



Engineering
& Design

Traffic Impact Study

Yeshivath Viznits
35 Elm Road (Former Pace University Briarcliff Campus)
Village of Briarcliff Manor
Westchester County, NY
Project No. 21003367A

December 6, 2021

Prepared for:

Mr. David Rosenberg
Yeshivath Viznitz
Dkhal Torath Chaim Inc.
15 Elyon Road
Monsey, NY 10952

Prepared by:


Philip J. Grealy, Ph.D. P.E.
Geographic Discipline Leader
NY Professional Engineer
License No. 59858

Prepared by:


Ronald P. Rieman
Associate/Project Manager

Company

400 Columbus Avenue
Suite 180E
Valhalla, New York 10595
Main: 877 623 3772
Colliersengineering.com

Maser Consulting is now Colliers Engineering & Design

Accelerating success.

Table of Contents

I. Introduction	1
A. Project Description and Location.....	1
B. Former Pace University Briarcliff Campus	2
C. Scope of Study.....	3
II. Existing Roadway and Traffic Descriptions	4
A. Description of Existing Roadways	4
B. Year 2021 Existing Traffic Volumes.....	4
III. Evaluation of Future Traffic Conditions	6
A. Year 2023 No-Build Traffic Volumes.....	6
B. Site Generated Traffic Volumes.....	6
C. Arrival / Departure Distributions.....	7
D. Year 2023 Build Traffic Volumes.....	7
E. Year 2033 No-Build and Year 2033 Build Traffic Volumes	8
F. Year 2023 and Year 2033 Build Traffic Volumes – Event Conditions.....	9
G. Description of Analysis Procedures	9
H. Results of Analysis.....	10
I. Accident Data	15
IV. Summary and Conclusion.....	16

Appendices

APPENDIX A	FORMER PACE UNIVERSITY BRIARCLIFF CAMPUS HISTORICAL DATA
APPENDIX B	TRAFFIC VOLUME FIGURES
APPENDIX C	LOS TABLES
APPENDIX D	LEVEL OF SERVICE STANDARDS
APPENDIX E.....	CAPACITY ANALYSIS
APPENDIX F.....	TRAFFIC COUNT DATA
APPENDIX G	ACCIDENT DATA
APPENDIX H.....	PROPOSED TRAVEL ROUTE, BUS DIMENSIONS, TURNING MOVEMENT DIAGRAMS
APPENDIX I.....	SIGHT DISTANCE EVALUATION

I. Introduction

A. Project Description and Location

(Figure No. 1)

The Proposed Project (Yeshivath Viznitz) is the reuse of the former Pace University Briarcliff Campus located at 235 Elm Road, Village of Briarcliff Manor, Westchester County, New York. Access to the existing campus currently consists of three curb cuts to the campus. The Yeshivath proposes to use the eastern-most driveway as its primary ingress and egress and will be accessed via a remote controlled gate. The two western driveways, including the driveway opposite Birch Road, are not currently proposed to be used for staff or student ingress and egress. The curb cuts for the two westerly driveways will remain gated and be restricted to emergency access only. The Site Location is shown on Figure No. 1 (Appendix B).

Yeshivath Viznitz is proposing to adaptively reuse the former Pace University Briarcliff Campus for its higher education religious institution (post-secondary school) for some 250 students (single male students, ages 17-20) most of which would reside in dorms.

Based on information provided by the Yeshivath, the initial occupancy will include some 220-230 students residing on campus with 20-30 students commuting to the school. The educational and worship activities for the students that reside on campus typically occur between 6:00am and 9:00pm daily. The educational and worship activities for commuting students typically occur between 10:00am and 7:00pm, Sunday through Thursday with no Friday and Saturday studies.

Students are only permitted off site during the daily commute (for commuting students only), arrivals and departures for semester breaks, and on very limited occasions to attend off-site events in Rockland County. Otherwise, resident students are not permitted off campus during the approximately 10 months that classes will be in session. All instances in which students will arrive at and depart from the site will be by bus and/or shuttle/van. None of the residing students have Driver's Licenses, nor are they allowed to use any other form of transportation on campus.

There will be two educational shifts with 20-25 educational staff between 10:00am - 2:00pm and 20-25 educational staff between 3:30pm - 7:00pm. In addition to the educational staff, there is an early morning staff of 2-3 supervisors that arrive by minivan at 6:00am and leave with the 2:00pm shuttle and 5-6 overnight supervisors (1-2 supervisors arriving by minivan and 3-4 supervisor who drive on their own) that arrive at 10:00pm and leave at 6:00am.

Commuting students and most of the educational staff will arrive/depart the Site by bus (approximately 2-3 buses per day) and/or shuttle/van (approximately 4-5 shuttles/van per day). A small percentage of the educational staff may travel on their own (conservatively anticipated to be no more than 10 at the same time). Supporting staff (15-20) including kitchen, janitorial, maintenance are expected to arrive off peak and leave between 7:00pm and 8:00pm and would use their own transportation.

In addition to the initial occupancy, the Applicant anticipates that this occupancy will grow by approximately 3% per year for the first 10 years of operation. This growth rate would result in the expected occupancy of 350 student by the end of ten years. It is anticipated that this natural expansion may require 5-6 additional staff and may require an additional 1-2 buses per day. The primary characteristics of the proposed reuse will not be changed by this minor incremental growth.

While there are no current plans for expansion beyond the above referenced growth, if other portions of the campus are to be utilized, the traffic impacts including additional anticipated site generated traffic volumes and any access changes will be evaluated.

B. Former Pace University Briarcliff Campus

It is our understanding that the previous Pace University approvals permitted an enrollment of 700 residential students on Site with an additional 400 commuting students permitted to attend classes per day. Our office had previously collected traffic counts at the Pace University Briarcliff Campus on Tuesday, November 23, 2010 between the hours of 7:30am to 9:00am, and on Wednesday, November 17, 2010 between the hours of 9:00am to 1:00pm and 3:00pm to 6:30pm. At the time of those traffic counts, the Briarcliff Campus contained residential facilities for approximately 590 students and office space for approximately 160 administrative staff with students traveling between the Briarcliff Campus and Mt. Pleasant Campus on a daily basis by scheduled University shuttle or private car.

Based on the historical traffic counts, the Pace University Briarcliff Campus was generating traffic throughout the day with a total of 174 trips (102 entering trips / 72 exiting trips) during the Weekday Peak AM Hour (8:00am – 9:00am) and a total of 202 trips (59 entering / 143 exiting) during the Weekday Peak PM Hour (4:30pm-5:30pm).

As outlined in our original traffic letter dated June 17, 2021 and in more detail in our August 20, 2021 response letter, “ Based on the proposed operation of the school, including that most students will reside on campus, commuting students and most staff will arrive/depart the Site by bus, the proposed Yeshivath (including the anticipated normal growth to 350 students) would generate significantly less traffic than the former Pace University Briarcliff Campus during peak periods as well as over the course of the day and would not have a significant impact on the area roadways in the vicinity of the Site.

A copy of the Former Pace University Briarcliff Campus historical traffic count data is contained in Appendix F of this study.

In addition based on NYSDOT historical AADT data, current traffic conditions in the vicinity of the Site (Elm Road, North State Road, Pleasantville Road) have significantly decreased from 2010 (when the Pace University Briarcliff Campus was in use and the previous traffic counts were collected). A comparison of 2010 and 2019 traffic conditions are also shown in Appendix F.

C. 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 Yeshivath.

Traffic count data for the study area intersections were collected by representatives of Colliers Engineering & Design CT, P.C. These traffic counts were compared to historical traffic count for the area including traffic counts from the New York State Department of Transportation (NYSDOT). Together this data was utilized to establish the Year 2021 Existing Traffic Volumes in the vicinity of the site.

The Year 2021 Existing Traffic Volumes were then projected to a 2023 Design Year (for the initial re-occupancy) and a 2033 Design Year (for the potential additional growth) to take into account normal background traffic growth including other potential future development growth, resulting in the Year 2023 No-Build and Year 2033 No-Build Traffic Volumes, respectively.

Estimates were then made of the potential traffic that the proposed reuse would generate during each of the peak hours (see Section III-B for further discussion). The resulting site generated traffic volumes were then added to the roadway system and combined with the Year 2023 No-Build and Year 2033 No-Build Traffic Volumes resulting in the Year 2023 Build and Year 2033 Build Traffic Volumes, respectively.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual, 6th Edition to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve existing and future traffic volumes.

II. Existing Roadway and Traffic Descriptions

A. Description of Existing Roadways

As discussed in Section I.A, the proposed Yeshivath is the reuse of the former Pace University Briarcliff Campus located at 235 Elm Road, Village of Briarcliff Manor, Westchester County, New York. The following is a brief description of Elm Road in the vicinity of the site.

Elm Road is a two-lane, Town Road which originates to the southwest of the site at an unsignalized intersection with Long Hill Road and northeast of the site at an unsignalized intersection with South State Road. The speed limit along Elm Road is 30 mph with a reduced speed of 20 mph in the vicinity of the existing campus/site. There is “No Parking” along the frontage of the existing campus/site.

Section III.H provides a description of the existing geometrics, traffic control as well as a summary of the existing and future Levels of Service of the Study Area intersections.

B. Year 2021 Existing Traffic Volumes

(Figures No. 2 and 3)

In order to establish existing traffic conditions in the vicinity of the existing site, turning movement traffic counts were collected by representatives of Colliers Engineering & Design on Thursday, September 23, 2021 between the hours of 7:00 AM and 11:00 AM and 2:00 PM and 8:00 PM to determine the Weekday Peak AM and PM Peak Hours for the following intersections, as recommended by the comment memorandum prepared by the Village’s Traffic Consultants, Provident Design Engineering, dated September 1, 2021:

1. Pleasantville Road and North State Road (signalized)
2. Pleasantville Road and South State Road (signalized)
3. South State Road and Elm Road (unsignalized)
4. Elm Road and Birch Road (unsignalized)

The resulting Year 2021 Existing Traffic Volumes are shown on Figures No. 2 and 3 for the Weekday Peak AM and Weekday Peak PM Hours, respectively.

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

- | | |
|------------------------|-------------------|
| • Weekday Peak AM Hour | 8:00 AM – 9:00 AM |
| • Weekday Peak PM Hour | 5:00 PM – 6:00 PM |

In addition, Automatic Traffic Recorders (ATRs) were placed along Elm Road in the vicinity of the site to compare typical Weekday and Sunday traffic volumes. See Section III.F for Event Conditions.

A copy of the traffic count data is contained in Appendix F of this study.

III. Evaluation of Future Traffic Conditions

A. Year 2023 No-Build Traffic Volumes

(Figures No. 4 and 5)

A Design Year of 2023 has been utilized in order to evaluate future traffic conditions associated with the initial phase of development.

In order to account for normal background traffic growth, the Year 2021 Existing Traffic Volumes were increased by 1% per year growth rate (for a total background growth of 2%) to account for normal background traffic growth including other potential future development growth. The resulting Year 2023 No-Build Traffic Volumes are shown on Figures No. 4 and 5 for each of the Peak Hours, respectively.

B. Site Generated Traffic Volumes

As discussed in Section I.A., the initial occupancy will include some 220-230 students residing on campus with 20-30 students commuting to the school. The educational and worship activities for the students that reside on campus typically occur between 6:00am and 9:00pm daily. The educational and worship activities for commuting students typically occur between 10:00am and 7:00pm, Sunday through Thursday with no Friday and Saturday studies. All instances in which students will arrive at and depart from the site will be by bus and/or shuttle/van.

There will be two educational shifts with 20-25 educational staff between 10:00am - 2:00pm and 20-25 educational staff between 3:30pm - 7:00pm. In addition to the educational staff, there is an early morning staff of 2-3 supervisors that arrive by minivan at 6:00am and leave with the 2:00pm shuttle and 5-6 overnight supervisors (1-2 supervisors arriving by minivan and 3-4 supervisors who drive on their own) that arrive at 10:00pm and leave at 6:00am.

Commuting students and most of the educational staff will arrive/depart the Site by bus (approximately 2-3 buses per day) and/or shuttle/van (approximately 4-5 shuttles/van per day). A small percentage of the educational staff may travel on their own (conservatively anticipated to be no more than 10 at the same time). Supporting staff (15-20) including kitchen, janitorial, maintenance are expected to arrive off peak and leave between 7:00pm and 8:00pm and would use their own transportation.

Based on the above, the Yeshivath will generate minimal traffic during the Peak AM and PM Hours. During the Yeshivath's peak arrival time at 10:00am (9:30am – 10:30am time period) when educational staff and commuting students arrive (conservatively assuming 10 teachers arrive by their own car and no carpooling, 1 bus and 1 shuttle for staff/students), the anticipated traffic generation would be 12 entering vehicles with 3 exiting vehicles. Similar generation is anticipated during the peak dismissal time at 3:30pm (3:00pm – 4:00pm time period).

Year 2023 - Anticipated Trip Generation

	ENTRY				EXIT			
	Passenger Cars	School Bus	Shuttle Bus	Total	Passenger Cars	School Bus	Shuttle Bus	Total
Weekday Peak AM Hour	10 ⁽¹⁾	1	1	12	2 ⁽²⁾	1	0	3
Weekday Peak PM Hour	2 ⁽²⁾	1	0	3	10 ⁽¹⁾	1	1	12

1) In order to account for a small percentage of the educational staff that may travel on their own, it was conservatively anticipated to be no more than 10 at the same time.

2) While it is not anticipated to have any drop-off/pick-up, a 20% drop-off/pick-up was conservatively used.

It should be noted the Yeshivath's peak trip generation was added to the adjacent roadway peak hours to provide a conservative analysis of future traffic conditions.

C. Arrival / Departure Distributions

(Figures No. 6, 7 and 8, 9)

Arrival and departure distributions were developed to assign the site generated traffic volumes to the Study Area intersections. The distribution were based on a review of the existing traffic volumes and expected travel patterns including any restriction for the proposed large buses ⁽¹⁾. The resulting arrival/departure distributions for passenger cars are shown on Figures No. 6 and 7 and the resulting arrival/departure distributions for school buses ⁽¹⁾ are shown on Figures No. 8 and 9.

⁽¹⁾ The full-size buses proposed are the 2020 Thomas HDX Commercial bus with 46 seats. Turning movement diagrams for various travel routes to/from the site using the U.S. Route 9A and NYS Route 9A corridors including the site driveways were conducted using the proposed full-size bus dimensions. Based on a review of the turning movement diagram, it was determined that full size buses should be directed to use the NYS Route 9A Corridor. A copy of the proposed travel route, proposed full size bus dimensions and turning movement diagrams are contained in Appendix H.

D. Year 2023 Build Traffic Volumes

(Figures No. 10, 11, 12, 13, 14 and 15)

The site generated traffic volumes (Section III.B) were assigned to the roadway based on the anticipated arrival and departure patterns discussed in Section III.C. The resulting Site Generated Traffic Volumes are shown on Figures No. 10 and 11 for passenger cars and on Figures No. 12 and 13 for school buses. The site generated traffic volumes were added to the Year 2023 No-Build Traffic Volumes (Figures No. 4 and 5) resulting in the Year 2023 Build Traffic Volumes for each of the Peak Hours, respectively (Figures No. 14 and 15). [As discussed in Section III.C, the

Yeshivath's peak trip generation was added to the adjacent roadway peak hours to provide a conservative analysis of future traffic conditions].

E. Year 2033 No-Build and Year 2033 Build Traffic Volumes

(Figures No. 16 through 21)

As discussed in section I.A., in addition to the initial occupancy the Applicant anticipates that the campus' occupancy will grow by approximately 3% per year for the first 10 years of operation. This growth rate would result in the expected occupancy of 350 student by the end of ten years.

The Year 2033 No-Build Traffic Volumes were grown by an additional 1% per year growth rate (for an addition background growth of 10%) resulting in the Year 2033 No-Build Traffic Volumes and are shown on Figures No. 16 and 17 for each of the Peak Hours, respectively.

It is anticipated that future expansion may require 5-6 additional staff and may require an additional 1-2 buses per day.

Year 2033 – Additional Anticipated Trip Generation

	ENTRY				EXIT			
	Passenger Cars	School Bus	Shuttle Bus	Total	Passenger Cars	School Bus	Shuttle Bus	Total
Weekday Peak AM Hour	6 ⁽¹⁾	1	1	8	1 ⁽²⁾	1	0	2
Weekday Peak PM Hour	1 ⁽²⁾	1	0	2	6 ⁽¹⁾	1	1	8

1) In order to account for a small percentage of the educational staff that may travel on their own, it was conservatively anticipated to be no more than 10 at the same time.

2) While it is not anticipated to have any drop-off/pick-up, a 20% drop-off/pick-up was conservatively used.

The additional future site generated traffic volumes above, were assigned to the roadway based on the anticipated arrival and departure patterns discussed in Section III.C. The resulting additional Site Generated Traffic Volumes are shown on Figures No. 18 and 19 for passenger cars and on Figures No. 20 and 21 for school buses. The additional site generated traffic volumes were added to the Year 2033 No-Build Traffic Volumes (Figures No. 16 and 17) resulting in the 2033 Build Traffic Volumes for each of the Peak Hours, respectively (Figures No. 20 and 21). [As discussed in Section III.C, the Yeshivath's peak trip generation was added to the adjacent roadway peak hours to provide a conservative analysis of future traffic conditions].

F. Year 2023 and Year 2023 Build Traffic Volumes – Event Conditions

(Figures No. 22 and 23)

As provided by the Applicant, special events occur 5-10 times a year. The type of events would be religious and educational such as guest speakers, graduation and religious holidays. Typically, there are 5-7 smaller events with minimal outside attendance (20-25 guests) and 3-5 larger events for 100-150 guests.

An example for a smaller event would be a Chanukah ceremony and would typically occur on a Weekday, starting at 4:00pm and ending at 7:00pm. An example of a larger event would be a graduation and would typically occur in the evening (8:00pm – 11:00pm).

A summary of the Weekday Hourly Traffic Volumes (7:00am – 8:00pm) for the area roadways are contained in Appendix F. For analysis purpose, a larger event was analyzed during the critical Weekday Peak PM Hour (5:00pm – 6:00pm) for the critical exiting time period.

Based on information provided by the Applicant, for the larger special events, it is anticipated that 25% of the guests will use passenger cars with the remainder using 2-3 buses. Assuming 25% of the guest arrive by private vehicle and a 2.5-person occupancy, the anticipated passenger car traffic would be some 10–15 cars.

Event Conditions - Anticipated Trip Generation

	ENTRY				EXIT			
	Passenger Cars	School Bus	Shuttle Bus	Total	Passenger Cars	School Bus	Shuttle Bus	Total
Weekday Peak PM Hour	3 ⁽²⁾	0	0	3	15	0	3	18

2) While it is not anticipated to have any drop-off/pick-up, a 20% drop-off/pick-up was conservatively used.

Appendix F also contains a comparison of a typical Weekday and Sunday traffic volumes along Elm Road.

G. Description of Analysis Procedures

In order to determine existing and future traffic operating conditions, it was necessary to perform a SYNCHRO analysis (capacity analyses). 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 Highway Capacity Manual, 6th Edition, dated 2016, 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 Highway Capacity Manual, 6th Edition, dated 2016. 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 D of this study.

H. Results of Analysis

(Tables No. 1, 2 and 3)

In order to evaluate current and future traffic operating conditions, a SYNCHRO analysis which take into consideration appropriate truck percentages, pedestrian activity and other factors were performed at the study area intersection utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below is 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.

Table No. 1 (Weekday Peak AM Hour), Table No. 2 (Weekday Peak PM Hour) and Table No.3 (Weekday Peak PM – Event Conditions) summarizes the resulting Levels of Service, vehicle delay and volume-to-capacity (v/c) ratios the Year 2021 Existing, Year 2023 No-Build, Year 2023 Build, Year 2033 No-Build and Year 2033 Build Conditions. Appendix C contains the Level of Service Summary Tables and Appendix E contains copies of the capacity analysis which also indicate the existing geometrics signal phasing/timings (where appropriate).

1. Pleasantville Road and North State Road

North State Road intersects Pleasantville Road at a “T” type, signalized intersection. The Pleasantville Road southbound approach consists of two lanes in the form of a separate left turn lane and separate through lane and the Pleasantville Road northbound approach consists of two lanes in the form of a separate through lane and separate right turn lane. The North State Road westbound approach consists of two lanes in the form of a separate left turn lane and separate right turn lane.

Year 2021 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2021 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2023 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service "B" or better during each of the Peak Hours.

Year 2023 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service "B" or better during each of the Peak Hours.

Year 2033 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service "B" or better during each of the Peak Hours.

Year 2033 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service "B" or better during each of the Peak Hours.

Year 2023 Build and Year 2033 Build Traffic Volumes – Event Conditions

Capacity analysis conducted utilizing the Year 2023 Build and Year 2033 Build Traffic Volumes for an Event Condition indicates that the intersection is projected to operate at an overall Level of Service "B" or better during the analyzed Weekday Peak PM Hour.

2. Pleasantville Road and South State Road

Pleasantville Road and South State Road intersects at a "T" type, signalized intersection. The Pleasantville Road southbound approach consists of one lane in the form of a shared left/through lane, the South State Road northbound approach consists of two lanes in the form of a separate through lane and separate right turn lane, and the Pleasantville Road westbound approach consists of two lanes in the form of a separate left turn lane and separate right turn lane.

Year 2021 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2021 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service "A" during each of the Peak Hours.

Year 2023 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service "A" during each of the Peak Hours.

Year 2023 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2033 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2033 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2023 Build and Year 2033 Build Traffic Volumes – Event Conditions

Capacity analysis conducted utilizing the Year 2023 Build and Year 2033 Build Traffic Volumes for an Event Condition indicates that the intersection is projected to operate at an overall Level of Service “B” or better during the analyzed Weekday Peak PM Hour.

3. South State Road and Elm Road

Elm Road intersects South State Road at a “T” type, unsignalized intersection. The South State Road northbound approach consists of one lane for left and through movements and the South State Road southbound approach consist of one lane for through and right turn movements. The Elm Road eastbound approach consist of one lane for left and right turn movements and is “stop” sign controlled.

Year 2021 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2021 Existing Traffic Volumes indicates that the Elm Road eastbound approach (minor approach) is currently operating at a Level of Service “B” during each of the Peak Hours. The South State Road northbound left turn is currently operating a Level of Service “A”.

Year 2023 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 No-Build Traffic Volumes indicates that the Elm Road eastbound approach (minor approach) is projected to operate at a Level of Service “B” during each of the Peak Hours. The South State Road northbound left turn is projected to operate at a Level of Service “A”.

Year 2023 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 Build Traffic Volumes indicates that the Elm Road eastbound approach (minor approach) is projected to continue to operate at a Level of Service “B” during each of the Peak Hours. The South State Road northbound left turn is projected to continue to operate at a Level of Service “A”.

Year 2033 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 No-Build Traffic Volumes indicates that the Elm Road eastbound approach (minor approach) is projected to operate at a Level of Service "B" during the Weekday Peak AM Hour and projected to operate at a Level of Service "C" during the Weekday Peak PM Hour. The South State Road northbound left turn is projected to operate at a Level of Service "A".

Year 2033 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 Build Traffic Volumes indicates that the Elm Road eastbound approach (minor approach) is projected to continue to operate at a Level of Service "B" during the Weekday Peak AM Hour and projected to continue to operate at a Level of Service "C" during the Weekday Peak PM Hour. The South State Road northbound left turn is projected to continue to operate at a Level of Service "A".

Year 2023 Build and Year 2033 Build Traffic Volumes – Event Conditions

Capacity analysis conducted utilizing the Year 2023 and Year 2033 Build Traffic Volumes for an Event Condition indicates that the Elm Road eastbound approach (minor approach) is projected to continue to operate at a Level of Service "B" (Year 2023) and a Level of Service "C" (Year 2033) during the Weekday Peak PM Hour. The South State Road northbound left turn is projected to continue to operate at a Level of Service "A".

4. Elm Road and Birch Road

Birch Road intersects Elm Road (opposite the existing westerly entry only driveway which will be used as an emergency only access) and a unsignalized intersection. All approached to the intersection consist of one lane and the Birch Road approach is "stop" sign controlled.

Year 2021 Existing Traffic Volumes

Capacity analysis conducted utilizing the Year 2021 Existing Traffic Volumes indicates that the Birch Road southbound approach (minor approach) is currently operating at a Level of Service "B" during each of the Peak Hours. The Elm Road eastbound left turn is currently operating a Level of Service "A".

Year 2023 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 No-Build Traffic Volumes indicates that the Birch Road southbound approach (minor approach) is projected to operate at a Level of Service "B" during each of the Peak Hours. The Elm Road eastbound left turn is projected to operate at a Level of Service "A".

Year 2023 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 Build Traffic Volumes indicates that the Birch Road southbound approach (minor approach) is projected to continue to operate at a Level of Service "B" during each of the Peak Hours. The Elm Road eastbound left turn is projected to continue to operate at a Level of Service "A".

Year 2033 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 No-Build Traffic Volumes indicates that the Birch Road southbound approach (minor approach) is projected to operate at a Level of Service "B" during each of the Peak Hours. The Elm Road eastbound left turn is projected to operate at a Level of Service "A".

Year 2033 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 Build Traffic Volumes indicates that the Birch Road southbound approach (minor approach) is projected to continue to operate at a Level of Service "B" during each of the Peak Hours. The Elm Road eastbound left turn is projected to continue to operate at a Level of Service "A".

Year 2023 Build and Year 2033 Build Traffic Volumes – Event Conditions

Capacity analysis conducted utilizing the Year 2023 and Year 2033 Build Traffic Volumes for an Event Condition indicates that the Birch Road southbound approach (minor approach) is projected to continue to operate at a Level of Service "B" during the analyzed Weekday Peak PM Hour. The Elm Road eastbound left turn is projected to continue to operate at a Level of Service "A".

5. Elm Road and Proposed Site Driveway

As discussed in Section I.A., access to the existing campus currently consists of three curb cuts to the campus. The Yeshivath proposes to use the eastern-most driveway as its primary ingress and egress and will be accessed via a remote controlled gate. The two western driveways, including the driveway opposite Birch Road, are not currently proposed to be used for staff or student ingress and egress. The curb cuts for the two westerly driveways will remain and gated and be restricted to emergency access only.

Year 2023 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2023 Build Traffic Volumes indicates that the proposed Site driveway is projected to operate at a Level of Service "A" during each of the Peak Hours.

Year 2033 No-Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 No-Build Traffic Volumes indicates that the proposed Site driveway is projected to operate at a Level of Service "A" during each of the Peak Hours.

Year 2033 Build Traffic Volumes

Capacity analysis conducted utilizing the Year 2033 Build Traffic Volumes indicates that the proposed Site driveway is projected to operate at a Level of Service "A" during each of the Peak Hours

Year 2023 Build and Year 2033 Build Traffic Volumes – Event Conditions

Capacity analysis conducted utilizing the Year 2023 Build and 2033 Build Traffic Volumes for an Event Condition indicates that the proposed Site driveway is projected to operate at a Level of Service “A” during the analyzed Weekday Peak PM Hour.

Sight Distance Evaluation

A Sight Distance Evaluation (sight lines) were conducted at the proposed eastern-most driveway which will be used as the primary ingress and egress (Sheets 1 and 2). In addition, sight lines were also conducted at the two existing western driveways, which are not currently proposed to be used and will be gated and restricted to emergency access only (Sheets 3 and 4). In all instances the required Stopping Sight Distances (SSD) are met at each of the site driveways and would provide safe access to/from the site. A copy of the sight lines and profiles are contained in Appendix I.

I. Accident Data

(Table No. 4 – Appendix G)

Accident information was obtained from the New York State Department of Transportation (NYSDOT) Records Access Office for the pre-pandemic, three-year period (January 1, 2017 – December 31, 2019) for each of the study area intersections. This data is summarized in Table No. 4 by location, date, time, traffic control, severity, number of vehicles/injuries, light conditions, road surface condition, weather, manner of collision, and apparent contributing factors.

As shown on Table No. 4, there were a total of 3 reportable accidents at Pleasantville Road/North State Road, 3 reportable accidents at Pleasantville Road/S. State Road, 1 reportable accident at South State Road/Elm Road and 1 reportable accident at Elm Road/Birch Road.

A review of the accident data indicates typical type of accidents which includes rear-end accidents with apparent contributing factors such as driver inattention and following too closely conditions.

Based on a review of the accident data and anticipated site generated traffic, it is expected that the proposed Yeshivath will not have a significant impact on the accident rates on the area roadways.

IV. Summary and Conclusion

As summarized in this study, based on the proposed operation of the Yeshivath, including that most students will reside on campus, commuting students and most staff will arrive/depart the Site by bus, and the results of the analysis (Level of Service Summary Tables), the proposed Yeshivath is not expected to significantly affect the area roadways. Similar Levels of Service will be experienced at the study area intersections under future No-Build and future Build Conditions with the proposed development.

In addition, the proposed Yeshivath (including the anticipated normal growth to 350 students and event conditions) would generate significantly less traffic than the former Pace University Briarcliff Campus during peak periods as well as over the course of the day.

Traffic Impact Study

Appendix A | Former Pace University Briarcliff Campus Historical Data NYSDOT Historical Traffic Count Data

**PACE UNIVERSITY BRIARCLIFF CAMPUS
PREVIOUS TRAFFIC GENERATION**

Time Period	Entering Volumes	Exiting Volumes	Total Volume
8:00 am – 9:00 am	102	72	174
9:00 am – 10:00 am	85	50	135
10:00 am – 11:00 am	34	52	86
11:00 am – 12:00 pm	39	62	101
12:00 pm – 1:00 pm	44	44	88
3:00 pm – 4:00 pm	66	56	122
4:00 pm – 5:00 pm	65	105	170
5:00 pm – 6:00 pm	54	152	206

Based on previously collected traffic counts at the Pace University Briarcliff Campus
November 23, 2010 between 7:30 am – 9:00 am
November 17, 2010 between 9:00 am – 1:00 pm & 3:00 pm – 6:30 pm

LOCATION: PACE UNIVERSITY - BRIARCLIFF CAMPUS DRWY PROJECT PACE UNIVERSITY
 DATE OF COUNT: 11/23/10 DAY: WEDNESDAY JCE JOB # 1759 START TIME: 07:30 AM

ENTER 15-MINUTE COUNT VOLUMES BY MOVEMENT

AM PEAK HOUR	EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			total		
	1	2	3	4	5	6	7	8	9	10	11	12			
07:30 AM 07:45 AM	0	10	1	8	4	0	1		6	0	0	0	40	A	
07:45 AM 08:00 AM	0	20	2	11	18	2	1		13	0	0	1	68	A	
08:00 AM 08:15 AM	0	20	0	19	14	0	0		7	1	1	1	53	X	
08:15 AM 08:30 AM	0	47	5	15	23	0	1		22	0	0	0	113	X	284
08:30 AM 08:45 AM	1	33	4	15	25	1	0		11	0	1	0	91	X	335
08:45 AM 09:00 AM	0	27	3	41	22	1	2		29	0	1	1	127	X	394
09:00 AM 09:15 AM													0	A	331
09:15 AM 09:30 AM													0	A	218
09:30 AM 09:45 AM													0	A	127
09:45 AM 10:00 AM													0	A	0
10:00 AM 10:15 AM													0	A	0
10:15 AM 10:30 AM													0	A	0
10:30 AM 10:45 AM													0	A	0
10:45 AM 11:00 AM													0	A	0
11:00 AM 11:15 AM													0	A	0
11:15 AM 11:30 AM													0	A	0

CALCULATED PEAK 15-MINUTE VOLUMES

07:30 AM 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:45 AM 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
08:00 AM 08:15 AM	0	20	0	19	14	0	0	0	7	1	1	1	63		
08:15 AM 08:30 AM	0	47	5	15	23	0	1	0	22	0	0	0	113		
08:30 AM 08:45 AM	1	33	4	15	25	1	0	0	11	0	1	0	91		
08:45 AM 09:00 AM	0	27	3	41	22	1	2	0	29	0	1	1	127		
09:00 AM 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
09:15 AM 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
09:30 AM 09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
09:45 AM 10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:00 AM 10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:15 AM 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:30 AM 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:45 AM 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:00 AM 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:15 AM 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		

CALCULATED PEAK HOUR VOLUMES

AM PEAK HOUR	1	2	3	4	5	6	7	8	9	10	11	12	total	PHF
08:00 AM 09:00 AM	1	127	12	90	84	2	3	0	69	1	3	2	394	0.775591
PHF BY MOVEMENT	0.25	0.68	0.60	0.55	0.34	0.50	0.38	#DIV/0!	0.59	0.25	0.75	0.50		
PHF BY APPROACH		0.67			0.59			0.58			0.50			

2	3	1	^	6	2
12	11	10	<	5	84
<	v	>	v	4	90
1	1	^	<	^	>
127	2	>	7	8	9
12	3	v	3	0	69

LOCATION: PACE UNIVERSITY - BR/ARCLIFF CAMPUS DRWY PROJECT: PACE UNIVERSITY
 DATE OF COUNT 11/17/10 DAY: WEDNESDAY JCE JOB # 1759 START TIME 09:00 **AM**

ENTER 15-MINUTE COUNT VOLUMES BY MOVEMENT

		EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND				
AM PEAK HOUR		1	2	3	4	5	6	7	8	9	10	11	12	total	
09:00 AM	09:15 AM		22	4	33	17	0	2	0	13	0	0	0	91	X
09:15 AM	09:30 AM		19	4	14	16	0	1	0	9	0	0	0	63	X
09:30 AM	09:45 AM		26	3	13	19	0	1	0	6	0	0	0	68	X
09:45 AM	10:00 AM		27	1	13	13	0	0	0	18	0	0	0	72	X
10:00 AM	10:15 AM		22	1	10	13	0	0	0	18	0	0	0	65	A
10:15 AM	10:30 AM		22	1	3	9	0	0	0	13	0	0	0	48	A
10:30 AM	10:45 AM		18	1	5	15	0	1	0	7	0	0	0	47	A
10:45 AM	11:00 AM		23	3	10	10	0	0	0	12	0	0	0	58	A
11:00 AM	11:15 AM		13	2	8	10	0	0	0	16	0	0	0	49	A
11:15 AM	11:30 AM		17	2	8	12	0	0	0	24	0	0	0	63	A
11:30 AM	11:45 AM		14	1	10	15	0	0	0	11	0	0	0	51	A
11:45 AM	12:00 PM		19	1	7	21	0	0	0	11	0	0	0	59	A
12:00 PM	12:15 PM		20	2	10	15	0	1	0	12	0	0	0	60	A
12:15 PM	12:30 PM		21	1	9	17	0	1	0	11	0	0	0	60	A
12:30 PM	12:45 PM		17	0	10	16	0	0	0	9	0	0	0	52	A
12:45 PM	01:00 PM		19	3	9	15	0	0	0	10	0	0	0	59	A

CALCULATED PEAK 15-MINUTE VOLUMES

09:00 AM	09:15 AM	0	22	4	33	17	0	2	0	13	0	0	0	91	
09:15 AM	09:30 AM	0	19	4	14	16	0	1	0	9	0	0	0	63	
09:30 AM	09:45 AM	0	26	3	13	19	0	1	0	6	0	0	0	68	
09:45 AM	10:00 AM	0	27	1	13	13	0	0	0	18	0	0	0	72	
10:00 AM	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	

CALCULATED PEAK HOUR VOLUMES

AM PEAK HOUR	1	2	3	4	5	6	7	8	9	10	11	12	total	PHF
09:00 AM - 10:00 AM	0	94	12	73	65	0	4	0	25	0	0	0	294	0.807692
PHF BY MOVEMENT	#DIV/0!	0.87	0.75	0.55	0.86	#DIV/0!	0.50	#DIV/0!	0.24	#DIV/0!	#DIV/0!	#DIV/0!		
PHF BY APPROACH		0.91			0.69			0.69						

0	0	0	^	6	0
12	11	10	<	5	65
<	v	>	v	4	73
0	1	^	<	^	>
94	2	>	7	8	0
12	3	v	4	0	46

LOCATION: PACE UNIVERSITY - BRIARCLIFF CAMPUS DRWY PROJECT: PACE UNIVERSITY
 DATE OF COUNT: 11/17/10 DAY: WEDNESDAY JOE JOB #: 1759 START TIME: 1500 **PM**

ENTER 15-MINUTE COUNT VOLUMES BY MOVEMENT

AM PEAK HOUR		EASTBOUND			WESTBOUND			NORTHBOUND			SOUTHBOUND			total	
		1	2	3	4	5	6	7	8	9	10	11	12		
03:00 PM	03:15 PM		24	2	22	48		0		13				109	A
03:15 PM	03:30 PM		31	1	14	35		1		16				98	A
03:30 PM	03:45 PM		33	6	10	32		1		13				95	A
03:45 PM	04:00 PM		34	2	9	29		1		11				86	A 388
04:00 PM	04:15 PM		31	3	17	38		1		35				125	A 404
04:15 PM	04:30 PM		20	2	19	26		1		22				90	A 396
04:30 PM	04:45 PM		20	1	10	32		1		27				91	X 392
04:45 PM	05:00 PM		31	1	12	28		0		18				90	X 396
05:00 PM	05:15 PM		28	2	16	32		0		55				133	X 404
05:15 PM	05:30 PM		19	4	13	42		5		37				120	X 434
05:30 PM	05:45 PM		16	0	6	17		0		30				69	A 412
05:45 PM	06:00 PM		24	2	11	26		0		30				93	A 415
06:00 PM	06:15 PM		29	1	2	21		0		15				68	A 350
06:15 PM	06:30 PM		21	2	3	15		0		12				53	A 283
06:30 PM	06:45 PM													0	A 214
06:45 PM	07:00 PM													0	A 121

CALCULATED PEAK 15-MINUTE VOLUMES

03:00 PM	03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:15 PM	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30 PM	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:45 PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:00 PM	04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15 PM	04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30 PM	04:45 PM	0	20	1	10	32	0	1	0	27	0	0	0	91	
04:45 PM	05:00 PM	0	31	1	12	28	0	0	0	18	0	0	0	90	
05:00 PM	05:15 PM	0	28	2	16	32	0	0	0	55	0	0	0	133	
05:15 PM	05:30 PM	0	19	4	13	42	0	5	0	37	0	0	0	120	
05:30 PM	05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:45 PM	06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:00 PM	06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:15 PM	06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:30 PM	06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:45 PM	07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	

CALCULATED PEAK HOUR VOLUMES

PM PEAK HOUR	1	2	3	4	5	6	7	8	9	10	11	12	total	PHE
04:30 PM 05:30 PM	0	98	8	51	134	0	6	0	137	0	0	0	434	0.815789
PHE BY MOVEMENT	#DIV/0!	0.79	0.50	0.80	0.80	#DIV/0!	0.30	#DIV/0!	0.62	#DIV/0!	#DIV/0!	#DIV/0!		
PHE BY APPROACH		0.83			0.84			0.65						

0	0	0	^	6	0
10	10	10	<	5	134
>	>	>	>	4	51
0	1	2	<	^	>
98	1	>	<	8	9
8	3	>	<	6	0
				0	137

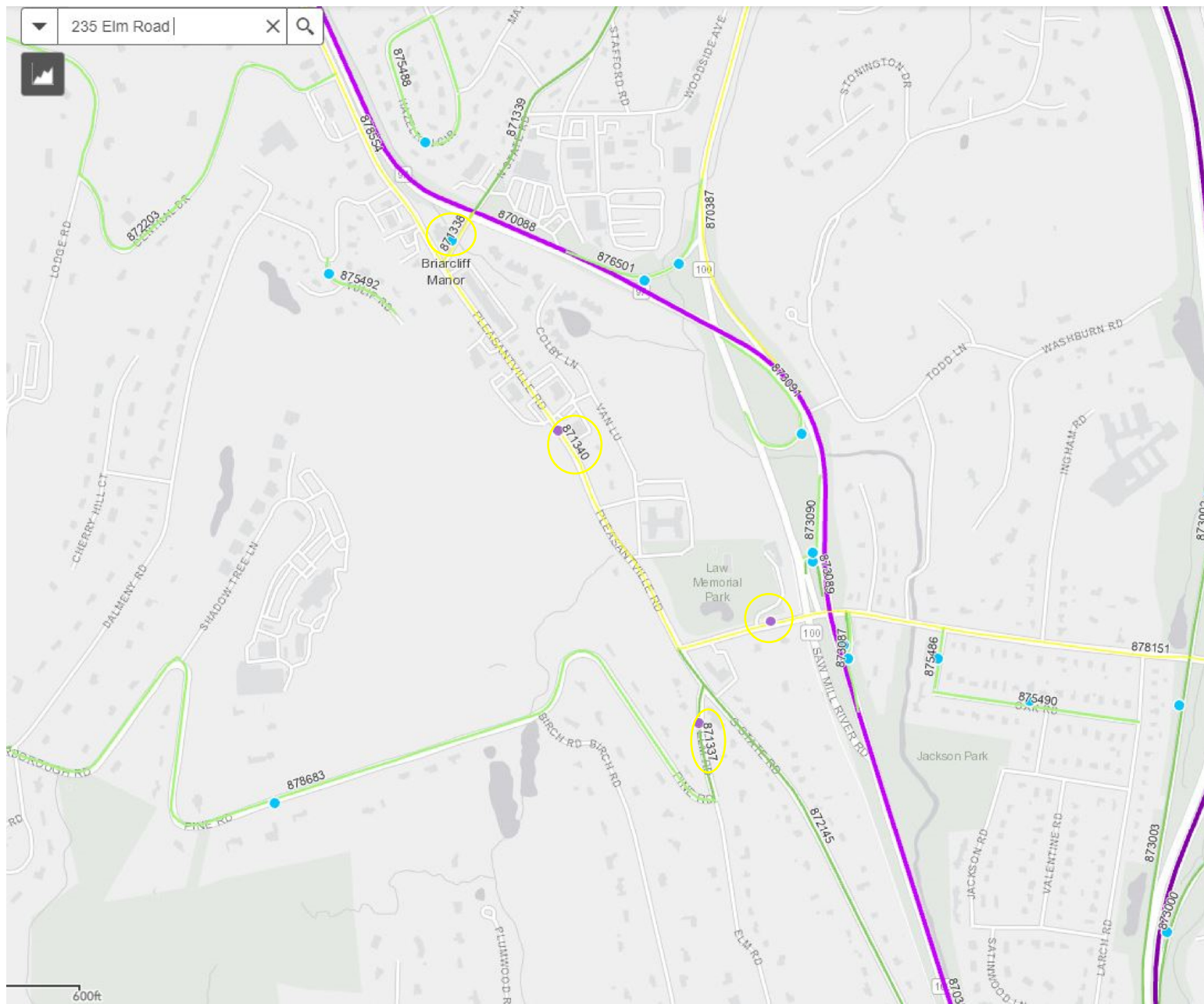
The following should be noted in response to the Provident Design Engineering (PDE) comment that "As it has been several years since the Site has been occupied and generated traffic, as well as that background traffic has since changed, a Traffic Study should be performed. Although there was a prior educational use at this Site, there has been no meaningful traffic generated by the site for several years or currently. It should be analyzed as a new project to consider potential traffic impacts."

