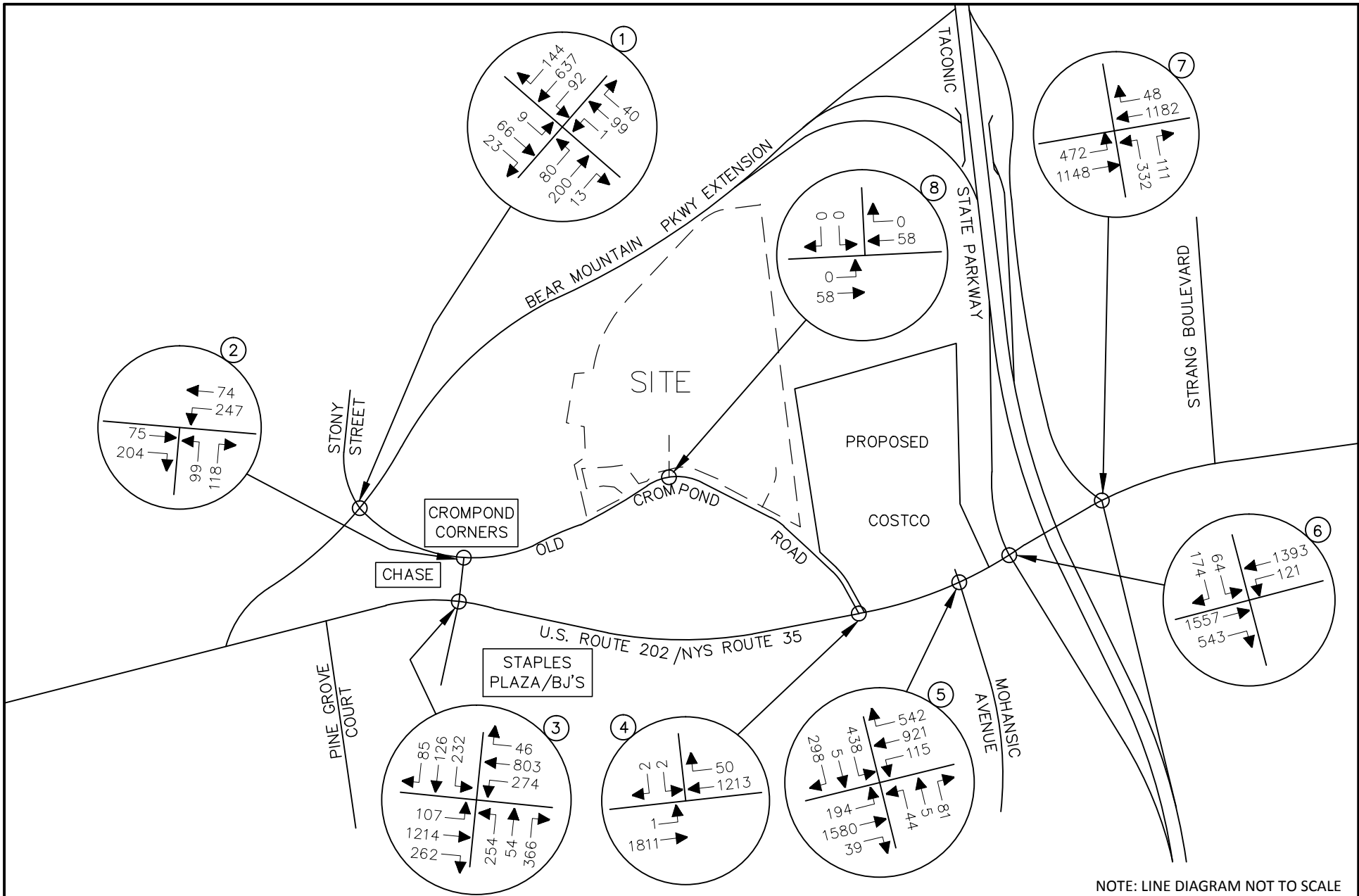
2019 NO-BUILD TRAFFIC VOLUMES
 WITH STATE LAND DEVELOPMENT
 WEEKDAY PEAK PM HOUR



JOB NUMBER: 13001463A DATE: 4/2/15

FIGURE NUMBER:

35



NOTE: LINE DIAGRAM NOT TO SCALE



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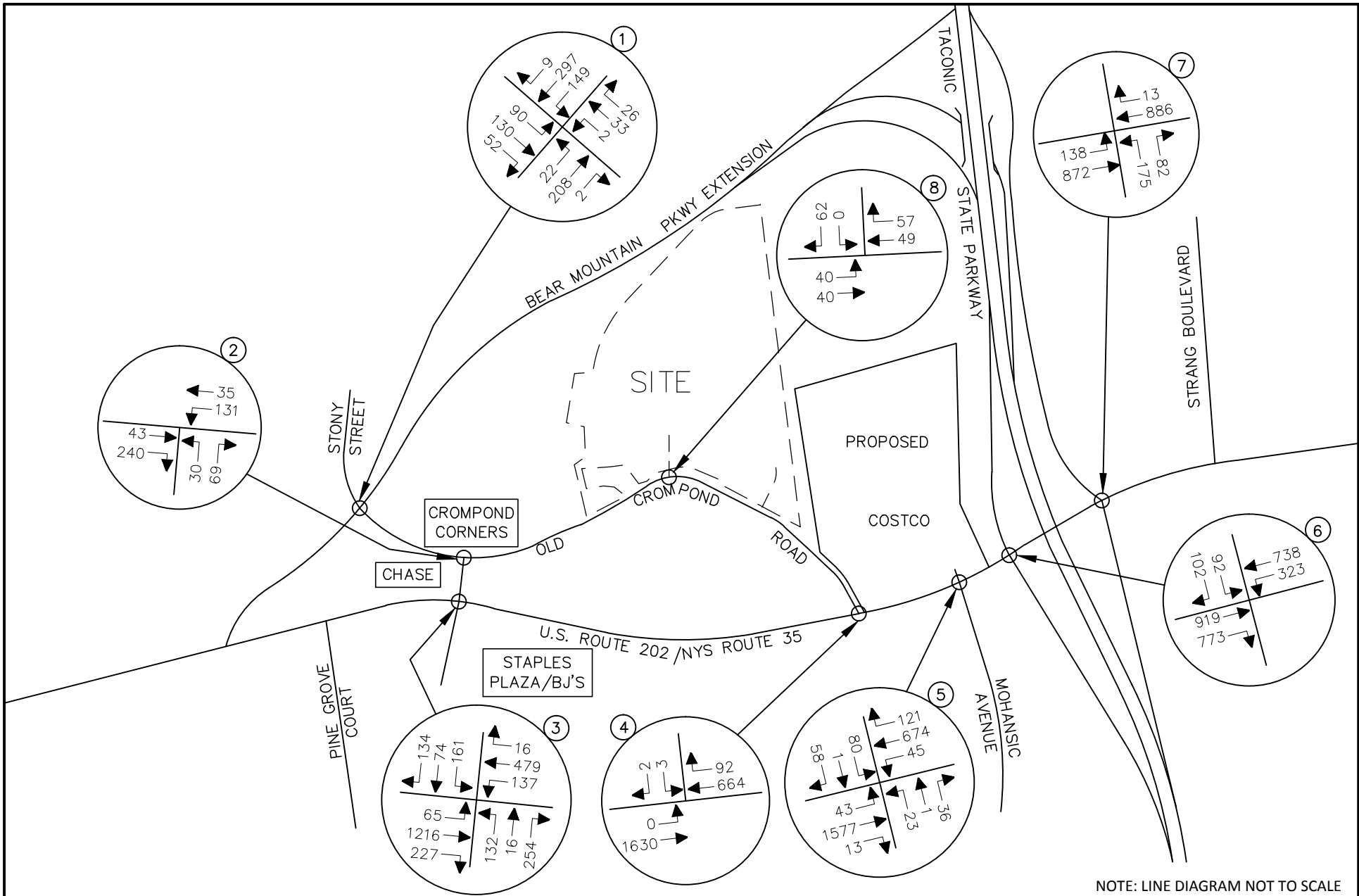
2019 NO-BUILD TRAFFIC VOLUMES
 WITH STATE LAND DEVELOPMENT
 WEEKEND PEAK SATURDAY HOUR



JOB NUMBER:	DATE:
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FIGURE NUMBER:

36



NOTE: LINE DIAGRAM NOT TO SCALE



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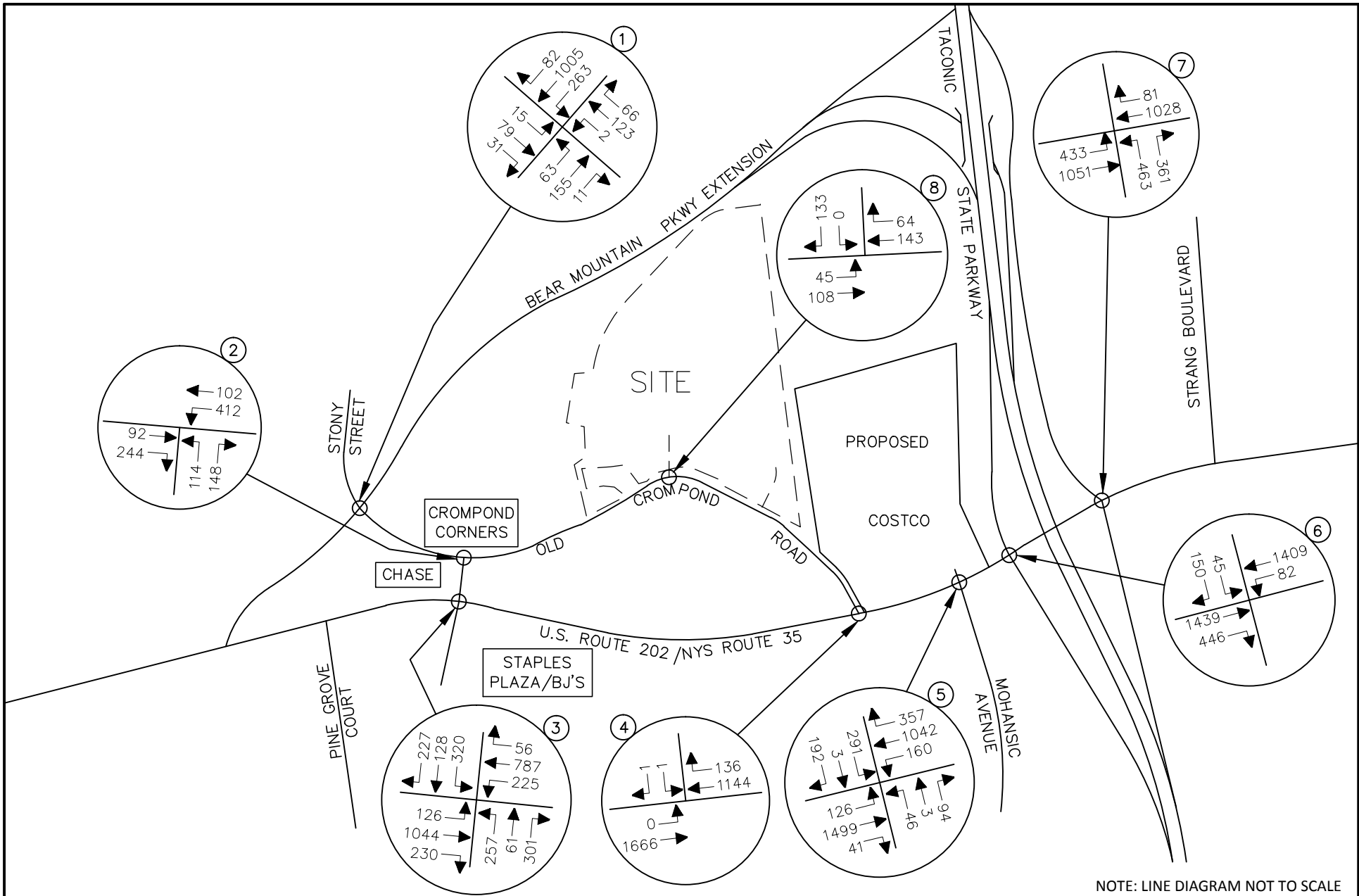
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**2019 BUILD TRAFFIC VOLUMES
 WITH STATE LAND DEVELOPMENT
 WEEKDAY PEAK AM HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15
FIGURE NUMBER:	



NOTE: LINE DIAGRAM NOT TO SCALE



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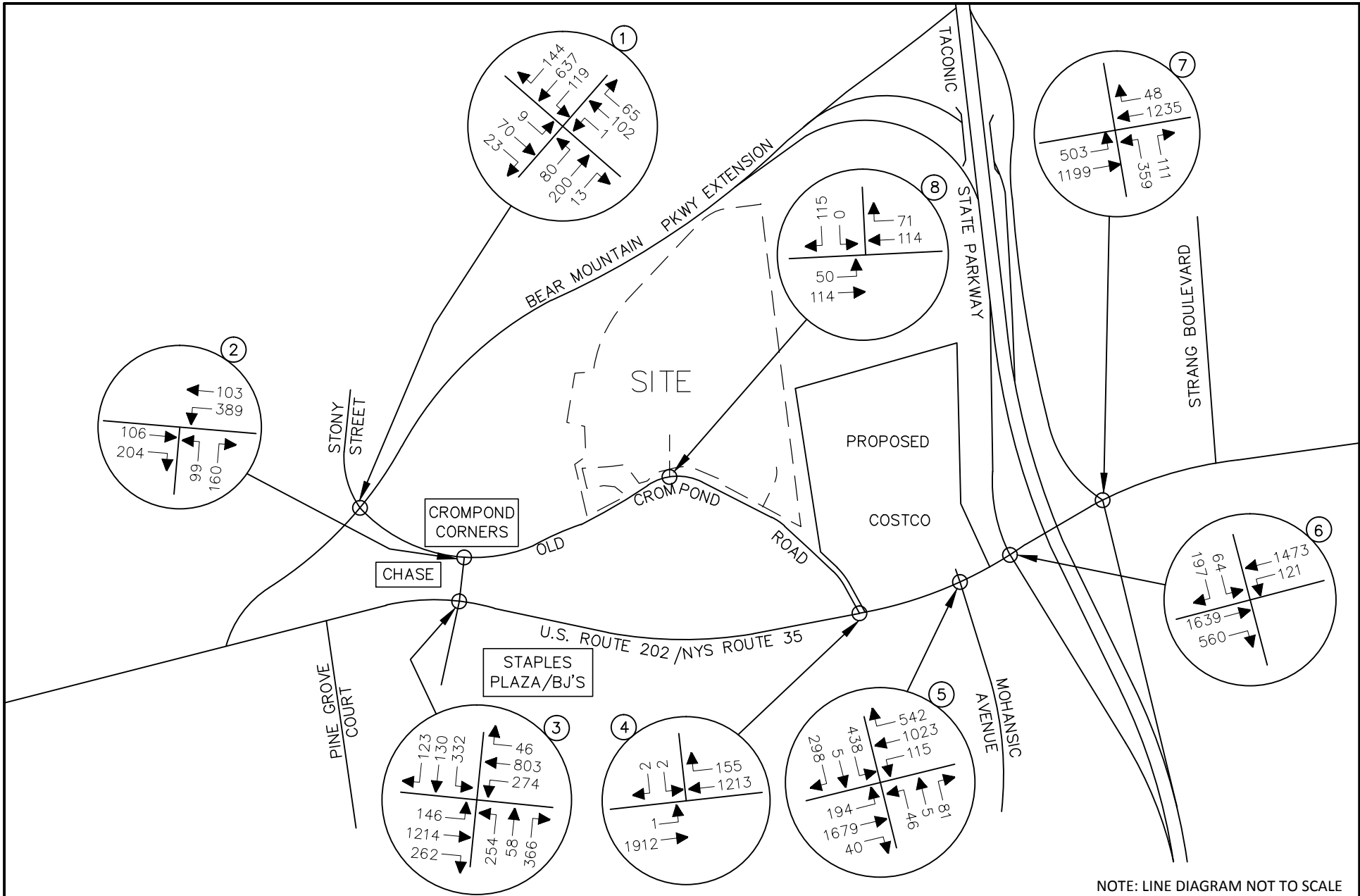
**2019 BUILD TRAFFIC VOLUMES
 WITH STATE LAND DEVELOPMENT
 WEEKDAY PEAK PM HOUR**



JOB NUMBER:	DATE:
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FIGURE NUMBER:

38



NOTE: LINE DIAGRAM NOT TO SCALE



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**CROMPOND TERRACES (MANDALAY DEVELOPMENT)
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**2019 BUILD TRAFFIC VOLUMES
 WITH STATE LAND DEVELOPMENT
 WEEKEND PEAK SATURDAY HOUR**



JOB NUMBER:	DATE:
13001463A	4/2/15

FIGURE NUMBER:

39



***PROPOSED BEAR MOUNTAIN TRIANGLE
REZONING AND CROMPOND TERRACES***

APPENDIX B

TABLES

TABLE NO. 1
HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES

CROMPOND TERRACES (MANDALAY DEVELOPMENT) TOWN OF YORKTOWN, NEW YORK	ENTRY			EXIT		
	HTGR ¹	VOLUME	NEW TRIPS ²	HTGR ¹	VOLUME	NEW TRIPS ²
TOWNHOUSE (70 DWELLING UNITS)						
PEAK AM HOUR	0.09	6	6	0.44	31	29
PEAK PM HOUR	0.41	29	27	0.20	14	13
SATURDAY PEAK HOUR	0.42	29	28	0.36	25	24
APARTMENTS (16 DWELLING UNITS)						
PEAK AM HOUR	0.09	1	1	0.44	7	7
PEAK PM HOUR	0.41	7	6	0.20	3	3
SATURDAY PEAK HOUR	0.42	7	6	0.36	6	5
RETAIL (15,800 SQ. FT.)						
PEAK AM HOUR	0.98	15	11	0.60	9	7
PEAK PM HOUR	3.03	48	34	3.03	48	34
SATURDAY PEAK HOUR	4.42	70	50	4.42	70	50
OFFICE (29,000 SQ. FT.)						
PEAK AM HOUR	1.98	57	55	0.27	8	7
PEAK PM HOUR	0.38	11	10	1.87	54	52
SATURDAY PEAK HOUR	0.23	7	6	0.20	6	6
COMMUNITY CENTER (12,000 SQ. FT.)						
PEAK AM HOUR	2.10	25	24	1.08	13	12
PEAK PM HOUR	2.69	32	31	2.69	32	31
SATURDAY PEAK HOUR ³	2.69	32	31	2.69	32	31
TOTAL						
PEAK AM HOUR	-	106	97	-	68	62
PEAK PM HOUR	-	126	109	-	152	133
SATURDAY PEAK HOUR	-	145	121	-	139	115

NOTES:

- 1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 9TH EDITION, 2012. ITE LAND USE CODE - 230 - TOWNHOUSE/CONDO, ITE LAND USE CODE - 495 - RECREATIONAL COMMUNITY CENTER, ITE LAND USE CODE - 710 - GENERAL OFFICE BUILDING AND ITE LAND USE CODE - 820 - RETAIL. OVERALL RETAIL AND OFFICE TRIP GENERATION RATES WERE DEVELOPED BASED ON THE TOTAL AREA RETAIL AND OFFICE DEVELOPMENTS AND THEN APPLIED TO EACH INDIVIDUAL DEVELOPMENT SIZE.
- 2) NEW TRIPS INCLUDE 5% INTERNAL TRIP CREDIT APPLIED TO EACH OF THE LAND USES TO ACCOUNT FOR TRIPS BETWEEN USES THAT WOULD BE INTERNAL TO THE SITE AS WELL AS A 25% PASS-BY/DIVERTED LINK TRIP CREDIT APPLIED TO THE RETAIL USE TO ACCOUNT FOR TRIPS ATTRACTED FROM THE EXISTING TRAFFIC STREAMS ALONG ROUTE 35/202.
- 3) RECREATIONAL COMMUNITY CENTER SATURDAY PEAK HOUR TRIP GENERATION RATES ARE BASED ON THE PM PEAK HOUR TRIP GENERATION RATES PROVIDED BY ITE TO PROVIDE A MORE CONSERVATIVE ANALYSIS, SINCE THE ITE DATA INDICATES LOWER THAN ANTICIPATED RATES FOR THE SATURDAY PEAK HOUR.

TABLE NO. 1-E

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES
EXISTING ZONING

CROMPOND TRIANGLE AREA PARCELS AFFECTED BY REZONING TOWN OF YORKTOWN, NEW YORK	ENTRY		EXIT	
	HTGR ²	VOLUME	HTGR ²	VOLUME
TRIP GENERATION ESTIMATES FOR MANDALAY, BAUSO/DELVECCHIO & ANTONARUS PROPERTIES BASED ON EXISTING ZONING				
SINGLE FAMILY HOMES ¹ (30 DWELLING UNITS)				
PEAK AM HOUR	0.27	8	0.77	23
PEAK PM HOUR	0.73	22	0.43	13
SATURDAY PEAK HOUR	0.63	19	0.53	16

NOTES:

- 1) IT IS ESTIMATED THAT APPROXIMATELY 30 SINGLE FAMILY HOMES COULD BE DEVELOPED ON THE PARCELS AFFECTED BY THE REZONING IN THE CROMPOND TRIANGLE AREA.
- 2) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 9TH EDITION, 2012. ITE LAND USE CODE - 210 - SINGLE FAMILY HOUSING.

TABLE NO. 1-R
HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED
SITE GENERATED TRAFFIC VOLUMES

CROMPOND TRIANGLE AREA DEVELOPMENTS TOWN OF YORKTOWN, NEW YORK	ENTRY			EXIT		
	HTGR	VOLUME	NEW TRIPS ³	HTGR	VOLUME	NEW TRIPS ³
OTHER PROPERTIES FOR POTENTIAL REZONING						
BAUSO & DELVHECCIO PROPERTIES						
TOWNHOUSE ¹ (10 UNITS)						
PEAK AM HOUR	0.15	1	1	0.71	7	7
PEAK PM HOUR	0.63	6	6	0.31	3	3
SATURDAY PEAK HOUR	0.25	3	2	0.22	2	2
RETAIL ¹ (6,200 SQ. FT.)						
PEAK AM HOUR	0.98	6	4	0.60	4	3
PEAK PM HOUR	3.03	19	13	3.03	19	13
SATURDAY PEAK HOUR	4.42	27	20	4.42	27	20
OFFICE ¹ (10,500 SQ. FT.)						
PEAK AM HOUR	1.98	21	20	0.27	3	3
PEAK PM HOUR	0.38	4	4	1.87	20	19
SATURDAY PEAK HOUR	0.23	2	2	0.20	2	2
ANTENAROS PROPERTY						
RETAIL ¹ (10,000 SQ. FT.)						
PEAK AM HOUR	0.98	10	7	0.60	6	4
PEAK PM HOUR	3.03	30	22	3.03	30	22
SATURDAY PEAK HOUR	4.42	44	31	4.42	44	31
OFFICE ¹ (5,500 SQ. FT.)						
PEAK AM HOUR	1.98	11	10	0.27	1	1
PEAK PM HOUR	0.38	2	2	1.87	10	10
SATURDAY PEAK HOUR	0.23	1	1	0.20	1	1

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 9TH EDITION, 2012. ITE LAND USE CODE - 230 - TOWNHOUSE/CONDO, ITE LAND USE CODE - 710 - GENERAL OFFICE BUILDING AND ITE LAND USE CODE - 820 - RETAIL. OVERALL RETAIL AND OFFICE TRIP GENERATION RATES WERE DEVELOPED BASED ON THE TOTAL AREA RETAIL AND OFFICE DEVELOPMENTS AND THEN APPLIED TO EACH INDIVIDUAL DEVELOPMENT SIZE.

2) NEW TRIPS INCLUDE 5% INTERNAL TRIP CREDIT APPLIED TO EACH OF THE LAND USES TO ACCOUNT FOR TRIPS BETWEEN USES THAT WOULD BE INTERNAL TO THE SITE AS WELL AS A 25% PASS-BY/DIVERTED LINK TRIP CREDIT APPLIED TO THE RETAIL USE TO ACCOUNT FOR TRIPS ATTRACTED FROM THE EXISTING TRAFFIC STREAMS ALONG ROUTE 35/202.

TABLE NO. 1-O
HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATEE
SITE GENERATED TRAFFIC VOLUMES

CROMPOND TRIANGLE AREA DEVELOPMENTS TOWN OF YORKTOWN, NEW YORK	ENTRY			EXIT		
	HTGR	VOLUME	NEW TRIPS	HTGR	VOLUME	NEW TRIPS
POTENTIAL OR APPROVED AREA DEVELOPMENTS						
COSTCO¹						
DISCOUNT CLUB (151,092 SQ. FT.)						
PEAK AM HOUR	0.40	60	45	0.17	25	19
PEAK PM HOUR	2.12	320	240	2.12	320	240
SATURDAY PEAK HOUR	3.42	517	388	3.42	517	388
GAS STATION (12 FUELING POSITIONS)						
PEAK AM HOUR	9.17	110	66	9.17	110	66
PEAK PM HOUR	17.50	210	82	17.50	210	82
SATURDAY PEAK HOUR	18.75	225	89	18.75	225	89
STAPLES PLAZA²						
GAS STATION (12 FUELING POSITIONS)						
PEAK AM HOUR	6.25	75	50	6.25	75	50
PEAK PM HOUR	10.25	123	58	10.25	123	58
SATURDAY PEAK HOUR	11.83	142	32	11.83	142	32
FAST FOOD WITH DRIVE THROUGH (3,000 SQ. FT.)						
PEAK AM HOUR	23.00	69	50	22.33	67	50
PEAK PM HOUR	17.00	51	58	15.67	47	58
SATURDAY PEAK HOUR	30.00	90	32	29.00	87	32
URGENT CARE (5,000 SQ. FT.)						
PEAK AM HOUR	2.60	13	13	2.60	13	13
PEAK PM HOUR	2.60	13	13	2.60	13	13
SATURDAY PEAK HOUR	1.20	6	6	1.20	6	6

NOTES:

- 2) TRIP GENERATION INFORMATION FOR THE COSTCO DEVELOPMENT ARE BASED ON INFORMATION CONTAINED IN THE COSTCO REVISED TRAFFIC IMPACT STUDY DATED OCTOBER 3, 2014 PREPARED BY MASER CONSULTING. THE TRIP GENERATION ESTIMATES REFLECT THOSE FOR THE SENSITIVITY ANALYSIS AS CONTAINED ON TABLE 1-S IN APPENDIX "E" OF THE COSTCO STUDY.
- 2) TRIP GENERATION INFORMATION FOR THE STAPLES PLAZA DEVELOPMENT ARE BASED ON INFORMATION CONTAINED IN THE STAPLES PLAZA TRAFFIC STUDY DATED OCTOBER 8, 2014 PREPARED BY JMC SITE DEVELOPMENT CONSULTANTS. THE TRIP GENERATION ESTIMATES ARE BASED ON THOSE CONTAINED IN TABLE NO. 1 IN APPENDIX "A" OF THE STAPLES PLAZA STUDY.

TABLE NO. 1-O (CONTINUED)
HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATEE
SITE GENERATED TRAFFIC VOLUMES

CROMPOND TRIANGLE AREA DEVELOPMENTS TOWN OF YORKTOWN, NEW YORK	ENTRY			EXIT		
	HTGR	VOLUME	NEW TRIPS	HTGR	VOLUME	NEW TRIPS
POTENTIAL OR APPROVED AREA DEVELOPMENTS						
CVS ^{1,2}						
PHARMACY (12,900 SQ. FT.)						
PEAK AM HOUR	1.78	23	16	1.63	21	15
PEAK PM HOUR	4.96	64	46	4.96	64	46
SATURDAY PEAK HOUR	4.03	52	37	4.19	54	38
BANK WITH DRIVE THROUGH (2,500 SQ. FT.)						
PEAK AM HOUR	6.80	17	12	5.20	13	9
PEAK PM HOUR	12.00	30	21	12.00	30	21
SATURDAY PEAK HOUR	13.60	34	24	12.80	32	23
NAZZARRO PROPERTY^{3,4}						
RETAIL ¹ (50,000 SQ. FT.)						
PEAK AM HOUR	0.98	49	37	0.60	30	23
PEAK PM HOUR	3.03	152	114	3.03	152	114
SATURDAY PEAK HOUR	4.42	221	166	4.42	221	166
ADRIAN/MAZZOLA/MUJAJ PROPERTIES^{3,4}						
RETAIL ¹ (15,000 SQ. FT.)						
PEAK AM HOUR	0.98	15	11	0.60	9	7
PEAK PM HOUR	3.03	45	34	3.03	45	34
SATURDAY PEAK HOUR	4.42	66	50	4.42	66	50

NOTES:

- 1) THE HOURLY TRIP GENERATION RATES (HTGR) FOR THE CVS DEVELOPMENT ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 9TH EDITION, 2012. ITE LAND USE CODE - 881 - PHARMACY WITH DRIVE-THROUGH WINDOW AND ITE LAND USE CODE - 912 - DRIVE IN BANK.
- 2) THE NEW TRIPS FOR THE CVS DEVELOPMENT INCLUDE A 5% INTERNAL TRIP CREDIT AND A 25% PASS-BY/DIVERTED LINK TRIP CREDIT APPLIED TO BOTH THE PHARMACY AND BANK USES TO ACCOUNT FOR TRIPS BETWEEN USES AND THOSE ATTRACTED FROM THE EXISTING TRAFFIC STREAMS ALONG NYS ROUTE 35/202.
- 3) THE HOURLY TRIP GENERATION RATES (HTGR) FOR THE NAZZARRO AND ADRIAN/MAZZOLA/MUJAJ PROPERTIES ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 9TH EDITION, 2012. ITE LAND USE CODE - 820 - RETAIL. OVERALL RETAIL TRIP GENERATION RATES WERE DEVELOPED BASED ON THE TOTAL AREA RETAIL DEVELOPMENTS AND THEN APPLIED TO EACH INDIVIDUAL DEVELOPMENT
- 4) NEW TRIPS INCLUDE A 25% PASS-BY/DIVERTED LINK TRIP CREDIT APPLIED TO THE RETAIL USE TO ACCOUNT FOR TRIPS ATTRACTED FROM THE EXISTING TRAFFIC STREAMS ALONG NYS ROUTE 35/202.

**TABLE 2
LEVEL OF SERVICE SUMMARY TABLE**

			2014 EXISTING			2019 NO-BUILD			2019 BUILD WITH REZONING							
			AM	PM	SAT	AM	PM	SAT	AM	PM	SAT					
1	BEAR MOUNTAIN PARKWAY EXT. & STONY STREET	SIGNALIZED	EB	LT	B[15.9]	C[23.7]	C[23.0]	B[15.7]	D[36.2]	C[21.9]	B[15.3]	D[38.2]	C[21.8]			
				R	B[15.2]	B[19.4]	B[19.5]	B[15.2]	C[34.3]	C[21.6]	B[14.7]	C[33.8]	C[21.9]			
			WB	LTR	B[18.8]	D[36.2]	C[31.3]	B[18.0]	D[45.4]	C[28.9]	B[17.1]	D[49.9]	C[28.4]			
				L	A[6.5]	A[8.4]	A[5.1]	A[7.5]	B[17.5]	A[5.9]	A[8.0]	B[17.9]	A[6.3]			
			SB	TR	B[15.8]	B[11.2]	A[8.3]	B[18.6]	A[9.8]	A[9.5]	B[19.9]	B[10.0]	B[10.1]			
				L	A[6.5]	A[6.7]	A[5.0]	A[7.8]	A[5.4]	A[5.3]	A[8.7]	A[5.7]	A[5.7]			
			OVERALL	TR	A[9.6]	C[26.6]	B[11.2]	B[11.2]	D[37.5]	B[15.7]	B[12.0]	D[39.9]	B[16.5]			
					B[12.5]	C[22.8]	B[13.4]	B[13.7]	C[31.4]	B[16.1]	B[14.1]	C[33.6]	B[16.6]			
			2	STONY STREET & OLD CROMPOND ROAD	UNSIGNALIZED	EB	TR	A[7.5]	A[8.7]	A[7.6]	A[8.1]	C[16.2]	B[12.0]	A[8.9]	C[20.7]	B[14.3]
							LT	A[7.3]	A[8.4]	A[7.6]	A[8.1]	E[37.6]	D[26.8]	A[9.1]	F[61.5]	F[58.7]
WB	LR	A[7.7]				A[9.2]	A[8.2]	A[7.9]	C[16.0]	B[12.6]	A[8.4]	C[19.7]	B[14.8]			
		A[7.5]				A[8.8]	A[7.8]	A[8.1]	D[25.6]	C[19.5]	A[8.9]	E[42.4]	E[39.8]			
WITH REDISTRIBUTED TRAFFIC VOLUMES	EB	TR				-	-	-	A[8.1]	B[14.3]	B[10.8]	A[8.7]	C[20.5]	B[12.5]		
	WB	LT				-	-	-	A[7.9]	C[17.7]	B[13.2]	A[8.4]	E[42.9]	C[18.2]		
OVERALL	NR	-				-	-	A[7.8]	B[14.2]	B[11.2]	A[8.2]	C[19.4]	B[12.8]			
		-				-	-	A[8.0]	C[15.5]	B[11.8]	A[8.5]	D[29.4]	B[15.0]			
3	NYS ROUTE 35/U.S. ROUTE 202 & STONY STREET/BJ'S	SIGNALIZED				EB	L	B[10.5]	B[17.2]	B[17.8]	B[19.9]	C[27.0]	C[30.1]	C[20.8]	C[30.1]	C[34.9]
							T	B[14.9]	C[21.7]	C[25.8]	C[32.1]	C[33.0]	D[49.7]	C[32.7]	D[35.1]	D[49.7]
			WB	R	A[3.2]	A[3.7]	A[5.0]	A[2.7]	A[2.4]	A[2.2]	A[2.5]	A[2.4]	A[2.2]			
				L	D[42.1]	C[30.0]	E[57.2]	D[45.7]	C[25.0]	C[31.6]	D[46.0]	C[26.7]	D[37.9]			
			NB	TR	D[47.1]	C[20.8]	C[22.3]	D[47.5]	B[15.5]	B[20.0]	D[47.5]	B[16.0]	B[19.0]			
				L	E[64.0]	F[83.5]	F[84.2]	D[52.3]	D[52.9]	D[51.9]	D[52.3]	D[52.6]	D[52.0]			
			SB	T	D[37.5]	C[31.0]	C[31.0]	D[52.6]	D[54.0]	D[53.1]	D[52.6]	D[54.8]	D[52.7]			
				R	B[17.9]	B[15.9]	B[18.4]	B[14.9]	B[13.4]	B[17.6]	B[14.9]	B[14.0]	B[19.4]			
			OVERALL	L	-	-	-	D[49.7]	D[40.4]	D[47.8]	D[54.6]	D[51.9]	D[53.0]			
				LT	E[56.9]	D[37.2]	D[36.5]	D[52.8]	D[46.2]	D[49.0]	D[54.1]	D[47.5]	D[51.6]			
			WITH REDISTRIBUTED TRAFFIC VOLUMES	EB	R	A[1.4]	A[5.7]	A[0.7]	A[1.4]	A[6.6]	A[1.7]	A[1.9]	A[8.2]	A[3.7]		
				TR	C[25.0]	C[25.4]	C[29.8]	C[32.4]	C[26.2]	C[33.6]	C[32.9]	C[28.4]	C[34.8]			
			OVERALL	EB	L	-	-	-	B[19.9]	C[26.7]	C[30.1]	C[20.5]	C[29.1]	C[32.9]		
				T	-	-	-	C[31.9]	C[32.2]	D[44.9]	C[32.1]	C[32.4]	D[44.9]			
			WB	TR	-	-	-	A[2.5]	A[2.3]	A[2.1]	A[2.5]	A[2.3]	A[2.1]			
				L	-	-	-	D[45.7]	C[29.6]	C[29.6]	D[45.7]	C[28.1]	C[30.2]			
			NB	TR	-	-	-	D[47.5]	B[18.3]	B[15.2]	D[47.5]	B[17.3]	B[13.3]			
				L	-	-	-	D[51.5]	D[52.9]	D[51.9]	D[51.2]	D[52.6]	D[52.0]			
			SB	LT	-	-	-	D[51.8]	D[54.0]	D[53.1]	D[52.1]	D[54.8]	D[52.5]			
				R	-	-	-	B[14.7]	A[8.2]	B[11.2]	B[14.6]	A[8.2]	B[11.5]			
OVERALL	L	-	-	-	D[48.4]	D[35.2]	D[46.9]	D[48.3]	D[35.1]	D[47.0]						
	LT	-	-	-	D[52.9]	D[44.0]	D[46.9]	D[53.1]	D[44.3]	D[46.9]						
OVERALL	R	-	-	-	A[1.4]	A[6.9]	A[2.0]	A[2.0]	A[9.3]	A[3.5]						
		-	-	-	C[32.0]	C[25.7]	C[29.6]	C[31.8]	C[25.5]	C[29.3]						
4	NYS ROUTE 35/U.S. ROUTE 202 & OLD CROMPOND ROAD ²	UNSIGNALIZED	EB	LT	A[-]	A[-]	B[10.7]	A[-]	A[-]	A[-]	A[-]	A[-]				
				LR	E[40.1]	F[62.6]	F[86.4]	D[34.9]	F[56.1]	F[63.4]	E[40.5]	F[84.1]	F[95.8]			
			WITH SIGNALIZATION AND REDISTRIBUTED TRAFFIC VOLUMES ³	EB	LT	-	-	-	A[2.9]	A[3.9]	A[6.9]	A[6.5]	A[5.7]	B[10.1]		
				WB	TR	-	-	-	A[3.6]	A[2.6]	A[2.7]	A[7.5]	A[4.4]	A[3.9]		
			OVERALL	SB	LR	-	-	-	D[40.0]	D[45.4]	D[50.4]	D[44.3]	D[51.8]	D[50.4]		
					-	-	-	A[3.5]	A[4.9]	A[7.0]	A[8.0]	A[8.9]	B[10.1]			

NOTES:

- THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS AND FOR THE KEY APPROACHES FOR THE UNSIGNALIZED LOCATIONS. SEE APPENDIX "D" FOR ADDITIONAL DETAILS.
- THE NO-BUILD AND BUILD ANALYSES FOR THE INTERSECTION OF NYS ROUTE 35/U.S. ROUTE 202 & OLD CROMPOND ROAD INCLUDES THE ADDITIONAL WESTBOUND THROUGH LANE TO BE CONSTRUCTED IN ASSOCIATION WITH THE COSTCO DEVELOPMENT.
- THE SIGNALIZATION OF THE NYS ROUTE 35/U.S. ROUTE 202 & OLD CROMPOND ROAD INTERSECTION WOULD ALLOW FOR LEFT TURNS OUT OF THIS LOCATION TO EASTBOUND NYS ROUTE 35/U.S. ROUTE 202 AND THEREFORE IS EXPECTED TO REDISTRIBUTE FUTURE TRAFFIC VOLUMES TO THIS INTERSECTION AND AWAY FROM THE STONEY STREET INTERSECTIONS (I.E. INTERSECTION 2 AND 3).

TABLE 2 (CONTINUED)
LEVEL OF SERVICE SUMMARY TABLE

			2014 EXISTING			2019 NO-BUILD			2019 BUILD WITH REZONING			
			AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	
5	NYS ROUTE 35/U.S. ROUTE 202 & MOHANSIC AVENUE/COSTCO DRIVEWAY	SIGNALIZED										
		EB	TR	A[8.3]	B[13.0]	B[12.3]	-	-	-	-	-	
		WB	L	A[2.7]	A[7.6]	A[7.5]	-	-	-	-	-	
			T	A[3.7]	C[33.8]	A[29.1]	-	-	-	-	-	
		NB	LTR	B[17.0]	B[14.1]	B[15.5]	-	-	-	-	-	
		OVERALL	A[7.2]	C[20.7]	B[18.3]	-	-	-	-	-		
	WITH COSTCO IMPROVEMENTS ²	EB	L	-	-	-	A[5.2]	C[29.4]	D[47.2]	A[5.3]	C[26.8]	D[47.4]
			TR	-	-	-	B[17.3]	B[17.9]	C[34.2]	B[18.2]	C[26.9]	E[64.4]
		WB	L	-	-	-	B[10.2]	C[33.7]	C[31.7]	A[9.4]	C[33.7]	C[31.7]
			T	-	-	-	A[2.8]	B[15.4]	C[20.5]	A[3.1]	C[23.6]	C[33.8]
		NB	LT	-	-	-	D[39.5]	D[49.0]	D[52.8]	D[39.6]	D[50.0]	D[53.4]
			R	-	-	-	A[1.5]	B[18.6]	B[14.6]	A[1.5]	B[18.7]	B[14.6]
		SB	L	-	-	-	D[44.4]	D[47.9]	D[54.8]	D[44.4]	D[47.9]	D[54.8]
			TR	-	-	-	C[20.4]	C[33.4]	D[40.4]	C[20.4]	C[33.4]	D[40.5]
		OVERALL	-	-	-	B[13.7]	C[21.6]	C[32.2]	B[14.1]	C[27.7]	D[47.8]	
6	NYS ROUTE 35/U.S. ROUTE 202 & TACONIC STATE PARKWAY SB RAMPS	SIGNALIZED										
		EB	T	E[72.1]	E[79.9]	E[72.9]	-	-	-	-	-	
			R	A[1.1]	A[0.4]	A[0.3]	-	-	-	-	-	
		WB	L	B[18.9]	A[7.5]	B[10.4]	-	-	-	-	-	
			T	A[4.5]	C[20.3]	A[8.7]	-	-	-	-	-	
		OVERALL	C[27.5]	D[41.5]	C[34.4]	-	-	-	-	-		
	WITH COSTCO IMPROVEMENTS ²	EB	T	-	-	-	A[3.6]	A[7.4]	B[11.6]	A[3.8]	B[10.7]	C[22.6]
			R	-	-	-	A[2.9]	A[0.4]	A[0.3]	A[3.1]	A[0.4]	A[0.2]
		WB	L	-	-	-	C[21.7]	B[10.1]	B[13.3]	C[22.8]	B[17.4]	B[19.1]
			T	-	-	-	A[0.5]	A[1.7]	A[1.0]	A[0.5]	A[2.8]	A[1.3]
		SB	L	-	-	-	D[44.5]	D[37.5]	D[40.5]	D[44.5]	D[35.2]	D[38.0]
			R	-	-	-	B[11.5]	C[29.2]	D[37.8]	B[11.3]	C[31.2]	D[39.5]
			OVERALL	-	-	-	A[6.4]	A[5.6]	A[8.1]	A[6.5]	A[7.6]	B[12.9]
		7	NYS ROUTE 35/U.S. ROUTE 202 & TACONIC STATE PARKWAY NB RAMPS	SIGNALIZED								
EB				L	C[21.1]	E[74.8]	E[73.7]	-	-	-	-	-
	T			C[32.3]	E[63.0]	C[21.5]	-	-	-	-	-	
WB	TR			D[42.6]	F[116.1]	F[93.5]	-	-	-	-	-	
NB	L			C[25.4]	C[30.6]	D[39.0]	-	-	-	-	-	
	OVERALL		C[34.6]	E[69.5]	E[56.8]	-	-	-	-	-		
WITH COSTCO IMPROVEMENTS ²	EB		L	-	-	-	A[6.4]	D[35.8]	D[42.1]	A[7.6]	D[51.9]	D[54.8]
			T	-	-	-	B[17.4]	D[39.3]	C[22.7]	B[19.4]	D[51.1]	D[36.6]
	WB		TR	-	-	-	C[21.0]	C[31.6]	C[34.5]	C[21.6]	C[34.9]	D[40.2]
	NB		L	-	-	-	C[28.1]	E[58.0]	D[52.4]	C[28.8]	E[62.8]	D[54.5]
		R	-	-	-	A[6.6]	C[31.2]	A[8.5]	A[6.6]	C[32.5]	B[10.2]	
	OVERALL	-	-	-	B[18.7]	D[38.2]	C[32.2]	B[19.9]	D[45.7]	D[41.4]		

NOTES:

- 1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS AND FOR THE KEY APPROACHES FOR THE UNSIGNALIZED LOCATIONS. SEE APPENDIX "D" FOR ADDITIONAL DETAILS.
- 2) UNDER EXISTING CONDITIONS, DURING PEAK HOURS, THE OPERATION OF INTERSECTIONS 5 & 6 (MOHANSIC AVENUE & TACONIC STATE PARKWAY SB RAMPS) IS CURRENTLY IMPACTED BY QUEUEING IN THE EASTBOUND DIRECTION WHICH OCCASIONALLY EXTENDS FROM THE NORTHBOUND RAMP INTERSECTION. THE WIDENING OF NYS ROUTE 35/U.S. ROUTE 202 AND ASSOCIATED SIGNAL TIMING AND COORDINATION IMPROVEMENTS ARE BEING COMPLETED TO ADDRESS THESE EXISTING CONDITIONS IN THE VICINITY OF THE TACONIC STATE PARKWAY INTERCHANGE. THESE IMPROVEMENTS HAVE BEEN INCLUDED IN THE NO-BUILD AND BUILD ANALYSIS SCENARIOS FOR INTERSECTION 5, 6 & 7.



***PROPOSED BEAR MOUNTAIN TRIANGLE
REZONING AND CROMPOND TERRACES***

APPENDIX C

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.



LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 18-4 from the *2010 Highway Capacity Manual* published by the Transportation Research Board.

Exhibit 18-4

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤1.0	v/c >1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.



LEVEL OF SERVICE CRITERIA
FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 19-1 from the *2010 Highway Capacity Manual* published by the Transportation Research Board.

Exhibit 19-1

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤1.0	v/c >1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 19-1 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.



LEVEL OF SERVICE CRITERIA

FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 20-2. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 20-2 from the *2010 Highway Capacity Manual* published by the Transportation Research Board.

Exhibit 20-2

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤1.0	v/c >1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

For approaches and intersection wide assessment, LOS is defined solely by control delay.

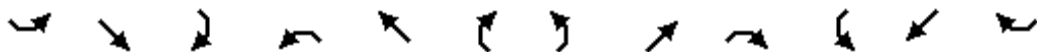


***PROPOSED BEAR MOUNTAIN TRIANGLE
REZONING AND CROMPOND TERRACES***

APPENDIX D
CAPACITY ANALYSIS

2014 Existing Traffic Volumes
1: Bear Mountain Pkwy. Ext. & Stoney Street

AM Peak Hour
1/7/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	88	116	49	2	23	3	17	183	2	112	247	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956			0.986			0.999			0.995	
Flt Protected	0.950				0.997		0.950			0.950		
Satd. Flow (prot)	1885	1897	0	0	1840	0	1805	1898	0	1805	1890	0
Flt Permitted	0.537				0.958		0.586			0.501		
Satd. Flow (perm)	1065	1897	0	0	1768	0	1113	1898	0	952	1890	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			3			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	96	126	53	2	25	3	19	203	2	124	274	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	179	0	0	30	0	19	205	0	124	284	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		1	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	40	40		50	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	43	43			43		43	43		43	43	
Detector 2 Size(ft)	40	40			40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	

2014 Existing Traffic Volumes
1: Bear Mountain Pkwy. Ext. & Stoney Street

AM Peak Hour
1/7/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)	9.6	10.1			7.1		19.7	16.7		24.3	24.5	
Actuated g/C Ratio	0.23	0.24			0.17		0.47	0.40		0.58	0.59	
v/c Ratio	0.25	0.38			0.10		0.03	0.27		0.17	0.26	
Control Delay	15.9	15.2			18.8		6.5	15.8		6.5	9.6	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	15.9	15.2			18.8		6.5	15.8		6.5	9.6	
LOS	B	B			B		A	B		A	A	
Approach Delay		15.5			18.8			15.0			8.7	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)	18	30			6		2	40		12	30	
Queue Length 95th (ft)	53	81			28		11	109		42	138	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	385	1408			902		780	1573		773	1566	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.25	0.13			0.03		0.02	0.13		0.16	0.18	

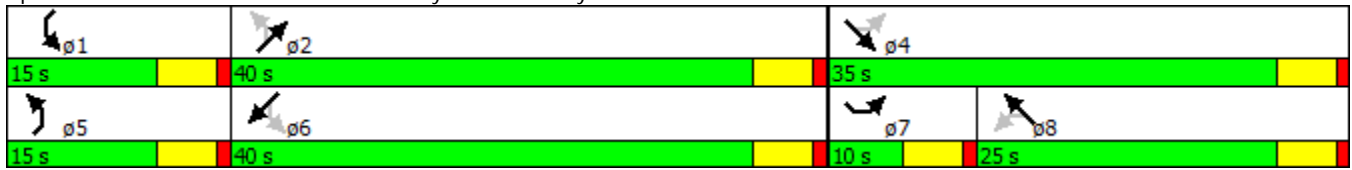
Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	41.8
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.38
Intersection Signal Delay:	12.5
Intersection Capacity Utilization:	40.9%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	A

2014 Existing Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

AM Peak Hour
 1/7/2015

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
2: Stoney Street & Old Crompond Road

AM Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	230	2	3	25	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865				0.991	
Flt Protected				0.980	0.955	
Satd. Flow (prot)	1603	0	0	1835	1745	0
Flt Permitted				0.980	0.955	
Satd. Flow (perm)	1603	0	0	1835	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1448	190	
Travel Time (s)	12.3			32.9	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	256	2	3	28	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	256	0	0	5	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.2%
Analysis Period (min)	15
	ICU Level of Service A

2014 Existing Traffic Volumes
2: Stoney Street & Old Crompond Road

AM Peak Hour
1/7/2015

Intersection									
Intersection Delay, s/veh	7.5								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	0	230	0	2	3	0	25	2
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	256	0	2	3	0	28	2
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	7.3	7.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	93%	0%	40%
Vol Thru, %	0%	0%	60%
Vol Right, %	7%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	27	230	5
LT Vol	25	0	2
Through Vol	0	0	3
RT Vol	2	230	0
Lane Flow Rate	30	256	6
Geometry Grp	1	1	1
Degree of Util (X)	0.038	0.241	0.007
Departure Headway (Hd)	4.528	3.391	4.259
Convergence, Y/N	Yes	Yes	Yes
Cap	790	1058	838
Service Time	2.559	1.414	2.294
HCM Lane V/C Ratio	0.038	0.242	0.007
HCM Control Delay	7.7	7.5	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.9	0

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2014 Existing Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

AM Peak Hour
1/7/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1174	161	85	442	9	81	8	180	68	67	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	11	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							0.99					0.98
Frt			0.850		0.997				0.850			0.850
Flt Protected	0.950			0.950			0.950				0.975	
Satd. Flow (prot)	1770	3471	1552	1770	3671	0	1770	1863	1583	0	1834	1546
Flt Permitted	0.473			0.385			0.518				0.836	
Satd. Flow (perm)	881	3471	1552	717	3671	0	957	1863	1583	0	1573	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151		3				89			108
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	11	1276	175	92	480	10	90	9	200	76	74	108
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1276	175	92	490	0	90	9	200	0	150	108
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	1.03	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43		43	43
Detector 2 Size(ft)				40			40	40	40		40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex

2014 Existing Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

AM Peak Hour
1/7/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	pm+ov	Perm	NA	pm+ov
Protected Phases	6	2		1	5			3	1		3	6
Permitted Phases	2		2	5			3		3	3		3
Detector Phase	6	2	2	1	5		3	3	1	3	3	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	36.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	15.0	65.0	65.0	15.0	65.0		30.0	30.0	15.0	30.0	30.0	15.0
Total Split (%)	13.6%	59.1%	59.1%	13.6%	59.1%		27.3%	27.3%	13.6%	27.3%	27.3%	13.6%
Maximum Green (s)	9.0	59.0	59.0	9.0	59.0		24.0	24.0	9.0	24.0	24.0	9.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				Yes			Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	C-Max	None	None		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	68.5	68.5	67.5	20.7	20.7		16.2	16.2	31.5		16.2	74.3
Actuated g/C Ratio	0.62	0.62	0.61	0.19	0.19		0.15	0.15	0.29		0.15	0.68
v/c Ratio	0.01	0.59	0.17	0.39	0.71		0.64	0.03	0.39		0.65	0.10
Control Delay	10.5	14.9	3.2	42.1	47.1		64.0	37.5	17.9		56.9	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	10.5	14.9	3.2	42.1	47.1		64.0	37.5	17.9		56.9	1.4
LOS	B	B	A	D	D		E	D	B		E	A
Approach Delay		13.4			46.3			32.4			33.6	
Approach LOS		B			D			C			C	
Queue Length 50th (ft)	3	262	6	56	171		61	6	60		102	0
Queue Length 95th (ft)	12	401	40	98	214		110	19	111		160	17
Internal Link Dist (ft)		532			1437			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	1018	2161	1010	242	2003		217	423	528		357	1074
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.01	0.59	0.17	0.38	0.24		0.41	0.02	0.38		0.42	0.10

Intersection Summary






Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

2014 Existing Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM Peak Hour
 1/7/2015

Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

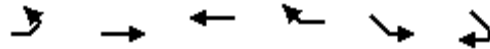
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35

 φ1	 φ2 (R)	 φ3
15 s	65 s	30 s
 φ5	 φ6	
65 s	15 s	

Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM Peak Hour
1/7/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↕↕	↔		↕↕	
Volume (vph)	0	1422	536	1	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Fr _t					0.946	
Fl _t Protected					0.971	
Satd. Flow (prot)	0	3350	1891	0	1626	0
Fl _t Permitted					0.971	
Satd. Flow (perm)	0	3350	1891	0	1626	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		613	
Travel Time (s)		4.4	6.9		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.90	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1546	583	1	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1546	584	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.3%
Analysis Period (min)	15
	ICU Level of Service A

2014 Existing Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM Peak Hour
1/7/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1422	536	1	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	92	92	92	92	90	90
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1546	583	1	3	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	584	0	583
Stage 1	-	-	583
Stage 2	-	-	773
Critical Hdwy	4.12	-	7.23
Critical Hdwy Stg 1	-	-	7.43
Critical Hdwy Stg 2	-	-	7.83
Follow-up Hdwy	2.218	-	3.319
Pot Cap-1 Maneuver	991	-	435
Stage 1	-	-	403
Stage 2	-	-	271
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	991	-	435
Mov Cap-2 Maneuver	-	-	72
Stage 1	-	-	403
Stage 2	-	-	271

Approach	EB	WB	SE
HCM Control Delay, s	0	0	40.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	991	-	-	-	108
HCM Lane V/C Ratio	-	-	-	-	0.051
HCM Control Delay (s)	0	-	-	-	40.1
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.2

2014 Existing Traffic Volumes
5: COSTCO Access & Route 202/35

AM Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑	↘	
Volume (vph)	1418	7	44	522	15	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12
Grade (%)	8%			-7%	-4%	
Storage Length (ft)		0	170		0	100
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.999				0.905	
Flt Protected			0.950		0.985	
Satd. Flow (prot)	3329	0	1832	1891	1920	0
Flt Permitted			0.113		0.985	
Satd. Flow (perm)	3329	0	218	1891	1920	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	1				38	
Link Speed (mph)	45			45	30	
Link Distance (ft)	457			251	624	
Travel Time (s)	6.9			3.8	14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Adj. Flow (vph)	1541	8	48	567	16	38
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1549	0	48	567	54	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	16	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	0.96	0.96	0.82	0.97
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		2	2	1	
Detector Template						
Leading Detector (ft)	83		83	83	50	
Trailing Detector (ft)	-5		-5	-5	0	
Detector 1 Position(ft)	-5		-5	-5	0	
Detector 1 Size(ft)	40		40	40	50	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	43		43	43		
Detector 2 Size(ft)	40		40	40		
Detector 2 Type	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0	0.0		
Turn Type	NA		pm+pt	NA	Prot	

2014 Existing Traffic Volumes
5: COSTCO Access & Route 202/35

AM Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		1.0	1.0	4.0	
Minimum Split (s)	10.0		7.0	9.0	10.0	
Total Split (s)	40.0		20.0	60.0	30.0	
Total Split (%)	44.4%		22.2%	66.7%	33.3%	
Maximum Green (s)	35.0		15.0	55.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		None	Max	None	
Act Effct Green (s)	54.3		59.1	60.8	7.4	
Actuated g/C Ratio	0.77		0.84	0.87	0.11	
v/c Ratio	0.60		0.14	0.35	0.23	
Control Delay	8.3		2.7	2.6	17.0	
Queue Delay	0.0		0.0	1.0	0.0	
Total Delay	8.3		2.7	3.7	17.0	
LOS	A		A	A	B	
Approach Delay	8.3			3.6	17.0	
Approach LOS	A			A	B	
Queue Length 50th (ft)	211		3	51	7	
Queue Length 95th (ft)	328		10	99	37	
Internal Link Dist (ft)	377			171	544	
Turn Bay Length (ft)			170			
Base Capacity (vph)	2574		553	1638	739	
Starvation Cap Reductn	0		0	779	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.60		0.09	0.66	0.07	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	70.2
Natural Cycle:	50
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	7.2
Intersection LOS:	A
Intersection Capacity Utilization:	49.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: COSTCO Access & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes

AM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑					↘		↗
Volume (vph)	0	753	700	315	526	0	0	0	0	90	0	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%			4%	
Storage Length (ft)	0		0	200		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1763	1558	1877	1837	0	0	0	0	1769	0	1583
Flt Permitted				0.151						0.950		
Satd. Flow (perm)	0	1763	1558	298	1837	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			409									85
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	818	761	342	572	0	0	0	0	100	0	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	818	761	342	572	0	0	0	0	100	0	44
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	1	2					2		2
Detector Template												
Leading Detector (ft)		83	0	50	83					83		83
Trailing Detector (ft)		-5	0	0	-5					-5		-5
Detector 1 Position(ft)		-5	0	0	-5					-5		-5
Detector 1 Size(ft)		40	50	50	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43			43					43		43
Detector 2 Size(ft)		40			40					40		40
Detector 2 Type		Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

2014 Existing Traffic Volumes

AM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		45.0		15.0	60.0					30.0		30.0
Total Split (%)		50.0%		16.7%	66.7%					33.3%		33.3%
Maximum Green (s)		40.0		10.0	55.0					25.0		25.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		Max		None	Max					None		None
Act Effct Green (s)		41.3	71.6	56.4	57.4					9.5		9.5
Actuated g/C Ratio		0.58	1.00	0.79	0.80					0.13		0.13
v/c Ratio		0.80	0.49	0.71	0.39					0.43		0.15
Control Delay		21.8	1.1	18.9	4.1					35.1		3.1
Queue Delay		50.3	0.0	0.0	0.4					0.0		0.0
Total Delay		72.1	1.1	18.9	4.5					35.1		3.1
LOS		E	A	B	A					D		A
Approach Delay		37.9			9.8							
Approach LOS		D			A							
Queue Length 50th (ft)		283	0	51	67					43		0
Queue Length 95th (ft)		#567	0	#188	136					86		9
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)				200								130
Base Capacity (vph)		1017	1558	479	1472					647		633
Starvation Cap Reductn		332	0	0	425					0		0
Spillback Cap Reductn		0	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		1.19	0.49	0.71	0.55					0.15		0.07

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	71.6
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	27.5
Intersection LOS:	C
Intersection Capacity Utilization:	72.1%
ICU Level of Service:	C
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

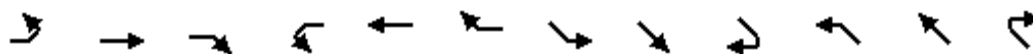


Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes

AM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

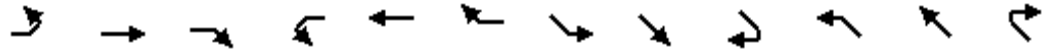


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	75	768	0	0	746	13	0	0	0	95	0	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	200		0	0		350	0		0	0		530
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.998							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1695	0	0	1808	0	0	0	0	1832	0	1639
Fl _t Permitted	0.090									0.950		
Satd. Flow (perm)	159	1695	0	0	1808	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1							89
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	82	835	0	0	811	14	0	0	0	106	0	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	82	835	0	0	825	0	0	0	0	106	0	89
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

2014 Existing Traffic Volumes

AM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	15.0	60.0			45.0					30.0		30.0
Total Split (%)	16.7%	66.7%			50.0%					33.3%		33.3%
Maximum Green (s)	10.0	55.0			40.0					25.0		25.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.0	-1.0			-1.0					-1.0		-1.0
Total Lost Time (s)	4.0	4.0			4.0					4.0		4.0
Lead/Lag		Lag			Lead							
Lead-Lag Optimize?		Yes			Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	Max			None					Max		Max
Act Effct Green (s)	56.0	56.0			44.0					26.0		26.0
Actuated g/C Ratio	0.62	0.62			0.49					0.29		0.29
v/c Ratio	0.31	0.79			0.93					0.20		0.17
Control Delay	21.1	19.8			42.6					25.4		6.4
Queue Delay	0.0	12.5			0.0					0.0		0.0
Total Delay	21.1	32.3			42.6					25.4		6.4
LOS	C	C			D					C		A
Approach Delay		31.3			42.6							
Approach LOS		C			D							
Queue Length 50th (ft)	17	320			-454					45		0
Queue Length 95th (ft)	34	501			#722					86		33
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)	200											530
Base Capacity (vph)	284	1054			884					529		536
Starvation Cap Reductn	0	209			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.29	0.99			0.93					0.20		0.17

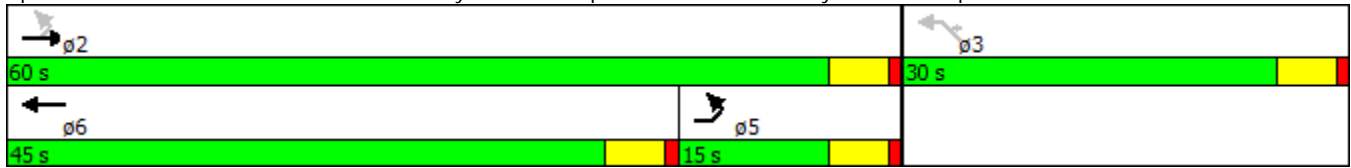
Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	34.6
Intersection LOS:	C
Intersection Capacity Utilization:	72.1%
ICU Level of Service:	C
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.	