- As outlined in our original traffic letter dated June 17, 2021 and in more detail in our August 20, 2021 response letter, "Based on the proposed operation of the school, including that most students will reside on campus, commuting students and most staff will arrive/depart the Site by bus, the proposed Yeshivath (including the anticipated normal growth to 350 students) would generate significantly less traffic than the former Pace University Briarcliff Campus during peak periods as well as over the course of the day and would not have a significant impact on the area roadways in the vicinity of the Site.
- In addition based on NYSDOT historical AADT data, current traffic conditions in the vicinity of the Site including the roadways recommended to be analyzed by PDE have significantly decreased from 2010 (when the Pace University Briarcliff Campus was in use and the previous traffic counts were collected). A comparison of 2010 and 2019 traffic conditions are shown on the table below and should address how background traffic in the vicinity of the Site have changed.

NYSDOT AADT Historical Data

STATION	ROAD	2019	2010
87_1337	Elm Road (between S. State Road and Pine Road)	3,888	5,381
87_1338	North State Road (between Pleasantville Road and Route 9A)	6,672	7,062
87_1340	Pleasantville Road (between S. State Road and N. State Road)	8,106	8,842
87-8151	Pleasantville Road (between S. State Road and Pleasantville V/L)	8,194	10,890

*Average AADT of 2009 & 2011



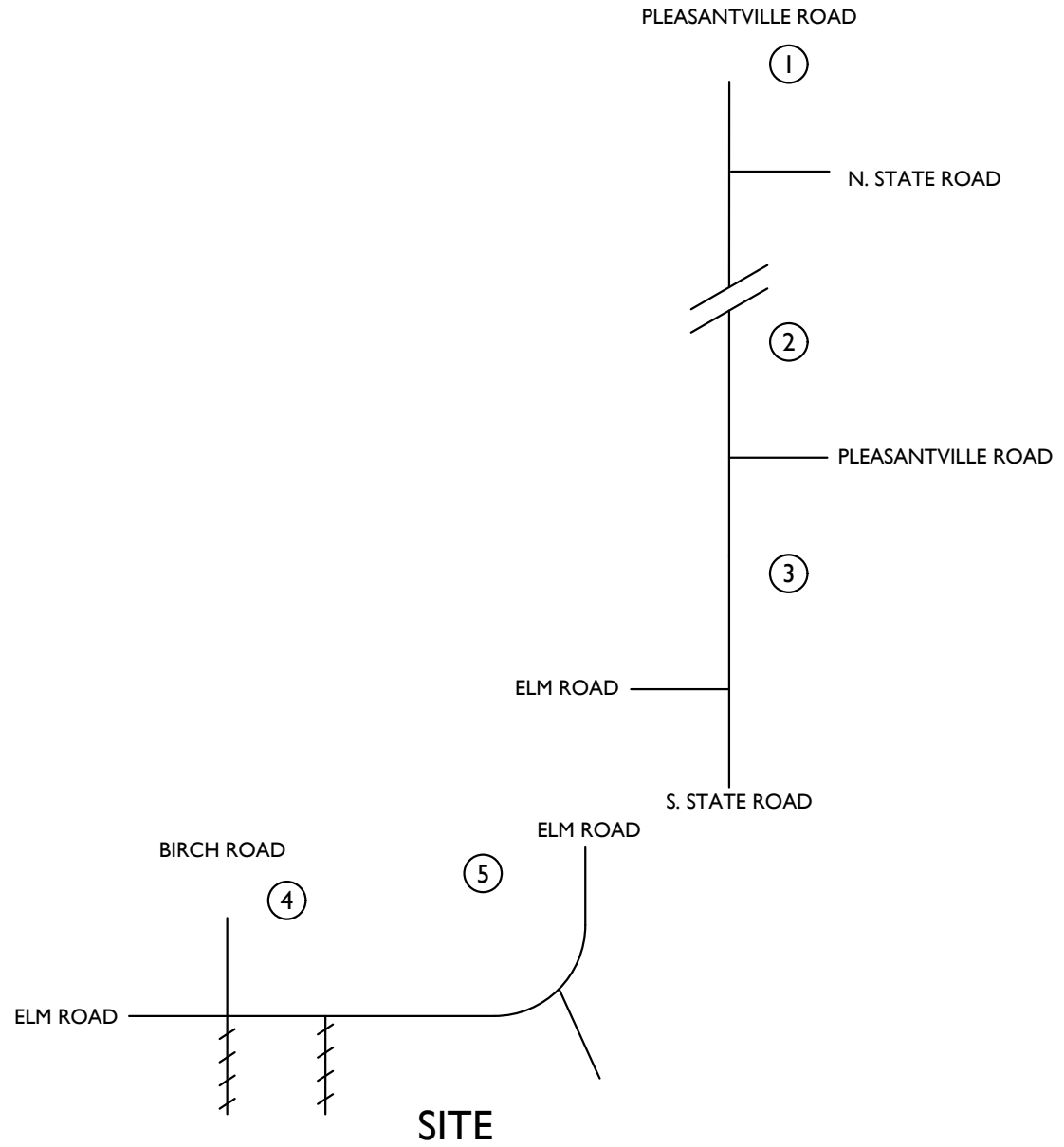
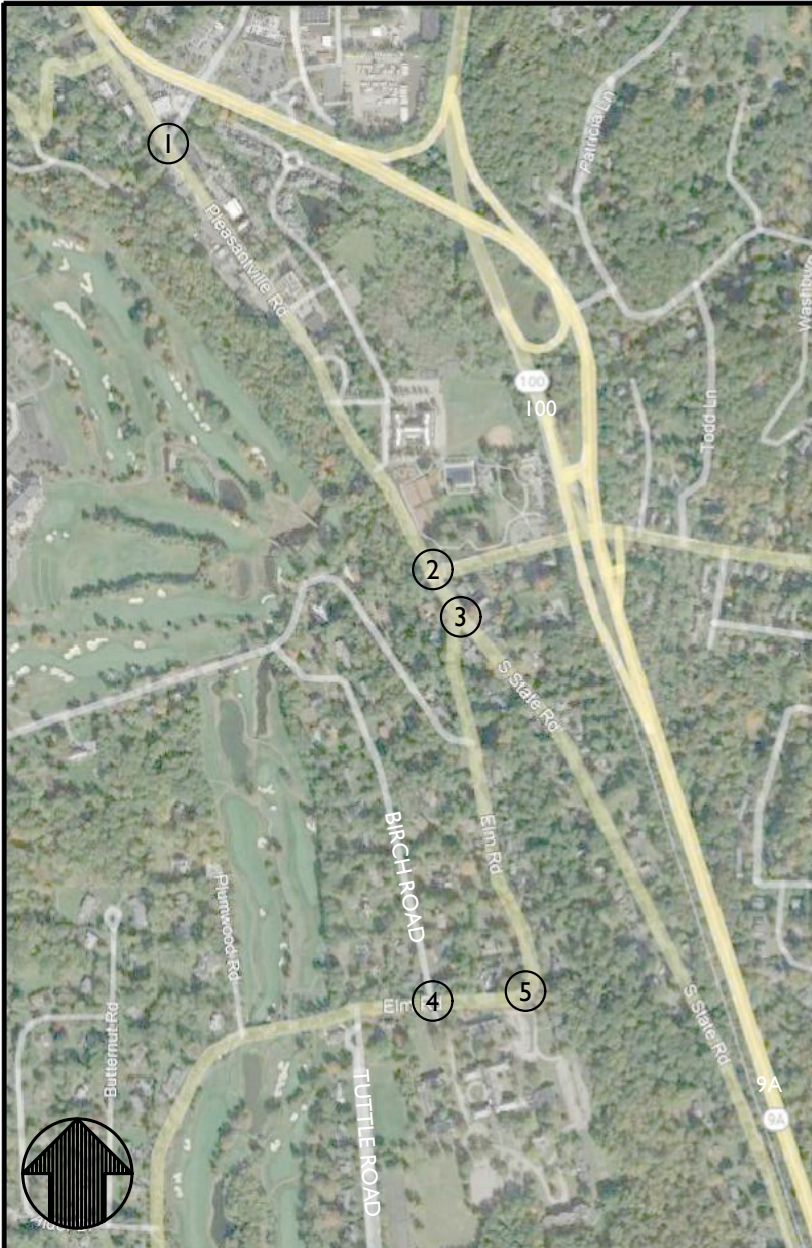
Station	Func. Class	End Mile Point	Section Length	Road Name	Beginning Description	End Description	2019 Estimate		-----		<<< Previous Counts >>>		-----			
							AADT	% Trucks	YEAR	AADT--	YEAR	AADT	YEAR	AADT		
Municipality 0088				Brant		Region 05										
53_6065	9	0153	0153	ELLIS RD	CR 9/ANGOLA BRANT RD	MORLEY RD	123	2.3	2016	128	2011	124	2005	127		
53_6064	9	0070	0070	HALLEY RD	MINE BLOCK RD	NORTH COLLINS TL	245	6	2019	245	2014	186	2006	225		
53_6403	8	0262	0159	MILESTRIP RD	RT 20	RES EAST LINE	1148	7.6	2016	1152	2010	1307				
Municipality 0089				Brasher		Region 07										
75_6157	8	0034	0034	DEPOT ST	MAIN ST	NY 37C	1515	7.9	2019	1515	2018	1394	2012	1640	2010	1935
75_7059	9	0178	0178	EAST MAHONEY RD	SMITH RD	CR 37	147	5.7	2016	153	2009	149	2007	164	2001	227
75_6112	9	0013	0013	GOODNOW RD	CR 50	DE AT BRIDGOUT	0	5.7	2019	0	2014	1				
75_6034	9	0192	0100	KEENAN RD	PVMT BEG	CR 37	66	4.7	2016	68	2010	56	2001	99		
75_6103	9	0160	0033	MURRAY RD	BEG PVMT	CR 50	12	0	2014	13	2003	40	2000	42		
75_7099	9	0243	0243	NORTH RD	NY 37C	FRANKLIN C/L	375	5.7	2016	389	2009	315	2001	261		
75_6223	9	0037	0037	SHADY CITY RD	CR 55	MCCUIN RD	56	0	2012	61	2010	74	2008	63	2004	70
75_6115	9	0220	0220	SMALL RD	HOPSON RD	UPPER RIDGE RD	328	5.7	2019	328	2014	307	2003	333	2001	1944
75_6119	9	0350	0350	SMITH RD	CR 55	REAGAN RD	150	1.7	2018	152	2012	157	2010	194	2008	255
Municipality 1051				Brewster		Region 08										
84_5229	19	0018	0018	EASTVIEW AVE	MICHAEL NEUNER DR	PROSPECT ST		5								
84_1213	16	0033	0033	NORTH MAIN ST	US 6	187 FT S OF V/L	4698	3.8	2017	4711	2009	4514				
84_5230	19	0014	0014	WELLS ST	NORTH MAIN ST	PROSPECT ST		5								
Municipality 1052				Briarcliff Manor		Region 08										
87_5486	19	0006	0006	ASH RD	PLEASANTVILLE RD	OAK RD	407	5	2015	411						
87_5487	19	0035	0035	BROOKWOOD DR	SCARBOROUGH RD	END LOOP	127	5	2016	128	2015	203				
87_2203	19	0117	0117	CENTRAL DR	PLEASANTVILLE RD	BRIARCLIFF RD	265	5	2006	274						
87_2016	16	0105	0105	CHAPPAQUA RD	PLEASANTVILLE RD	MOUNT PLEASANT T/L	3879	5.7	2018	3884	2014	3726	2011	3173	2008	3583
87_1337	17	0012	0012	ELM RD	S STATE RD	PINE RD	3888	1.4	2016	3893	2010	5381				
87_5488	19	0031	0031	HAZELTON CIR	MATTHES RD	MATTHES RD	82	5	2015	83						
87_5489	19	0005	0005	LAUREL LA	CEDAR DR EAST	END	5	5	2015	5						
87_2210	19	0072	0072	MACY RD	HOLBROOK RD	APPLE LA	1629	5	2006	1681						
87_1339	17	0081	0081	N STATE RD	NY 9A	CHAPPAQUA RD	3690	3.7	2018	3692	2011	5140	2010	4309		
87_1338	17	0006	0006	NORTH STATE RD	PLEASANTVILLE RD	RT 9A	6672	3.6	2016	6681	2010	7062				

Station	Func. Class	End Mile Point	Section Length	Road Name	Beginning Description	End Description	2019 Estimate		-----		<<<	Previous Counts		>>>	-----	
							AADT	% Trucks	YEAR	AADT--	YEAR	AADT	YEAR	AADT	YEAR	AADT
87_5490	19	0021	0021	OAK RD	ASH RD	LARCH RD	342	5	2015	345						
87_2103	17	0099	0099	OLD BRIARCLIFF	SCARBOROUGH RD	PLEASANTVILLE RD	1244	1.6	2016	1246	2006	1521				
87_8683	17	0107	0107	PINE RD	ELM RD	DALMENY RD	1120	3.6	2017	1121	2011	795	2010	1033	2004	1385
87_1340	17	0046	0046	PLEASANTVILLE R	SOUTH STATE RD	NORTH STATE RD	8106	2.3	2016	8117	2010	8842				
87_5491	19	0018	0018	REVOLUTIONARY R	ALBANY POST RO	OSSINING V/L	3147	5	2016	3170	2015	2821				
87_1342	17	0079	0079	SCARBOROUGH RD	DALMENY RD	OLD BRIARCLIFF RD	2196	3.6	2017	2198	2011	1718	2010	2005		
87_2137	17	0177	0098	SCARBOROUGH RD	OLD BRIARCLIFF RD	ALBANY POST RD	2392	2.2	2018	2393	2011	2845	2008	2552	2005	2891
87_1341	17	0045	0045	SCARBOROUGH STA	ALBANY POST RD	OSSINING V/L	1711	3.6	2016	1713	2013	1538				
87_1007	17	0174	0174	SLEEPY HOLLOW R	SCARBOROUGH RD	MOUNT PLEASANT T/L	1084	2.6	2018	1084	2014	1180	2011	978	2009	1332
87_2145	17	0095	0095	SOUTH STATE RD	PLEASANTVILLE RD	MOUNT PLEASANT T/L	1930	3.3	2019	1930	2011	1567	2008	1571	2005	2020
87_6546	19	0023	0023	TODD LANE	PLEASANTVILLE RD	CARLETON AVE										
87_5492	19	0010	0010	TULIP ROAD	POPLAR RD	DEAD END	125	5	2015	126						
Municipality 0090				Bridgewater		Region 02										
26_1809	9	0053	0053	CLARK RD	DEAD END	US 20		5.9								
26_5183	9	0086	0086	GULF RD	MADISON CO LINE	NY 8	61	5.9	2016	62						
26_5184	9	0450	0309	HARD SCRABBLE R	STEVENS RD	NY 8	33	5.9	2016	34						
26_5003	9	0055	0055	HUNTLEY RD	DEAD END	HERK CO LINE	2	5.9	2016	2						
26_5185	9	0222	0222	SHAUL RD	NY 8	CR2A STONE RD	183	5.9	2016	187						
26_1810	9	0073	0073	SICKLE HILL RD	DEAD END	NY 8	137	5.9	2012	143						
26_1811	9	0045	0045	WILLIAMS ROAD	US 20	DEAD END	99	5.9	2012	104						
Municipality 0091				Brighton		Region 07										
72_6137	9	0204	0204	WHITE PINE RD	NY 86	END	68	5.7	2016	71	2010	82	2004	68		
Municipality 0092				Brighton		Region 04										
43_5474	19	0027	0027	ALLENS CREEK RD	CLOVER ST	TOWN LINE	6492	4.3	2015	7165						
43_5475	19	0093	0093	BONNIE BRAE AVE	WESTFALL RD	ST REGIS DR	623	4.3	2014	706						
43_6154	19	0021	0021	CLOVER ST	NY96/EAST AVE	GREENAWAY RD	500	4	2017	525	2011	562	2001	629		
43_6114	19	0076	0076	CORWIN RD	CLOVER ST	CLOVER ST	218	4.3	2016	234	2009	186	2001	293		
43_5030	19	0047	0047	DALE RD	PENFIELD RD	END LOOP	314	4.3	2014	356						
43_5147	19	0034	0014	DUNBARTON DR	SLEEPY HOLLOW L	RENSSELAER	60	4.3	2014	68						
43_5148	19	0062	0062	EASTLAND AVE	ELMWOOD AVE	SOUTHERN PKY	485	4.3	2014	549						

Station	Func.	End Mile	Section	Road Name	Beginning Description	End Description	2019 Estimate		-----		<<<	Previous Counts		>>>	-----	
	Class	Point	Length				AADT	% Trucks	YEAR	AADT	YEAR	AADT	YEAR	AADT	YEAR	AADT
Road Number CR40II				County 119 Westchester		Region 08										
87_8554	16	0079	0079	PLEASANTVILLE R	N STATE RD	CHAPPAQUA RD	7321	3.2	2018	7331	2014	6829	2011	6082	2010	6655
87_8555	16	0111	0032	PLEASANTVILLE R	CHAPPAQUA RD	STA 58/40	15366	1.6	2019	15366	2016	13010	2010	12936		
87_8151	16	0189	0189	PLEASANTVILLE R	SO STATE RD	PLEASANTVILLE V/L	8194	2.6	2018	8206	2011	10739	2009	11042	2004	13489
Road Number CR43				County 119 Westchester		Region 08										
87_8172	17	0082	0070	WILLET AVE	KING ST PORT CHESTER	PUTNAM AVE	4843	3.6	2016	4849						
Road Number CR44				County 119 Westchester		Region 08										
87_8488	16	0063	0038	PALMER AVE	NY 125	MAMARONECK V/L	9955	4.2	2019	9955	2016	9600	2010	9835		
87_8488	16	0094	0094	PALMER AVE	MARMARONECK T/L	MAMARONECK AVE	9955	4.2	2019	9955	2016	9600	2010	9835		
Road Number CR44A				County 119 Westchester		Region 08										
87_8907	16	0025	0025	PALMER AVE	LARCHMONT V/L	NY 125	11395	3.1	2019	11395	2017	9905				
Road Number CR47I				County 119 Westchester		Region 08										
87_1113	14	0225	0204	CENTRAL PARK N	MCLEAN AVE	NY 100	7921	8.1	2019	7921	2018	12961	2011	17148	2007	33358
87_1716	14	0234	0234	CENTRAL PARK S	RAMP TO CCP	MCLEAN AVE	6133	4.7	2019	6133						
Road Number CR47IV				County 119 Westchester		Region 08										
87_1801	14	0021	0021	CENTRAL PARK N	BRONX LA	MCLEAN AVE	5477	4.7	2019	5477						
87_1802	14	0255	0021	CENTRAL PARK S	MCLEAN AVE	BRONX C/L	5201	4.7	2019	5201						
Road Number CR51				County 119 Westchester		Region 08										
87_8264	16	0038	0038	VIRGINIA RD	NY 22	0.15M AFTER WASHINGTON AVE N	7229	3.7	2018	7239	2014	7018	2011	7536		
Road Number CR52				County 119 Westchester		Region 08										
87_8341	14	0035	0035	HAMILTON AVE	DR MLK BLVD	N BROADWAY	16960	4.7	2010	17527	2007	12900				
Road Number CR52A				County 119 Westchester		Region 08										
87_8331	14	0021	0021	HAMILTON AVE	DR MLK BLVD	BANK ST	20970	1.6	2018	21046	2010	23971	2007	44310		
Road Number CR53				County 119 Westchester		Region 08										

Traffic Impact Study

Appendix B | Traffic Volume Figures



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**
CONSULTING

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1	11/19/21	P.W.G.	11/19/21
2	11/19/21	P.W.G.	11/19/21
3	11/19/21	P.W.G.	11/19/21
4	11/19/21	P.W.G.	11/19/21
5	11/19/21	P.W.G.	11/19/21

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

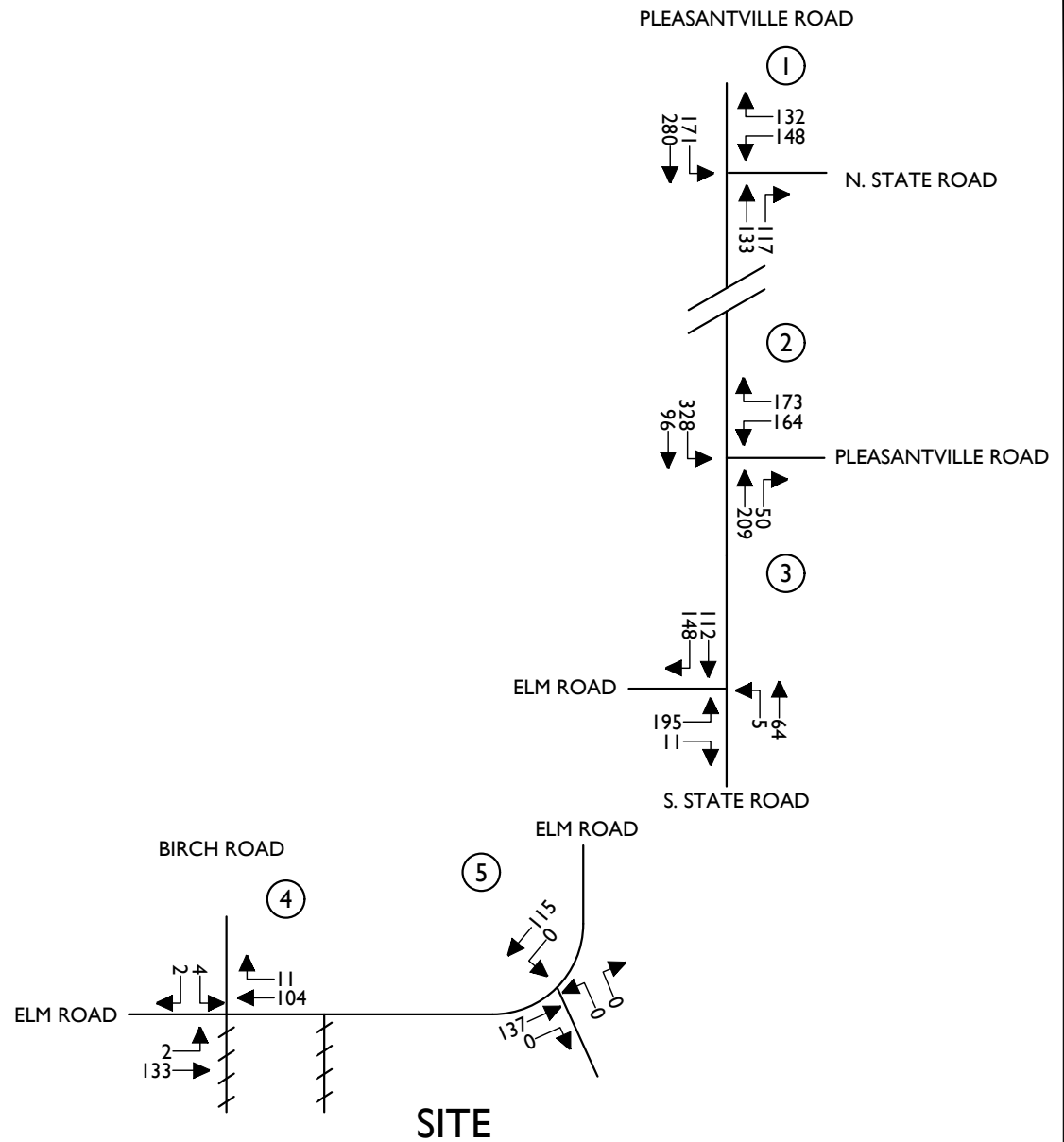
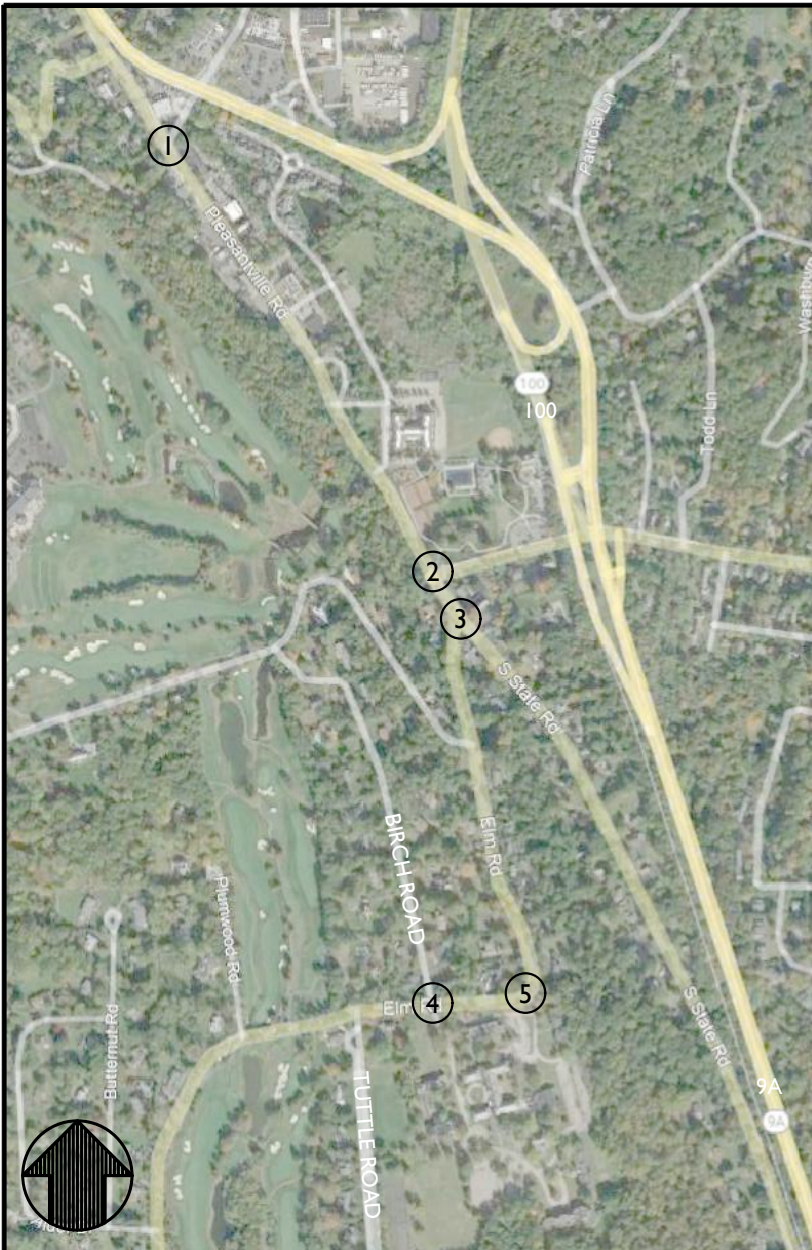
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
SITE LOCATION

SHEET NUMBER:
1



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM



Engineering
& Design

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE

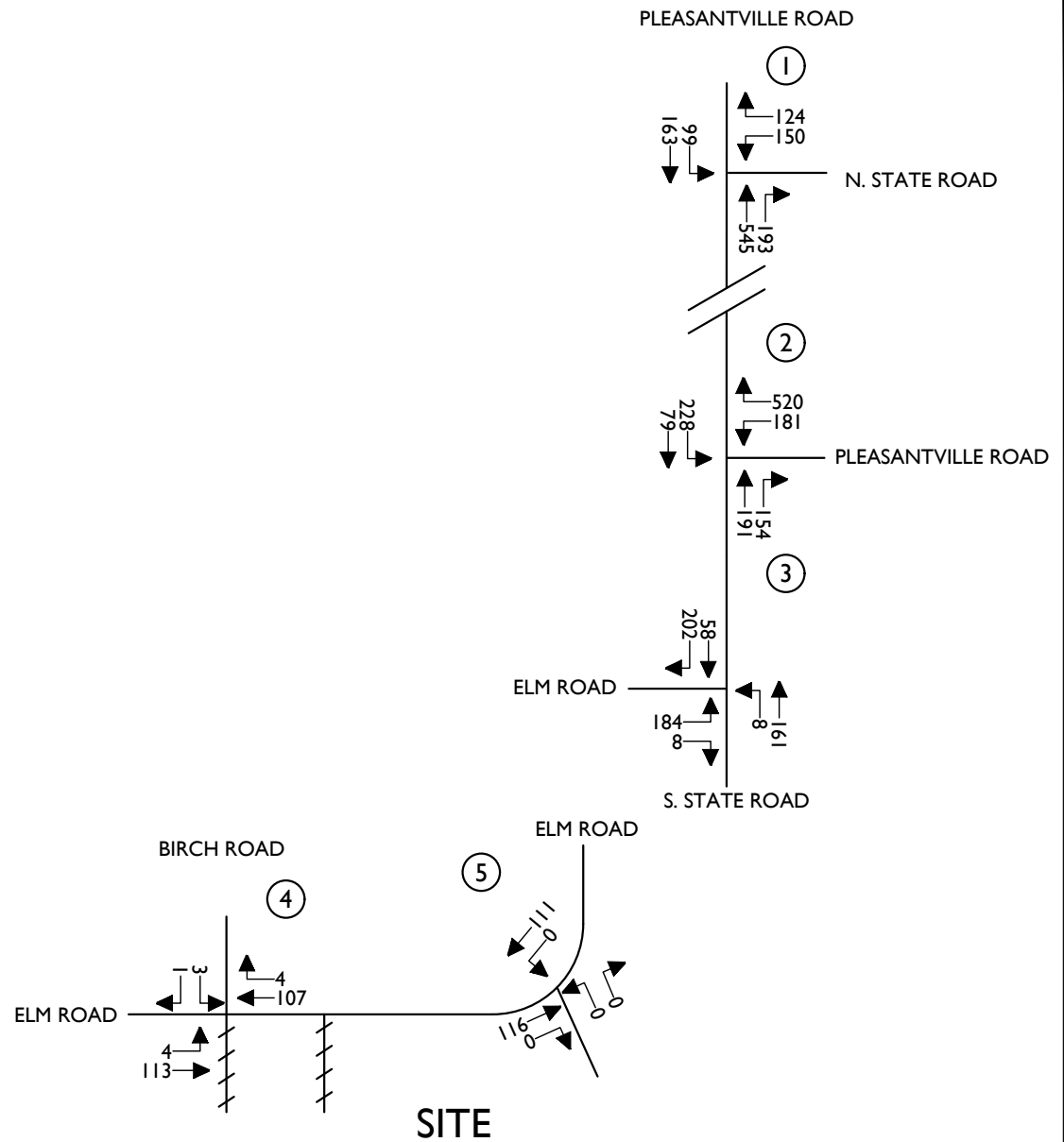
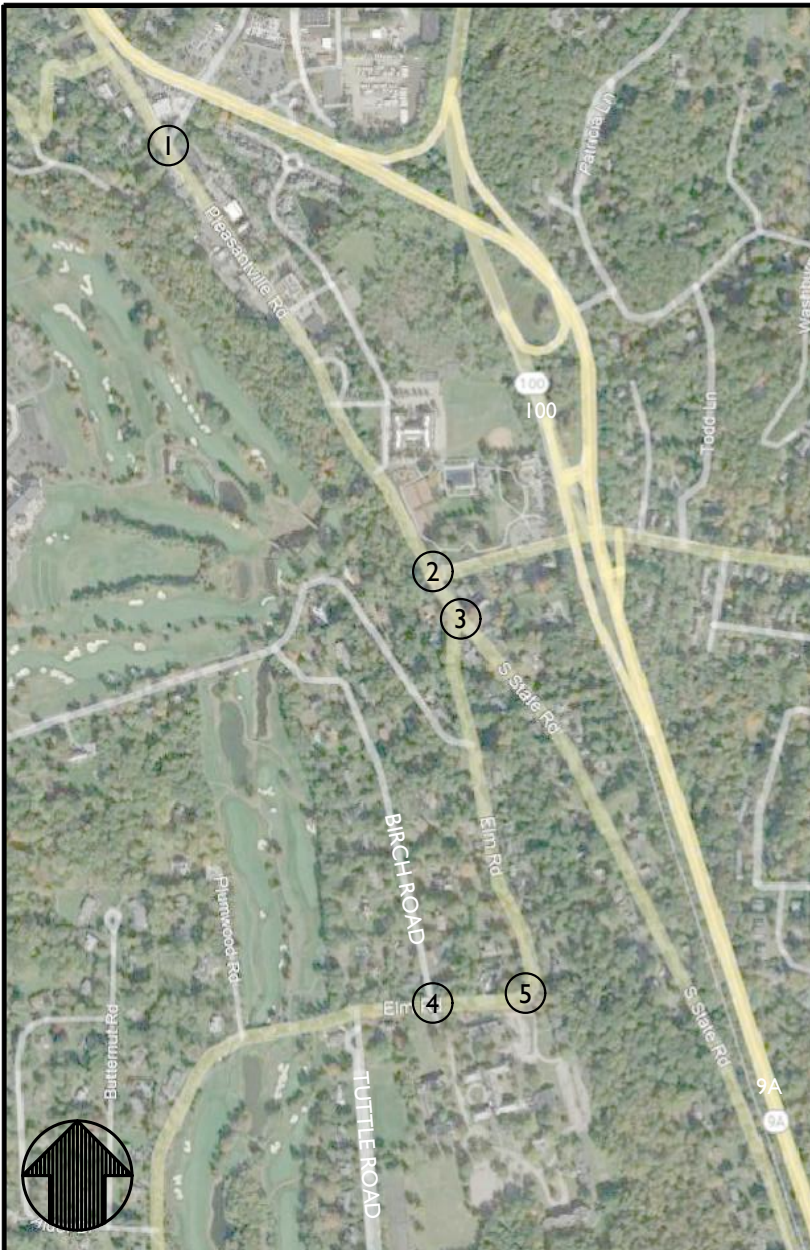
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	DRAWING NAME:		
21003367A	211119PWG_FIGURE		

SHEET TITLE:
**2021 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR**

SHEET NUMBER:
2



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**
CONSULTING

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM



Engineering
& Design

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE

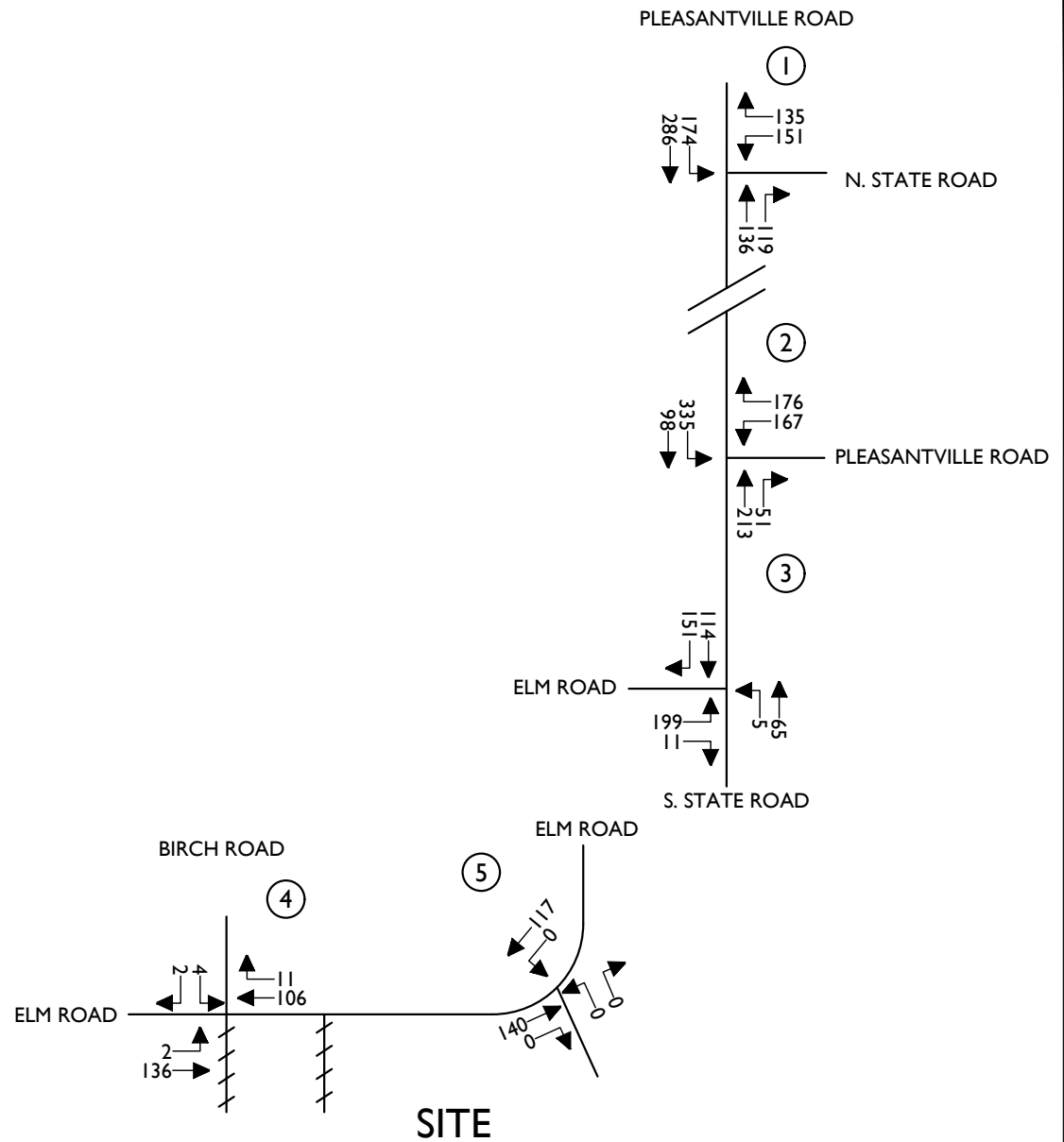
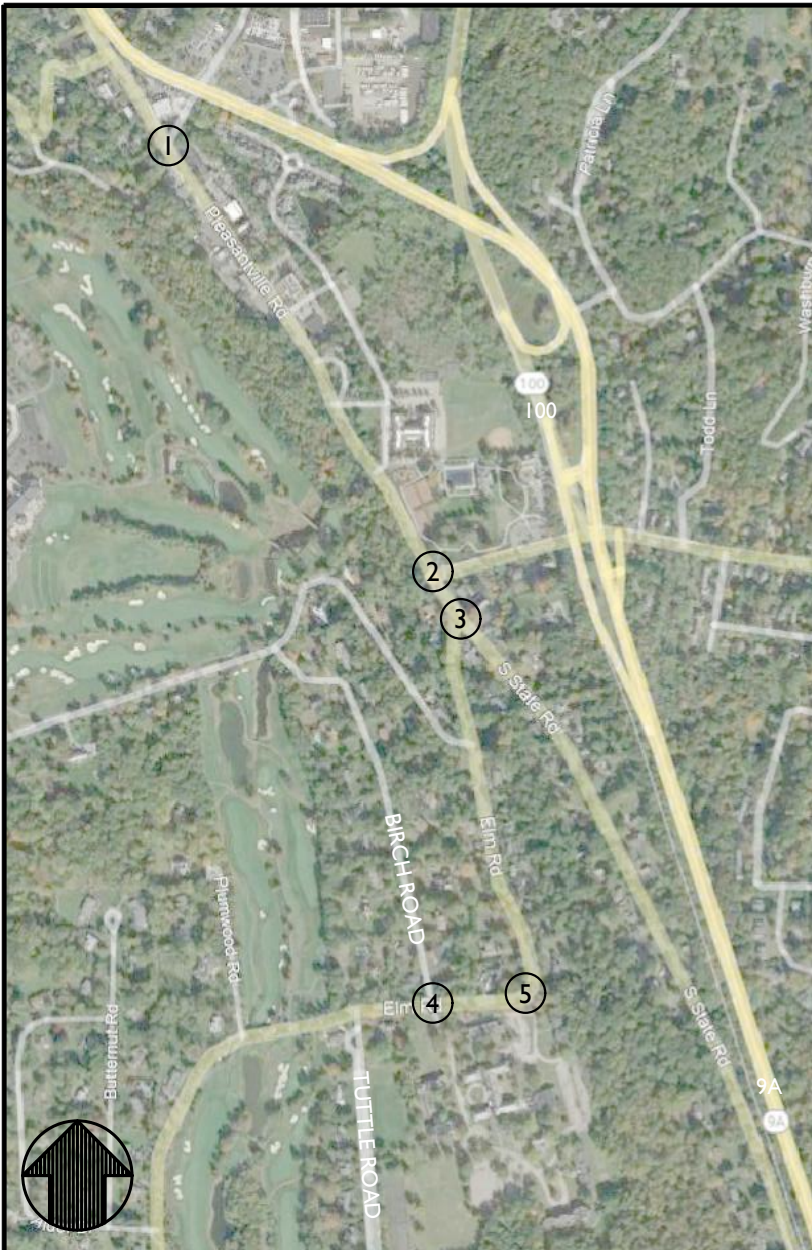
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	DRAWING NAME:		
21003367A	211119PWG_FIGURE		

SHEET TITLE:
**2021 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR**

SHEET NUMBER:
3



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM



Engineering
& Design

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE

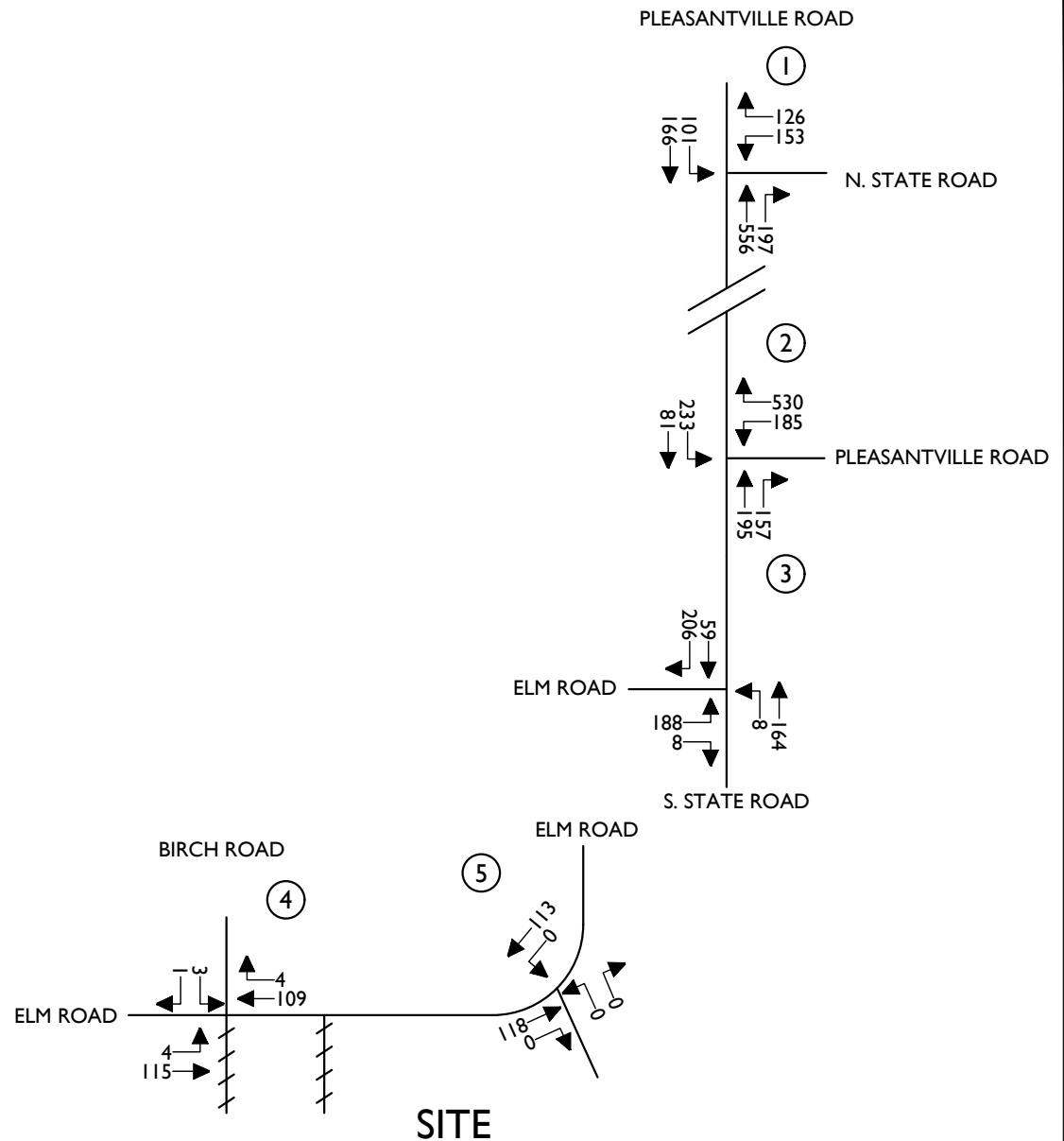
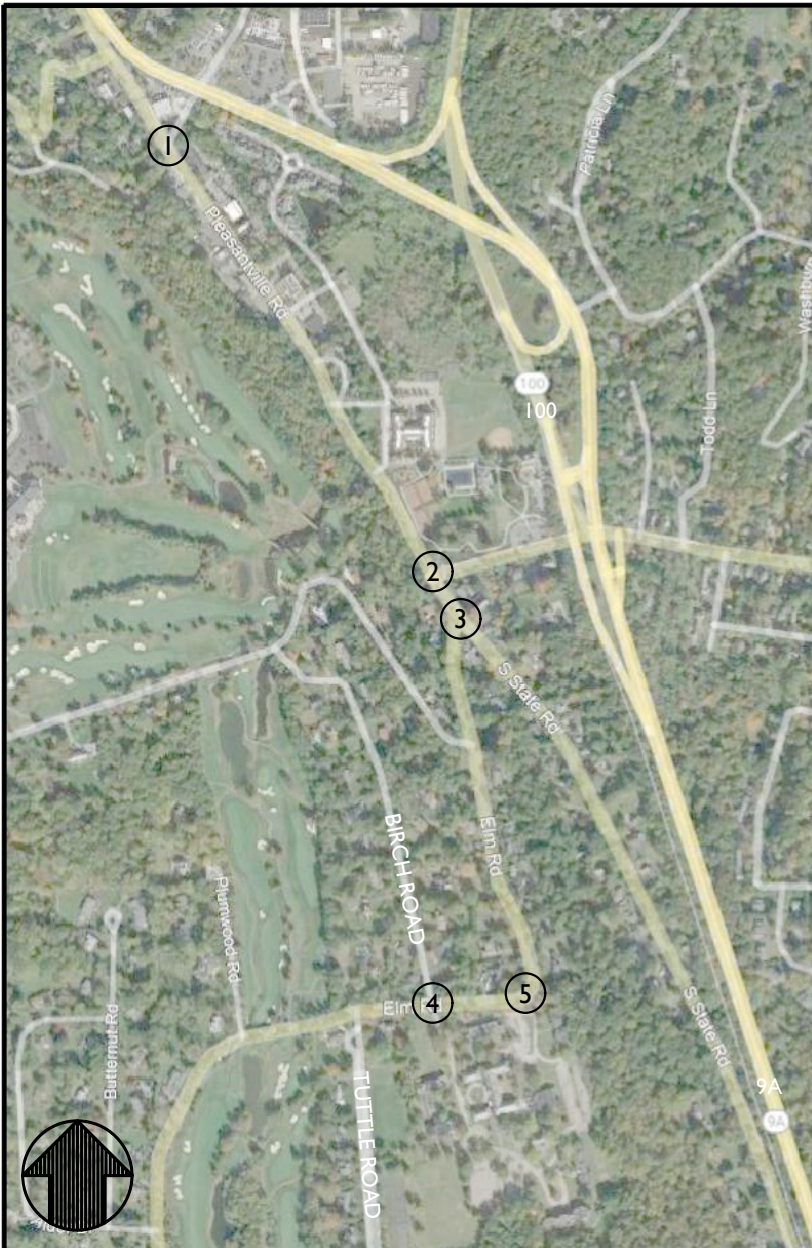
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
**2023 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR**

SHEET NUMBER:
4



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM



Engineering
& Design

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE

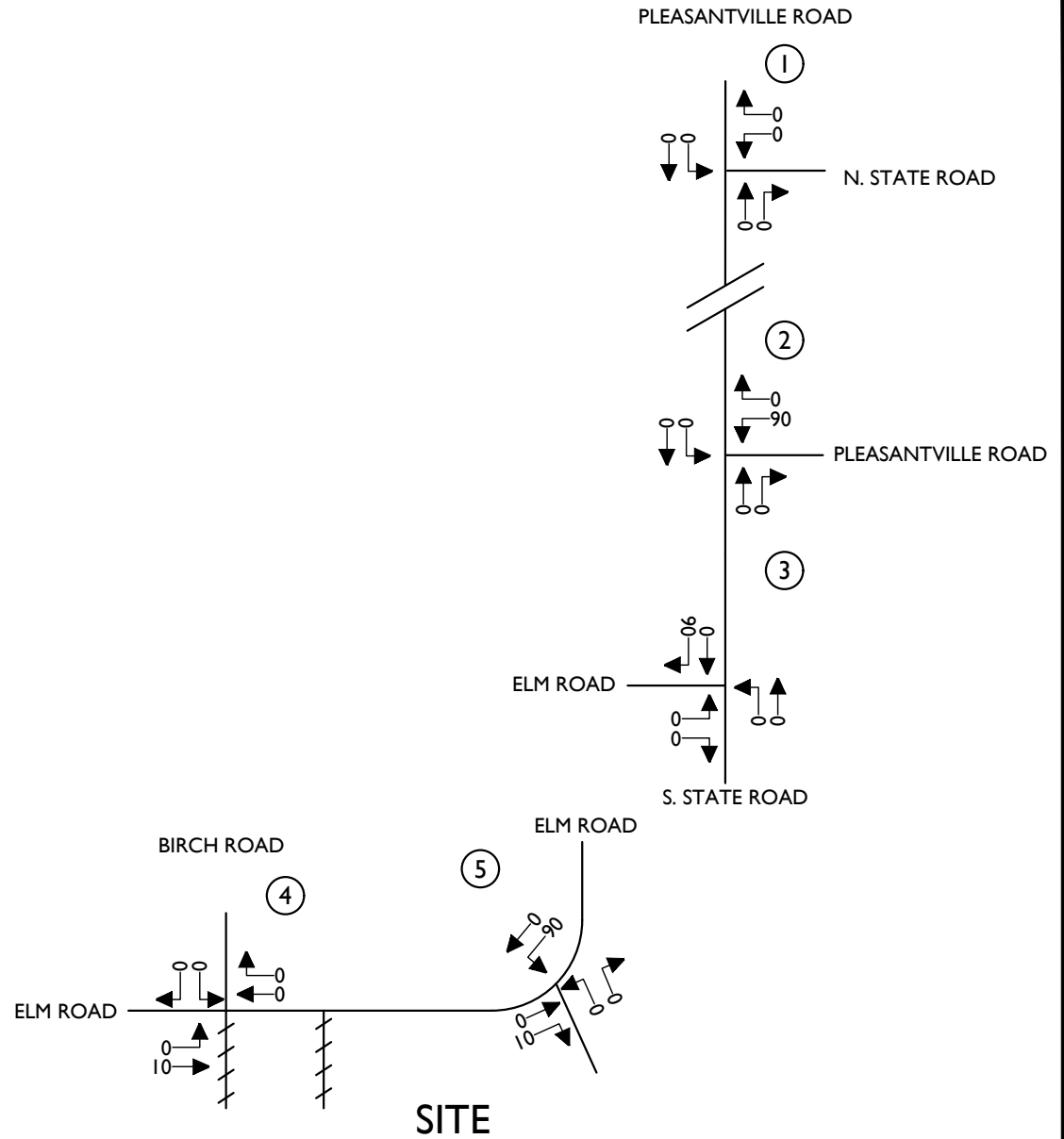
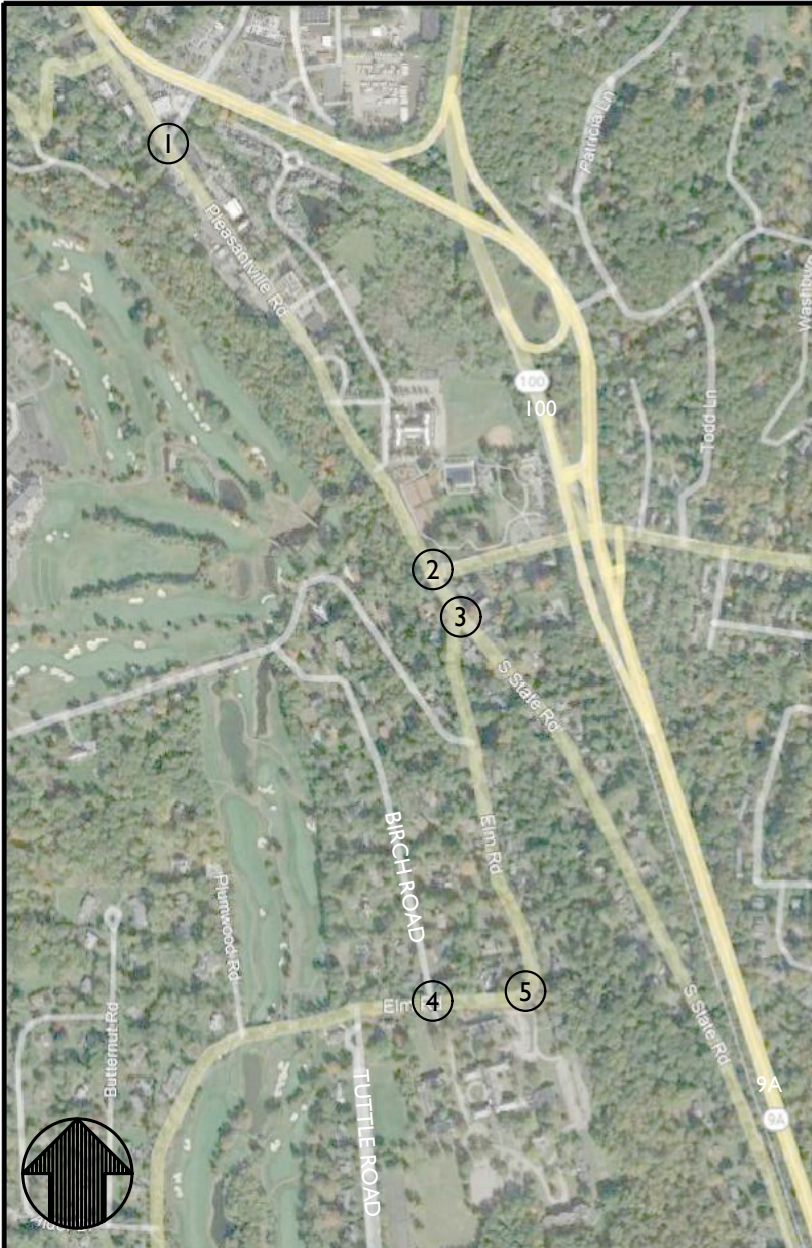
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
**2023 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR**

SHEET NUMBER:
5



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

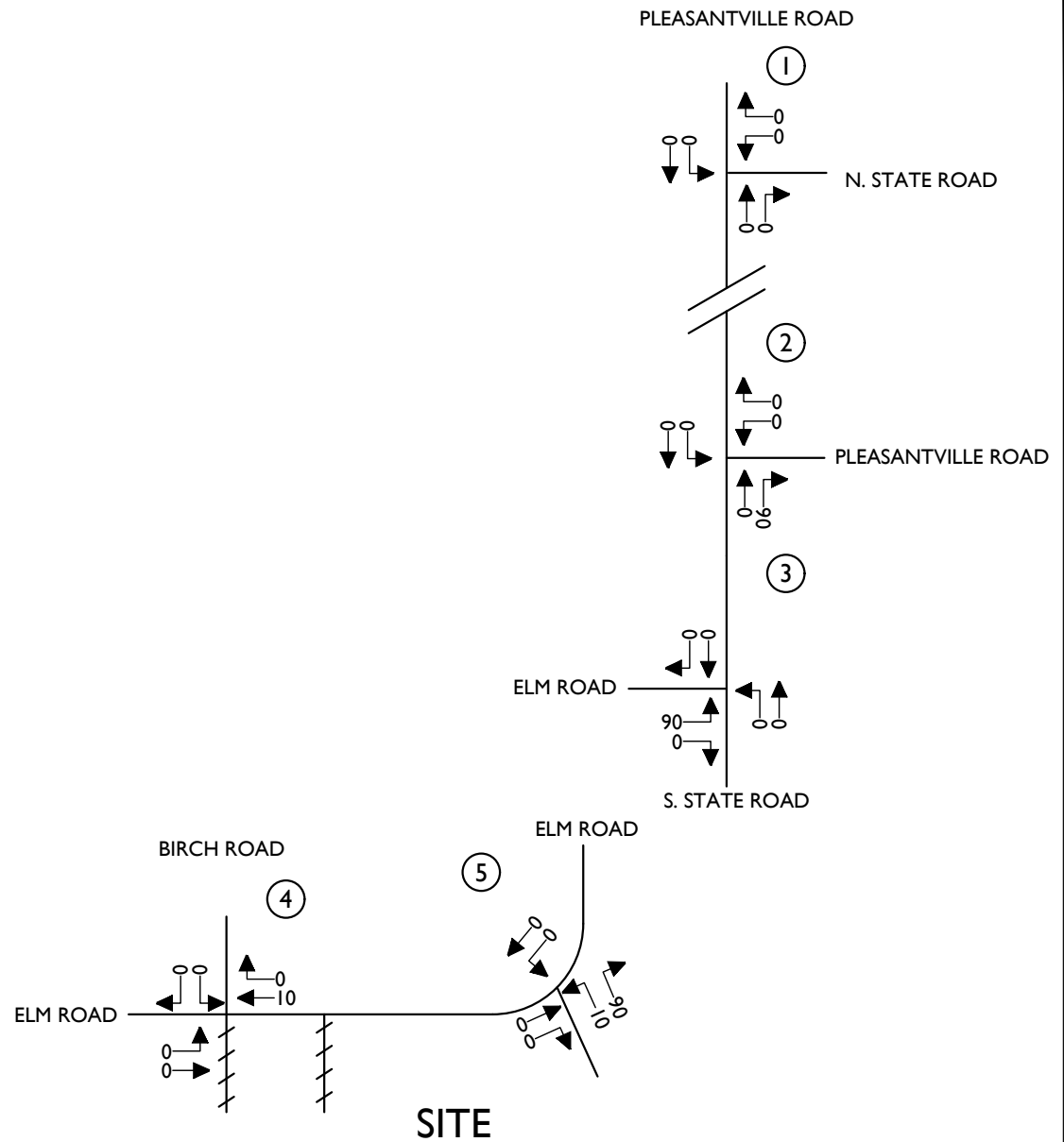
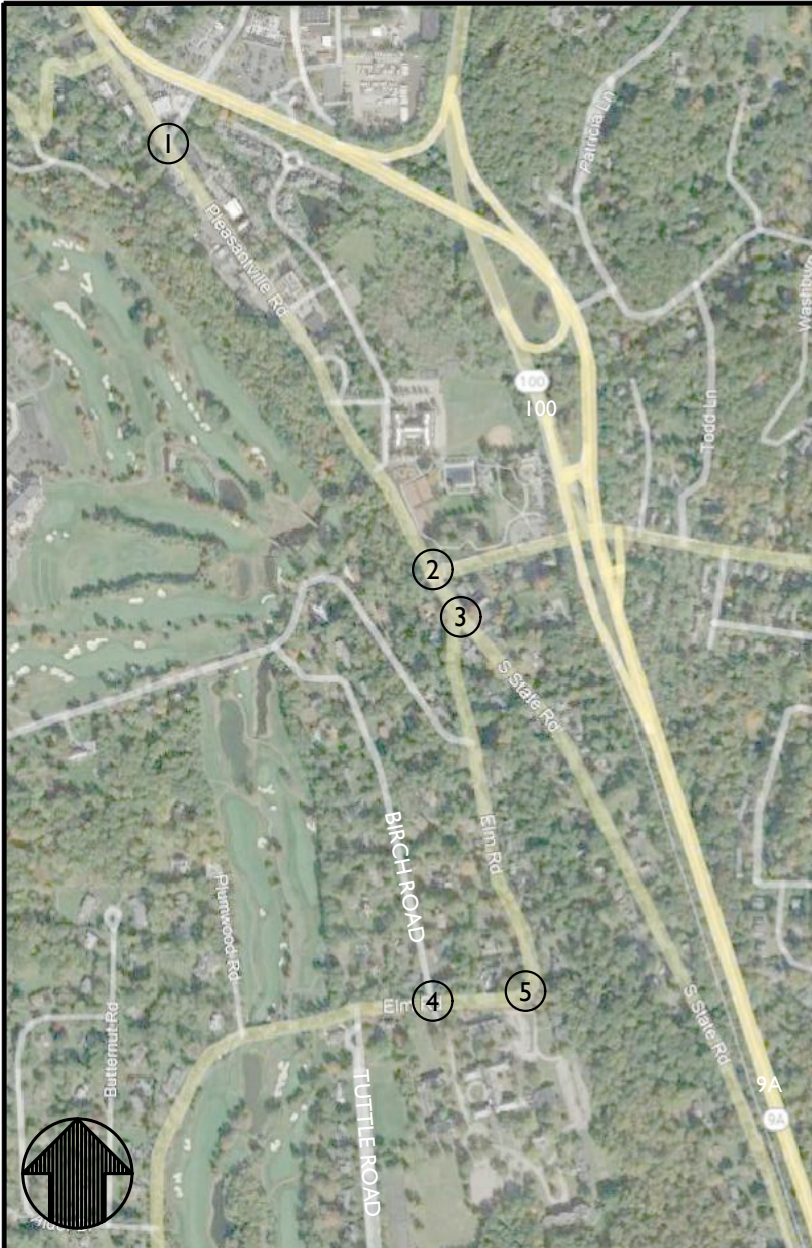
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
ARRIVAL DISTRIBUTION %
(PASSENGER CARS)

SHEET NUMBER:
6



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**
CONSULTING

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

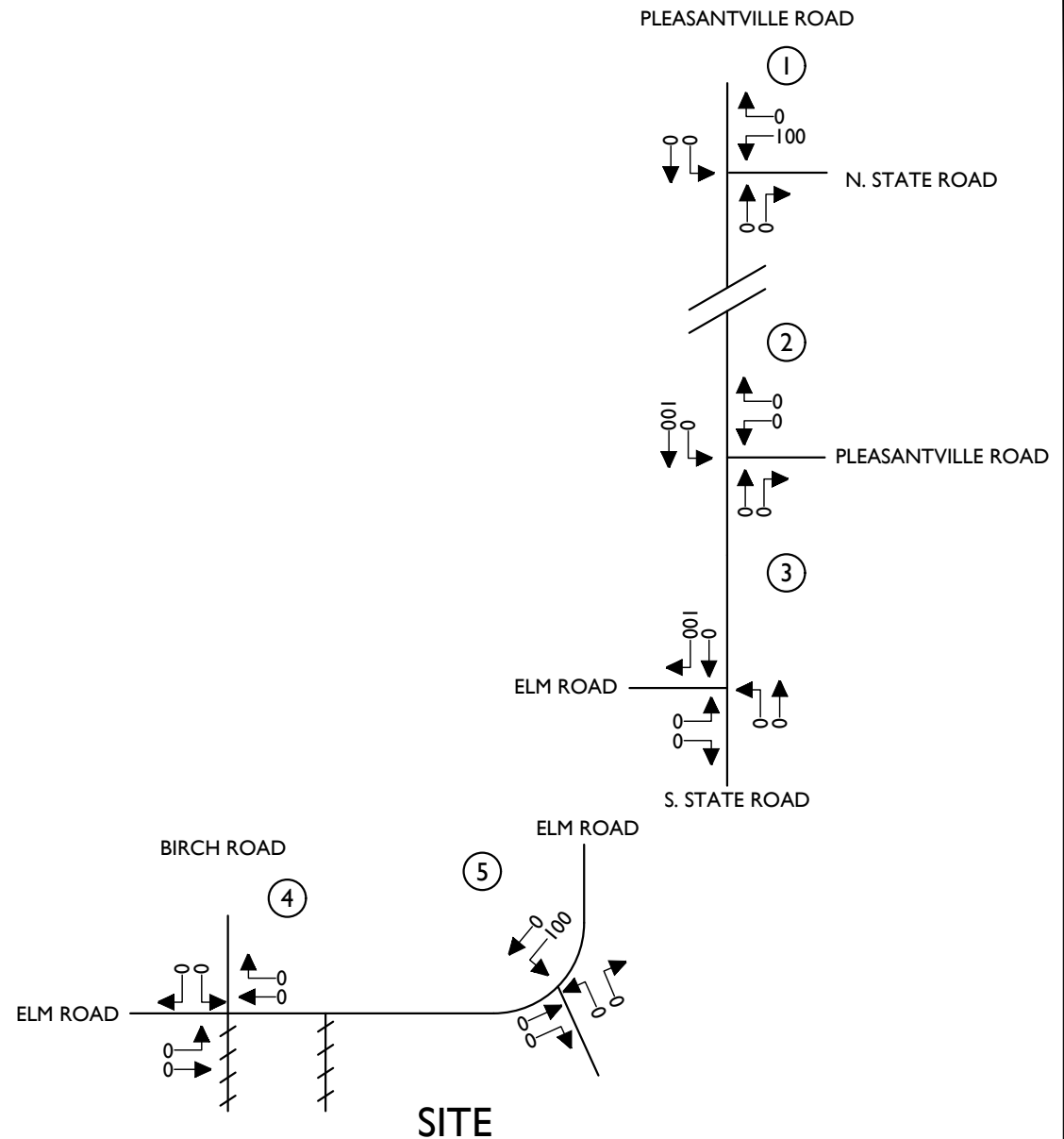
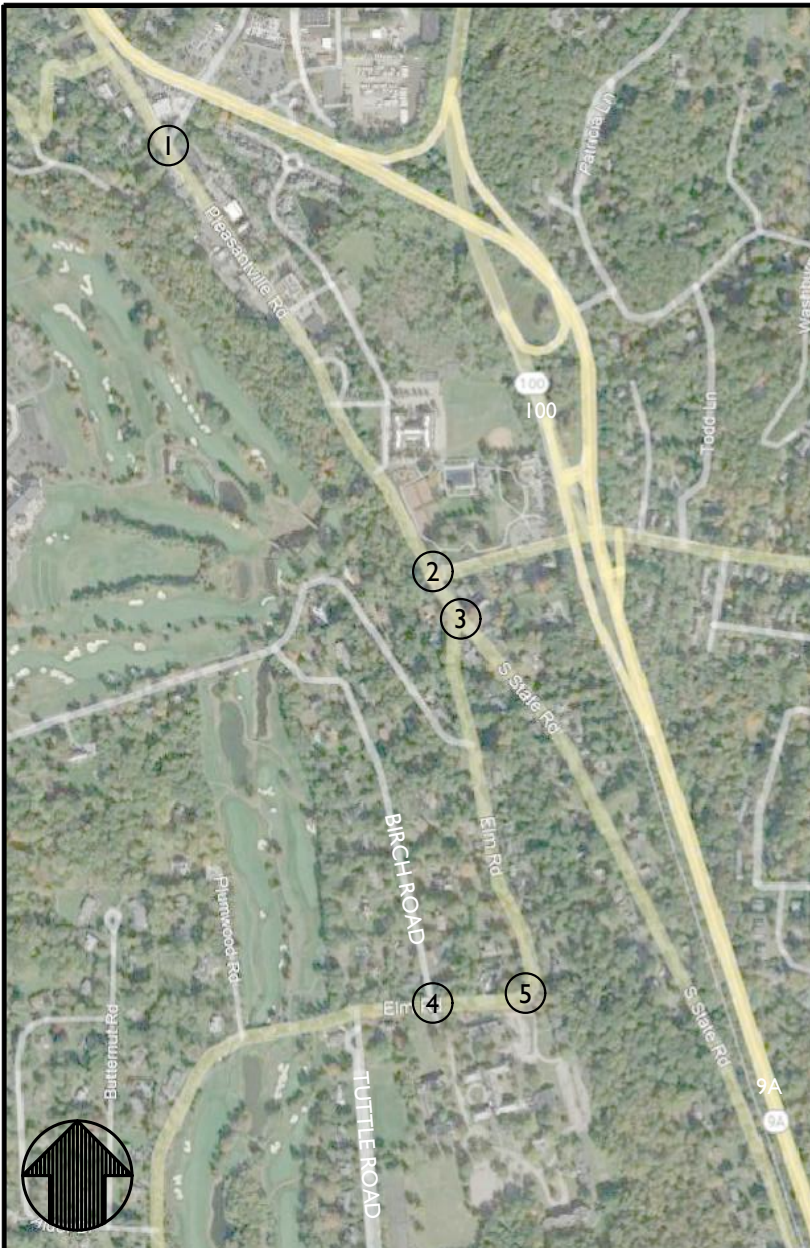
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
DEPARTURE DISTRIBUTION %
(PASSENGER CARS)

SHEET NUMBER:
7



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

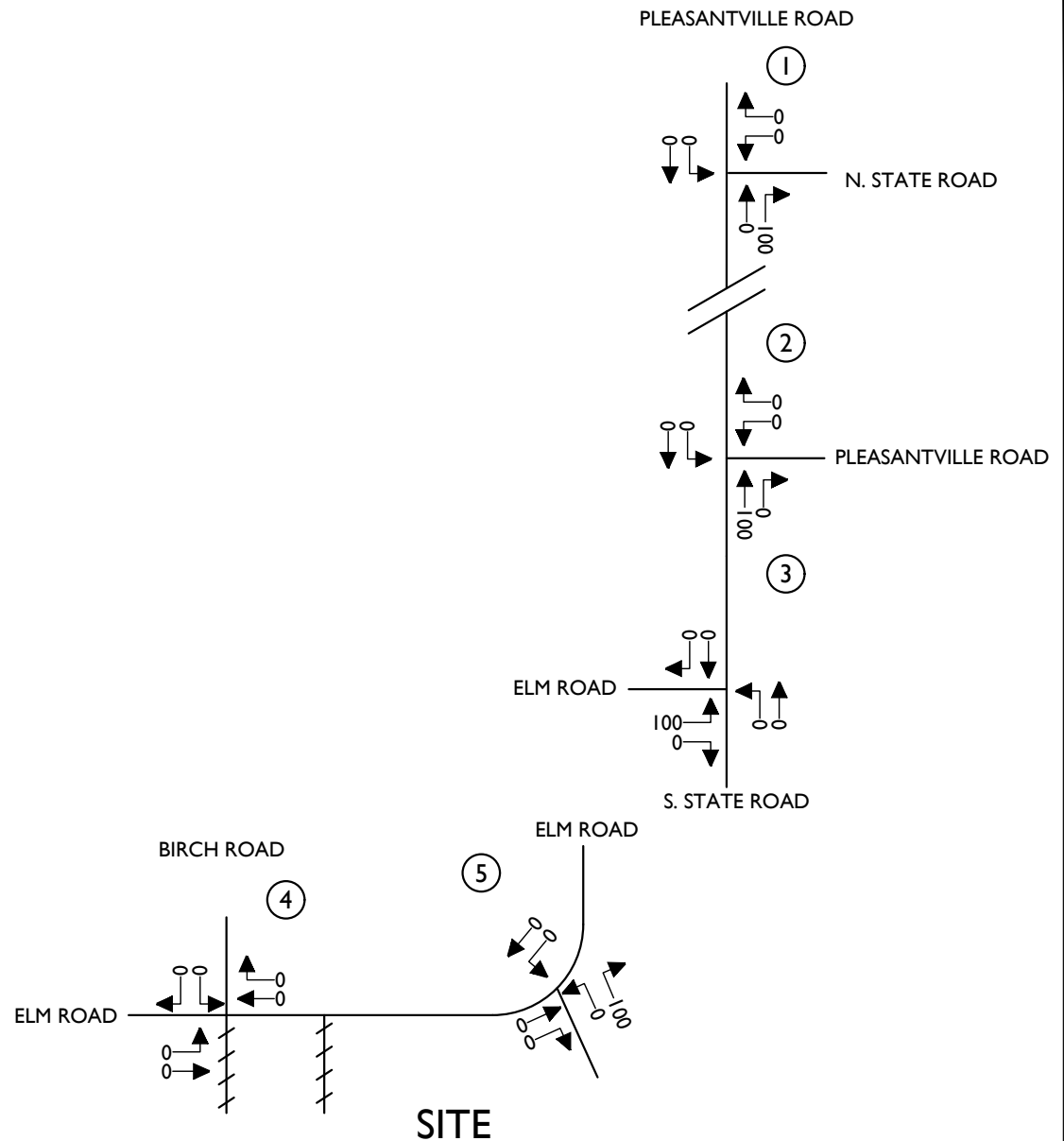
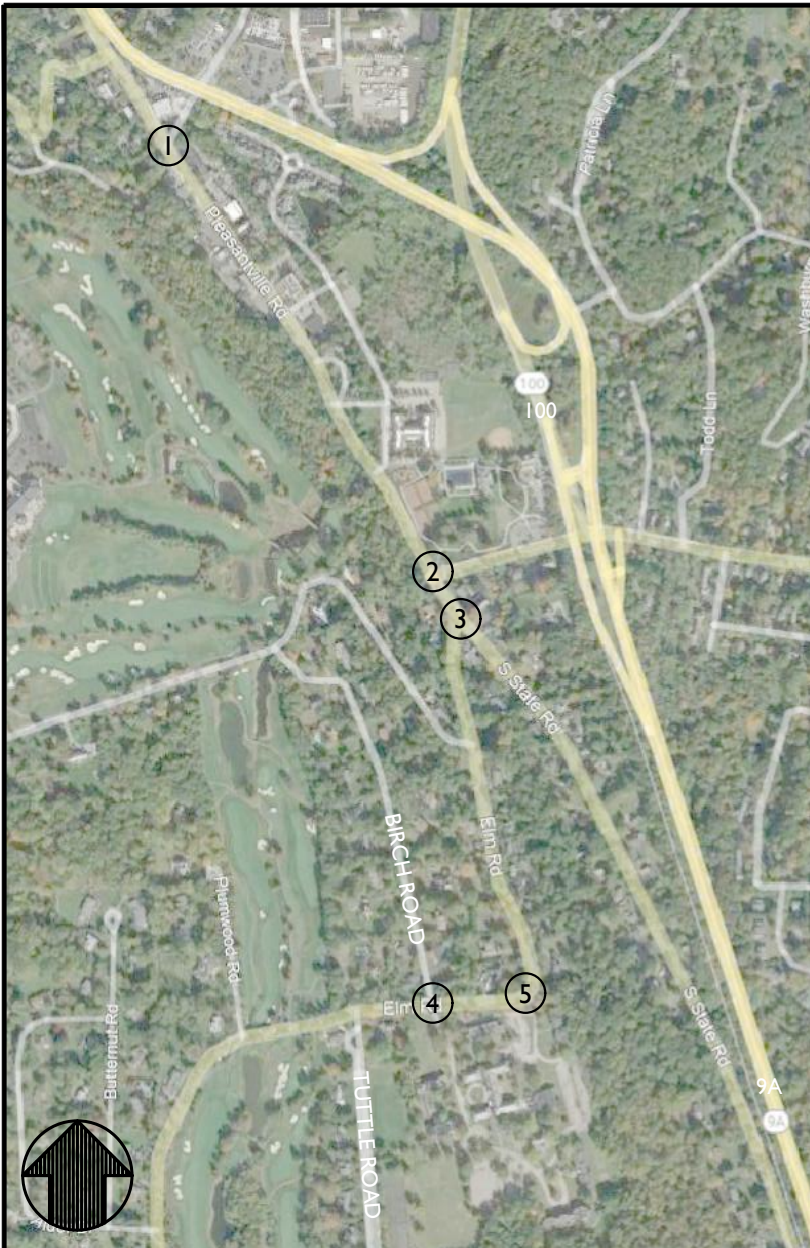
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	DRAWING NAME:		
21003367A	211119PWG_FIGURE		