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Queue shown is maximum after two cycles.

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
1: Bear Mountain Pkwy. Ext. & Stoney Street

PM Peak Hour
1/7/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	15	51	24	2	103	6	39	41	11	195	753	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%			0%	
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.952			0.993			0.969			0.986	
Flt Protected	0.950				0.999		0.950			0.950		
Satd. Flow (prot)	1885	1889	0	0	1857	0	1805	1841	0	1805	1873	0
Flt Permitted	0.341				0.995		0.100			0.636		
Satd. Flow (perm)	676	1889	0	0	1850	0	190	1841	0	1208	1873	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28			3			14			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	18	62	29	2	124	7	51	54	14	232	896	95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	91	0	0	133	0	51	68	0	232	991	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	

2014 Existing Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

PM Peak Hour
 1/7/2015

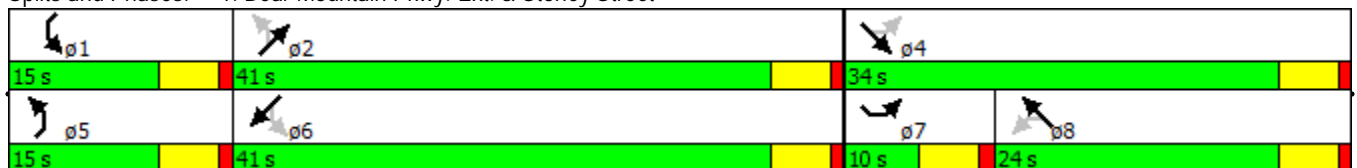


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	10.0	34.0		24.0	24.0		15.0	41.0		15.0	41.0	
Total Split (%)	11.1%	37.8%		26.7%	26.7%		16.7%	45.6%		16.7%	45.6%	
Maximum Green (s)	5.0	29.0		19.0	19.0		10.0	36.0		10.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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	Max		None	Max	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effect Green (s)	13.6	13.7			10.6		44.0	37.6		49.9	46.1	
Actuated g/C Ratio	0.19	0.19			0.15		0.61	0.52		0.69	0.64	
v/c Ratio	0.08	0.24			0.49		0.20	0.07		0.26	0.83	
Control Delay	23.7	19.4			36.2		8.4	11.2		6.7	26.6	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	23.7	19.4			36.2		8.4	11.2		6.7	26.6	
LOS	C	B			D		A	B		A	C	
Approach Delay		20.1			36.2			10.0			22.8	
Approach LOS		C			D			A			C	
Queue Length 50th (ft)	7	24			52		5	11		26	368	
Queue Length 95th (ft)	20	53			106		21	34		83	#805	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	212	794			501		355	961		922	1194	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.08	0.11			0.27		0.14	0.07		0.25	0.83	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 72.4
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 22.8
 Intersection LOS: C
 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: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
2: Stoney Street & Old Crompond Road

PM Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	4	230	40	8	103	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.867				0.988	
Flt Protected				0.960	0.957	
Satd. Flow (prot)	1607	0	0	1797	1744	0
Flt Permitted				0.960	0.957	
Satd. Flow (perm)	1607	0	0	1797	1744	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1448	190	
Travel Time (s)	12.3			32.9	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	5	299	71	14	139	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	304	0	0	85	153	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.1% ICU Level of Service A
Analysis Period (min)	15

2014 Existing Traffic Volumes
2: Stoney Street & Old Crompond Road

PM Peak Hour
1/7/2015

Intersection									
Intersection Delay, s/veh	8.8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	4	230	0	40	8	0	103	10
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	299	0	71	14	0	139	14
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.7	8.4	9.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	91%	0%	83%
Vol Thru, %	0%	2%	17%
Vol Right, %	9%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	113	234	48
LT Vol	103	0	40
Through Vol	0	4	8
RT Vol	10	230	0
Lane Flow Rate	153	304	86
Geometry Grp	1	1	1
Degree of Util (X)	0.206	0.324	0.114
Departure Headway (Hd)	4.861	3.837	4.781
Convergence, Y/N	Yes	Yes	Yes
Cap	738	939	750
Service Time	2.895	1.853	2.807
HCM Lane V/C Ratio	0.207	0.324	0.115
HCM Control Delay	9.2	8.7	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	1.4	0.4

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2014 Existing Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 1/7/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	866	182	178	704	30	213	52	252	46	116	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	11	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							0.99					
Frt			0.850		0.994				0.850			0.850
Flt Protected	0.950			0.950			0.950				0.986	
Satd. Flow (prot)	1770	3539	1552	1770	3730	0	1770	1863	1583	0	1855	1546
Flt Permitted	0.362			0.135			0.530				0.897	
Satd. Flow (perm)	674	3539	1552	251	3730	0	980	1863	1583	0	1688	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			193		5				89			130
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	23	952	200	185	733	31	239	58	283	55	138	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	952	200	185	764	0	239	58	283	0	193	161
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	1.03	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2014 Existing Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 1/7/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	pm+ov	Perm	NA	pm+ov
Protected Phases	6	2		1	5			3	1		3	6
Permitted Phases	2		2	5			3		3	3		3
Detector Phase	6	2	2	1	5		3	3	1	3	3	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	36.0	11.0	36.0		20.0	20.0	11.0	20.0	20.0	11.0
Total Split (s)	20.0	55.0	55.0	20.0	55.0		35.0	35.0	20.0	35.0	35.0	20.0
Total Split (%)	18.2%	50.0%	50.0%	18.2%	50.0%		31.8%	31.8%	18.2%	31.8%	31.8%	18.2%
Maximum Green (s)	14.0	49.0	49.0	14.0	49.0		29.0	29.0	14.0	29.0	29.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				Yes			Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Max	C-Max	C-Max	None	C-Max		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	54.1	54.1	53.1	51.4	51.4		28.6	28.6	45.9		28.6	43.6
Actuated g/C Ratio	0.49	0.49	0.48	0.47	0.47		0.26	0.26	0.42		0.26	0.40
v/c Ratio	0.05	0.55	0.24	0.64	0.44		0.94	0.12	0.40		0.44	0.24
Control Delay	17.2	21.7	3.7	30.0	20.8		83.5	31.0	15.9		37.2	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	17.2	21.7	3.7	30.0	20.8		83.5	31.0	15.9		37.2	5.7
LOS	B	C	A	C	C		F	C	B		D	A
Approach Delay		18.5			22.6			45.3			22.9	
Approach LOS		B			C			D			C	
Queue Length 50th (ft)	8	245	3	78	188		163	31	88		112	12
Queue Length 95th (ft)	24	323	44	135	240		#307	64	146		167	42
Internal Link Dist (ft)		532			1432			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	480	1741	849	324	1746		267	508	749		460	681
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.05	0.55	0.24	0.57	0.44		0.90	0.11	0.38		0.42	0.24

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94

2014 Existing Traffic Volumes

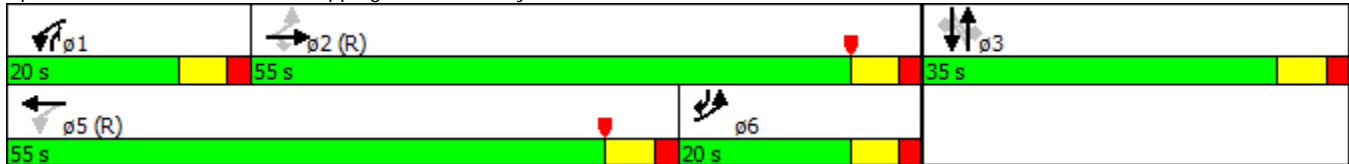
3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour

1/7/2015

Intersection Signal Delay: 25.4	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

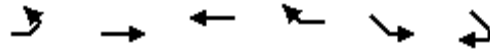
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
4: Route 202/35 & Old Crompond Road

PM Peak Hour
1/7/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Volume (vph)	0	1164	911	15	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt			0.998		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3350	1888	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3350	1888	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		613	
Travel Time (s)		4.7	6.9		13.9	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1369	980	16	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1369	996	0	2	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.9%
Analysis Period (min)	15
	ICU Level of Service B

2014 Existing Traffic Volumes
4: Route 202/35 & Old Crompond Road

PM Peak Hour
1/7/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1164	911	15	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	85	85	93	93	80	80
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1369	980	16	1	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	996	0	1673
Stage 1	-	-	988
Stage 2	-	-	685
Critical Hdwy	4.12	-	8.63
Critical Hdwy Stg 1	-	-	7.43
Critical Hdwy Stg 2	-	-	7.83
Follow-up Hdwy	2.218	-	3.519
Pot Cap-1 Maneuver	695	-	38
Stage 1	-	-	208
Stage 2	-	-	316
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	695	-	38
Mov Cap-2 Maneuver	-	-	38
Stage 1	-	-	208
Stage 2	-	-	316

Approach	EB	WB	SE
HCM Control Delay, s	0	0	62.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	695	-	-	-	65
HCM Lane V/C Ratio	-	-	-	-	0.038
HCM Control Delay (s)	0	-	-	-	62.6
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.1

2014 Existing Traffic Volumes
5: Mohansic Avenue & Route 202/35

PM Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑	↵↵	
Volume (vph)	1142	23	156	897	29	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12
Grade (%)	8%			-7%	-4%	
Storage Length (ft)		0	170		0	150
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.997				0.897	
Flt Protected			0.950		0.988	
Satd. Flow (prot)	3387	0	1832	1928	1908	0
Flt Permitted			0.131		0.988	
Satd. Flow (perm)	3387	0	253	1928	1908	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				142	
Link Speed (mph)	45			45	30	
Link Distance (ft)	457			251	624	
Travel Time (s)	6.9			3.8	14.2	
Peak Hour Factor	0.92	0.92	0.88	0.88	0.65	0.65
Adj. Flow (vph)	1241	25	177	1019	45	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1266	0	177	1019	187	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	16	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	0.96	0.96	0.82	0.97
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		2	2	2	
Detector Template						
Leading Detector (ft)	83		83	83	83	
Trailing Detector (ft)	-5		-5	-5	5	
Detector 1 Position(ft)	-5		-5	-5	5	
Detector 1 Size(ft)	40		40	40	40	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	43		43	43	43	
Detector 2 Size(ft)	40		40	40	40	
Detector 2 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0	0.0	0.0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	

2014 Existing Traffic Volumes
5: Mohansic Avenue & Route 202/35

PM Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		1.0	1.0	4.0	
Minimum Split (s)	10.0		7.0	9.0	10.0	
Total Split (s)	35.0		20.0	55.0	35.0	
Total Split (%)	38.9%		22.2%	61.1%	38.9%	
Maximum Green (s)	30.0		15.0	50.0	30.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		None	Max	None	
Walk Time (s)					5.0	
Flash Dont Walk (s)					11.0	
Pedestrian Calls (#/hr)					0	
Act Effct Green (s)	38.4		51.1	51.1	8.5	
Actuated g/C Ratio	0.57		0.76	0.76	0.13	
v/c Ratio	0.66		0.45	0.70	0.51	
Control Delay	13.0		7.6	8.1	14.1	
Queue Delay	0.0		0.1	25.7	0.0	
Total Delay	13.0		7.6	33.8	14.1	
LOS	B		A	C	B	
Approach Delay	13.0			30.0	14.1	
Approach LOS	B			C	B	
Queue Length 50th (ft)	164		14	151	17	
Queue Length 95th (ft)	303		47	337	32	
Internal Link Dist (ft)	377			171	544	
Turn Bay Length (ft)			170			
Base Capacity (vph)	1924		565	1456	953	
Starvation Cap Reductn	0		31	474	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.66		0.33	1.04	0.20	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	67.6
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	20.7
Intersection Capacity Utilization:	61.2%
Analysis Period (min):	15
Intersection LOS:	C
ICU Level of Service:	B

Splits and Phases: 5: Mohansic Avenue & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes

PM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑					↖		↗
Volume (vph)	0	956	278	80	1024	0	0	0	0	44	0	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		0	200		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	1798	1558	1877	1873	0	0	0	0	1769	0	1583
Fl _t Permitted				0.081						0.950		
Satd. Flow (perm)	0	1798	1558	160	1873	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145									85
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		251			475			607			868	
Travel Time (s)		3.8			7.2			13.8			19.7	
Peak Hour Factor	0.76	0.76	0.76	0.78	0.78	0.78	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1258	366	103	1313	0	0	0	0	56	0	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1258	366	103	1313	0	0	0	0	56	0	37
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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	1	2					2		2
Detector Template												
Leading Detector (ft)		83	0	50	83					83		83
Trailing Detector (ft)		-5	0	0	-5					-5		-5
Detector 1 Position(ft)		-5	0	0	-5					-5		-5
Detector 1 Size(ft)		40	50	50	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43			43					43		43
Detector 2 Size(ft)		40			40					40		40
Detector 2 Type		Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

2014 Existing Traffic Volumes

PM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		35.0		20.0	55.0					35.0		35.0
Total Split (%)		38.9%		22.2%	61.1%					38.9%		38.9%
Maximum Green (s)		30.0		15.0	50.0					30.0		30.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		Max		None	Max					None		None
Act Effct Green (s)		46.2	67.8	54.0	54.7					7.8		7.8
Actuated g/C Ratio		0.68	1.00	0.80	0.81					0.12		0.12
v/c Ratio		1.03	0.23	0.36	0.87					0.28		0.14
Control Delay		51.6	0.4	7.5	15.5					30.4		2.2
Queue Delay		28.3	0.0	0.0	4.9					0.0		0.0
Total Delay		79.9	0.4	7.5	20.3					30.4		2.2
LOS		E	A	A	C					C		A
Approach Delay		62.0			19.4							
Approach LOS		E			B							
Queue Length 50th (ft)		-618	0	7	294					21		0
Queue Length 95th (ft)		#687	0	21	416					45		0
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)				200								130
Base Capacity (vph)		1224	1558	533	1512					809		770
Starvation Cap Reductn		183	0	0	148					0		0
Spillback Cap Reductn		0	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		1.21	0.23	0.19	0.96					0.07		0.05

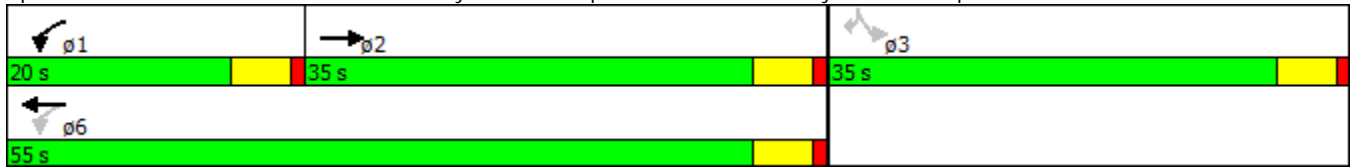
Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 67.8
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 41.5 Intersection LOS: D
 Intersection Capacity Utilization 126.0% ICU Level of Service H
 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.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Queue shown is maximum after two cycles.

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

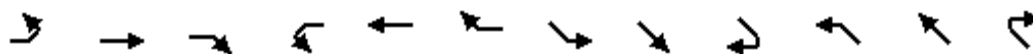


Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes

PM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

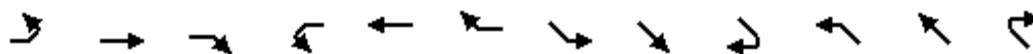


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	237	763	0	0	742	79	0	0	0	362	0	352
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	200		0	0		350	0		0	0		530
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.987							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	1825	0	0	0	0	1832	0	1639
Fl _t Permitted	0.100									0.950		
Satd. Flow (perm)	176	1729	0	0	1825	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7							149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1119
Travel Time (s)		7.2			8.2			17.8				25.4
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	266	857	0	0	773	82	0	0	0	407	0	396
Shared Lane Traffic (%)												
Lane Group Flow (vph)	266	857	0	0	855	0	0	0	0	407	0	396
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

2014 Existing Traffic Volumes

PM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	15.0	55.0			40.0					35.0		35.0
Total Split (%)	16.7%	61.1%			44.4%					38.9%		38.9%
Maximum Green (s)	10.0	50.0			35.0					30.0		30.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.0	-1.0			-1.0					-1.0		-1.0
Total Lost Time (s)	4.0	4.0			4.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	Max			None					Max		Max
Act Effct Green (s)	51.0	51.0			36.0					31.0		31.0
Actuated g/C Ratio	0.57	0.57			0.40					0.34		0.34
v/c Ratio	0.94	0.88			1.16					0.65		0.60
Control Delay	74.8	29.0			116.1					30.6		19.1
Queue Delay	0.0	34.0			0.0					0.0		0.0
Total Delay	74.8	63.0			116.1					30.6		19.1
LOS	E	E			F					C		B
Approach Delay		65.8			116.1							
Approach LOS		E			F							
Queue Length 50th (ft)	102	390			-584					193		112
Queue Length 95th (ft)	#249	#650			#814					289		203
Internal Link Dist (ft)		395			460			701			1039	
Turn Bay Length (ft)	200											530
Base Capacity (vph)	282	979			734					631		662
Starvation Cap Reductn	0	174			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.94	1.06			1.16					0.65		0.60

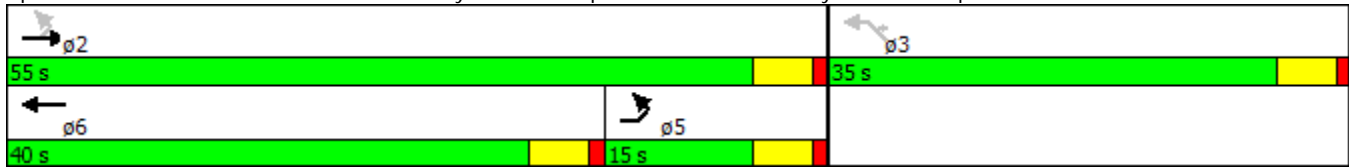
Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.16
 Intersection Signal Delay: 69.5
 Intersection LOS: E
 Intersection Capacity Utilization 126.0%
 ICU Level of Service H
 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.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Queue shown is maximum after two cycles.

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
1: Bear Mountain Pkwy. Ext. & Stoney Street

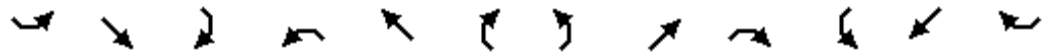
SAT Peak Hour
1/7/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	9	38	15	1	83	5	46	49	13	42	320	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957			0.993			0.969			0.954	
Flt Protected	0.950				0.999		0.950			0.950		
Satd. Flow (prot)	1885	1899	0	0	1857	0	1805	1841	0	1805	1813	0
Flt Permitted	0.446				0.996		0.407			0.713		
Satd. Flow (perm)	885	1899	0	0	1852	0	773	1841	0	1355	1813	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			3			14			29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.90	0.90	0.90	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	10	43	17	1	91	5	51	54	14	44	337	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	60	0	0	97	0	51	68	0	44	484	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		1	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	40	40		50	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	43	43			43		43	43		43	43	
Detector 2 Size(ft)	40	40			40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	

2014 Existing Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

SAT Peak Hour
 1/7/2015

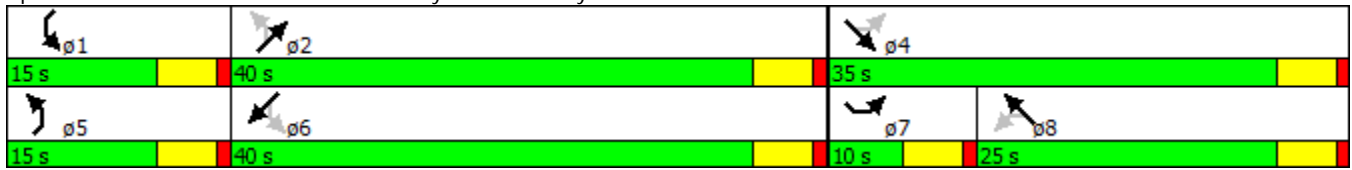


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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	Max		None	Max	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)	10.2	10.4			8.8		44.5	41.9		44.3	41.8	
Actuated g/C Ratio	0.16	0.16			0.13		0.68	0.64		0.68	0.64	
v/c Ratio	0.05	0.19			0.38		0.08	0.06		0.05	0.41	
Control Delay	23.0	19.5			31.3		5.1	8.3		5.0	11.2	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	23.0	19.5			31.3		5.1	8.3		5.0	11.2	
LOS	C	B			C		A	A		A	B	
Approach Delay		20.0			31.3			7.0			10.7	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)	4	15			35		5	9		4	101	
Queue Length 95th (ft)	15	42			86		23	38		21	267	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	216	897			579		709	1188		1030	1172	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.05	0.07			0.17		0.07	0.06		0.04	0.41	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	65.2
Natural Cycle:	60
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.41
Intersection Signal Delay:	13.4
Intersection Capacity Utilization:	47.6%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	A

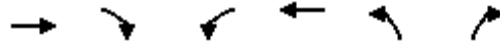
Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
2: Stoney Street & Old Crompond Road

SAT Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	3	188	4	3	86	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.867				0.993	
Flt Protected				0.972	0.955	
Satd. Flow (prot)	1607	0	0	1820	1749	0
Flt Permitted				0.972	0.955	
Satd. Flow (perm)	1607	0	0	1820	1749	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1448	190	
Travel Time (s)	12.3			32.9	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	3	214	7	5	95	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	217	0	0	12	100	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.5%
Analysis Period (min)	15
	ICU Level of Service A

2014 Existing Traffic Volumes
2: Stoney Street & Old Crompond Road

SAT Peak Hour
1/7/2015

Intersection									
Intersection Delay, s/veh	7.8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	3	188	0	4	3	0	86	5
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	214	0	7	5	0	95	5
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.6	7.6	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	95%	0%	57%
Vol Thru, %	0%	2%	43%
Vol Right, %	5%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	91	191	7
LT Vol	86	0	4
Through Vol	0	3	3
RT Vol	5	188	0
Lane Flow Rate	100	217	12
Geometry Grp	1	1	1
Degree of Util (X)	0.125	0.213	0.015
Departure Headway (Hd)	4.488	3.528	4.392
Convergence, Y/N	Yes	Yes	Yes
Cap	796	1003	803
Service Time	2.534	1.602	2.484
HCM Lane V/C Ratio	0.126	0.216	0.015
HCM Control Delay	8.2	7.6	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.8	0

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2014 Existing Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

SAT Peak Hour
1/7/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	981	210	225	693	18	208	50	309	35	119	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	11	12	11
Grade (%)		0%			0%			0%			-2%	
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor							0.99					0.98
Frt			0.850		0.996				0.850			0.850
Flt Protected	0.950			0.950			0.950				0.989	
Satd. Flow (prot)	1770	3539	1552	1770	3738	0	1770	1863	1583	0	1861	1546
Flt Permitted	0.337			0.108			0.539				0.921	
Satd. Flow (perm)	628	3539	1552	201	3738	0	996	1863	1583	0	1733	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197		3				89			89
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.85	0.85	0.85	0.85	0.85	0.85	0.82	0.82	0.82
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	25	1078	231	265	815	21	245	59	364	43	145	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	1078	231	265	836	0	245	59	364	0	188	46
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	1.03	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2014 Existing Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

SAT Peak Hour
 1/7/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	pm+ov	Perm	NA	pm+ov
Protected Phases	6	2		1	5			3	1		3	6
Permitted Phases	2		2	5			3		3	3		3
Detector Phase	6	2	2	1	5		3	3	1	3	3	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	15.0	36.0	36.0	11.0	36.0		20.0	20.0	11.0	20.0	20.0	15.0
Total Split (s)	20.0	55.0	55.0	20.0	55.0		35.0	35.0	20.0	35.0	35.0	20.0
Total Split (%)	18.2%	50.0%	50.0%	18.2%	50.0%		31.8%	31.8%	18.2%	31.8%	31.8%	18.2%
Maximum Green (s)	14.0	49.0	49.0	14.0	49.0		29.0	29.0	14.0	29.0	29.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	0.0	0.0	-1.0	0.0		-1.0	-1.0	-1.0		-1.0	-1.0
Total Lost Time (s)	5.0	6.0	6.0	5.0	6.0		5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead				Lead			Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				Yes			Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	Max	C-Max	C-Max	None	C-Max		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	51.9	50.9	50.9	51.3	50.3		28.7	28.7	48.1		28.7	43.7
Actuated g/C Ratio	0.47	0.46	0.46	0.47	0.46		0.26	0.26	0.44		0.26	0.40
v/c Ratio	0.06	0.66	0.28	0.89	0.49		0.95	0.12	0.49		0.42	0.07
Control Delay	17.8	25.8	5.0	57.2	22.3		84.2	31.0	18.4		36.5	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	17.8	25.8	5.0	57.2	22.3		84.2	31.0	18.4		36.5	0.7
LOS	B	C	A	E	C		F	C	B		D	A
Approach Delay		22.0			30.7			43.6			29.5	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	10	312	13	135	215		167	31	129		108	0
Queue Length 95th (ft)	25	387	59	#251	252		#290	61	192		157	0
Internal Link Dist (ft)		532			1422			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	452	1636	823	307	1710		271	508	750		472	658
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.06	0.66	0.28	0.86	0.49		0.90	0.12	0.49		0.40	0.07

Intersection Summary

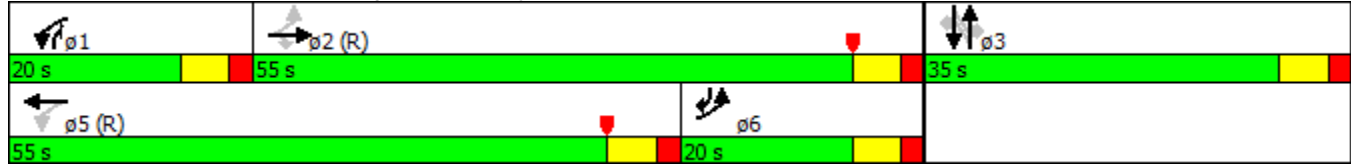
Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95

2014 Existing Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

SAT Peak Hour
 1/7/2015

Intersection Signal Delay: 29.8 Intersection LOS: C
 Intersection Capacity Utilization 72.6% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

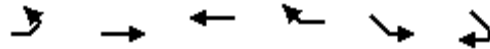
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes
4: Route 202/35 & Old Crompond Road

SAT Peak Hour
1/7/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↕↕	↕		↕↕	
Volume (vph)	1	1324	934	9	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt			0.999		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3415	1926	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3415	1926	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		613	
Travel Time (s)		4.8	6.9		13.9	
Peak Hour Factor	0.97	0.97	0.85	0.85	0.50	0.50
Adj. Flow (vph)	1	1365	1099	11	4	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1366	1110	0	8	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	59.7%
Analysis Period (min)	15
	ICU Level of Service B

2014 Existing Traffic Volumes
4: Route 202/35 & Old Crompond Road

SAT Peak Hour
1/7/2015

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	1	1324	934	9	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	97	97	85	85	50	50
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1365	1099	11	4	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1109	0	1789
Stage 1	-	-	1104
Stage 2	-	-	685
Critical Hdwy	4.12	-	8.63
Critical Hdwy Stg 1	-	-	7.43
Critical Hdwy Stg 2	-	-	7.83
Follow-up Hdwy	2.218	-	3.519
Pot Cap-1 Maneuver	630	-	30
Stage 1	-	-	171
Stage 2	-	-	316
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	630	-	30
Mov Cap-2 Maneuver	-	-	30
Stage 1	-	-	171
Stage 2	-	-	314

Approach	EB	WB	SE
HCM Control Delay, s	0	0	86.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	630	-	-	-	52
HCM Lane V/C Ratio	0.002	-	-	-	0.154
HCM Control Delay (s)	10.7	0	-	-	86.4
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.5

2014 Existing Traffic Volumes
5: Mohansic Avenue & Route 202/35

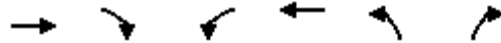
SAT Peak Hour
1/7/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑	↵↵	
Volume (vph)	1302	24	112	914	29	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12
Grade (%)	8%			-7%	-4%	
Storage Length (ft)		0	170		0	150
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.997				0.901	
Flt Protected			0.950		0.987	
Satd. Flow (prot)	3387	0	1832	1928	1915	0
Flt Permitted			0.096		0.987	
Satd. Flow (perm)	3387	0	185	1928	1915	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				103	
Link Speed (mph)	45			45	30	
Link Distance (ft)	457			251	624	
Travel Time (s)	6.9			3.8	14.2	
Peak Hour Factor	0.87	0.87	0.91	0.91	0.77	0.77
Adj. Flow (vph)	1497	28	123	1004	38	103
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1525	0	123	1004	141	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	16	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.05	1.05	0.96	0.96	0.82	0.97
Turning Speed (mph)		9	15		15	9
Number of Detectors	2		2	2	2	
Detector Template						
Leading Detector (ft)	83		83	83	83	
Trailing Detector (ft)	-5		-5	-5	-5	
Detector 1 Position(ft)	-5		-5	-5	-5	
Detector 1 Size(ft)	40		40	40	40	
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)	43		43	43	43	
Detector 2 Size(ft)	40		40	40	40	
Detector 2 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0	0.0	0.0	
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	2		1	6	8	

2014 Existing Traffic Volumes
5: Mohansic Avenue & Route 202/35

SAT Peak Hour
1/7/2015

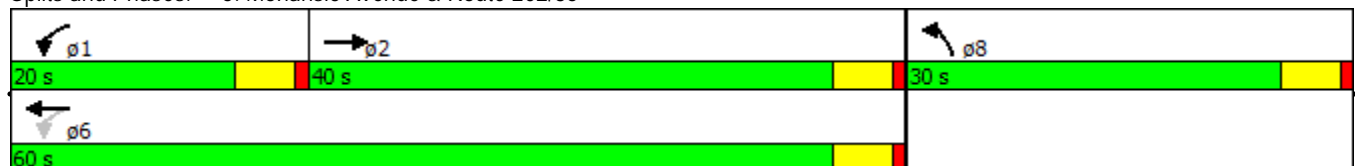


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Permitted Phases			6			
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		1.0	1.0	4.0	
Minimum Split (s)	10.0		7.0	9.0	10.0	
Total Split (s)	40.0		20.0	60.0	30.0	
Total Split (%)	44.4%		22.2%	66.7%	33.3%	
Maximum Green (s)	35.0		15.0	55.0	25.0	
Yellow Time (s)	4.0		4.0	4.0	4.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0		-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	Max		None	Max	None	
Act Effect Green (s)	46.4		56.0	56.0	8.5	
Actuated g/C Ratio	0.64		0.77	0.77	0.12	
v/c Ratio	0.70		0.38	0.67	0.45	
Control Delay	12.3		7.5	7.1	15.5	
Queue Delay	0.0		0.0	22.0	0.0	
Total Delay	12.3		7.5	29.1	15.5	
LOS	B		A		C	
Approach Delay	12.3			26.7	15.5	
Approach LOS	B				C	
Queue Length 50th (ft)	218		9	146	16	
Queue Length 95th (ft)	348		39	327	47	
Internal Link Dist (ft)	377			171	544	
Turn Bay Length (ft)			170			
Base Capacity (vph)	2167		506	1489	753	
Starvation Cap Reductn	0		25	510	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.70		0.26	1.03	0.19	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 72.5
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 18.3
 Intersection Capacity Utilization 61.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 5: Mohansic Avenue & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes

SAT Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑					↘		↗
Volume (vph)	0	1041	340	108	986	0	0	0	0	62	0	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%			4%	
Storage Length (ft)	0		0	200		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	1798	1558	1877	1873	0	0	0	0	1769	0	1583
Fl _t Permitted				0.074						0.950		
Satd. Flow (perm)	0	1798	1558	146	1873	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145									85
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.94	0.94	0.94	0.97	0.97	0.97	0.92	0.92	0.92	0.72	0.72	0.72
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1107	362	111	1016	0	0	0	0	86	0	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1107	362	111	1016	0	0	0	0	86	0	56
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	1	2					2		2
Detector Template												
Leading Detector (ft)		83	0	50	83					83		83
Trailing Detector (ft)		-5	0	0	-5					-5		-5
Detector 1 Position(ft)		-5	0	0	-5					-5		-5
Detector 1 Size(ft)		40	50	50	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43			43					43		43
Detector 2 Size(ft)		40			40					40		40
Detector 2 Type		Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

2014 Existing Traffic Volumes

SAT Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		40.0		20.0	60.0					30.0		30.0
Total Split (%)		44.4%		22.2%	66.7%					33.3%		33.3%
Maximum Green (s)		35.0		15.0	55.0					25.0		25.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		Max		None	Max					None		None
Act Effct Green (s)		50.6	73.3	58.3	59.2					9.0		9.0
Actuated g/C Ratio		0.69	1.00	0.80	0.81					0.12		0.12
v/c Ratio		0.89	0.23	0.41	0.67					0.40		0.21
Control Delay		25.9	0.3	10.4	7.4					34.9		5.3
Queue Delay		47.1	0.0	0.0	1.3					0.0		0.0
Total Delay		72.9	0.3	10.4	8.7					34.9		5.3
LOS		E	A	B	A					C		A
Approach Delay		55.1			8.8							
Approach LOS		E			A							
Queue Length 50th (ft)		430	0	9	170					36		0
Queue Length 95th (ft)		#818	0	46	363					60		7
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)				200								130
Base Capacity (vph)		1240	1558	494	1511					628		617
Starvation Cap Reductn		267	0	0	281					0		0
Spillback Cap Reductn		0	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		1.14	0.23	0.22	0.83					0.14		0.09

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 73.3
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 34.4
 Intersection LOS: C
 Intersection Capacity Utilization 87.1%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

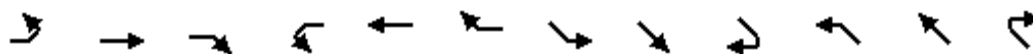


Two Way Analysis cannot be performed on Signalized Intersection.

2014 Existing Traffic Volumes

SAT Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

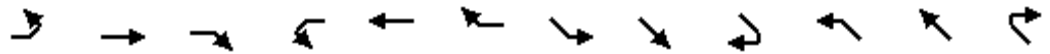


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	260	843	0	0	864	47	0	0	0	230	0	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	200		0	0		350	0		0	0		530
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.993							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	1835	0	0	0	0	1832	0	1639
Fl _t Permitted	0.089									0.950		
Satd. Flow (perm)	157	1729	0	0	1835	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4							115
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.91	0.91	0.91	0.88	0.88	0.88	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	286	926	0	0	982	53	0	0	0	245	0	115
Shared Lane Traffic (%)												
Lane Group Flow (vph)	286	926	0	0	1035	0	0	0	0	245	0	115
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

2014 Existing Traffic Volumes

SAT Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	15.0	60.0			45.0					30.0		30.0
Total Split (%)	16.7%	66.7%			50.0%					33.3%		33.3%
Maximum Green (s)	10.0	55.0			40.0					25.0		25.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	0.0	0.0			0.0					-1.0		-1.0
Total Lost Time (s)	5.0	5.0			5.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	Max			None					None		None
Act Effct Green (s)	55.2	55.2			40.1					16.0		16.0
Actuated g/C Ratio	0.69	0.69			0.50					0.20		0.20
v/c Ratio	0.96	0.78			1.13					0.67		0.27
Control Delay	73.7	15.8			93.5					39.0		7.2
Queue Delay	0.0	5.7			0.0					0.0		0.0
Total Delay	73.7	21.5			93.5					39.0		7.2
LOS	E	C			F					D		A
Approach Delay		33.8			93.5							
Approach LOS		C			F							
Queue Length 50th (ft)	94	263			-610					114		0
Queue Length 95th (ft)	#279	#662			#913					187		39
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)	200											530
Base Capacity (vph)	297	1189			919					595		610
Starvation Cap Reductn	0	209			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.96	0.94			1.13					0.41		0.19

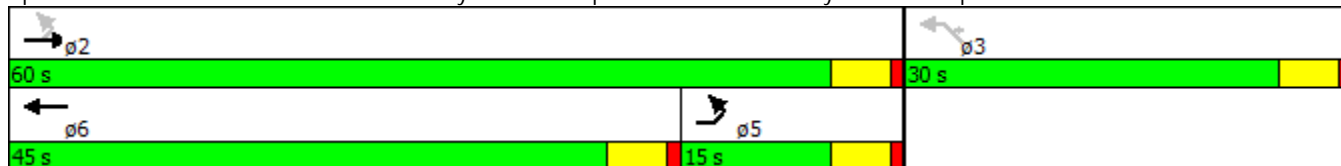
Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 80.2
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay: 56.8
 Intersection LOS: E
 Intersection Capacity Utilization 87.1%
 ICU Level of Service E
 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.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Queue shown is maximum after two cycles.

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	90	127	50	2	31	14	21	188	2	128	253	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.960			0.999			0.995	
Flt Protected	0.950				0.998		0.950			0.950		
Satd. Flow (prot)	1885	1901	0	0	1794	0	1805	1898	0	1805	1890	0
Flt Permitted	0.587				0.975		0.582			0.478		
Satd. Flow (perm)	1165	1901	0	0	1752	0	1106	1898	0	908	1890	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			15			1				2
Link Speed (mph)		30			30			30				30
Link Distance (ft)		353			539			433				768
Travel Time (s)		8.0			12.3			9.8				17.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	98	138	54	2	34	15	23	209	2	142	281	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	192	0	0	51	0	23	211	0	142	291	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		1	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	40	40		50	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	43	43			43		43	43		43	43	
Detector 2 Size(ft)	40	40			40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	

2019 No-Build Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR
 4/2/2015



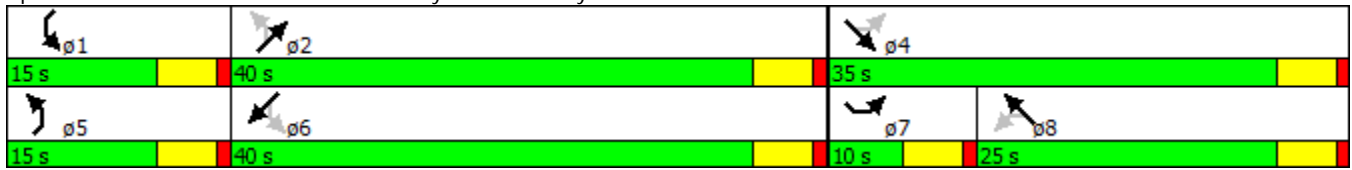
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.5		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.5		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)	11.6	11.6			7.3		17.7	13.1		22.8	21.3	
Actuated g/C Ratio	0.26	0.26			0.16		0.39	0.29		0.50	0.47	
v/c Ratio	0.25	0.38			0.17		0.04	0.39		0.23	0.33	
Control Delay	15.7	15.2			18.0		7.5	18.6		7.8	11.2	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	15.7	15.2			18.0		7.5	18.6		7.8	11.2	
LOS	B	B			B		A	B		A	B	
Approach Delay		15.4			18.0			17.5			10.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	20	36			8		2	43		14	32	
Queue Length 95th (ft)	54	88			38		13	115		49	145	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	396	1337			805		669	1502		667	1496	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.25	0.14			0.06		0.03	0.14		0.21	0.19	

Intersection Summary	
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	45.2
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	13.7
Intersection Capacity Utilization:	41.3%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	A

2019 No-Build Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR
 4/2/2015

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
2: Stoney Street & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	19	240	67	22	30	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.926	
Flt Protected				0.964	0.978	
Satd. Flow (prot)	1622	0	0	1805	1670	0
Flt Permitted				0.964	0.978	
Satd. Flow (perm)	1622	0	0	1805	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	267	74	24	33	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	0	0	98	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.6% ICU Level of Service A
Analysis Period (min)	15

2019 No-Build Traffic Volumes
2: Stoney Street & Old Crompond Road

AM PEAK HOUR
4/2/2015

Intersection									
Intersection Delay, s/veh	8.1								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	19	240	0	67	22	0	30	36
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	21	267	0	74	24	0	33	40
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.1	8.1	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	45%	0%	75%
Vol Thru, %	0%	7%	25%
Vol Right, %	55%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	66	259	89
LT Vol	30	0	67
Through Vol	0	19	22
RT Vol	36	240	0
Lane Flow Rate	73	288	99
Geometry Grp	1	1	1
Degree of Util (X)	0.091	0.286	0.122
Departure Headway (Hd)	4.469	3.581	4.434
Convergence, Y/N	Yes	Yes	Yes
Cap	807	987	799
Service Time	2.469	1.662	2.514
HCM Lane V/C Ratio	0.09	0.292	0.124
HCM Control Delay	7.9	8.1	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	1.2	0.4

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 No-Build Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	1197	227	137	462	16	132	13	254	114	72	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.960		0.950	0.985	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1699	1583	1698	1760	1546
Flt Permitted	0.488			0.488			0.950	0.960		0.950	0.985	
Satd. Flow (perm)	909	3471	1552	909	3664	0	1665	1686	1583	1698	1760	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			222		4				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	38	1301	247	149	502	17	147	14	282	127	80	129
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	38	1301	247	149	519	0	79	82	282	91	116	129
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 No-Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	19.0	19.0	49.0		19.0	19.0	19.0	23.0	23.0	19.0
Total Split (%)	17.3%	44.5%	17.3%	17.3%	44.5%		17.3%	17.3%	17.3%	20.9%	20.9%	17.3%
Maximum Green (s)	13.0	43.0	13.0	13.0	43.0		13.0	13.0	13.0	17.0	17.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.7	50.7	67.0	21.2	21.2		12.3	12.3	25.4	14.0	14.0	56.4
Actuated g/C Ratio	0.46	0.46	0.61	0.19	0.19		0.11	0.11	0.23	0.13	0.13	0.51
v/c Ratio	0.05	0.81	0.24	0.54	0.73		0.42	0.43	0.59	0.42	0.52	0.15
Control Delay	19.9	32.1	2.7	45.7	47.5		52.3	52.6	14.9	49.7	52.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	32.1	2.7	45.7	47.5		52.3	52.6	14.9	49.7	52.8	1.4
LOS	B	C	A	D	D		D	D	B	D	D	A
Approach Delay		27.3			47.1			28.5				32.2
Approach LOS		C			D			C				C
Queue Length 50th (ft)	14	406	7	93	181		55	57	55	63	82	0
Queue Length 95th (ft)	38	#606	43	148	226		106	108	102	113	137	14
Internal Link Dist (ft)		532			1437			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	750	1598	1052	288	1468		213	216	498	277	288	861
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.81	0.23	0.52	0.35		0.37	0.38	0.57	0.33	0.40	0.15

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

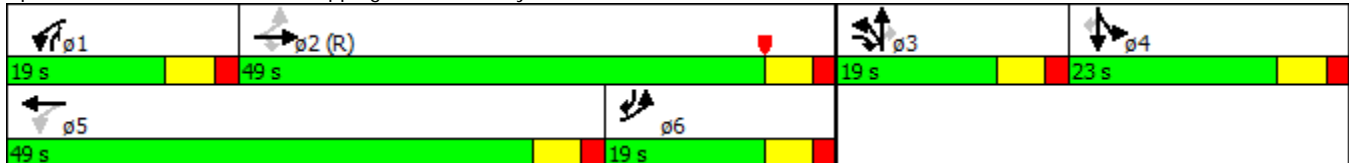
2019 No-Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015

Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 32.4 Intersection LOS: C
 Intersection Capacity Utilization 74.4% 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.

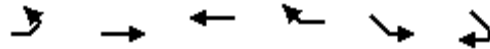
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1564	647	10	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.998		0.946	
Flt Protected					0.971	
Satd. Flow (prot)	0	3350	3587	0	1626	0
Flt Permitted					0.971	
Satd. Flow (perm)	0	3350	3587	0	1626	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1700	703	11	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1700	714	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.2%
Analysis Period (min)	15
	ICU Level of Service A

2019 No-Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1564	647	10	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	92	92	92	92	92	90
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1700	703	11	3	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	714	0	1559
Stage 1	-	-	709
Stage 2	-	-	850
Critical Hdwy	4.14	-	8.84
Critical Hdwy Stg 1	-	-	7.84
Critical Hdwy Stg 2	-	-	7.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1207	-	80
Stage 1	-	-	741
Stage 2	-	-	237
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	1207	-	80
Mov Cap-2 Maneuver	-	-	80
Stage 1	-	-	741
Stage 2	-	-	237

Approach	EB	WB	SE
HCM Control Delay, s	0	0	34.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1207	-	-	-	126
HCM Lane V/C Ratio	-	-	-	-	0.044
HCM Control Delay (s)	0	-	-	-	34.9
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 No-Build Traffic Volumes
 5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1513	11	45	578	121	19	1	36	80	1	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%			0%	
Storage Length (ft)	150		0	170		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.999			0.974				0.850		0.876	
Fl _t Protected	0.950			0.950				0.954		0.950	0.992	
Satd. Flow (prot)	1699	3329	0	1832	3511	0	0	1813	1615	1681	1538	0
Fl _t Permitted	0.333			0.071				0.954		0.950	0.992	
Satd. Flow (perm)	595	3329	0	137	3511	0	0	1813	1615	1681	1538	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			36				85		63	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		457			251			624			252	
Travel Time (s)		6.9			3.8			14.2			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	47	1645	12	49	628	132	21	1	39	87	1	63
Shared Lane Traffic (%)										14%		
Lane Group Flow (vph)	47	1657	0	49	760	0	0	22	39	75	76	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		1	2	2	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		50	83	83	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Size(ft)	40	40		40	40		50	40	40	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43			43	43	43	43	
Detector 2 Size(ft)	40	40		40	40			40	40	40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	

2019 No-Build Traffic Volumes
5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		10.0	10.0	7.0	10.0	10.0	
Total Split (s)	15.0	45.0		15.0	45.0		15.0	15.0	15.0	15.0	15.0	
Total Split (%)	16.7%	50.0%		16.7%	50.0%		16.7%	16.7%	16.7%	16.7%	16.7%	
Maximum Green (s)	10.0	40.0		10.0	40.0		10.0	10.0	10.0	10.0	10.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Act Effct Green (s)	66.1	60.9		67.0	63.1			7.8	12.5	9.6	7.6	
Actuated g/C Ratio	0.73	0.68		0.74	0.70			0.09	0.14	0.11	0.08	
v/c Ratio	0.09	0.74		0.20	0.31			0.14	0.13	0.42	0.41	
Control Delay	5.2	17.3		10.0	2.6			39.5	1.5	44.4	20.4	
Queue Delay	0.0	0.0		0.0	0.2			0.0	0.0	0.0	0.0	
Total Delay	5.2	17.3		10.0	2.8			39.5	1.5	44.4	20.4	
LOS	A	B		B	A			D	A	D	C	
Approach Delay		17.0			3.3			15.2			32.3	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)	4	283		1	6			12	0	42	7	
Queue Length 95th (ft)	21	#656		21	63			34	4	87	50	
Internal Link Dist (ft)		377			171			544			172	
Turn Bay Length (ft)	150			170					100			
Base Capacity (vph)	590	2254		312	2473			221	359	205	210	
Starvation Cap Reductn	0	0		0	831			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.08	0.74		0.16	0.46			0.10	0.11	0.37	0.36	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 13.7
 Intersection LOS: B
 Intersection Capacity Utilization 61.2%
 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: 5: Mohansic Avenue/COSTCO Access & Route 202/35

 ø1	 ø2 (R)	 ø4	 ø8
15 s	45 s	15 s	15 s
 ø5	 ø6 (R)		
15 s	45 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes

AM PEAK HOUR

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255

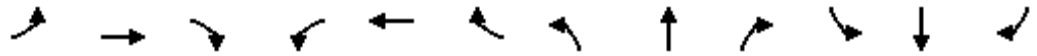


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	866	762	323	661	0	0	0	0	92	0	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%			4%	
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850										0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3350	1558	1877	3490	0	0	0	0	1769	0	1583
Flt Permitted				0.240						0.950		
Satd. Flow (perm)	0	3350	1558	474	3490	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			468									93
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		251			475			607			868	
Travel Time (s)		3.8			7.2			13.8			19.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	941	828	351	718	0	0	0	0	102	0	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	941	828	351	718	0	0	0	0	102	0	93
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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	2	2					2		2
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		40	50	40	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43		43	43					43		43
Detector 2 Size(ft)		40		40	40					40		40
Detector 2 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

2019 No-Build Traffic Volumes

AM PEAK HOUR

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		50.0		20.0	70.0					20.0		20.0
Total Split (%)		55.6%		22.2%	77.8%					22.2%		22.2%
Maximum Green (s)		45.0		15.0	65.0					15.0		15.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		56.5	90.0	71.4	71.4					10.6		10.6
Actuated g/C Ratio		0.63	1.00	0.79	0.79					0.12		0.12
v/c Ratio		0.45	0.53	0.64	0.26					0.49		0.35
Control Delay		3.1	2.9	21.6	0.4					44.5		11.5
Queue Delay		0.6	0.0	0.0	0.0					0.0		0.0
Total Delay		3.6	2.9	21.6	0.4					44.5		11.5
LOS		A	A	C	A					D		B
Approach Delay		3.3			7.4							
Approach LOS		A			A							
Queue Length 50th (ft)		18	2	81	0					55		0
Queue Length 95th (ft)		27	288	150	7					100		41
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2103	1558	629	2768					314		357
Starvation Cap Reductn		703	0	0	0					0		0
Spillback Cap Reductn		124	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.67	0.53	0.56	0.26					0.32		0.26

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 12 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 6.4
 Intersection Capacity Utilization 59.5%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

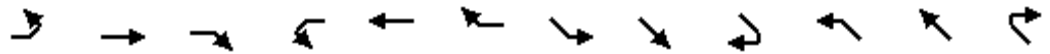


Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes

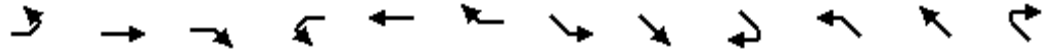
AM PEAK HOUR

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	114	845	0	0	833	13	0	0	0	150	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	0		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Flt					0.998							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1675	1695	0	0	3434	0	0	0	0	1832	0	1639
Flt Permitted	0.218									0.950		
Satd. Flow (perm)	384	1695	0	0	3434	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2							91
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	124	918	0	0	905	14	0	0	0	167	0	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	918	0	0	919	0	0	0	0	167	0	91
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)		23			23			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



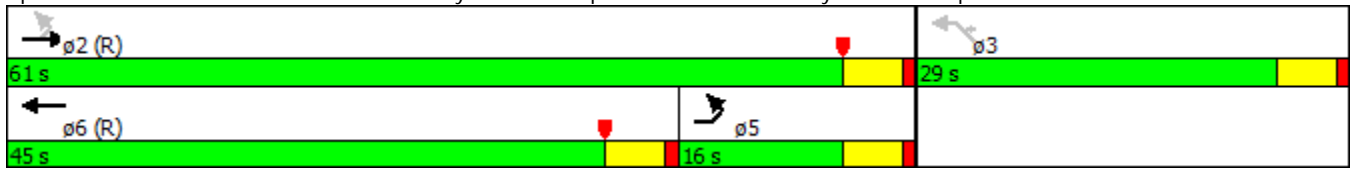
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	16.0	61.0			45.0					29.0		29.0
Total Split (%)	17.8%	67.8%			50.0%					32.2%		32.2%
Maximum Green (s)	11.0	56.0			40.0					24.0		24.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-0.7	-1.0			0.0					-1.0		-1.0
Total Lost Time (s)	4.3	4.0			5.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					Max		Max
Act Effct Green (s)	56.7	57.0			40.0					25.0		25.0
Actuated g/C Ratio	0.63	0.63			0.44					0.28		0.28
v/c Ratio	0.30	0.86			0.60					0.33		0.17
Control Delay	6.4	17.4			21.0					28.1		6.6
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	6.4	17.4			21.0					28.1		6.6
LOS	A	B			C					C		A
Approach Delay		16.1			21.0							
Approach LOS		B			C							
Queue Length 50th (ft)	10	428			201					75		0
Queue Length 95th (ft)	22	#605			263					130		34
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)												530
Base Capacity (vph)	409	1073			1527					508		521
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.30	0.86			0.60					0.33		0.17

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 18.7
 Intersection LOS: B
 Intersection Capacity Utilization 59.5%
 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.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35




















Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
4/2/2015

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	15	76	25	2	119	36	57	42	11	239	847	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963			0.969			0.970			0.987	
Flt Protected	0.950				0.999		0.950			0.950		
Satd. Flow (prot)	1885	1910	0	0	1812	0	1805	1843	0	1805	1875	0
Flt Permitted	0.381				0.997		0.087			0.629		
Satd. Flow (perm)	756	1910	0	0	1809	0	165	1843	0	1195	1875	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			14			14			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	18	93	30	2	143	43	75	55	14	285	1008	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	123	0	0	188	0	75	69	0	285	1106	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		3			3		1	6		5	2	
Permitted Phases	3			3			6			2		
Detector Phase	3	3		3	3		1	6		5	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		12.0	30.0		12.0	22.0	

2019 No-Build Traffic Volumes
 1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
 4/2/2015

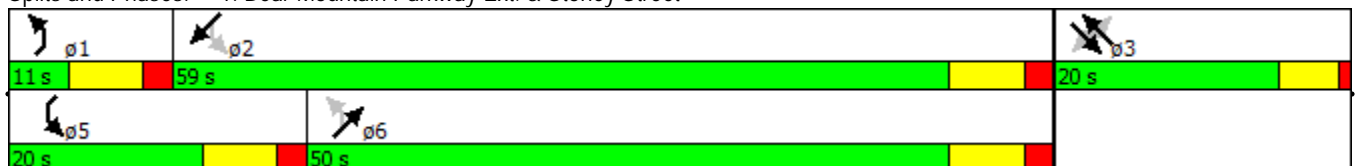


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	20.0	20.0		20.0	20.0		11.0	50.0		20.0	59.0	
Total Split (%)	22.2%	22.2%		22.2%	22.2%		12.2%	55.6%		22.2%	65.6%	
Maximum Green (s)	15.0	15.0		15.0	15.0		4.0	43.0		13.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0		7.0	7.0		7.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)	8.0	8.0		8.0	8.0			7.0				
Flash Dont Walk (s)	17.0	17.0		17.0	17.0			10.0				
Pedestrian Calls (#/hr)	0	0		0	0			0				
Act Effect Green (s)	12.6	12.6			12.6		48.5	44.5		59.7	52.3	
Actuated g/C Ratio	0.15	0.15			0.15		0.57	0.52		0.70	0.61	
v/c Ratio	0.16	0.42			0.68		0.44	0.07		0.32	0.96	
Control Delay	36.2	34.3			45.4		17.5	9.8		5.4	37.5	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	36.2	34.3			45.4		17.5	9.8		5.4	37.5	
LOS	D	C			D		B	A		A	D	
Approach Delay		34.5			45.4			13.8			31.0	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	9	55			92		10	14		44	553	
Queue Length 95th (ft)	26	95			147		21	31		72	#810	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	133	349			330		170	988		943	1151	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.14	0.35			0.57		0.44	0.07		0.30	0.96	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 85.4
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 31.4
 Intersection LOS: C
 Intersection Capacity Utilization 70.0%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Bear Mountain Parkway Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	66	244	246	68	114	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.894				0.933	
Flt Protected				0.962	0.976	
Satd. Flow (prot)	1657	0	0	1801	1679	0
Flt Permitted				0.962	0.976	
Satd. Flow (perm)	1657	0	0	1801	1679	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	86	317	439	121	154	153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	0	0	560	307	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.9%
Analysis Period (min)	15
	ICU Level of Service B

2019 No-Build Traffic Volumes
2: Stoney Street & Old Crompond Road

PM Peak Hour
4/2/2015

Intersection									
Intersection Delay, s/veh	25.6								
Intersection LOS	D								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	66	244	0	246	68	0	114	113
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	86	317	0	439	121	0	154	153
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.2	37.6	16
HCM LOS	C	E	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	78%
Vol Thru, %	0%	21%	22%
Vol Right, %	50%	79%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	227	310	314
LT Vol	114	0	246
Through Vol	0	66	68
RT Vol	113	244	0
Lane Flow Rate	307	403	561
Geometry Grp	1	1	1
Degree of Util (X)	0.527	0.599	0.887
Departure Headway (Hd)	6.189	5.353	5.698
Convergence, Y/N	Yes	Yes	Yes
Cap	580	668	634
Service Time	4.271	3.43	3.767
HCM Lane V/C Ratio	0.529	0.603	0.885
HCM Control Delay	16	16.2	37.6
HCM Lane LOS	C	C	E
HCM 95th-tile Q	3.1	4	10.7

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 No-Build Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	940	230	225	727	56	257	58	301	202	124	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.989				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950	0.984	
Satd. Flow (prot)	1770	3539	1552	1770	3711	0	1681	1715	1583	1698	1759	1546
Flt Permitted	0.344			0.185			0.950	0.969		0.950	0.984	
Satd. Flow (perm)	641	3539	1552	345	3711	0	1670	1707	1583	1698	1759	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		9				145			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	101	1033	253	234	757	58	289	65	338	240	148	218
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	101	1033	253	234	815	0	173	181	338	170	218	218
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 No-Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	32.8	32.8	48.9	33.7	33.7		13.2	13.2	25.1	16.1	16.1	27.1
Actuated g/C Ratio	0.36	0.36	0.54	0.37	0.37		0.15	0.15	0.28	0.18	0.18	0.30
v/c Ratio	0.27	0.80	0.26	0.74	0.58		0.70	0.72	0.62	0.56	0.69	0.39
Control Delay	27.0	33.0	2.4	25.0	15.5		52.9	54.0	13.4	40.4	46.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	33.0	2.4	25.0	15.5		52.9	54.0	13.4	40.4	46.2	6.6
LOS	C	C	A	C	B		D	D	B	D	D	A
Approach Delay		27.0			17.6			33.9			30.3	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	41	293	0	68	164		98	103	47	92	123	18
Queue Length 95th (ft)	79	#415	35	m#140	251		#183	#191	92	141	176	40
Internal Link Dist (ft)		532			1432			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	371	1288	970	323	1395		261	266	551	377	390	561
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.80	0.26	0.72	0.58		0.66	0.68	0.61	0.45	0.56	0.39

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80

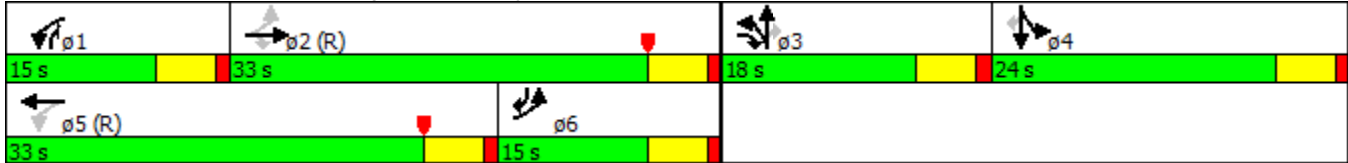
2019 No-Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015

Intersection Signal Delay: 26.2 Intersection LOS: C
 Intersection Capacity Utilization 73.9% 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.
- m Volume for 95th percentile queue is metered by upstream signal.

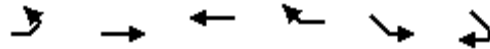
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1444	1084	44	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.994		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3350	3574	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3350	3574	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1699	1166	47	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1699	1213	0	2	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.9%
Analysis Period (min)	15
	ICU Level of Service A

2019 No-Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1444	1084	44	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	85	85	93	93	80	80
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1699	1166	47	1	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1213	0	606
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	7.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	*948	-	*633
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	*948	-	*633
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0	0	56.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	*948	-	-	-	73
HCM Lane V/C Ratio	-	-	-	-	0.034
HCM Control Delay (s)	0	-	-	-	56.1
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 No-Build Traffic Volumes
5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1285	33	160	898	357	38	3	94	291	3	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%			0%	
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.996			0.959				0.850		0.894	
Fl _t Protected	0.950			0.950				0.955		0.950	0.986	
Satd. Flow (prot)	1699	3384	0	1832	3513	0	0	1814	1615	1681	1560	0
Fl _t Permitted	0.094			0.093				0.955		0.950	0.986	
Satd. Flow (perm)	168	3384	0	179	3513	0	0	1814	1615	1681	1560	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			79				85			120
Link Speed (mph)		45			45			30				30
Link Distance (ft)		457			251			624				331
Travel Time (s)		6.9			3.8			14.2				7.5
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.92	0.65	0.92	0.65	0.92	0.92	0.92
Adj. Flow (vph)	137	1397	36	182	1020	388	58	3	145	316	3	209
Shared Lane Traffic (%)										27%		
Lane Group Flow (vph)	137	1433	0	182	1408	0	0	61	145	231	297	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2	1	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Size(ft)	40	40		40	40		40	40	50	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43		43	43		43	43	
Detector 2 Size(ft)	40	40		40	40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	

2019 No-Build Traffic Volumes
5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		6				8					
Detector Phase	5	2	1		6	8		8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	9.0	10.0	9.0		9.0	9.0		9.0	9.0	9.0	9.0	9.0
Total Split (s)	12.0	44.0	12.0		44.0	11.0		11.0	12.0	23.0	23.0	
Total Split (%)	13.3%	48.9%	13.3%		48.9%	12.2%		12.2%	13.3%	25.6%	25.6%	
Maximum Green (s)	7.0	39.0	7.0		39.0	6.0		6.0	7.0	18.0	18.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0		0.0	0.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0		5.0	5.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead		Lag	Lead						
Lead-Lag Optimize?	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	3.0	3.0
Recall Mode	None	C-Max	None		C-Max	None		None	None	None	None	None
Walk Time (s)							5.0	5.0			5.0	5.0
Flash Dont Walk (s)							11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)							0	0			0	0
Act Effct Green (s)	51.5	43.6	52.3		44.0	7.2		16.4	17.0	17.0	17.0	
Actuated g/C Ratio	0.57	0.48	0.58		0.49	0.08		0.18	0.19	0.19	0.19	
v/c Ratio	0.59	0.87	0.71		0.80	0.42		0.40	0.73	0.76	0.76	
Control Delay	29.4	17.9	33.7		13.4	49.0		17.7	47.9	33.2	33.2	
Queue Delay	0.0	0.0	0.0		2.0	0.0		0.9	0.0	0.2	0.2	
Total Delay	29.4	17.9	33.7		15.4	49.0		18.6	47.9	33.4	33.4	
LOS	C	B	C		B	D		B	D	C	C	
Approach Delay	18.9						17.5		27.6		39.7	
Approach LOS	B						B		C		D	
Queue Length 50th (ft)	44	160	50		222	34		29	127	97	97	
Queue Length 95th (ft)	m75	#545	#142		308	74		44	210	#197	#197	
Internal Link Dist (ft)	377						171		544		251	
Turn Bay Length (ft)	150						170		150			
Base Capacity (vph)	234	1641	257		1757	146		364	354	424	424	
Starvation Cap Reductn	0	0	0		210	0		0	0	0	0	
Spillback Cap Reductn	0	0	0		0	0		75	0	7	7	
Storage Cap Reductn	0	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.59	0.87	0.71		0.91	0.42		0.50	0.65	0.71	0.71	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	87 (97%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	21.6
Intersection LOS:	C
Intersection Capacity Utilization:	76.1%
ICU Level of Service:	D
Analysis Period (min):	15







2019 No-Build Traffic Volumes
 5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
 4/2/2015

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

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

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35

 ø1	 ø2 (R)	 ø4	 ø8
12 s	44 s	23 s	11 s
 ø5	 ø6 (R)		
12 s	44 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes

PM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	1260	411	82	1284	0	0	0	0	45	0	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Flt Permitted				0.087						0.950		
Satd. Flow (perm)	0	3415	1558	172	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			174									85
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.76	0.76	0.76	0.78	0.78	0.78	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1658	541	105	1646	0	0	0	0	57	0	165
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1658	541	105	1646	0	0	0	0	57	0	165
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	1	2					2		2
Detector Template												
Leading Detector (ft)		83	0	50	83					83		83
Trailing Detector (ft)		-5	0	0	-5					-5		-5
Detector 1 Position(ft)		-5	0	0	-5					-5		-5
Detector 1 Size(ft)		40	50	50	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43			43					43		43
Detector 2 Size(ft)		40			40					40		40
Detector 2 Type		Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

2019 No-Build Traffic Volumes

PM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		35.0		20.0	55.0					35.0		35.0
Total Split (%)		38.9%		22.2%	61.1%					38.9%		38.9%
Maximum Green (s)		30.0		15.0	50.0					30.0		30.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		62.5	90.0	71.3	71.3					10.7		10.7
Actuated g/C Ratio		0.69	1.00	0.79	0.79					0.12		0.12
v/c Ratio		0.70	0.35	0.40	0.58					0.27		0.63
Control Delay		6.2	0.4	10.1	1.2					37.5		29.2
Queue Delay		1.3	0.0	0.0	0.5					0.0		0.0
Total Delay		7.4	0.4	10.1	1.7					37.5		29.2
LOS		A	A	B	A					D		C
Approach Delay		5.7			2.2							
Approach LOS		A			A							
Queue Length 50th (ft)		125	0	5	13					30		43
Queue Length 95th (ft)		143	0	m10	21					53		79
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2372	1558	439	2818					609		600
Starvation Cap Reductn		459	0	0	386					0		0
Spillback Cap Reductn		78	0	0	627					0		14
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.87	0.35	0.24	0.75					0.09		0.28

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 5.6
 Intersection Capacity Utilization 81.2%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

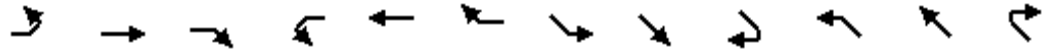


Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes

PM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

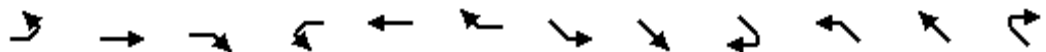


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	343	962	0	0	942	81	0	0	0	425	0	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	0		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.988							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3470	0	0	0	0	1832	0	1639
Fl _t Permitted	0.116									0.950		
Satd. Flow (perm)	205	1729	0	0	3470	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11							109
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1119
Travel Time (s)		7.2			8.2			17.8				25.4
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	385	1081	0	0	981	84	0	0	0	478	0	406
Shared Lane Traffic (%)												
Lane Group Flow (vph)	385	1081	0	0	1065	0	0	0	0	478	0	406
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)		23			23			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

2019 No-Build Traffic Volumes

PM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	23.0	60.0			37.0					30.0		30.0
Total Split (%)	25.6%	66.7%			41.1%					33.3%		33.3%
Maximum Green (s)	18.0	55.0			32.0					25.0		25.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.0	-1.0			-1.0					-1.0		-1.0
Total Lost Time (s)	4.0	4.0			4.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					None		None
Act Effct Green (s)	56.7	56.7			33.7					25.3		25.3
Actuated g/C Ratio	0.63	0.63			0.37					0.28		0.28
v/c Ratio	0.88	0.99			0.82					0.93		0.75
Control Delay	35.8	30.3			31.6					58.0		31.2
Queue Delay	0.0	9.0			0.0					0.0		0.0
Total Delay	35.8	39.3			31.6					58.0		31.2
LOS	D	D			C					E		C
Approach Delay		38.4			31.6							
Approach LOS		D			C							
Queue Length 50th (ft)	146	~200			283					260		153
Queue Length 95th (ft)	#316	#881			367					#433		259
Internal Link Dist (ft)		395			460			701			1039	
Turn Bay Length (ft)												530
Base Capacity (vph)	439	1088			1305					529		551
Starvation Cap Reductn	0	35			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.88	1.03			0.82					0.90		0.74

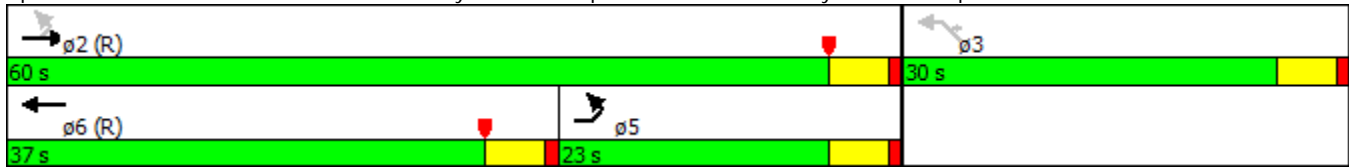
Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 76 (84%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 38.2
 Intersection LOS: D
 Intersection Capacity Utilization 81.2%
 ICU Level of Service D
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

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

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
1: Bear Mountain Pkwy. Ext. & Stoney Street

Saturday Peak Hour
4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	9	66	15	1	99	40	72	50	13	92	428	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.961			0.970				0.962
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1885	1928	0	0	1799	0	1805	1843	0	1805	1828	0
Flt Permitted	0.363				0.998		0.282			0.708		
Satd. Flow (perm)	720	1928	0	0	1795	0	536	1843	0	1345	1828	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			21			14			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	10	73	17	1	109	44	80	56	14	97	451	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	90	0	0	154	0	80	70	0	97	603	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	88	88		50	88		88	88		88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	

2019 No-Build Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

Saturday Peak Hour
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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	Max		None	Max	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effect Green (s)	13.4	13.4			11.7		45.9	39.5		46.3	39.7	
Actuated g/C Ratio	0.19	0.19			0.17		0.65	0.56		0.65	0.56	
v/c Ratio	0.04	0.24			0.49		0.16	0.07		0.10	0.58	
Control Delay	21.9	21.6			28.9		5.9	9.5		5.3	15.7	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	21.9	21.6			28.9		5.9	9.5		5.3	15.7	
LOS	C	C			C		A	A		A	B	
Approach Delay		21.6			28.9			7.6			14.3	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)	4	27			50		8	10		10	149	
Queue Length 95th (ft)	15	63			118		36	42		41	396	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	235	860			552		564	1035		993	1035	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.04	0.10			0.28		0.14	0.07		0.10	0.58	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 70.8
 Natural Cycle: 65
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 16.1
 Intersection LOS: B
 Intersection Capacity Utilization 53.8%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
2: Stoney Street & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	75	204	247	74	99	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.901				0.927	
Flt Protected				0.963	0.978	
Satd. Flow (prot)	1670	0	0	1803	1672	0
Flt Permitted				0.963	0.978	
Satd. Flow (perm)	1670	0	0	1803	1672	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	85	232	426	128	109	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	317	0	0	554	239	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.8%
Analysis Period (min)	15
	ICU Level of Service B

2019 No-Build Traffic Volumes
2: Stoney Street & Old Crompond Road

Saturday Peak Hour
4/2/2015

Intersection									
Intersection Delay, s/veh	19.5								
Intersection LOS	C								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	75	204	0	247	74	0	99	118
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	85	232	0	426	128	0	109	130
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12	26.8	12.6
HCM LOS	B	D	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	46%	0%	77%
Vol Thru, %	0%	27%	23%
Vol Right, %	54%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	217	279	321
LT Vol	99	0	247
Through Vol	0	75	74
RT Vol	118	204	0
Lane Flow Rate	238	317	553
Geometry Grp	1	1	1
Degree of Util (X)	0.387	0.442	0.809
Departure Headway (Hd)	5.843	5.016	5.26
Convergence, Y/N	Yes	Yes	Yes
Cap	615	717	686
Service Time	3.894	3.059	3.294
HCM Lane V/C Ratio	0.387	0.442	0.806
HCM Control Delay	12.6	12	26.8
HCM Lane LOS	B	B	D
HCM 95th-tile Q	1.8	2.3	8.4

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 No-Build Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	1076	262	274	724	46	254	54	366	232	126	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.991				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.968		0.950	0.984	
Satd. Flow (prot)	1770	3539	1552	1770	3719	0	1681	1713	1583	1698	1759	1546
Flt Permitted	0.345			0.174			0.950	0.968		0.950	0.984	
Satd. Flow (perm)	643	3539	1552	324	3719	0	1669	1705	1583	1698	1759	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			288		7				131			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	118	1133	288	304	762	51	282	60	407	258	140	94
Shared Lane Traffic (%)							41%			26%		
Lane Group Flow (vph)	118	1133	288	304	813	0	166	176	407	191	207	94
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

2019 No-Build Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
4/2/2015



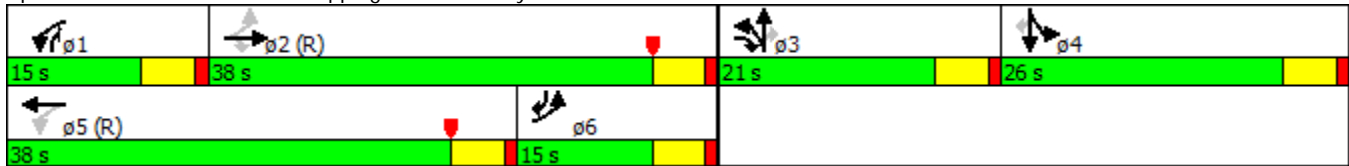
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	4.0
Minimum Split (s)	10.0	20.0	16.0	11.0	36.0		16.0	16.0	11.0	20.0	20.0	10.0
Total Split (s)	15.0	38.0	21.0	15.0	38.0		21.0	21.0	15.0	26.0	26.0	15.0
Total Split (%)	15.0%	38.0%	21.0%	15.0%	38.0%		21.0%	21.0%	15.0%	26.0%	26.0%	15.0%
Maximum Green (s)	10.0	33.0	16.0	10.0	33.0		16.0	16.0	10.0	21.0	21.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-0.7	-1.0	-1.0	0.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.3	4.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	34.0	33.7	53.2	40.2	39.2		15.2	15.2	32.4	17.6	17.6	28.6
Actuated g/C Ratio	0.34	0.34	0.53	0.40	0.39		0.15	0.15	0.32	0.18	0.18	0.29
v/c Ratio	0.35	0.95	0.30	0.80	0.56		0.65	0.67	0.68	0.64	0.67	0.18
Control Delay	31.0	49.7	2.2	31.6	20.0		51.9	53.1	17.6	47.8	49.0	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	49.7	2.2	31.6	20.0		51.9	53.1	17.6	47.8	49.0	1.7
LOS	C	D	A	C	B		D	D	B	D	D	A
Approach Delay		39.4			23.1			33.6				39.5
Approach LOS		D			C			C				D
Queue Length 50th (ft)	53	367	0	133	212		104	110	86	120	130	0
Queue Length 95th (ft)	96	#507	36	m#230	m283		175	185	#168	187	201	10
Internal Link Dist (ft)		532			1422			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	342	1192	983	378	1461		285	291	601	373	386	529
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.95	0.29	0.80	0.56		0.58	0.60	0.68	0.51	0.54	0.18

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 68 (68%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 33.6
 Intersection LOS: C
 Intersection Capacity Utilization 81.0%
 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.

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

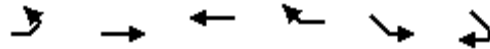
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1673	1134	50	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.993		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3415	3637	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3415	3637	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.95	0.85	0.90	0.90
Adj. Flow (vph)	0	1725	1194	59	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1725	1253	0	4	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.2%
Analysis Period (min)	15
	ICU Level of Service B

2019 No-Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1673	1134	50	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	97	97	95	85	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1725	1194	59	2	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1253	0	626
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	7.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	*924	-	*617
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	*924	-	*617
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0	0	63.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	*924	-	-	-	66
HCM Lane V/C Ratio	-	-	-	-	0.067
HCM Control Delay (s)	0	-	-	-	63.4
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 No-Build Traffic Volumes
 5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	194	1450	31	115	850	542	36	5	81	438	5	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.997			0.940				0.850		0.888	
Fl _t Protected	0.950			0.950				0.957		0.950	0.988	
Satd. Flow (prot)	1699	3387	0	1832	3443	0	0	1818	1615	1681	1553	0
Fl _t Permitted	0.086			0.094				0.957		0.950	0.988	
Satd. Flow (perm)	154	3387	0	181	3443	0	0	1818	1615	1681	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			181				76			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		457			251			624				173
Travel Time (s)		6.9			3.8			14.2				3.9
Peak Hour Factor	0.92	0.95	0.90	0.91	0.95	0.92	0.90	0.92	0.90	0.92	0.92	0.92
Adj. Flow (vph)	211	1526	34	126	895	589	40	5	90	476	5	324
Shared Lane Traffic (%)										22%		
Lane Group Flow (vph)	211	1560	0	126	1484	0	0	45	90	371	434	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Size(ft)	88	88		88	88		88	88	50	88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		9.0	9.0	7.0	9.0	9.0	

2019 No-Build Traffic Volumes
5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
4/2/2015









Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	48.0		10.0	43.0		11.0	11.0	10.0	31.0	31.0	
Total Split (%)	15.0%	48.0%		10.0%	43.0%		11.0%	11.0%	10.0%	31.0%	31.0%	
Maximum Green (s)	10.0	43.0		5.0	38.0		6.0	6.0	5.0	26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0			-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)							5.0	5.0		5.0	5.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effect Green (s)	59.0	48.7		51.4	44.6			6.9	13.4	25.9	25.9	
Actuated g/C Ratio	0.59	0.49		0.51	0.45			0.07	0.13	0.26	0.26	
v/c Ratio	0.81	0.95		0.61	0.91			0.36	0.32	0.85	0.85	
Control Delay	46.9	27.2		31.7	19.7			52.8	14.6	54.8	40.2	
Queue Delay	0.0	7.1		0.0	0.8			0.0	0.0	0.0	0.2	
Total Delay	46.9	34.3		31.7	20.5			52.8	14.6	54.8	40.4	
LOS	D	C		C	C			D	B	D	D	
Approach Delay		35.8			21.4			27.3			47.1	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	105	~550		31	~245			28	8	232	187	
Queue Length 95th (ft)	m#137	m#641		#111	#226			64	51	#390	#364	
Internal Link Dist (ft)		377			171			544			93	
Turn Bay Length (ft)	150			170					150			
Base Capacity (vph)	264	1650		205	1636			127	282	453	525	
Starvation Cap Reductn	0	0		0	35			0	0	0	0	
Spillback Cap Reductn	0	86		0	0			0	1	0	3	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.80	1.00		0.61	0.93			0.35	0.32	0.82	0.83	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 10 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 32.3
 Intersection LOS: C
 Intersection Capacity Utilization 89.7%
 ICU Level of Service E
 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35

 φ1	 φ2 (R)	 φ4	 φ8
10 s	48 s	31 s	11 s
 φ5	 φ6 (R)		
15 s	43 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes

Saturday Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	1447	523	121	1322	0	0	0	0	64	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Fl _t Permitted				0.106						0.950		
Satd. Flow (perm)	0	3415	1558	209	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			175									76
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.94	0.95	0.94	0.97	0.97	0.97	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1523	556	125	1363	0	0	0	0	71	0	193
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1523	556	125	1363	0	0	0	0	71	0	193
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1	1	1	1					1		1
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		88	0	88	88					88		88
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

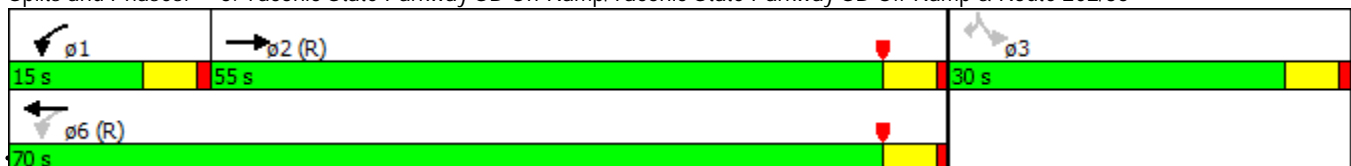


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		55.0		15.0	70.0					30.0		30.0
Total Split (%)		55.0%		15.0%	70.0%					30.0%		30.0%
Maximum Green (s)		50.0		10.0	65.0					25.0		25.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effect Green (s)		66.8	100.0	78.8	78.8					13.2		13.2
Actuated g/C Ratio		0.67	1.00	0.79	0.79					0.13		0.13
v/c Ratio		0.67	0.36	0.42	0.49					0.30		0.70
Control Delay		7.2	0.3	13.3	0.7					40.5		37.8
Queue Delay		4.4	0.0	0.0	0.3					0.0		0.0
Total Delay		11.6	0.3	13.3	1.0					40.5		37.8
LOS		B	A	B	A					D		D
Approach Delay		8.6			2.0							
Approach LOS		A			A							
Queue Length 50th (ft)		108	0	13	0					42		71
Queue Length 95th (ft)		m172	m0	m25	40					77		135
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2282	1558	350	2802					459		467
Starvation Cap Reductn		671	0	0	706					0		0
Spillback Cap Reductn		0	0	0	304					0		6
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.95	0.36	0.36	0.65					0.15		0.42

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 22 (22%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 8.1 Intersection LOS: A
 Intersection Capacity Utilization 82.3% ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

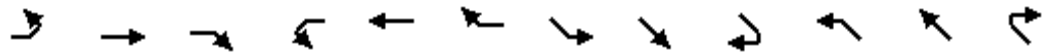


Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes

Saturday Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

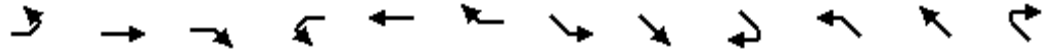


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	401	1109	0	0	1131	48	0	0	0	312	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	0		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3489	0	0	0	0	1832	0	1639
Fl _t Permitted	0.088									0.950		
Satd. Flow (perm)	155	1729	0	0	3489	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5							109
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	441	1167	0	0	1191	53	0	0	0	332	0	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	441	1167	0	0	1244	0	0	0	0	332	0	118
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)		23			23			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1					1		1
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	88	88			88					88		88
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0

2019 No-Build Traffic Volumes

Saturday Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

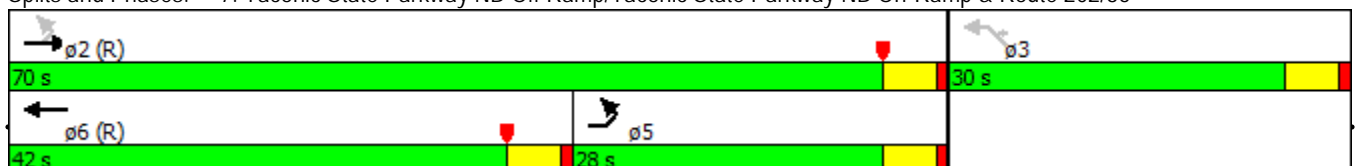


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	28.0	70.0			42.0					30.0		30.0
Total Split (%)	28.0%	70.0%			42.0%					30.0%		30.0%
Maximum Green (s)	23.0	65.0			37.0					25.0		25.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.5	-2.0			-1.0					-1.0		-1.0
Total Lost Time (s)	3.5	3.0			4.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					None		None
Act Effct Green (s)	70.1	70.6			41.6					22.4		22.4
Actuated g/C Ratio	0.70	0.71			0.42					0.22		0.22
v/c Ratio	0.92	0.96			0.85					0.81		0.26
Control Delay	42.0	22.7			34.5					52.4		8.5
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	42.0	22.7			34.5					52.4		8.5
LOS	D	C			C					D		A
Approach Delay		28.0			34.5							
Approach LOS		C			C							
Queue Length 50th (ft)	232	51			375					199		4
Queue Length 95th (ft)	#423	#1048			#540					291		47
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)												530
Base Capacity (vph)	481	1221			1455					476		506
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.92	0.96			0.85					0.70		0.23

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 32.2 Intersection LOS: C
 Intersection Capacity Utilization 82.3% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.




















Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR
4/2/2015

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	90	130	50	2	33	26	21	188	2	149	253	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.943			0.999				0.995
Flt Protected	0.950				0.998		0.950			0.950		
Satd. Flow (prot)	1885	1901	0	0	1762	0	1805	1898	0	1805	1890	0
Flt Permitted	0.577				0.980		0.582			0.477		
Satd. Flow (perm)	1145	1901	0	0	1730	0	1106	1898	0	906	1890	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			28			1				2
Link Speed (mph)		30			30			30				30
Link Distance (ft)		353			539			433				768
Travel Time (s)		8.0			12.3			9.8				17.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	98	141	54	2	36	28	23	209	2	166	281	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	195	0	0	66	0	23	211	0	166	291	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		1	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	40	40		50	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	43	43			43		43	43		43	43	
Detector 2 Size(ft)	40	40			40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	

2019 Build Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street








AM PEAK HOUR
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.5		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.5		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)	13.1	13.1			6.9		17.6	13.0		22.9	21.3	
Actuated g/C Ratio	0.28	0.28			0.15		0.37	0.28		0.49	0.45	
v/c Ratio	0.24	0.36			0.24		0.05	0.40		0.28	0.34	
Control Delay	15.3	14.7			17.1		8.0	19.9		8.7	12.0	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	15.3	14.7			17.1		8.0	19.9		8.7	12.0	
LOS	B	B			B		A	B		A	B	
Approach Delay		14.9			17.1			18.7			10.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	20	37			11		3	56		26	49	
Queue Length 95th (ft)	54	90			42		13	116		57	146	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	415	1294			780		640	1435		645	1430	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.24	0.15			0.08		0.04	0.15		0.26	0.20	

Intersection Summary	
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	47
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	14.1
Intersection Capacity Utilization:	42.4%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	A

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street

 ø1	 ø2	 ø4	
15 s	40 s	35 s	
 ø5	 ø6	 ø7	 ø8
15 s	40 s	10 s	25 s

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
2: Stoney Street & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	43	240	131	35	30	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.886				0.905	
Flt Protected				0.962	0.985	
Satd. Flow (prot)	1642	0	0	1801	1644	0
Flt Permitted				0.962	0.985	
Satd. Flow (perm)	1642	0	0	1801	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	267	146	39	33	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	0	185	110	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.1% ICU Level of Service A
Analysis Period (min)	15

Intersection									
Intersection Delay, s/veh	8.9								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	43	240	0	131	35	0	30	69
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	267	0	146	39	0	33	77
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.9	9.1	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	30%	0%	79%
Vol Thru, %	0%	15%	21%
Vol Right, %	70%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	99	283	166
LT Vol	30	0	131
Through Vol	0	43	35
RT Vol	69	240	0
Lane Flow Rate	110	314	184
Geometry Grp	1	1	1
Degree of Util (X)	0.141	0.34	0.238
Departure Headway (Hd)	4.615	3.896	4.651
Convergence, Y/N	Yes	Yes	Yes
Cap	777	924	773
Service Time	2.647	1.913	2.675
HCM Lane V/C Ratio	0.142	0.34	0.238
HCM Control Delay	8.4	8.9	9.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	1.5	0.9

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 Build Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	1197	227	137	462	16	132	13	254	161	74	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.960		0.950	0.981	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1699	1583	1698	1753	1546
Flt Permitted	0.471			0.471			0.950	0.960		0.950	0.981	
Satd. Flow (perm)	877	3471	1552	877	3664	0	1666	1686	1583	1698	1753	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			226		4				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	71	1301	247	149	502	17	147	14	282	179	82	149
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	71	1301	247	149	519	0	79	82	282	129	132	149
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	20.0	19.0	49.0		20.0	20.0	19.0	22.0	22.0	19.0
Total Split (%)	17.3%	44.5%	18.2%	17.3%	44.5%		18.2%	18.2%	17.3%	20.0%	20.0%	17.3%
Maximum Green (s)	13.0	43.0	14.0	13.0	43.0		14.0	14.0	13.0	16.0	16.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.3	50.3	66.9	21.2	21.2		12.6	12.6	25.3	14.4	14.4	56.1
Actuated g/C Ratio	0.46	0.46	0.61	0.19	0.19		0.11	0.11	0.23	0.13	0.13	0.51
v/c Ratio	0.10	0.82	0.24	0.55	0.73		0.41	0.42	0.59	0.58	0.58	0.17
Control Delay	20.8	32.7	2.5	46.1	47.5		51.5	51.8	14.8	55.4	54.8	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	32.7	2.5	46.1	47.5		51.5	51.8	14.8	55.4	54.8	2.0
LOS	C	C	A	D	D		D	D	B	E	D	A
Approach Delay		27.6			47.2			28.2				35.8
Approach LOS		C			D			C				D
Queue Length 50th (ft)	28	414	6	93	181		55	57	54	91	93	0
Queue Length 95th (ft)	61	#606	40	148	226		105	107	102	153	156	20
Internal Link Dist (ft)		532			1437			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	739	1585	1060	284	1468		229	231	498	262	270	857
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.82	0.23	0.52	0.35		0.34	0.35	0.57	0.49	0.49	0.17

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow

Natural Cycle: 80

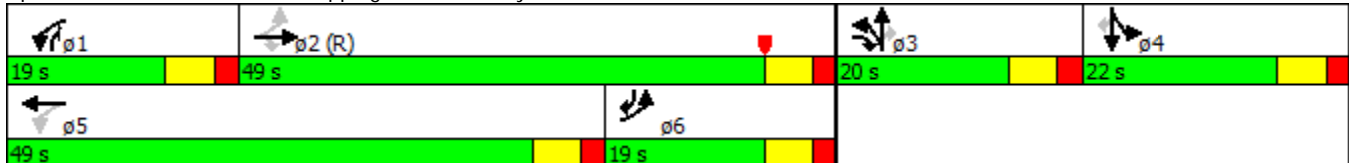
Control Type: Actuated-Coordinated

2019 Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015

Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 32.9 Intersection LOS: C
 Intersection Capacity Utilization 74.4% 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.

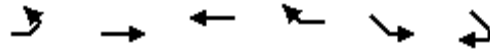
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1611	647	92	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.981		0.946	
Flt Protected					0.971	
Satd. Flow (prot)	0	3350	3533	0	1626	0
Flt Permitted					0.971	
Satd. Flow (perm)	0	3350	3533	0	1626	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1751	703	100	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1751	803	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	54.5%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1611	647	92	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	92	92	92	92	92	90
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1751	703	100	3	2

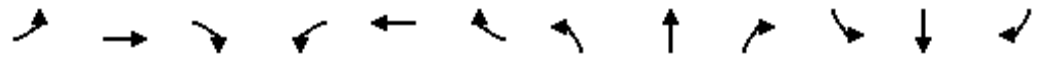
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	803	0	1629
Stage 1	-	-	753
Stage 2	-	-	876
Critical Hdwy	4.14	-	8.84
Critical Hdwy Stg 1	-	-	7.84
Critical Hdwy Stg 2	-	-	7.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1096	-	67
Stage 1	-	-	672
Stage 2	-	-	226
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	1096	-	67
Mov Cap-2 Maneuver	-	-	67
Stage 1	-	-	672
Stage 2	-	-	226

Approach	EB	WB	SE
HCM Control Delay, s	0	0	40.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1096	-	-	-	107
HCM Lane V/C Ratio	-	-	-	-	0.051
HCM Control Delay (s)	0	-	-	-	40.5
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1559	12	45	659	121	21	1	36	80	1	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.999			0.977				0.850		0.876	
Flt Protected	0.950			0.950				0.954		0.950	0.992	
Satd. Flow (prot)	1699	3329	0	1832	3521	0	0	1813	1615	1681	1538	0
Flt Permitted	0.297			0.071				0.954		0.950	0.992	
Satd. Flow (perm)	531	3329	0	137	3521	0	0	1813	1615	1681	1538	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			31				85		63	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		457			251			624			252	
Travel Time (s)		6.9			3.8			14.2			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	47	1695	13	49	716	132	23	1	39	87	1	63
Shared Lane Traffic (%)										14%		
Lane Group Flow (vph)	47	1708	0	49	848	0	0	24	39	75	76	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		1	2	2	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		50	83	83	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Size(ft)	40	40		40	40		50	40	40	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43			43	43	43	43	
Detector 2 Size(ft)	40	40		40	40			40	40	40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	

2019 Build Traffic Volumes
 5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR
 4/2/2015




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		10.0	10.0	7.0	10.0	10.0	
Total Split (s)	15.0	45.0		15.0	45.0		15.0	15.0	15.0	15.0	15.0	
Total Split (%)	16.7%	50.0%		16.7%	50.0%		16.7%	16.7%	16.7%	16.7%	16.7%	
Maximum Green (s)	10.0	40.0		10.0	40.0		10.0	10.0	10.0	10.0	10.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Act Effct Green (s)	66.1	60.9		66.9	63.0			7.9	12.6	9.6	7.6	
Actuated g/C Ratio	0.73	0.68		0.74	0.70			0.09	0.14	0.11	0.08	
v/c Ratio	0.10	0.76		0.20	0.34			0.15	0.13	0.42	0.41	
Control Delay	5.3	18.2		9.4	2.9			39.6	1.5	44.4	20.4	
Queue Delay	0.0	0.0		0.0	0.2			0.0	0.0	0.0	0.0	
Total Delay	5.3	18.2		9.4	3.1			39.6	1.5	44.4	20.4	
LOS	A	B		A	A			D	A	D	C	
Approach Delay		17.9			3.5			16.0			32.3	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)	4	301		1	8			13	0	42	7	
Queue Length 95th (ft)	21	#692		21	76			37	4	87	50	
Internal Link Dist (ft)		377			171			544			172	
Turn Bay Length (ft)	150			170					100			
Base Capacity (vph)	548	2251		312	2475			221	361	205	210	
Starvation Cap Reductn	0	0		0	742			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.09	0.76		0.16	0.49			0.11	0.11	0.37	0.36	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 14.1 Intersection LOS: B
 Intersection Capacity Utilization 62.5% 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: 5: Mohansic Avenue/COSTCO Access & Route 202/35

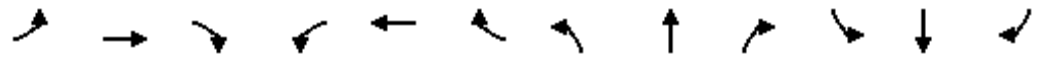
 ø1	 ø2 (R)	 ø4	 ø8
15 s	45 s	15 s	15 s
 ø5	 ø6 (R)		
15 s	45 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes

AM PEAK HOUR

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	904	770	323	723	0	0	0	0	92	0	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	3350	1558	1877	3490	0	0	0	0	1769	0	1583
Fl _t Permitted				0.226						0.950		
Satd. Flow (perm)	0	3350	1558	447	3490	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			453									113
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	983	837	351	786	0	0	0	0	102	0	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	983	837	351	786	0	0	0	0	102	0	113
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	2	2					2		2
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		40	50	40	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43		43	43					43		43
Detector 2 Size(ft)		40		40	40					40		40
Detector 2 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		50.0		20.0	70.0					20.0		20.0
Total Split (%)		55.6%		22.2%	77.8%					22.2%		22.2%
Maximum Green (s)		45.0		15.0	65.0					15.0		15.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		56.3	90.0	71.4	71.4					10.6		10.6
Actuated g/C Ratio		0.63	1.00	0.79	0.79					0.12		0.12
v/c Ratio		0.47	0.54	0.66	0.28					0.49		0.40
Control Delay		3.1	3.1	22.8	0.5					44.5		11.3
Queue Delay		0.7	0.0	0.0	0.0					0.0		0.0
Total Delay		3.8	3.1	22.8	0.5					44.5		11.3
LOS		A	A	C	A					D		B
Approach Delay		3.5			7.4							
Approach LOS		A			A							
Queue Length 50th (ft)		18	0	81	0					55		0
Queue Length 95th (ft)		27	303	159	12					100		45
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2094	1558	613	2768					314		374
Starvation Cap Reductn		692	0	0	0					0		0
Spillback Cap Reductn		137	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.70	0.54	0.57	0.28					0.32		0.30

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 12 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 6.5
 Intersection Capacity Utilization 61.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

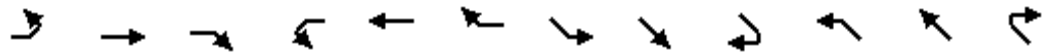


Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes

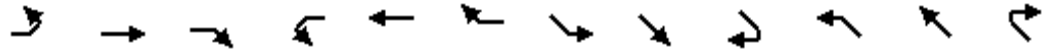
AM PEAK HOUR

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	128	869	0	0	875	13	0	0	0	171	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	0		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.998							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1675	1695	0	0	3434	0	0	0	0	1832	0	1639
Flt Permitted	0.200									0.950		
Satd. Flow (perm)	353	1695	0	0	3434	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2							91
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	139	945	0	0	951	14	0	0	0	190	0	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	945	0	0	965	0	0	0	0	190	0	91
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)		23			23			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



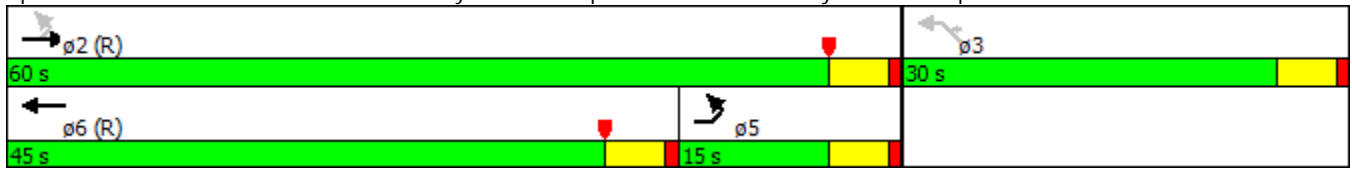
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	15.0	60.0			45.0					30.0		30.0
Total Split (%)	16.7%	66.7%			50.0%					33.3%		33.3%
Maximum Green (s)	10.0	55.0			40.0					25.0		25.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-0.7	-1.0			0.0					-1.0		-1.0
Total Lost Time (s)	4.3	4.0			5.0					4.0		4.0
Lead/Lag		Lag			Lead							
Lead-Lag Optimize?		Yes			Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					Max		Max
Act Effct Green (s)	55.7	56.0			40.0					26.0		26.0
Actuated g/C Ratio	0.62	0.62			0.44					0.29		0.29
v/c Ratio	0.37	0.90			0.63					0.36		0.17
Control Delay	8.6	21.5			21.6					27.8		6.4
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	8.6	21.5			21.6					27.8		6.4
LOS	A	C			C					C		A
Approach Delay		19.8			21.6							
Approach LOS		B			C							
Queue Length 50th (ft)	12	462			215					85		0
Queue Length 95th (ft)	27	#712			281					145		34
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)												530
Base Capacity (vph)	375	1054			1527					529		538
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.37	0.90			0.63					0.36		0.17

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 20.7
 Intersection LOS: C
 Intersection Capacity Utilization 61.9%
 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.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
8: Old Crompond Road & Site Access

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	40	49	57	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.927		0.865	
Flt Protected		0.976				
Satd. Flow (prot)	0	1818	1727	0	1611	0
Flt Permitted		0.976				
Satd. Flow (perm)	0	1818	1727	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1020	1070		240	
Travel Time (s)		23.2	24.3		5.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	43	53	62	0	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	115	0	67	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.5%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes
8: Old Crompond Road & Site Access

AM PEAK HOUR
4/2/2015

Intersection

Int Delay, s/veh 3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	40	40	49	57	0	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	43	53	62	0	67

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	115	0	214
Stage 1	-	-	84
Stage 2	-	-	130
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1474	-	774
Stage 1	-	-	939
Stage 2	-	-	896
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1474	-	751
Mov Cap-2 Maneuver	-	-	751
Stage 1	-	-	939
Stage 2	-	-	869

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	975
HCM Lane V/C Ratio	0.029	-	-	-	0.069
HCM Control Delay (s)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

2019 Build Traffic Volumes
 1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	15	79	25	2	123	66	57	42	11	239	847	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.953			0.970			0.987	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1885	1912	0	0	1784	0	1805	1843	0	1805	1875	0
Flt Permitted	0.299				0.998		0.087			0.626		
Satd. Flow (perm)	593	1912	0	0	1781	0	165	1843	0	1189	1875	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			26			14			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	18	96	30	2	148	80	75	55	14	285	1008	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	126	0	0	230	0	75	69	0	285	1106	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		3			3		1	6		5	2	
Permitted Phases	3			3			6			2		
Detector Phase	3	3		3	3		1	6		5	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		12.0	30.0		12.0	22.0	

2019 Build Traffic Volumes
1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	20.0	20.0		20.0	20.0		11.0	50.0		20.0	59.0	
Total Split (%)	22.2%	22.2%		22.2%	22.2%		12.2%	55.6%		22.2%	65.6%	
Maximum Green (s)	15.0	15.0		15.0	15.0		4.0	43.0		13.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0		7.0	7.0		7.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)	8.0	8.0		8.0	8.0			7.0				
Flash Dont Walk (s)	17.0	17.0		17.0	17.0			10.0				
Pedestrian Calls (#/hr)	0	0		0	0			0				
Act Effct Green (s)	13.4	13.4			13.4		48.4	44.4		59.9	52.3	
Actuated g/C Ratio	0.16	0.16			0.16		0.56	0.51		0.69	0.61	
v/c Ratio	0.20	0.41			0.77		0.44	0.07		0.32	0.97	
Control Delay	38.2	33.8			49.9		17.9	10.0		5.7	39.9	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	38.2	33.8			49.9		17.9	10.0		5.7	39.9	
LOS	D	C			D		B	B		A	D	
Approach Delay		34.3			49.9			14.1			32.9	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	9	56			111		11	15		49	~623	
Queue Length 95th (ft)	27	98			#175		21	31		72	#810	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	103	346			332		169	976		931	1140	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.17	0.36			0.69		0.44	0.07		0.31	0.97	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 86.3
 Natural Cycle: 90
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 33.6
 Intersection LOS: C
 Intersection Capacity Utilization 71.7%
 ICU Level of Service C
 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: Bear Mountain Parkway Ext. & Stoney Street

 $\phi 1$	 $\phi 2$	 $\phi 3$
11 s	59 s	20 s
 $\phi 5$	 $\phi 6$	
20 s	50 s	

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
2: Stoney Street & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	92	244	412	102	114	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.902				0.924	
Flt Protected				0.961	0.979	
Satd. Flow (prot)	1672	0	0	1799	1668	0
Flt Permitted				0.961	0.979	
Satd. Flow (perm)	1672	0	0	1799	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	119	317	736	182	154	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	436	0	0	918	354	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	73.4%
Analysis Period (min)	15
	ICU Level of Service D

2019 Build Traffic Volumes
2: Stoney Street & Old Crompond Road

PM Peak Hour
4/2/2015

Intersection									
Intersection Delay, s/veh	42.4								
Intersection LOS	E								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	92	244	0	412	102	0	114	148
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	119	317	0	736	182	0	154	200
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.7	61.5	19.7
HCM LOS	C	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	44%	0%	80%
Vol Thru, %	0%	27%	20%
Vol Right, %	56%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	262	336	514
LT Vol	114	0	412
Through Vol	0	92	102
RT Vol	148	244	0
Lane Flow Rate	354	436	918
Geometry Grp	1	1	1
Degree of Util (X)	0.629	0.694	1
Departure Headway (Hd)	6.396	5.726	6.066
Convergence, Y/N	Yes	Yes	Yes
Cap	566	633	606
Service Time	4.412	3.749	4.103
HCM Lane V/C Ratio	0.625	0.689	1.515
HCM Control Delay	19.7	20.7	61.5
HCM Lane LOS	C	C	F
HCM 95th-tile Q	4.4	5.5	14.9

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 Build Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	940	230	225	727	56	257	61	301	320	128	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.989				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.970		0.950	0.979	
Satd. Flow (prot)	1770	3539	1552	1770	3711	0	1681	1717	1583	1698	1750	1546
Flt Permitted	0.344			0.194			0.950	0.970		0.950	0.979	
Satd. Flow (perm)	641	3539	1552	361	3711	0	1671	1710	1583	1698	1750	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		9				145			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	138	1033	253	234	757	58	289	69	338	381	152	270
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	138	1033	253	234	815	0	173	185	338	271	262	270
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	31.6	31.6	47.8	31.7	31.7		13.2	13.2	24.4	18.1	18.1	29.1
Actuated g/C Ratio	0.35	0.35	0.53	0.35	0.35		0.15	0.15	0.27	0.20	0.20	0.32
v/c Ratio	0.38	0.83	0.27	0.78	0.62		0.70	0.73	0.63	0.80	0.75	0.46
Control Delay	30.1	35.1	2.4	26.7	16.0		52.6	54.8	14.0	51.9	47.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	35.1	2.4	26.7	16.0		52.6	54.8	14.0	51.9	47.5	8.2
LOS	C	D	A	C	B		D	D	B	D	D	A
Approach Delay		28.8			18.4			34.5				35.8
Approach LOS		C			B			C				D
Queue Length 50th (ft)	57	293	0	78	182		98	106	47	150	144	29
Queue Length 95th (ft)	103	#415	35	m102	m229		#183	#197	92	222	212	57
Internal Link Dist (ft)		532			1432			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	362	1241	953	305	1313		261	267	538	377	388	590
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.83	0.27	0.77	0.62		0.66	0.69	0.63	0.72	0.68	0.46