SHEET TITLE:
ARRIVAL DISTRIBUTION %
(SCHOOL BUSES)

SHEET NUMBER:
8



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

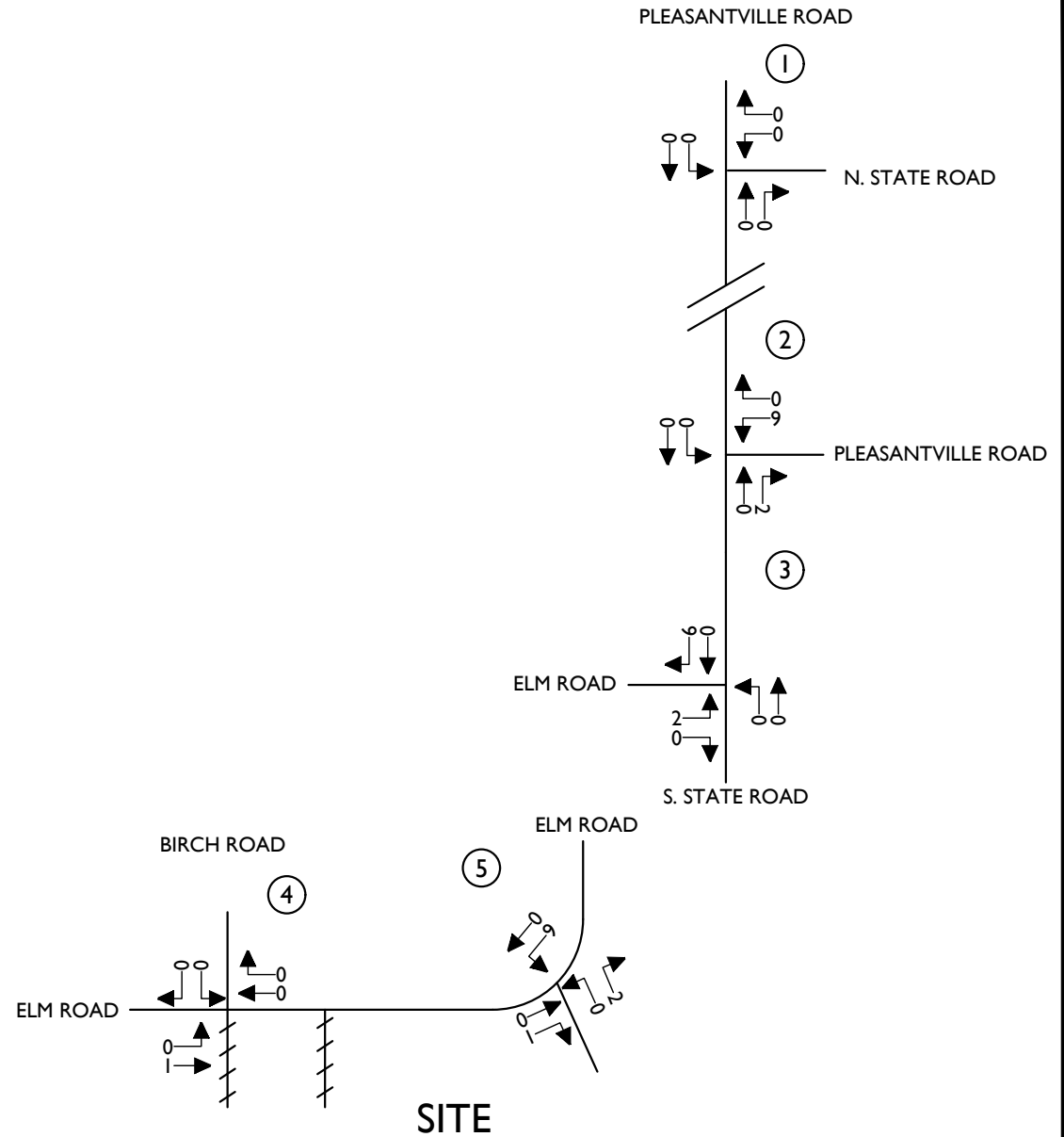
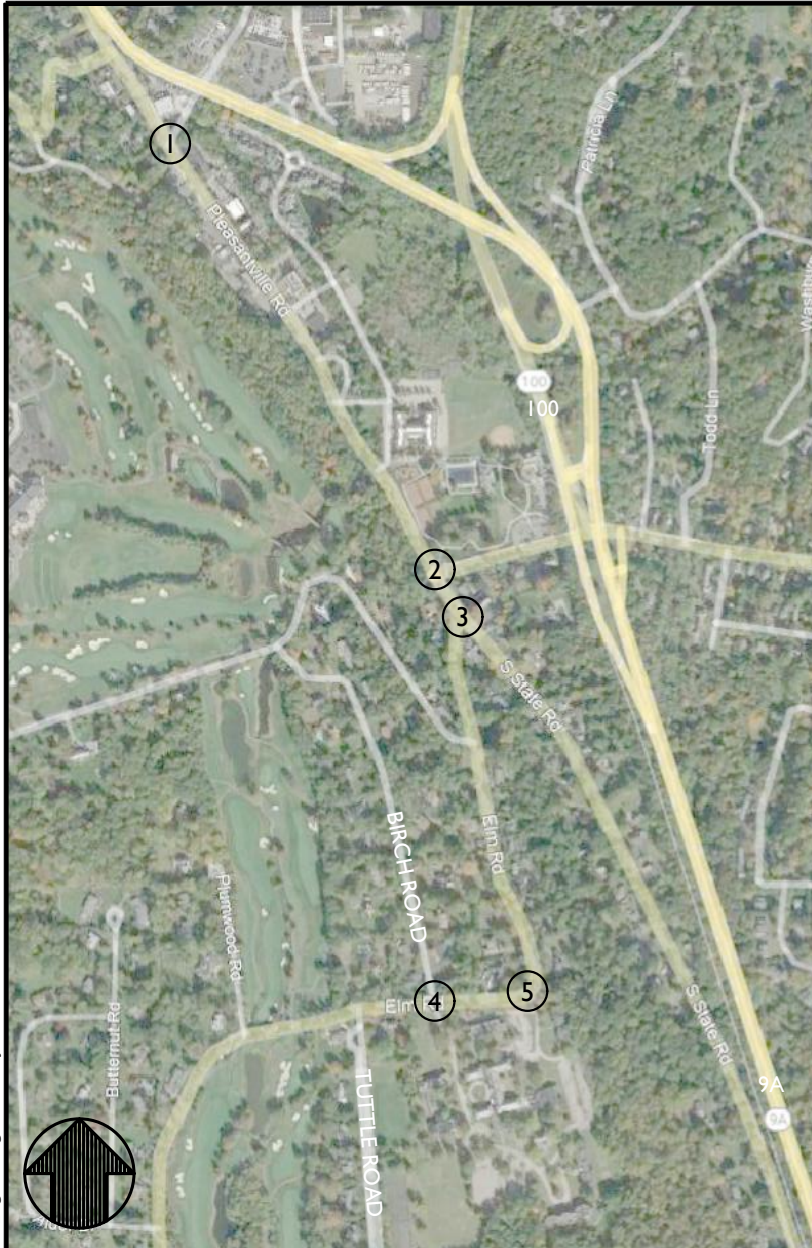
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
DEPARTURE DISTRIBUTION %
(SCHOOL BUSES)

SHEET NUMBER:
9



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**
CONSULTING

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

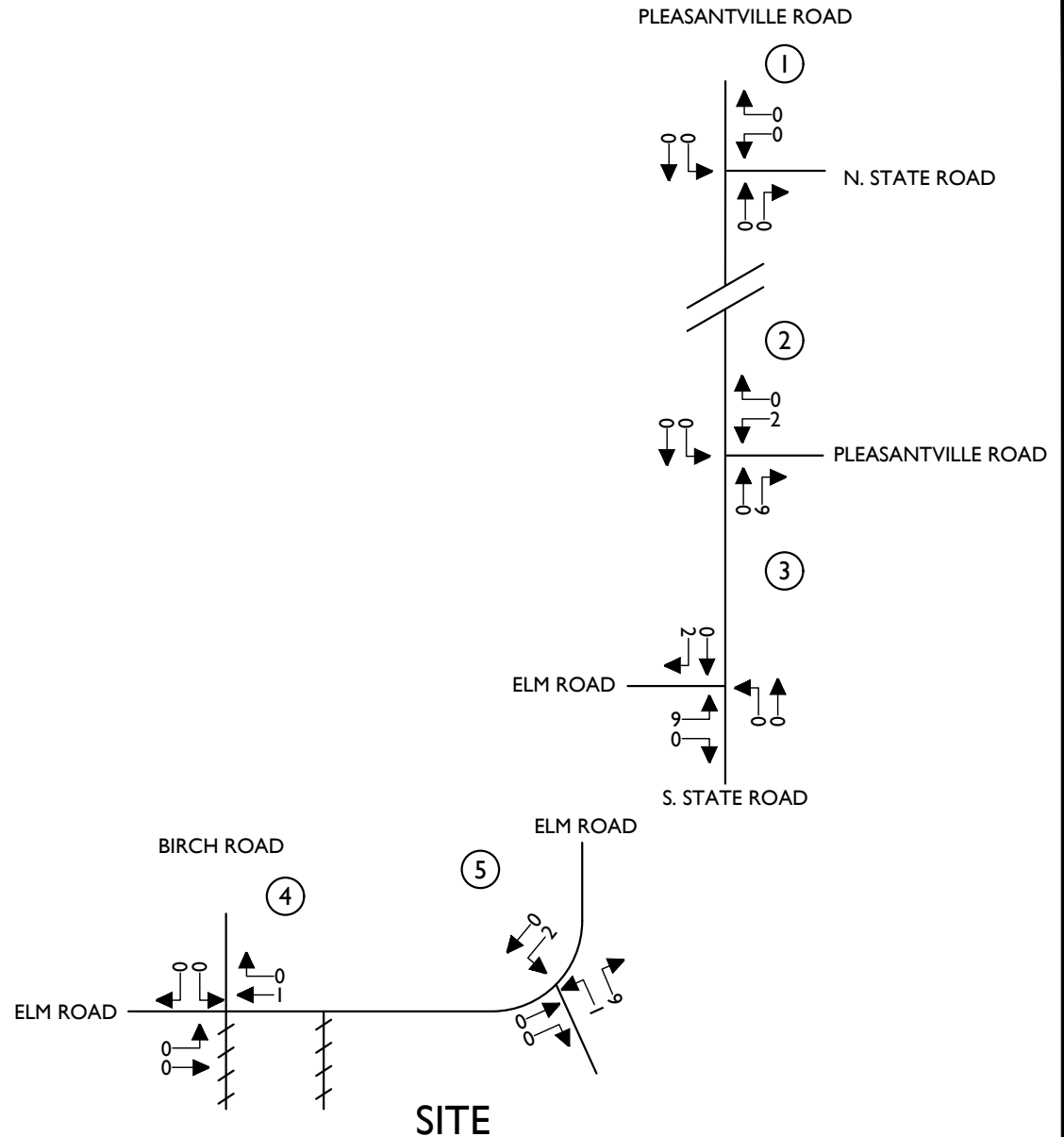
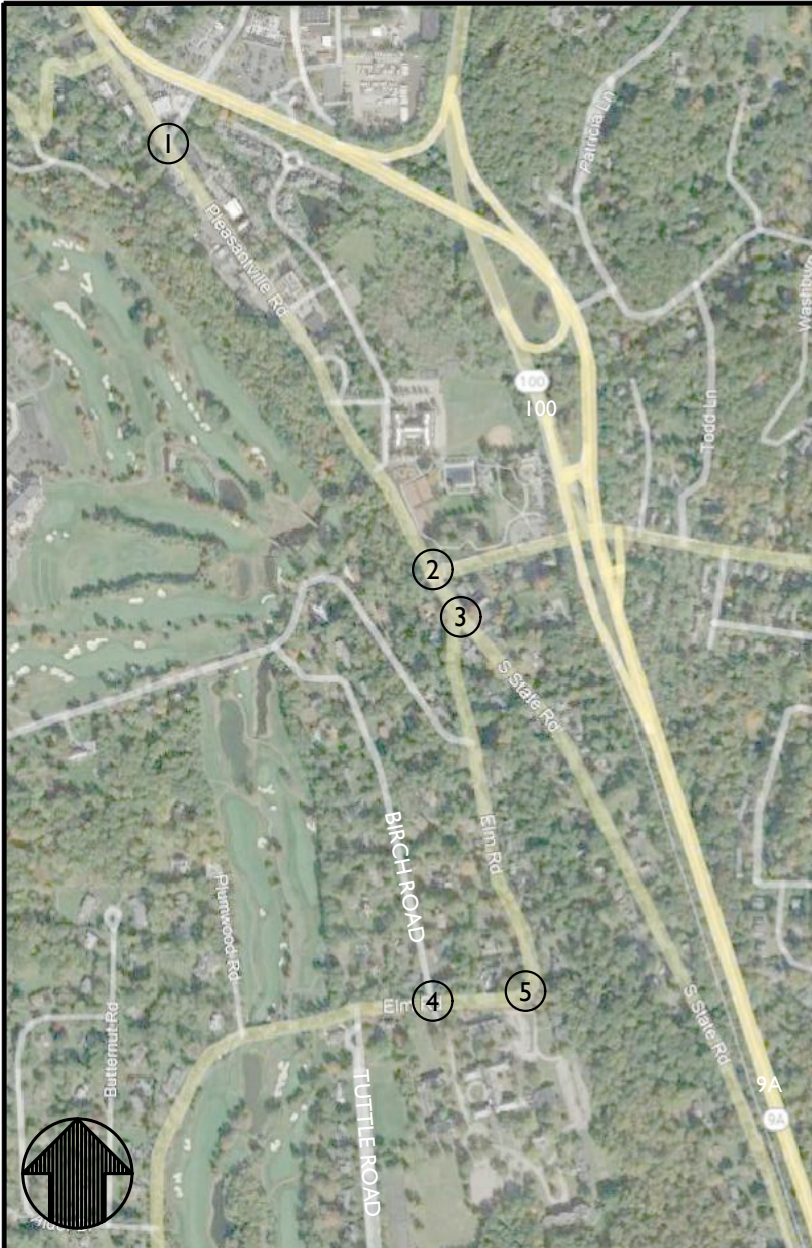
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(PASSENGER CARS)

SHEET NUMBER:
10



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

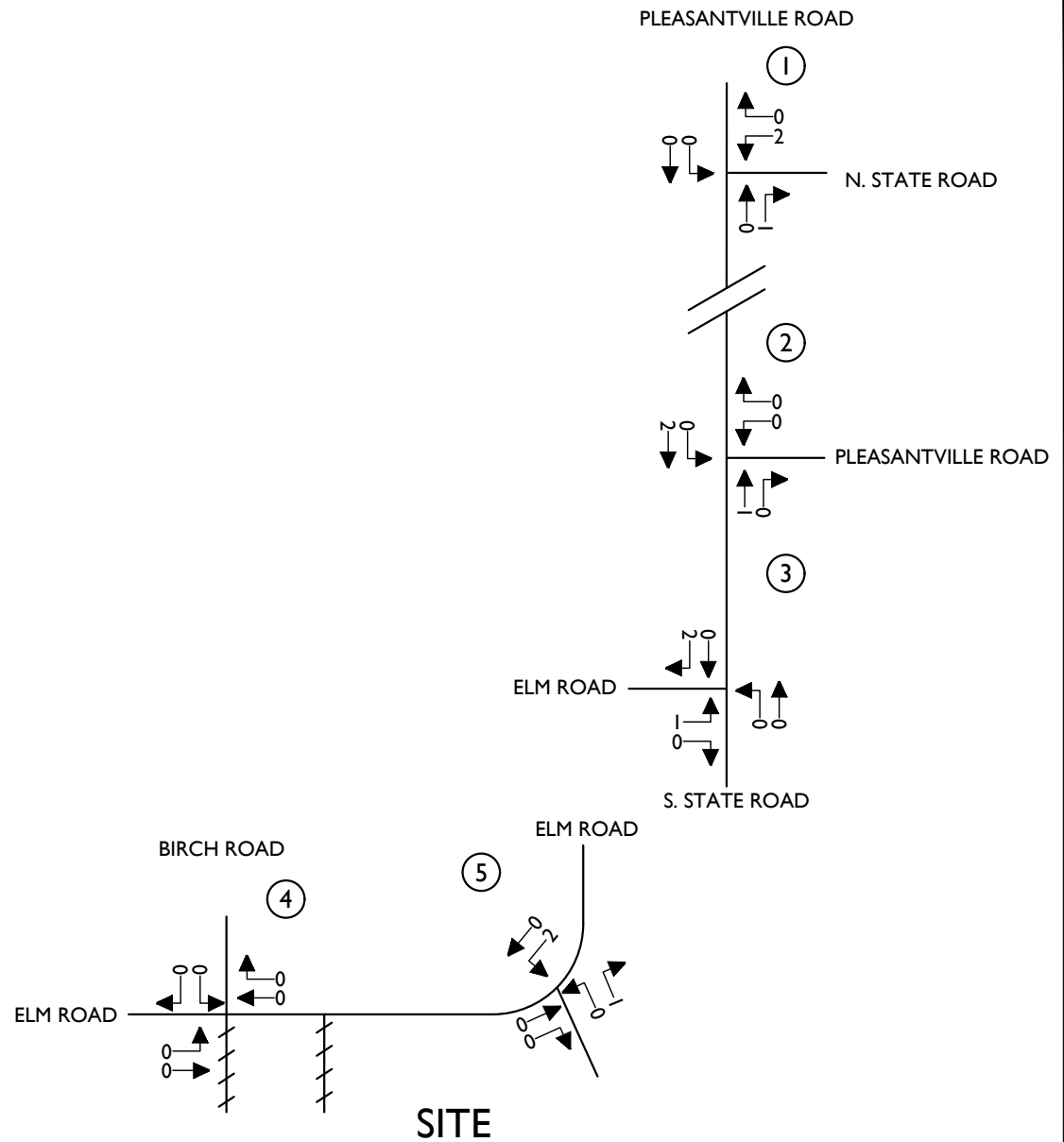
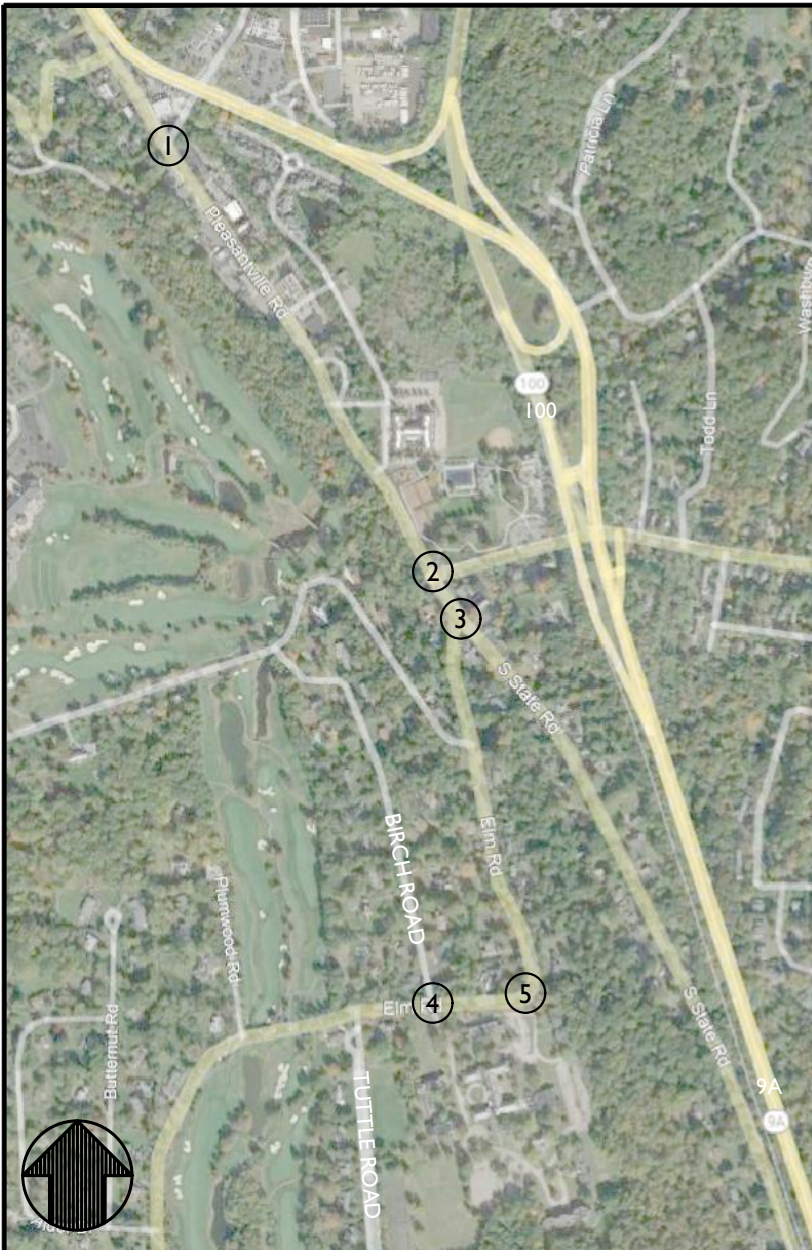
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR
(PASSENGER CARS)

SHEET NUMBER:
11



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

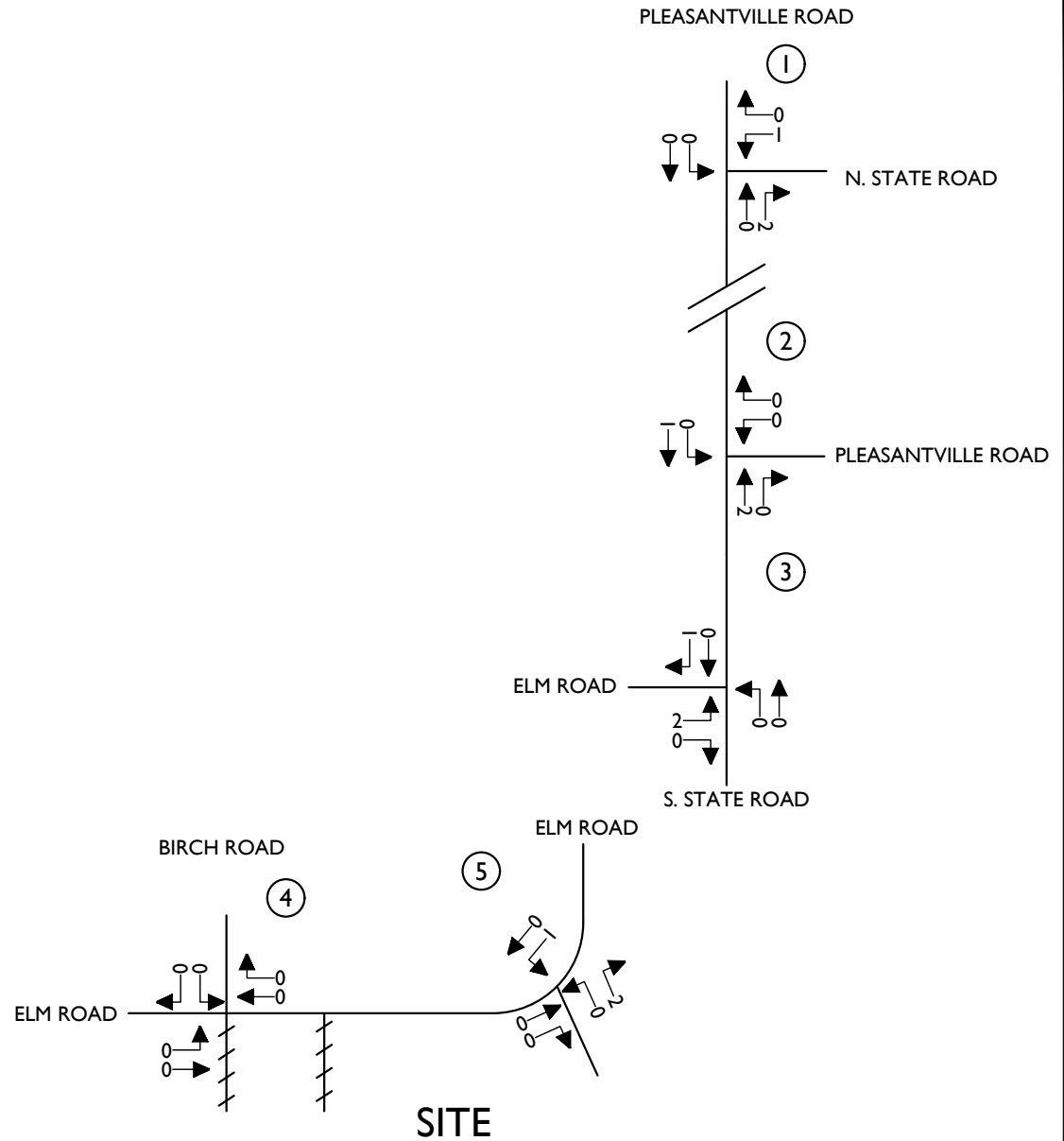
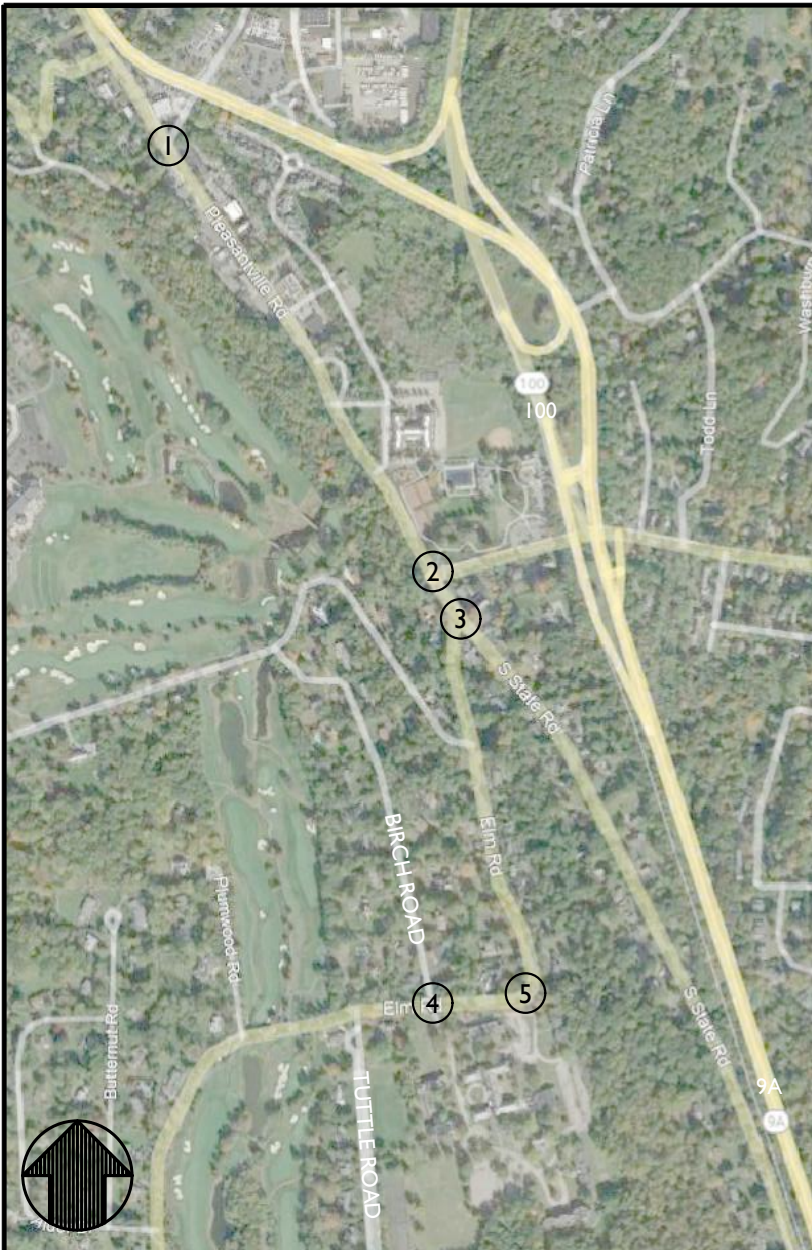
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(SCHOOL BUSES)

SHEET NUMBER:

12



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**
CONSULTING

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

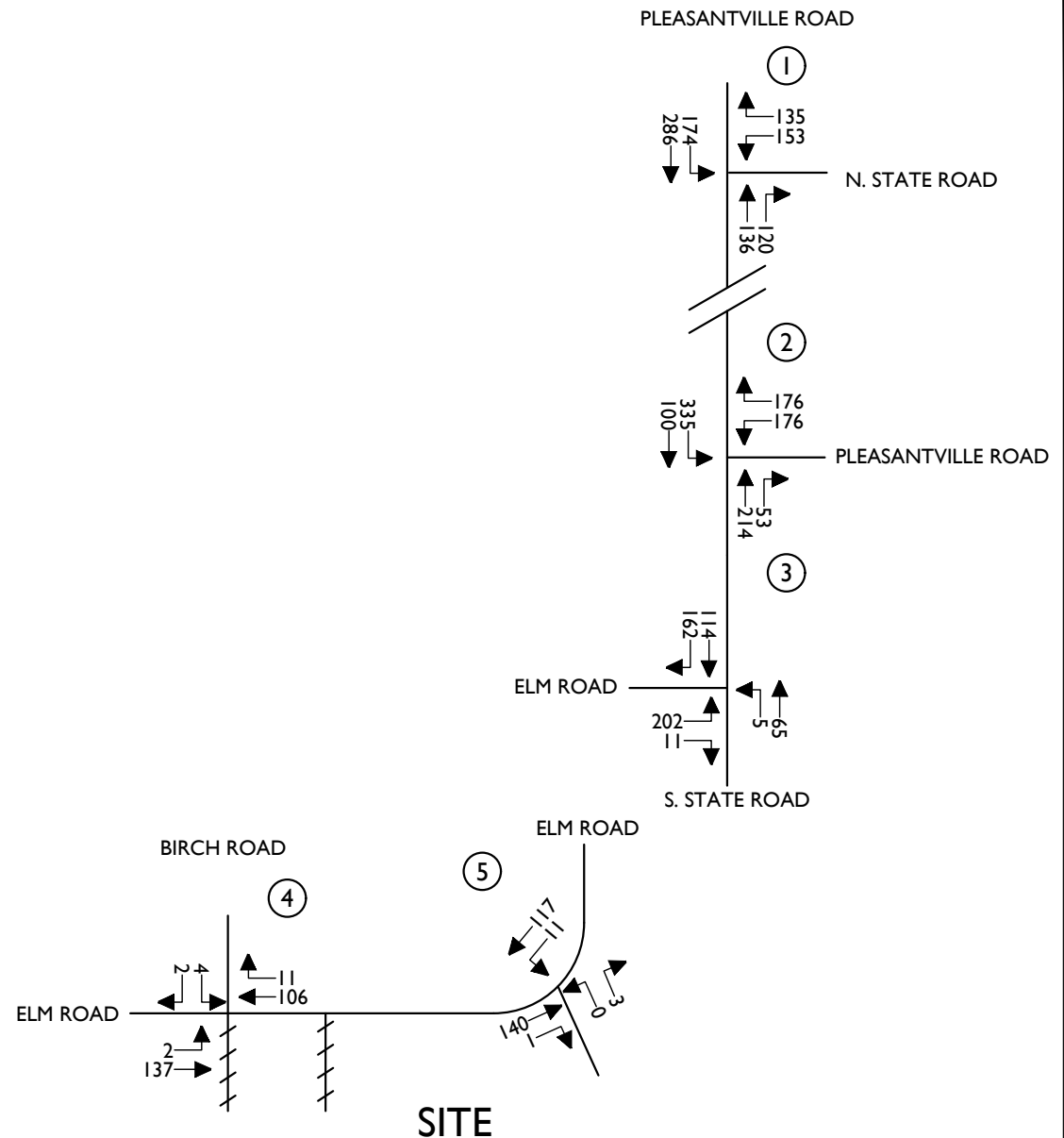
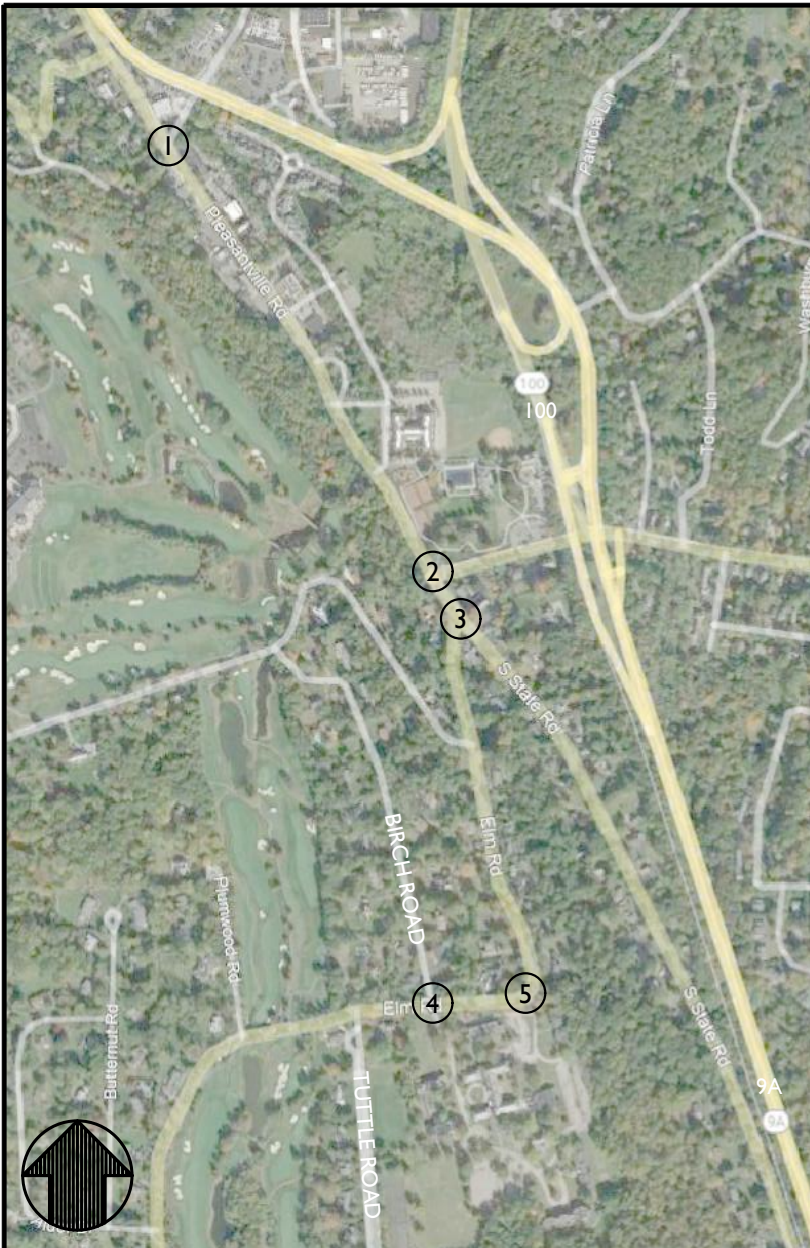
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR
(SCHOOL BUSES)

SHEET NUMBER:

13



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER CONSULTING**

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

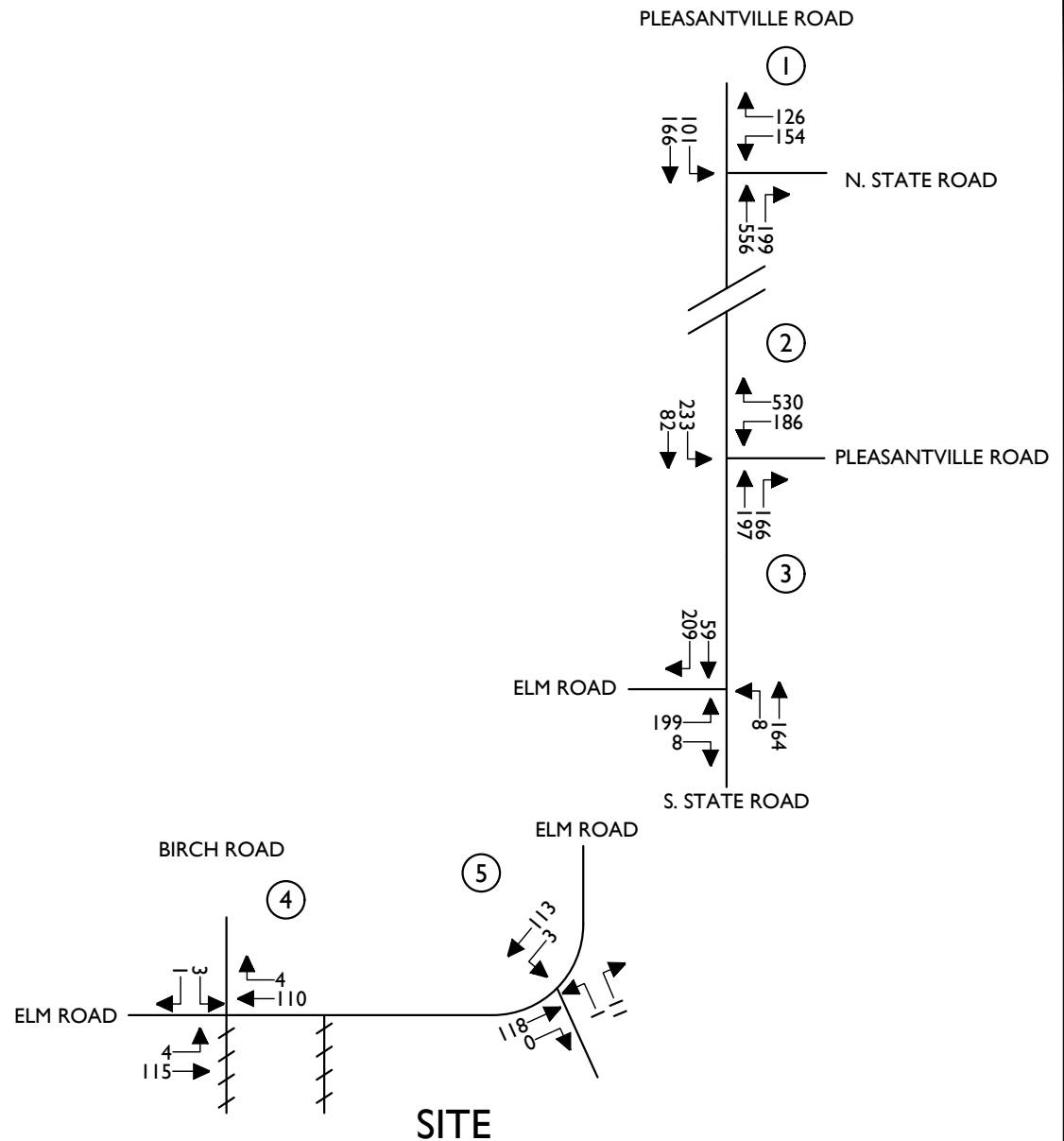
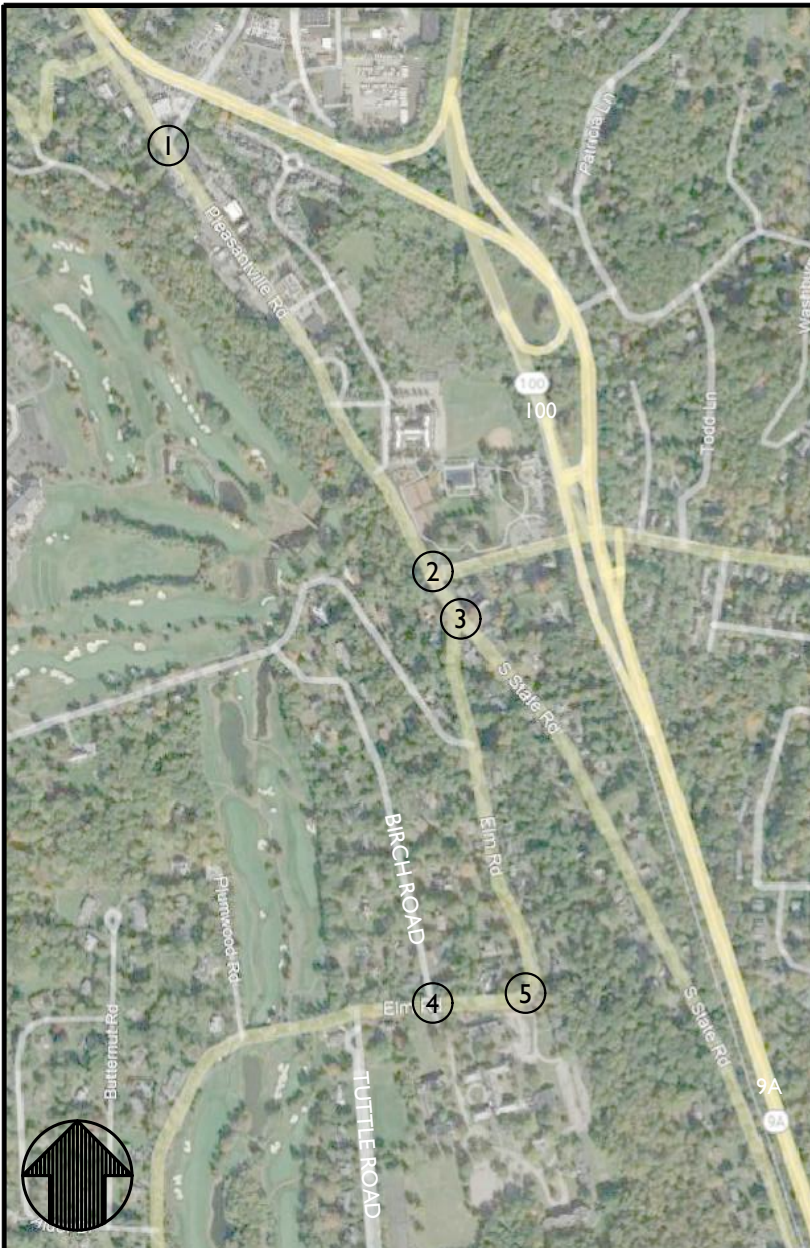
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	DRAWING NAME:		
21003367A	211119PWG_FIGURE		