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83

2019 Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015

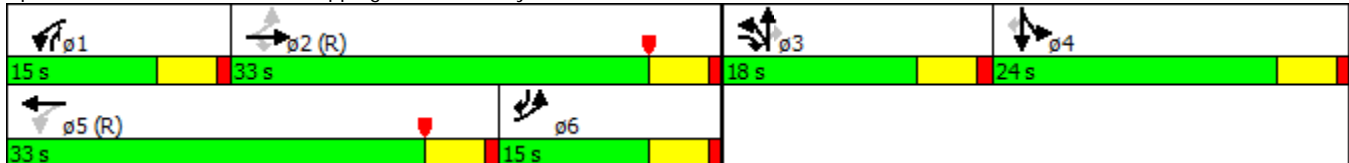
Intersection Signal Delay: 28.4 Intersection LOS: C
 Intersection Capacity Utilization 76.4% ICU Level of Service D
 Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

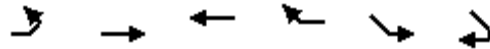
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↘	
Volume (vph)	0	1562	1084	136	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.983		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3350	3539	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3350	3539	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1838	1166	146	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1838	1312	0	2	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.2%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1562	1084	136	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	85	85	93	93	80	80
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1838	1166	146	1	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1312	0	656
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	7.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	861	-	*633
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	861	-	*633
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0	0	84.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	861	-	-	-	48
HCM Lane V/C Ratio	-	-	-	-	0.052
HCM Control Delay (s)	0	-	-	-	84.1
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 Build Traffic Volumes
5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1401	35	160	988	357	40	3	94	291	3	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%			0%	
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.996			0.961				0.850		0.894	
Flt Protected	0.950			0.950				0.954		0.950	0.986	
Satd. Flow (prot)	1699	3384	0	1832	3520	0	0	1813	1615	1681	1560	0
Flt Permitted	0.094			0.093				0.954		0.950	0.986	
Satd. Flow (perm)	168	3384	0	179	3520	0	0	1813	1615	1681	1560	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			69				85			120
Link Speed (mph)		45			45			30				30
Link Distance (ft)		457			251			624				331
Travel Time (s)		6.9			3.8			14.2				7.5
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.92	0.65	0.92	0.65	0.92	0.92	0.92
Adj. Flow (vph)	137	1523	38	182	1123	388	62	3	145	316	3	209
Shared Lane Traffic (%)										27%		
Lane Group Flow (vph)	137	1561	0	182	1511	0	0	65	145	231	297	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2	1	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Size(ft)	40	40		40	40		40	40	50	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43		43	43		43	43	
Detector 2 Size(ft)	40	40		40	40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	

2019 Build Traffic Volumes
5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		6				8					
Detector Phase	5	2	1		6	8		8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	10.0	9.0		9.0	9.0		9.0	9.0	9.0	9.0	
Total Split (s)	12.0	44.0	12.0		44.0	11.0		11.0	12.0	23.0	23.0	
Total Split (%)	13.3%	48.9%	13.3%		48.9%	12.2%		12.2%	13.3%	25.6%	25.6%	
Maximum Green (s)	7.0	39.0	7.0		39.0	6.0		6.0	7.0	18.0	18.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0		0.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0		5.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead		Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	None		C-Max	None		None	None	None	None	
Walk Time (s)							5.0	5.0				
Flash Dont Walk (s)							11.0	11.0				
Pedestrian Calls (#/hr)							0	0				
Act Effct Green (s)	51.5	43.6	52.2		43.9	7.2		16.4	17.0	17.0		
Actuated g/C Ratio	0.57	0.48	0.58		0.49	0.08		0.18	0.19	0.19		
v/c Ratio	0.59	0.95	0.71		0.86	0.45		0.40	0.73	0.76		
Control Delay	26.8	26.3	33.7		17.6	50.0		17.7	47.9	33.2		
Queue Delay	0.0	0.6	0.0		6.1	0.0		1.0	0.0	0.2		
Total Delay	26.8	26.9	33.7		23.6	50.0		18.7	47.9	33.4		
LOS	C	C	C		C	D		B	D	C		
Approach Delay	26.9						24.7		28.4			
Approach LOS	C						C		D			
Queue Length 50th (ft)	43	~518	50		376	36		29	127	97		
Queue Length 95th (ft)	m67	#632	#141		#548	77		44	210	#197		
Internal Link Dist (ft)	377						171		544			
Turn Bay Length (ft)	150						150					
Base Capacity (vph)	234	1640	256		1753	147		364	354	424		
Starvation Cap Reductn	0	0	0		203	0		0	0	0		
Spillback Cap Reductn	0	12	0		0	0		81	0	8		
Storage Cap Reductn	0	0	0		0	0		0	0	0		
Reduced v/c Ratio	0.59	0.96	0.71		0.97	0.44		0.51	0.65	0.71		

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	87 (97%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.95
Intersection Signal Delay:	27.7
Intersection LOS:	C
Intersection Capacity Utilization:	79.4%
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.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35

 ø1	 ø2 (R)	 ø4	 ø8
12 s	44 s	23 s	11 s
 ø5	 ø6 (R)		
12 s	44 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes

PM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	1356	431	82	1355	0	0	0	0	45	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Fl _t Permitted				0.064						0.950		
Satd. Flow (perm)	0	3415	1558	126	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169									85
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.76	0.76	0.76	0.78	0.78	0.78	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1784	567	105	1737	0	0	0	0	57	0	190
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1784	567	105	1737	0	0	0	0	57	0	190
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	1	2					2		2
Detector Template												
Leading Detector (ft)		83	0	50	83					83		83
Trailing Detector (ft)		-5	0	0	-5					-5		-5
Detector 1 Position(ft)		-5	0	0	-5					-5		-5
Detector 1 Size(ft)		40	50	50	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43			43					43		43
Detector 2 Size(ft)		40			40					40		40
Detector 2 Type		Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

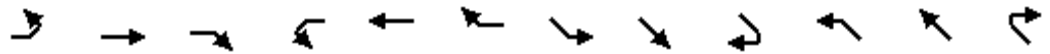
↙ ø1 20 s	→ ø2 (R) 35 s	↘ ø3 35 s
← ø6 (R) 55 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes

PM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

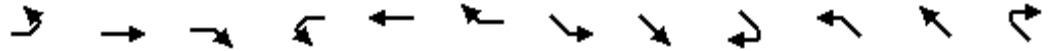


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	379	1022	0	0	989	81	0	0	0	448	0	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	0		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.989							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3473	0	0	0	0	1832	0	1639
Fl _t Permitted	0.108									0.950		
Satd. Flow (perm)	190	1729	0	0	3473	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11							94
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1119
Travel Time (s)		7.2			8.2			17.8				25.4
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	426	1148	0	0	1030	84	0	0	0	503	0	406
Shared Lane Traffic (%)												
Lane Group Flow (vph)	426	1148	0	0	1114	0	0	0	0	503	0	406
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)		23			23			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

2019 Build Traffic Volumes

PM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	23.0	60.0			37.0					30.0		30.0
Total Split (%)	25.6%	66.7%			41.1%					33.3%		33.3%
Maximum Green (s)	18.0	55.0			32.0					25.0		25.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.0	-1.0			-1.0					-1.0		-1.0
Total Lost Time (s)	4.0	4.0			4.0					4.0		4.0
Lead/Lag		Lag			Lead							
Lead-Lag Optimize?		Yes			Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					None		None
Act Effct Green (s)	56.1	56.1			33.1					25.9		25.9
Actuated g/C Ratio	0.62	0.62			0.37					0.29		0.29
v/c Ratio	0.99	1.07			0.87					0.95		0.75
Control Delay	51.9	51.1			34.9					62.8		32.5
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	51.9	51.1			34.9					62.8		32.5
LOS	D	D			C					E		C
Approach Delay		51.3			34.9							
Approach LOS		D			C							
Queue Length 50th (ft)	167	~713			302					280		162
Queue Length 95th (ft)	m#348	#935			#422					#467		#276
Internal Link Dist (ft)		395			460			701			1039	
Turn Bay Length (ft)												530
Base Capacity (vph)	431	1077			1285					529		540
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.99	1.07			0.87					0.95		0.75

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 74 (82%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 45.7
 Intersection LOS: D
 Intersection Capacity Utilization 85.7%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

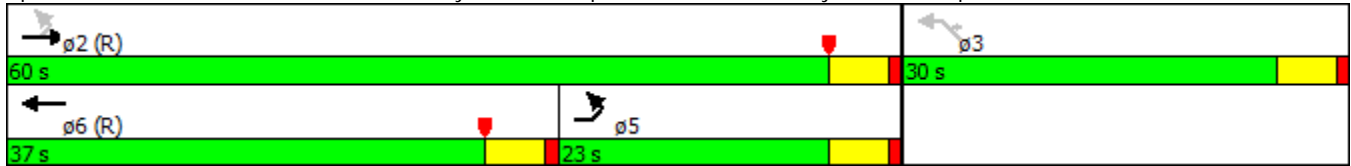
7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
8: Old Crompond Road & Site Access

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	108	143	64	0	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.958		0.865	
Flt Protected		0.985				
Satd. Flow (prot)	0	1835	1785	0	1611	0
Flt Permitted		0.985				
Satd. Flow (perm)	0	1835	1785	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1014	1058		274	
Travel Time (s)		23.0	24.0		6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	117	155	70	0	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	166	225	0	145	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes
8: Old Crompond Road & Site Access

PM Peak Hour
4/2/2015

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	45	108	143	64	0	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	117	155	70	0	145

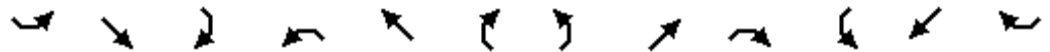
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	225	0	190
Stage 1	-	-	190
Stage 2	-	-	215
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1344	-	852
Stage 1	-	-	842
Stage 2	-	-	821
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1344	-	852
Mov Cap-2 Maneuver	-	-	579
Stage 1	-	-	842
Stage 2	-	-	789

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1344	-	-	-	852
HCM Lane V/C Ratio	0.036	-	-	-	0.17
HCM Control Delay (s)	7.8	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

2019 Build Traffic Volums
1: Bear Mountain Pkwy. Ext. & Stoney Street

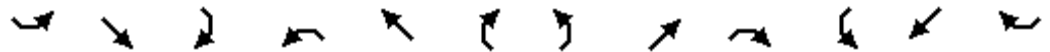
Saturday Peak Hour
4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	9	70	15	1	102	65	72	50	13	119	428	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973			0.948			0.970				0.962
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1885	1930	0	0	1775	0	1805	1843	0	1805	1828	0
Flt Permitted	0.320				0.999		0.276			0.704		
Satd. Flow (perm)	635	1930	0	0	1773	0	524	1843	0	1338	1828	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			33			14				22
Link Speed (mph)		30			30			30				30
Link Distance (ft)		353			539			433				768
Travel Time (s)		8.0			12.3			9.8				17.5
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	10	78	17	1	112	71	80	56	14	125	451	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	95	0	0	184	0	80	70	0	125	603	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	88	88		50	88		88	88		88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	

2019 Build Traffic Volums
 1: Bear Mountain Pkwy. Ext. & Stoney Street

Saturday Peak Hour
 4/2/2015

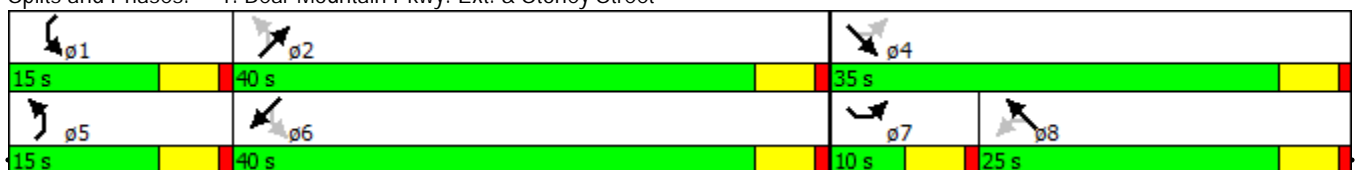


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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	Max		None	Max	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effect Green (s)	14.2	14.2			12.6		44.9	38.6		45.9	39.1	
Actuated g/C Ratio	0.20	0.20			0.18		0.63	0.54		0.65	0.55	
v/c Ratio	0.04	0.24			0.54		0.17	0.07		0.14	0.59	
Control Delay	21.8	21.9			28.4		6.3	10.1		5.7	16.5	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	21.8	21.9			28.4		6.3	10.1		5.7	16.5	
LOS	C	C			C		A	B		A	B	
Approach Delay		21.9			28.4			8.1			14.7	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)	4	30			57		8	11		13	155	
Queue Length 95th (ft)	15	66			135		37	44		54	410	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	234	864			556		550	1009		973	1017	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.04	0.11			0.33		0.15	0.07		0.13	0.59	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 70.9
 Natural Cycle: 65
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 16.6
 Intersection LOS: B
 Intersection Capacity Utilization 55.5%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volums
2: Stoney Street & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	106	204	389	103	99	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.911				0.917	
Flt Protected				0.962	0.981	
Satd. Flow (prot)	1688	0	0	1801	1659	0
Flt Permitted				0.962	0.981	
Satd. Flow (perm)	1688	0	0	1801	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	120	232	671	178	109	176
Shared Lane Traffic (%)						
Lane Group Flow (vph)	352	0	0	849	285	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	70.4%
Analysis Period (min)	15
	ICU Level of Service C

Intersection									
Intersection Delay, s/veh	39.8								
Intersection LOS	E								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	106	204	0	389	103	0	99	160
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	120	232	0	671	178	0	109	176
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.3	58.7	14.8
HCM LOS	B	F	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	38%	0%	79%
Vol Thru, %	0%	34%	21%
Vol Right, %	62%	66%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	259	310	492
LT Vol	99	0	389
Through Vol	0	106	103
RT Vol	160	204	0
Lane Flow Rate	285	352	848
Geometry Grp	1	1	1
Degree of Util (X)	0.482	0.524	1
Departure Headway (Hd)	6.091	5.35	5.59
Convergence, Y/N	Yes	Yes	Yes
Cap	589	666	653
Service Time	4.164	3.449	3.59
HCM Lane V/C Ratio	0.484	0.529	1.299
HCM Control Delay	14.8	14.3	58.7
HCM Lane LOS	B	B	F
HCM 95th-tile Q	2.6	3.1	15.5

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 Build Traffic Volums
3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	1076	262	274	724	46	254	58	366	332	130	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.991				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950	0.978	
Satd. Flow (prot)	1770	3539	1552	1770	3719	0	1681	1715	1583	1698	1748	1546
Flt Permitted	0.345			0.174			0.950	0.969		0.950	0.978	
Satd. Flow (perm)	643	3539	1552	324	3719	0	1669	1707	1583	1698	1748	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			288		7				131			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	160	1133	288	304	762	51	282	64	407	369	144	137
Shared Lane Traffic (%)							40%			31%		
Lane Group Flow (vph)	160	1133	288	304	813	0	169	177	407	255	258	137
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

2019 Build Traffic Volums
3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	4.0
Minimum Split (s)	10.0	20.0	16.0	11.0	36.0		16.0	16.0	11.0	20.0	20.0	10.0
Total Split (s)	15.0	38.0	21.0	15.0	38.0		21.0	21.0	15.0	26.0	26.0	15.0
Total Split (%)	15.0%	38.0%	21.0%	15.0%	38.0%		21.0%	21.0%	15.0%	26.0%	26.0%	15.0%
Maximum Green (s)	10.0	33.0	16.0	10.0	33.0		16.0	16.0	10.0	21.0	21.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-0.7	-1.0	-1.0	0.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.3	4.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	34.0	33.7	53.4	37.9	36.9		15.4	15.4	30.3	19.7	19.7	30.7
Actuated g/C Ratio	0.34	0.34	0.53	0.38	0.37		0.15	0.15	0.30	0.20	0.20	0.31
v/c Ratio	0.47	0.95	0.30	0.90	0.59		0.66	0.67	0.71	0.76	0.75	0.25
Control Delay	34.9	49.7	2.2	37.9	19.0		52.0	52.7	19.4	53.0	51.6	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	49.7	2.2	37.9	19.0		52.0	52.7	19.4	53.0	51.6	3.7
LOS	C	D	A	D	B		D	D	B	D	D	A
Approach Delay		39.6			24.1			34.6				42.1
Approach LOS		D			C			C				D
Queue Length 50th (ft)	73	367	0	~169	205		105	111	86	157	160	2
Queue Length 95th (ft)	125	#507	36	m#199	m237		178	186	#168	250	251	26
Internal Link Dist (ft)		532			1422			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	342	1192	983	337	1375		285	291	570	373	384	558
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.95	0.29	0.90	0.59		0.59	0.61	0.71	0.68	0.67	0.25

Intersection Summary

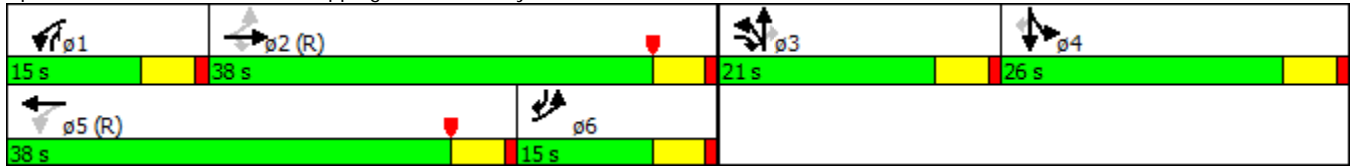
Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 59 (59%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 34.8 Intersection LOS: C
 Intersection Capacity Utilization 83.2% ICU Level of Service E
 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.

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

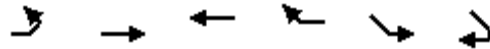
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volums
4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1774	1134	155	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.981		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3415	3593	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3415	3593	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.95	0.90	0.90	0.90
Adj. Flow (vph)	0	1829	1194	172	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1829	1366	0	4	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	59.0%
Analysis Period (min)	15
	ICU Level of Service B

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1774	1134	155	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	97	97	95	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1829	1194	172	2	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1366	0	683
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	7.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	826	-	*617
Stage 1	-	-	*582
Stage 2	-	-	*211
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	826	-	*617
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	*582
Stage 2	-	-	*211

Approach	EB	WB	SE
HCM Control Delay, s	0	0	95.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	826	-	-	-	44
HCM Lane V/C Ratio	-	-	-	-	0.101
HCM Control Delay (s)	0	-	-	-	95.8
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 Build Traffic Volums
5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	194	1549	32	115	952	542	38	5	81	438	5	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.997			0.944				0.850		0.888	
Fl _t Protected	0.950			0.950				0.957		0.950	0.988	
Satd. Flow (prot)	1699	3387	0	1832	3458	0	0	1818	1615	1681	1553	0
Fl _t Permitted	0.086			0.094				0.957		0.950	0.988	
Satd. Flow (perm)	154	3387	0	181	3458	0	0	1818	1615	1681	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			140				76			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		457			251			624				173
Travel Time (s)		6.9			3.8			14.2				3.9
Peak Hour Factor	0.92	0.95	0.87	0.91	0.95	0.92	0.90	0.92	0.90	0.92	0.92	0.92
Adj. Flow (vph)	211	1631	37	126	1002	589	42	5	90	476	5	324
Shared Lane Traffic (%)										22%		
Lane Group Flow (vph)	211	1668	0	126	1591	0	0	47	90	371	434	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Size(ft)	88	88		88	88		88	88	50	88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		9.0	9.0	7.0	9.0	9.0	

2019 Build Traffic Volums
5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
4/2/2015









Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	48.0		10.0	43.0		11.0	11.0	10.0	31.0	31.0	
Total Split (%)	15.0%	48.0%		10.0%	43.0%		11.0%	11.0%	10.0%	31.0%	31.0%	
Maximum Green (s)	10.0	43.0		5.0	38.0		6.0	6.0	5.0	26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0			-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)							5.0	5.0		5.0	5.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effect Green (s)	59.0	48.7		51.4	44.6			6.9	13.4	25.9	25.9	
Actuated g/C Ratio	0.59	0.49		0.51	0.45			0.07	0.13	0.26	0.26	
v/c Ratio	0.81	1.01		0.61	0.98			0.38	0.32	0.85	0.85	
Control Delay	47.3	39.5		31.7	32.1			53.4	14.6	54.8	40.2	
Queue Delay	0.0	24.3		0.0	1.7			0.0	0.0	0.0	0.3	
Total Delay	47.3	63.8		31.7	33.8			53.4	14.6	54.8	40.5	
LOS	D	E		C	C			D	B	D	D	
Approach Delay		61.9			33.7			27.9			47.1	
Approach LOS		E			C			C			D	
Queue Length 50th (ft)	97	-672		32	-595			29	8	232	187	
Queue Length 95th (ft)	m#130	m#769		#112	#320			67	51	#390	#364	
Internal Link Dist (ft)		377			171			544			93	
Turn Bay Length (ft)	150			170					150			
Base Capacity (vph)	264	1650		205	1620			127	282	453	525	
Starvation Cap Reductn	0	0		0	15			0	0	0	0	
Spillback Cap Reductn	0	102		0	0			0	2	0	5	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.80	1.08		0.61	0.99			0.37	0.32	0.82	0.83	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 47.6 Intersection LOS: D
 Intersection Capacity Utilization 92.5% ICU Level of Service F
 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35

 φ1	 φ2 (R)	 φ4	 φ8
10 s	48 s	31 s	11 s
 φ5	 φ6 (R)		
15 s	43 s		

Two Way Analysis cannot be performed on Signalized Intersection.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖		↗
Volume (vph)	0	1529	540	121	1402	0	0	0	0	64	0	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Flt Permitted				0.085						0.950		
Satd. Flow (perm)	0	3415	1558	168	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			171									76
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.94	0.95	0.94	0.97	0.97	0.97	0.92	0.92	0.92	0.90	0.72	0.90
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1609	574	125	1445	0	0	0	0	71	0	219
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1609	574	125	1445	0	0	0	0	71	0	219
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1	1	1	1					1		1
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		88	0	88	88					88		88
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

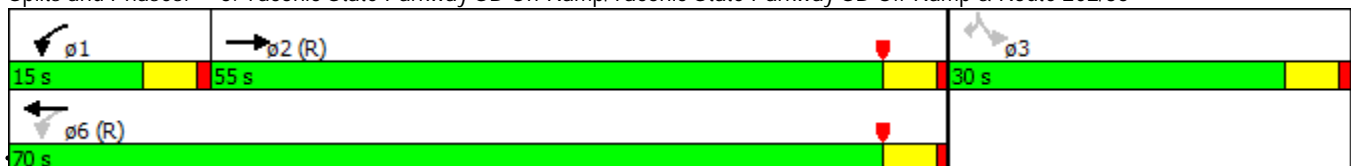


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		55.0		15.0	70.0					30.0		30.0
Total Split (%)		55.0%		15.0%	70.0%					30.0%		30.0%
Maximum Green (s)		50.0		10.0	65.0					25.0		25.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effect Green (s)		65.0	100.0	77.0	77.0					15.0		15.0
Actuated g/C Ratio		0.65	1.00	0.77	0.77					0.15		0.15
v/c Ratio		0.72	0.37	0.47	0.53					0.27		0.73
Control Delay		8.6	0.2	19.1	0.9					38.0		39.5
Queue Delay		14.1	0.0	0.0	0.4					0.1		0.0
Total Delay		22.6	0.2	19.1	1.3					38.0		39.5
LOS		C	A	B	A					D		D
Approach Delay		16.7			2.7							
Approach LOS		B			A							
Queue Length 50th (ft)		121	0	21	0					41		87
Queue Length 95th (ft)		m217	m0	m29	m61					75		155
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2221	1558	320	2741					459		467
Starvation Cap Reductn		627	0	0	689					0		0
Spillback Cap Reductn		11	0	0	371					60		7
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		1.01	0.37	0.39	0.70					0.18		0.48

Intersection Summary

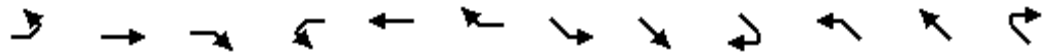
Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 22 (22%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 12.9 Intersection LOS: B
 Intersection Capacity Utilization 87.0% ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35



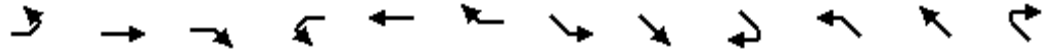
Two Way Analysis cannot be performed on Signalized Intersection.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	↘	↑			↑↑					↘		↘
Volume (vph)	432	1160	0	0	1184	48	0	0	0	339	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	0		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.994							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3489	0	0	0	0	1832	0	1639
Fl _t Permitted	0.090									0.950		
Satd. Flow (perm)	159	1729	0	0	3489	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5							97
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		475			540			781			1112	
Travel Time (s)		7.2			8.2			17.8			25.3	
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	475	1221	0	0	1246	53	0	0	0	361	0	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	475	1221	0	0	1299	0	0	0	0	361	0	118
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)		23			23			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1					1		1
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	88	88			88					88		88
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

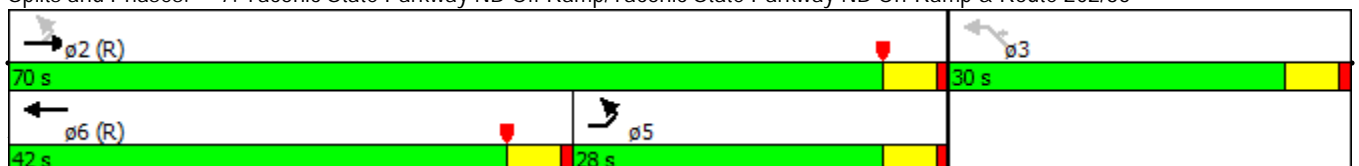


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	28.0	70.0			42.0					30.0		30.0
Total Split (%)	28.0%	70.0%			42.0%					30.0%		30.0%
Maximum Green (s)	23.0	65.0			37.0					25.0		25.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.5	-2.0			-1.0					-1.0		-1.0
Total Lost Time (s)	3.5	3.0			4.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					None		None
Act Effct Green (s)	69.1	69.6			40.6					23.4		23.4
Actuated g/C Ratio	0.69	0.70			0.41					0.23		0.23
v/c Ratio	0.99	1.01			0.92					0.84		0.26
Control Delay	54.7	36.6			40.2					54.5		10.2
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	54.7	36.6			40.2					54.5		10.2
LOS	D	D			D					D		B
Approach Delay		41.7			40.2							
Approach LOS		D			D							
Queue Length 50th (ft)	266	-866			416					215		10
Queue Length 95th (ft)	#455	#1085			#581					#341		54
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)												530
Base Capacity (vph)	481	1203			1418					476		497
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.99	1.01			0.92					0.76		0.24

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 41.4
 Intersection LOS: D
 Intersection Capacity Utilization 87.0%
 ICU Level of Service E
 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: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volums
8: Old Crompond Road & Site Access

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	50	114	114	71	0	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.948		0.865	
Flt Protected		0.985				
Satd. Flow (prot)	0	1835	1766	0	1611	0
Flt Permitted		0.985				
Satd. Flow (perm)	0	1835	1766	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		991	1067		252	
Travel Time (s)		22.5	24.3		5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	124	124	77	0	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	178	201	0	125	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.2%
Analysis Period (min)	15
	ICU Level of Service A

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	50	114	114	71	0	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	124	124	77	0	125

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	201	0	396
Stage 1	-	-	163
Stage 2	-	-	233
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1371	-	609
Stage 1	-	-	866
Stage 2	-	-	806
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1371	-	583
Mov Cap-2 Maneuver	-	-	583
Stage 1	-	-	866
Stage 2	-	-	772

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1371	-	-	-	882
HCM Lane V/C Ratio	0.04	-	-	-	0.142
HCM Control Delay (s)	7.7	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

2019 No-Build Traffic Volumes with Improvements
 2: Stoney Street & Old Crompond Road

AM PEAK HOUR
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	19	240	44	22	30	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.926	
Flt Protected				0.968	0.978	
Satd. Flow (prot)	1622	0	0	1812	1670	0
Flt Permitted				0.968	0.978	
Satd. Flow (perm)	1622	0	0	1812	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	267	49	24	33	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	0	0	73	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.3%
Analysis Period (min)	15
	ICU Level of Service A

2019 No-Build Traffic Volumes with Improvements
2: Stoney Street & Old Crompond Road

AM PEAK HOUR
4/2/2015

Intersection									
Intersection Delay, s/veh	8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	19	240	0	44	22	0	30	36
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	21	267	0	49	24	0	33	40
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.1	7.9	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	45%	0%	67%
Vol Thru, %	0%	7%	33%
Vol Right, %	55%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	66	259	66
LT Vol	30	0	44
Through Vol	0	19	22
RT Vol	36	240	0
Lane Flow Rate	73	288	73
Geometry Grp	1	1	1
Degree of Util (X)	0.088	0.285	0.09
Departure Headway (Hd)	4.312	3.561	4.416
Convergence, Y/N	Yes	Yes	Yes
Cap	817	996	803
Service Time	2.411	1.629	2.49
HCM Lane V/C Ratio	0.089	0.289	0.091
HCM Control Delay	7.8	8.1	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	1.2	0.3

2019 No-Build Traffic Volumes with Improvements
3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	1197	227	137	462	16	132	13	254	93	72	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.960		0.950	0.987	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1699	1583	1698	1764	1546
Flt Permitted	0.488			0.488			0.950	0.960		0.950	0.987	
Satd. Flow (perm)	909	3471	1552	909	3664	0	1665	1686	1583	1698	1764	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			226		4				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	38	1301	247	149	502	17	147	14	282	103	80	129
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	38	1301	247	149	519	0	79	82	282	74	109	129
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 No-Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	20.0	19.0	49.0		20.0	20.0	19.0	22.0	22.0	19.0
Total Split (%)	17.3%	44.5%	18.2%	17.3%	44.5%		18.2%	18.2%	17.3%	20.0%	20.0%	17.3%
Maximum Green (s)	13.0	43.0	14.0	13.0	43.0		14.0	14.0	13.0	16.0	16.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.8	50.8	67.5	21.2	21.2		12.6	12.6	25.6	13.5	13.5	56.1
Actuated g/C Ratio	0.46	0.46	0.61	0.19	0.19		0.11	0.11	0.23	0.12	0.12	0.51
v/c Ratio	0.05	0.81	0.24	0.54	0.73		0.41	0.42	0.58	0.36	0.50	0.15
Control Delay	19.9	31.9	2.5	45.7	47.5		51.5	51.8	14.7	48.4	52.9	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	31.9	2.5	45.7	47.5		51.5	51.8	14.7	48.4	52.9	1.4
LOS	B	C	A	D	D		D	D	B	D	D	A
Approach Delay		27.0			47.1			28.1			30.6	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	14	403	6	93	181		55	57	55	51	76	0
Queue Length 95th (ft)	38	#606	40	148	226		105	107	102	96	132	14
Internal Link Dist (ft)		532			1437			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	753	1604	1067	288	1468		229	231	502	262	272	857
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.81	0.23	0.52	0.35		0.34	0.35	0.56	0.28	0.40	0.15

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

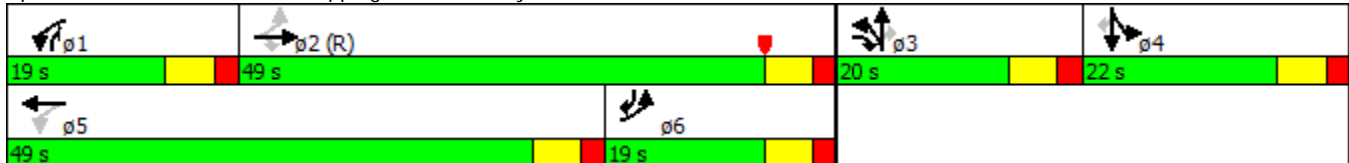
2019 No-Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015

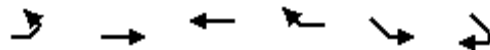
Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 32.0 Intersection LOS: C
 Intersection Capacity Utilization 74.4% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



2019 No-Build Traffic Volumes with Improvements
4: Route 202/35 & Old Crompond Road

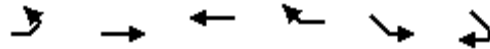
AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1543	647	10	24	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.998		0.990	
Flt Protected					0.956	
Satd. Flow (prot)	0	3350	3587	0	1675	0
Flt Permitted					0.956	
Satd. Flow (perm)	0	3350	3587	0	1675	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			4		2	
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1677	703	11	26	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1677	714	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		2	2		2	
Detector Template						
Leading Detector (ft)		83	83		83	
Trailing Detector (ft)		-5	-5		-5	
Detector 1 Position(ft)		-5	-5		-5	
Detector 1 Size(ft)		40	40		40	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(ft)		43	43		43	
Detector 2 Size(ft)		40	40		40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						

2019 No-Build Traffic Volumes with Improvements
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015

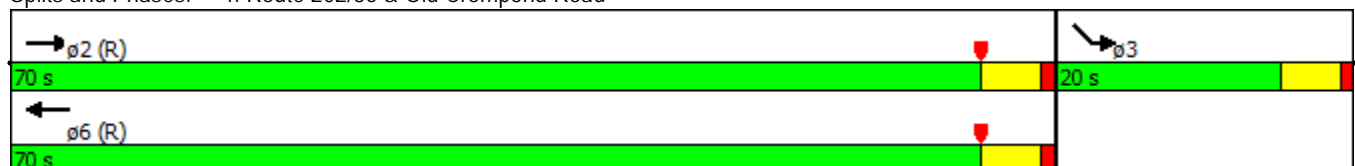


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		70.0	70.0		20.0	
Total Split (%)		77.8%	77.8%		22.2%	
Maximum Green (s)		65.0	65.0		15.0	
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	C-Max		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effect Green (s)		82.6	82.6		7.1	
Actuated g/C Ratio		0.92	0.92		0.08	
v/c Ratio		0.55	0.22		0.21	
Control Delay		2.7	3.6		39.9	
Queue Delay		0.1	0.0		0.0	
Total Delay		2.9	3.6		40.0	
LOS		A	A		D	
Approach Delay		2.9	3.6		40.0	
Approach LOS		A	A		D	
Queue Length 50th (ft)		0	0		14	
Queue Length 95th (ft)		208	156		40	
Internal Link Dist (ft)		213	377		990	
Turn Bay Length (ft)						
Base Capacity (vph)		3075	3293		280	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		369	0		27	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.62	0.22		0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 71 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 3.5
 Intersection Capacity Utilization 54.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 No-Build Traffic Volumes with Improvements
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	66	244	160	68	114	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.894				0.933	
Flt Protected				0.966	0.975	
Satd. Flow (prot)	1657	0	0	1808	1678	0
Flt Permitted				0.966	0.975	
Satd. Flow (perm)	1657	0	0	1808	1678	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	86	317	286	121	154	150
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	0	0	407	304	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	54.1% ICU Level of Service A
Analysis Period (min)	15

2019 No-Build Traffic Volumes with Improvements
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015

Intersection									
Intersection Delay, s/veh	15.5								
Intersection LOS	C								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	66	244	0	160	68	0	114	111
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	86	317	0	286	121	0	154	150
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.3	17.7	14.2
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	51%	0%	70%
Vol Thru, %	0%	21%	30%
Vol Right, %	49%	79%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	225	310	228
LT Vol	114	0	160
Through Vol	0	66	68
RT Vol	111	244	0
Lane Flow Rate	304	403	407
Geometry Grp	1	1	1
Degree of Util (X)	0.487	0.561	0.63
Departure Headway (Hd)	5.767	5.018	5.57
Convergence, Y/N	Yes	Yes	Yes
Cap	623	717	647
Service Time	3.821	3.07	3.621
HCM Lane V/C Ratio	0.488	0.562	0.629
HCM Control Delay	14.2	14.3	17.7
HCM Lane LOS	B	B	C
HCM 95th-tile Q	2.7	3.5	4.4

2019 No-Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	940	230	225	727	56	257	58	301	116	124	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.989				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950	0.989	
Satd. Flow (prot)	1770	3539	1552	1770	3711	0	1681	1715	1583	1698	1768	1546
Flt Permitted	0.344			0.181			0.950	0.969		0.950	0.989	
Satd. Flow (perm)	641	3539	1552	337	3711	0	1669	1707	1583	1698	1768	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		9				230			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	101	1033	253	234	757	58	289	65	338	138	148	218
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	101	1033	253	234	815	0	173	181	338	98	188	218
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 No-Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



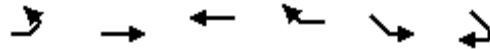
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	33.3	33.3	49.4	34.6	34.6		13.2	13.2	25.5	15.2	15.2	26.2
Actuated g/C Ratio	0.37	0.37	0.55	0.38	0.38		0.15	0.15	0.28	0.17	0.17	0.29
v/c Ratio	0.27	0.79	0.26	0.72	0.57		0.70	0.72	0.55	0.34	0.63	0.40
Control Delay	26.7	32.2	2.3	29.6	18.3		52.9	54.0	8.2	35.2	44.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	32.2	2.3	29.6	18.3		52.9	54.0	8.2	35.2	44.0	6.9
LOS	C	C	A	C	B		D	D	A	D	D	A
Approach Delay		26.3			20.8			31.3				26.2
Approach LOS		C			C			C				C
Queue Length 50th (ft)	40	288	0	71	168		98	103	26	52	106	19
Queue Length 95th (ft)	79	#415	35	#205	321		#183	#191	61	87	154	40
Internal Link Dist (ft)		532			1432			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	374	1307	978	330	1432		261	266	617	377	392	547
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.79	0.26	0.71	0.57		0.66	0.68	0.55	0.26	0.48	0.40

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79

2019 No-Build Traffic Volumes with Improvements
4: Route 202/35 & Old Crompond Road

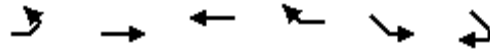
PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1358	1084	44	87	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Flt			0.994		0.999	
Flt Protected					0.953	
Satd. Flow (prot)	0	3350	3574	0	1685	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3350	3574	0	1685	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			10			
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1598	1166	47	109	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1598	1213	0	110	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		1	1		1	
Detector Template						
Leading Detector (ft)		50	50		50	
Trailing Detector (ft)		0	0		0	
Detector 1 Position(ft)		0	0		0	
Detector 1 Size(ft)		50	50		50	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		65.0	65.0		25.0	
Total Split (%)		72.2%	72.2%		27.8%	
Maximum Green (s)		60.0	60.0		20.0	

2019 No-Build Traffic Volumes with Improvements
 4: Route 202/35 & Old Crompond Road

PM Peak Hour
 4/2/2015

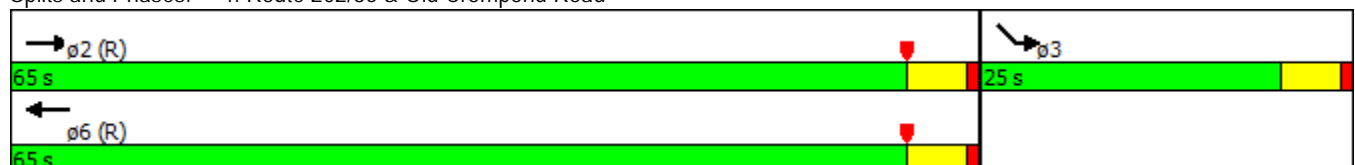


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	C-Max		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effct Green (s)		72.2	72.2		11.2	
Actuated g/C Ratio		0.80	0.80		0.12	
v/c Ratio		0.59	0.42		0.53	
Control Delay		3.8	2.5		45.4	
Queue Delay		0.0	0.1		0.0	
Total Delay		3.9	2.6		45.4	
LOS		A	A		D	
Approach Delay		3.9	2.6		45.4	
Approach LOS		A	A		D	
Queue Length 50th (ft)		68	51		60	
Queue Length 95th (ft)		87	108		93	
Internal Link Dist (ft)		229	377		978	
Turn Bay Length (ft)						
Base Capacity (vph)		2686	2868		374	
Starvation Cap Reductn		0	510		0	
Spillback Cap Reductn		111	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.62	0.51		0.29	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 4.9
 Intersection Capacity Utilization 50.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 No-Build Traffic Volumes with Improvements
2: Stoney Street & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	75	204	133	74	99	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.901				0.927	
Flt Protected				0.969	0.978	
Satd. Flow (prot)	1670	0	0	1814	1672	0
Flt Permitted				0.969	0.978	
Satd. Flow (perm)	1670	0	0	1814	1672	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	85	232	229	128	109	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	317	0	0	357	239	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.5%
Analysis Period (min)	15
	ICU Level of Service A

2019 No-Build Traffic Volumes with Improvements
 2: Stoney Street & Old Crompond Road

Saturday Peak Hour
 4/2/2015

Intersection									
Intersection Delay, s/veh	11.8								
Intersection LOS	B								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	75	204	0	133	74	0	99	118
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	85	232	0	229	128	0	109	130
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10.8	13.2	11.2
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	46%	0%	64%
Vol Thru, %	0%	27%	36%
Vol Right, %	54%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	217	279	207
LT Vol	99	0	133
Through Vol	0	75	74
RT Vol	118	204	0
Lane Flow Rate	238	317	357
Geometry Grp	1	1	1
Degree of Util (X)	0.353	0.403	0.501
Departure Headway (Hd)	5.324	4.679	5.157
Convergence, Y/N	Yes	Yes	Yes
Cap	680	774	703
Service Time	3.324	2.679	3.157
HCM Lane V/C Ratio	0.35	0.41	0.508
HCM Control Delay	11.2	10.8	13.2
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.6	2	2.8

2019 No-Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	1076	262	274	724	46	254	54	366	117	126	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.991				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.968		0.950		
Satd. Flow (prot)	1770	3539	1552	1770	3719	0	1681	1713	1583	1698	1787	1546
Flt Permitted	0.345			0.166			0.950	0.968		0.950		
Satd. Flow (perm)	643	3539	1552	309	3719	0	1667	1704	1583	1698	1787	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			288		7				208			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	118	1133	288	304	762	51	282	60	407	130	140	94
Shared Lane Traffic (%)							41%			0%		
Lane Group Flow (vph)	118	1133	288	304	813	0	166	176	407	130	140	94
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

2019 No-Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015

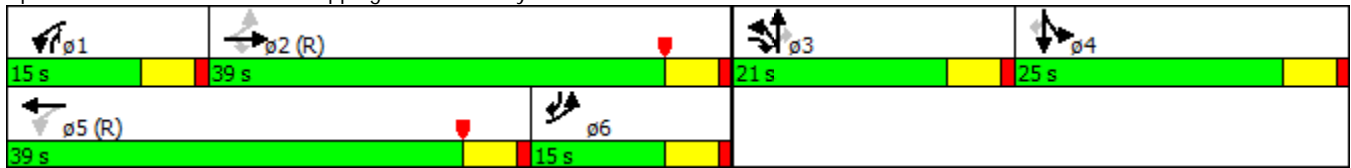


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	4.0
Minimum Split (s)	10.0	20.0	16.0	11.0	36.0		16.0	16.0	11.0	20.0	20.0	10.0
Total Split (s)	15.0	39.0	21.0	15.0	39.0		21.0	21.0	15.0	25.0	25.0	15.0
Total Split (%)	15.0%	39.0%	21.0%	15.0%	39.0%		21.0%	21.0%	15.0%	25.0%	25.0%	15.0%
Maximum Green (s)	10.0	34.0	16.0	10.0	34.0		16.0	16.0	10.0	20.0	20.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-0.7	-1.0	-1.0	0.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.3	4.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	35.0	34.7	54.2	43.2	42.2		15.2	15.2	34.5	14.5	14.5	25.5
Actuated g/C Ratio	0.35	0.35	0.54	0.43	0.42		0.15	0.15	0.34	0.14	0.14	0.26
v/c Ratio	0.34	0.92	0.30	0.73	0.52		0.65	0.67	0.60	0.53	0.54	0.19
Control Delay	30.1	44.9	2.1	29.6	15.2		51.9	53.1	11.2	46.9	46.9	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	44.9	2.1	29.6	15.2		51.9	53.1	11.2	46.9	46.9	2.0
LOS	C	D	A	C	B		D	D	B	D	D	A
Approach Delay		35.7			19.1			30.1				35.3
Approach LOS		D			B			C				D
Queue Length 50th (ft)	52	361	0	103	143		104	110	59	82	88	0
Queue Length 95th (ft)	94	#495	35	#313	265		175	185	119	137	145	11
Internal Link Dist (ft)		532			1422			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	349	1228	995	414	1574		285	291	682	356	375	487
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.92	0.29	0.73	0.52		0.58	0.60	0.60	0.37	0.37	0.19

Intersection Summary

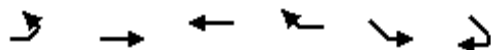
Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 59 (59%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 29.6 Intersection LOS: C
 Intersection Capacity Utilization 80.0% 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: 3: BJ's Shopping Center/Stoney Street & Route 202/35



2019 No-Build Traffic Volumes with Improvements
4: Route 202/35 & Old Crompond Road

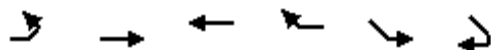
Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1559	1134	50	116	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Flt			0.994		0.998	
Flt Protected					0.953	
Satd. Flow (prot)	0	3415	3641	0	1683	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3415	3641	0	1683	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			6		1	
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1607	1260	56	129	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1607	1316	0	131	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		2	2		2	
Detector Template						
Leading Detector (ft)		83	83		83	
Trailing Detector (ft)		-5	-5		-5	
Detector 1 Position(ft)		-5	-5		-5	
Detector 1 Size(ft)		40	40		40	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(ft)		43	43		43	
Detector 2 Size(ft)		40	40		40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	

2019 No-Build Traffic Volumes with Improvements
4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
4/2/2015

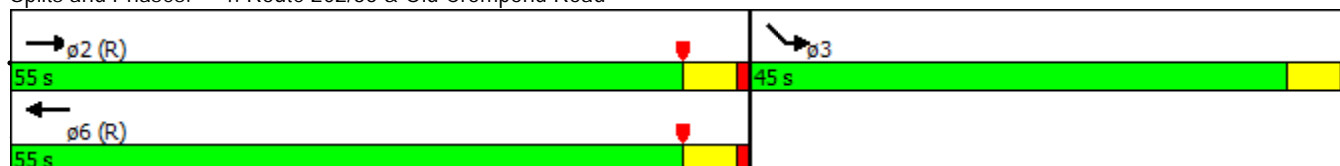


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		55.0	55.0		45.0	
Total Split (%)		55.0%	55.0%		45.0%	
Maximum Green (s)		50.0	50.0		40.0	
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effect Green (s)		76.7	76.7		13.3	
Actuated g/C Ratio		0.77	0.77		0.13	
v/c Ratio		0.61	0.47		0.58	
Control Delay		6.7	2.2		50.4	
Queue Delay		0.2	0.5		0.1	
Total Delay		6.9	2.7		50.4	
LOS		A	A		D	
Approach Delay		6.9	2.7		50.4	
Approach LOS		A	A		D	
Queue Length 50th (ft)		41	58		79	
Queue Length 95th (ft)		m555	m46		132	
Internal Link Dist (ft)		236	377		987	
Turn Bay Length (ft)						
Base Capacity (vph)		2620	2795		673	
Starvation Cap Reductn		0	891		0	
Spillback Cap Reductn		345	0		76	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.71	0.69		0.22	

Intersection Summary




















Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 50 (50%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 7.0
 Intersection Capacity Utilization 58.0%
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 Build Traffic Volumes
1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR
4/2/2015

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	90	130	50	2	33	26	21	188	2	149	253	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.943			0.999				0.995
Flt Protected	0.950				0.998		0.950			0.950		
Satd. Flow (prot)	1885	1901	0	0	1762	0	1805	1898	0	1805	1890	0
Flt Permitted	0.577				0.980		0.582			0.477		
Satd. Flow (perm)	1145	1901	0	0	1730	0	1106	1898	0	906	1890	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			28			1				2
Link Speed (mph)		30			30			30				30
Link Distance (ft)		353			539			433				768
Travel Time (s)		8.0			12.3			9.8				17.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	98	141	54	2	36	28	23	209	2	166	281	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	195	0	0	66	0	23	211	0	166	291	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		1	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	40	40		50	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	43	43			43		43	43		43	43	
Detector 2 Size(ft)	40	40			40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	

2019 Build Traffic Volumes
 1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR
 4/2/2015

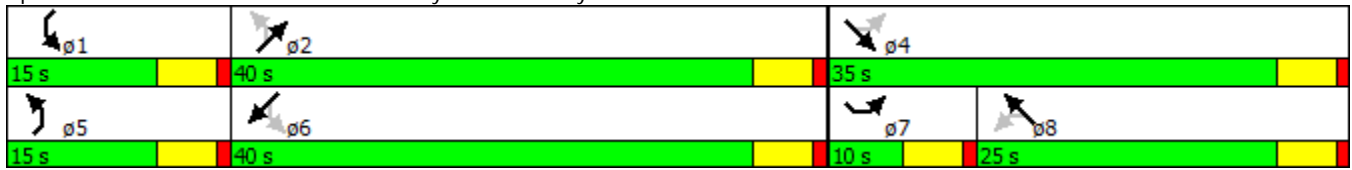


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.5		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.5		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)	13.1	13.1			6.9		17.6	13.0		22.9	21.3	
Actuated g/C Ratio	0.28	0.28			0.15		0.37	0.28		0.49	0.45	
v/c Ratio	0.24	0.36			0.24		0.05	0.40		0.28	0.34	
Control Delay	15.3	14.7			17.1		8.0	19.9		8.7	12.0	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	15.3	14.7			17.1		8.0	19.9		8.7	12.0	
LOS	B	B			B		A	B		A	B	
Approach Delay		14.9			17.1			18.7			10.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	20	37			11		3	56		26	49	
Queue Length 95th (ft)	54	90			42		13	116		57	146	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	415	1294			780		640	1435		645	1430	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.24	0.15			0.08		0.04	0.15		0.26	0.20	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	47
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	14.1
Intersection Capacity Utilization:	42.4%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	A

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
2: Stoney Street & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	43	240	131	35	30	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.886				0.905	
Flt Protected				0.962	0.985	
Satd. Flow (prot)	1642	0	0	1801	1644	0
Flt Permitted				0.962	0.985	
Satd. Flow (perm)	1642	0	0	1801	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	267	146	39	33	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	0	185	110	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.1% ICU Level of Service A
Analysis Period (min)	15

Intersection									
Intersection Delay, s/veh	8.9								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	43	240	0	131	35	0	30	69
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	267	0	146	39	0	33	77
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.9	9.1	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	30%	0%	79%
Vol Thru, %	0%	15%	21%
Vol Right, %	70%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	99	283	166
LT Vol	30	0	131
Through Vol	0	43	35
RT Vol	69	240	0
Lane Flow Rate	110	314	184
Geometry Grp	1	1	1
Degree of Util (X)	0.141	0.34	0.238
Departure Headway (Hd)	4.615	3.896	4.651
Convergence, Y/N	Yes	Yes	Yes
Cap	777	924	773
Service Time	2.647	1.913	2.675
HCM Lane V/C Ratio	0.142	0.34	0.238
HCM Control Delay	8.4	8.9	9.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	1.5	0.9

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	1197	227	137	462	16	132	13	254	161	74	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.960		0.950	0.981	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1699	1583	1698	1753	1546
Flt Permitted	0.476			0.476			0.950	0.960		0.950	0.981	
Satd. Flow (perm)	887	3471	1552	887	3664	0	1666	1686	1583	1698	1753	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			222		4				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	71	1301	247	149	502	17	147	14	282	179	82	149
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	71	1301	247	149	519	0	79	82	282	129	132	149
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 Build Traffic Volumes
3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	19.0	19.0	49.0		19.0	19.0	19.0	23.0	23.0	19.0
Total Split (%)	17.3%	44.5%	17.3%	17.3%	44.5%		17.3%	17.3%	17.3%	20.9%	20.9%	17.3%
Maximum Green (s)	13.0	43.0	13.0	13.0	43.0		13.0	13.0	13.0	17.0	17.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.2	50.2	66.6	21.2	21.2		12.3	12.3	25.1	14.6	14.6	56.4
Actuated g/C Ratio	0.46	0.46	0.61	0.19	0.19		0.11	0.11	0.23	0.13	0.13	0.51
v/c Ratio	0.10	0.82	0.24	0.55	0.73		0.42	0.43	0.59	0.57	0.57	0.17
Control Delay	20.8	32.7	2.7	46.0	47.5		52.3	52.6	14.9	54.6	54.1	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	32.7	2.7	46.0	47.5		52.3	52.6	14.9	54.6	54.1	1.9
LOS	C	C	A	D	D		D	D	B	D	D	A
Approach Delay		27.6			47.1			28.6				35.3
Approach LOS		C			D			C				D
Queue Length 50th (ft)	28	414	7	93	181		55	57	54	91	93	0
Queue Length 95th (ft)	61	#606	43	148	226		106	108	102	152	154	20
Internal Link Dist (ft)		532			1437			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	740	1585	1047	285	1468		213	216	495	277	286	860
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.82	0.24	0.52	0.35		0.37	0.38	0.57	0.47	0.46	0.17

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

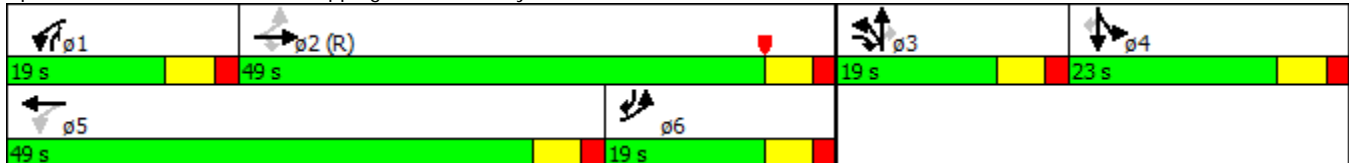
2019 Build Traffic Volumes
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015

Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 32.9 Intersection LOS: C
 Intersection Capacity Utilization 74.4% 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.

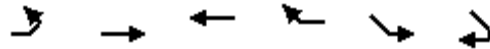
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1611	647	92	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.981		0.946	
Flt Protected					0.971	
Satd. Flow (prot)	0	3350	3533	0	1626	0
Flt Permitted					0.971	
Satd. Flow (perm)	0	3350	3533	0	1626	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1751	703	100	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1751	803	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	54.5%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1611	647	92	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	92	92	92	92	92	90
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1751	703	100	3	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	803	0	1629
Stage 1	-	-	753
Stage 2	-	-	876
Critical Hdwy	4.14	-	8.84
Critical Hdwy Stg 1	-	-	7.84
Critical Hdwy Stg 2	-	-	7.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1096	-	67
Stage 1	-	-	672
Stage 2	-	-	226
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	1096	-	67
Mov Cap-2 Maneuver	-	-	67
Stage 1	-	-	672
Stage 2	-	-	226

Approach	EB	WB	SE
HCM Control Delay, s	0	0	40.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1096	-	-	-	107
HCM Lane V/C Ratio	-	-	-	-	0.051
HCM Control Delay (s)	0	-	-	-	40.5
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1559	12	45	659	121	21	1	36	80	1	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.999			0.977				0.850		0.876	
Flt Protected	0.950			0.950				0.954		0.950	0.992	
Satd. Flow (prot)	1699	3329	0	1832	3521	0	0	1813	1615	1681	1538	0
Flt Permitted	0.297			0.071				0.954		0.950	0.992	
Satd. Flow (perm)	531	3329	0	137	3521	0	0	1813	1615	1681	1538	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			31				85		63	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		457			251			624			252	
Travel Time (s)		6.9			3.8			14.2			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	47	1695	13	49	716	132	23	1	39	87	1	63
Shared Lane Traffic (%)										14%		
Lane Group Flow (vph)	47	1708	0	49	848	0	0	24	39	75	76	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		1	2	2	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		50	83	83	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Size(ft)	40	40		40	40		50	40	40	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43			43	43	43	43	
Detector 2 Size(ft)	40	40		40	40			40	40	40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	

2019 Build Traffic Volumes
5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		10.0	10.0	7.0	10.0	10.0	
Total Split (s)	15.0	45.0		15.0	45.0		15.0	15.0	15.0	15.0	15.0	
Total Split (%)	16.7%	50.0%		16.7%	50.0%		16.7%	16.7%	16.7%	16.7%	16.7%	
Maximum Green (s)	10.0	40.0		10.0	40.0		10.0	10.0	10.0	10.0	10.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Act Effct Green (s)	66.1	60.9		66.9	63.0			7.9	12.6	9.6	7.6	
Actuated g/C Ratio	0.73	0.68		0.74	0.70			0.09	0.14	0.11	0.08	
v/c Ratio	0.10	0.76		0.20	0.34			0.15	0.13	0.42	0.41	
Control Delay	5.3	18.2		9.4	2.9			39.6	1.5	44.4	20.4	
Queue Delay	0.0	0.0		0.0	0.2			0.0	0.0	0.0	0.0	
Total Delay	5.3	18.2		9.4	3.1			39.6	1.5	44.4	20.4	
LOS	A	B		A	A			D	A	D	C	
Approach Delay		17.9			3.5			16.0			32.3	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)	4	301		1	8			13	0	42	7	
Queue Length 95th (ft)	21	#692		21	77			37	4	87	50	
Internal Link Dist (ft)		377			171			544			172	
Turn Bay Length (ft)	150			170					100			
Base Capacity (vph)	548	2251		312	2475			221	361	205	210	
Starvation Cap Reductn	0	0		0	742			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.09	0.76		0.16	0.49			0.11	0.11	0.37	0.36	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 14.1 Intersection LOS: B
 Intersection Capacity Utilization 62.5% 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: 5: Mohansic Avenue/COSTCO Access & Route 202/35

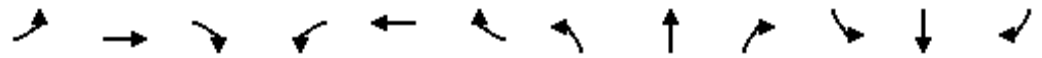
ø1	ø2 (R)	ø4	ø8
15 s	45 s	15 s	15 s
ø5	ø6 (R)		
15 s	45 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes

AM PEAK HOUR

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	904	770	323	723	0	0	0	0	92	0	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	3350	1558	1877	3490	0	0	0	0	1769	0	1583
Fl _t Permitted				0.226						0.950		
Satd. Flow (perm)	0	3350	1558	447	3490	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			453									113
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	983	837	351	786	0	0	0	0	102	0	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	983	837	351	786	0	0	0	0	102	0	113
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	2	2					2		2
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		40	50	40	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43		43	43					43		43
Detector 2 Size(ft)		40		40	40					40		40
Detector 2 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		50.0		20.0	70.0					20.0		20.0
Total Split (%)		55.6%		22.2%	77.8%					22.2%		22.2%
Maximum Green (s)		45.0		15.0	65.0					15.0		15.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		56.3	90.0	71.4	71.4					10.6		10.6
Actuated g/C Ratio		0.63	1.00	0.79	0.79					0.12		0.12
v/c Ratio		0.47	0.54	0.66	0.28					0.49		0.40
Control Delay		3.1	3.1	22.7	0.4					44.5		11.3
Queue Delay		0.7	0.0	0.0	0.0					0.0		0.0
Total Delay		3.8	3.1	22.7	0.4					44.5		11.3
LOS		A	A	C	A					D		B
Approach Delay		3.5			7.3							
Approach LOS		A			A							
Queue Length 50th (ft)		18	0	81	0					55		0
Queue Length 95th (ft)		27	303	159	7					100		45
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2094	1558	613	2768					314		374
Starvation Cap Reductn		692	0	0	0					0		0
Spillback Cap Reductn		131	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.70	0.54	0.57	0.28					0.32		0.30

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 12 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 6.4
 Intersection Capacity Utilization 61.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

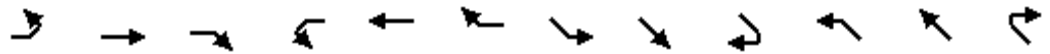


Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes

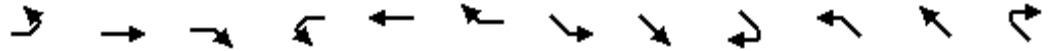
AM PEAK HOUR

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	128	869	0	0	875	13	0	0	0	171	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	0		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.998							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1675	1695	0	0	3434	0	0	0	0	1832	0	1639
Flt Permitted	0.200									0.950		
Satd. Flow (perm)	353	1695	0	0	3434	0	0	0	0	1832	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2							91
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	139	945	0	0	951	14	0	0	0	190	0	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	945	0	0	965	0	0	0	0	190	0	91
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)		23			23			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



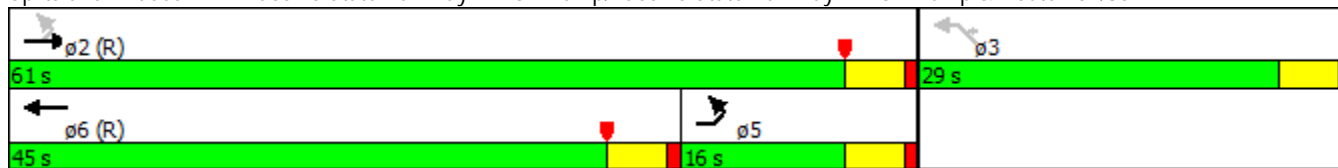
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	16.0	61.0			45.0					29.0		29.0
Total Split (%)	17.8%	67.8%			50.0%					32.2%		32.2%
Maximum Green (s)	11.0	56.0			40.0					24.0		24.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-0.7	-1.0			0.0					-1.0		-1.0
Total Lost Time (s)	4.3	4.0			5.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					Max		Max
Act Effct Green (s)	56.7	57.0			40.0					25.0		25.0
Actuated g/C Ratio	0.63	0.63			0.44					0.28		0.28
v/c Ratio	0.35	0.88			0.63					0.37		0.17
Control Delay	7.6	19.4			21.6					28.8		6.6
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	7.6	19.4			21.6					28.8		6.6
LOS	A	B			C					C		A
Approach Delay		17.9			21.6							
Approach LOS		B			C							
Queue Length 50th (ft)	11	450			215					87		0
Queue Length 95th (ft)	24	#691			281					147		34
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)												530
Base Capacity (vph)	394	1073			1527					508		521
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.35	0.88			0.63					0.37		0.17

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 19.9 Intersection LOS: B
 Intersection Capacity Utilization 61.9% 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.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes
8: Old Crompond Road & Site Access

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	40	49	57	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.927		0.865	
Flt Protected		0.976				
Satd. Flow (prot)	0	1818	1727	0	1611	0
Flt Permitted		0.976				
Satd. Flow (perm)	0	1818	1727	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1020	1070		240	
Travel Time (s)		23.2	24.3		5.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	43	53	62	0	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	115	0	67	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.5%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes
8: Old Crompond Road & Site Access

AM PEAK HOUR
4/2/2015

Intersection

Int Delay, s/veh 3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	40	40	49	57	0	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	43	53	62	0	67

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	115	0	214
Stage 1	-	-	84
Stage 2	-	-	130
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1474	-	774
Stage 1	-	-	939
Stage 2	-	-	896
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1474	-	751
Mov Cap-2 Maneuver	-	-	751
Stage 1	-	-	939
Stage 2	-	-	869

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	975
HCM Lane V/C Ratio	0.029	-	-	-	0.069
HCM Control Delay (s)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

2019 Build Traffic Volumes with Improvements
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	92	244	208	102	114	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.902				0.924	
Flt Protected				0.968	0.979	
Satd. Flow (prot)	1672	0	0	1812	1668	0
Flt Permitted				0.968	0.979	
Satd. Flow (perm)	1672	0	0	1812	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	119	317	371	182	154	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	436	0	0	553	354	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	62.1%
Analysis Period (min)	15
	ICU Level of Service B

2019 Build Traffic Volumes with Improvements
2: Stoney Street & Old Crompond Road

PM Peak Hour
4/2/2015

Intersection									
Intersection Delay, s/veh	29.4								
Intersection LOS	D								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	92	244	0	208	102	0	114	148
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	119	317	0	371	182	0	154	200
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.5	42.9	19.4
HCM LOS	C	E	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	44%	0%	67%
Vol Thru, %	0%	27%	33%
Vol Right, %	56%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	262	336	310
LT Vol	114	0	208
Through Vol	0	92	102
RT Vol	148	244	0
Lane Flow Rate	354	436	554
Geometry Grp	1	1	1
Degree of Util (X)	0.626	0.691	0.912
Departure Headway (Hd)	6.361	5.701	6.066
Convergence, Y/N	Yes	Yes	Yes
Cap	570	637	603
Service Time	4.377	3.727	4.066
HCM Lane V/C Ratio	0.621	0.684	0.919
HCM Control Delay	19.4	20.5	42.9
HCM Lane LOS	C	C	E
HCM 95th-tile Q	4.3	5.5	11.4

2019 Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	940	230	225	727	56	257	61	301	116	128	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.989				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.970		0.950	0.990	
Satd. Flow (prot)	1770	3539	1552	1770	3711	0	1681	1717	1583	1698	1769	1546
Flt Permitted	0.344			0.180			0.950	0.970		0.950	0.990	
Satd. Flow (perm)	641	3539	1552	335	3711	0	1670	1709	1583	1698	1769	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		9				230			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	138	1033	253	234	757	58	289	69	338	138	152	270
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	138	1033	253	234	815	0	173	185	338	98	192	270
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	33.1	33.1	49.4	34.5	34.5		13.2	13.2	25.6	15.3	15.3	26.3
Actuated g/C Ratio	0.37	0.37	0.55	0.38	0.38		0.15	0.15	0.28	0.17	0.17	0.29
v/c Ratio	0.37	0.79	0.26	0.72	0.57		0.70	0.73	0.55	0.34	0.64	0.49
Control Delay	29.1	32.4	2.3	28.1	17.3		52.6	54.8	8.2	35.1	44.3	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	32.4	2.3	28.1	17.3		52.6	54.8	8.2	35.1	44.3	9.3
LOS	C	C	A	C	B		D	D	A	D	D	A
Approach Delay		26.7			19.7			31.6			25.8	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	56	289	0	72	166		98	106	26	52	108	34
Queue Length 95th (ft)	103	#415	35	#205	320		#183	#197	61	87	156	57
Internal Link Dist (ft)		532			1432			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	373	1303	976	329	1427		261	267	618	377	393	548
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.79	0.26	0.71	0.57		0.66	0.69	0.55	0.26	0.49	0.49

Intersection Summary

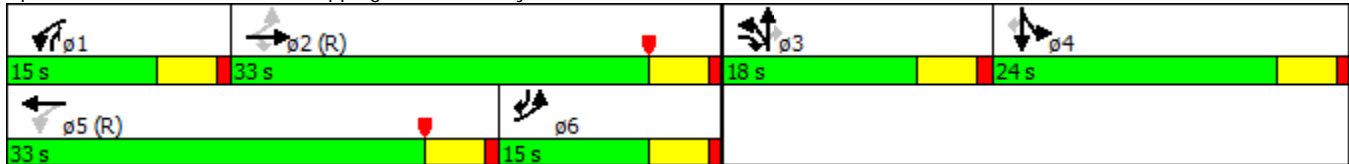
Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79

2019 Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015

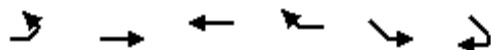
Intersection Signal Delay: 25.5 Intersection LOS: C
 Intersection Capacity Utilization 73.6% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



2019 Build Traffic Volumes with Improvements
4: Route 202/35 & Old Crompond Road

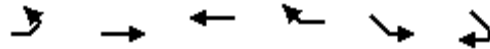
PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1358	1084	136	205	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.983		0.999	
Flt Protected					0.953	
Satd. Flow (prot)	0	3350	3539	0	1685	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3350	3539	0	1685	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			32			
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1598	1166	146	256	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1598	1312	0	257	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		1	1		1	
Detector Template						
Leading Detector (ft)		50	50		50	
Trailing Detector (ft)		0	0		0	
Detector 1 Position(ft)		0	0		0	
Detector 1 Size(ft)		50	50		50	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		65.0	65.0		25.0	
Total Split (%)		72.2%	72.2%		27.8%	
Maximum Green (s)		60.0	60.0		20.0	

2019 Build Traffic Volumes with Improvements
 4: Route 202/35 & Old Crompond Road

PM Peak Hour
 4/2/2015

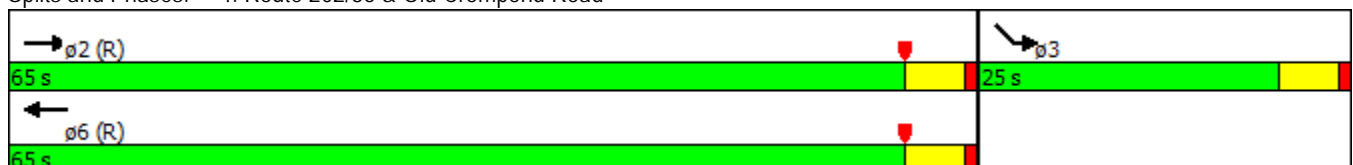


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	C-Max		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effct Green (s)		62.5	62.5		17.5	
Actuated g/C Ratio		0.69	0.69		0.19	
v/c Ratio		0.69	0.53		0.79	
Control Delay		5.6	4.2		51.8	
Queue Delay		0.1	0.2		0.0	
Total Delay		5.7	4.4		51.8	
LOS		A	A		D	
Approach Delay		5.7	4.4		51.8	
Approach LOS		A	A		D	
Queue Length 50th (ft)		83	70		137	
Queue Length 95th (ft)		94	114		189	
Internal Link Dist (ft)		229	377		978	
Turn Bay Length (ft)						
Base Capacity (vph)		2327	2469		374	
Starvation Cap Reductn		0	333		0	
Spillback Cap Reductn		84	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.71	0.61		0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 8.9
 Intersection Capacity Utilization 57.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 Build Traffic Volumes with Improvements
 8: Old Crompond Road & Site Access

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	154	169	64	78	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.963		0.944	
Flt Protected		0.989			0.972	
Satd. Flow (prot)	0	1842	1794	0	1709	0
Flt Permitted		0.989			0.972	
Satd. Flow (perm)	0	1842	1794	0	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1014	1058		274	
Travel Time (s)		23.0	24.0		6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	167	184	70	85	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	216	254	0	145	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.1%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes with Improvements
 2: Stoney Street & Old Crompond Road

Saturday Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	106	204	174	103	99	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.911				0.917	
Flt Protected				0.970	0.981	
Satd. Flow (prot)	1688	0	0	1816	1659	0
Flt Permitted				0.970	0.981	
Satd. Flow (perm)	1688	0	0	1816	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	120	232	300	178	109	176
Shared Lane Traffic (%)						
Lane Group Flow (vph)	352	0	0	478	285	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.5%
Analysis Period (min)	15
	ICU Level of Service B

2019 Build Traffic Volumes with Improvements
2: Stoney Street & Old Crompond Road

Saturday Peak Hour
4/2/2015

Intersection									
Intersection Delay, s/veh	16.7								
Intersection LOS	C								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	106	204	0	174	103	0	99	160
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	120	232	0	300	178	0	109	176
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	13.2	21.2	13.4
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	38%	0%	63%
Vol Thru, %	0%	34%	37%
Vol Right, %	62%	66%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	259	310	277
LT Vol	99	0	174
Through Vol	0	106	103
RT Vol	160	204	0
Lane Flow Rate	285	352	478
Geometry Grp	1	1	1
Degree of Util (X)	0.452	0.5	0.719
Departure Headway (Hd)	5.717	5.113	5.422
Convergence, Y/N	Yes	Yes	Yes
Cap	629	701	664
Service Time	3.77	3.162	3.466
HCM Lane V/C Ratio	0.453	0.502	0.72
HCM Control Delay	13.4	13.2	21.2
HCM Lane LOS	B	B	C
HCM 95th-tile Q	2.3	2.8	6.1

2019 Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↗	↗	↘	↗	↗
Volume (vph)	146	1076	262	274	724	46	254	58	366	117	130	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.990				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950		
Satd. Flow (prot)	1770	3539	1552	1770	3715	0	1681	1715	1583	1698	1787	1546
Flt Permitted	0.344			0.167			0.950	0.969		0.950		
Satd. Flow (perm)	641	3539	1552	311	3715	0	1667	1706	1583	1698	1787	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			288		8				208			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.85	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	160	1133	288	304	762	54	282	64	407	130	144	137
Shared Lane Traffic (%)							40%			0%		
Lane Group Flow (vph)	160	1133	288	304	816	0	169	177	407	130	144	137
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

2019 Build Traffic Volumes with Improvements
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015

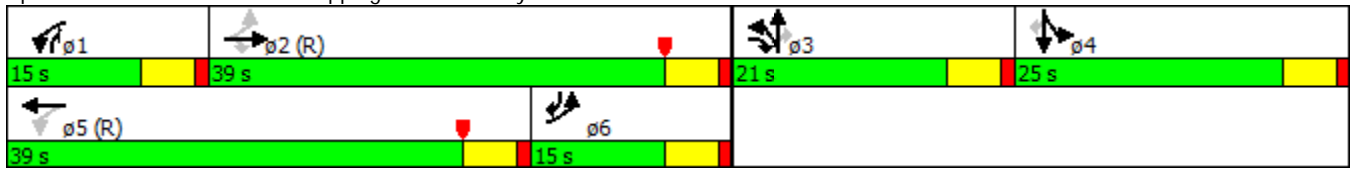


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	4.0
Minimum Split (s)	10.0	20.0	16.0	11.0	36.0		16.0	16.0	11.0	20.0	20.0	10.0
Total Split (s)	15.0	39.0	21.0	15.0	39.0		21.0	21.0	15.0	25.0	25.0	15.0
Total Split (%)	15.0%	39.0%	21.0%	15.0%	39.0%		21.0%	21.0%	15.0%	25.0%	25.0%	15.0%
Maximum Green (s)	10.0	34.0	16.0	10.0	34.0		16.0	16.0	10.0	20.0	20.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-0.7	-1.0	-1.0	0.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.3	4.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	35.0	34.7	54.4	42.9	41.9		15.4	15.4	34.3	14.7	14.7	25.7
Actuated g/C Ratio	0.35	0.35	0.54	0.43	0.42		0.15	0.15	0.34	0.15	0.15	0.26
v/c Ratio	0.46	0.92	0.30	0.75	0.52		0.66	0.67	0.60	0.52	0.55	0.28
Control Delay	34.0	44.9	2.1	30.7	12.5		52.0	52.7	11.3	46.4	47.0	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	44.9	2.1	30.7	12.5		52.0	52.7	11.3	46.4	47.0	4.5
LOS	C	D	A	C	B		D	D	B	D	D	A
Approach Delay		36.0			17.4			30.2				32.6
Approach LOS		D			B			C				C
Queue Length 50th (ft)	72	361	0	99	127		105	111	59	82	91	2
Queue Length 95th (ft)	123	#495	35	#311	171		178	186	119	136	148	28
Internal Link Dist (ft)		532			1422			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	348	1228	995	408	1559		285	291	679	356	375	489
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.92	0.29	0.75	0.52		0.59	0.61	0.60	0.37	0.38	0.28

Intersection Summary

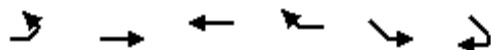
Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 59 (59%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 29.1 Intersection LOS: C
 Intersection Capacity Utilization 80.1% 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: 3: BJ's Shopping Center/Stoney Street & Route 202/35



2019 Build Traffic Volumes with Improvements
4: Route 202/35 & Old Crompond Road

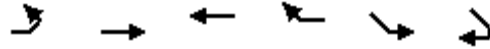
Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1559	1134	155	217	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.981		0.999	
Flt Protected					0.953	
Satd. Flow (prot)	0	3415	3593	0	1685	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3415	3593	0	1685	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			23			
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.95	0.90	0.90	0.90
Adj. Flow (vph)	0	1607	1194	172	241	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1607	1366	0	243	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		1	1		1	
Detector Template						
Leading Detector (ft)		50	50		50	
Trailing Detector (ft)		0	0		0	
Detector 1 Position(ft)		0	0		0	
Detector 1 Size(ft)		50	50		50	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		56.0	56.0		44.0	
Total Split (%)		56.0%	56.0%		44.0%	
Maximum Green (s)		51.0	51.0		39.0	
Yellow Time (s)		4.0	4.0		4.0	

2019 Build Traffic Volumes with Improvements
 4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effect Green (s)		70.0	70.0		20.0	
Actuated g/C Ratio		0.70	0.70		0.20	
v/c Ratio		0.67	0.54		0.72	
Control Delay		11.8	3.9		49.1	
Queue Delay		0.3	0.8		1.0	
Total Delay		12.1	4.7		50.2	
LOS		B	A		D	
Approach Delay		12.1	4.7		50.2	
Approach LOS		B	A		D	
Queue Length 50th (ft)		464	63		146	
Queue Length 95th (ft)		m583	m116		210	
Internal Link Dist (ft)		236	377		987	
Turn Bay Length (ft)						
Base Capacity (vph)		2390	2522		657	
Starvation Cap Reductn		0	758		0	
Spillback Cap Reductn		265	0		218	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.76	0.77		0.55	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 50 (50%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 11.8
 Intersection LOS: B
 Intersection Capacity Utilization 63.6%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 Build Traffic Volumes with Improvements
 8: Old Crompond Road & Site Access

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	50	181	141	71	68	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.955		0.945	
Flt Protected		0.989			0.971	
Satd. Flow (prot)	0	1842	1779	0	1709	0
Flt Permitted		0.989			0.971	
Satd. Flow (perm)	0	1842	1779	0	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		991	1067		252	
Travel Time (s)		22.5	24.3		5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	197	153	77	74	51
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	251	230	0	125	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.7%
Analysis Period (min)	15
	ICU Level of Service A



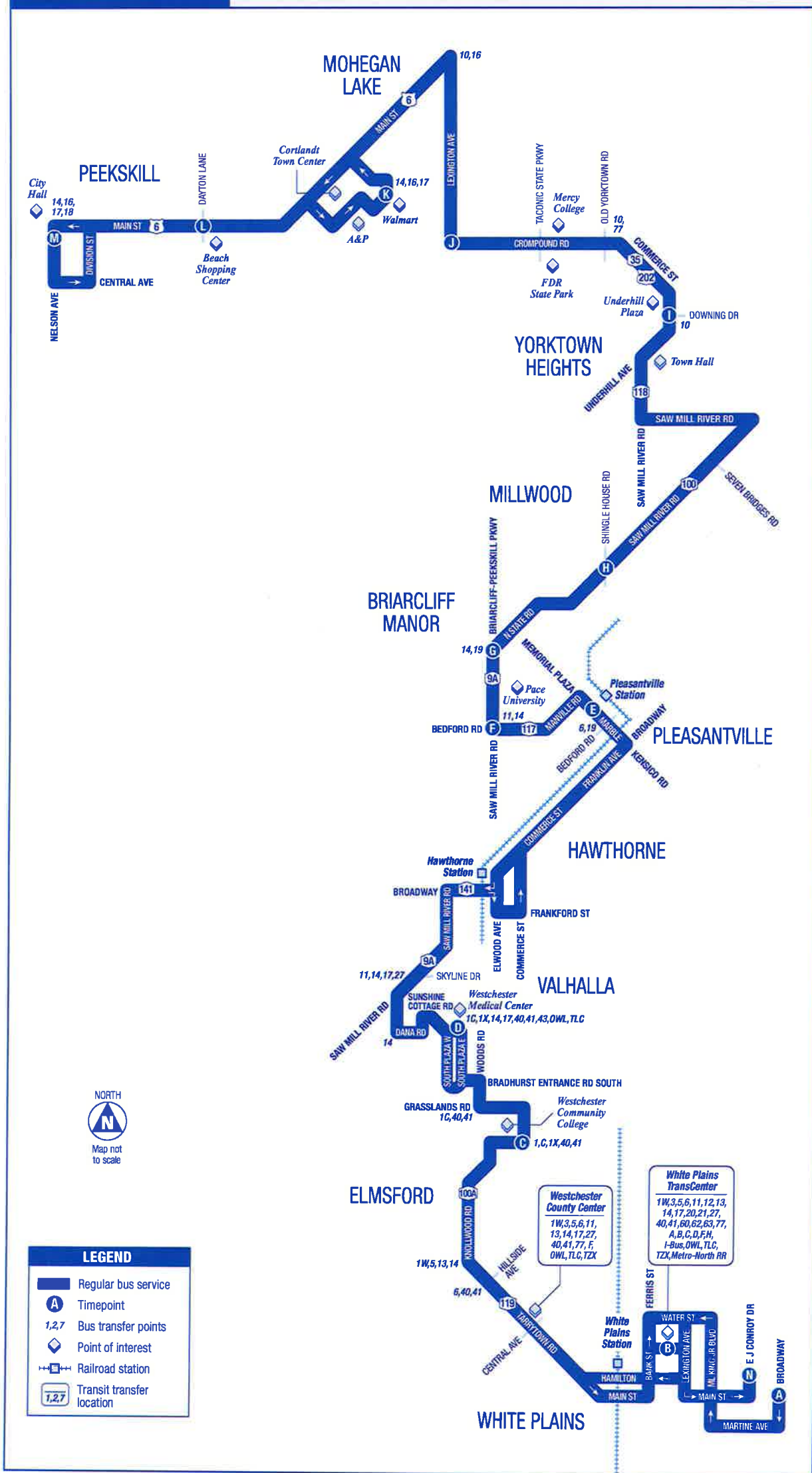
***PROPOSED BEAR MOUNTAIN TRIANGLE
REZONING AND CROMPOND TERRACES***

APPENDIX E

**EXISTING PUBLIC
TRANSPORTATION SERVICES**

ROUTE 15: Local

Peekskill • Yorktown • Pleasantville • White Plains



WHITE PLAINS TO PEEKSKILL AND YORKTOWN / MONDAY - FRIDAY

	A	B	C	D	E	F	G	H	I	J	K	L	M
	N Broadway at Main St	White Plains TransCenter (Lane E)	Westchester Community College	Westchester Medical Center	Memorial Plaza Pleasantville RR Station (Harlem Line)	Bedford Rd at Rte 9A	N State Rd at Rt 9A	Rt 100 at Shingle House Rd	Commerce St at Downing Dr	Lexington Ave at Crompond Rd	Cortlandt Town Center	Beach Shopping Center	Main St at Nelson Ave
WHITE PLAINS	VALHALLA	PLEASANTVILLE	BRIARCLIFF MANOR	MILLWOOD	YORKTOWN HEIGHTS	MOHEGAN LAKE	PEEKSKILL						
AM	7:53 9:53 11:26	7:58 9:58 11:31	8:13 10:13 11:46	8:21 10:21 11:54	8:39 10:39 12:12	8:43 10:43 12:16	8:47 10:47 12:20	8:54 10:54 12:27	9:10 11:10 12:43	9:22 11:22 12:55	9:29 11:29 1:02	9:35 11:35 1:08	9:40 11:40 1:13
PM	1:26 4:20 4:55 5:24	1:31 4:25 5:00 5:29	1:46 4:40 5:15 5:44	1:54 4:48 5:23 5:52	2:12 5:08 5:41 6:10	2:16 5:12 5:45 6:14	2:20 5:16 5:49 6:18	2:27 5:23 5:56 6:25	2:43 5:37 6:10 6:39	2:55 5:49 6:22 6:51	3:02 5:56 6:29 6:58	3:08 6:02 6:35 7:04	3:13 6:07 6:40 7:09

PEEKSKILL AND YORKTOWN TO WHITE PLAINS / MONDAY - FRIDAY

	M	L	K	J	I	H	G	F	E	D	C	B	N
	Main St at Nelson Ave	Beach Shopping Center	Cortlandt Town Center	Lexington Ave at Crompond Rd	Commerce St at Downing Dr	Rt 100 at Shingle House Rd	N State Rd at Rt 9A	Bedford Rd at Rte 9A	Memorial Plaza Pleasantville RR Station (Harlem Line)	Westchester Medical Center	Westchester Community College	White Plains TransCenter (Lane E)	Main St at E.J. Conroy Dr
PEEKSKILL	MOHEGAN LAKE	YORKTOWN HEIGHTS	MILLWOOD	BRIARCLIFF MANOR	PLEASANTVILLE	VALHALLA	WHITE PLAINS						
AM	6:10 6:51 8:31 10:20 11:55	6:15 6:57 8:42 10:25 12:00	6:21 7:04 8:42 10:31 12:06	6:28 7:11 8:49 10:38 12:13	6:42 7:26 9:03 10:52 12:27	6:56 7:41 9:18 11:07 12:42	7:01 7:48 9:24 11:13 12:48	7:05 7:46 9:28 11:17 12:52	7:09 7:46 9:32 11:21 12:56	7:25 8:17 9:49 11:38 1:13	7:31 8:24 9:56 11:45 1:20	7:45 8:40 10:12 12:01 1:36	7:49 8:44 10:16 12:05 1:40
PM	1:30 3:30 5:12	1:35 3:35 5:17	1:41 3:41 5:23	1:48 3:48 5:30	2:02 4:07 5:44	2:17 4:22 5:59	2:23 4:28 6:05	2:27 4:32 6:09	2:31 4:36 6:13	2:48 4:53 6:30	2:55 5:00 6:37	3:11 5:16 6:53	3:15 5:20 6:57

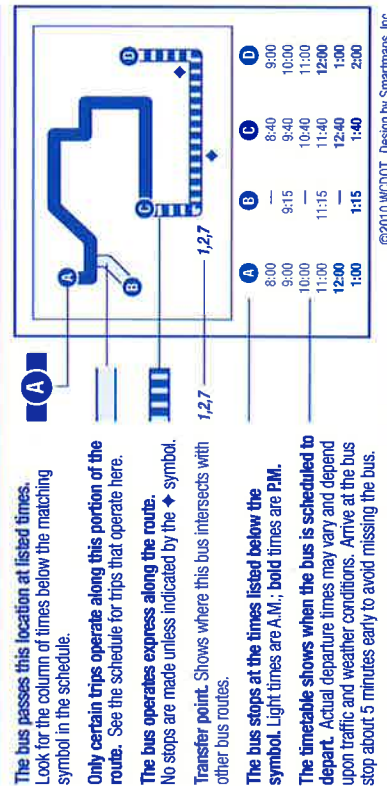
WHITE PLAINS TO PEEKSKILL AND YORKTOWN / SATURDAY

	A	B	C	D	E	F	G	H	I	J	K	L	M
AM	10:00	10:07	10:22	10:30	10:48	10:52	10:56	11:02	11:17	11:30	11:41	11:51	11:57
PM	1:41	1:48	2:03	2:11	2:29	2:33	2:37	2:43	2:58	3:11	3:22	3:32	3:38
	5:10	5:16	5:29	5:37	5:54	5:58	6:02	6:07	6:22	6:33	6:44	6:51	6:57

PEEKSKILL AND YORKTOWN TO WHITE PLAINS / SATURDAY

	M	L	K	J	I	H	G	F	E	D	C	B	N
AM	9:26	9:32	9:38	9:49	10:02	10:16	10:22	10:26	10:30	10:47	10:54	11:08	11:13
PM	12:14	12:20	12:26	12:37	12:50	1:04	1:10	1:14	1:18	1:35	1:42	1:58	2:01
	3:58	4:04	4:10	4:21	4:34	4:48	4:54	4:58	5:02	5:19	5:26	5:40	5:45

INSTRUCTIONS



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BEE-LINE HOLIDAY SCHEDULE

HOLIDAY	SCHEDULE IN EFFECT
New Years Day	Sunday
Martin Luther King, Jr. Day	Saturday
Presidents' Day	Saturday
Memorial Day	Sunday
Independence Day	Sunday
Labor Day	Sunday
Columbus Day	Weekday
Election Day	Weekday
Veterans Day	Weekday
Thanksgiving Day	No Service
Christmas Day	No Service

Save Time and Money Buy a MetroCard

MetroCard Choices What's best for you?



Unlimited Ride OR Pay-per-Ride

Unlimited Ride MetroCard: Available for 7 or 30 days

- The more you ride, the less each ride costs
- All bus and subway transfers included
- Can only be used by one person at a time
- Cannot be used again on the same bus route or at the same subway station for 18 minutes

Pay-Per-Ride MetroCard:

- Get a 5% bonus with the purchase or addition of \$ 5.00 or more.
- Free bus-to-bus, bus-to-subway, or subway-to-bus transfer within 2 hours of paying fare (some exceptions apply)
- Refill as often as you like until card expires (cards usually expire in one year).
- Can be used to pay for up to 4 people at a time

For more information on MetroCard, call Bee-Line Customer Service at (914) 813-7777 or visit us online at www.westchestergov.com/beelinebus



7 Easy Steps to Faster Boarding

1. Check the route number and final destination.
2. Check the route map for your desired stop.
3. Check the arrival time of the next bus.
4. To speed boarding, have your MetroCard or exact coin fare ready.
5. Transfers are issued only at the time of fare payment.
6. Children under 5 ride free when accompanied by a fare-paying adult.
7. Check the route number on the sign above the windshield before boarding.

Enjoy Your Ride on the Bee-Line System! For more information, call (914) 813-7777 or visit us online at www.westchestergov.com/beelinebus

Bee-Line Cash and MetroCard Fares

Effective March 3, 2013

Cash Fares (Coins Only)

One Ride	\$2.50
Paper Transfer to Bee-Line & NYC Buses	FREE
Senior/Disabled Reduced Fare One Ride	\$1.25
Senior/Disabled Paper Transfer to Bee-Line & NYC Buses	FREE
BXM4C One Ride	\$7.50
BXM4C Paper Transfer to Bee-Line & NYC Buses	FREE
BXM4C Senior/Disabled Reduced Fare (Off-Peak Only)	\$3.75

Pay-Per-Ride MetroCard Fares

(Includes One Transfer to Bee-Line Buses, NYC Buses & Subways)

One Ride with Transfer	\$2.50
Senior/Disabled Reduced Fare One Ride with Transfer	\$1.25

Unlimited Ride 30-Day MetroCard Fare.....\$112.00 (Good on Bee-Line Buses, NYC Buses & Subways)

Transfers

(1) Paper transfers will be accepted on all local routes, except the same route initially boarded. Paper transfers must be obtained at the time of initial boarding.

(2) Pay-Per-Ride MetroCards will be accepted on all Bee-Line routes, except the same route initially boarded, NYC local buses and subways with no additional fare charged to the card, within two hours of the initial boarding.

Senior/Disabled Reduced Fares

Reduced fares are available to riders at least 65 years of age, certified disabled persons and valid Medicare card holders with proper photo identification.

MetroCard reduced fares are available only to holders of a personalized Reduced-Fare MetroCard.

For more information call (718) 330-1234 or log on to www.mta.info/metrocard.

Customer Service (914) 813-7777

24-Hour Automated Schedule Information

Representatives are available 8 a.m. to 4 p.m. weekdays.

Large print timetables are available upon request. TTY for the hearing impaired at (914) 813-7711

Fares, schedule and equipment are subject to change.

the bee-line system

Effective March 4, 2013

LOCAL ROUTE



15 Peekskill Yorktown Pleasantville White Plains

ALSO SERVING

- Beach Shopping Center
- Cortlandt Town Center
- Millwood
- Westchester Medical Center
- Westchester Community College

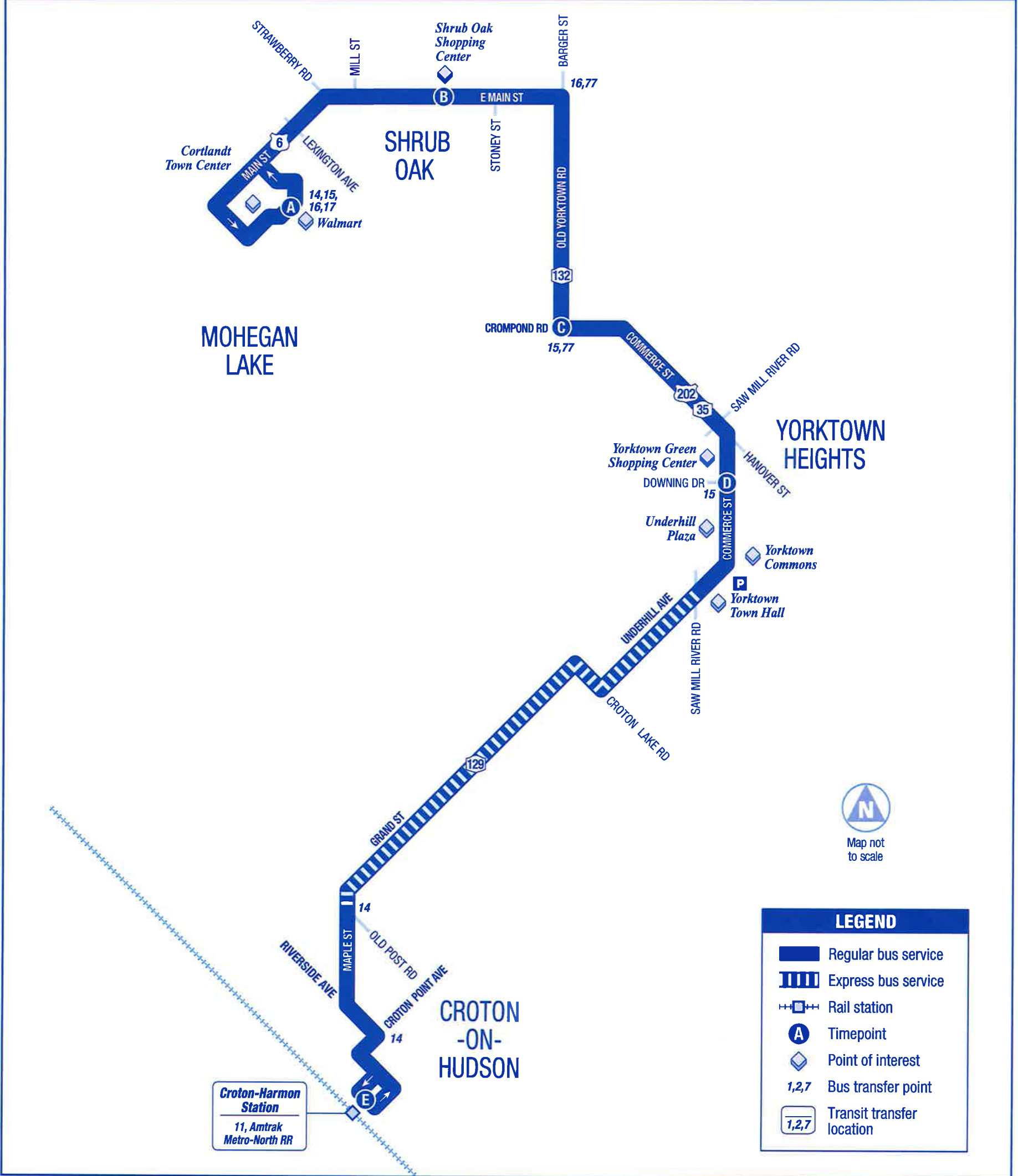


Westchester gov.com

(914) 813-7777

ROUTE 10: Commuter

Cortlandt Town Center • Croton



CORTLANDT TOWN CENTER AND YORKTOWN TO CROTON / MONDAY – FRIDAY • AM SERVICE

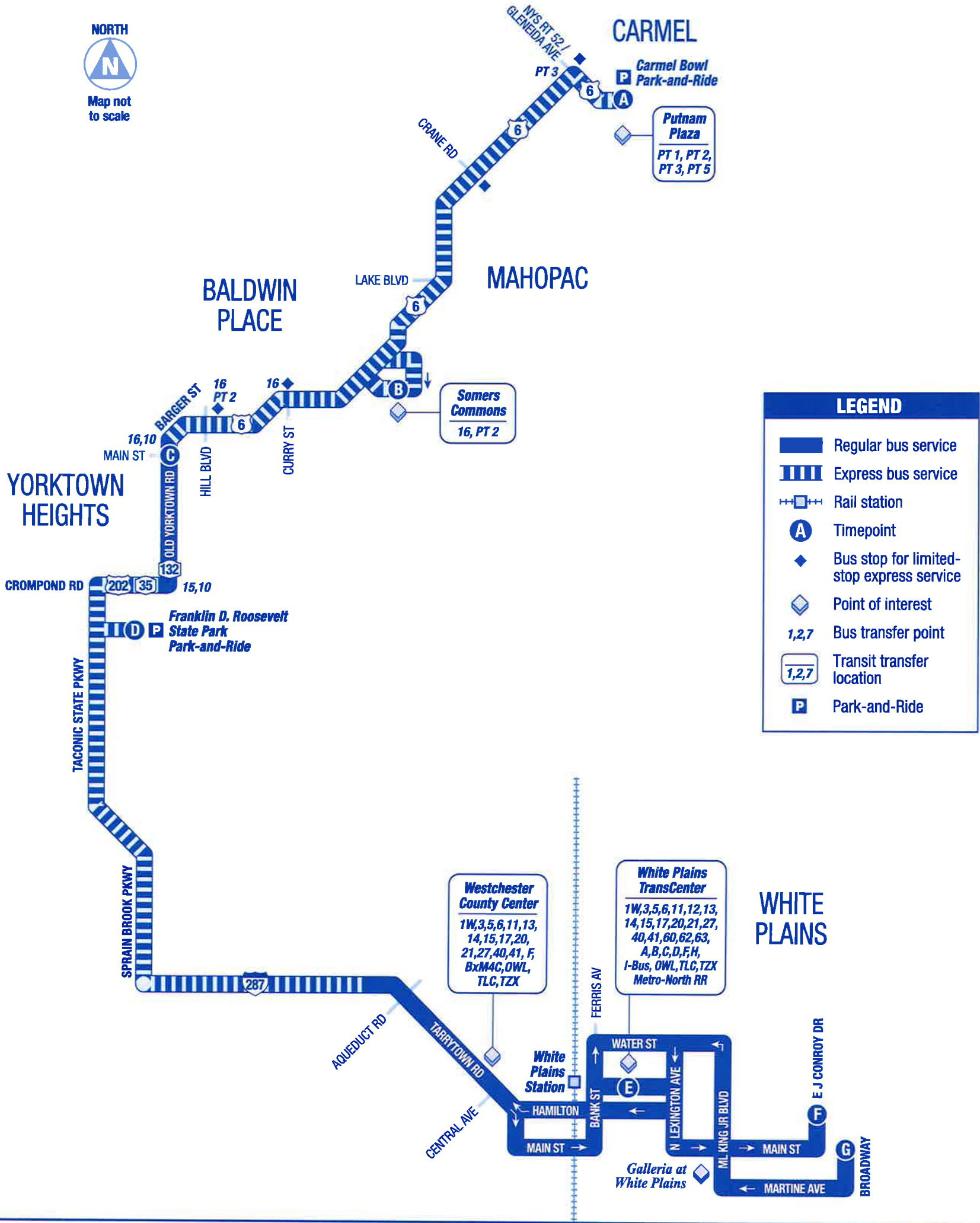
	A Cortlandt Town Center	B Shrub Oak Shopping Center	C Rt 132 at Rt 202/35	D Commerce St at Downing Dr	E Croton-Harmon RR Station (Hudson Line)	MTA Metro-North Railroad Connecting Train departs Croton-Harmon RR Station	Connecting Train arrives Grand Central Terminal
	MOHEGAN LAKE	SHRUB OAK	YORKTOWN HEIGHTS		CROTON-ON-HUDSON		
AM	5:33	5:38	5:45	5:53	6:13	6:18	7:06
	6:02	6:07	6:14	6:22	6:42	6:47	7:38
	6:32	6:37	6:44	6:52	7:12	7:17	8:04
	6:49	6:56	7:03	7:15	7:35	7:40	8:28

CROTON TO YORKTOWN AND CORTLANDT TOWN CENTER / MONDAY – FRIDAY • PM SERVICE

	MTA Metro-North Railroad Connecting Train departs Grand Central Terminal	Connecting Train arrives Croton-Harmon RR Station	E Croton-Harmon RR Station (Hudson Line)	D Commerce St at Downing Dr	C Rt 132 at Rt 202/35	B Shrub Oak Shopping Center	A Cortlandt Town Center
	CROTON-ON-HUDSON		YORKTOWN HEIGHTS		SHRUB OAK	MOHEGAN LAKE	
PM	4:52	5:43	5:48	6:08	6:16	6:23	6:28
	5:20	6:18	6:23	6:43	6:46	6:58	7:03
	5:57	6:48	6:53	7:13	7:21	7:28	7:33
	6:25	7:32	7:37	7:57	8:05	8:12	8:17

ROUTE 77: Express

Carmel • Yorktown • White Plains



CARMEL TO WHITE PLAINS / MONDAY – FRIDAY • AM SERVICE

	A Carmel Bowl (Park & Ride)	B Somers Commons Shopping Center	C Barger St (Rt 132) at E Main St	D FDR State Park (Park & Ride)	E TransCenter (Lane C)	F E J Conroy Dr at Main St
	CARMEL	BALDWIN PLACE	SHRUB OAK	YORKTOWN HEIGHTS	WHITE PLAINS	
AM	6:20 6:50 7:20	6:35 7:05 7:35	6:43 7:13 7:43	6:54 7:24 7:54	7:23 8:05 8:35	7:28 8:10 8:40

WHITE PLAINS TO CARMEL / MONDAY – FRIDAY • PM SERVICE

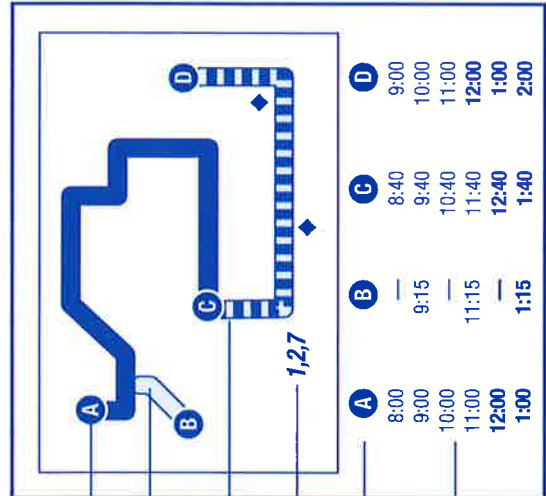
	G N Broadway at Main St	E TransCenter (Lane E)	D FDR State Park (Park & Ride)	C Barger St (Rt 132) at E Main St	B Somers Commons Shopping Center	A Carmel Bowl (Park & Ride)
	WHITE PLAINS	YORKTOWN HEIGHTS	SHRUB OAK	BALDWIN PLACE	CARMEL	
PM	4:25 5:20 6:15	4:30 5:25 6:20	5:14 6:09 7:04	5:29 6:24 7:19	5:37 6:32 7:27	5:52 6:47 7:42

Service on this route is funded in part by the New York State Department of Transportation.

BEE-LINE HOLIDAY SCHEDULE

HOLIDAY	SCHEDULE IN EFFECT
New Years Day.....	Sunday
Martin Luther King, Jr. Day.....	Saturday
Presidents' Day.....	Saturday
Memorial Day.....	Sunday
Independence Day.....	Sunday
Labor Day.....	Sunday
Columbus Day.....	Weekday
Election Day.....	Weekday
Veterans Day.....	Weekday
Thanksgiving Day.....	No Service
Christmas Day.....	No Service

INSTRUCTIONS



- A** The bus passes this location at listed times. Look for the column of times below the matching symbol in the schedule.
- Only certain trips operate along this portion of the route. See the schedule for trips that operate here.
- The bus operates express along the route. No stops are made unless indicated by the symbol.
- Transfer point. Shows where this bus intersects with other bus routes.
- The bus stops at the times listed below the symbol. Light times are A.M.; bold times are P.M.
- The timetable shows when the bus is scheduled to depart. Actual departure times may vary and depend upon traffic and weather conditions. Arrive at the bus stop about 5 minutes early to avoid missing the bus.

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Save Time and Money Buy a MetroCard

MetroCard Choices What's best for you?



Unlimited Ride or Pay-per-Ride

Unlimited Ride MetroCard: Available for 7 or 30 days

- The more you ride, the less each ride costs
- All bus and subway transfers included
- Can only be used by one person at a time
- Cannot be used again on the same bus route or at the same subway station for 18 minutes

Pay-Per-Ride MetroCard:

- Get a 7% bonus with the purchase or addition of \$10.00 or more.
- Free bus-to-bus, bus-to-subway, or subway-to-bus transfer within 2 hours of paying fare (some exceptions apply)
- Refill as often as you like until card expires (cards usually expire in one year).
- Can be used to pay for up to 4 people at a time

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Bee-Line Cash and MetroCard Fares

Effective March 3, 2013

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Paper Transfer to Bee-Line & NYC Buses	FREE
Senior/Disabled Reduced Fare One Ride	\$1.25
Senior/Disabled Paper Transfer to Bee-Line & NYC Buses	FREE
BXM4C One Ride	\$7.50
BXM4C Paper Transfer to Bee-Line & NYC Buses	FREE
BXM4C Senior/Disabled Reduced Fare (Off-Peak Only)	\$3.75

Pay-Per-Ride MetroCard Fares
(Includes One Transfer to Bee-Line Buses, NYC Buses & Subways)

One Ride with Transfer	\$2.50
Senior/Disabled Reduced Fare One Ride with Transfer.....	\$1.25
Unlimited Ride 30-Day MetroCard Fare.....	\$112.00

(Good on Bee-Line Buses, NYC Buses & Subways)

Transfers

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Senior/Disabled Reduced Fares

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24-Hour Automated Schedule Information
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Large print timetables are available upon request.
TTY for the hearing impaired at (914) 813-7711
Fares, schedule and equipment are subject to change.

the bee-line system

Effective March 4, 2013

EXPRESS ROUTE



77

**Carmel
Yorktown
White Plains**

ALSO SERVING

- Baldwin Place
- Shrub Oak
- FDR Park



Westchester
gov.com

(914) 813-7777



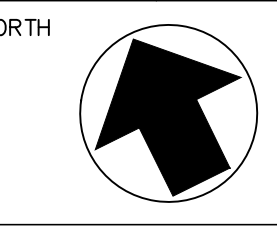
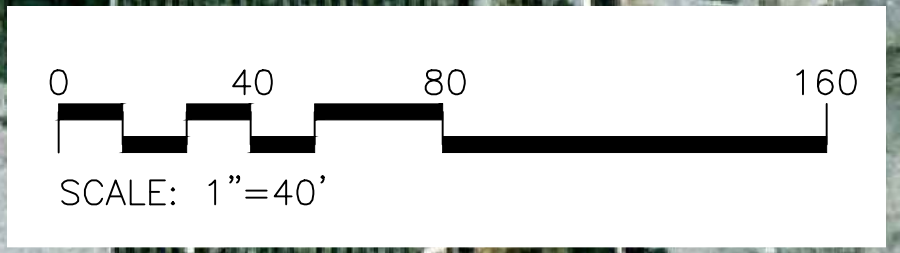
***PROPOSED BEAR MOUNTAIN TRIANGLE
REZONING AND CROMPOND TERRACES***

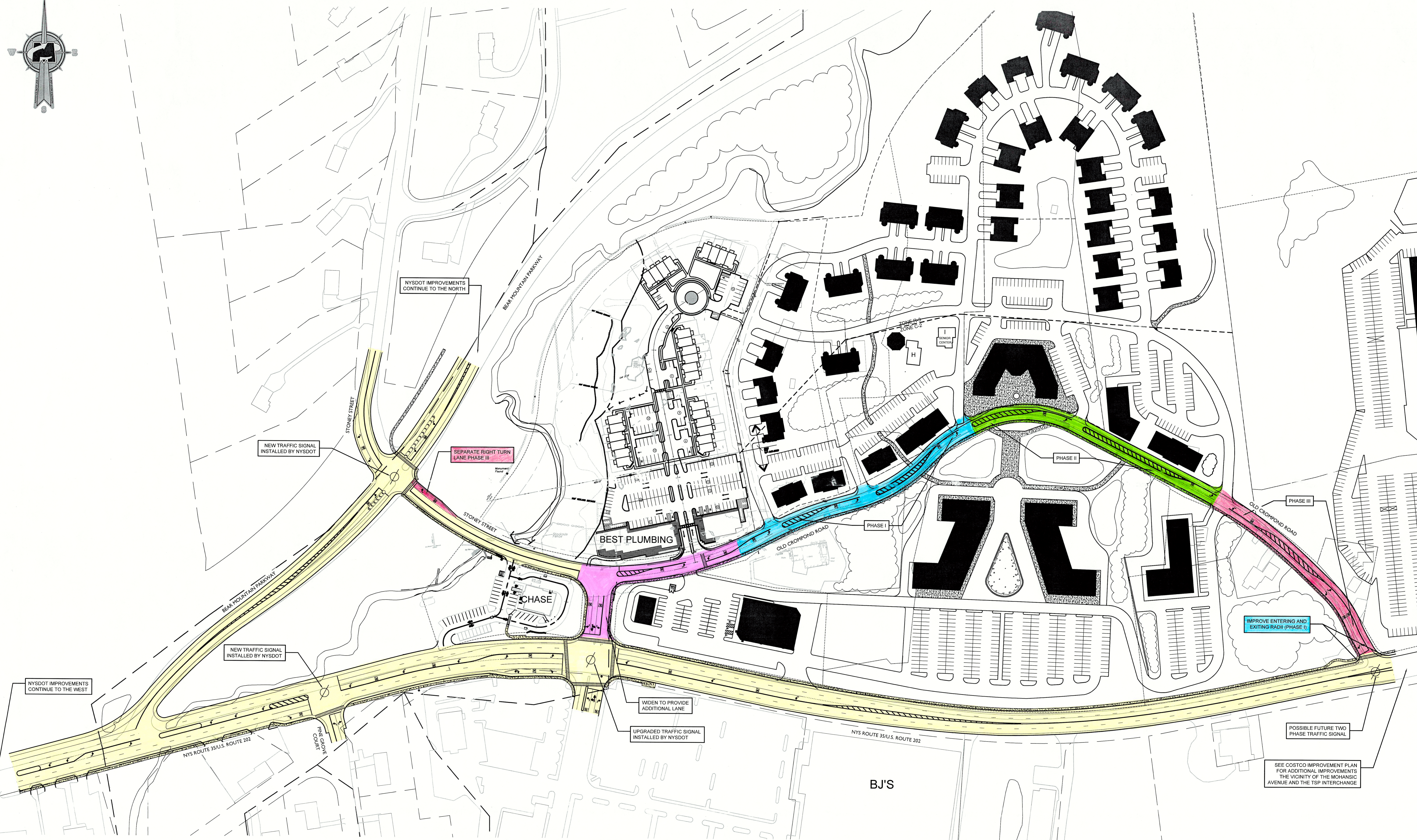
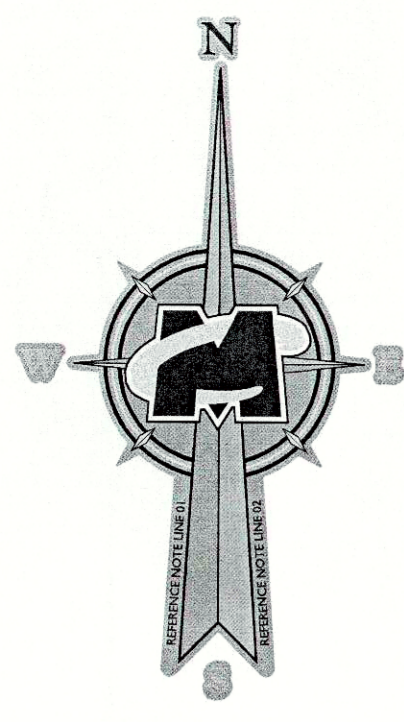
APPENDIX F

POTENTIAL IMPROVEMENT PLANS

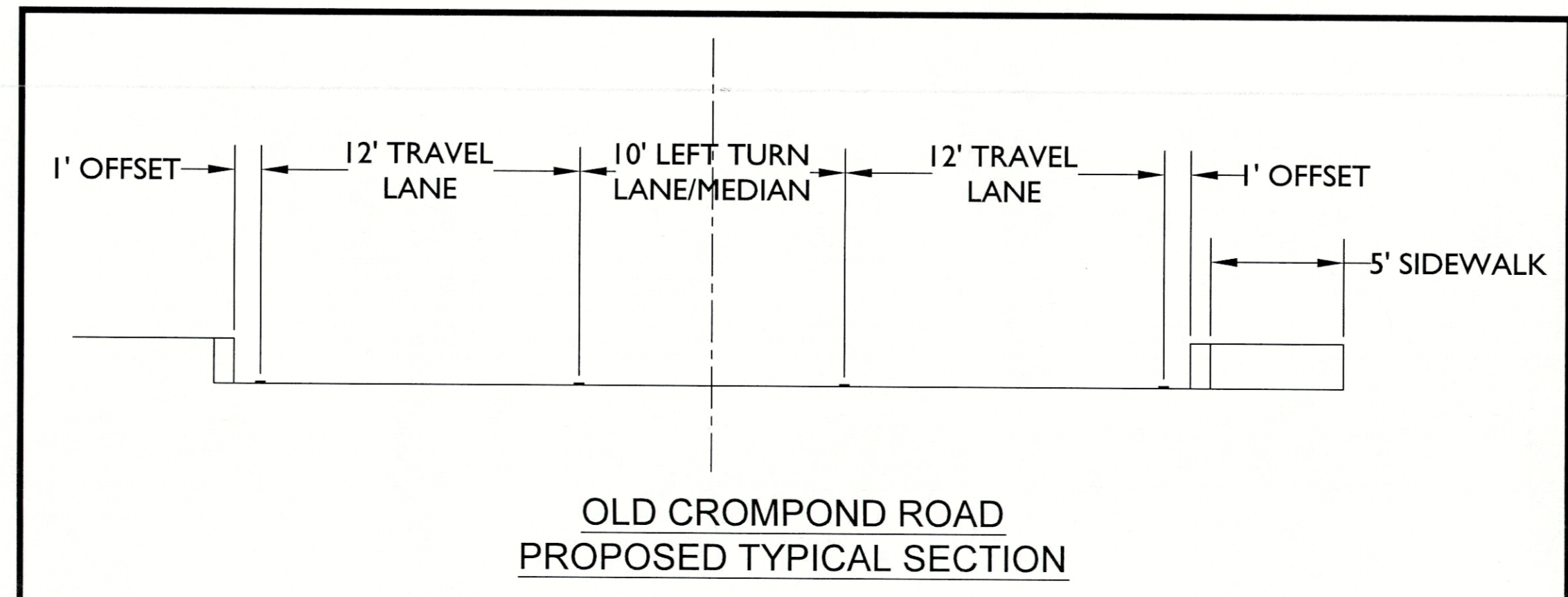


NO. 000 CONS. 00000N S. 000000 000000 000000			
BASE SURVEY PREPARED BY:	DATE	REVISED	
-			
SITE PLAN PREPARED BY:	DATE	REVISED	
-			
NO.	REVISION	DATE	REVISED BY:
TITLE: CONCEPTUAL ROADWAY IMPROVEMENT PLAN			
PROJECT: U.S. ROUTE 202 AT GARDEN LANE YORKTOWN, NEW YORK			
ENGINEER: JOHN COLLINS ENGINEERS, P.C. 11 BRADHURST AVENUE HAWTHORNE N.Y. 10532			
DRAWING NO. CP-3		SHEET 1 OF 1	
PROJECT NO. 1823		SCALE: 1"=40'	
DATE: 11/2/11		DRAWN BY: R.G.D.	
CHECKED BY: P.J.G.			