SHEET TITLE:
**2023 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR**

SHEET NUMBER:
14



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

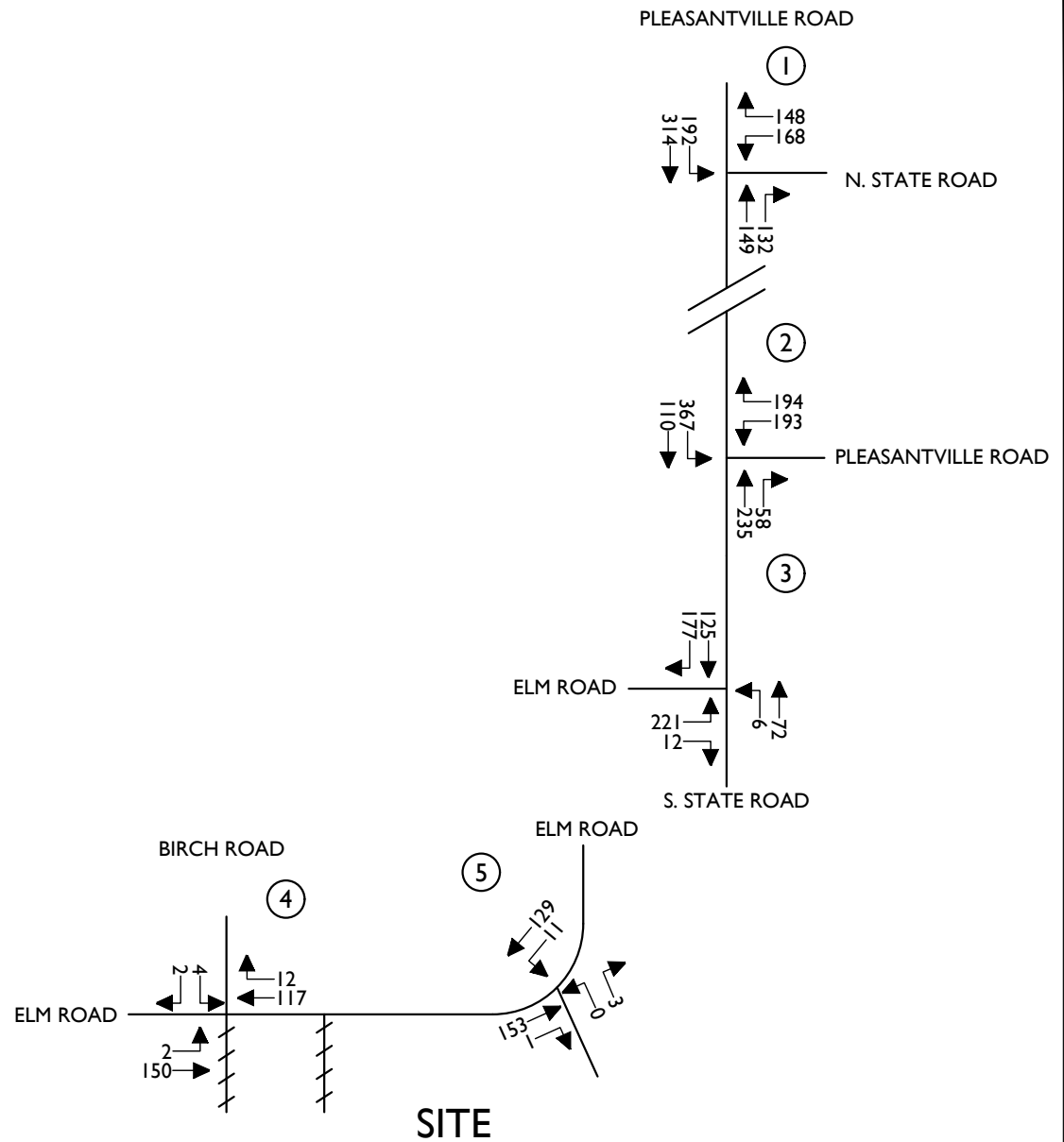
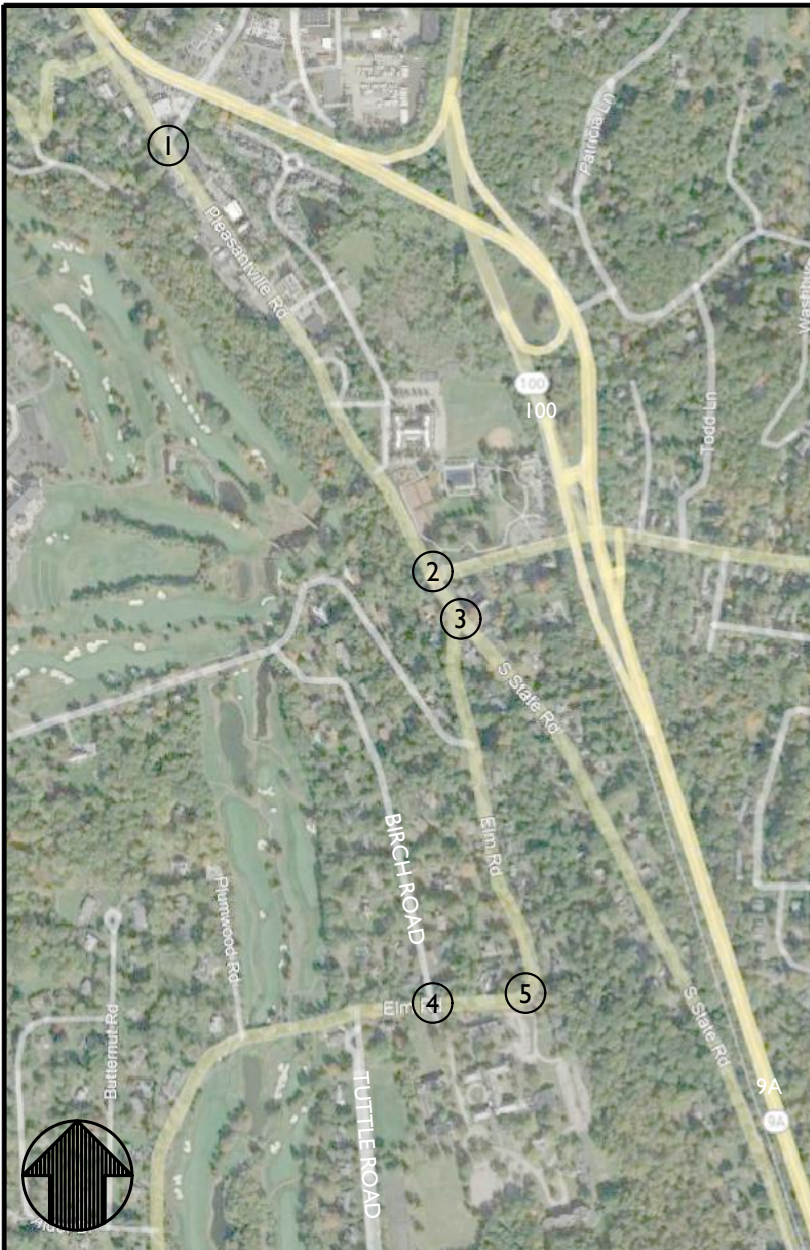
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
**2023 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR**

SHEET NUMBER:
15



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

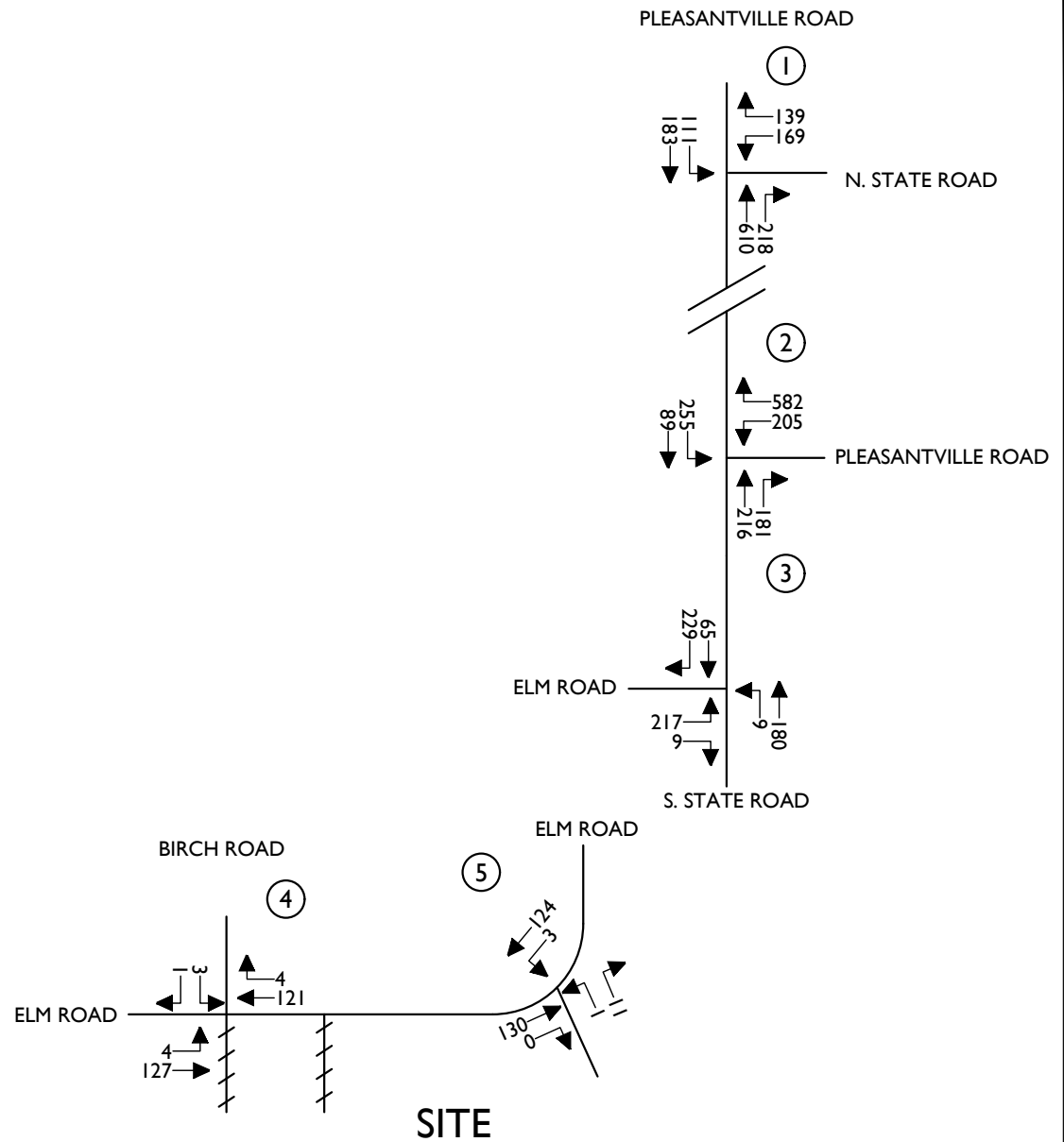
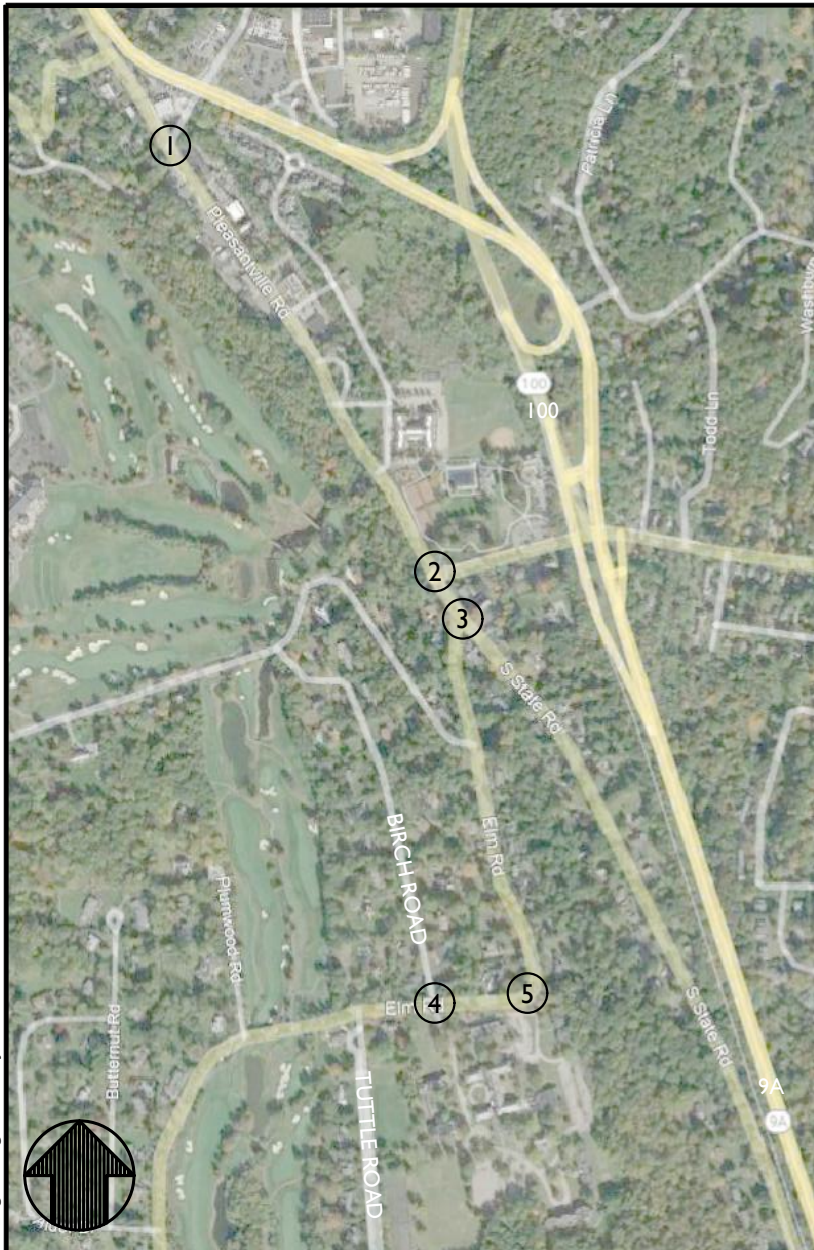
TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
2033 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:

16



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

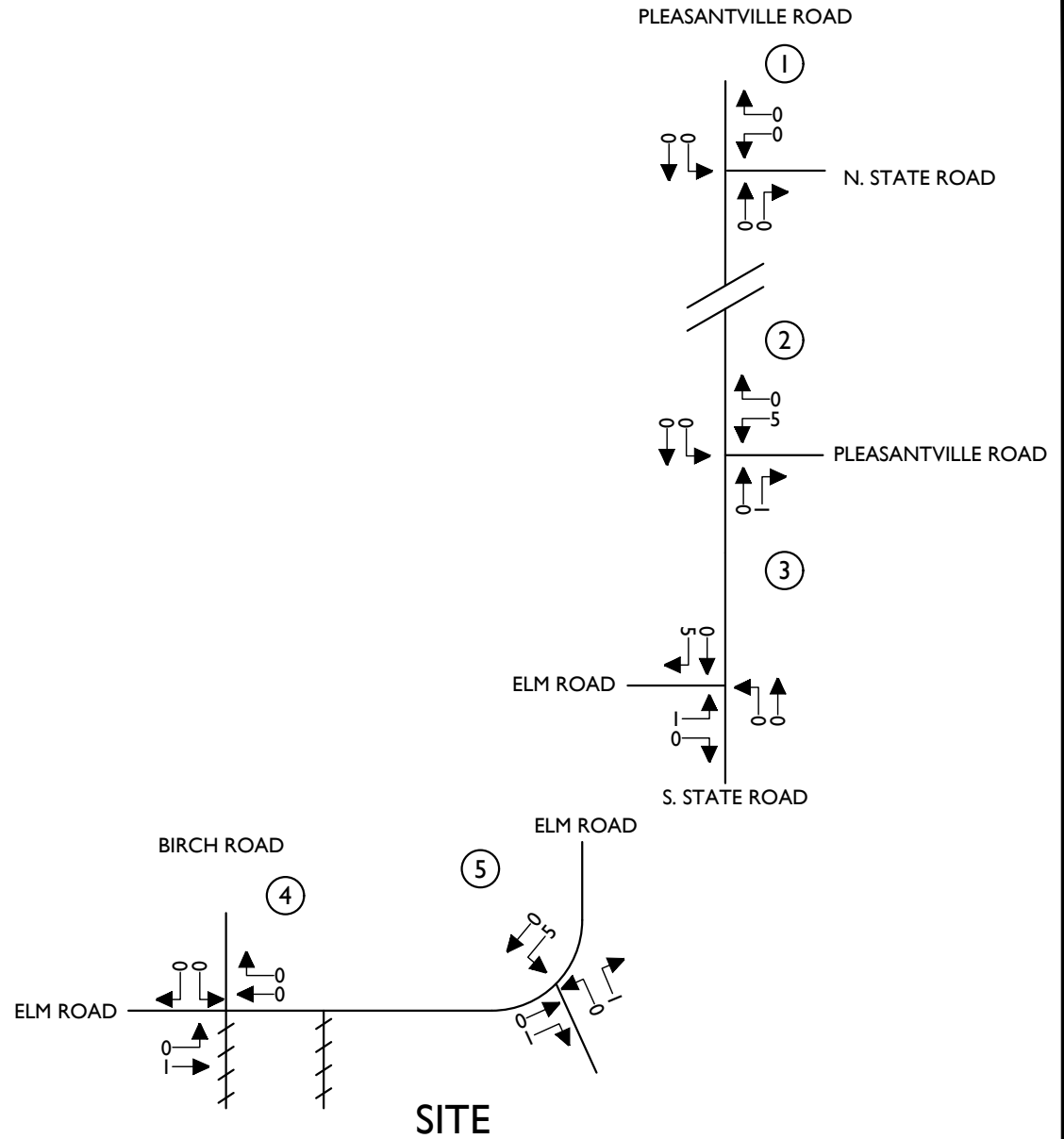
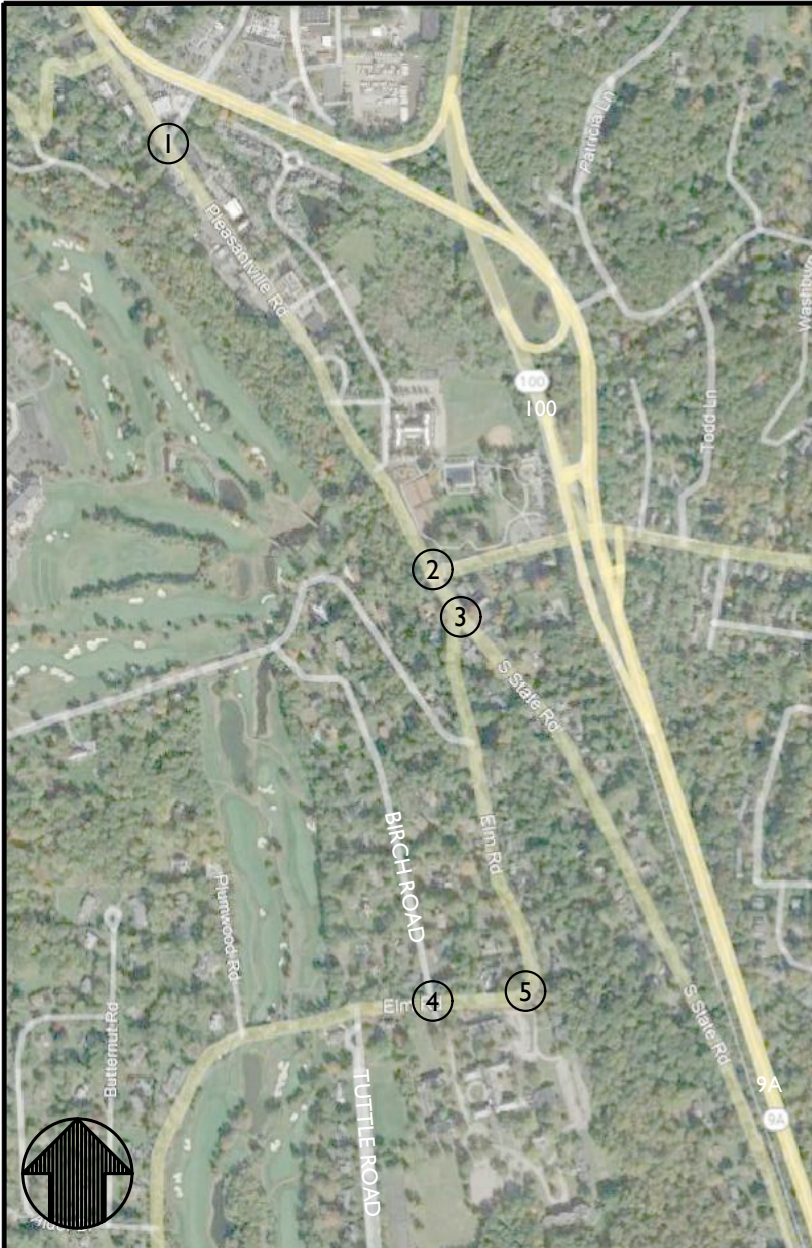
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
2033 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
17



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**
CONSULTING

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

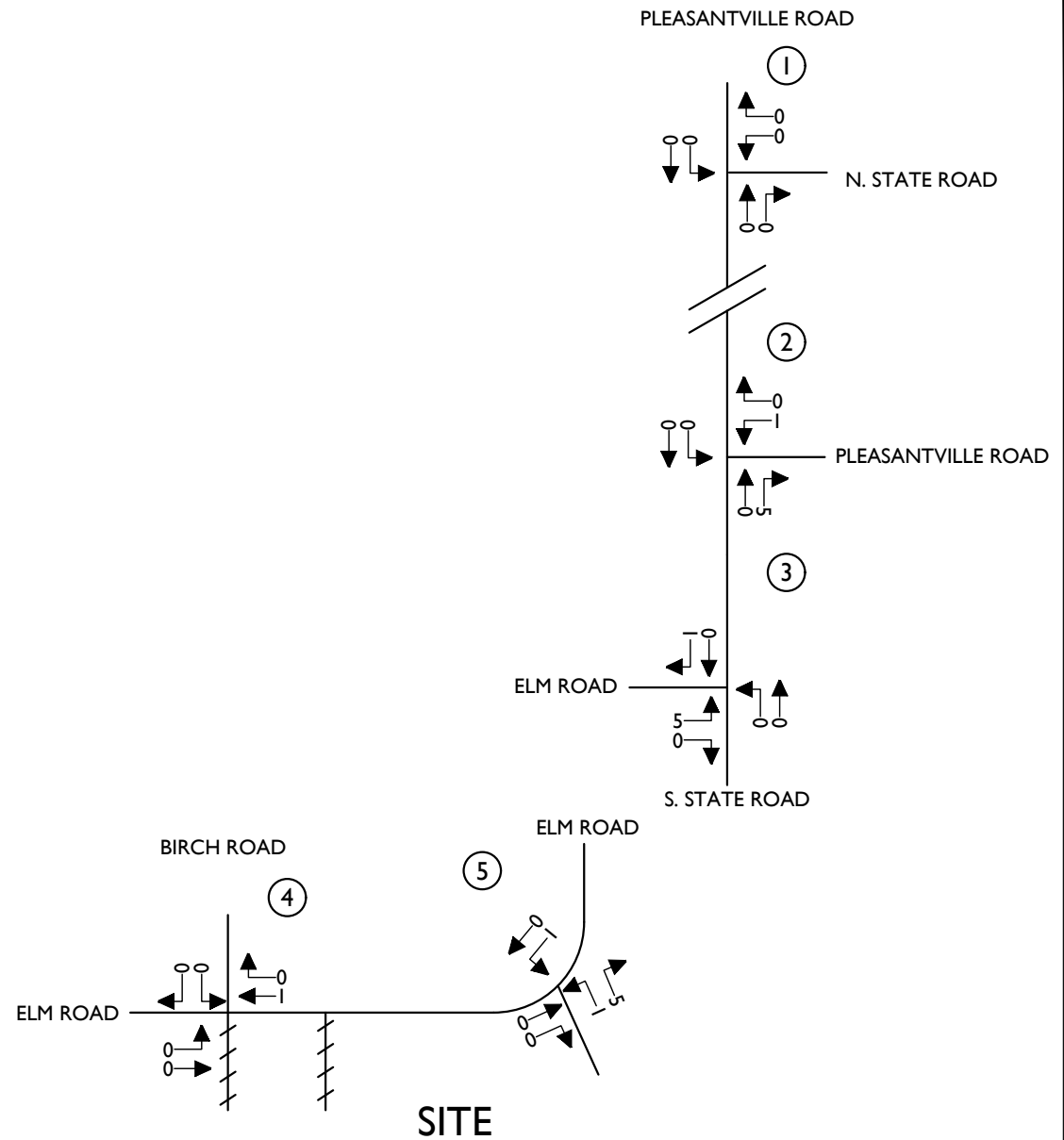
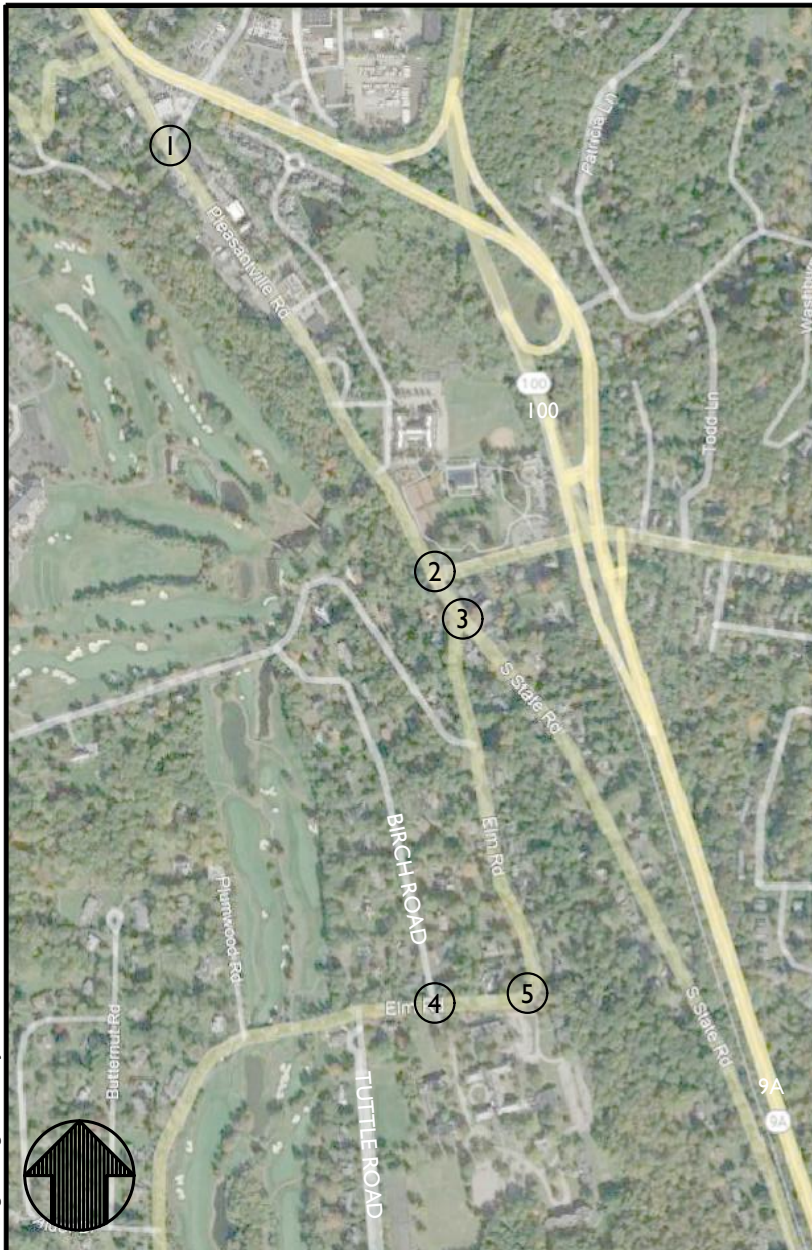
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
FUTURE PHASE
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(PASSENGER CARS)

SHEET NUMBER:
18



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**
CONSULTING

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595

Phone: 914.347.7500

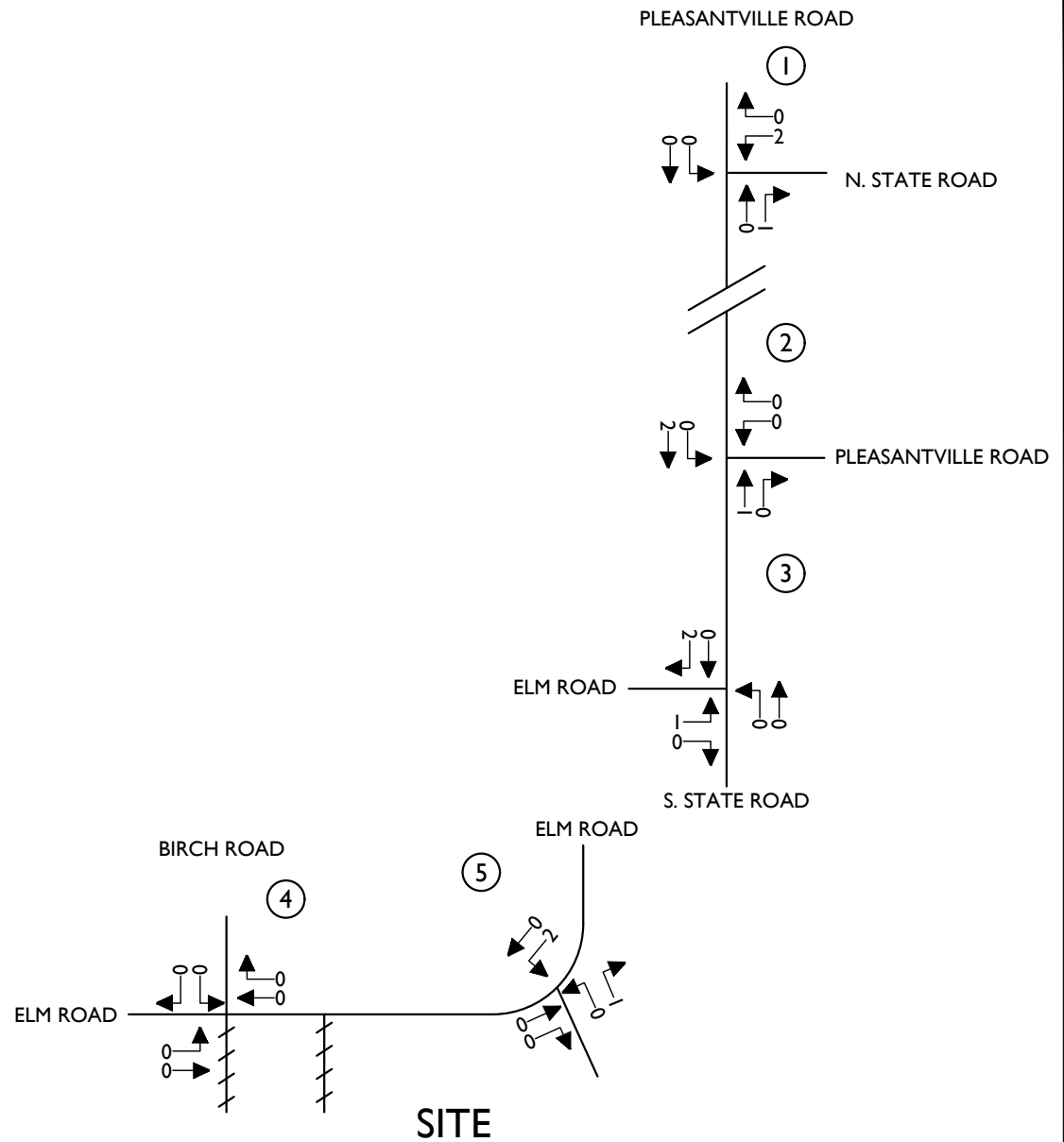
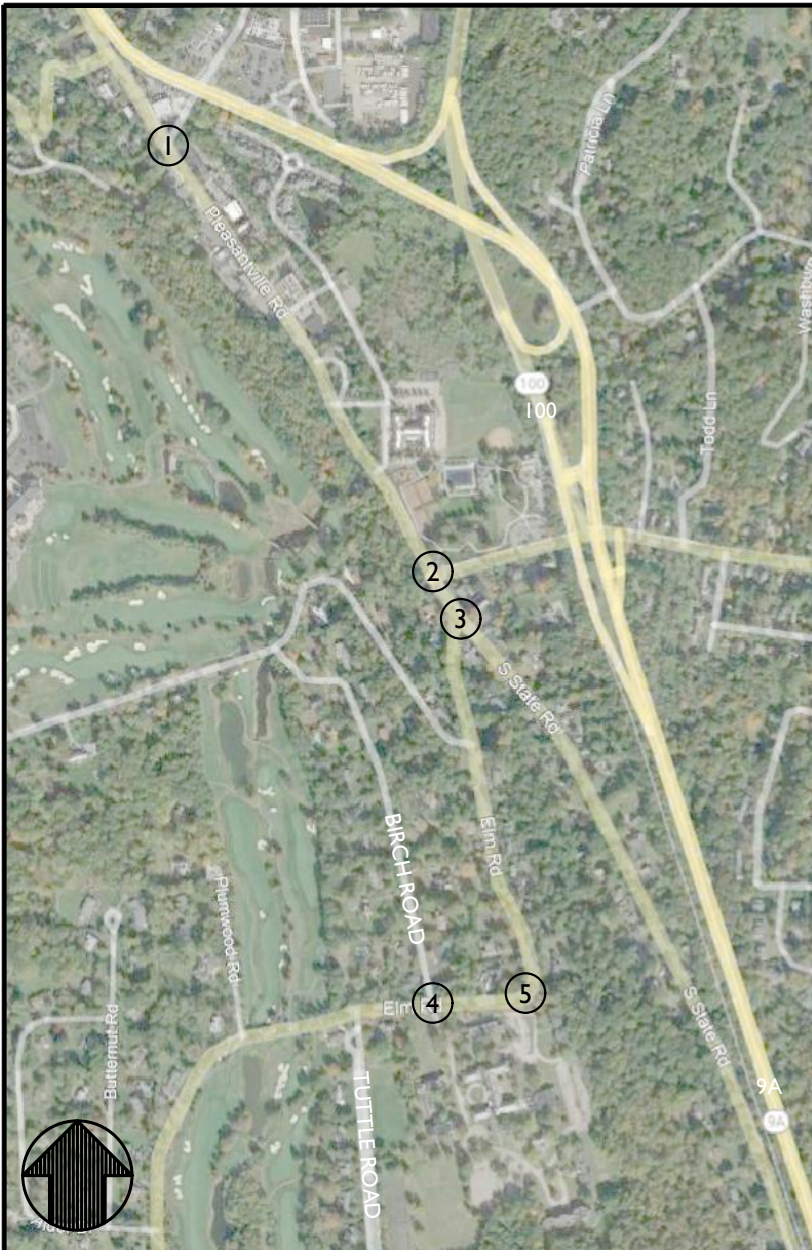
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE: FUTURE PHASE
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR
(PASSENGER CARS)

SHEET NUMBER: 19



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM



Engineering
& Design

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE

PROJECT NUMBER:
21003367A

DRAWING NAME:
211119PWG_FIGURE

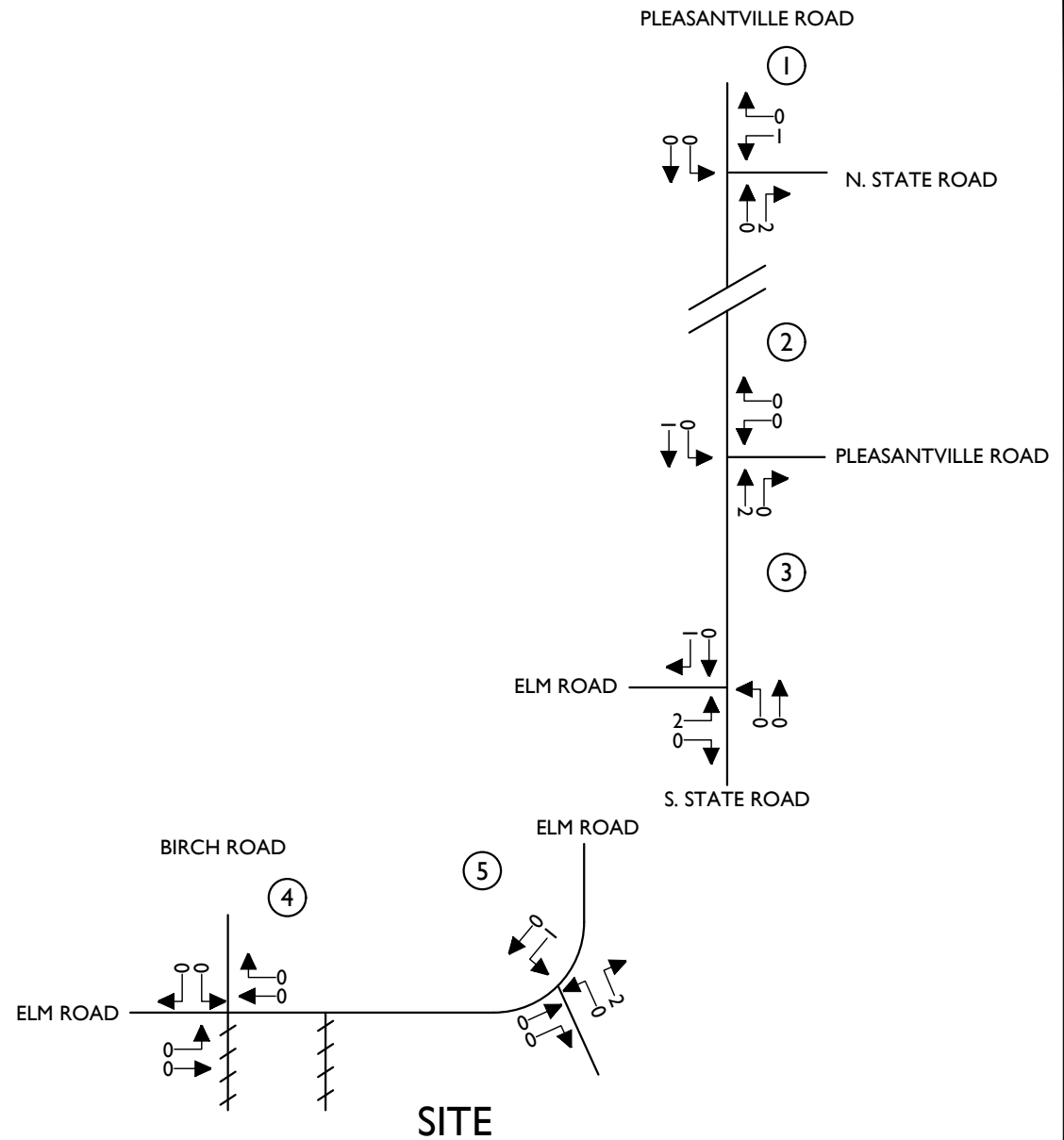
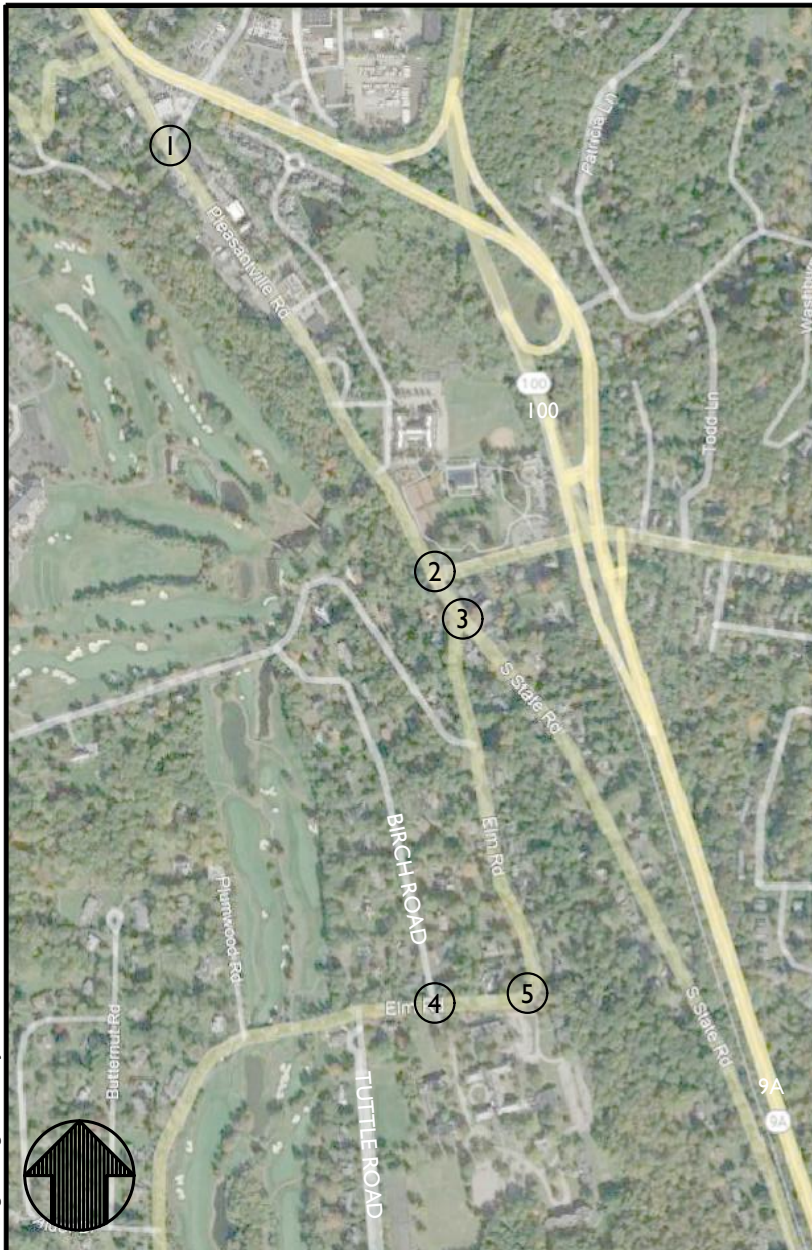
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
FUTURE PHASE
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(SCHOOL BUSES)

SHEET NUMBER:
20



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM



Engineering
& Design

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE

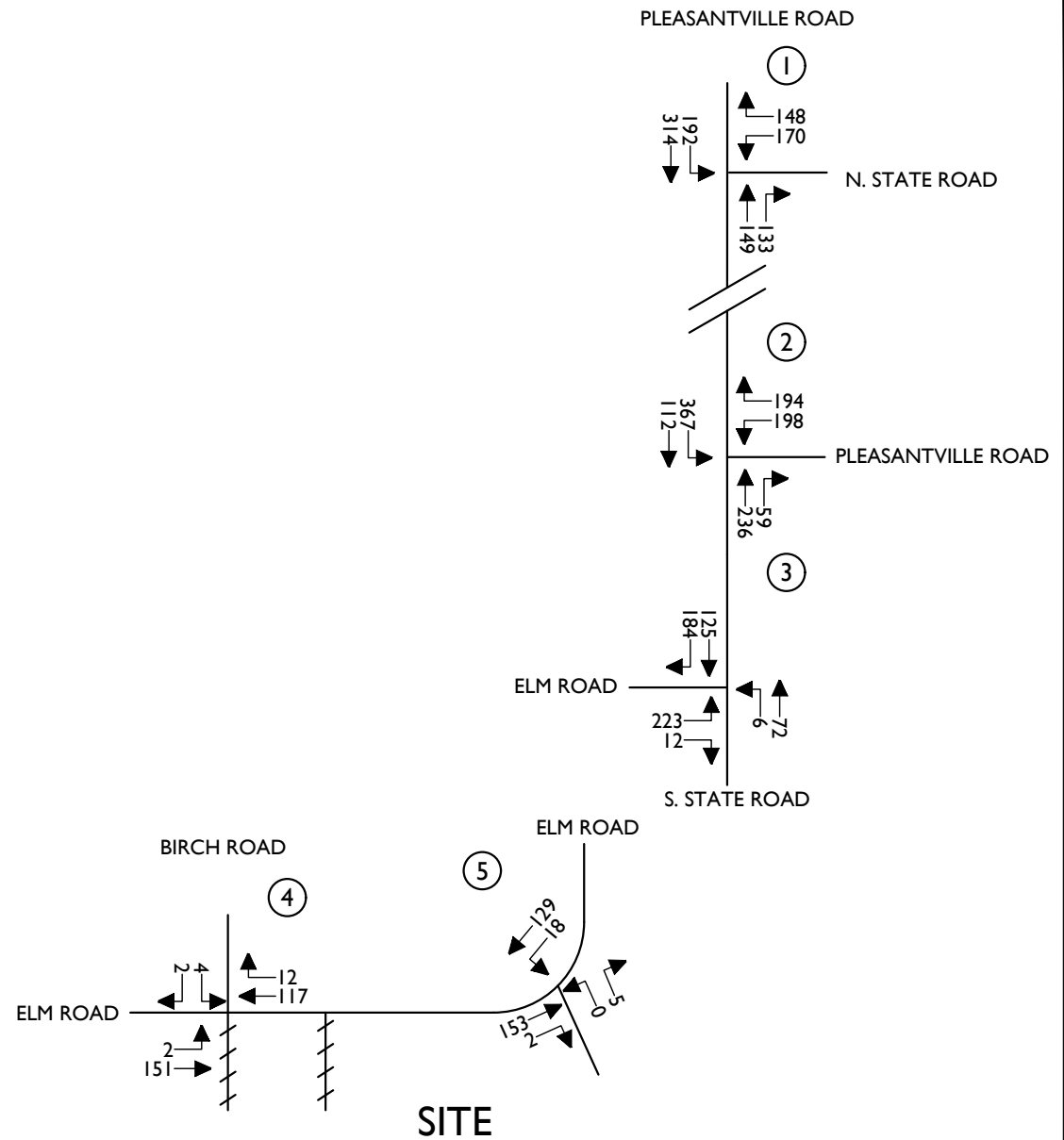
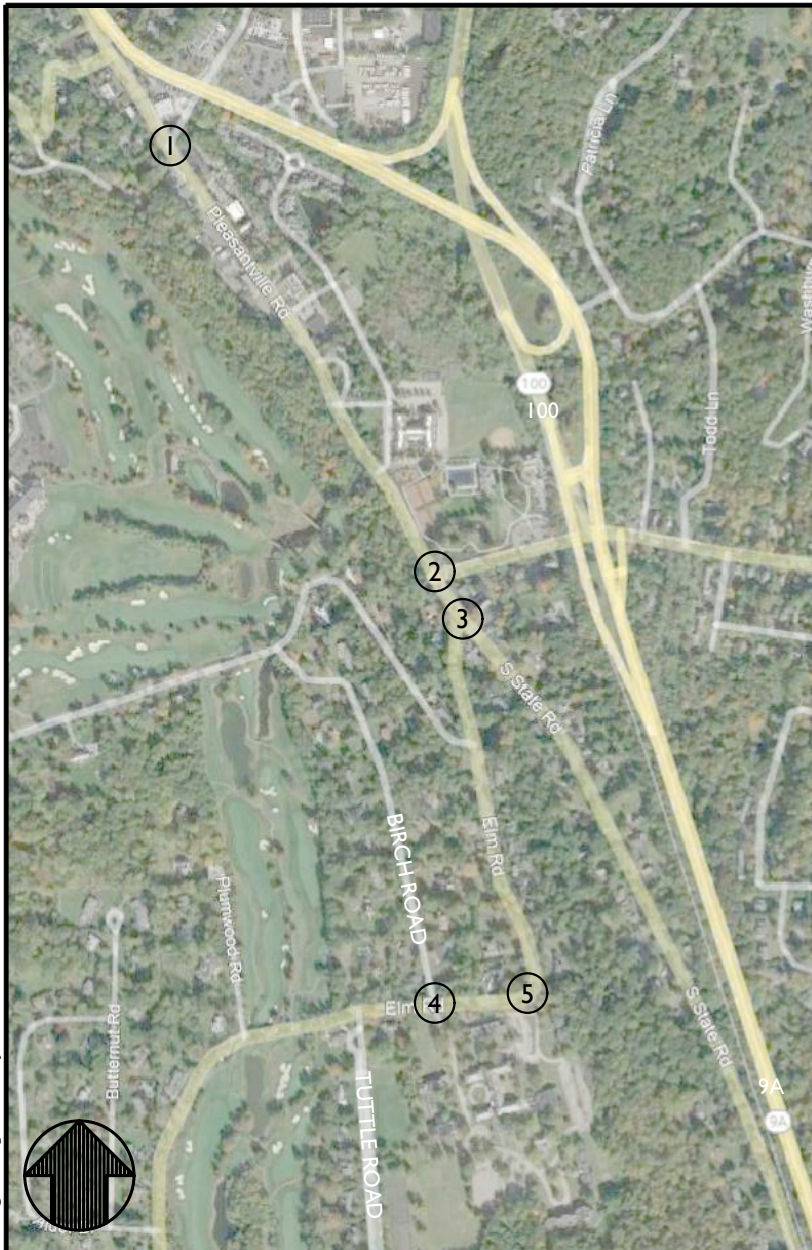
WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:	FUTURE PHASE SITE GENERATED TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR (SCHOOL BUSES)
--------------	--

SHEET NUMBER:	21
---------------	----



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

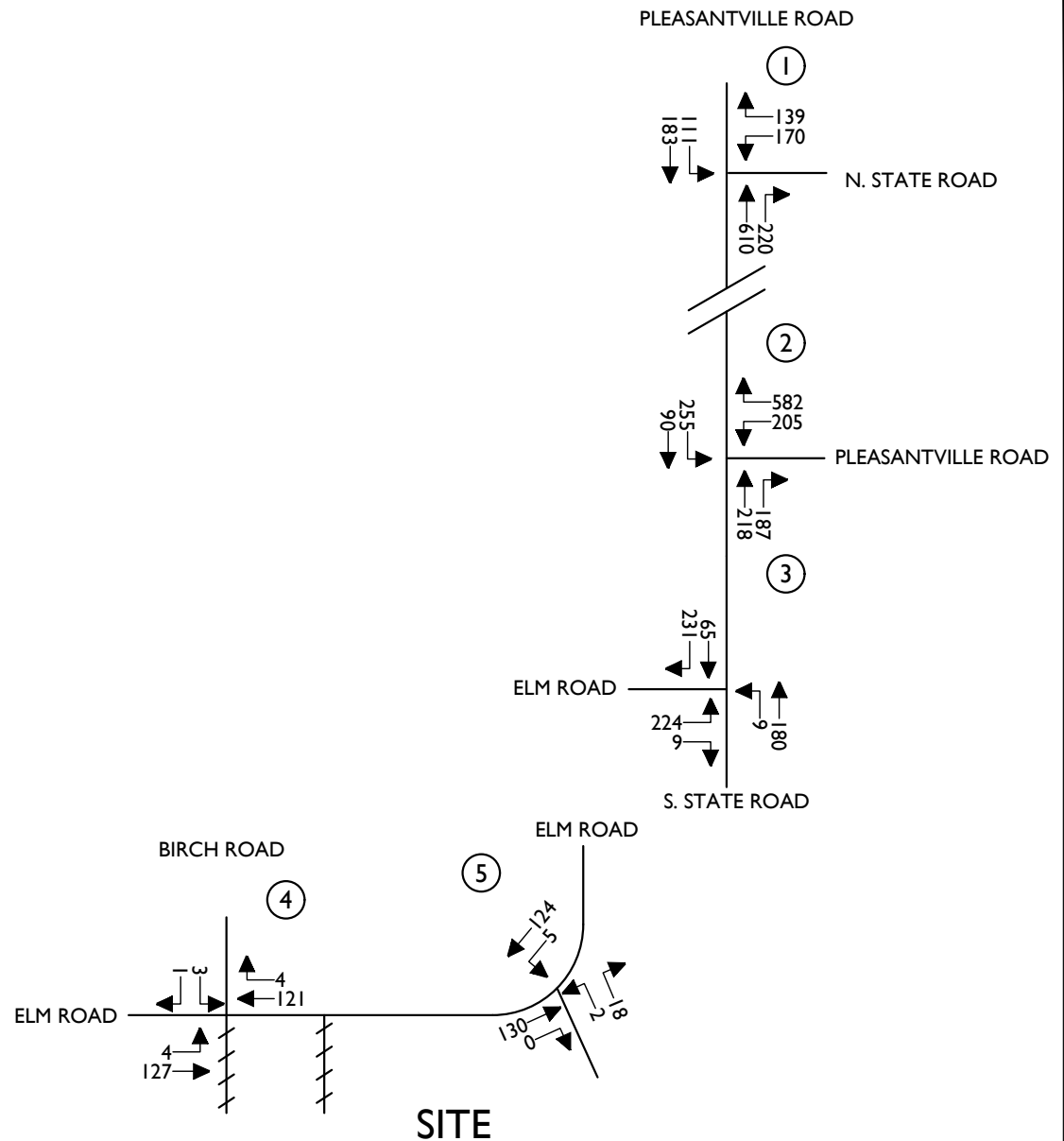
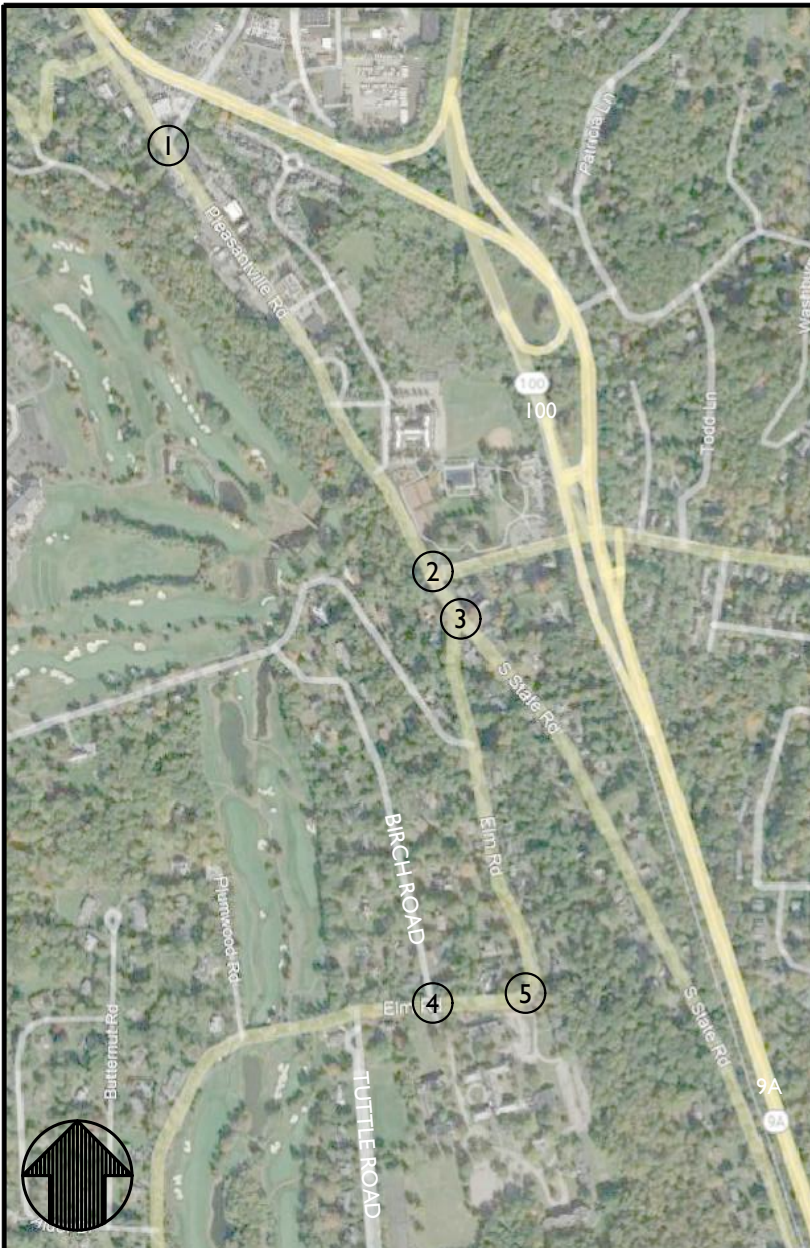
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	DRAWING NAME:		
21003367A	211119PWG_FIGURE		

SHEET TITLE:
**2033 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR**

SHEET NUMBER:
22



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

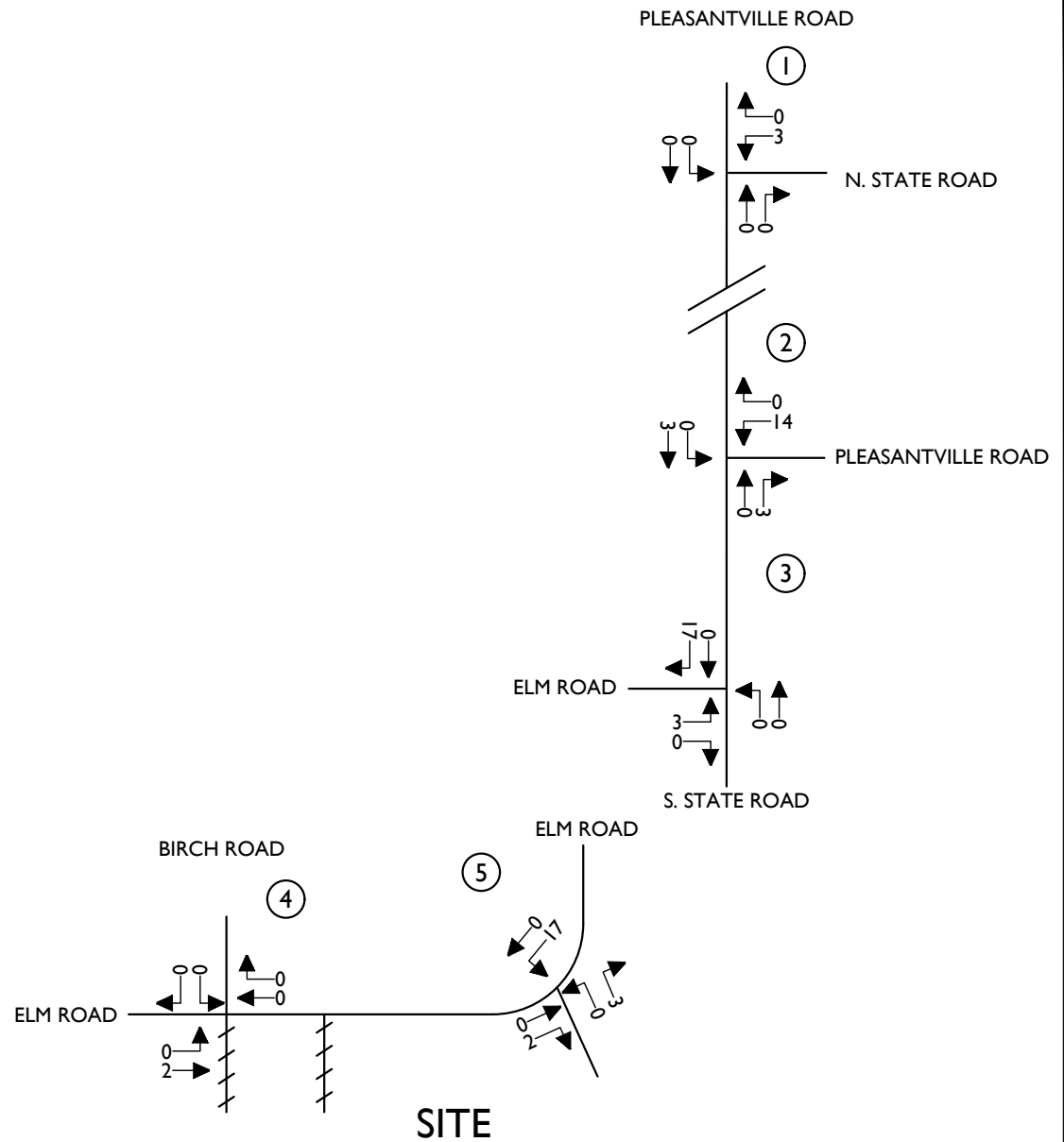
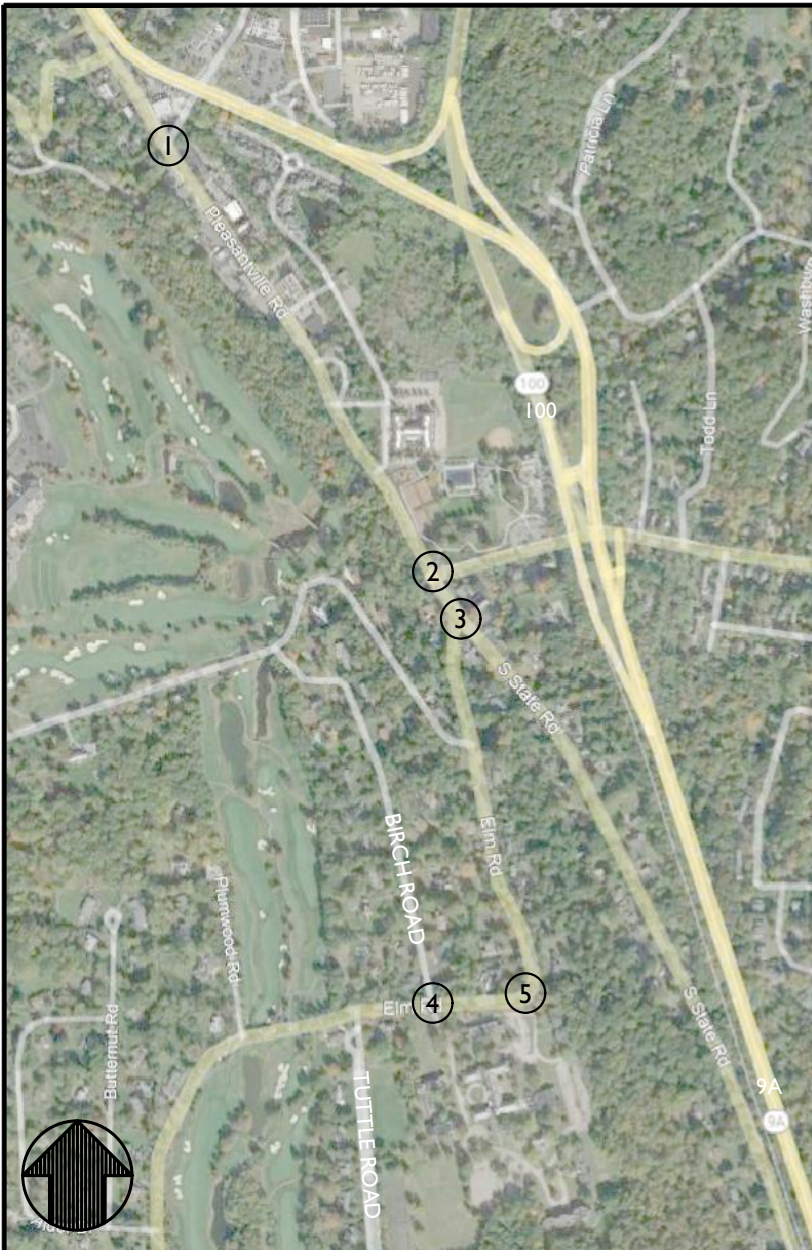
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
2033 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
23



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com

Doing Business as **MASER**

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM



Engineering
& Design

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

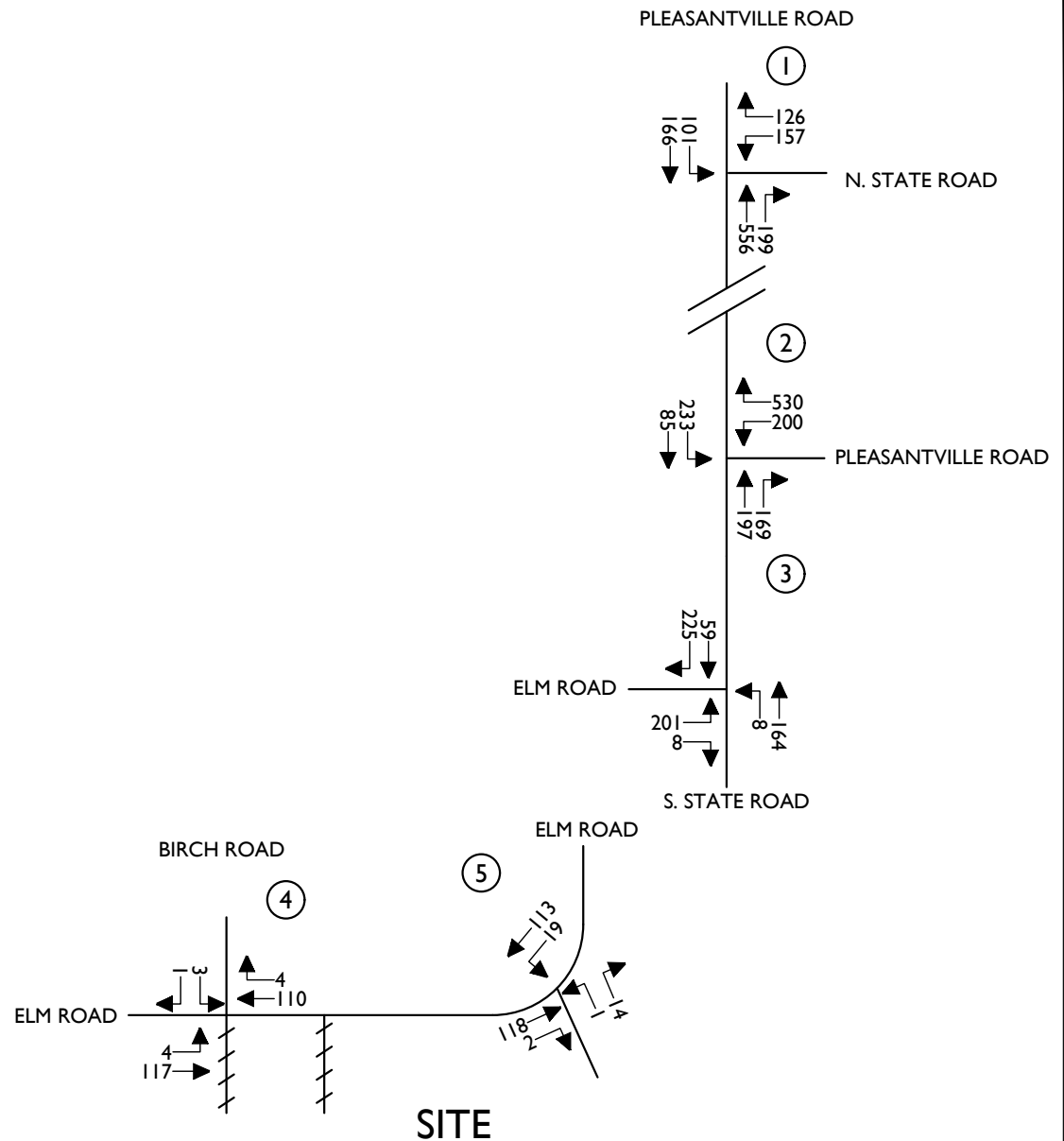
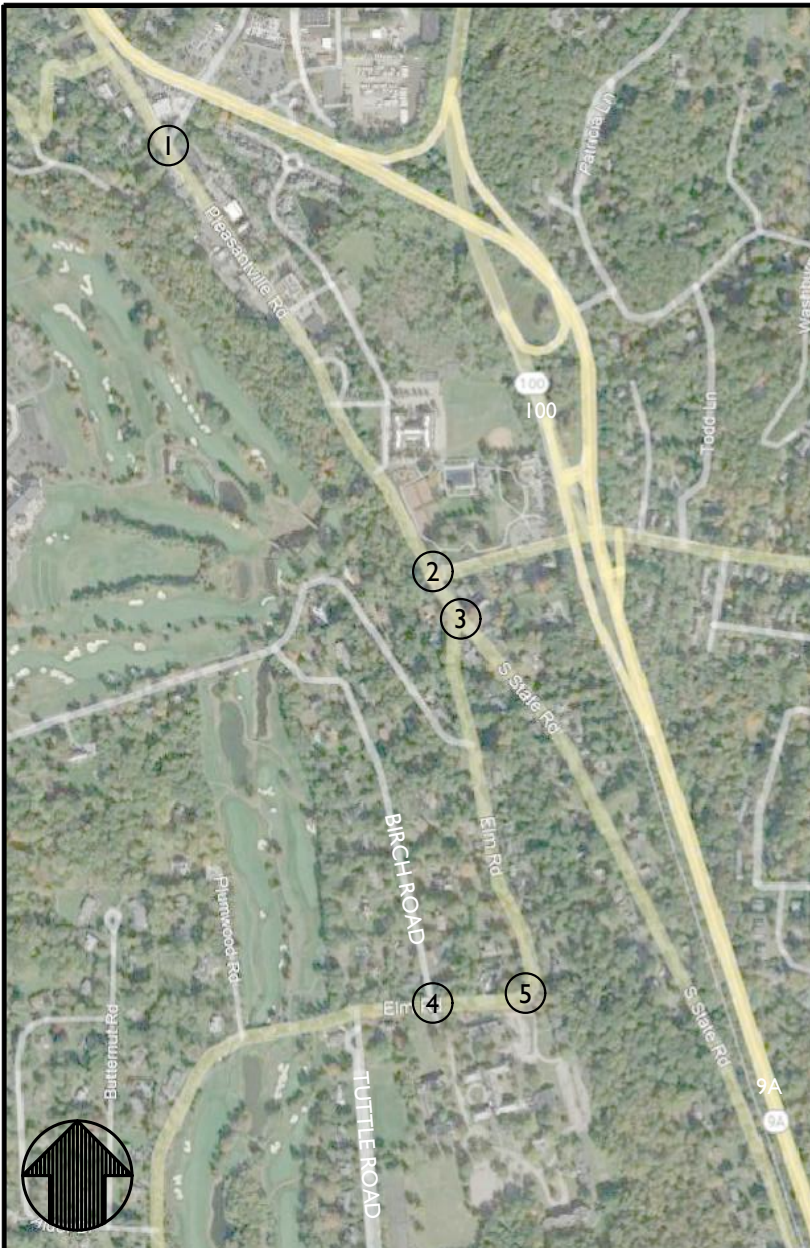
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	21003367A	DRAWING NAME:	211119PWG_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
(EVENT)

SHEET NUMBER:
24



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering
& Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

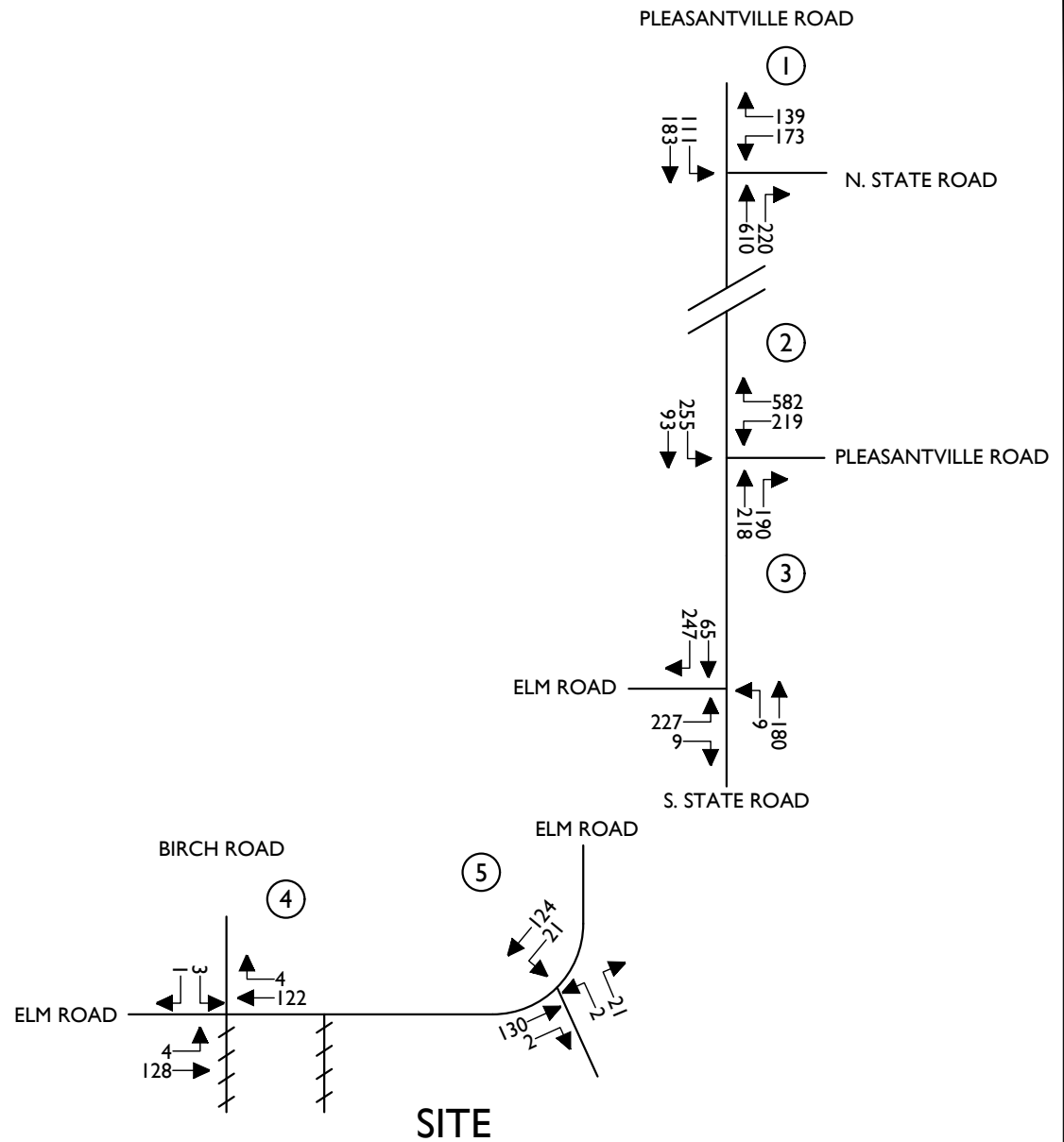
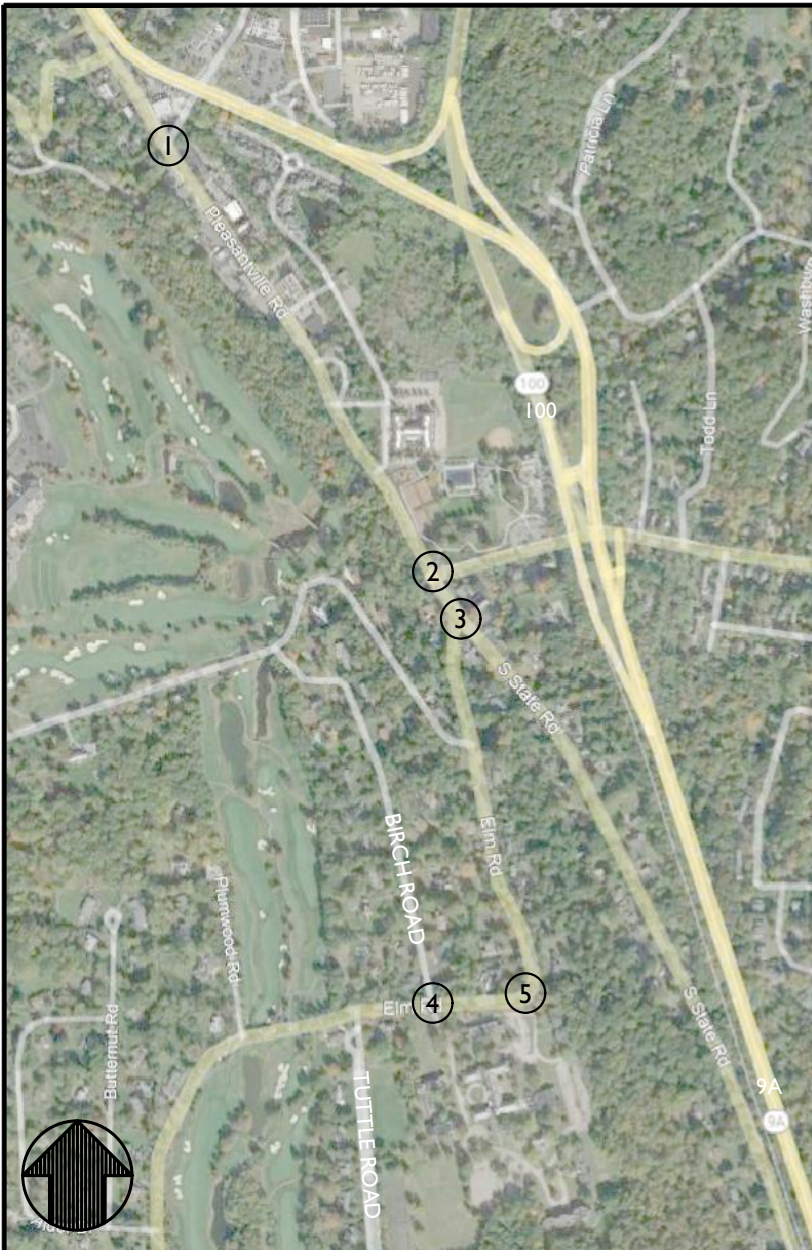
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	DRAWING NAME:		
21003367A	211119PWG_FIGURE		