- LEGEND**
- NYSDOT IMPROVEMENTS
 - CVS DEVELOPMENT IMPROVEMENTS
 - CROMPOND TERRACES/ ADJACENT REZONED PARCELS IMPROVEMENTS (PHASE I)
 - NAZZARO PROPERTY IMPROVEMENTS (PHASE II)
 - ADRIAN & ADJACENT PROPERTIES IMPROVEMENTS (PHASE III)



OVERALL AREA CONCEPTUAL TRAFFIC AND PEDESTRIAN IMPROVEMENT PLAN

DATE: 2/23/2015
SCALE 1"=80'

SEE COSTCO IMPROVEMENT PLAN FOR ADDITIONAL IMPROVEMENTS THE VICINITY OF THE MOHANSIC AVENUE AND THE TSP INTERCHANGE

POSSIBLE FUTURE TWO PHASE TRAFFIC SIGNAL

UPGRADED TRAFFIC SIGNAL INSTALLED BY NYSDOT

WIDEN TO PROVIDE ADDITIONAL LANE

NEW TRAFFIC SIGNAL INSTALLED BY NYSDOT

NEW TRAFFIC SIGNAL INSTALLED BY NYSDOT

NYSDOT IMPROVEMENTS CONTINUE TO THE NORTH

NYSDOT IMPROVEMENTS CONTINUE TO THE WEST

NYS ROUTE 35/U.S. ROUTE 202

PINE GROVE COURT

STONEY STREET

BEAR MOUNTAIN PARKWAY

BEST PLUMBING

CHASE

OLD CROMPOND ROAD

NYS ROUTE 35/U.S. ROUTE 202

BJ'S

OLD CROMPOND ROAD

PHASE II

PHASE I

PHASE III

IMPROVE ENTERING AND EXITING RADI (PHASE I)

ZONE 2

REPAIR CENTER



***PROPOSED BEAR MOUNTAIN TRIANGLE
REZONING AND CROMPOND TERRACES***

APPENDIX G

**CONSIDERATION OF POTENTIAL
STATE LAND DEVELOPMENT**

**TABLE 2-S
LEVEL OF SERVICE SUMMARY TABLE
WITH STATE LAND DEVELOPMENT**

			2014 EXISTING			2019 NO-BUILD			2019 BUILD WITH REZONING							
			AM	PM	SAT	AM	PM	SAT	AM	PM	SAT					
1	BEAR MOUNTAIN PARKWAY EXT. & STONY STREET	SIGNALIZED	EB	LT	B[15.9]	C[23.7]	C[23.0]	B[15.8]	E[55.5]	C[21.9]	B[16.0]	E[55.9]	C[21.8]			
					R	B[15.2]	B[19.4]	B[19.5]	B[15.0]	D[48.9]	C[20.3]	B[15.3]	D[47.8]	C[20.9]		
			WB	LTR	B[18.8]	D[36.2]	C[31.3]	B[19.1]	E[67.0]	C[28.9]	B[17.6]	E[74.8]	C[28.3]			
					L	A[6.5]	A[8.4]	A[5.1]	A[7.8]	C[30.1]	A[7.4]	A[7.9]	C[30.2]	A[8.2]		
			SB	TR	B[15.8]	B[11.2]	A[8.3]	B[19.4]	B[10.4]	B[11.3]	B[19.7]	B[11.0]	B[12.1]			
					L	A[6.5]	A[6.7]	A[5.0]	A[8.3]	A[5.1]	A[5.4]	A[8.6]	A[5.6]	A[5.9]		
			OVERALL	TR	A[9.6]	C[26.6]	B[11.2]	B[12.2]	D[50.0]	C[23.3]	B[12.2]	D[54.1]	C[24.6]			
					B[12.5]	C[22.8]	B[13.4]	B[14.3]	D[41.0]	B[19.7]	B[14.3]	D[44.2]	C[20.5]			
			2	STONY STREET & OLD CROMPOND ROAD	UNSIGNALIZED	EB	TR	A[7.5]	A[8.7]	A[7.6]	A[8.1]	C[16.1]	B[12.0]	A[8.9]	C[20.7]	B[14.3]
								WB	LT	A[7.3]	A[8.4]	A[7.6]	A[8.1]	E[37.4]	D[26.8]	A[9.1]
NB	LR	A[7.7]				A[9.2]	A[8.2]	A[7.9]	C[15.9]	C[12.6]	A[8.4]	C[19.7]	B[14.8]			
		OVERALL				A[7.5]	A[8.8]	A[7.8]	A[8.1]	D[25.5]	C[19.5]	A[8.9]	E[42.4]	E[39.8]		
WITH REDISTRIBUTED TRAFFIC VOLUMES	EB	TR				-	-	-	A[8.1]	B[14.3]	B[10.8]	A[8.7]	C[20.5]	B[12.5]		
						WB	LT	-	-	-	A[7.9]	C[17.7]	B[13.2]	A[8.4]	E[42.9]	C[18.2]
OVERALL	NB	LR				-	-	-	A[7.8]	B[14.2]	B[11.2]	A[8.2]	C[19.4]	B[12.8]		
						-	-	-	A[8.0]	C[15.5]	B[11.8]	A[8.5]	D[29.4]	B[15.0]		
3	NYS ROUTE 35/U.S. ROUTE 202 & STONY STREET/BJ'S	SIGNALIZED				EB	L	B[10.5]	B[17.2]	B[17.8]	C[20.0]	C[27.5]	C[29.2]	C[21.0]	C[31.2]	C[33.1]
								T	B[14.9]	C[21.7]	C[25.8]	C[32.7]	D[38.9]	C[33.5]	D[43.0]	D[53.8]
			WB	L	A[3.2]	A[3.7]	A[5.0]	A[2.8]	A[2.4]	A[2.5]	A[2.8]	A[2.4]	A[2.7]			
					TR	D[42.1]	C[30.0]	E[57.2]	D[45.2]	C[24.6]	D[36.0]	D[45.4]	C[25.8]	D[45.5]		
			NB	L	D[47.1]	C[20.8]	C[22.3]	D[47.3]	B[16.0]	B[18.1]	D[47.3]	B[16.9]	B[18.4]			
					TR	E[64.0]	F[83.5]	F[84.2]	D[52.3]	D[52.9]	D[51.9]	D[52.2]	D[52.6]	D[52.0]		
			SB	L	D[37.5]	C[31.0]	C[31.0]	D[52.6]	D[54.0]	D[53.1]	D[53.1]	D[54.8]	D[52.7]			
					TR	B[17.9]	B[15.9]	B[18.4]	B[14.9]	B[13.4]	B[19.7]	B[14.9]	B[14.0]	C[21.2]		
			OVERALL	LT	E[56.9]	D[37.2]	D[36.5]	D[49.7]	D[40.4]	D[51.2]	D[54.6]	D[51.9]	E[61.9]			
					R	A[1.4]	A[5.7]	A[0.7]	A[1.5]	A[6.6]	A[1.9]	A[2.0]	A[8.2]	A[4.1]		
WITH REDISTRIBUTED TRAFFIC VOLUMES	EB	L	-	-	-	B[19.9]	C[27.3]	C[29.2]	C[20.7]	C[29.7]	C[32.1]					
			T	-	-	-	C[32.5]	D[37.4]	D[53.8]	C[32.7]	D[37.8]	D[53.8]				
OVERALL	WB	L	-	-	-	A[2.6]	A[2.3]	A[2.6]	A[2.6]	A[2.3]	A[2.6]					
			TR	-	-	-	D[45.2]	C[29.7]	D[44.5]	D[45.2]	C[28.0]	D[42.6]				
OVERALL	NB	L	-	-	-	D[47.3]	B[19.5]	C[23.8]	D[47.3]	B[18.5]	C[23.6]					
			TR	-	-	-	D[51.5]	D[52.9]	D[51.9]	D[51.2]	D[52.6]	D[52.0]				
OVERALL	SB	L	-	-	-	D[51.8]	D[54.0]	D[53.1]	D[52.1]	D[54.8]	D[52.5]					
			TR	-	-	-	B[14.7]	A[8.3]	B[14.6]	B[14.6]	A[8.3]	B[14.9]				
OVERALL	LT	R	-	-	-	D[48.4]	D[35.2]	D[46.9]	D[48.3]	D[35.1]	D[47.2]					
			R	-	-	-	D[52.9]	D[44.0]	D[47.0]	D[53.1]	D[44.3]	D[47.1]				
OVERALL	OVERALL	R	-	-	-	A[1.5]	A[6.9]	A[2.0]	A[2.0]	A[9.3]	A[3.6]					
			C[25.0]	C[25.4]	C[29.8]	C[32.7]	C[28.0]	D[35.6]	C[33.3]	C[30.8]	D[37.8]					
4	NYS ROUTE 35/U.S. ROUTE 202 & OLD CROMPOND ROAD ²	UNSIGNALIZED	EB	LT	A[-]	A[-]	B[10.7]	A[-]	A[-]	A[-]	A[-]	A[-]	A[-]			
					SB	LR	E[40.1]	F[62.6]	F[86.4]	E[37.3]	F[84.1]	F[100.6]	E[43.5]	F[131.1]	F[163.0]	
			WITH SIGNALIZATION AND REDISTRIBUTED TRAFFIC VOLUMES ³	EB	LT	-	-	-	A[2.9]	A[5.2]	A[4.8]	A[6.8]	A[7.2]	A[6.2]		
						WB	TR	-	-	-	A[3.6]	A[2.8]	A[6.1]	A[7.6]	A[4.5]	A[7.2]
			OVERALL	SB	LR	-	-	-	D[40.0]	D[45.4]	D[50.6]	D[44.3]	D[51.8]	D[47.3]		
						-	-	-	A[3.5]	A[5.7]	A[7.2]	A[8.2]	A[9.5]	A[9.2]		

NOTES:

- 1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS AND FOR THE KEY APPROACHES FOR THE UNSIGNALIZED LOCATIONS. SEE APPENDIX "D" FOR ADDITIONAL DETAILS.
- 2) THE NO-BUILD AND BUILD ANALYSES FOR THE INTERSECTION OF NYS ROUTE 35/U.S. ROUTE 202 & OLD CROMPOND ROAD INCLUDES THE ADDITIONAL WESTBOUND THROUGH LANE TO BE CONSTRUCTED IN ASSOCIATION WITH THE COSTCO DEVELOPMENT.
- 2) THE SIGNALIZATION OF THE NYS ROUTE 35/U.S. ROUTE 202 & OLD CROMPOND ROAD INTERSECTION WOULD ALLOW FOR LEFT TURNS OUT OF THIS LOCATION TO EASTBOUND NYS ROUTE 35/U.S. ROUTE 202 AND THEREFORE IS EXPECTED TO REDISTRIBUTE FUTURE TRAFFIC VOLUMES TO THIS INTERSECTION AND AWAY FROM THE STONEY STREET INTERSECTIONS (I.E. INTERSECTION 2 AND 3).

TABLE 2-S (CONTINUED)
LEVEL OF SERVICE SUMMARY TABLE
WITH STATE LAND DEVELOPMENT

			2014 EXISTING			2019 NO-BUILD			2019 BUILD WITH REZONING				
			AM	PM	SAT	AM	PM	SAT	AM	PM	SAT		
5	NYS ROUTE 35/U.S. ROUTE 202 & MOHANSIC AVENUE/COSTCO DRIVEWAY	SIGNALIZED											
		EB	TR	A[8.3]	B[13.0]	B[12.3]	-	-	-	-	-	-	
		WB	L	A[2.7]	A[7.6]	A[7.5]	-	-	-	-	-	-	
			T	A[3.7]	C[33.8]	A[29.1]	-	-	-	-	-	-	
		NB	LTR	B[17.0]	B[14.1]	B[15.5]	-	-	-	-	-	-	
		OVERALL		A[7.2]	C[20.7]	B[18.3]	-	-	-	-	-	-	
	WITH COSTCO IMPROVEMENTS ²	EB	L	-	-	-	A[5.3]	C[29.3]	D[48.6]	A[5.4]	C[26.6]	D[45.6]	
			TR	-	-	-	B[17.7]	C[22.5]	D[52.7]	B[18.6]	D[41.8]	E[67.1]	
		WB	L	-	-	-	B[10.0]	C[32.8]	D[46.5]	A[9.5]	C[33.0]	D[46.2]	
			T	-	-	-	A[2.8]	B[18.7]	C[23.3]	A[3.1]	C[33.5]	D[41.3]	
		NB	LT	-	-	-	D[39.6]	D[51.5]	E[61.0]	D[39.7]	D[52.4]	E[62.5]	
			R	-	-	-	A[1.5]	B[18.7]	A[4.6]	A[1.5]	B[18.8]	A[4.7]	
		SB	L	-	-	-	D[44.4]	D[47.9]	E[67.9]	D[44.4]	D[47.9]	E[67.9]	
			TR	-	-	-	C[20.4]	C[33.4]	D[50.5]	C[20.4]	C[33.4]	D[50.9]	
		OVERALL		-	-	-	B[14.0]	C[24.4]	D[42.5]	B[14.3]	D[37.1]	D[53.9]	
6	NYS ROUTE 35/U.S. ROUTE 202 & TACONIC STATE PARKWAY SB RAMPS	SIGNALIZED											
		EB	T	E[72.1]	E[79.9]	E[72.9]	-	-	-	-	-	-	
			R	A[1.1]	A[0.4]	A[0.3]	-	-	-	-	-	-	
		WB	L	B[18.9]	A[7.5]	B[10.4]	-	-	-	-	-	-	
		T	A[4.5]	C[20.3]	A[8.7]	-	-	-	-	-	-		
		SB	L	D[35.1]	C[30.4]	C[34.9]	-	-	-	-	-	-	
			R	A[3.1]	A[2.2]	A[5.3]	-	-	-	-	-	-	
		OVERALL		C[27.5]	D[41.5]	C[34.4]	-	-	-	-	-	-	
	WITH COSTCO IMPROVEMENTS ²	EB	T	-	-	-	A[3.7]	A[9.0]	B[19.2]	A[3.8]	B[15.2]	D[47.2]	
			R	-	-	-	A[3.0]	A[0.4]	A[0.2]	A[3.2]	A[0.4]	A[0.2]	
		WB	L	-	-	-	C[22.8]	B[16.5]	B[18.6]	C[24.1]	B[18.5]	C[25.4]	
			T	-	-	-	A[0.7]	A[2.2]	A[3.2]	A[0.8]	A[4.2]	A[5.3]	
		SB	L	-	-	-	D[44.5]	D[37.5]	D[41.5]	D[44.5]	D[35.2]	D[39.7]	
			R	-	-	-	B[11.5]	C[29.2]	D[38.0]	B[11.3]	C[31.3]	D[42.9]	
			OVERALL		-	-	-	A[6.6]	A[6.5]	B[12.1]	A[6.7]	B[10.0]	C[24.7]
7	NYS ROUTE 35/U.S. ROUTE 202 & TACONIC STATE PARKWAY NB RAMPS	SIGNALIZED											
		EB	L	C[21.1]	E[74.8]	E[73.7]	-	-	-	-	-	-	
			T	C[32.3]	E[63.0]	C[21.5]	-	-	-	-	-	-	
		WB	TR	D[42.6]	F[116.1]	F[93.5]	-	-	-	-	-	-	
		NB	L	C[25.4]	C[30.6]	D[39.0]	-	-	-	-	-	-	
			R	A[6.4]	B[19.1]	A[7.2]	-	-	-	-	-	-	
		OVERALL		C[34.6]	E[69.5]	E[56.8]	-	-	-	-	-	-	
	WITH COSTCO IMPROVEMENTS ² AND NB RAMP DOUBLE LEFT TURN LANE	EB	L	-	-	-	A[7.0]	C[30.0]	D[51.0]	A[8.3]	D[36.5]	E[79.3]	
			T	-	-	-	B[17.6]	C[33.8]	C[22.2]	B[19.6]	D[51.1]	C[32.2]	
		WB	TR	-	-	-	C[21.1]	C[32.0]	C[31.2]	C[21.8]	D[35.2]	C[31.4]	
			NB	L	-	-	C[25.2]	D[35.9]	D[44.8]	C[25.5]	D[36.3]	D[44.7]	
				R	-	-	A[6.6]	D[47.2]	B[11.5]	A[6.6]	D[51.2]	B[13.3]	
			OVERALL		-	-	-	B[18.6]	C[34.6]	C[31.6]	B[19.8]	D[42.2]	D[39.6]

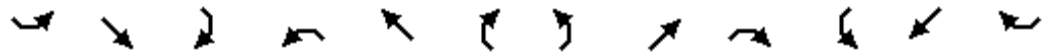
NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND AVERAGE VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH APPROACH AS WELL AS FOR THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS AND FOR THE KEY APPROACHES FOR THE UNSIGNALIZED LOCATIONS. SEE APPENDIX "D" FOR ADDITIONAL DETAILS.

2) UNDER EXISTING CONDITIONS, DURING PEAK HOURS, THE OPERATION OF INTERSECTIONS 5 & 6 (MOHANSIC AVENUE & TACONIC STATE PARKWAY SB RAMPS) IS CURRENTLY IMPACTED BY QUEUEING IN THE EASTBOUND DIRECTION WHICH OCCASIONALLY EXTENDS FROM THE NORTHBOUND RAMP INTERSECTION. THE WIDENING OF NYS ROUTE 35/U.S. ROUTE 202 AND ASSOCIATED SIGNAL TIMING AND COORDINATION IMPROVEMENTS ARE BEING COMPLETED TO ADDRESS THESE EXISTING CONDITIONS IN THE VICINITY OF THE TACONIC STATE PARKWAY INTERCHANGE. THESE IMPROVEMENTS HAVE BEEN INCLUDED IN THE NO-BUILD AND BUILD ANALYSIS SCENARIOS FOR INTERSECTION 5, 6 & 7.

2019 No-Build Traffic Volumes - With State Land
 1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	90	127	52	2	31	14	22	208	2	128	297	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956			0.960			0.999			0.996	
Flt Protected	0.950				0.998		0.950			0.950		
Satd. Flow (prot)	1885	1897	0	0	1794	0	1805	1898	0	1805	1892	0
Flt Permitted	0.603				0.980		0.556			0.461		
Satd. Flow (perm)	1196	1897	0	0	1761	0	1056	1898	0	876	1892	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			15			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	98	138	57	2	34	15	24	231	2	142	330	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	195	0	0	51	0	24	233	0	142	340	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		1	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	40	40		50	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	43	43			43		43	43		43	43	
Detector 2 Size(ft)	40	40			40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	

2019 No-Build Traffic Volumes - With State Land
 1: Bear Mountain Pkwy. Ext. & Stoney Street

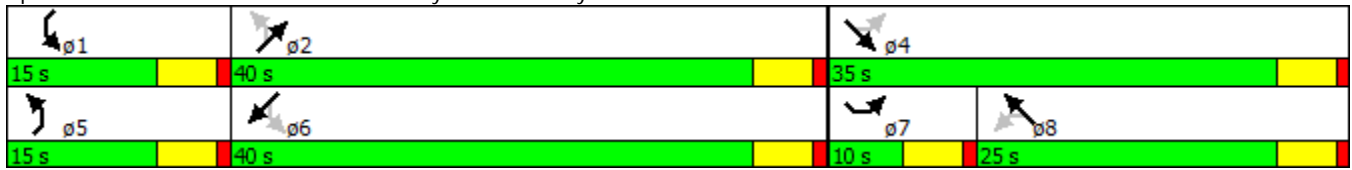
AM PEAK HOUR
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.5		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.5		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)	13.1	13.1			7.4		18.6	14.0		23.6	22.1	
Actuated g/C Ratio	0.28	0.28			0.16		0.39	0.29		0.50	0.46	
v/c Ratio	0.24	0.36			0.18		0.05	0.42		0.24	0.39	
Control Delay	15.8	15.0			19.1		7.8	19.4		8.3	12.2	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	15.8	15.0			19.1		7.8	19.4		8.3	12.2	
LOS	B	B			B		A	B		A	B	
Approach Delay		15.3			19.1			18.3			11.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	20	37			10		4	62		22	59	
Queue Length 95th (ft)	57	94			39		13	126		49	170	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	404	1277			774		645	1437		642	1432	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.24	0.15			0.07		0.04	0.16		0.22	0.24	

Intersection Summary	
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	47.6
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	14.3
Intersection LOS:	B
Intersection Capacity Utilization:	43.7%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
 2: Stoney Street & Old Crompond Road

AM PEAK HOUR
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	19	240	64	22	30	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.926	
Flt Protected				0.964	0.978	
Satd. Flow (prot)	1622	0	0	1805	1670	0
Flt Permitted				0.964	0.978	
Satd. Flow (perm)	1622	0	0	1805	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	267	71	24	33	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	0	0	95	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.4%
Analysis Period (min)	15
	ICU Level of Service A

Intersection									
Intersection Delay, s/veh	8.1								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	19	240	0	64	22	0	30	36
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	21	267	0	71	24	0	33	40
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.1	8.1	7.9
HCM LOS	A	A	A

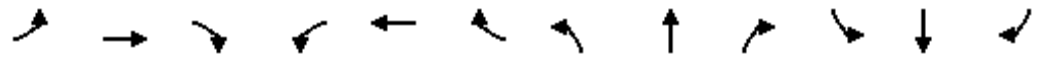
Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	45%	0%	74%
Vol Thru, %	0%	7%	26%
Vol Right, %	55%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	66	259	86
LT Vol	30	0	64
Through Vol	0	19	22
RT Vol	36	240	0
Lane Flow Rate	73	288	96
Geometry Grp	1	1	1
Degree of Util (X)	0.091	0.286	0.118
Departure Headway (Hd)	4.462	3.578	4.432
Convergence, Y/N	Yes	Yes	Yes
Cap	808	987	799
Service Time	2.462	1.659	2.512
HCM Lane V/C Ratio	0.09	0.292	0.12
HCM Control Delay	7.9	8.1	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	1.2	0.4

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	1216	227	137	479	16	132	13	254	114	72	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.960		0.950	0.985	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1699	1583	1698	1760	1546
Flt Permitted	0.455			0.455			0.950	0.960		0.950	0.985	
Satd. Flow (perm)	848	3471	1552	848	3664	0	1665	1686	1583	1698	1760	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			218		3				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	38	1322	247	149	521	17	147	14	282	127	80	129
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	38	1322	247	149	538	0	79	82	282	91	116	129
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	19.0	19.0	49.0		19.0	19.0	19.0	23.0	23.0	19.0
Total Split (%)	17.3%	44.5%	17.3%	17.3%	44.5%		17.3%	17.3%	17.3%	20.9%	20.9%	17.3%
Maximum Green (s)	13.0	43.0	13.0	13.0	43.0		13.0	13.0	13.0	17.0	17.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.7	50.7	67.0	21.8	21.8		12.3	12.3	25.3	14.0	14.0	55.8
Actuated g/C Ratio	0.46	0.46	0.61	0.20	0.20		0.11	0.11	0.23	0.13	0.13	0.51
v/c Ratio	0.05	0.83	0.24	0.54	0.74		0.42	0.43	0.59	0.42	0.52	0.15
Control Delay	20.0	32.7	2.8	45.2	47.3		52.3	52.6	14.9	49.7	52.8	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	32.7	2.8	45.2	47.3		52.3	52.6	14.9	49.7	52.8	1.5
LOS	C	C	A	D	D		D	D	B	D	D	A
Approach Delay		27.8			46.8			28.5				32.3
Approach LOS		C			D			C				C
Queue Length 50th (ft)	14	416	8	93	187		55	57	55	63	82	0
Queue Length 95th (ft)	38	#623	44	147	233		106	108	102	113	137	14
Internal Link Dist (ft)		532			1437			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	741	1599	1051	289	1467		213	216	498	277	288	853
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.83	0.24	0.52	0.37		0.37	0.38	0.57	0.33	0.40	0.15

Intersection Summary
 Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

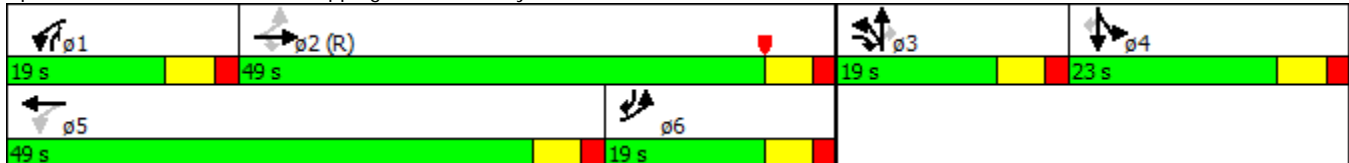
2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015

Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 32.7 Intersection LOS: C
 Intersection Capacity Utilization 74.9% 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.

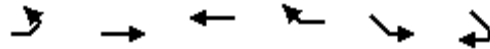
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1583	664	10	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.998		0.946	
Flt Protected					0.971	
Satd. Flow (prot)	0	3350	3586	0	1626	0
Flt Permitted					0.971	
Satd. Flow (perm)	0	3350	3586	0	1626	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1721	722	11	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1721	733	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.8%
Analysis Period (min)	15
	ICU Level of Service A

2019 No-Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1583	664	10	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	92	92	92	92	92	90
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1721	722	11	3	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	733	0	1587
Stage 1	-	-	727
Stage 2	-	-	860
Critical Hdwy	4.14	-	8.84
Critical Hdwy Stg 1	-	-	7.84
Critical Hdwy Stg 2	-	-	7.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1182	-	74
Stage 1	-	-	712
Stage 2	-	-	232
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	1182	-	74
Mov Cap-2 Maneuver	-	-	74
Stage 1	-	-	712
Stage 2	-	-	232

Approach	EB	WB	SE
HCM Control Delay, s	0	0	37.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1182	-	-	-	117
HCM Lane V/C Ratio	-	-	-	-	0.047
HCM Control Delay (s)	0	-	-	-	37.3
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 No-Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR

4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1531	12	45	593	121	21	1	36	80	1	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.999			0.975				0.850		0.876	
Flt Protected	0.950			0.950				0.954		0.950	0.992	
Satd. Flow (prot)	1699	3329	0	1832	3514	0	0	1813	1615	1681	1538	0
Flt Permitted	0.327			0.071				0.954		0.950	0.992	
Satd. Flow (perm)	585	3329	0	137	3514	0	0	1813	1615	1681	1538	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			35				85		63	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		457			251			624			252	
Travel Time (s)		6.9			3.8			14.2			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	47	1664	13	49	645	132	23	1	39	87	1	63
Shared Lane Traffic (%)										14%		
Lane Group Flow (vph)	47	1677	0	49	777	0	0	24	39	75	76	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		1	2	2	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		50	83	83	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Size(ft)	40	40		40	40		50	40	40	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43			43	43	43	43	
Detector 2 Size(ft)	40	40		40	40			40	40	40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	

2019 No-Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		10.0	10.0	7.0	10.0	10.0	
Total Split (s)	15.0	45.0		15.0	45.0		15.0	15.0	15.0	15.0	15.0	
Total Split (%)	16.7%	50.0%		16.7%	50.0%		16.7%	16.7%	16.7%	16.7%	16.7%	
Maximum Green (s)	10.0	40.0		10.0	40.0		10.0	10.0	10.0	10.0	10.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Act Effct Green (s)	66.1	60.9		66.9	63.0			7.9	12.6	9.6	7.6	
Actuated g/C Ratio	0.73	0.68		0.74	0.70			0.09	0.14	0.11	0.08	
v/c Ratio	0.09	0.75		0.20	0.31			0.15	0.13	0.42	0.41	
Control Delay	5.3	17.7		10.0	2.7			39.6	1.5	44.4	20.4	
Queue Delay	0.0	0.0		0.0	0.2			0.0	0.0	0.0	0.0	
Total Delay	5.3	17.7		10.0	2.8			39.6	1.5	44.4	20.4	
LOS	A	B		B	A			D	A	D	C	
Approach Delay		17.4			3.3			16.0			32.3	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)	4	290		1	6			13	0	42	7	
Queue Length 95th (ft)	21	#672		21	64			37	4	87	50	
Internal Link Dist (ft)		377			171			544			172	
Turn Bay Length (ft)	150			170					100			
Base Capacity (vph)	583	2251		312	2471			221	361	205	210	
Starvation Cap Reductn	0	0		0	811			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.08	0.75		0.16	0.47			0.11	0.11	0.37	0.36	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 14.0 Intersection LOS: B
 Intersection Capacity Utilization 61.7% 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: 5: Mohansic Avenue/COSTCO Access & Route 202/35

ø1	ø2 (R)	ø4	ø8
15 s	45 s	15 s	15 s
ø5	ø6 (R)		
15 s	45 s		

Two Way Analysis cannot be performed on Signalized Intersection.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	881	765	323	676	0	0	0	0	92	0	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%			4%	
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3350	1558	1877	3490	0	0	0	0	1769	0	1583
Flt Permitted				0.234						0.950		
Satd. Flow (perm)	0	3350	1558	462	3490	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			462									93
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	958	832	351	735	0	0	0	0	102	0	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	958	832	351	735	0	0	0	0	102	0	93
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	2	2					2		2
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		40	50	40	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43		43	43					43		43
Detector 2 Size(ft)		40		40	40					40		40
Detector 2 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		50.0		20.0	70.0					20.0		20.0
Total Split (%)		55.6%		22.2%	77.8%					22.2%		22.2%
Maximum Green (s)		45.0		15.0	65.0					15.0		15.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		56.4	90.0	71.4	71.4					10.6		10.6
Actuated g/C Ratio		0.63	1.00	0.79	0.79					0.12		0.12
v/c Ratio		0.46	0.53	0.65	0.27					0.49		0.35
Control Delay		3.1	3.0	22.7	0.6					44.5		11.5
Queue Delay		0.6	0.0	0.0	0.0					0.0		0.0
Total Delay		3.7	3.0	22.7	0.6					44.5		11.5
LOS		A	A	C	A					D		B
Approach Delay		3.4			7.8							
Approach LOS		A			A							
Queue Length 50th (ft)		18	0	82	0					55		0
Queue Length 95th (ft)		27	297	154	23					100		41
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2099	1558	622	2768					314		357
Starvation Cap Reductn		698	0	0	0					0		0
Spillback Cap Reductn		122	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.68	0.53	0.56	0.27					0.32		0.26

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 12 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 6.5
 Intersection Capacity Utilization 57.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

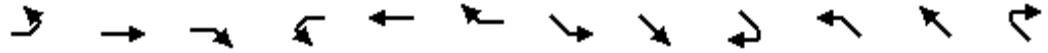
6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35



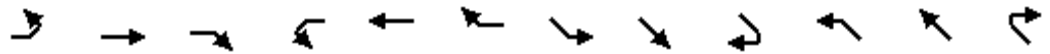
Two Way Analysis cannot be performed on Signalized Intersection.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	124	848	0	0	844	13	0	0	0	154	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	300		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Fr _t					0.998							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1695	0	0	3434	0	0	0	0	3554	0	1639
Fl _t Permitted	0.213									0.950		
Satd. Flow (perm)	376	1695	0	0	3434	0	0	0	0	3554	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2							91
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	135	922	0	0	917	14	0	0	0	171	0	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	135	922	0	0	931	0	0	0	0	171	0	91
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)		23			23			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



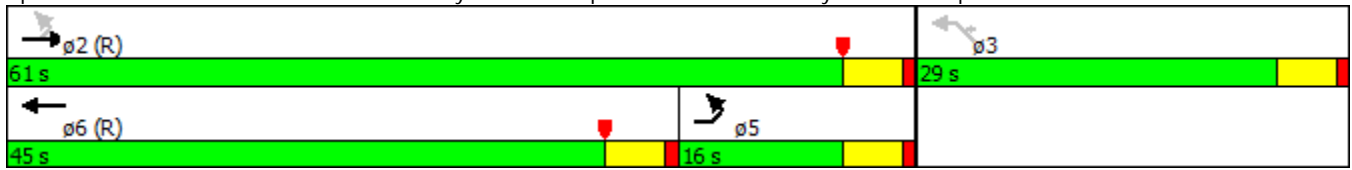
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	16.0	61.0			45.0					29.0		29.0
Total Split (%)	17.8%	67.8%			50.0%					32.2%		32.2%
Maximum Green (s)	11.0	56.0			40.0					24.0		24.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-0.7	-1.0			0.0					-1.0		-1.0
Total Lost Time (s)	4.3	4.0			5.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					Max		Max
Act Effct Green (s)	56.7	57.0			40.0					25.0		25.0
Actuated g/C Ratio	0.63	0.63			0.44					0.28		0.28
v/c Ratio	0.33	0.86			0.61					0.17		0.17
Control Delay	7.0	17.6			21.1					25.2		6.6
Queue Delay	0.0	0.0			0.0					0.0		0.0
Total Delay	7.0	17.6			21.1					25.2		6.6
LOS	A	B			C					C		A
Approach Delay		16.2			21.1							
Approach LOS		B			C							
Queue Length 50th (ft)	11	430			205					38		0
Queue Length 95th (ft)	23	#617			267					63		34
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)										300		530
Base Capacity (vph)	405	1073			1527					987		521
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.33	0.86			0.61					0.17		0.17

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 18.6 Intersection LOS: B
 Intersection Capacity Utilization 57.3% 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.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
 1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	15	76	31	2	119	36	63	155	11	239	1005	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956			0.969			0.990			0.989	
Flt Protected	0.950				0.999		0.950			0.950		
Satd. Flow (prot)	1885	1897	0	0	1812	0	1805	1881	0	1805	1879	0
Flt Permitted	0.269				0.997		0.055			0.580		
Satd. Flow (perm)	534	1897	0	0	1809	0	104	1881	0	1102	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			10			5			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	18	93	38	2	143	43	83	204	14	285	1196	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	131	0	0	188	0	83	218	0	285	1294	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		3			3		1	6		5	2	
Permitted Phases	3			3			6			2		
Detector Phase	3	3		3	3		1	6		5	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		12.0	30.0		12.0	22.0	

2019 No-Build Traffic Volumes - With State Land
 1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	23.0	23.0		23.0	23.0		13.0	77.0		20.0	84.0	
Total Split (%)	19.2%	19.2%		19.2%	19.2%		10.8%	64.2%		16.7%	70.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		6.0	70.0		13.0	77.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0		7.0	7.0		7.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)	8.0	8.0		8.0	8.0			7.0				
Flash Dont Walk (s)	17.0	17.0		17.0	17.0			10.0				
Pedestrian Calls (#/hr)	0	0		0	0			0				
Act Effct Green (s)	14.9	14.9			14.9		76.2	70.6		85.6	77.4	
Actuated g/C Ratio	0.13	0.13			0.13		0.67	0.62		0.75	0.68	
v/c Ratio	0.26	0.51			0.77		0.55	0.19		0.32	1.01	
Control Delay	55.5	48.9			67.0		30.1	10.4		5.1	50.0	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	55.5	48.9			67.0		30.1	10.4		5.1	50.0	
LOS	E	D			E		C	B		A	D	
Approach Delay		49.7			67.0			15.9			41.9	
Approach LOS		D			E			B			D	
Queue Length 50th (ft)	12	83			132		13	65		52	~1073	
Queue Length 95th (ft)	34	131			193		46	93		77	#1219	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	84	312			294		159	1188		922	1275	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.21	0.42			0.64		0.52	0.18		0.31	1.01	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 114.3
 Natural Cycle: 110
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 41.0
 Intersection LOS: D
 Intersection Capacity Utilization 88.3%
 ICU Level of Service E
 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.

2019 No-Build Traffic Volumes - With State Land
 1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
 4/2/2015

Splits and Phases: 1: Bear Mountain Parkway Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	66	244	246	68	114	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.894				0.933	
Flt Protected				0.962	0.975	
Satd. Flow (prot)	1657	0	0	1801	1678	0
Flt Permitted				0.962	0.975	
Satd. Flow (perm)	1657	0	0	1801	1678	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	86	317	439	121	154	150
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	0	0	560	304	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.8%
Analysis Period (min)	15
	ICU Level of Service B

2019 No-Build Traffic Volumes - With State Land
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015

Intersection									
Intersection Delay, s/veh	25.5								
Intersection LOS	D								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	66	244	0	246	68	0	114	111
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	86	317	0	439	121	0	154	150
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	16.1	37.4	15.9
HCM LOS	C	E	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	51%	0%	78%
Vol Thru, %	0%	21%	22%
Vol Right, %	49%	79%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	225	310	314
LT Vol	114	0	246
Through Vol	0	66	68
RT Vol	111	244	0
Lane Flow Rate	304	403	561
Geometry Grp	1	1	1
Degree of Util (X)	0.523	0.597	0.886
Departure Headway (Hd)	6.188	5.34	5.686
Convergence, Y/N	Yes	Yes	Yes
Cap	578	668	634
Service Time	4.27	3.42	3.756
HCM Lane V/C Ratio	0.526	0.603	0.885
HCM Control Delay	15.9	16.1	37.4
HCM Lane LOS	C	C	E
HCM 95th-tile Q	3	4	10.6

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	1044	230	225	787	56	257	58	301	202	124	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.990				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950	0.984	
Satd. Flow (prot)	1770	3539	1552	1770	3715	0	1681	1715	1583	1698	1759	1546
Flt Permitted	0.323			0.185			0.950	0.969		0.950	0.984	
Satd. Flow (perm)	602	3539	1552	345	3715	0	1670	1707	1583	1698	1759	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		8				145			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	101	1147	253	234	820	58	289	65	338	240	148	218
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	101	1147	253	234	878	0	173	181	338	170	218	218
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	32.8	32.8	48.9	33.7	33.7		13.2	13.2	25.1	16.1	16.1	27.1
Actuated g/C Ratio	0.36	0.36	0.54	0.37	0.37		0.15	0.15	0.28	0.18	0.18	0.30
v/c Ratio	0.28	0.89	0.26	0.74	0.63		0.70	0.72	0.62	0.56	0.69	0.39
Control Delay	27.5	38.9	2.4	24.6	16.0		52.9	54.0	13.4	40.4	46.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.5	38.9	2.4	24.6	16.0		52.9	54.0	13.4	40.4	46.2	6.6
LOS	C	D	A	C	B		D	D	B	D	D	A
Approach Delay		32.0			17.8			33.9			30.3	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	41	~344	0	66	176		98	103	47	92	123	18
Queue Length 95th (ft)	79	#490	35	m#115	m277		#183	#191	92	141	176	40
Internal Link Dist (ft)		532			1432			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	361	1288	970	323	1396		261	266	551	377	390	561
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.89	0.26	0.72	0.63		0.66	0.68	0.61	0.45	0.56	0.39

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89

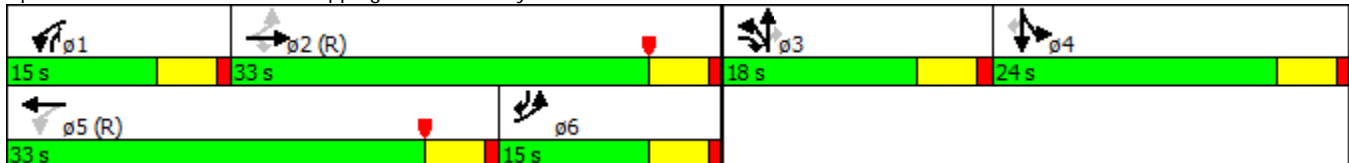
2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015

Intersection Signal Delay: 28.0 Intersection LOS: C
 Intersection Capacity Utilization 76.7% 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.
- m Volume for 95th percentile queue is metered by upstream signal.

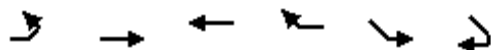
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1548	1144	44	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.994		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3350	3574	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3350	3574	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1821	1230	47	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1821	1277	0	2	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.8%
ICU Level of Service	A
Analysis Period (min)	15

2019 No-Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1548	1144	44	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	85	85	93	93	80	80
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1821	1230	47	1	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1277	0	639
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	7.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	905	-	*633
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	905	-	*633
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0	0	84.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	905	-	-	-	48
HCM Lane V/C Ratio	-	-	-	-	0.052
HCM Control Delay (s)	0	-	-	-	84.1
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 No-Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1383	39	160	952	357	44	3	94	291	3	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.996			0.960				0.850		0.894	
Fl _t Protected	0.950			0.950				0.954		0.950	0.986	
Satd. Flow (prot)	1699	3384	0	1832	3517	0	0	1813	1615	1681	1560	0
Fl _t Permitted	0.094			0.093				0.954		0.950	0.986	
Satd. Flow (perm)	168	3384	0	179	3517	0	0	1813	1615	1681	1560	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			72				85		120	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		457			251			624			331	
Travel Time (s)		6.9			3.8			14.2			7.5	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.92	0.65	0.92	0.65	0.92	0.92	0.92
Adj. Flow (vph)	137	1503	42	182	1082	388	68	3	145	316	3	209
Shared Lane Traffic (%)										27%		
Lane Group Flow (vph)	137	1545	0	182	1470	0	0	71	145	231	297	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2	1	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Size(ft)	40	40		40	40		40	40	50	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43		43	43		43	43	
Detector 2 Size(ft)	40	40		40	40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	

2019 No-Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		6				8					
Detector Phase	5	2	1		6	8		8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	10.0	9.0		9.0	9.0		9.0	9.0	9.0	9.0	
Total Split (s)	12.0	44.0	12.0		44.0	11.0		11.0	12.0	23.0	23.0	
Total Split (%)	13.3%	48.9%	13.3%		48.9%	12.2%		12.2%	13.3%	25.6%	25.6%	
Maximum Green (s)	7.0	39.0	7.0		39.0	6.0		6.0	7.0	18.0	18.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0		0.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0		5.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead		Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	None		C-Max	None		None	None	None	None	
Walk Time (s)							5.0	5.0			5.0	5.0
Flash Dont Walk (s)							11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)							0	0			0	0
Act Effct Green (s)	51.5	43.6	52.1		43.9	7.3		16.4	17.0	17.0		
Actuated g/C Ratio	0.57	0.48	0.58		0.49	0.08		0.18	0.19	0.19		
v/c Ratio	0.59	0.94	0.71		0.84	0.49		0.40	0.73	0.76		
Control Delay	29.3	22.5	32.8		14.9	51.5		17.7	47.9	33.2		
Queue Delay	0.0	0.0	0.0		3.8	0.0		1.0	0.0	0.2		
Total Delay	29.3	22.5	32.8		18.7	51.5		18.7	47.9	33.4		
LOS	C	C	C		B	D		B	D	C		
Approach Delay	23.1						20.3		29.5		39.7	
Approach LOS	C						C		D			
Queue Length 50th (ft)	44	~177	47		256	40		29	127	97		
Queue Length 95th (ft)	m69	m#607	#140		#411	#84		44	210	#197		
Internal Link Dist (ft)	377						171		544		251	
Turn Bay Length (ft)	150						150					
Base Capacity (vph)	234	1641	255		1752	147		364	354	424		
Starvation Cap Reductn	0	0	0		205	0		0	0	0		
Spillback Cap Reductn	0	0	0		0	0		79	0	7		
Storage Cap Reductn	0	0	0		0	0		0	0	0		
Reduced v/c Ratio	0.59	0.94	0.71		0.95	0.48		0.51	0.65	0.71		

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	87 (97%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	24.4
Intersection LOS:	C
Intersection Capacity Utilization:	79.0%
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.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35

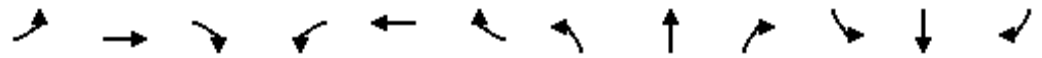
 12 s	 44 s	 23 s	 11 s
 12 s	 44 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land

PM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘	↑↑					↘		↗
Volume (vph)	0	1343	426	82	1338	0	0	0	0	45	0	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Flt Permitted				0.071						0.950		
Satd. Flow (perm)	0	3415	1558	140	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169									85
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		251			475			607			868	
Travel Time (s)		3.8			7.2			13.8			19.7	
Peak Hour Factor	0.76	0.76	0.76	0.78	0.78	0.78	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1767	561	105	1715	0	0	0	0	57	0	165
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1767	561	105	1715	0	0	0	0	57	0	165
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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	1	2					2		2
Detector Template												
Leading Detector (ft)		83	0	50	83					83		83
Trailing Detector (ft)		-5	0	0	-5					-5		-5
Detector 1 Position(ft)		-5	0	0	-5					-5		-5
Detector 1 Size(ft)		40	50	50	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43			43					43		43
Detector 2 Size(ft)		40			40					40		40
Detector 2 Type		Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



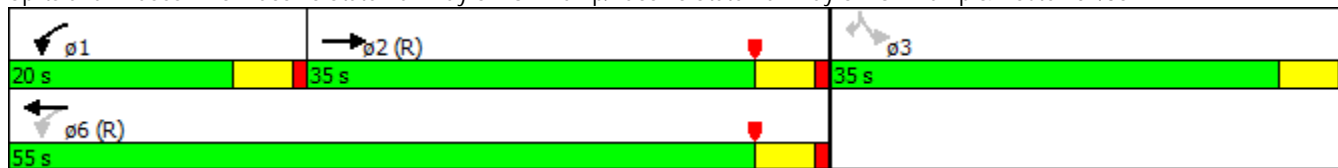
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		35.0		20.0	55.0					35.0		35.0
Total Split (%)		38.9%		22.2%	61.1%					38.9%		38.9%
Maximum Green (s)		30.0		15.0	50.0					30.0		30.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		62.5	90.0	71.3	71.3					10.7		10.7
Actuated g/C Ratio		0.69	1.00	0.79	0.79					0.12		0.12
v/c Ratio		0.74	0.36	0.44	0.61					0.27		0.63
Control Delay		6.8	0.4	16.5	1.3					37.5		29.2
Queue Delay		2.2	0.0	0.0	0.9					0.0		0.0
Total Delay		9.0	0.4	16.5	2.2					37.5		29.2
LOS		A	A	B	A					D		C
Approach Delay		6.9			3.0							
Approach LOS		A			A							
Queue Length 50th (ft)		135	0	9	14					30		43
Queue Length 95th (ft)		146	m0	m21	21					53		79
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2372	1558	419	2818					609		600
Starvation Cap Reductn		443	0	0	374					0		0
Spillback Cap Reductn		59	0	0	728					0		16
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.92	0.36	0.25	0.82					0.09		0.28

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 6.5
 Intersection LOS: A
 Intersection Capacity Utilization 81.2%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

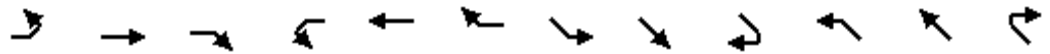


Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land

PM Peak Hour

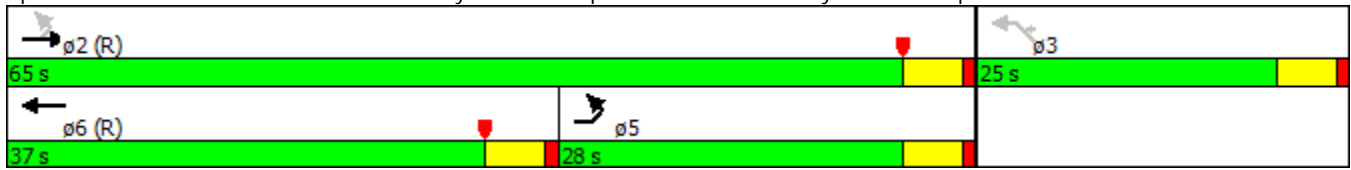
7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	397	991	0	0	981	81	0	0	0	440	0	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	300		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Frt					0.989							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3473	0	0	0	0	3554	0	1639
Flt Permitted	0.106									0.950		
Satd. Flow (perm)	187	1729	0	0	3473	0	0	0	0	3554	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					11							125
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1119
Travel Time (s)		7.2			8.2			17.8				25.4
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	446	1113	0	0	1022	84	0	0	0	494	0	406
Shared Lane Traffic (%)												
Lane Group Flow (vph)	446	1113	0	0	1106	0	0	0	0	494	0	406
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)		23			23			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
 1: Bear Mountain Pkwy. Ext. & Stoney Street

Saturday Peak Hour
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	9	66	23	1	99	40	80	200	13	92	637	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.961			0.991				0.972
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1885	1906	0	0	1799	0	1805	1883	0	1805	1847	0
Flt Permitted	0.363				0.998		0.117			0.587		
Satd. Flow (perm)	720	1906	0	0	1795	0	222	1883	0	1115	1847	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			21			4			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	10	73	26	1	109	44	89	222	14	97	671	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	99	0	0	154	0	89	236	0	97	823	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	88	88		50	88		88	88		88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	

2019 No-Build Traffic Volumes - With State Land
 1: Bear Mountain Pkwy. Ext. & Stoney Street

Saturday Peak Hour
 4/2/2015

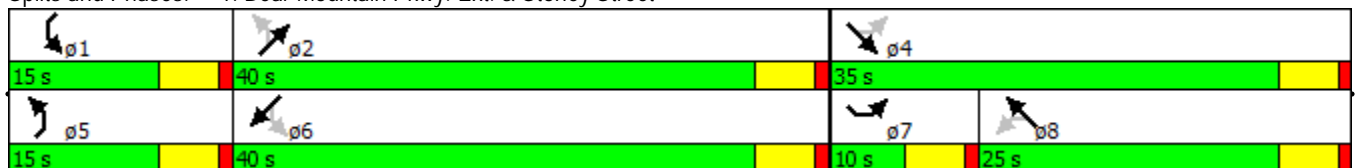


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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	Max		None	Max	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effect Green (s)	13.4	13.4			11.8		46.0	39.4		46.1	39.5	
Actuated g/C Ratio	0.19	0.19			0.17		0.65	0.56		0.65	0.56	
v/c Ratio	0.04	0.26			0.49		0.28	0.22		0.12	0.79	
Control Delay	21.9	20.3			28.9		7.4	11.3		5.4	23.3	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	21.9	20.3			28.9		7.4	11.3		5.4	23.3	
LOS	C	C			C		A	B		A	C	
Approach Delay		20.5			28.9			10.2			21.4	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)	4	28			50		9	46		10	253	
Queue Length 95th (ft)	15	65			118		38	134		41	#710	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	236	857			554		400	1052		869	1038	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.04	0.12			0.28		0.22	0.22		0.11	0.79	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 70.7
 Natural Cycle: 80
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 19.7
 Intersection LOS: B
 Intersection Capacity Utilization 65.2%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
 2: Stoney Street & Old Crompond Road

Saturday Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	75	204	247	74	99	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.901				0.927	
Flt Protected				0.963	0.978	
Satd. Flow (prot)	1670	0	0	1803	1672	0
Flt Permitted				0.963	0.978	
Satd. Flow (perm)	1670	0	0	1803	1672	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	85	232	426	128	109	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	317	0	0	554	239	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.8%
Analysis Period (min)	15
	ICU Level of Service B

Intersection									
Intersection Delay, s/veh	19.5								
Intersection LOS	C								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	75	204	0	247	74	0	99	118
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	85	232	0	426	128	0	109	130
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12	26.8	12.6
HCM LOS	B	D	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	46%	0%	77%
Vol Thru, %	0%	27%	23%
Vol Right, %	54%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	217	279	321
LT Vol	99	0	247
Through Vol	0	75	74
RT Vol	118	204	0
Lane Flow Rate	238	317	553
Geometry Grp	1	1	1
Degree of Util (X)	0.387	0.442	0.809
Departure Headway (Hd)	5.843	5.016	5.26
Convergence, Y/N	Yes	Yes	Yes
Cap	615	717	686
Service Time	3.894	3.059	3.294
HCM Lane V/C Ratio	0.387	0.442	0.806
HCM Control Delay	12.6	12	26.8
HCM Lane LOS	B	B	D
HCM 95th-tile Q	1.8	2.3	8.4

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	1214	262	274	803	46	254	54	366	232	126	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.991				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.968		0.950	0.984	
Satd. Flow (prot)	1770	3539	1552	1770	3719	0	1681	1713	1583	1698	1759	1546
Flt Permitted	0.318			0.154			0.950	0.968		0.950	0.984	
Satd. Flow (perm)	592	3539	1552	287	3719	0	1669	1705	1583	1698	1759	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			261		7				131			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	118	1278	288	304	845	51	282	60	407	258	140	94
Shared Lane Traffic (%)							41%			26%		
Lane Group Flow (vph)	118	1278	288	304	896	0	166	176	407	191	207	94
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

2019 No-Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



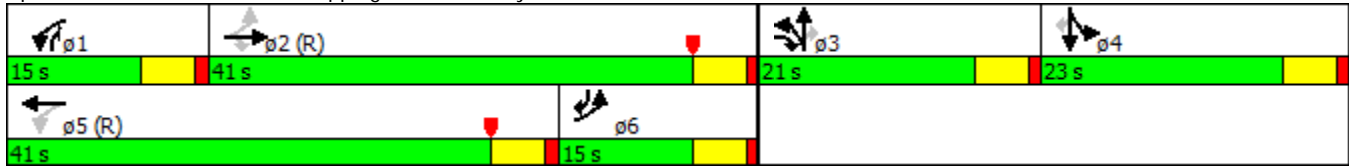
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	4.0
Minimum Split (s)	10.0	20.0	16.0	11.0	36.0		16.0	16.0	11.0	20.0	20.0	10.0
Total Split (s)	15.0	41.0	21.0	15.0	41.0		21.0	21.0	15.0	23.0	23.0	15.0
Total Split (%)	15.0%	41.0%	21.0%	15.0%	41.0%		21.0%	21.0%	15.0%	23.0%	23.0%	15.0%
Maximum Green (s)	10.0	36.0	16.0	10.0	36.0		16.0	16.0	10.0	18.0	18.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-0.7	-1.0	-1.0	0.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.3	4.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	37.0	36.7	56.2	41.1	40.1		15.2	15.2	30.3	16.7	16.7	27.7
Actuated g/C Ratio	0.37	0.37	0.56	0.41	0.40		0.15	0.15	0.30	0.17	0.17	0.28
v/c Ratio	0.34	0.98	0.29	0.89	0.60		0.65	0.67	0.71	0.67	0.71	0.18
Control Delay	29.2	53.8	2.5	36.0	18.1		51.9	53.1	19.7	51.2	52.6	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	53.8	2.5	36.0	18.1		51.9	53.1	19.7	51.2	52.6	1.9
LOS	C	D	A	D	B		D	D	B	D	D	A
Approach Delay		43.3			22.6			34.7				42.4
Approach LOS		D			C			C				D
Queue Length 50th (ft)	50	419	7	~157	231		104	110	93	120	130	0
Queue Length 95th (ft)	91	#574	41	m#206	m275		175	185	#168	194	209	11
Internal Link Dist (ft)		532			1422			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	348	1298	1009	341	1494		285	291	571	322	334	517
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.98	0.29	0.89	0.60		0.58	0.60	0.71	0.59	0.62	0.18

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 62 (62%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 35.6
 Intersection LOS: D
 Intersection Capacity Utilization 84.8%
 ICU Level of Service E
 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.
- m Volume for 95th percentile queue is metered by upstream signal.