SHEET TITLE:
2023 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR
WITH EVENT

SHEET NUMBER:
25



NOTE: LINE DIAGRAM NOT TO SCALE



Engineering & Design

www.colliersengineering.com



Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, revised, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

REV	DATE	DRAWN BY	DESCRIPTION
1			
2			
3			
4			
5			

TRAFFIC IMPACT STUDY
FOR
YESHIVA VIZNITZ
235 ELM ROAD

VILLAGE OF BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION
OF EXCAVATORS, DESIGNERS, OR
ANY PERSON PREPARING TO
DISTURB THE EARTH'S SURFACE
ANYWHERE IN ANY STATE



Engineering & Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	11/19/21	P.W.G.	R.R.
PROJECT NUMBER:	DRAWING NAME:		
21003367A	211119PWG_FIGURE		

SHEET TITLE:
2033 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR
WITH EVENT

SHEET NUMBER:
26

Traffic Impact Study

Appendix C | LOS Tables

Table No. 1
**Level of Service Summary Table
Weekday Peak AM Hour**

				2021 Existing			2023 No-Build			2023 Build			2023 No-Build			2023 Build		
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay
1	Pleasantville Road N. State road			Signalized														
	N. State Road	WB	L	0.33	B	12.8	0.34	B	13.0	0.35	B	13.1	0.42	B	14.9	0.42	B	15.0
			R	0.25	A	4.2	0.25	A	4.1	0.25	A	4.1	0.29	A	4.4	0.29	A	4.4
			APPROACH	----	A	8.8	----	A	8.8	----	A	8.9	----	B	10.0	----	B	10.1
	Pleasantville Road	SB	L	0.44	B	11.2	0.44	B	11.3	0.44	B	11.4	0.53	B	13.7	0.53	B	13.7
			T	0.46	A	9.9	0.46	A	10.0	0.46	B	10.0	0.54	B	11.8	0.54	B	11.8
			APPROACH	----	B	10.4	----	B	10.5	----	B	10.5	----	B	12.5	----	B	12.5
	Pleasantville Road	NB	T	0.21	A	7.6	0.22	A	7.7	0.22	A	7.7	0.25	A	8.2	0.25	A	8.2
			R	0.14	A	1.1	0.14	A	1.1	0.15	A	1.1	0.16	A	1.1	0.16	A	1.1
			APPROACH	----	A	4.6	----	A	4.6	----	A	4.6	----	A	4.9	----	A	4.9
	OVERALL INTERSECTION			----	A	8.4	----	A	8.5	----	A	8.6	----	A	9.8	----	A	9.9
2	Pleasantville Road S. State road			Signalized														
	Pleasantville Road	WB	L	0.43	C	20.8	0.44	C	21.2	0.52	C	23.3	0.58	C	26.2	0.60	C	26.7
			R	0.36	A	6.0	0.36	A	6.0	0.39	A	6.4	0.42	A	6.6	0.42	A	6.5
			APPROACH	----	B	13.2	----	B	13.4	----	B	14.8	----	B	16.4	----	B	16.7
	S. State Road	NB	T	0.06	A	5.2	0.06	A	5.2	0.07	A	5.3	0.07	A	5.2	0.07	A	5.3
			R	0.24	A	1.6	0.24	A	1.6	0.26	A	1.7	0.27	A	1.7	0.28	A	1.7
			APPROACH	----	A	2.3	----	A	2.3	----	A	2.4	----	A	2.4	----	A	2.4
	Pleasantville Road	SB	LT	0.60	B	11.0	0.61	B	11.2	0.68	B	13.4	0.71	B	14.5	0.72	B	14.7
			APPROACH	----	B	11.0	----	B	11.2	----	B	13.4	----	B	14.5	----	B	14.7
	OVERALL INTERSECTION			----	A	9.5	----	A	9.7	----	B	11.1	----	B	12.1	----	B	12.3
	3	S. State Road Elm Road			Unsignalized													
S. State Road Elm Road		NB EB	LT LR	0.005 0.313	A B	8.0 12.4	0.005 0.321	A B	8.1 12.5	0.005 0.330	A B	8.1 12.7	0.006 0.374	A B	8.2 13.5	0.006 0.379	A B	8.2 13.7
4	Elm Road Birch Road			Unsignalized														
	Elm Road Birch Road	EB SB	LT LR	0.002 0.010	A B	8.0 10.2	0.002 0.010	A B	8.0 10.2	0.002 0.010	A B	8.0 10.2	0.002 0.011	A B	8.1 10.4	0.002 0.011	A B	8.1 10.4
5	Elm Road Proposed Site Driveway			Unsignalized														
	Elm Road Proposed Site Driveway	WB NB	LT LR	---- ----	---- ----	---- ----	---- ----	---- ----	---- ----	0.010 0.004	A A	7.8 9.5	0.010 0.005	A A	7.8 9.6	0.017 0.008	A A	7.9 9.7

THE ABOVE REPRESENTS THE LEVELS OF SERVICE, VEHICLE DELAY IN SECONDS AND VOLUME-TO-CAPACITY (V/C) RATIO FOR THE ABOVE INTERSECTIONS

Table No. 2
**Level of Service Summary Table
Weekday Peak PM Hour**

				2021 Existing			2023 No-Build			2023 Build			2023 No-Build			2023 Build		
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay
1	Pleasantville Road N. State road			Signalized														
	N. State Road	WB	L	0.42	C	20.3	0.43	C	20.8	0.44	C	21.0	0.50	C	24.3	0.50	C	24.5
			R	0.28	A	6.0	0.28	A	6.1	0.28	A	6.1	0.31	A	6.6	0.31	A	6.6
			APPROACH	----	B	13.8	----	B	14.2	----	B	14.3	----	C	16.3	----	B	16.5
	Pleasantville Road	SB	L	0.36	B	10.4	0.37	B	10.7	0.37	B	10.7	0.44	B	12.2	0.44	B	12.2
			T	0.22	A	6.4	0.22	A	6.4	0.22	A	6.4	0.23	A	6.2	0.23	A	6.2
			APPROACH	----	A	7.9	----	A	8.0	----	A	8.0	----	A	8.5	----	A	8.5
	Pleasantville Road	NB	T	0.72	B	13.9	0.73	B	14.1	0.73	B	14.1	0.76	B	14.9	0.76	B	14.9
			R	0.21	A	1.1	0.21	A	1.1	0.21	A	1.1	0.23	A	1.1	0.23	A	1.2
			APPROACH	----	B	10.6	----	B	10.7	----	B	10.7	----	B	11.3	----	B	11.2
OVERALL INTERSECTION			----	B	10.7	----	B	10.9	----	B	10.9	----	B	11.8	----	B	11.8	
2	Pleasantville Road S. State road			Signalized														
	Pleasantville Road	WB	L	0.40	B	15.9	0.41	B	16.2	0.41	B	16.2	0.46	B	18.2	0.46	B	18.3
			R	0.66	A	6.4	0.67	A	6.5	0.67	A	6.5	0.71	A	7.1	0.71	A	7.1
			APPROACH	----	A	8.8	----	A	9.0	----	A	9.0	----	A	10.0	----	B	10.0
	S. State Road	NB	T	0.25	A	8.2	0.25	A	8.2	0.26	A	8.2	0.27	A	8.1	0.27	A	8.1
			R	0.20	A	2.4	0.20	A	2.4	0.21	A	2.4	0.22	A	2.2	0.23	A	2.2
			APPROACH	----	A	5.6	----	A	5.6	----	A	5.6	----	A	5.4	----	A	5.4
	Pleasantville Road	SB	LT	0.58	B	13.7	0.59	B	14.0	0.60	B	14.1	0.63	B	14.7	0.63	B	14.8
			APPROACH	----	B	13.7	----	B	14.0	----	B	14.1	----	B	14.7	----	B	14.8
	OVERALL INTERSECTION			----	A	9.1	----	A	9.3	----	A	9.3	----	A	9.9	----	A	9.9
3	S. State Road Elm Road			Unsignalized														
	S. State Road Elm Road	NB EB	LT LR	0.007 0.322	A B	7.8 13.3	0.007 0.331	A B	7.8 13.4	0.007 0.352	A B	7.8 13.8	0.008 0.404	A C	7.9 15.0	0.008 0.418	A C	7.9 15.3
4	Elm Road Birch Road			Unsignalized														
	Elm Road Birch Road	EB SB	LT LR	0.003 0.006	A A	7.7 9.7	0.003 0.006	A A	7.7 9.7	0.003 0.006	A A	7.7 9.7	0.003 0.006	A A	7.8 9.9	0.003 0.006	A A	7.8 9.9
5	Elm Road Proposed Site Driveway			Unsignalized														
	Elm Road Proposed Site Driveway	WB NB	LT LR	---- ----	---- ----	---- ----	---- ----	---- ----	---- ----	0.003 0.016	A A	7.8 9.3	0.003 0.016	A A	7.9 9.3	0.005 0.027	A A	7.9 9.5

THE ABOVE REPRESENTS THE LEVELS OF SERVICE, VEHICLE DELAY IN SECONDS AND VOLUME-TO-CAPACITY (V/C) RATIO FOR THE ABOVE INTERSECTIONS

Table No. 3
Level of Service Summary Table
Weekday Peak PM Hour

EVENT CONDITION

				2023 Build - Event			2033 Build - Event		
				v/c	LOS	Delay	v/c	LOS	Delay
1	Pleasantville Road N. State road			Signalized					
	N. State Road	WB	L	0.45	C	21.3	0.51	C	24.5
			R	0.28	A	6.1	0.30	A	6.5
			APPROACH	----	B	14.5	----	B	16.5
	Pleasantville Road	SB	L	0.37	B	10.8	0.45	B	12.9
			T	0.22	A	6.5	0.23	A	6.5
			APPROACH	----	A	8.1	----	A	8.9
	Pleasantville Road	NB	T	0.73	B	14.2	0.77	B	15.5
			R	0.21	A	1.1	0.23	A	1.1
			APPROACH	----	B	10.8	----	B	11.7
	OVERALL INTERSECTION			----	B	11.0	----	B	12.2
2	Pleasantville Road S. State road			Signalized					
	Pleasantville Road	WB	L	0.43	B	16.7	0.48	B	18.9
			R	0.67	A	6.4	0.70	A	7.1
			APPROACH	----	A	9.2	----	B	10.3
	S. State Road	NB	T	0.26	A	8.3	0.27	A	8.2
			R	0.22	A	2.4	0.23	A	2.2
			APPROACH	----	A	5.6	----	A	5.4
	Pleasantville Road	SB	LT	0.60	B	14.3	0.64	B	15.1
			APPROACH	----	B	14.3	----	B	15.1
	OVERALL INTERSECTION			----	A	9.4	----	B	10.1
	3	S. State Road Elm Road			Unsignalized				
S. State Road Elm Road		NB EB	LT LR	0.007 0.359	A B	7.9 13.9	0.008 0.429	A C	7.9 15.6
4	Elm Road Birch Road			Unsignalized					
	Elm Road Birch Road	EB SB	LT LR	0.003 0.006	A A	7.7 9.8	0.003 0.006	A A	7.8 9.9
5	Elm Road Proposed Site Driveway			Unsignalized					
	Elm Road Proposed Site Driveway	WB NB	LT LR	0.016 0.020	A A	7.8 9.2	0.018 0.031	A A	7.8 9.5

THE ABOVE REPRESENTS THE LEVELS OF SERVICE, VEHICLE DELAY IN SECONDS AND VOLUME-TO-CAPACITY (V/C) RATIO
FOR THE ABOVE INTERSECTIONS

Traffic Impact Study

Appendix D | 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 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	$v/c \leq 1.0$	$v/c \geq 1.0$
≤ 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 20-2 from the Highway Capacity Manual, 6th Edition published by the Transportation Research Board.

Exhibit 20-2 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	$v/c \leq 1.0$	$v/c \geq 1.0$
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 20-2 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 21-8. 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 21-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 21-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	$v/c \leq 1.0$	$v/c \geq 1.0$
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.

Traffic Impact Study

Appendix E | Capacity Analysis

Year 2021 Existing Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

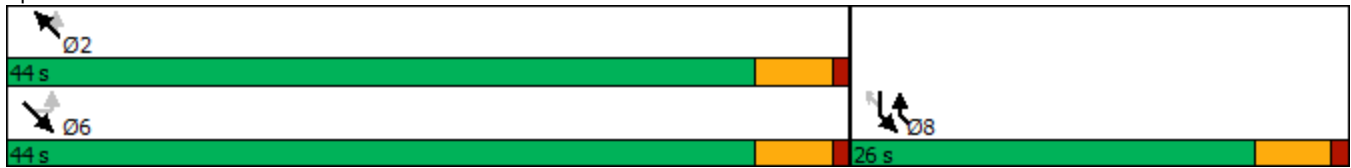
						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	148	132	171	280	133	117
Future Volume (vph)	148	132	171	280	133	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1547	1537	1417	1535	1565	1317
Flt Permitted	0.950		0.665			
Satd. Flow (perm)	1547	1537	987	1535	1565	1276
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		143				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)			6			6
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	4%	7%	4%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	161	143	186	304	145	127
Shared Lane Traffic (%)						
Lane Group Flow (vph)	161	143	186	304	145	127
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2021 Existing Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	26.0
Total Split (%)	37.1%	37.1%	62.9%	62.9%	62.9%	37.1%
Maximum Green (s)	21.0	21.0	39.0	39.0	39.0	21.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	9.6	9.6	13.3	13.3	13.3	21.3
Actuated g/C Ratio	0.31	0.31	0.43	0.43	0.43	0.69
v/c Ratio	0.33	0.25	0.44	0.46	0.21	0.14
Control Delay	12.8	4.2	11.2	9.9	7.6	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	4.2	11.2	9.9	7.6	1.1
LOS	B	A	B	A	A	A
Approach Delay	8.8			10.4	4.6	
Approach LOS	A			B	A	
Queue Length 50th (ft)	21	0	20	33	14	0
Queue Length 95th (ft)	71	28	68	95	45	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	1087	1122	954	1484	1513	1152
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.13	0.19	0.20	0.10	0.11
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 30.8						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.46						
Intersection Signal Delay: 8.4				Intersection LOS: A		
Intersection Capacity Utilization 44.2%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2021 Existing Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	164	173	50	209	328	96
Future Volume (vph)	164	173	50	209	328	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.963
Satd. Flow (prot)	1546	1449	1705	1538	0	1761
Flt Permitted	0.950					0.739
Satd. Flow (perm)	1546	1449	1705	1505	0	1350
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		188		227		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	4%	5%	3%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	178	188	54	227	357	104
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	188	54	227	0	461
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2021 Existing Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	19.0	19.0	31.0	31.0	10.0	41.0
Total Split (%)	31.7%	31.7%	51.7%	51.7%	16.7%	68.3%
Maximum Green (s)	14.0	14.0	26.0	26.0	5.0	36.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.1	11.1	23.6	23.6		23.6
Actuated g/C Ratio	0.27	0.27	0.57	0.57		0.57
v/c Ratio	0.43	0.36	0.06	0.24		0.60
Control Delay	20.8	6.0	5.2	1.6		11.0
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	20.8	6.0	5.2	1.6		11.0
LOS	C	A	A	A		B
Approach Delay	13.2		2.3			11.0
Approach LOS	B		A			B
Queue Length 50th (ft)	37	0	6	0		69
Queue Length 95th (ft)	109	43	18	21		163
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	644	713	1207	1131		1109
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	0.28	0.26	0.04	0.20		0.42
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 41.6						
Natural Cycle: 50						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.60						
Intersection Signal Delay: 9.5				Intersection LOS: A		
Intersection Capacity Utilization 47.3%				ICU Level of Service A		
Analysis Period (min) 15						

Year 2021 Existing Traffic Volumes
 2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
 11/23/2021

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2021 Existing Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	5	64	112	148	195	11
Future Volume (vph)	5	64	112	148	195	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.923		0.993	
Flt Protected		0.997			0.955	
Satd. Flow (prot)	0	1819	1543	0	1835	0
Flt Permitted		0.997			0.955	
Satd. Flow (perm)	0	1819	1543	0	1835	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	3%	7%	12%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	5	69	120	159	210	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	74	279	0	222	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.1%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2021 Existing Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.9					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	5	64	112	148	195	11
Future Vol, veh/h	5	64	112	148	195	11
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	93	93	93	93	93	93
Heavy Vehicles, %	20	3	7	12	5	0
Mvmt Flow	5	69	120	159	210	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	279	0	-	0	279	200
Stage 1	-	-	-	-	200	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.3	-	-	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.38	-	-	-	3.545	3.3
Pot Cap-1 Maneuver	1187	-	-	-	705	846
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	937	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1187	-	-	-	702	846
Mov Cap-2 Maneuver	-	-	-	-	702	-
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	937	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.6	0		12.4		
HCM LOS				B		
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	708	1187	-	-	-	
HCM Lane V/C Ratio	0.313	0.005	-	-	-	
HCM Control Delay (s)	12.4	8	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.3	0	-	-	-	

Year 2021 Existing Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	133	0	0	104	11	0	0	0	4	0	2
Future Volume (vph)	2	133	0	0	104	11	0	0	0	4	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.987						0.961	
Flt Protected		0.999									0.966	
Satd. Flow (prot)	0	1798	0	0	1651	0	0	0	0	0	1357	0
Flt Permitted		0.999									0.966	
Satd. Flow (perm)	0	1798	0	0	1651	0	0	0	0	0	1357	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	50%	5%	0%	0%	15%	0%	0%	0%	0%	2%	0%	100%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	158	0	0	124	13	0	0	0	5	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	0	0	137	0	0	0	0	0	7	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2021 Existing Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	2	133	0	0	104	11	0	0	0	4	0	2
Future Vol, veh/h	2	133	0	0	104	11	0	0	0	4	0	2
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	50	5	0	0	15	0	0	0	0	2	0	100
Mvmt Flow	2	158	0	0	124	13	0	0	0	5	0	2
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	139	0	0	158	0	0				295	295	133
Stage 1	-	-	-	-	-	-				133	133	-
Stage 2	-	-	-	-	-	-				162	162	-
Critical Hdwy	4.6	-	-	4.1	-	-				6.42	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.5	-
Follow-up Hdwy	2.65	-	-	2.2	-	-				3.518	4	4.2
Pot Cap-1 Maneuver	1197	-	-	1434	-	-				696	620	709
Stage 1	-	-	-	-	-	-				893	790	-
Stage 2	-	-	-	-	-	-				867	768	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	1434	-	-				692	0	708
Mov Cap-2 Maneuver	-	-	-	-	-	-				692	0	-
Stage 1	-	-	-	-	-	-				889	0	-
Stage 2	-	-	-	-	-	-				865	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.1			0						10.2		
HCM LOS										B		
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1195	-	-	1434	-	-	697					
HCM Lane V/C Ratio	0.002	-	-	-	-	-	0.01					
HCM Control Delay (s)	8	0	-	0	-	-	10.2					
HCM Lane LOS	A	A	-	A	-	-	B					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2021 Existing Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	150	124	99	163	545	193
Future Volume (vph)	150	124	99	163	545	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1593	1583	1501	1535	1565	1343
Flt Permitted	0.950		0.358			
Satd. Flow (perm)	1590	1583	565	1535	1565	1306
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		131				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)	1		4			4
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	4%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	158	131	104	172	574	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	158	131	104	172	574	203
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2021 Existing Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	21.0	21.0	49.0	49.0	49.0	21.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	30.0%
Maximum Green (s)	16.0	16.0	44.0	44.0	44.0	16.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.1	10.1	21.8	21.8	21.8	31.8
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.51	0.74
v/c Ratio	0.42	0.28	0.36	0.22	0.72	0.21
Control Delay	20.3	6.0	10.4	6.4	13.9	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	6.0	10.4	6.4	13.9	1.1
LOS	C	A	B	A	B	A
Approach Delay	13.8			7.9	10.6	
Approach LOS	B			A	B	
Queue Length 50th (ft)	30	0	12	18	85	0
Queue Length 95th (ft)	99	36	46	52	218	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	648	721	520	1412	1440	1131
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.18	0.20	0.12	0.40	0.18
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 42.7						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.72						
Intersection Signal Delay: 10.7				Intersection LOS: B		
Intersection Capacity Utilization 59.7%				ICU Level of Service B		
Analysis Period (min) 15						

Year 2021 Existing Traffic Volumes
 1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
 11/23/2021

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2021 Existing Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

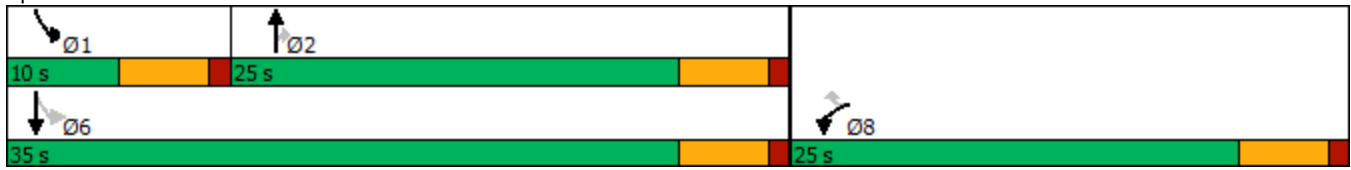
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	181	520	191	154	228	79
Future Volume (vph)	181	520	191	154	228	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.964
Satd. Flow (prot)	1652	1492	1756	1599	0	1778
Flt Permitted	0.950					0.662
Satd. Flow (perm)	1652	1492	1756	1564	0	1220
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		531		157		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	185	531	195	157	233	81
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	531	195	157	0	314
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2021 Existing Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	25.0	25.0	25.0	25.0	10.0	35.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	20.0	20.0	20.0	20.0	5.0	30.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.2	11.2	17.5	17.5		17.5
Actuated g/C Ratio	0.28	0.28	0.44	0.44		0.44
v/c Ratio	0.40	0.66	0.25	0.20		0.58
Control Delay	15.9	6.4	8.2	2.4		13.7
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	15.9	6.4	8.2	2.4		13.7
LOS	B	A	A	A		B
Approach Delay	8.8		5.6			13.7
Approach LOS	A		A			B
Queue Length 50th (ft)	31	0	22	0		43
Queue Length 95th (ft)	95	58	69	23		135
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	913	1062	1049	997		960
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	0.20	0.50	0.19	0.16		0.33
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 39.7						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.66						
Intersection Signal Delay: 9.1				Intersection LOS: A		
Intersection Capacity Utilization 50.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2021 Existing Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	8	161	58	202	184	8
Future Volume (vph)	8	161	58	202	184	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.895		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1878	1644	0	1904	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1878	1644	0	1904	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	9	173	62	217	198	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	182	279	0	207	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	32.9%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2021 Existing Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.2					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	8	161	58	202	184	8
Future Vol, veh/h	8	161	58	202	184	8
Conflicting Peds, #/hr	0	0	0	0	0	1
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	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	9	173	62	217	198	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	279	0	-	0	362	172
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	191	-
Critical Hdwy	4.1	-	-	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.2	-	-	-	3.509	3.3
Pot Cap-1 Maneuver	1295	-	-	-	639	877
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	844	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1295	-	-	-	634	876
Mov Cap-2 Maneuver	-	-	-	-	634	-
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	844	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.4	0		13.3		
HCM LOS				B		
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	641	1295	-	-	-	
HCM Lane V/C Ratio	0.322	0.007	-	-	-	
HCM Control Delay (s)	13.3	7.8	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.4	0	-	-	-	

Year 2021 Existing Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	113	0	0	107	4	0	0	0	3	0	1
Future Volume (vph)	4	113	0	0	107	4	0	0	0	3	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.995						0.966	
Flt Protected		0.998									0.964	
Satd. Flow (prot)	0	1861	0	0	1838	0	0	0	0	0	1769	0
Flt Permitted		0.998									0.964	
Satd. Flow (perm)	0	1861	0	0	1838	0	0	0	0	0	1769	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	5	128	0	0	122	5	0	0	0	3	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	127	0	0	0	0	0	4	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2021 Existing Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	4	113	0	0	107	4	0	0	0	3	0	1
Future Vol, veh/h	4	113	0	0	107	4	0	0	0	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	25	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	128	0	0	122	5	0	0	0	3	0	1
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	127	0	0	128	0	0				263	263	126
Stage 1	-	-	-	-	-	-				125	125	-
Stage 2	-	-	-	-	-	-				138	138	-
Critical Hdwy	4.35	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	1329	-	-	1470	-	-				730	646	930
Stage 1	-	-	-	-	-	-				906	796	-
Stage 2	-	-	-	-	-	-				894	786	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1329	-	-	1470	-	-				727	0	929
Mov Cap-2 Maneuver	-	-	-	-	-	-				727	0	-
Stage 1	-	-	-	-	-	-				902	0	-
Stage 2	-	-	-	-	-	-				894	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.3			0			9.7					
HCM LOS							A					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1329	-	-	1470	-	-	769					
HCM Lane V/C Ratio	0.003	-	-	-	-	-	0.006					
HCM Control Delay (s)	7.7	0	-	0	-	-	9.7					
HCM Lane LOS	A	A	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2023 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour

11/23/2021

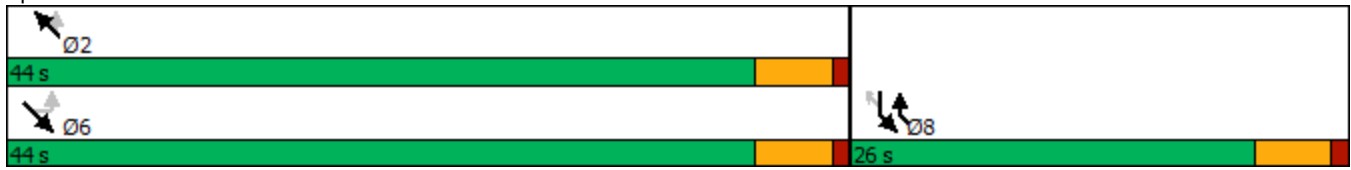
						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	151	135	174	286	136	119
Future Volume (vph)	151	135	174	286	136	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1547	1537	1417	1535	1565	1317
Flt Permitted	0.950		0.663			
Satd. Flow (perm)	1547	1537	984	1535	1565	1276
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		147				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)			6			6
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	4%	7%	4%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	164	147	189	311	148	129
Shared Lane Traffic (%)						
Lane Group Flow (vph)	164	147	189	311	148	129
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2023 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	26.0
Total Split (%)	37.1%	37.1%	62.9%	62.9%	62.9%	37.1%
Maximum Green (s)	21.0	21.0	39.0	39.0	39.0	21.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	9.8	9.8	13.6	13.6	13.6	21.6
Actuated g/C Ratio	0.32	0.32	0.44	0.44	0.44	0.69
v/c Ratio	0.34	0.25	0.44	0.46	0.22	0.14
Control Delay	13.0	4.1	11.3	10.0	7.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	4.1	11.3	10.0	7.7	1.1
LOS	B	A	B	A	A	A
Approach Delay	8.8			10.5	4.6	
Approach LOS	A			B	A	
Queue Length 50th (ft)	21	0	21	34	14	0
Queue Length 95th (ft)	73	29	69	98	46	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	1079	1117	949	1480	1509	1153
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.13	0.20	0.21	0.10	0.11
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 31.1						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.46						
Intersection Signal Delay: 8.5				Intersection LOS: A		
Intersection Capacity Utilization 44.8%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2023 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour

11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	167	176	51	213	335	98
Future Volume (vph)	167	176	51	213	335	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.963
Satd. Flow (prot)	1546	1449	1705	1538	0	1761
Flt Permitted	0.950					0.738
Satd. Flow (perm)	1546	1449	1705	1505	0	1348
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		191		232		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	4%	5%	3%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	182	191	55	232	364	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	191	55	232	0	471
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2023 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	19.0	19.0	31.0	31.0	10.0	41.0
Total Split (%)	31.7%	31.7%	51.7%	51.7%	16.7%	68.3%
Maximum Green (s)	14.0	14.0	26.0	26.0	5.0	36.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.3	11.3	24.4	24.4		24.4
Actuated g/C Ratio	0.27	0.27	0.58	0.58		0.58
v/c Ratio	0.44	0.36	0.06	0.24		0.61
Control Delay	21.2	6.0	5.2	1.6		11.2
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	21.2	6.0	5.2	1.6		11.2
LOS	C	A	A	A		B
Approach Delay	13.4		2.3			11.2
Approach LOS	B		A			B
Queue Length 50th (ft)	40	0	6	0		73
Queue Length 95th (ft)	112	43	18	21		169
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	635	708	1194	1123		1093
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	0.29	0.27	0.05	0.21		0.43
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 42.4						
Natural Cycle: 50						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.61						
Intersection Signal Delay: 9.7				Intersection LOS: A		
Intersection Capacity Utilization 48.0%				ICU Level of Service A		
Analysis Period (min) 15						

Year 2023 No-Build Traffic Volumes
 2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
 11/23/2021

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2023 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	5	65	114	151	199	11
Future Volume (vph)	5	65	114	151	199	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.923		0.993	
Flt Protected		0.997			0.955	
Satd. Flow (prot)	0	1819	1543	0	1835	0
Flt Permitted		0.997			0.955	
Satd. Flow (perm)	0	1819	1543	0	1835	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	3%	7%	12%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	5	70	123	162	214	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	285	0	226	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.6%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.9					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	5	65	114	151	199	11
Future Vol, veh/h	5	65	114	151	199	11
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	93	93	93	93	93	93
Heavy Vehicles, %	20	3	7	12	5	0
Mvmt Flow	5	70	123	162	214	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	285	0	-	0	284	204
Stage 1	-	-	-	-	204	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.3	-	-	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.38	-	-	-	3.545	3.3
Pot Cap-1 Maneuver	1181	-	-	-	700	842
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	936	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1181	-	-	-	697	842
Mov Cap-2 Maneuver	-	-	-	-	697	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	936	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.6	0		12.5		
HCM LOS				B		
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	703	1181	-	-	-	
HCM Lane V/C Ratio	0.321	0.005	-	-	-	
HCM Control Delay (s)	12.5	8.1	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.4	0	-	-	-	

Year 2023 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	136	0	0	106	11	0	0	0	4	0	2
Future Volume (vph)	2	136	0	0	106	11	0	0	0	4	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.987						0.961	
Flt Protected		0.999									0.966	
Satd. Flow (prot)	0	1798	0	0	1651	0	0	0	0	0	1357	0
Flt Permitted		0.999									0.966	
Satd. Flow (perm)	0	1798	0	0	1651	0	0	0	0	0	1357	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	50%	5%	0%	0%	15%	0%	0%	0%	0%	2%	0%	100%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	162	0	0	126	13	0	0	0	5	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	139	0	0	0	0	0	7	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.8%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2023 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	2	136	0	0	106	11	0	0	0	4	0	2
Future Vol, veh/h	2	136	0	0	106	11	0	0	0	4	0	2
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	50	5	0	0	15	0	0	0	0	2	0	100
Mvmt Flow	2	162	0	0	126	13	0	0	0	5	0	2
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	141	0	0	162	0	0				301	301	135
Stage 1	-	-	-	-	-	-				135	135	-
Stage 2	-	-	-	-	-	-				166	166	-
Critical Hdwy	4.6	-	-	4.1	-	-				6.42	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.5	-
Follow-up Hdwy	2.65	-	-	2.2	-	-				3.518	4	4.2
Pot Cap-1 Maneuver	1194	-	-	1429	-	-				691	615	707
Stage 1	-	-	-	-	-	-				891	789	-
Stage 2	-	-	-	-	-	-				863	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1192	-	-	1429	-	-				687	0	706
Mov Cap-2 Maneuver	-	-	-	-	-	-				687	0	-
Stage 1	-	-	-	-	-	-				887	0	-
Stage 2	-	-	-	-	-	-				861	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.1			0			10.2					
HCM LOS							B					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1192	-	-	1429	-	-	693					
HCM Lane V/C Ratio	0.002	-	-	-	-	-	0.01					
HCM Control Delay (s)	8	0	-	0	-	-	10.2					
HCM Lane LOS	A	A	-	A	-	-	B					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2023 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

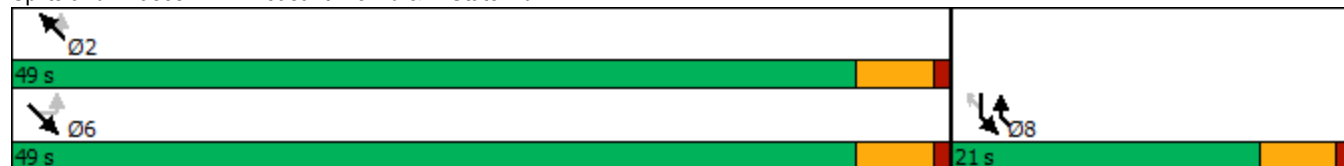
						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	153	126	101	166	556	197
Future Volume (vph)	153	126	101	166	556	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1593	1583	1501	1535	1565	1343
Flt Permitted	0.950		0.350			
Satd. Flow (perm)	1590	1583	552	1535	1565	1306
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		133				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)	1		4			4
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	4%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	161	133	106	175	585	207
Shared Lane Traffic (%)						
Lane Group Flow (vph)	161	133	106	175	585	207
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2023 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	21.0	21.0	49.0	49.0	49.0	21.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	30.0%
Maximum Green (s)	16.0	16.0	44.0	44.0	44.0	16.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.2	10.2	22.3	22.3	22.3	32.5
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.51	0.75
v/c Ratio	0.43	0.28	0.37	0.22	0.73	0.21
Control Delay	20.8	6.1	10.7	6.4	14.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	6.1	10.7	6.4	14.1	1.1
LOS	C	A	B	A	B	A
Approach Delay	14.2			8.0	10.7	
Approach LOS	B			A	B	
Queue Length 50th (ft)	31	0	12	19	88	0
Queue Length 95th (ft)	103	37	47	53	224	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	639	715	504	1403	1431	1133
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.19	0.21	0.12	0.41	0.18
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 43.4						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.73						
Intersection Signal Delay: 10.9				Intersection LOS: B		
Intersection Capacity Utilization 60.7%				ICU Level of Service B		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2023 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour

11/23/2021

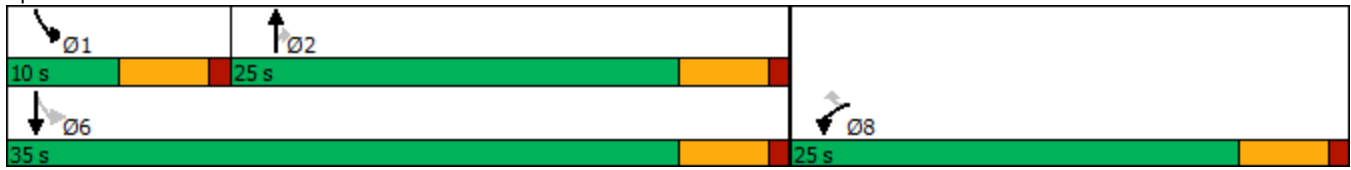
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	185	530	195	157	233	81
Future Volume (vph)	185	530	195	157	233	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.964
Satd. Flow (prot)	1652	1492	1756	1599	0	1778
Flt Permitted	0.950					0.659
Satd. Flow (perm)	1652	1492	1756	1564	0	1215
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		541		160		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	189	541	199	160	238	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	541	199	160	0	321
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2023 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	25.0	25.0	25.0	25.0	10.0	35.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	20.0	20.0	20.0	20.0	5.0	30.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.3	11.3	17.9	17.9		17.9
Actuated g/C Ratio	0.28	0.28	0.45	0.45		0.45
v/c Ratio	0.41	0.67	0.25	0.20		0.59
Control Delay	16.2	6.5	8.2	2.4		14.0
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	16.2	6.5	8.2	2.4		14.0
LOS	B	A	A	A		B
Approach Delay	9.0		5.6			14.0
Approach LOS	A		A			B
Queue Length 50th (ft)	32	0	23	0		45
Queue Length 95th (ft)	97	58	71	23		139
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	968	1098	1113	1050		946
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	0.20	0.49	0.18	0.15		0.34
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 40.2						
Natural Cycle: 50						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.67						
Intersection Signal Delay: 9.3				Intersection LOS: A		
Intersection Capacity Utilization 51.6%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2023 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	8	164	59	206	188	8
Future Volume (vph)	8	164	59	206	188	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.895		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1878	1644	0	1904	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1878	1644	0	1904	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	9	176	63	222	202	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	185	285	0	211	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.4%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.3					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	8	164	59	206	188	8
Future Vol, veh/h	8	164	59	206	188	8
Conflicting Peds, #/hr	0	0	0	0	0	1
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	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	0	1	0
Mvmt Flow	9	176	63	222	202	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	285	0	-	0	368	175
Stage 1	-	-	-	-	174	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	4.1	-	-	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.2	-	-	-	3.509	3.3
Pot Cap-1 Maneuver	1289	-	-	-	634	874
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1289	-	-	-	629	873
Mov Cap-2 Maneuver	-	-	-	-	629	-
Stage 1	-	-	-	-	852	-
Stage 2	-	-	-	-	841	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.4	0		13.4		
HCM LOS				B		
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	636	1289	-	-	-	
HCM Lane V/C Ratio	0.331	0.007	-	-	-	
HCM Control Delay (s)	13.4	7.8	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.4	0	-	-	-	

Year 2023 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	115	0	0	109	4	0	0	0	3	0	1
Future Volume (vph)	4	115	0	0	109	4	0	0	0	3	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.995						0.966	
Flt Protected		0.998									0.964	
Satd. Flow (prot)	0	1861	0	0	1838	0	0	0	0	0	1769	0
Flt Permitted		0.998									0.964	
Satd. Flow (perm)	0	1861	0	0	1838	0	0	0	0	0	1769	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	5	131	0	0	124	5	0	0	0	3	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	136	0	0	129	0	0	0	0	0	4	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2023 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	4	115	0	0	109	4	0	0	0	3	0	1
Future Vol, veh/h	4	115	0	0	109	4	0	0	0	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	25	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	131	0	0	124	5	0	0	0	3	0	1
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	129	0	0	131	0	0				268	268	128
Stage 1	-	-	-	-	-	-				127	127	-
Stage 2	-	-	-	-	-	-				141	141	-
Critical Hdwy	4.35	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	1326	-	-	1467	-	-				726	641	927
Stage 1	-	-	-	-	-	-				904	795	-
Stage 2	-	-	-	-	-	-				891	784	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1326	-	-	1467	-	-				723	0	926
Mov Cap-2 Maneuver	-	-	-	-	-	-				723	0	-
Stage 1	-	-	-	-	-	-				900	0	-
Stage 2	-	-	-	-	-	-				891	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.3			0			9.7					
HCM LOS							A					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1326	-	-	1467	-	-	765					
HCM Lane V/C Ratio	0.003	-	-	-	-	-	0.006					
HCM Control Delay (s)	7.7	0	-	0	-	-	9.7					
HCM Lane LOS	A	A	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2023 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour