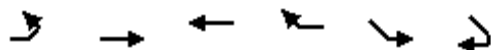
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 No-Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1811	1213	50	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.993		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3415	3637	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3415	3637	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.95	0.85	0.90	0.90
Adj. Flow (vph)	0	1867	1277	59	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1867	1336	0	4	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	60.1%
Analysis Period (min)	15
	ICU Level of Service B

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1811	1213	50	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	97	97	95	85	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1867	1277	59	2	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1336	0	668
Stage 1	-	-	1306
Stage 2	-	-	934
Critical Hdwy	4.14	-	7.94
Critical Hdwy Stg 1	-	-	7.84
Critical Hdwy Stg 2	-	-	7.84
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	*878	-	*586
Stage 1	-	-	*553
Stage 2	-	-	*204
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	*878	-	*586
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	*553
Stage 2	-	-	*204

Approach	EB	WB	SE
HCM Control Delay, s	0	0	100.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	* 878	-	-	-	42
HCM Lane V/C Ratio	-	-	-	-	0.106
HCM Control Delay (s)	0	-	-	-	100.6
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 No-Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	194	1580	39	115	921	542	44	5	81	438	5	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.996			0.943				0.850		0.888	
Fl _t Protected	0.950			0.950				0.957		0.950	0.988	
Satd. Flow (prot)	1699	3384	0	1832	3454	0	0	1818	1615	1681	1553	0
Fl _t Permitted	0.083			0.090				0.957		0.950	0.988	
Satd. Flow (perm)	148	3384	0	174	3454	0	0	1818	1615	1681	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			161				131		140	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		457			251			624			173	
Travel Time (s)		6.9			3.8			14.2			3.9	
Peak Hour Factor	0.92	0.95	0.90	0.91	0.95	0.92	0.90	0.92	0.90	0.92	0.92	0.92
Adj. Flow (vph)	211	1663	43	126	969	589	49	5	90	476	5	324
Shared Lane Traffic (%)										22%		
Lane Group Flow (vph)	211	1706	0	126	1558	0	0	54	90	371	434	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Size(ft)	88	88		88	88		88	88	50	88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		9.0	9.0	7.0	9.0	9.0	

2019 No-Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	53.0		9.0	47.0		10.0	10.0	9.0	28.0	28.0	
Total Split (%)	15.0%	53.0%		9.0%	47.0%		10.0%	10.0%	9.0%	28.0%	28.0%	
Maximum Green (s)	10.0	48.0		4.0	42.0		5.0	5.0	4.0	23.0	23.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0			-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)							5.0	5.0		5.0	5.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effect Green (s)	59.7	50.5		50.9	45.3			6.1	13.6	23.9	23.9	
Actuated g/C Ratio	0.60	0.50		0.51	0.45			0.06	0.14	0.24	0.24	
v/c Ratio	0.83	1.00		0.70	0.94			0.49	0.27	0.92	0.91	
Control Delay	48.6	28.9		46.5	22.6			61.0	4.6	67.9	49.9	
Queue Delay	0.0	23.8		0.0	0.7			0.0	0.0	0.0	0.7	
Total Delay	48.6	52.7		46.5	23.3			61.0	4.6	67.9	50.5	
LOS	D	D		D	C			E	A	E	D	
Approach Delay		52.3			25.1			25.8			58.5	
Approach LOS		D			C			C			E	
Queue Length 50th (ft)	98	-609		29	394			34	0	244	200	
Queue Length 95th (ft)	m120	m#665		#129	#111			#79	20	#426	#397	
Internal Link Dist (ft)		377			171			544			93	
Turn Bay Length (ft)	150			170					150			
Base Capacity (vph)	259	1711		180	1653			110	332	403	479	
Starvation Cap Reductn	0	0		0	17			0	0	0	0	
Spillback Cap Reductn	0	113		0	0			0	4	0	4	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.81	1.07		0.70	0.95			0.49	0.27	0.92	0.91	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 42.5 Intersection LOS: D
 Intersection Capacity Utilization 91.6% ICU Level of Service F
 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	1557	543	121	1393	0	0	0	0	64	0	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Flt Permitted				0.089						0.950		
Satd. Flow (perm)	0	3415	1558	176	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169									80
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.94	0.95	0.94	0.97	0.97	0.97	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1639	578	125	1436	0	0	0	0	71	0	193
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1639	578	125	1436	0	0	0	0	71	0	193
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1	1	1	1					1		1
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		88	0	88	88					88		88
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

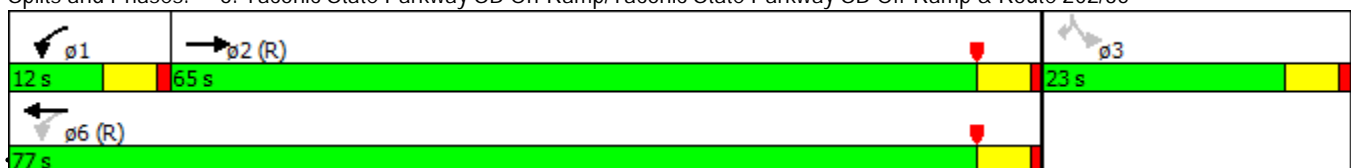


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		65.0		12.0	77.0					23.0		23.0
Total Split (%)		65.0%		12.0%	77.0%					23.0%		23.0%
Maximum Green (s)		60.0		7.0	72.0					18.0		18.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effect Green (s)		68.1	100.0	79.2	79.2					12.8		12.8
Actuated g/C Ratio		0.68	1.00	0.79	0.79					0.13		0.13
v/c Ratio		0.71	0.37	0.48	0.51					0.31		0.71
Control Delay		5.7	0.2	18.6	2.4					41.3		37.9
Queue Delay		13.5	0.0	0.0	0.8					0.2		0.1
Total Delay		19.2	0.2	18.6	3.2					41.5		38.0
LOS		B	A	B	A					D		D
Approach Delay		14.3			4.4							
Approach LOS		B			A							
Queue Length 50th (ft)		68	0	17	111					42		69
Queue Length 95th (ft)		m240	m0	m37	130					79		135
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2324	1558	278	2818					336		365
Starvation Cap Reductn		697	0	0	972					0		0
Spillback Cap Reductn		88	0	0	226					53		4
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		1.01	0.37	0.45	0.78					0.25		0.53

Intersection Summary

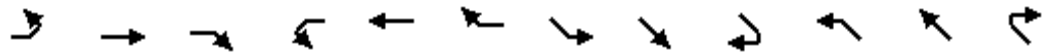
Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 31 (31%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 12.1 Intersection LOS: B
 Intersection Capacity Utilization 79.8% ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35



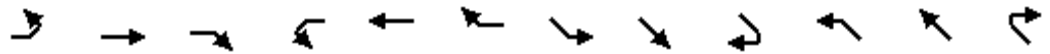
Two Way Analysis cannot be performed on Signalized Intersection.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	472	1148	0	0	1182	48	0	0	0	332	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	300		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Fr _t					0.994							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3489	0	0	0	0	3554	0	1639
Fl _t Permitted	0.082									0.950		
Satd. Flow (perm)	145	1729	0	0	3489	0	0	0	0	3554	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5							107
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.91	0.91	0.91	0.90	0.95	0.90	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	519	1262	0	0	1244	53	0	0	0	353	0	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	519	1262	0	0	1297	0	0	0	0	353	0	118
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)		23			23			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1					1		1
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	88	88			88					88		88
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

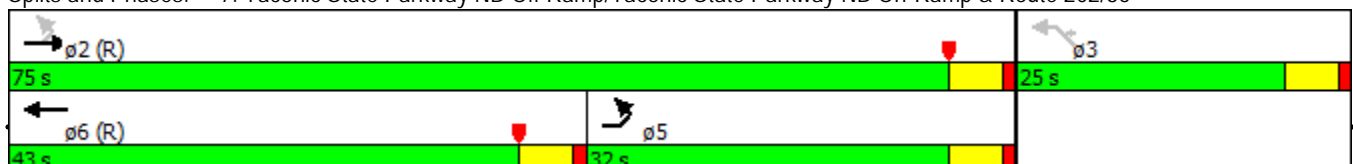


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	32.0	75.0			43.0					25.0		25.0
Total Split (%)	32.0%	75.0%			43.0%					25.0%		25.0%
Maximum Green (s)	27.0	70.0			38.0					20.0		20.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.5	-2.0			-1.0					-1.0		-1.0
Total Lost Time (s)	3.5	3.0			4.0					4.0		4.0
Lead/Lag	Lag			Lead								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					None		None
Act Effct Green (s)	77.0	77.5			44.5					15.5		15.5
Actuated g/C Ratio	0.77	0.78			0.44					0.16		0.16
v/c Ratio	0.95	0.94			0.83					0.64		0.34
Control Delay	44.9	22.2			31.2					44.8		11.5
Queue Delay	6.1	0.0			0.0					0.0		0.0
Total Delay	51.0	22.2			31.2					44.8		11.5
LOS	D	C			C					D		B
Approach Delay		30.6			31.2							
Approach LOS		C			C							
Queue Length 50th (ft)	292	607			371					110		6
Queue Length 95th (ft)	#490	#1098			#555					147		52
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)										300		530
Base Capacity (vph)	547	1339			1554					746		428
Starvation Cap Reductn	20	0			0					0		0
Spillback Cap Reductn	0	0			4					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.98	0.94			0.84					0.47		0.28

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 31.6 Intersection LOS: C
 Intersection Capacity Utilization 79.8% 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: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
 1: Bear Mountain Pkwy. Ext. & Stoney Street

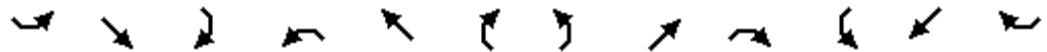
AM PEAK HOUR
 4/2/2015

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	90	130	52	2	33	26	22	208	2	149	297	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%			0%	
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957			0.943			0.999			0.996	
Flt Protected	0.950				0.998		0.950			0.950		
Satd. Flow (prot)	1885	1899	0	0	1762	0	1805	1898	0	1805	1892	0
Flt Permitted	0.578				0.980		0.556			0.459		
Satd. Flow (perm)	1147	1899	0	0	1730	0	1056	1898	0	872	1892	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			28			1			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	98	141	57	2	36	28	24	231	2	166	330	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	198	0	0	66	0	24	233	0	166	340	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		1	2		2	2		2	2	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	40	40		50	40		40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	43	43			43		43	43		43	43	
Detector 2 Size(ft)	40	40			40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	

2019 Build Traffic Volumes - With State Land
 1: Bear Mountain Pkwy. Ext. & Stoney Street

AM PEAK HOUR

4/2/2015










Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.5		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.5		5.0	5.0		5.0	5.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)	13.3	13.3			7.0		18.5	13.9		23.8	22.3	
Actuated g/C Ratio	0.28	0.28			0.15		0.38	0.29		0.49	0.46	
v/c Ratio	0.24	0.37			0.24		0.05	0.42		0.28	0.39	
Control Delay	16.0	15.3			17.6		7.9	19.7		8.6	12.2	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	16.0	15.3			17.6		7.9	19.7		8.6	12.2	
LOS	B	B			B		A	B		A	B	
Approach Delay		15.5			17.6			18.6			11.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	21	39			11		4	62		26	59	
Queue Length 95th (ft)	58	97			44		13	127		57	172	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	410	1275			766		636	1414		639	1410	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.24	0.16			0.09		0.04	0.16		0.26	0.24	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	48.1
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	14.3
Intersection Capacity Utilization:	43.7%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	A

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street

 ø1	 ø2	 ø4	
15 s	40 s	35 s	
 ø5	 ø6	 ø7	 ø8
15 s	40 s	10 s	25 s

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
2: Stoney Street & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	43	240	131	35	30	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.886				0.905	
Flt Protected				0.962	0.985	
Satd. Flow (prot)	1642	0	0	1801	1644	0
Flt Permitted				0.962	0.985	
Satd. Flow (perm)	1642	0	0	1801	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	267	146	39	33	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	0	185	110	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.1% ICU Level of Service A
Analysis Period (min)	15

Intersection									
Intersection Delay, s/veh	8.9								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	43	240	0	131	35	0	30	69
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	267	0	146	39	0	33	77
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.9	9.1	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	30%	0%	79%
Vol Thru, %	0%	15%	21%
Vol Right, %	70%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	99	283	166
LT Vol	30	0	131
Through Vol	0	43	35
RT Vol	69	240	0
Lane Flow Rate	110	314	184
Geometry Grp	1	1	1
Degree of Util (X)	0.141	0.34	0.238
Departure Headway (Hd)	4.615	3.896	4.651
Convergence, Y/N	Yes	Yes	Yes
Cap	777	924	773
Service Time	2.647	1.913	2.675
HCM Lane V/C Ratio	0.142	0.34	0.238
HCM Control Delay	8.4	8.9	9.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	1.5	0.9

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	1216	227	137	479	16	132	16	254	161	74	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.962		0.950	0.981	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1702	1583	1698	1753	1546
Flt Permitted	0.452			0.444			0.950	0.962		0.950	0.981	
Satd. Flow (perm)	842	3471	1552	827	3664	0	1666	1690	1583	1698	1753	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			218		3				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	71	1322	247	149	521	17	147	18	282	179	82	149
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	71	1322	247	149	538	0	79	86	282	129	132	149
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	19.0	19.0	49.0		19.0	19.0	19.0	23.0	23.0	19.0
Total Split (%)	17.3%	44.5%	17.3%	17.3%	44.5%		17.3%	17.3%	17.3%	20.9%	20.9%	17.3%
Maximum Green (s)	13.0	43.0	13.0	13.0	43.0		13.0	13.0	13.0	17.0	17.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.2	50.2	66.6	21.8	21.8		12.4	12.4	25.2	14.6	14.6	55.8
Actuated g/C Ratio	0.46	0.46	0.61	0.20	0.20		0.11	0.11	0.23	0.13	0.13	0.51
v/c Ratio	0.10	0.83	0.24	0.55	0.74		0.42	0.45	0.59	0.57	0.57	0.17
Control Delay	21.0	33.5	2.8	45.4	47.3		52.2	53.1	14.9	54.6	54.1	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	33.5	2.8	45.4	47.3		52.2	53.1	14.9	54.6	54.1	2.0
LOS	C	C	A	D	D		D	D	B	D	D	A
Approach Delay		28.3			46.9			28.9				35.3
Approach LOS		C			D			C				D
Queue Length 50th (ft)	28	427	8	93	187		55	61	54	91	93	0
Queue Length 95th (ft)	61	#623	44	147	233		106	112	102	152	154	21
Internal Link Dist (ft)		532			1437			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	731	1584	1045	286	1467		213	216	496	277	286	852
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.83	0.24	0.52	0.37		0.37	0.40	0.57	0.47	0.46	0.17

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

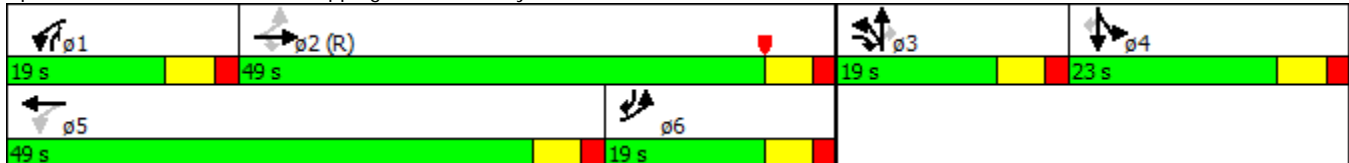
2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015

Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 33.3 Intersection LOS: C
 Intersection Capacity Utilization 74.9% 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.

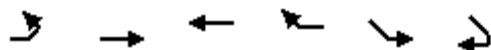
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1630	664	92	3	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.982		0.946	
Flt Protected					0.971	
Satd. Flow (prot)	0	3350	3536	0	1626	0
Flt Permitted					0.971	
Satd. Flow (perm)	0	3350	3536	0	1626	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1772	722	100	3	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1772	822	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.1%
Analysis Period (min)	15
	ICU Level of Service B

2019 Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1630	664	92	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	92	92	92	92	92	90
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1772	722	100	3	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	822	0	1658
Stage 1	-	-	772
Stage 2	-	-	886
Critical Hdwy	4.14	-	8.84
Critical Hdwy Stg 1	-	-	7.84
Critical Hdwy Stg 2	-	-	7.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	1073	-	62
Stage 1	-	-	645
Stage 2	-	-	222
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	1073	-	62
Mov Cap-2 Maneuver	-	-	62
Stage 1	-	-	645
Stage 2	-	-	222

Approach	EB	WB	SE
HCM Control Delay, s	0	0	43.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1073	-	-	-	99
HCM Lane V/C Ratio	-	-	-	-	0.055
HCM Control Delay (s)	0	-	-	-	43.5
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR

4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1577	13	45	674	121	23	1	36	80	1	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%			0%	
Storage Length (ft)	150		0	170		0	0		100	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.999			0.977				0.850		0.876	
Fl _t Protected	0.950			0.950				0.954		0.950	0.992	
Satd. Flow (prot)	1699	3329	0	1832	3520	0	0	1813	1615	1681	1538	0
Fl _t Permitted	0.290			0.071				0.954		0.950	0.992	
Satd. Flow (perm)	519	3329	0	137	3520	0	0	1813	1615	1681	1538	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			30				85		63	
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		457			251			624			252	
Travel Time (s)		6.9			3.8			14.2			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	47	1714	14	49	733	132	25	1	39	87	1	63
Shared Lane Traffic (%)										14%		
Lane Group Flow (vph)	47	1728	0	49	865	0	0	26	39	75	76	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		1	2	2	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		50	83	83	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		0	-5	-5	-5	-5	
Detector 1 Size(ft)	40	40		40	40		50	40	40	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43			43	43	43	43	
Detector 2 Size(ft)	40	40		40	40			40	40	40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	

2019 Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		10.0	10.0	7.0	10.0	10.0	
Total Split (s)	15.0	45.0		15.0	45.0		15.0	15.0	15.0	15.0	15.0	
Total Split (%)	16.7%	50.0%		16.7%	50.0%		16.7%	16.7%	16.7%	16.7%	16.7%	
Maximum Green (s)	10.0	40.0		10.0	40.0		10.0	10.0	10.0	10.0	10.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Act Effct Green (s)	66.0	60.8		66.9	63.0			8.0	12.7	9.6	7.6	
Actuated g/C Ratio	0.73	0.68		0.74	0.70			0.09	0.14	0.11	0.08	
v/c Ratio	0.10	0.77		0.20	0.35			0.16	0.13	0.42	0.41	
Control Delay	5.4	18.6		9.5	3.0			39.7	1.5	44.4	20.4	
Queue Delay	0.0	0.0		0.0	0.2			0.0	0.0	0.0	0.0	
Total Delay	5.4	18.6		9.5	3.1			39.7	1.5	44.4	20.4	
LOS	A	B		A	A			D	A	D	C	
Approach Delay		18.3			3.5			16.8			32.3	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)	4	308		1	8			14	0	42	7	
Queue Length 95th (ft)	21	#707		21	78			38	4	87	50	
Internal Link Dist (ft)		377			171			544			172	
Turn Bay Length (ft)	150			170					100			
Base Capacity (vph)	540	2249		311	2472			221	362	205	210	
Starvation Cap Reductn	0	0		0	720			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.09	0.77		0.16	0.49			0.12	0.11	0.37	0.36	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 14.3
 Intersection LOS: B
 Intersection Capacity Utilization 63.0%
 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: 5: Mohansic Avenue/COSTCO Access & Route 202/35

ø1	ø2 (R)	ø4	ø8
15 s	45 s	15 s	15 s
ø5	ø6 (R)		
15 s	45 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land

AM PEAK HOUR

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘	↑↑					↘		↗
Volume (vph)	0	919	773	323	738	0	0	0	0	92	0	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	3350	1558	1877	3490	0	0	0	0	1769	0	1583
Fl _t Permitted				0.220						0.950		
Satd. Flow (perm)	0	3350	1558	435	3490	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			447									113
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	999	840	351	802	0	0	0	0	102	0	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	999	840	351	802	0	0	0	0	102	0	113
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	2	2					2		2
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		40	50	40	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43		43	43					43		43
Detector 2 Size(ft)		40		40	40					40		40
Detector 2 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		50.0		20.0	70.0					20.0		20.0
Total Split (%)		55.6%		22.2%	77.8%					22.2%		22.2%
Maximum Green (s)		45.0		15.0	65.0					15.0		15.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		56.2	90.0	71.4	71.4					10.6		10.6
Actuated g/C Ratio		0.62	1.00	0.79	0.79					0.12		0.12
v/c Ratio		0.48	0.54	0.67	0.29					0.49		0.40
Control Delay		3.1	3.2	23.9	0.7					44.5		11.3
Queue Delay		0.7	0.0	0.0	0.0					0.0		0.0
Total Delay		3.8	3.2	23.9	0.7					44.5		11.3
LOS		A	A	C	A					D		B
Approach Delay		3.5			7.8							
Approach LOS		A			A							
Queue Length 50th (ft)		18	0	82	0					55		0
Queue Length 95th (ft)		27	311	162	24					100		45
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2091	1558	605	2768					314		374
Starvation Cap Reductn		687	0	0	0					0		0
Spillback Cap Reductn		127	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.71	0.54	0.58	0.29					0.32		0.30

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	12 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization:	58.4%
ICU Level of Service:	B
Analysis Period (min):	15

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

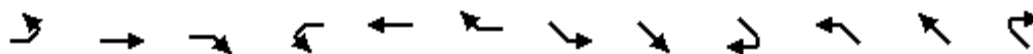


Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land

AM PEAK HOUR

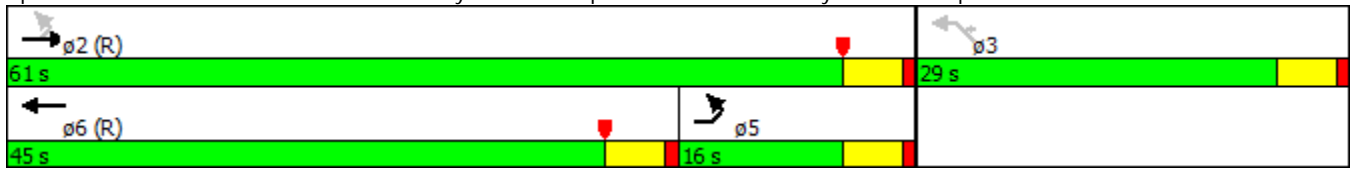
7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	138	872	0	0	886	13	0	0	0	175	0	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	300		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Frt					0.998							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1675	1695	0	0	3434	0	0	0	0	3554	0	1639
Flt Permitted	0.196									0.950		
Satd. Flow (perm)	346	1695	0	0	3434	0	0	0	0	3554	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					2							91
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	150	948	0	0	963	14	0	0	0	194	0	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	150	948	0	0	977	0	0	0	0	194	0	91
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)		23			23			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
 8: Old Crompond Road & Site Access

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	40	49	57	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.927		0.865	
Flt Protected		0.976				
Satd. Flow (prot)	0	1818	1727	0	1611	0
Flt Permitted		0.976				
Satd. Flow (perm)	0	1818	1727	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1020	1070		240	
Travel Time (s)		23.2	24.3		5.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	43	53	62	0	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	115	0	67	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection

Int Delay, s/veh 3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	40	40	49	57	0	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	43	53	62	0	67

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	115	0	214
Stage 1	-	-	84
Stage 2	-	-	130
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1474	-	774
Stage 1	-	-	939
Stage 2	-	-	896
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1474	-	751
Mov Cap-2 Maneuver	-	-	751
Stage 1	-	-	939
Stage 2	-	-	869

Approach	EB	WB	SB
HCM Control Delay, s	3.8	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1474	-	-	-	975
HCM Lane V/C Ratio	0.029	-	-	-	0.069
HCM Control Delay (s)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

2019 Build Traffic Volumes - With State Land
 1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	15	79	31	2	123	66	63	155	11	263	1005	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957			0.953			0.990			0.989	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1885	1899	0	0	1784	0	1805	1881	0	1805	1879	0
Flt Permitted	0.247				0.998		0.056			0.574		
Satd. Flow (perm)	490	1899	0	0	1781	0	106	1881	0	1091	1879	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			19			5			7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.76	0.76	0.76	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	18	96	38	2	148	80	83	204	14	313	1196	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	134	0	0	230	0	83	218	0	313	1294	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		3			3		1	6		5	2	
Permitted Phases	3			3			6			2		
Detector Phase	3	3		3	3		1	6		5	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		12.0	30.0		12.0	22.0	

2019 Build Traffic Volumes - With State Land
 1: Bear Mountain Parkway Ext. & Stoney Street

PM Peak Hour
 4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	23.0	23.0		23.0	23.0		13.0	77.0		20.0	84.0	
Total Split (%)	19.2%	19.2%		19.2%	19.2%		10.8%	64.2%		16.7%	70.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		6.0	70.0		13.0	77.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0		7.0	7.0		7.0	7.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)	8.0	8.0		8.0	8.0			7.0				
Flash Dont Walk (s)	17.0	17.0		17.0	17.0			10.0				
Pedestrian Calls (#/hr)	0	0		0	0			0				
Act Effect Green (s)	16.2	16.2			16.2		75.6	69.9		86.1	77.4	
Actuated g/C Ratio	0.14	0.14			0.14		0.65	0.60		0.74	0.67	
v/c Ratio	0.26	0.48			0.86		0.55	0.19		0.36	1.03	
Control Delay	55.9	47.8			74.8		30.2	11.0		5.6	54.1	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	55.9	47.8			74.8		30.2	11.0		5.6	54.1	
LOS	E	D			E		C	B		A	D	
Approach Delay		48.7			74.8			16.3			44.6	
Approach LOS		D			E			B			D	
Queue Length 50th (ft)	12	85			160		15	70		63	~1110	
Queue Length 95th (ft)	34	134			#250		45	93		85	#1219	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	76	308			294		158	1166		904	1260	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.24	0.44			0.78		0.53	0.19		0.35	1.03	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 115.6
 Natural Cycle: 120
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 44.2 Intersection LOS: D
 Intersection Capacity Utilization 90.0% ICU Level of Service E
 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: Bear Mountain Parkway Ext. & Stoney Street

 ø1	 ø2	 ø3
13 s	84 s	23 s
 ø5	 ø6	
20 s	77 s	

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
2: Stoney Street & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	92	244	412	102	114	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.902				0.924	
Flt Protected				0.961	0.979	
Satd. Flow (prot)	1672	0	0	1799	1668	0
Flt Permitted				0.961	0.979	
Satd. Flow (perm)	1672	0	0	1799	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	119	317	736	182	154	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	436	0	0	918	354	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	73.4%
Analysis Period (min)	15
	ICU Level of Service D

Intersection									
Intersection Delay, s/veh	42.4								
Intersection LOS	E								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	92	244	0	412	102	0	114	148
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	119	317	0	736	182	0	154	200
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.7	61.5	19.7
HCM LOS	C	F	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	44%	0%	80%
Vol Thru, %	0%	27%	20%
Vol Right, %	56%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	262	336	514
LT Vol	114	0	412
Through Vol	0	92	102
RT Vol	148	244	0
Lane Flow Rate	354	436	918
Geometry Grp	1	1	1
Degree of Util (X)	0.629	0.694	1
Departure Headway (Hd)	6.396	5.726	6.066
Convergence, Y/N	Yes	Yes	Yes
Cap	566	633	606
Service Time	4.412	3.749	4.103
HCM Lane V/C Ratio	0.625	0.689	1.515
HCM Control Delay	19.7	20.7	61.5
HCM Lane LOS	C	C	F
HCM 95th-tile Q	4.4	5.5	14.9

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1044	230	225	787	56	257	61	301	320	128	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.990				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.970		0.950	0.979	
Satd. Flow (prot)	1770	3539	1552	1770	3715	0	1681	1717	1583	1698	1750	1546
Flt Permitted	0.307			0.194			0.950	0.970		0.950	0.979	
Satd. Flow (perm)	572	3539	1552	361	3715	0	1671	1710	1583	1698	1750	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		8				145			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	138	1147	253	234	820	58	289	69	338	381	152	270
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	138	1147	253	234	878	0	173	185	338	271	262	270
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	31.6	31.6	47.8	31.7	31.7		13.2	13.2	24.4	18.1	18.1	29.1
Actuated g/C Ratio	0.35	0.35	0.53	0.35	0.35		0.15	0.15	0.27	0.20	0.20	0.32
v/c Ratio	0.40	0.92	0.27	0.78	0.67		0.70	0.73	0.63	0.80	0.75	0.46
Control Delay	31.2	43.0	2.4	25.8	16.9		52.6	54.8	14.0	51.9	47.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	43.0	2.4	25.8	16.9		52.6	54.8	14.0	51.9	47.5	8.2
LOS	C	D	A	C	B		D	D	B	D	D	A
Approach Delay		35.3			18.8			34.5			35.8	
Approach LOS		D			B			C			D	
Queue Length 50th (ft)	57	~344	0	76	197		98	106	47	150	144	29
Queue Length 95th (ft)	103	#490	35	m95	m247		#183	#197	92	222	212	57
Internal Link Dist (ft)		532			1432			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	346	1241	953	305	1314		261	267	538	377	388	590
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.92	0.27	0.77	0.67		0.66	0.69	0.63	0.72	0.68	0.46

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92

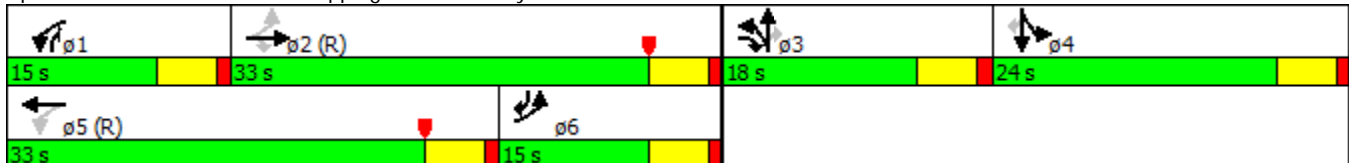
2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015

Intersection Signal Delay: 30.8 Intersection LOS: C
 Intersection Capacity Utilization 79.2% 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.
- m Volume for 95th percentile queue is metered by upstream signal.

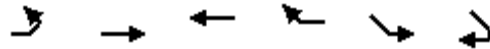
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1666	1144	136	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.984		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3350	3542	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3350	3542	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1960	1230	146	1	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1960	1376	0	2	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.1%
Analysis Period (min)	15
	ICU Level of Service B

2019 Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1666	1144	136	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	85	85	93	93	80	80
Heavy Vehicles, %	2	4	4	2	2	2
Mvmt Flow	0	1960	1230	146	1	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1376	0	688
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	7.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	785	-	*633
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	785	-	*633
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SE
HCM Control Delay, s	0	0	131.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	785	-	-	-	31
HCM Lane V/C Ratio	-	-	-	-	0.081
HCM Control Delay (s)	0	-	-	-	131.1
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 Build Traffic Volumes - With State Land
5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1499	41	160	1042	357	46	3	94	291	3	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.996			0.963				0.850		0.894	
Fl _t Protected	0.950			0.950				0.954		0.950	0.986	
Satd. Flow (prot)	1699	3384	0	1832	3528	0	0	1813	1615	1681	1560	0
Fl _t Permitted	0.094			0.093				0.954		0.950	0.986	
Satd. Flow (perm)	168	3384	0	179	3528	0	0	1813	1615	1681	1560	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			64				85			120
Link Speed (mph)		45			45			30				30
Link Distance (ft)		457			251			624				331
Travel Time (s)		6.9			3.8			14.2				7.5
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.92	0.65	0.92	0.65	0.92	0.92	0.92
Adj. Flow (vph)	137	1629	45	182	1184	388	71	3	145	316	3	209
Shared Lane Traffic (%)										27%		
Lane Group Flow (vph)	137	1674	0	182	1572	0	0	74	145	231	297	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2		2	2		2	2	1	2	2	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		5	-5	0	-5	-5	
Detector 1 Size(ft)	40	40		40	40		40	40	50	40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	43	43		43	43		43	43		43	43	
Detector 2 Size(ft)	40	40		40	40		40	40		40	40	
Detector 2 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	

2019 Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	2		6				8					
Detector Phase	5	2	1		6	8		8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
Minimum Split (s)	9.0	10.0	9.0		9.0	9.0		9.0	9.0	9.0	9.0	
Total Split (s)	12.0	44.0	12.0		44.0	11.0		11.0	12.0	23.0	23.0	
Total Split (%)	13.3%	48.9%	13.3%		48.9%	12.2%		12.2%	13.3%	25.6%	25.6%	
Maximum Green (s)	7.0	39.0	7.0		39.0	6.0		6.0	7.0	18.0	18.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0		0.0	0.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0		5.0	5.0	4.0	4.0	
Lead/Lag	Lead	Lag	Lead		Lag	Lead						
Lead-Lag Optimize?	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	3.0	
Recall Mode	None	C-Max	None		C-Max	None		None	None	None	None	
Walk Time (s)							5.0	5.0			5.0	5.0
Flash Dont Walk (s)							11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)							0	0			0	0
Act Effct Green (s)	51.5	43.6	52.1		43.9	7.3		16.4	17.0	17.0	17.0	
Actuated g/C Ratio	0.57	0.48	0.58		0.49	0.08		0.18	0.19	0.19	0.19	
v/c Ratio	0.59	1.02	0.72		0.90	0.50		0.40	0.73	0.76	0.76	
Control Delay	26.6	39.4	33.0		19.7	52.4		17.7	47.9	33.2	33.2	
Queue Delay	0.0	2.4	0.0		13.8	0.0		1.1	0.0	0.2	0.2	
Total Delay	26.6	41.8	33.0		33.5	52.4		18.8	47.9	33.4	33.4	
LOS	C	D	C		C	D		B	D	C	C	
Approach Delay	40.7				33.5	30.1				39.7		
Approach LOS	D				C	C				D		
Queue Length 50th (ft)	44	-566	50		417	41		29	127	97	97	
Queue Length 95th (ft)	m61	m#674	m#136		#582	#91		44	210	#197	#197	
Internal Link Dist (ft)	377				171	544				251		
Turn Bay Length (ft)	150				170			150				
Base Capacity (vph)	234	1641	255		1752	148		364	354	424	424	
Starvation Cap Reductn	0	0	0		203	0		0	0	0	0	
Spillback Cap Reductn	0	12	0		0	0		84	0	8	8	
Storage Cap Reductn	0	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.59	1.03	0.71		1.01	0.50		0.52	0.65	0.71	0.71	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 87 (97%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 37.1
 Intersection LOS: D
 Intersection Capacity Utilization 82.3%
 ICU Level of Service E
 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.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35

 12 s	 44 s	 23 s	 11 s
 12 s	 44 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land

PM Peak Hour

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	1439	446	82	1409	0	0	0	0	45	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t			0.850									0.850
Fl _t Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Fl _t Permitted				0.062						0.950		
Satd. Flow (perm)	0	3415	1558	123	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			165									85
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.76	0.76	0.76	0.78	0.78	0.78	0.92	0.92	0.92	0.79	0.79	0.79
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1893	587	105	1806	0	0	0	0	57	0	190
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1893	587	105	1806	0	0	0	0	57	0	190
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	0	1	2					2		2
Detector Template												
Leading Detector (ft)		83	0	50	83					83		83
Trailing Detector (ft)		-5	0	0	-5					-5		-5
Detector 1 Position(ft)		-5	0	0	-5					-5		-5
Detector 1 Size(ft)		40	50	50	40					40		40
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		43			43					43		43
Detector 2 Size(ft)		40			40					40		40
Detector 2 Type		Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/255



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		35.0		20.0	55.0					35.0		35.0
Total Split (%)		38.9%		22.2%	61.1%					38.9%		38.9%
Maximum Green (s)		30.0		15.0	50.0					30.0		30.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effct Green (s)		61.1	90.0	70.0	70.0					12.0		12.0
Actuated g/C Ratio		0.68	1.00	0.78	0.78					0.13		0.13
v/c Ratio		0.82	0.38	0.46	0.65					0.24		0.67
Control Delay		8.9	0.4	18.5	2.0					35.2		31.2
Queue Delay		6.3	0.0	0.0	2.2					0.0		0.1
Total Delay		15.2	0.4	18.5	4.2					35.2		31.3
LOS		B	A	B	A					D		C
Approach Delay		11.7			5.0							
Approach LOS		B			A							
Queue Length 50th (ft)		144	0	12	17					30		56
Queue Length 95th (ft)		154	m0	m23	25					52		93
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2317	1558	407	2765					609		600
Starvation Cap Reductn		383	0	0	388					0		0
Spillback Cap Reductn		21	0	0	782					0		36
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.98	0.38	0.26	0.91					0.09		0.34

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	10.0
Intersection LOS:	B
Intersection Capacity Utilization:	84.3%
ICU Level of Service:	E
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

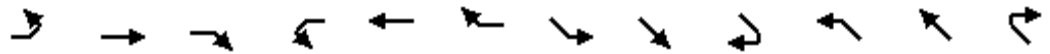
↙ ø1 20 s	→ ø2 (R) 35 s	↘ ø3 35 s
← ø6 (R) 55 s		

Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land

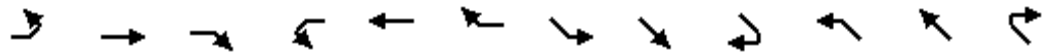
PM Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	433	1051	0	0	1028	81	0	0	0	463	0	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	300		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Frt					0.989							0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3473	0	0	0	0	3554	0	1639
Flt Permitted	0.105									0.950		
Satd. Flow (perm)	185	1729	0	0	3473	0	0	0	0	3554	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					10							108
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1119
Travel Time (s)		7.2			8.2			17.8				25.4
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	487	1181	0	0	1071	84	0	0	0	520	0	406
Shared Lane Traffic (%)												
Lane Group Flow (vph)	487	1181	0	0	1155	0	0	0	0	520	0	406
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)		23			23			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	2			2					2		2
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	40	40			40					40		40
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Detector 2 Position(ft)	43	43			43					43		43
Detector 2 Size(ft)	40	40			40					40		40
Detector 2 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	28.0	65.0			37.0					25.0		25.0
Total Split (%)	31.1%	72.2%			41.1%					27.8%		27.8%
Maximum Green (s)	23.0	60.0			32.0					20.0		20.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.0	-1.0			-1.0					-1.0		-1.0
Total Lost Time (s)	4.0	4.0			4.0					4.0		4.0
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					None		None
Act Effct Green (s)	62.1	62.1			34.1					19.9		19.9
Actuated g/C Ratio	0.69	0.69			0.38					0.22		0.22
v/c Ratio	0.93	0.99			0.87					0.66		0.91
Control Delay	36.5	25.7			35.2					36.3		51.2
Queue Delay	0.0	25.4			0.0					0.0		0.0
Total Delay	36.5	51.1			35.2					36.3		51.2
LOS	D	D			D					D		D
Approach Delay		46.8			35.2							
Approach LOS		D			D							
Queue Length 50th (ft)	220	~739			320					137		168
Queue Length 95th (ft)	m#372	#977			#450					187		#327
Internal Link Dist (ft)		395			460			701			1039	
Turn Bay Length (ft)										300		530
Base Capacity (vph)	524	1192			1321					829		465
Starvation Cap Reductn	0	88			0					0		0
Spillback Cap Reductn	0	0			0					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	0.93	1.07			0.87					0.63		0.87

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 74 (82%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 42.2
 Intersection LOS: D
 Intersection Capacity Utilization 84.3%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

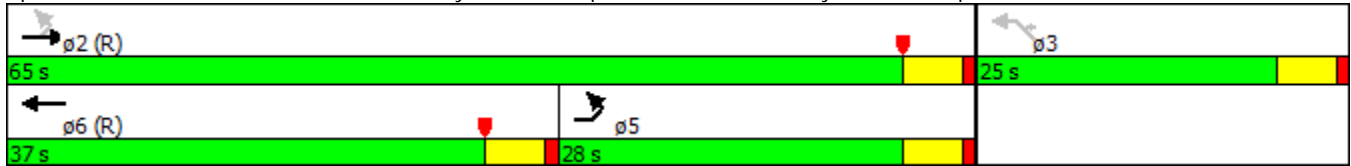
7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
 8: Old Crompond Road & Site Access

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	108	143	64	0	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.958		0.865	
Flt Protected		0.985				
Satd. Flow (prot)	0	1835	1785	0	1611	0
Flt Permitted		0.985				
Satd. Flow (perm)	0	1835	1785	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1014	1058		274	
Travel Time (s)		23.0	24.0		6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	117	155	70	0	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	166	225	0	145	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes - With State Land
8: Old Crompond Road & Site Access

PM Peak Hour
4/2/2015

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	45	108	143	64	0	133
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	117	155	70	0	145

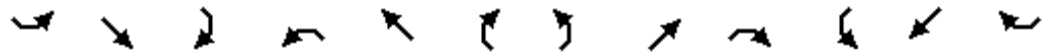
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	225	0	405
Stage 1	-	-	190
Stage 2	-	-	215
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1344	-	602
Stage 1	-	-	842
Stage 2	-	-	821
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1344	-	579
Mov Cap-2 Maneuver	-	-	579
Stage 1	-	-	842
Stage 2	-	-	789

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1344	-	-	-	852
HCM Lane V/C Ratio	0.036	-	-	-	0.17
HCM Control Delay (s)	7.8	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

2019 Build Traffic Volumes - With State Land
1: Bear Mountain Pkwy. Ext. & Stoney Street

Saturday Peak Hour
4/2/2015



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	9	70	23	1	102	65	80	200	13	119	637	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-13%			-1%			0%				0%
Storage Length (ft)	100		0	0		0	200		0	200		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.962			0.948			0.991			0.972	
Flt Protected	0.950						0.950			0.950		
Satd. Flow (prot)	1885	1908	0	0	1775	0	1805	1883	0	1805	1847	0
Flt Permitted	0.321				0.999		0.106			0.581		
Satd. Flow (perm)	637	1908	0	0	1773	0	201	1883	0	1104	1847	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			33			4			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		353			539			433			768	
Travel Time (s)		8.0			12.3			9.8			17.5	
Peak Hour Factor	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	10	78	26	1	112	71	89	222	14	125	671	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	104	0	0	184	0	89	236	0	125	823	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)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	83	83		50	83		83	83		83	83	
Trailing Detector (ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Position(ft)	-5	-5		0	-5		-5	-5		-5	-5	
Detector 1 Size(ft)	88	88		50	88		88	88		88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.0	21.0		9.0	21.0	

2019 Build Traffic Volumes - With State Land
 1: Bear Mountain Pkwy. Ext. & Stoney Street

Saturday Peak Hour
 4/2/2015

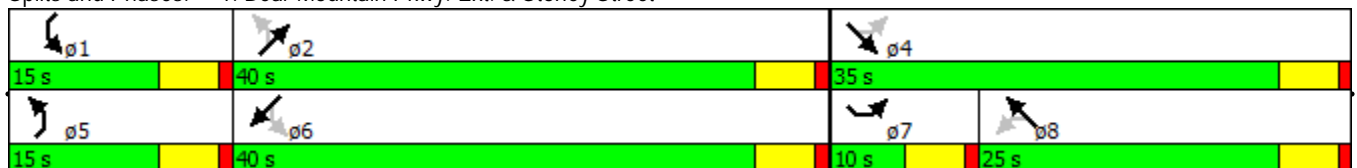


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	10.0	35.0		25.0	25.0		15.0	40.0		15.0	40.0	
Total Split (%)	11.1%	38.9%		27.8%	27.8%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	30.0		20.0	20.0		10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	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	Max		None	Max	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effect Green (s)	14.2	14.2			12.6		44.8	38.3		45.5	38.7	
Actuated g/C Ratio	0.20	0.20			0.18		0.63	0.54		0.64	0.55	
v/c Ratio	0.04	0.26			0.54		0.29	0.23		0.16	0.81	
Control Delay	21.8	20.9			28.3		8.2	12.1		5.9	24.6	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	21.8	20.9			28.3		8.2	12.1		5.9	24.6	
LOS	C	C			C		A	B		A	C	
Approach Delay		21.0			28.3			11.0			22.1	
Approach LOS		C			C			B			C	
Queue Length 50th (ft)	4	31			57		9	49		13	262	
Queue Length 95th (ft)	15	69			135		41	140		54	#732	
Internal Link Dist (ft)		273			459			353			688	
Turn Bay Length (ft)	100						200			200		
Base Capacity (vph)	236	863			559		387	1024		849	1018	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.04	0.12			0.33		0.23	0.23		0.15	0.81	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 70.6
 Natural Cycle: 80
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 20.5
 Intersection LOS: C
 Intersection Capacity Utilization 66.9%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Bear Mountain Pkwy. Ext. & Stoney Street



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
 2: Stoney Street & Old Crompond Road

Saturday Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	106	204	389	103	99	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.911				0.917	
Flt Protected				0.962	0.981	
Satd. Flow (prot)	1688	0	0	1801	1659	0
Flt Permitted				0.962	0.981	
Satd. Flow (perm)	1688	0	0	1801	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	120	232	671	178	109	176
Shared Lane Traffic (%)						
Lane Group Flow (vph)	352	0	0	849	285	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	70.4%
Analysis Period (min)	15
	ICU Level of Service C

Intersection									
Intersection Delay, s/veh	39.8								
Intersection LOS	E								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	106	204	0	389	103	0	99	160
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	120	232	0	671	178	0	109	176
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.3	58.7	14.8
HCM LOS	B	F	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	38%	0%	79%
Vol Thru, %	0%	34%	21%
Vol Right, %	62%	66%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	259	310	492
LT Vol	99	0	389
Through Vol	0	106	103
RT Vol	160	204	0
Lane Flow Rate	285	352	848
Geometry Grp	1	1	1
Degree of Util (X)	0.482	0.524	1
Departure Headway (Hd)	6.091	5.35	5.59
Convergence, Y/N	Yes	Yes	Yes
Cap	589	666	653
Service Time	4.164	3.449	3.59
HCM Lane V/C Ratio	0.484	0.529	1.299
HCM Control Delay	14.8	14.3	58.7
HCM Lane LOS	B	B	F
HCM 95th-tile Q	2.6	3.1	15.5

Two Way Analysis cannot be performed on an All Way Stop Intersection.

2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	1214	262	274	806	46	254	58	366	332	130	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.991				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950	0.978	
Satd. Flow (prot)	1770	3539	1552	1770	3719	0	1681	1715	1583	1698	1748	1546
Flt Permitted	0.317			0.154			0.950	0.969		0.950	0.978	
Satd. Flow (perm)	590	3539	1552	287	3719	0	1669	1707	1583	1698	1748	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			255		7				131			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	160	1278	288	304	848	51	282	64	407	369	144	137
Shared Lane Traffic (%)							40%			31%		
Lane Group Flow (vph)	160	1278	288	304	899	0	169	177	407	255	258	137
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

2019 Build Traffic Volumes - With State Land
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	4.0
Minimum Split (s)	10.0	20.0	16.0	11.0	36.0		16.0	16.0	11.0	20.0	20.0	10.0
Total Split (s)	15.0	41.0	21.0	15.0	41.0		21.0	21.0	15.0	23.0	23.0	15.0
Total Split (%)	15.0%	41.0%	21.0%	15.0%	41.0%		21.0%	21.0%	15.0%	23.0%	23.0%	15.0%
Maximum Green (s)	10.0	36.0	16.0	10.0	36.0		16.0	16.0	10.0	18.0	18.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-0.7	-1.0	-1.0	0.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.3	4.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	37.0	36.7	56.4	39.4	38.4		15.4	15.4	28.8	18.2	18.2	29.2
Actuated g/C Ratio	0.37	0.37	0.56	0.39	0.38		0.15	0.15	0.29	0.18	0.18	0.29
v/c Ratio	0.46	0.98	0.29	0.98	0.63		0.66	0.67	0.74	0.83	0.81	0.25
Control Delay	33.1	53.8	2.7	45.5	18.4		52.0	52.7	21.2	61.9	59.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.1	53.8	2.7	45.5	18.4		52.0	52.7	21.2	61.9	59.8	4.1
LOS	C	D	A	D	B		D	D	C	E	E	A
Approach Delay		43.3			25.2			35.5				48.9
Approach LOS		D			C			D				D
Queue Length 50th (ft)	70	419	8	~169	240		105	111	93	164	166	2
Queue Length 95th (ft)	119	#574	43	m#182	m254		178	186	#168	#295	#293	28
Internal Link Dist (ft)		532			1422			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	348	1298	1007	311	1431		285	291	549	322	332	538
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.98	0.29	0.98	0.63		0.59	0.61	0.74	0.79	0.78	0.25

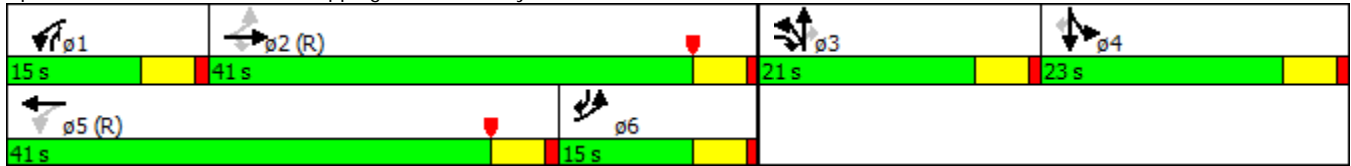
Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 62 (62%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 37.8
 Intersection LOS: D
 Intersection Capacity Utilization 87.0%
 ICU Level of Service E
 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.

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

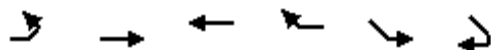
Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

2019 Build Traffic Volumes - With State Land
4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1912	1213	155	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.982		0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	3415	3597	0	1610	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	3415	3597	0	1610	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.95	0.90	0.90	0.90
Adj. Flow (vph)	0	1971	1277	172	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1971	1449	0	4	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	62.9%
Analysis Period (min)	15
	ICU Level of Service B

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SEL	SER
Vol, veh/h	0	1912	1213	155	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	7	-7	-	10	-
Peak Hour Factor	97	97	95	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1971	1277	172	2	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1449	0	2349
Stage 1	-	-	1363
Stage 2	-	-	986
Critical Hdwy	4.14	-	8.84
Critical Hdwy Stg 1	-	-	7.84
Critical Hdwy Stg 2	-	-	7.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	782	-	*14
Stage 1	-	-	*553
Stage 2	-	-	*186
Platoon blocked, %	1	-	1
Mov Cap-1 Maneuver	782	-	*14
Mov Cap-2 Maneuver	-	-	*14
Stage 1	-	-	*553
Stage 2	-	-	*186

Approach	EB	WB	SE
HCM Control Delay, s	0	0	163
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	782	-	-	-	27
HCM Lane V/C Ratio	-	-	-	-	0.165
HCM Control Delay (s)	0	-	-	-	163
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2019 Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	194	1679	40	115	1023	542	46	5	81	438	5	298
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	16	12	12	12	12	12
Grade (%)		8%			-7%			-4%				0%
Storage Length (ft)	150		0	170		0	0		150	0		0
Storage Lanes	1		0	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	1.00
Fr _t		0.996			0.947				0.850		0.888	
Fl _t Protected	0.950			0.950				0.956		0.950	0.988	
Satd. Flow (prot)	1699	3384	0	1832	3469	0	0	1816	1615	1681	1553	0
Fl _t Permitted	0.083			0.090				0.956		0.950	0.988	
Satd. Flow (perm)	148	3384	0	174	3469	0	0	1816	1615	1681	1553	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			129				131			140
Link Speed (mph)		45			45			30				30
Link Distance (ft)		457			251			624				173
Travel Time (s)		6.9			3.8			14.2				3.9
Peak Hour Factor	0.92	0.95	0.87	0.91	0.95	0.92	0.90	0.92	0.90	0.92	0.92	0.92
Adj. Flow (vph)	211	1767	46	126	1077	589	51	5	90	476	5	324
Shared Lane Traffic (%)										22%		
Lane Group Flow (vph)	211	1813	0	126	1666	0	0	56	90	371	434	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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.96	0.96	0.96	0.82	0.97	0.97	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template												
Leading Detector (ft)	83	83		83	83		83	83	50	83	83	
Trailing Detector (ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Position(ft)	-5	-5		-5	-5		-5	-5	0	-5	-5	
Detector 1 Size(ft)	88	88		88	88		88	88	50	88	88	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases	5	2		1	6		8	8	1	4	4	
Permitted Phases	2			6					8			
Detector Phase	5	2		1	6		8	8	1	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		1.0	1.0		4.0	4.0	1.0	4.0	4.0	
Minimum Split (s)	9.0	10.0		7.0	9.0		9.0	9.0	7.0	9.0	9.0	

2019 Build Traffic Volumes - With State Land
 5: Mohansic Avenue/COSTCO Access & Route 202/35

Saturday Peak Hour
 4/2/2015




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	53.0		9.0	47.0		10.0	10.0	9.0	28.0	28.0	
Total Split (%)	15.0%	53.0%		9.0%	47.0%		10.0%	10.0%	9.0%	28.0%	28.0%	
Maximum Green (s)	10.0	48.0		4.0	42.0		5.0	5.0	4.0	23.0	23.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0			-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag				Lead			
Lead-Lag Optimize?	Yes	Yes		Yes	Yes				Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)							5.0	5.0		5.0	5.0	
Flash Dont Walk (s)							11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)							0	0		0	0	
Act Effect Green (s)	59.7	50.5		50.9	45.3			6.1	13.6	23.9	23.9	
Actuated g/C Ratio	0.60	0.50		0.51	0.45			0.06	0.14	0.24	0.24	
v/c Ratio	0.83	1.06		0.70	1.01			0.51	0.27	0.92	0.91	
Control Delay	45.6	50.1		46.2	38.2			62.5	4.6	67.9	49.9	
Queue Delay	0.0	17.0		0.0	3.1			0.0	0.0	0.0	1.0	
Total Delay	45.6	67.1		46.2	41.3			62.5	4.7	67.9	50.9	
LOS	D	E		D	D			E	A	E	D	
Approach Delay		64.8			41.6			26.8			58.7	
Approach LOS		E			D			C			E	
Queue Length 50th (ft)	99	-688		32	-85			35	0	244	200	
Queue Length 95th (ft)	m116	m#751		m#126	#721			#83	20	#426	#397	
Internal Link Dist (ft)		377			171			544			93	
Turn Bay Length (ft)	150			170					150			
Base Capacity (vph)	259	1711		180	1643			110	332	403	479	
Starvation Cap Reductn	0	0		0	16			0	0	0	0	
Spillback Cap Reductn	0	166		0	0			0	5	0	6	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.81	1.17		0.70	1.02			0.51	0.28	0.92	0.92	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 53.9 Intersection LOS: D
 Intersection Capacity Utilization 94.4% ICU Level of Service F
 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Mohansic Avenue/COSTCO Access & Route 202/35

 ø1	 ø2 (R)	 ø4	 ø8
9 s	53 s	28 s	10 s
 ø5	 ø6 (R)		
15 s	47 s		

Two Way Analysis cannot be performed on Signalized Intersection.

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/355



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Volume (vph)	0	1639	560	121	1473	0	0	0	0	64	0	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Grade (%)		7%			-8%			0%				4%
Storage Length (ft)	0		150	300		0	0		0	0		130
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3415	1558	1877	3558	0	0	0	0	1769	0	1583
Flt Permitted				0.071						0.950		
Satd. Flow (perm)	0	3415	1558	140	3558	0	0	0	0	1769	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			165									76
Link Speed (mph)		45			45			30				30
Link Distance (ft)		251			475			607				868
Travel Time (s)		3.8			7.2			13.8				19.7
Peak Hour Factor	0.94	0.95	0.94	0.97	0.97	0.97	0.92	0.92	0.92	0.90	0.72	0.90
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	1725	596	125	1519	0	0	0	0	71	0	219
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1725	596	125	1519	0	0	0	0	71	0	219
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.05	1.05	1.05	0.95	0.99	0.95	1.00	1.00	1.00	1.03	1.03	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		1	1	1	1					1		1
Detector Template												
Leading Detector (ft)		83	0	83	83					83		83
Trailing Detector (ft)		-5	0	-5	-5					-5		-5
Detector 1 Position(ft)		-5	0	-5	-5					-5		-5
Detector 1 Size(ft)		88	0	88	88					88		88
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Turn Type		NA	Free	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			Free	6						3		3
Detector Phase		2		1	6					3		3
Switch Phase												
Minimum Initial (s)		10.0		3.0	10.0					5.0		5.0

6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35

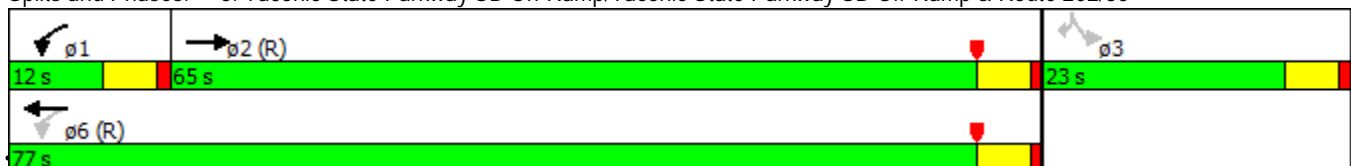


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)		16.0		9.0	16.0					11.0		11.0
Total Split (s)		65.0		12.0	77.0					23.0		23.0
Total Split (%)		65.0%		12.0%	77.0%					23.0%		23.0%
Maximum Green (s)		60.0		7.0	72.0					18.0		18.0
Yellow Time (s)		4.0		4.0	4.0					4.0		4.0
All-Red Time (s)		1.0		1.0	1.0					1.0		1.0
Lost Time Adjust (s)		-1.0		-1.0	-1.0					-1.0		-1.0
Total Lost Time (s)		4.0		4.0	4.0					4.0		4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Vehicle Extension (s)		2.0		2.0	2.0					2.0		2.0
Recall Mode		C-Max		None	C-Max					None		None
Act Effect Green (s)		66.5	100.0	77.8	77.8					14.2		14.2
Actuated g/C Ratio		0.66	1.00	0.78	0.78					0.14		0.14
v/c Ratio		0.76	0.38	0.53	0.55					0.28		0.76
Control Delay		6.7	0.2	25.4	4.0					39.5		42.8
Queue Delay		40.5	0.0	0.0	1.3					0.2		0.2
Total Delay		47.2	0.2	25.4	5.3					39.7		42.9
LOS		D	A	C	A					D		D
Approach Delay		35.1			6.8							
Approach LOS		D			A							
Queue Length 50th (ft)		70	0	23	126					41		87
Queue Length 95th (ft)		m237	m0	m48	143					79		162
Internal Link Dist (ft)		171			395			527			788	
Turn Bay Length (ft)			150	300								130
Base Capacity (vph)		2271	1558	251	2768					336		362
Starvation Cap Reductn		678	0	0	961					0		0
Spillback Cap Reductn		165	0	0	357					55		7
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		1.08	0.38	0.50	0.84					0.25		0.62

Intersection Summary

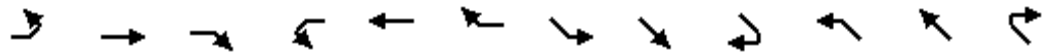
Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 31 (31%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 24.7 Intersection LOS: C
 Intersection Capacity Utilization 83.8% ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Taconic State Parkway SB On-Ramp/Taconic State Parkway SB Off-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/355

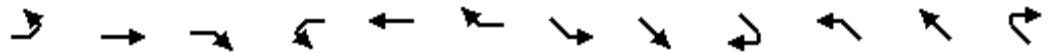


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	503	1199	0	0	1235	48	0	0	0	359	0	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		8%			-5%			0%				-3%
Storage Length (ft)	0		0	0		350	0		0	300		530
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00
Fr _t					0.994							0.850
Fl _t Protected	0.950									0.950		
Satd. Flow (prot)	1675	1729	0	0	3488	0	0	0	0	3554	0	1639
Fl _t Permitted	0.080									0.950		
Satd. Flow (perm)	141	1729	0	0	3488	0	0	0	0	3554	0	1639
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5							96
Link Speed (mph)		45			45			30				30
Link Distance (ft)		475			540			781				1112
Travel Time (s)		7.2			8.2			17.8				25.3
Peak Hour Factor	0.91	0.91	0.91	0.90	0.95	0.90	0.92	0.92	0.92	0.94	0.94	0.94
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	553	1318	0	0	1300	53	0	0	0	382	0	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	553	1318	0	0	1353	0	0	0	0	382	0	118
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)		23			23			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.05	0.97	1.01	0.97	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1			1					1		1
Detector Template												
Leading Detector (ft)	83	83			83					83		83
Trailing Detector (ft)	-5	-5			-5					-5		-5
Detector 1 Position(ft)	-5	-5			-5					-5		-5
Detector 1 Size(ft)	88	88			88					88		88
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0					0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0					0.0		0.0
Turn Type	pm+pt	NA			NA					Perm		Perm
Protected Phases	5	2			6							
Permitted Phases	2									3		3
Detector Phase	5	2			6					3		3
Switch Phase												
Minimum Initial (s)	3.0	10.0			10.0					5.0		5.0

2019 Build Traffic Volumes - With State Land

Saturday Peak Hour

7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35

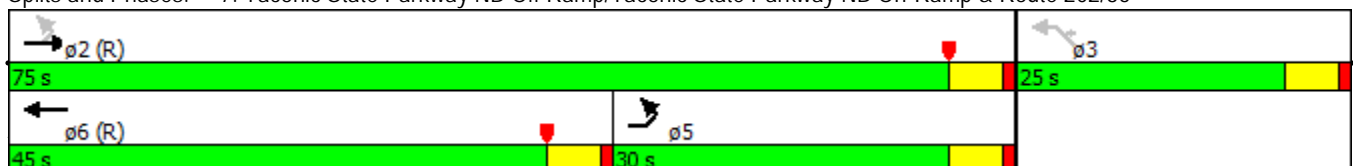


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Minimum Split (s)	9.0	16.0			16.0					11.0		11.0
Total Split (s)	30.0	75.0			45.0					25.0		25.0
Total Split (%)	30.0%	75.0%			45.0%					25.0%		25.0%
Maximum Green (s)	25.0	70.0			40.0					20.0		20.0
Yellow Time (s)	4.0	4.0			4.0					4.0		4.0
All-Red Time (s)	1.0	1.0			1.0					1.0		1.0
Lost Time Adjust (s)	-1.5	-2.0			-1.0					-1.0		-1.0
Total Lost Time (s)	3.5	3.0			4.0					4.0		4.0
Lead/Lag	Lag			Lead								
Lead-Lag Optimize?	Yes			Yes								
Vehicle Extension (s)	2.0	2.0			2.0					2.0		2.0
Recall Mode	None	C-Max			C-Max					None		None
Act Effct Green (s)	76.2	76.7			45.7					16.3		16.3
Actuated g/C Ratio	0.76	0.77			0.46					0.16		0.16
v/c Ratio	1.08	0.99			0.85					0.66		0.34
Control Delay	79.3	32.2			31.1					44.7		13.3
Queue Delay	0.0	0.0			0.3					0.0		0.0
Total Delay	79.3	32.2			31.4					44.7		13.3
LOS	E	C			C					D		B
Approach Delay		46.1			31.4							
Approach LOS		D			C							
Queue Length 50th (ft)	~350	602			386					119		12
Queue Length 95th (ft)	#555	#1163			#581					158		58
Internal Link Dist (ft)		395			460			701			1032	
Turn Bay Length (ft)										300		530
Base Capacity (vph)	514	1326			1597					746		420
Starvation Cap Reductn	0	0			0					0		0
Spillback Cap Reductn	0	0			31					0		0
Storage Cap Reductn	0	0			0					0		0
Reduced v/c Ratio	1.08	0.99			0.86					0.51		0.28

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 39.6
 Intersection LOS: D
 Intersection Capacity Utilization 83.8%
 ICU Level of Service E
 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: 7: Taconic State Parkway NB Off Ramp/Taconic State Parkway NB On-Ramp & Route 202/35



Two Way Analysis cannot be performed on Signalized Intersection.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	50	114	114	71	0	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.948		0.865	
Flt Protected		0.985				
Satd. Flow (prot)	0	1835	1766	0	1611	0
Flt Permitted		0.985				
Satd. Flow (perm)	0	1835	1766	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		991	1067		252	
Travel Time (s)		22.5	24.3		5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	124	124	77	0	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	178	201	0	125	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.2%
Analysis Period (min)	15
	ICU Level of Service A

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	50	114	114	71	0	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	124	124	77	0	125

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	201	0	396
Stage 1	-	-	163
Stage 2	-	-	233
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1371	-	609
Stage 1	-	-	866
Stage 2	-	-	806
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1371	-	583
Mov Cap-2 Maneuver	-	-	583
Stage 1	-	-	866
Stage 2	-	-	772

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1371	-	-	-	882
HCM Lane V/C Ratio	0.04	-	-	-	0.142
HCM Control Delay (s)	7.7	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

2019 No-Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

AM PEAK HOUR
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	19	240	44	22	30	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.926	
Flt Protected				0.968	0.978	
Satd. Flow (prot)	1622	0	0	1812	1670	0
Flt Permitted				0.968	0.978	
Satd. Flow (perm)	1622	0	0	1812	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	267	49	24	33	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	288	0	0	73	73	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.3%
Analysis Period (min)	15
	ICU Level of Service A

Intersection									
Intersection Delay, s/veh	8								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	19	240	0	44	22	0	30	36
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	21	267	0	49	24	0	33	40
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.1	7.9	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	45%	0%	67%
Vol Thru, %	0%	7%	33%
Vol Right, %	55%	93%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	66	259	66
LT Vol	30	0	44
Through Vol	0	19	22
RT Vol	36	240	0
Lane Flow Rate	73	288	73
Geometry Grp	1	1	1
Degree of Util (X)	0.088	0.285	0.09
Departure Headway (Hd)	4.312	3.561	4.416
Convergence, Y/N	Yes	Yes	Yes
Cap	817	996	803
Service Time	2.411	1.629	2.49
HCM Lane V/C Ratio	0.089	0.289	0.091
HCM Control Delay	7.8	8.1	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	1.2	0.3

2019 No-Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	1216	227	137	479	16	132	13	254	93	72	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.960		0.950	0.987	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1699	1583	1698	1764	1546
Flt Permitted	0.455			0.455			0.950	0.960		0.950	0.987	
Satd. Flow (perm)	848	3471	1552	848	3664	0	1665	1686	1583	1698	1764	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			223		3				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	38	1322	247	149	521	17	147	14	282	103	80	129
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	38	1322	247	149	538	0	79	82	282	74	109	129
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 No-Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	20.0	19.0	49.0		20.0	20.0	19.0	22.0	22.0	19.0
Total Split (%)	17.3%	44.5%	18.2%	17.3%	44.5%		18.2%	18.2%	17.3%	20.0%	20.0%	17.3%
Maximum Green (s)	13.0	43.0	14.0	13.0	43.0		14.0	14.0	13.0	16.0	16.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.9	50.9	67.5	21.8	21.8		12.6	12.6	25.6	13.5	13.5	55.6
Actuated g/C Ratio	0.46	0.46	0.61	0.20	0.20		0.11	0.11	0.23	0.12	0.12	0.51
v/c Ratio	0.05	0.82	0.24	0.54	0.74		0.41	0.42	0.59	0.36	0.50	0.15
Control Delay	19.9	32.5	2.6	45.2	47.3		51.5	51.8	14.7	48.4	52.9	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	32.5	2.6	45.2	47.3		51.5	51.8	14.7	48.4	52.9	1.5
LOS	B	C	A	D	D		D	D	B	D	D	A
Approach Delay		27.6			46.8			28.1			30.6	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	14	413	6	93	187		55	57	56	51	76	0
Queue Length 95th (ft)	38	#623	41	147	233		105	107	102	96	132	14
Internal Link Dist (ft)		532			1437			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	744	1605	1067	289	1467		229	231	501	262	272	850
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.82	0.23	0.52	0.37		0.34	0.35	0.56	0.28	0.40	0.15

Intersection Summary
 Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

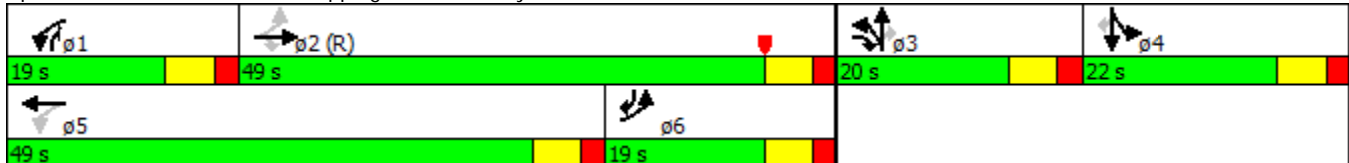
2019 No-Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR

4/2/2015

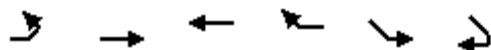
Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 32.3 Intersection LOS: C
 Intersection Capacity Utilization 74.9% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



2019 No-Build Traffic Volumes - With State Land - W/Imp
4: Route 202/35 & Old Crompond Road

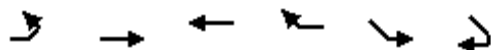
AM PEAK HOUR
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1562	664	10	24	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.998		0.990	
Flt Protected					0.956	
Satd. Flow (prot)	0	3350	3586	0	1675	0
Flt Permitted					0.956	
Satd. Flow (perm)	0	3350	3586	0	1675	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			4		2	
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1698	722	11	26	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1698	733	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		2	2		2	
Detector Template						
Leading Detector (ft)		83	83		83	
Trailing Detector (ft)		-5	-5		-5	
Detector 1 Position(ft)		-5	-5		-5	
Detector 1 Size(ft)		40	40		40	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(ft)		43	43		43	
Detector 2 Size(ft)		40	40		40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						

2019 No-Build Traffic Volumes - With State Land - W/Imp
4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
4/2/2015

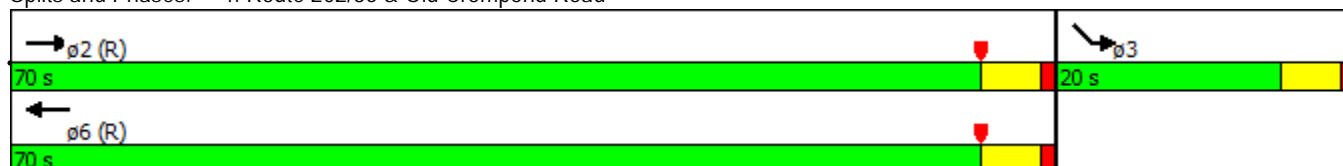


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		70.0	70.0		20.0	
Total Split (%)		77.8%	77.8%		22.2%	
Maximum Green (s)		65.0	65.0		15.0	
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	C-Max		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effect Green (s)		82.6	82.6		7.1	
Actuated g/C Ratio		0.92	0.92		0.08	
v/c Ratio		0.55	0.22		0.21	
Control Delay		2.8	3.6		39.9	
Queue Delay		0.1	0.0		0.0	
Total Delay		2.9	3.6		40.0	
LOS		A	A		D	
Approach Delay		2.9	3.6		40.0	
Approach LOS		A	A		D	
Queue Length 50th (ft)		0	0		14	
Queue Length 95th (ft)		214	160		40	
Internal Link Dist (ft)		213	377		990	
Turn Bay Length (ft)						
Base Capacity (vph)		3075	3292		280	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		378	0		29	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.63	0.22		0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 71 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 3.5
 Intersection Capacity Utilization 54.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 No-Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	66	244	160	68	114	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.894				0.933	
Flt Protected				0.966	0.975	
Satd. Flow (prot)	1657	0	0	1808	1678	0
Flt Permitted				0.966	0.975	
Satd. Flow (perm)	1657	0	0	1808	1678	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	86	317	286	121	154	150
Shared Lane Traffic (%)						
Lane Group Flow (vph)	403	0	0	407	304	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	54.1%
Analysis Period (min)	15
	ICU Level of Service A

2019 No-Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015

Intersection									
Intersection Delay, s/veh	15.5								
Intersection LOS	C								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	66	244	0	160	68	0	114	111
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	86	317	0	286	121	0	154	150
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	14.3	17.7	14.2
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	51%	0%	70%
Vol Thru, %	0%	21%	30%
Vol Right, %	49%	79%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	225	310	228
LT Vol	114	0	160
Through Vol	0	66	68
RT Vol	111	244	0
Lane Flow Rate	304	403	407
Geometry Grp	1	1	1
Degree of Util (X)	0.487	0.561	0.63
Departure Headway (Hd)	5.767	5.018	5.57
Convergence, Y/N	Yes	Yes	Yes
Cap	623	717	647
Service Time	3.821	3.07	3.621
HCM Lane V/C Ratio	0.488	0.562	0.629
HCM Control Delay	14.2	14.3	17.7
HCM Lane LOS	B	B	C
HCM 95th-tile Q	2.7	3.5	4.4

2019 No-Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	1044	230	225	787	56	257	58	301	116	124	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.990				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950	0.989	
Satd. Flow (prot)	1770	3539	1552	1770	3715	0	1681	1715	1583	1698	1768	1546
Flt Permitted	0.323			0.181			0.950	0.969		0.950	0.989	
Satd. Flow (perm)	602	3539	1552	337	3715	0	1669	1707	1583	1698	1768	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		8				227			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	103	1147	253	234	820	58	289	65	338	138	148	218
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	103	1147	253	234	878	0	173	181	338	98	188	218
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 No-Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



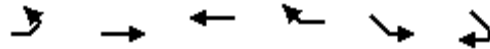
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	33.3	33.3	49.4	34.6	34.6		13.2	13.2	25.5	15.2	15.2	26.2
Actuated g/C Ratio	0.37	0.37	0.55	0.38	0.38		0.15	0.15	0.28	0.17	0.17	0.29
v/c Ratio	0.28	0.88	0.26	0.72	0.61		0.70	0.72	0.55	0.34	0.63	0.40
Control Delay	27.3	37.4	2.3	29.7	19.5		52.9	54.0	8.3	35.2	44.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	37.4	2.3	29.7	19.5		52.9	54.0	8.3	35.2	44.0	6.9
LOS	C	D	A	C	B		D	D	A	D	D	A
Approach Delay		30.8			21.6			31.4				26.2
Approach LOS		C			C			C				C
Queue Length 50th (ft)	41	335	0	69	186		98	103	27	52	106	19
Queue Length 95th (ft)	80	#490	35	#206	349		#183	#191	62	87	154	40
Internal Link Dist (ft)		532			1432			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	365	1307	978	330	1433		261	266	615	377	392	547
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.88	0.26	0.71	0.61		0.66	0.68	0.55	0.26	0.48	0.40

Intersection Summary

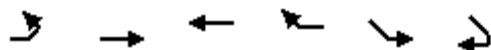
Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88

2019 No-Build Traffic Volumes - With State Land - W/Imp
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1462	1144	44	87	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Flt			0.994		0.999	
Flt Protected					0.953	
Satd. Flow (prot)	0	3350	3574	0	1685	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3350	3574	0	1685	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			9			
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1720	1230	47	109	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1720	1277	0	110	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		1	1		1	
Detector Template						
Leading Detector (ft)		50	50		50	
Trailing Detector (ft)		0	0		0	
Detector 1 Position(ft)		0	0		0	
Detector 1 Size(ft)		50	50		50	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		65.0	65.0		25.0	
Total Split (%)		72.2%	72.2%		27.8%	
Maximum Green (s)		60.0	60.0		20.0	

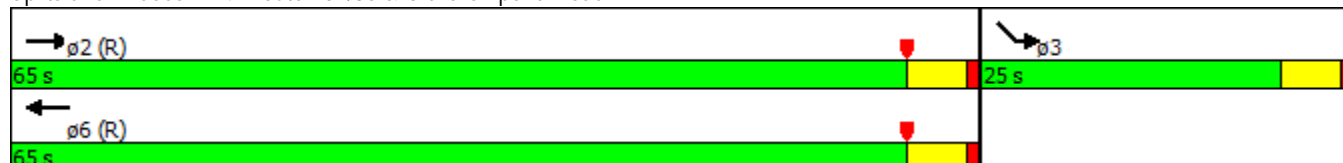


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	C-Max		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effct Green (s)		72.2	72.2		11.2	
Actuated g/C Ratio		0.80	0.80		0.12	
v/c Ratio		0.64	0.45		0.53	
Control Delay		5.2	2.7		45.4	
Queue Delay		0.0	0.1		0.0	
Total Delay		5.2	2.8		45.4	
LOS		A	A		D	
Approach Delay		5.2	2.8		45.4	
Approach LOS		A	A		D	
Queue Length 50th (ft)		70	55		60	
Queue Length 95th (ft)		87	110		93	
Internal Link Dist (ft)		229	377		978	
Turn Bay Length (ft)						
Base Capacity (vph)		2686	2868		374	
Starvation Cap Reductn		0	497		0	
Spillback Cap Reductn		69	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.66	0.54		0.29	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 5.7
 Intersection Capacity Utilization 53.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 No-Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

Saturday Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	75	204	133	74	99	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.901				0.927	
Flt Protected				0.969	0.978	
Satd. Flow (prot)	1670	0	0	1814	1672	0
Flt Permitted				0.969	0.978	
Satd. Flow (perm)	1670	0	0	1814	1672	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	85	232	229	128	109	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	317	0	0	357	239	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection									
Intersection Delay, s/veh	11.8								
Intersection LOS	B								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	75	204	0	133	74	0	99	118
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	85	232	0	229	128	0	109	130
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	10.8	13.2	11.2
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	46%	0%	64%
Vol Thru, %	0%	27%	36%
Vol Right, %	54%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	217	279	207
LT Vol	99	0	133
Through Vol	0	75	74
RT Vol	118	204	0
Lane Flow Rate	238	317	357
Geometry Grp	1	1	1
Degree of Util (X)	0.353	0.403	0.501
Departure Headway (Hd)	5.324	4.679	5.157
Convergence, Y/N	Yes	Yes	Yes
Cap	680	774	703
Service Time	3.324	2.679	3.157
HCM Lane V/C Ratio	0.35	0.41	0.508
HCM Control Delay	11.2	10.8	13.2
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.6	2	2.8

2019 No-Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↗	↗	↘	↗	↗
Volume (vph)	107	1214	262	274	803	46	254	54	366	117	126	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.991				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.968		0.950		
Satd. Flow (prot)	1770	3539	1552	1770	3719	0	1681	1713	1583	1698	1787	1546
Flt Permitted	0.318			0.153			0.950	0.968		0.950		
Satd. Flow (perm)	592	3539	1552	285	3719	0	1667	1704	1583	1698	1787	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			260		7				171			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	118	1278	288	304	845	51	282	60	407	130	140	94
Shared Lane Traffic (%)							41%			0%		
Lane Group Flow (vph)	118	1278	288	304	896	0	166	176	407	130	140	94
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

2019 No-Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015

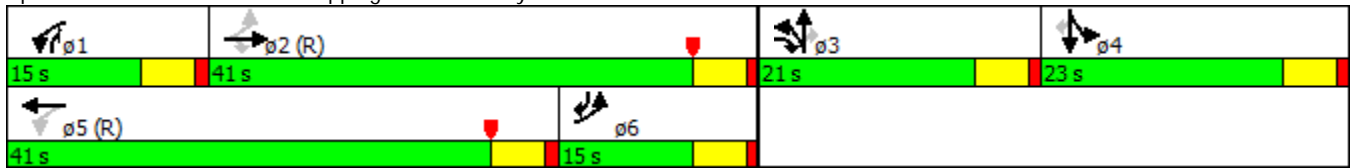


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	14.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	4.0
Minimum Split (s)	10.0	20.0	16.0	11.0	36.0		16.0	16.0	11.0	20.0	20.0	10.0
Total Split (s)	15.0	41.0	21.0	15.0	41.0		21.0	21.0	15.0	23.0	23.0	15.0
Total Split (%)	15.0%	41.0%	21.0%	15.0%	41.0%		21.0%	21.0%	15.0%	23.0%	23.0%	15.0%
Maximum Green (s)	10.0	36.0	16.0	10.0	36.0		16.0	16.0	10.0	18.0	18.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-0.7	-1.0	-1.0	0.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.3	4.0	4.0	5.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	37.0	36.7	56.2	43.2	42.2		15.2	15.2	32.5	14.5	14.5	25.5
Actuated g/C Ratio	0.37	0.37	0.56	0.43	0.42		0.15	0.15	0.32	0.14	0.14	0.26
v/c Ratio	0.34	0.98	0.29	0.80	0.57		0.65	0.67	0.65	0.53	0.54	0.19
Control Delay	29.2	53.8	2.6	44.5	23.8		51.9	53.1	14.6	46.9	47.0	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	53.8	2.6	44.5	23.8		51.9	53.1	14.6	46.9	47.0	2.0
LOS	C	D	A	D	C		D	D	B	D	D	A
Approach Delay		43.3			29.0			32.0				35.4
Approach LOS		D			C			C				D
Queue Length 50th (ft)	50	419	7	183	297		104	110	77	82	88	0
Queue Length 95th (ft)	91	#574	42	#338	342		175	185	144	137	145	11
Internal Link Dist (ft)		532			1422			209				110
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	348	1298	1009	379	1575		285	291	629	322	339	487
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.98	0.29	0.80	0.57		0.58	0.60	0.65	0.40	0.41	0.19

Intersection Summary

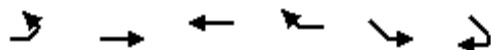
Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 63 (63%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 36.2
 Intersection LOS: D
 Intersection Capacity Utilization 83.8%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



2019 No-Build Traffic Volumes - With State Land - W/Imp
4: Route 202/35 & Old Crompond Road

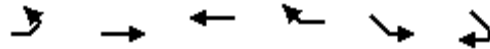
Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1697	1213	50	116	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Flt			0.994		0.998	
Flt Protected					0.953	
Satd. Flow (prot)	0	3415	3641	0	1683	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3415	3641	0	1683	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			8		1	
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.95	0.90	0.90	0.90
Adj. Flow (vph)	0	1749	1277	56	129	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1749	1333	0	131	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		2	2		2	
Detector Template						
Leading Detector (ft)		83	83		83	
Trailing Detector (ft)		-5	-5		-5	
Detector 1 Position(ft)		-5	-5		-5	
Detector 1 Size(ft)		40	40		40	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(ft)		43	43		43	
Detector 2 Size(ft)		40	40		40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	

2019 No-Build Traffic Volumes - With State Land - W/Imp
 4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
 4/2/2015

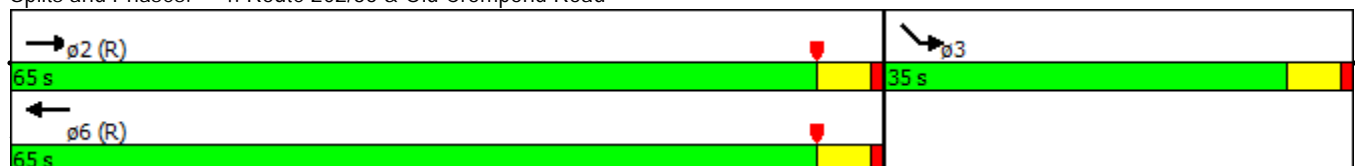


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		65.0	65.0		35.0	
Total Split (%)		65.0%	65.0%		35.0%	
Maximum Green (s)		60.0	60.0		30.0	
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effect Green (s)		76.8	76.8		13.2	
Actuated g/C Ratio		0.77	0.77		0.13	
v/c Ratio		0.67	0.48		0.59	
Control Delay		4.5	5.6		50.6	
Queue Delay		0.3	0.5		0.0	
Total Delay		4.8	6.1		50.6	
LOS		A	A		D	
Approach Delay		4.8	6.1		50.6	
Approach LOS		A	A		D	
Queue Length 50th (ft)		65	182		79	
Queue Length 95th (ft)		m64	m116		132	
Internal Link Dist (ft)		236	377		987	
Turn Bay Length (ft)						
Base Capacity (vph)		2623	2799		505	
Starvation Cap Reductn		0	911		0	
Spillback Cap Reductn		327	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.76	0.71		0.26	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 28 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 7.2
 Intersection LOS: A
 Intersection Capacity Utilization 61.8%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

AM PEAK HOUR
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	43	240	63	35	30	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.886				0.905	
Flt Protected				0.969	0.985	
Satd. Flow (prot)	1642	0	0	1814	1644	0
Flt Permitted				0.969	0.985	
Satd. Flow (perm)	1642	0	0	1814	1644	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1020	190	
Travel Time (s)	12.3			23.2	4.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	267	70	39	33	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	0	109	110	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.3%
Analysis Period (min)	15
	ICU Level of Service A

Intersection									
Intersection Delay, s/veh	8.5								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	43	240	0	63	35	0	30	69
Peak Hour Factor	0.92	0.90	0.90	0.92	0.90	0.90	0.92	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	267	0	70	39	0	33	77
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.7	8.4	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	30%	0%	64%
Vol Thru, %	0%	15%	36%
Vol Right, %	70%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	99	283	98
LT Vol	30	0	63
Through Vol	0	43	35
RT Vol	69	240	0
Lane Flow Rate	110	314	109
Geometry Grp	1	1	1
Degree of Util (X)	0.136	0.332	0.139
Departure Headway (Hd)	4.441	3.803	4.609
Convergence, Y/N	Yes	Yes	Yes
Cap	809	950	780
Service Time	2.462	1.815	2.627
HCM Lane V/C Ratio	0.136	0.331	0.14
HCM Control Delay	8.2	8.7	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	1.5	0.5

2019 Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	1216	227	137	479	16	132	16	254	93	74	134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.995				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.962		0.950	0.987	
Satd. Flow (prot)	1770	3471	1552	1770	3664	0	1681	1702	1583	1698	1764	1546
Flt Permitted	0.455			0.455			0.950	0.962		0.950	0.987	
Satd. Flow (perm)	848	3471	1552	848	3664	0	1665	1690	1583	1698	1764	1511
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			223		3				149			149
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1517			289				190
Travel Time (s)		9.3			23.0			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	4%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	71	1322	247	149	521	17	147	18	282	103	82	149
Shared Lane Traffic (%)							46%			28%		
Lane Group Flow (vph)	71	1322	247	149	538	0	79	86	282	74	111	149
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	2	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	83	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	-5	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				43			43	43	43	43	43	43
Detector 2 Size(ft)				40			40	40	40	40	40	40
Detector 2 Type				Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex

2019 Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

AM PEAK HOUR
 4/2/2015



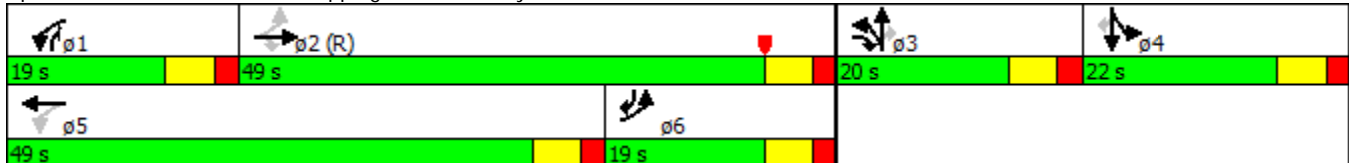
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	11.0	36.0	16.0	11.0	36.0		16.0	16.0	11.0	16.0	16.0	11.0
Total Split (s)	19.0	49.0	20.0	19.0	49.0		20.0	20.0	19.0	22.0	22.0	19.0
Total Split (%)	17.3%	44.5%	18.2%	17.3%	44.5%		18.2%	18.2%	17.3%	20.0%	20.0%	17.3%
Maximum Green (s)	13.0	43.0	14.0	13.0	43.0		14.0	14.0	13.0	16.0	16.0	13.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	3.0	2.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0
Recall Mode	Max	C-Max	None	None	None		None	None	None	None	None	Max
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	50.7	50.7	67.4	21.8	21.8		12.7	12.7	25.7	13.6	13.6	55.5
Actuated g/C Ratio	0.46	0.46	0.61	0.20	0.20		0.12	0.12	0.23	0.12	0.12	0.50
v/c Ratio	0.10	0.83	0.24	0.54	0.74		0.41	0.44	0.58	0.35	0.51	0.18
Control Delay	20.7	32.7	2.6	45.2	47.3		51.2	52.1	14.6	48.3	53.1	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	32.7	2.6	45.2	47.3		51.2	52.1	14.6	48.3	53.1	2.0
LOS	C	C	A	D	D		D	D	B	D	D	A
Approach Delay		27.7			46.8			28.3			29.3	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	27	416	6	93	187		55	61	55	51	78	0
Queue Length 95th (ft)	61	#623	41	147	233		105	111	102	96	134	21
Internal Link Dist (ft)		532			1437			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	741	1600	1065	289	1467		229	232	502	262	272	849
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.83	0.23	0.52	0.37		0.34	0.37	0.56	0.28	0.41	0.18

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

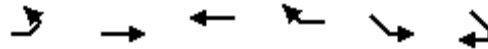
Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 32.2 Intersection LOS: C
 Intersection Capacity Utilization 74.9% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35



2019 Build Traffic Volumes - With State Land - W/Imp
 4: Route 202/35 & Old Crompond Road

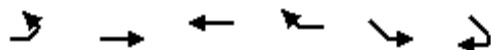
AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1562	664	92	71	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.982		0.997	
Flt Protected					0.954	
Satd. Flow (prot)	0	3350	3536	0	1683	0
Flt Permitted					0.954	
Satd. Flow (perm)	0	3350	3536	0	1683	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			43		1	
Link Speed (mph)		45	45		30	
Link Distance (ft)		293	457		1070	
Travel Time (s)		4.4	6.9		24.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.90
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1698	722	100	77	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1698	822	0	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		2	2		2	
Detector Template						
Leading Detector (ft)		83	83		83	
Trailing Detector (ft)		-5	-5		-5	
Detector 1 Position(ft)		-5	-5		-5	
Detector 1 Size(ft)		40	40		40	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Detector 2 Position(ft)		43	43		43	
Detector 2 Size(ft)		40	40		40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						

2019 Build Traffic Volumes - With State Land - W/Imp
 4: Route 202/35 & Old Crompond Road

AM PEAK HOUR
 4/2/2015

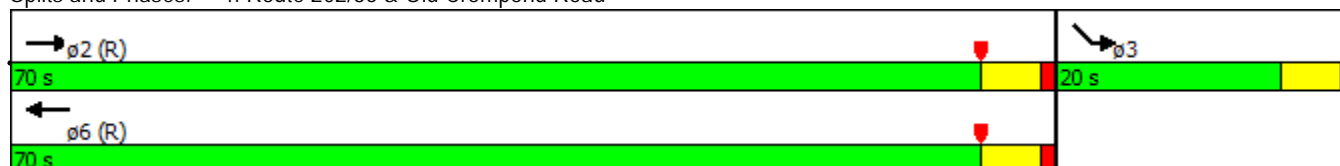


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		70.0	70.0		20.0	
Total Split (%)		77.8%	77.8%		22.2%	
Maximum Green (s)		65.0	65.0		15.0	
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	C-Max		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effect Green (s)		73.6	73.6		9.6	
Actuated g/C Ratio		0.82	0.82		0.11	
v/c Ratio		0.62	0.28		0.44	
Control Delay		5.6	7.6		44.1	
Queue Delay		1.3	0.0		0.2	
Total Delay		6.8	7.6		44.3	
LOS		A	A		D	
Approach Delay		6.8	7.6		44.3	
Approach LOS		A	A		D	
Queue Length 50th (ft)		171	140		42	
Queue Length 95th (ft)		283	192		83	
Internal Link Dist (ft)		213	377		990	
Turn Bay Length (ft)						
Base Capacity (vph)		2739	2899		281	
Starvation Cap Reductn		0	0		0	
Spillback Cap Reductn		756	0		30	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.86	0.28		0.31	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 71 (79%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 45
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 8.2
 Intersection Capacity Utilization 55.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 Build Traffic Volumes - With State Land - W/Imp
 8: Old Crompond Road & Site Access

AM PEAK HOUR
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	49	58	57	37	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.933		0.946	
Flt Protected		0.978			0.971	
Satd. Flow (prot)	0	1822	1738	0	1711	0
Flt Permitted		0.978			0.971	
Satd. Flow (perm)	0	1822	1738	0	1711	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1020	1070		240	
Travel Time (s)		23.2	24.3		5.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	53	63	62	40	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	96	125	0	67	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.7%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	92	244	208	102	114	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.902				0.924	
Flt Protected				0.968	0.979	
Satd. Flow (prot)	1672	0	0	1812	1668	0
Flt Permitted				0.968	0.979	
Satd. Flow (perm)	1672	0	0	1812	1668	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			1014	190	
Travel Time (s)	12.3			23.0	4.3	
Peak Hour Factor	0.77	0.77	0.56	0.56	0.74	0.74
Adj. Flow (vph)	119	317	371	182	154	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	436	0	0	553	354	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	62.1%
Analysis Period (min)	15
	ICU Level of Service B

2019 Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

PM Peak Hour
 4/2/2015

Intersection									
Intersection Delay, s/veh	29.4								
Intersection LOS	D								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	92	244	0	208	102	0	114	148
Peak Hour Factor	0.92	0.77	0.77	0.92	0.56	0.56	0.92	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	119	317	0	371	182	0	154	200
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	20.5	42.9	19.4
HCM LOS	C	E	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	44%	0%	67%
Vol Thru, %	0%	27%	33%
Vol Right, %	56%	73%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	262	336	310
LT Vol	114	0	208
Through Vol	0	92	102
RT Vol	148	244	0
Lane Flow Rate	354	436	554
Geometry Grp	1	1	1
Degree of Util (X)	0.626	0.691	0.912
Departure Headway (Hd)	6.361	5.701	6.066
Convergence, Y/N	Yes	Yes	Yes
Cap	570	637	603
Service Time	4.377	3.727	4.066
HCM Lane V/C Ratio	0.621	0.684	0.919
HCM Control Delay	19.4	20.5	42.9
HCM Lane LOS	C	C	E
HCM 95th-tile Q	4.3	5.5	11.4

2019 Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↗	↗	↘	↗	↗
Volume (vph)	126	1044	230	225	787	56	257	61	301	116	128	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	1.00				0.98
Frt			0.850		0.990				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.970		0.950	0.990	
Satd. Flow (prot)	1770	3539	1552	1770	3715	0	1681	1717	1583	1698	1769	1546
Flt Permitted	0.323			0.180			0.950	0.970		0.950	0.990	
Satd. Flow (perm)	602	3539	1552	335	3715	0	1670	1709	1583	1698	1769	1514
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			253		8				227			145
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1512			289				190
Travel Time (s)		9.3			22.9			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.91	0.91	0.96	0.96	0.96	0.89	0.89	0.89	0.84	0.84	0.84
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	138	1147	253	234	820	58	289	69	338	138	152	270
Shared Lane Traffic (%)							40%			29%		
Lane Group Flow (vph)	138	1147	253	234	878	0	173	185	338	98	192	270
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	2	0	0	2	0		2	2	2	1	2	2
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	40	50	50	40	50		40	40	40	50	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43	43		43	43
Detector 2 Size(ft)	40			40			40	40	40		40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel												

2019 Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

PM Peak Hour
 4/2/2015



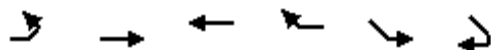
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6
Switch Phase												
Minimum Initial (s)	5.0	15.0	10.0	5.0	15.0		10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	10.0	20.0	15.0	10.0	20.0		15.0	15.0	10.0	15.0	15.0	10.0
Total Split (s)	15.0	33.0	18.0	15.0	33.0		18.0	18.0	15.0	24.0	24.0	15.0
Total Split (%)	16.7%	36.7%	20.0%	16.7%	36.7%		20.0%	20.0%	16.7%	26.7%	26.7%	16.7%
Maximum Green (s)	10.0	28.0	13.0	10.0	28.0		13.0	13.0	10.0	19.0	19.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	0.0	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	5.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	Lead	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	None	C-Max	None	None	C-Max		None	None	None	None	None	None
Walk Time (s)		8.0	8.0		8.0		8.0	8.0		8.0	8.0	
Flash Dont Walk (s)		22.0	22.0		22.0		22.0	22.0		22.0	22.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)	33.1	33.1	49.4	34.5	34.5		13.2	13.2	25.6	15.3	15.3	26.3
Actuated g/C Ratio	0.37	0.37	0.55	0.38	0.38		0.15	0.15	0.28	0.17	0.17	0.29
v/c Ratio	0.38	0.88	0.26	0.72	0.61		0.70	0.73	0.55	0.34	0.64	0.49
Control Delay	29.7	37.8	2.3	28.0	18.5		52.6	54.8	8.3	35.1	44.3	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	37.8	2.3	28.0	18.5		52.6	54.8	8.3	35.1	44.3	9.3
LOS	C	D	A	C	B		D	D	A	D	D	A
Approach Delay		31.2			20.5			31.7			25.8	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	56	336	0	75	197		98	106	26	52	108	34
Queue Length 95th (ft)	103	#490	35	#206	348		#183	#197	62	87	156	57
Internal Link Dist (ft)		532			1432			209			110	
Turn Bay Length (ft)	180		180	450								
Base Capacity (vph)	364	1303	976	329	1428		261	267	616	377	393	548
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.88	0.26	0.71	0.61		0.66	0.69	0.55	0.26	0.49	0.49

Intersection Summary

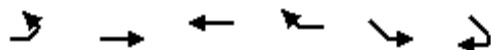
Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 37 (41%), Referenced to phase 2:EBTL and 5:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88

2019 Build Traffic Volumes - With State Land - W/Imp
4: Route 202/35 & Old Crompond Road

PM Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1462	1144	136	205	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.984		0.999	
Flt Protected					0.953	
Satd. Flow (prot)	0	3350	3542	0	1685	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3350	3542	0	1685	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			30			
Link Speed (mph)		45	45		30	
Link Distance (ft)		309	457		1058	
Travel Time (s)		4.7	6.9		24.0	
Peak Hour Factor	0.85	0.85	0.93	0.93	0.80	0.80
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	1720	1230	146	256	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1720	1376	0	257	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		1	1		1	
Detector Template						
Leading Detector (ft)		50	50		50	
Trailing Detector (ft)		0	0		0	
Detector 1 Position(ft)		0	0		0	
Detector 1 Size(ft)		50	50		50	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		65.0	65.0		25.0	
Total Split (%)		72.2%	72.2%		27.8%	
Maximum Green (s)		60.0	60.0		20.0	

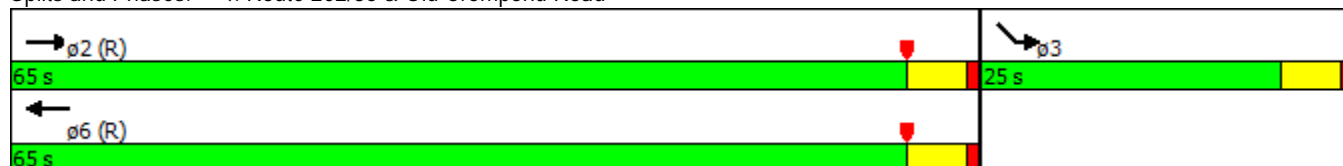


Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Yellow Time (s)		4.0	4.0		4.0	
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	
Total Lost Time (s)		5.0	5.0		5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	C-Max		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effct Green (s)		62.5	62.5		17.5	
Actuated g/C Ratio		0.69	0.69		0.19	
v/c Ratio		0.74	0.56		0.79	
Control Delay		7.2	4.4		51.8	
Queue Delay		0.0	0.2		0.0	
Total Delay		7.2	4.5		51.8	
LOS		A	A		D	
Approach Delay		7.2	4.5		51.8	
Approach LOS		A	A		D	
Queue Length 50th (ft)		84	85		137	
Queue Length 95th (ft)		95	m113		189	
Internal Link Dist (ft)		229	377		978	
Turn Bay Length (ft)						
Base Capacity (vph)		2327	2470		374	
Starvation Cap Reductn		0	322		0	
Spillback Cap Reductn		16	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.74	0.64		0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 9.5
 Intersection LOS: A
 Intersection Capacity Utilization 60.2%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 202/35 & Old Crompond Road



2019 Build Traffic Volumes - With State Land - W/Imp
 8: Old Crompond Road & Site Access

PM Peak Hour
 4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	154	169	64	78	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.963		0.944	
Flt Protected		0.989			0.972	
Satd. Flow (prot)	0	1842	1794	0	1709	0
Flt Permitted		0.989			0.972	
Satd. Flow (perm)	0	1842	1794	0	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		1014	1058		274	
Travel Time (s)		23.0	24.0		6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	167	184	70	85	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	216	254	0	145	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.1%
Analysis Period (min)	15
	ICU Level of Service A

2019 Build Traffic Volumes - With State Land - W/Imp
 2: Stoney Street & Old Crompond Road

Saturday Peak Hour
 4/2/2015



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	106	204	174	103	99	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	1%			-1%	2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.911				0.917	
Flt Protected				0.970	0.981	
Satd. Flow (prot)	1688	0	0	1816	1659	0
Flt Permitted				0.970	0.981	
Satd. Flow (perm)	1688	0	0	1816	1659	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	539			991	190	
Travel Time (s)	12.3			22.5	4.3	
Peak Hour Factor	0.88	0.88	0.58	0.58	0.91	0.91
Adj. Flow (vph)	120	232	300	178	109	176
Shared Lane Traffic (%)						
Lane Group Flow (vph)	352	0	0	478	285	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	1.01	1.01
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Stop	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.5%
Analysis Period (min)	15
	ICU Level of Service B

Intersection									
Intersection Delay, s/veh	16.7								
Intersection LOS	C								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	106	204	0	174	103	0	99	160
Peak Hour Factor	0.92	0.88	0.88	0.92	0.58	0.58	0.92	0.91	0.91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	120	232	0	300	178	0	109	176
Number of Lanes	0	1	0	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	13.2	21.2	13.4
HCM LOS	B	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	38%	0%	63%
Vol Thru, %	0%	34%	37%
Vol Right, %	62%	66%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	259	310	277
LT Vol	99	0	174
Through Vol	0	106	103
RT Vol	160	204	0
Lane Flow Rate	285	352	478
Geometry Grp	1	1	1
Degree of Util (X)	0.452	0.5	0.719
Departure Headway (Hd)	5.717	5.113	5.422
Convergence, Y/N	Yes	Yes	Yes
Cap	629	701	664
Service Time	3.77	3.162	3.466
HCM Lane V/C Ratio	0.453	0.502	0.72
HCM Control Delay	13.4	13.2	21.2
HCM Lane LOS	B	B	C
HCM 95th-tile Q	2.3	2.8	6.1

2019 Build Traffic Volumes - With State Land - W/Imp
 3: BJ's Shopping Center/Stoney Street & Route 202/35

Saturday Peak Hour
 4/2/2015



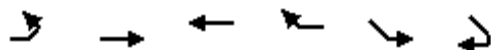
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	146	1214	262	274	803	46	254	58	366	117	130	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	14	12	12	12	12	12	12	11
Grade (%)		0%			0%			0%				-2%
Storage Length (ft)	180		180	450		575	0		0	0		0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00
Ped Bike Factor							0.99	0.99				0.98
Frt			0.850		0.991				0.850			0.850
Flt Protected	0.950			0.950			0.950	0.969		0.950		
Satd. Flow (prot)	1770	3539	1552	1770	3719	0	1681	1715	1583	1698	1787	1546
Flt Permitted	0.318			0.153			0.950	0.969		0.950		
Satd. Flow (perm)	592	3539	1552	285	3719	0	1667	1706	1583	1698	1787	1512
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			254		7				171			131
Link Speed (mph)		45			45			30				30
Link Distance (ft)		612			1502			289				190
Travel Time (s)		9.3			22.8			6.6				4.3
Confl. Peds. (#/hr)							10					10
Peak Hour Factor	0.91	0.95	0.91	0.90	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	5	0	3	0	0	0	0	0	0	0
Adj. Flow (vph)	160	1278	288	304	845	51	282	64	407	130	144	137
Shared Lane Traffic (%)							40%			0%		
Lane Group Flow (vph)	160	1278	288	304	896	0	169	177	407	130	144	137
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)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.03	1.00	0.93	1.00	1.00	1.00	1.00	0.99	0.99	1.03
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1	1	1	1		1	1	1	1	1	1
Detector Template												
Leading Detector (ft)	83	0	0	83	0		83	83	83	50	83	83
Trailing Detector (ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Position(ft)	-5	0	0	-5	0		-5	-5	-5	0	-5	-5
Detector 1 Size(ft)	88	0	0	88	0		88	88	88	50	88	88
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		Split	NA	pm+ov	Split	NA	pm+ov
Protected Phases	6	2	3	1	5		3	3	1	4	4	6
Permitted Phases	2		2	5					3			4
Detector Phase	6	2	3	1	5		3	3	1	4	4	6

Splits and Phases: 3: BJ's Shopping Center/Stoney Street & Route 202/35

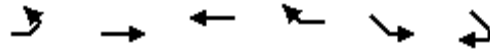


2019 Build Traffic Volumes - With State Land - W/Imp
4: Route 202/35 & Old Crompond Road

Saturday Peak Hour
4/2/2015



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	1697	1213	155	217	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		7%	-7%		10%	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Flt			0.982		0.999	
Flt Protected					0.953	
Satd. Flow (prot)	0	3415	3597	0	1685	0
Flt Permitted					0.953	
Satd. Flow (perm)	0	3415	3597	0	1685	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			27			
Link Speed (mph)		45	45		30	
Link Distance (ft)		316	457		1067	
Travel Time (s)		4.8	6.9		24.3	
Peak Hour Factor	0.97	0.97	0.95	0.90	0.90	0.90
Adj. Flow (vph)	0	1749	1277	172	241	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1749	1449	0	243	0
Enter Blocked Intersection	No	Yes	Yes	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	1.05	1.05	0.96	0.96	1.07	1.07
Turning Speed (mph)	15			9	15	9
Number of Detectors		1	1		1	
Detector Template						
Leading Detector (ft)		50	50		50	
Trailing Detector (ft)		0	0		0	
Detector 1 Position(ft)		0	0		0	
Detector 1 Size(ft)		50	50		50	
Detector 1 Type		Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0		0.0	
Detector 1 Queue (s)		0.0	0.0		0.0	
Detector 1 Delay (s)		0.0	0.0		0.0	
Turn Type		NA	NA		Prot	
Protected Phases		2	6		3	
Permitted Phases						
Detector Phase		2	6		3	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		21.0	21.0		9.0	
Total Split (s)		65.0	65.0		35.0	
Total Split (%)		65.0%	65.0%		35.0%	
Maximum Green (s)		60.0	60.0		30.0	
Yellow Time (s)		4.0	4.0		4.0	



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
All-Red Time (s)		1.0	1.0		1.0	
Lost Time Adjust (s)		-1.0	-1.0		-1.0	
Total Lost Time (s)		4.0	4.0		4.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Min	C-Min		None	
Walk Time (s)		5.0	5.0			
Flash Dont Walk (s)		11.0	11.0			
Pedestrian Calls (#/hr)		0	0			
Act Effect Green (s)		71.3	71.3		20.7	
Actuated g/C Ratio		0.71	0.71		0.21	
v/c Ratio		0.72	0.56		0.70	
Control Delay		6.1	6.9		47.1	
Queue Delay		1.2	0.6		0.0	
Total Delay		7.3	7.5		47.1	
LOS		A	A		D	
Approach Delay		7.3	7.5		47.1	
Approach LOS		A	A		D	
Queue Length 50th (ft)		102	209		145	
Queue Length 95th (ft)		m105	m127		209	
Internal Link Dist (ft)		236	377		987	
Turn Bay Length (ft)						
Base Capacity (vph)		2436	2573		522	
Starvation Cap Reductn		0	668		0	
Spillback Cap Reductn		429	0		0	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.87	0.76		0.47	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 28 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 10.2
 Intersection LOS: B
 Intersection Capacity Utilization 65.7%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Route 202/35 & Old Crompond Road





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	50	181	141	71	68	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.955		0.945	
Flt Protected		0.989			0.971	
Satd. Flow (prot)	0	1842	1779	0	1709	0
Flt Permitted		0.989			0.971	
Satd. Flow (perm)	0	1842	1779	0	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		991	1067		252	
Travel Time (s)		22.5	24.3		5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	197	153	77	74	51
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	251	230	0	125	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.7%
Analysis Period (min)	15
	ICU Level of Service A