11/23/2021

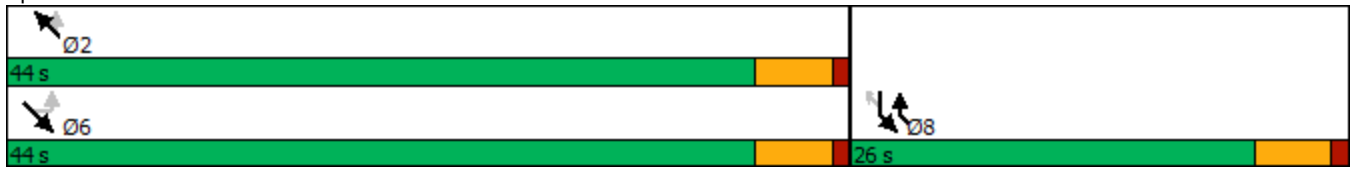
						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	153	135	174	286	136	120
Future Volume (vph)	153	135	174	286	136	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1518	1537	1417	1535	1565	1304
Flt Permitted	0.950		0.663			
Satd. Flow (perm)	1518	1537	984	1535	1565	1263
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		147				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)			6			6
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	4%	7%	4%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	166	147	189	311	148	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	166	147	189	311	148	130
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2023 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	26.0
Total Split (%)	37.1%	37.1%	62.9%	62.9%	62.9%	37.1%
Maximum Green (s)	21.0	21.0	39.0	39.0	39.0	21.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	9.9	9.9	13.7	13.7	13.7	21.8
Actuated g/C Ratio	0.32	0.32	0.44	0.44	0.44	0.70
v/c Ratio	0.35	0.25	0.44	0.46	0.22	0.15
Control Delay	13.1	4.1	11.4	10.0	7.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	4.1	11.4	10.0	7.7	1.1
LOS	B	A	B	B	A	A
Approach Delay	8.9			10.5	4.6	
Approach LOS	A			B	A	
Queue Length 50th (ft)	22	0	21	35	15	0
Queue Length 95th (ft)	75	29	71	99	47	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	1054	1112	947	1478	1507	1142
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.13	0.20	0.21	0.10	0.11
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 31.3						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.46						
Intersection Signal Delay: 8.6				Intersection LOS: A		
Intersection Capacity Utilization 44.9%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2023 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	176	176	52	215	335	100
Future Volume (vph)	176	176	52	215	335	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.963
Satd. Flow (prot)	1546	1449	1673	1538	0	1753
Flt Permitted	0.950					0.738
Satd. Flow (perm)	1546	1449	1673	1505	0	1342
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		191		234		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	6%	5%	3%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	191	191	57	234	364	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	191	191	57	234	0	473
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2023 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	19.0	19.0	31.0	31.0	10.0	41.0
Total Split (%)	31.7%	31.7%	51.7%	51.7%	16.7%	68.3%
Maximum Green (s)	14.0	14.0	26.0	26.0	5.0	36.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	10.7	10.7	23.5	23.5		23.5
Actuated g/C Ratio	0.24	0.24	0.52	0.52		0.52
v/c Ratio	0.52	0.39	0.07	0.26		0.68
Control Delay	23.3	6.4	5.3	1.7		13.4
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	23.3	6.4	5.3	1.7		13.4
LOS	C	A	A	A		B
Approach Delay	14.8		2.4			13.4
Approach LOS	B		A			B
Queue Length 50th (ft)	43	0	6	0		75
Queue Length 95th (ft)	117	43	19	21		170
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	521	615	1144	1103		1081
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	0.31	0.05	0.21		0.44
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 45.1						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.68						
Intersection Signal Delay: 11.1				Intersection LOS: B		
Intersection Capacity Utilization 48.6%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2023 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	5	65	114	162	202	11
Future Volume (vph)	5	65	114	162	202	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.921		0.993	
Flt Protected		0.997			0.955	
Satd. Flow (prot)	0	1819	1531	0	1819	0
Flt Permitted		0.997			0.955	
Satd. Flow (perm)	0	1819	1531	0	1819	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	3%	7%	13%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	5	70	123	174	217	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	75	297	0	229	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.5%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.9					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	5	65	114	162	202	11
Future Vol, veh/h	5	65	114	162	202	11
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	93	93	93	93	93	93
Heavy Vehicles, %	20	3	7	13	6	0
Mvmt Flow	5	70	123	174	217	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	297	0	-	0	290	210
Stage 1	-	-	-	-	210	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.3	-	-	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.38	-	-	-	3.554	3.3
Pot Cap-1 Maneuver	1168	-	-	-	692	835
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	933	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1168	-	-	-	689	835
Mov Cap-2 Maneuver	-	-	-	-	689	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	933	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.6	0		12.7		
HCM LOS				B		
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	695	1168	-	-	-	
HCM Lane V/C Ratio	0.33	0.005	-	-	-	
HCM Control Delay (s)	12.7	8.1	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.4	0	-	-	-	

Year 2023 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	137	0	0	106	11	0	0	0	4	0	2
Future Volume (vph)	2	137	0	0	106	11	0	0	0	4	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.987						0.961	
Flt Protected		0.999									0.966	
Satd. Flow (prot)	0	1798	0	0	1651	0	0	0	0	0	1357	0
Flt Permitted		0.999									0.966	
Satd. Flow (perm)	0	1798	0	0	1651	0	0	0	0	0	1357	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	50%	5%	0%	0%	15%	0%	0%	0%	0%	2%	0%	100%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	163	0	0	126	13	0	0	0	5	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	139	0	0	0	0	0	7	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	18.8%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2023 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	2	137	0	0	106	11	0	0	0	4	0	2
Future Vol, veh/h	2	137	0	0	106	11	0	0	0	4	0	2
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	50	5	0	0	15	0	0	0	0	2	0	100
Mvmt Flow	2	163	0	0	126	13	0	0	0	5	0	2
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	141	0	0	163	0	0				302	302	135
Stage 1	-	-	-	-	-	-				135	135	-
Stage 2	-	-	-	-	-	-				167	167	-
Critical Hdwy	4.6	-	-	4.1	-	-				6.42	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.5	-
Follow-up Hdwy	2.65	-	-	2.2	-	-				3.518	4	4.2
Pot Cap-1 Maneuver	1194	-	-	1428	-	-				690	614	707
Stage 1	-	-	-	-	-	-				891	789	-
Stage 2	-	-	-	-	-	-				863	764	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1192	-	-	1428	-	-				686	0	706
Mov Cap-2 Maneuver	-	-	-	-	-	-				686	0	-
Stage 1	-	-	-	-	-	-				887	0	-
Stage 2	-	-	-	-	-	-				861	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.1			0			10.2					
HCM LOS							B					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1192	-	-	1428	-	-	693					
HCM Lane V/C Ratio	0.002	-	-	-	-	-	0.01					
HCM Control Delay (s)	8	0	-	0	-	-	10.2					
HCM Lane LOS	A	A	-	A	-	-	B					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2023 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	140	1	11	117	0	3
Future Volume (vph)	140	1	11	117	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.865	
Flt Protected				0.996		
Satd. Flow (prot)	1808	0	0	1642	1236	0
Flt Permitted				0.996		
Satd. Flow (perm)	1808	0	0	1642	1236	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	0%	18%	15%	0%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	167	1	13	139	0	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	0	0	152	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.3%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	140	1	11	117	0	3
Future Vol, veh/h	140	1	11	117	0	3
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	84	84	84	84	84	84
Heavy Vehicles, %	5	0	18	15	0	33
Mvmt Flow	167	1	13	139	0	4
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	168	0	333	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	165	-
Critical Hdwy	-	-	4.28	-	6.4	6.53
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.362	-	3.5	3.597
Pot Cap-1 Maneuver	-	-	1318	-	666	802
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	869	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1318	-	659	802
Mov Cap-2 Maneuver	-	-	-	-	659	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	859	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.7		9.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	802	-	-	1318	-	
HCM Lane V/C Ratio	0.004	-	-	0.01	-	
HCM Control Delay (s)	9.5	-	-	7.8	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Year 2023 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	154	126	101	166	556	199
Future Volume (vph)	154	126	101	166	556	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1577	1583	1501	1535	1565	1330
Flt Permitted	0.950		0.350			
Satd. Flow (perm)	1575	1583	552	1535	1565	1293
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		133				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)	1		4			4
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	1%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	162	133	106	175	585	209
Shared Lane Traffic (%)						
Lane Group Flow (vph)	162	133	106	175	585	209
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2023 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	21.0	21.0	49.0	49.0	49.0	21.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	30.0%
Maximum Green (s)	16.0	16.0	44.0	44.0	44.0	16.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.2	10.2	22.4	22.4	22.4	32.6
Actuated g/C Ratio	0.23	0.23	0.51	0.51	0.51	0.75
v/c Ratio	0.44	0.28	0.37	0.22	0.73	0.21
Control Delay	21.0	6.1	10.7	6.4	14.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	6.1	10.7	6.4	14.1	1.1
LOS	C	A	B	A	B	A
Approach Delay	14.3			8.0	10.7	
Approach LOS	B			A	B	
Queue Length 50th (ft)	31	0	12	19	89	0
Queue Length 95th (ft)	104	37	47	53	224	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	632	714	504	1402	1430	1121
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.19	0.21	0.12	0.41	0.19
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 43.5						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.73						
Intersection Signal Delay: 10.9				Intersection LOS: B		
Intersection Capacity Utilization 60.7%				ICU Level of Service B		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2023 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

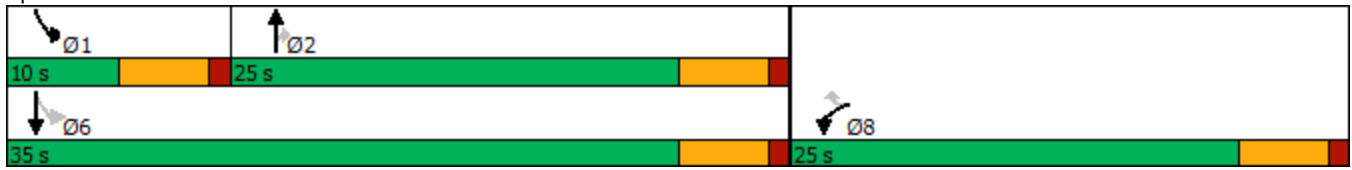
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	186	530	197	166	233	82
Future Volume (vph)	186	530	197	166	233	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.964
Satd. Flow (prot)	1652	1492	1739	1599	0	1774
Flt Permitted	0.950					0.659
Satd. Flow (perm)	1652	1492	1739	1564	0	1212
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		541		169		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	2%	1%	3%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	190	541	201	169	238	84
Shared Lane Traffic (%)						
Lane Group Flow (vph)	190	541	201	169	0	322
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2023 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	25.0	25.0	25.0	25.0	10.0	35.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	20.0	20.0	20.0	20.0	5.0	30.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.4	11.4	18.0	18.0		18.0
Actuated g/C Ratio	0.28	0.28	0.45	0.45		0.45
v/c Ratio	0.41	0.67	0.26	0.21		0.60
Control Delay	16.2	6.5	8.2	2.4		14.1
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	16.2	6.5	8.2	2.4		14.1
LOS	B	A	A	A		B
Approach Delay	9.0		5.6			14.1
Approach LOS	A		A			B
Queue Length 50th (ft)	32	0	24	0		46
Queue Length 95th (ft)	97	58	71	24		140
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	964	1096	1101	1052		940
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	0.20	0.49	0.18	0.16		0.34
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 40.4						
Natural Cycle: 50						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.67						
Intersection Signal Delay: 9.3				Intersection LOS: A		
Intersection Capacity Utilization 51.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2023 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	8	164	59	209	199	8
Future Volume (vph)	8	164	59	209	199	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.895		0.995	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1878	1631	0	1888	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1878	1631	0	1888	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	1%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	9	176	63	225	214	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	185	288	0	223	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.2%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.5					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	8	164	59	209	199	8
Future Vol, veh/h	8	164	59	209	199	8
Conflicting Peds, #/hr	0	0	0	0	0	1
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	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	1	2	0
Mvmt Flow	9	176	63	225	214	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	288	0	-	0	370	177
Stage 1	-	-	-	-	176	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	4.1	-	-	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.3
Pot Cap-1 Maneuver	1286	-	-	-	630	871
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1286	-	-	-	625	870
Mov Cap-2 Maneuver	-	-	-	-	625	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	839	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.4	0		13.8		
HCM LOS				B		
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	632	1286	-	-	-	
HCM Lane V/C Ratio	0.352	0.007	-	-	-	
HCM Control Delay (s)	13.8	7.8	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.6	0	-	-	-	

Year 2023 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	115	0	0	110	4	0	0	0	3	0	1
Future Volume (vph)	4	115	0	0	110	4	0	0	0	3	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.995						0.966	
Flt Protected		0.998									0.964	
Satd. Flow (prot)	0	1861	0	0	1837	0	0	0	0	0	1769	0
Flt Permitted		0.998									0.964	
Satd. Flow (perm)	0	1861	0	0	1837	0	0	0	0	0	1769	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	5	131	0	0	125	5	0	0	0	3	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	136	0	0	130	0	0	0	0	0	4	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.6%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2023 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	4	115	0	0	110	4	0	0	0	3	0	1
Future Vol, veh/h	4	115	0	0	110	4	0	0	0	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	25	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	131	0	0	125	5	0	0	0	3	0	1
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	130	0	0	131	0	0				269	269	129
Stage 1	-	-	-	-	-	-				128	128	-
Stage 2	-	-	-	-	-	-				141	141	-
Critical Hdwy	4.35	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	1325	-	-	1467	-	-				725	641	926
Stage 1	-	-	-	-	-	-				903	794	-
Stage 2	-	-	-	-	-	-				891	784	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1325	-	-	1467	-	-				722	0	925
Mov Cap-2 Maneuver	-	-	-	-	-	-				722	0	-
Stage 1	-	-	-	-	-	-				899	0	-
Stage 2	-	-	-	-	-	-				891	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.3			0			9.7					
HCM LOS							A					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1325	-	-	1467	-	-	764					
HCM Lane V/C Ratio	0.003	-	-	-	-	-	0.006					
HCM Control Delay (s)	7.7	0	-	0	-	-	9.7					
HCM Lane LOS	A	A	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2023 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↰	↘↙	
Traffic Volume (vph)	118	0	3	113	1	11
Future Volume (vph)	118	0	3	113	1	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.875	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1881	0	0	1831	1419	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1881	0	0	1831	1419	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	33%	3%	0%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	134	0	3	128	1	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	134	0	0	131	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	18.4%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	0	3	113	1	11
Future Vol, veh/h	118	0	3	113	1	11
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	88	88	88	88	88	88
Heavy Vehicles, %	1	0	33	3	0	18
Mvmt Flow	134	0	3	128	1	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	134	0	268	134
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	134	-
Critical Hdwy	-	-	4.43	-	6.4	6.38
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.497	-	3.5	3.462
Pot Cap-1 Maneuver	-	-	1280	-	726	874
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	897	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1280	-	724	874
Mov Cap-2 Maneuver	-	-	-	-	724	-
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	894	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		9.3	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	859	-	-	1280	-	
HCM Lane V/C Ratio	0.016	-	-	0.003	-	
HCM Control Delay (s)	9.3	-	-	7.8	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Year 2033 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	168	148	192	314	149	132
Future Volume (vph)	168	148	192	314	149	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1518	1537	1417	1535	1565	1304
Flt Permitted	0.950		0.654			
Satd. Flow (perm)	1518	1537	971	1535	1565	1263
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		161				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)			6			6
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	4%	7%	4%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	183	161	209	341	162	143
Shared Lane Traffic (%)						
Lane Group Flow (vph)	183	161	209	341	162	143
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2033 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	28.0	28.0	42.0	42.0	42.0	28.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%	40.0%
Maximum Green (s)	23.0	23.0	37.0	37.0	37.0	23.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.2	10.2	14.5	14.5	14.5	24.7
Actuated g/C Ratio	0.29	0.29	0.41	0.41	0.41	0.70
v/c Ratio	0.42	0.29	0.53	0.54	0.25	0.16
Control Delay	14.9	4.4	13.7	11.8	8.2	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	4.4	13.7	11.8	8.2	1.1
LOS	B	A	B	B	A	A
Approach Delay	10.0			12.5	4.9	
Approach LOS	B			B	A	
Queue Length 50th (ft)	25	0	25	41	17	0
Queue Length 95th (ft)	87	32	84	118	54	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	1058	1120	904	1429	1457	1137
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.14	0.23	0.24	0.11	0.13
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 35.4						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.54						
Intersection Signal Delay: 9.8				Intersection LOS: A		
Intersection Capacity Utilization 47.5%				ICU Level of Service A		
Analysis Period (min) 15						

Year 2033 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2033 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	193	194	57	236	367	110
Future Volume (vph)	193	194	57	236	367	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.963
Satd. Flow (prot)	1546	1449	1673	1538	0	1753
Flt Permitted	0.950					0.735
Satd. Flow (perm)	1546	1449	1673	1505	0	1336
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211		257		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	6%	5%	3%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	210	211	62	257	399	120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	210	211	62	257	0	519
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2033 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	19.0	19.0	31.0	31.0	10.0	41.0
Total Split (%)	31.7%	31.7%	51.7%	51.7%	16.7%	68.3%
Maximum Green (s)	14.0	14.0	26.0	26.0	5.0	36.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.2	11.2	26.1	26.1		26.1
Actuated g/C Ratio	0.23	0.23	0.54	0.54		0.54
v/c Ratio	0.58	0.42	0.07	0.27		0.71
Control Delay	26.2	6.6	5.2	1.7		14.5
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	26.2	6.6	5.2	1.7		14.5
LOS	C	A	A	A		B
Approach Delay	16.4		2.4			14.5
Approach LOS	B		A			B
Queue Length 50th (ft)	56	0	7	0		95
Queue Length 95th (ft)	128	45	20	22		200
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	484	599	1105	1081		1020
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	0.43	0.35	0.06	0.24		0.51
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 48						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.71						
Intersection Signal Delay: 12.1				Intersection LOS: B		
Intersection Capacity Utilization 51.8%				ICU Level of Service A		
Analysis Period (min) 15						

Year 2033 No-Build Traffic Volumes
 2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
 11/23/2021

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2033 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	6	72	125	177	221	12
Future Volume (vph)	6	72	125	177	221	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.921		0.993	
Flt Protected		0.996			0.955	
Satd. Flow (prot)	0	1816	1531	0	1818	0
Flt Permitted		0.996			0.955	
Satd. Flow (perm)	0	1816	1531	0	1818	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	3%	7%	13%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	6	77	134	190	238	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	83	324	0	251	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.1%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	5.2					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	6	72	125	177	221	12
Future Vol, veh/h	6	72	125	177	221	12
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	93	93	93	93	93	93
Heavy Vehicles, %	20	3	7	13	6	0
Mvmt Flow	6	77	134	190	238	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	324	0	-	0	318	229
Stage 1	-	-	-	-	229	-
Stage 2	-	-	-	-	89	-
Critical Hdwy	4.3	-	-	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.38	-	-	-	3.554	3.3
Pot Cap-1 Maneuver	1141	-	-	-	667	815
Stage 1	-	-	-	-	800	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1141	-	-	-	664	815
Mov Cap-2 Maneuver	-	-	-	-	664	-
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	924	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.6	0		13.5		
HCM LOS				B		
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	670	1141	-	-	-	
HCM Lane V/C Ratio	0.374	0.006	-	-	-	
HCM Control Delay (s)	13.5	8.2	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.7	0	-	-	-	

Year 2033 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	150	0	0	117	12	0	0	0	4	0	2
Future Volume (vph)	2	150	0	0	117	12	0	0	0	4	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.988						0.961	
Flt Protected		0.999									0.966	
Satd. Flow (prot)	0	1799	0	0	1652	0	0	0	0	0	1357	0
Flt Permitted		0.999									0.966	
Satd. Flow (perm)	0	1799	0	0	1652	0	0	0	0	0	1357	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)	2					2						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	50%	5%	0%	0%	15%	0%	0%	0%	0%	2%	0%	100%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	2	179	0	0	139	14	0	0	0	5	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	181	0	0	153	0	0	0	0	0	7	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2033 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	2	150	0	0	117	12	0	0	0	4	0	2
Future Vol, veh/h	2	150	0	0	117	12	0	0	0	4	0	2
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	50	5	0	0	15	0	0	0	0	2	0	100
Mvmt Flow	2	179	0	0	139	14	0	0	0	5	0	2
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	155	0	0	179	0	0				331	331	148
Stage 1	-	-	-	-	-	-				148	148	-
Stage 2	-	-	-	-	-	-				183	183	-
Critical Hdwy	4.6	-	-	4.1	-	-				6.42	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.5	-
Follow-up Hdwy	2.65	-	-	2.2	-	-				3.518	4	4.2
Pot Cap-1 Maneuver	1179	-	-	1409	-	-				664	592	694
Stage 1	-	-	-	-	-	-				880	779	-
Stage 2	-	-	-	-	-	-				848	752	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1177	-	-	1409	-	-				660	0	693
Mov Cap-2 Maneuver	-	-	-	-	-	-				660	0	-
Stage 1	-	-	-	-	-	-				876	0	-
Stage 2	-	-	-	-	-	-				846	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.1			0						10.4		
HCM LOS										B		
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1177	-	-	1409	-	-	671					
HCM Lane V/C Ratio	0.002	-	-	-	-	-	0.011					
HCM Control Delay (s)	8.1	0	-	0	-	-	10.4					
HCM Lane LOS	A	A	-	A	-	-	B					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2033 No-Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	153	1	11	129	0	3
Future Volume (vph)	153	1	11	129	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.865	
Flt Protected				0.996		
Satd. Flow (prot)	1808	0	0	1642	1236	0
Flt Permitted				0.996		
Satd. Flow (perm)	1808	0	0	1642	1236	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	0%	18%	15%	0%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	182	1	13	154	0	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	183	0	0	167	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.9%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 No-Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	153	1	11	129	0	3
Future Vol, veh/h	153	1	11	129	0	3
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	84	84	84	84	84	84
Heavy Vehicles, %	5	0	18	15	0	33
Mvmt Flow	182	1	13	154	0	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	183	0	363	183
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	180	-
Critical Hdwy	-	-	4.28	-	6.4	6.53
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.362	-	3.5	3.597
Pot Cap-1 Maneuver	-	-	1301	-	640	786
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1301	-	633	786
Mov Cap-2 Maneuver	-	-	-	-	633	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	847	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.6		9.6	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	786	-	-	1301	-	
HCM Lane V/C Ratio	0.005	-	-	0.01	-	
HCM Control Delay (s)	9.6	-	-	7.8	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Year 2033 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	169	139	111	183	610	218
Future Volume (vph)	169	139	111	183	610	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1577	1583	1501	1535	1565	1330
Flt Permitted	0.950		0.314			
Satd. Flow (perm)	1575	1583	496	1535	1565	1293
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		146				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)	1		4			4
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	1%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	178	146	117	193	642	229
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	146	117	193	642	229
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2033 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	20.0	20.0	50.0	50.0	50.0	20.0
Total Split (%)	28.6%	28.6%	71.4%	71.4%	71.4%	28.6%
Maximum Green (s)	15.0	15.0	45.0	45.0	45.0	15.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.7	10.7	25.4	25.4	25.4	36.1
Actuated g/C Ratio	0.23	0.23	0.54	0.54	0.54	0.77
v/c Ratio	0.50	0.31	0.44	0.23	0.76	0.23
Control Delay	24.3	6.6	12.2	6.2	14.9	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	6.6	12.2	6.2	14.9	1.1
LOS	C	A	B	A	B	A
Approach Delay	16.3			8.5	11.3	
Approach LOS	B			A	B	
Queue Length 50th (ft)	40	0	15	22	109	0
Queue Length 95th (ft)	123	41	53	54	246	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	549	647	443	1372	1399	1120
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.23	0.26	0.14	0.46	0.20
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 47						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.76						
Intersection Signal Delay: 11.8				Intersection LOS: B		
Intersection Capacity Utilization 65.4%				ICU Level of Service C		
Analysis Period (min) 15						

Year 2033 No-Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2033 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	205	582	216	181	255	89
Future Volume (vph)	205	582	216	181	255	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.964
Satd. Flow (prot)	1652	1492	1739	1599	0	1774
Flt Permitted	0.950					0.648
Satd. Flow (perm)	1652	1492	1739	1564	0	1191
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		594		185		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	2%	1%	3%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	209	594	220	185	260	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	209	594	220	185	0	351
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2033 No-Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	24.0	24.0	26.0	26.0	10.0	36.0
Total Split (%)	40.0%	40.0%	43.3%	43.3%	16.7%	60.0%
Maximum Green (s)	19.0	19.0	21.0	21.0	5.0	31.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.9	11.9	20.1	20.1		20.1
Actuated g/C Ratio	0.28	0.28	0.47	0.47		0.47
v/c Ratio	0.46	0.71	0.27	0.22		0.63
Control Delay	18.2	7.1	8.1	2.2		14.7
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	18.2	7.1	8.1	2.2		14.7
LOS	B	A	A	A		B
Approach Delay	10.0		5.4			14.7
Approach LOS	A		A			B
Queue Length 50th (ft)	41	0	28	0		55
Queue Length 95th (ft)	110	64	75	24		153
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	801	1029	1037	1007		898
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	0.26	0.58	0.21	0.18		0.39
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 42.9						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.71						
Intersection Signal Delay: 9.9				Intersection LOS: A		
Intersection Capacity Utilization 55.9%				ICU Level of Service B		
Analysis Period (min) 15						

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2033 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	9	180	65	229	217	9
Future Volume (vph)	9	180	65	229	217	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.895		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1878	1631	0	1886	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1878	1631	0	1886	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	1%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	10	194	70	246	233	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	204	316	0	243	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.8%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 No-Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.9					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	9	180	65	229	217	9
Future Vol, veh/h	9	180	65	229	217	9
Conflicting Peds, #/hr	0	0	0	0	0	1
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	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	1	2	0
Mvmt Flow	10	194	70	246	233	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	316	0	-	0	407	194
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	4.1	-	-	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.3
Pot Cap-1 Maneuver	1256	-	-	-	600	853
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1256	-	-	-	595	852
Mov Cap-2 Maneuver	-	-	-	-	595	-
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	822	-
Approach	NB		SB		NE	
HCM Control Delay, s	0.4		0		15	
HCM LOS					C	
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	602	1256	-	-	-	
HCM Lane V/C Ratio	0.404	0.008	-	-	-	
HCM Control Delay (s)	15	7.9	0	-	-	
HCM Lane LOS	C	A	A	-	-	
HCM 95th %tile Q(veh)	1.9	0	-	-	-	

Year 2033 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	127	0	0	121	4	0	0	0	3	0	1
Future Volume (vph)	4	127	0	0	121	4	0	0	0	3	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.995						0.966	
Flt Protected		0.998									0.964	
Satd. Flow (prot)	0	1863	0	0	1837	0	0	0	0	0	1769	0
Flt Permitted		0.998									0.964	
Satd. Flow (perm)	0	1863	0	0	1837	0	0	0	0	0	1769	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	5	144	0	0	138	5	0	0	0	3	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	143	0	0	0	0	0	4	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	20.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2033 No-Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	127	0	0	121	4	0	0	0	3	0	1
Future Vol, veh/h	4	127	0	0	121	4	0	0	0	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	25	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	144	0	0	138	5	0	0	0	3	0	1
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	143	0	0	144	0	0				295	295	142
Stage 1	-	-	-	-	-	-				141	141	-
Stage 2	-	-	-	-	-	-				154	154	-
Critical Hdwy	4.35	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	1310	-	-	1451	-	-				700	620	911
Stage 1	-	-	-	-	-	-				891	784	-
Stage 2	-	-	-	-	-	-				879	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1310	-	-	1451	-	-				697	0	910
Mov Cap-2 Maneuver	-	-	-	-	-	-				697	0	-
Stage 1	-	-	-	-	-	-				887	0	-
Stage 2	-	-	-	-	-	-				879	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.2			0			9.9					
HCM LOS							A					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1310	-	-	1451	-	-	740					
HCM Lane V/C Ratio	0.003	-	-	-	-	-	0.006					
HCM Control Delay (s)	7.8	0	-	0	-	-	9.9					
HCM Lane LOS	A	A	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2033 No-Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	
Traffic Volume (vph)	130	0	3	124	1	11
Future Volume (vph)	130	0	3	124	1	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.875	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	1881	0	0	1832	1419	0
Flt Permitted				0.999	0.996	
Satd. Flow (perm)	1881	0	0	1832	1419	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	33%	3%	0%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	148	0	3	141	1	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	144	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type: Other						
Control Type: Unsignalized						
Intersection Capacity Utilization 18.9%						
ICU Level of Service A						
Analysis Period (min) 15						

Year 2033 No-Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	0	3	124	1	11
Future Vol, veh/h	130	0	3	124	1	11
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	88	88	88	88	88	88
Heavy Vehicles, %	1	0	33	3	0	18
Mvmt Flow	148	0	3	141	1	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	148	0	295	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	147	-
Critical Hdwy	-	-	4.43	-	6.4	6.38
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.497	-	3.5	3.462
Pot Cap-1 Maneuver	-	-	1264	-	700	858
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1264	-	698	858
Mov Cap-2 Maneuver	-	-	-	-	698	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	882	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		9.3	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	842	-	-	1264	-	
HCM Lane V/C Ratio	0.016	-	-	0.003	-	
HCM Control Delay (s)	9.3	-	-	7.9	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Year 2033 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	170	148	192	314	149	133
Future Volume (vph)	170	148	192	314	149	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor			1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1504	1537	1417	1535	1565	1292
Flt Permitted	0.950		0.654			
Satd. Flow (perm)	1504	1537	971	1535	1565	1251
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		161				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)			6			6
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	4%	7%	4%	2%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	185	161	209	341	162	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	161	209	341	162	145
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2033 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	28.0	28.0	42.0	42.0	42.0	28.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%	40.0%
Maximum Green (s)	23.0	23.0	37.0	37.0	37.0	23.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.3	10.3	14.5	14.5	14.5	24.8
Actuated g/C Ratio	0.29	0.29	0.41	0.41	0.41	0.70
v/c Ratio	0.42	0.29	0.53	0.54	0.25	0.16
Control Delay	15.0	4.4	13.7	11.8	8.2	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	4.4	13.7	11.8	8.2	1.1
LOS	B	A	B	B	A	A
Approach Delay	10.1			12.5	4.9	
Approach LOS	B			B	A	
Queue Length 50th (ft)	26	0	25	41	17	0
Queue Length 95th (ft)	88	32	85	119	54	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	1045	1117	902	1426	1454	1127
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.14	0.23	0.24	0.11	0.13
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 35.5						
Natural Cycle: 40						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.54						
Intersection Signal Delay: 9.9				Intersection LOS: A		
Intersection Capacity Utilization 47.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2033 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	198	194	58	237	367	112
Future Volume (vph)	198	194	58	237	367	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.963
Satd. Flow (prot)	1546	1449	1642	1538	0	1745
Flt Permitted	0.950					0.735
Satd. Flow (perm)	1546	1449	1642	1505	0	1330
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		211		258		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	9%	4%	8%	5%	3%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	215	211	63	258	399	122
Shared Lane Traffic (%)						
Lane Group Flow (vph)	215	211	63	258	0	521
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2033 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak AM Hour
11/23/2021



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	19.0	19.0	31.0	31.0	10.0	41.0
Total Split (%)	31.7%	31.7%	51.7%	51.7%	16.7%	68.3%
Maximum Green (s)	14.0	14.0	26.0	26.0	5.0	36.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.3	11.3	26.4	26.4		26.4
Actuated g/C Ratio	0.23	0.23	0.55	0.55		0.55
v/c Ratio	0.60	0.42	0.07	0.28		0.72
Control Delay	26.7	6.5	5.3	1.7		14.7
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	26.7	6.5	5.3	1.7		14.7
LOS	C	A	A	A		B
Approach Delay	16.7		2.4			14.7
Approach LOS	B		A			B
Queue Length 50th (ft)	59	0	8	0		98
Queue Length 95th (ft)	#132	45	20	22		203
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	479	595	1079	1077		1008
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	0.45	0.35	0.06	0.24		0.52

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.4

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 12.3

Intersection LOS: B

Intersection Capacity Utilization 52.2%

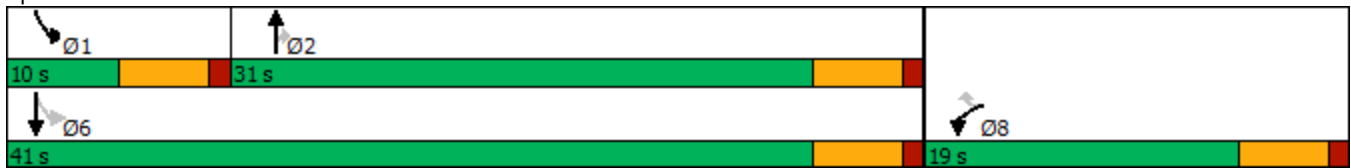
ICU Level of Service A

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2033 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	6	72	125	184	223	12
Future Volume (vph)	6	72	125	184	223	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.919		0.993	
Flt Protected		0.996			0.955	
Satd. Flow (prot)	0	1816	1518	0	1818	0
Flt Permitted		0.996			0.955	
Satd. Flow (perm)	0	1816	1518	0	1818	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	20%	3%	7%	14%	6%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	6	77	134	198	240	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	83	332	0	253	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.6%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	5.3					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	6	72	125	184	223	12
Future Vol, veh/h	6	72	125	184	223	12
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	93	93	93	93	93	93
Heavy Vehicles, %	20	3	7	14	6	0
Mvmt Flow	6	77	134	198	240	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	332	0	-	0	322	233
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	89	-
Critical Hdwy	4.3	-	-	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.38	-	-	-	3.554	3.3
Pot Cap-1 Maneuver	1133	-	-	-	664	811
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	924	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1133	-	-	-	660	811
Mov Cap-2 Maneuver	-	-	-	-	660	-
Stage 1	-	-	-	-	791	-
Stage 2	-	-	-	-	924	-
Approach	NB		SB		NE	
HCM Control Delay, s	0.6		0		13.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	666	1133	-	-	-	
HCM Lane V/C Ratio	0.379	0.006	-	-	-	
HCM Control Delay (s)	13.7	8.2	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.8	0	-	-	-	

Year 2033 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

													
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	2	151	0	0	117	12	0	0	0	4	0	2	
Future Volume (vph)	2	151	0	0	117	12	0	0	0	4	0	2	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)	0%				0%				0%		0%		
Storage Length (ft)	0			0	0			0	0	0			
Storage Lanes	0			0	0			0	0	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	
Ped Bike Factor													
Frt					0.988								0.961
Flt Protected	0.999										0.966		
Satd. Flow (prot)	0	1799	0	0	1652	0	0	0	0	0	1357	0	
Flt Permitted	0.999										0.966		
Satd. Flow (perm)	0	1799	0	0	1652	0	0	0	0	0	1357	0	
Link Speed (mph)	30				30				30		30		
Link Distance (ft)	332				449				277		383		
Travel Time (s)	7.5				10.2				6.3		8.7		
Confl. Peds. (#/hr)	2					2							
Confl. Bikes (#/hr)													
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	50%	5%	0%	0%	15%	0%	0%	0%	0%	2%	0%	100%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)													
Mid-Block Traffic (%)	0%				0%				0%		0%		
Adj. Flow (vph)	2	180	0	0	139	14	0	0	0	5	0	2	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	182	0	0	153	0	0	0	0	0	7	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)	0				0				0		0		
Link Offset(ft)	0				0				0		0		
Crosswalk Width(ft)	16				16				16		16		
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15			9	15			9	15			9	
Sign Control	Free				Free				Free		Stop		
Intersection Summary													
Area Type:	Other												
Control Type:	Unsignalized												
Intersection Capacity Utilization	19.5%												
Analysis Period (min)	15												
ICU Level of Service A													

Year 2033 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak AM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	2	151	0	0	117	12	0	0	0	4	0	2
Future Vol, veh/h	2	151	0	0	117	12	0	0	0	4	0	2
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	50	5	0	0	15	0	0	0	0	2	0	100
Mvmt Flow	2	180	0	0	139	14	0	0	0	5	0	2
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	155	0	0	180	0	0				332	332	148
Stage 1	-	-	-	-	-	-				148	148	-
Stage 2	-	-	-	-	-	-				184	184	-
Critical Hdwy	4.6	-	-	4.1	-	-				6.42	6.5	7.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.42	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.42	5.5	-
Follow-up Hdwy	2.65	-	-	2.2	-	-				3.518	4	4.2
Pot Cap-1 Maneuver	1179	-	-	1408	-	-				663	591	694
Stage 1	-	-	-	-	-	-				880	779	-
Stage 2	-	-	-	-	-	-				848	751	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1177	-	-	1408	-	-				659	0	693
Mov Cap-2 Maneuver	-	-	-	-	-	-				659	0	-
Stage 1	-	-	-	-	-	-				876	0	-
Stage 2	-	-	-	-	-	-				846	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.1			0			10.4					
HCM LOS							B					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1177	-	-	1408	-	-	670					
HCM Lane V/C Ratio	0.002	-	-	-	-	-	0.011					
HCM Control Delay (s)	8.1	0	-	0	-	-	10.4					
HCM Lane LOS	A	A	-	A	-	-	B					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2033 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak AM Hour
11/23/2021

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	
Traffic Volume (vph)	153	2	18	129	0	5
Future Volume (vph)	153	2	18	129	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.999				0.865	
Flt Protected				0.994		
Satd. Flow (prot)	1809	0	0	1630	1174	0
Flt Permitted				0.994		
Satd. Flow (perm)	1809	0	0	1630	1174	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	0%	22%	15%	0%	40%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	182	2	21	154	0	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	184	0	0	175	6	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	29.3%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak AM Hour
11/23/2021

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	153	2	18	129	0	5
Future Vol, veh/h	153	2	18	129	0	5
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	84	84	84	84	84	84
Heavy Vehicles, %	5	0	22	15	0	40
Mvmt Flow	182	2	21	154	0	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	184	0	379	183
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	196	-
Critical Hdwy	-	-	4.32	-	6.4	6.6
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.398	-	3.5	3.66
Pot Cap-1 Maneuver	-	-	1279	-	627	771
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	842	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1279	-	616	771
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	827	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1		9.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	771	-	-	1279	-	
HCM Lane V/C Ratio	0.008	-	-	0.017	-	
HCM Control Delay (s)	9.7	-	-	7.9	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.1	-	

Year 2033 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	170	139	111	183	610	220
Future Volume (vph)	170	139	111	183	610	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1562	1583	1501	1535	1565	1317
Flt Permitted	0.950		0.314			
Satd. Flow (perm)	1560	1583	496	1535	1565	1281
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		146				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)	1		4			4
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	1%	4%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	179	146	117	193	642	232
Shared Lane Traffic (%)						
Lane Group Flow (vph)	179	146	117	193	642	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2033 Build Traffic Volumes
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	20.0	20.0	50.0	50.0	50.0	20.0
Total Split (%)	28.6%	28.6%	71.4%	71.4%	71.4%	28.6%
Maximum Green (s)	15.0	15.0	45.0	45.0	45.0	15.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.7	10.7	25.5	25.5	25.5	36.2
Actuated g/C Ratio	0.23	0.23	0.54	0.54	0.54	0.77
v/c Ratio	0.50	0.31	0.44	0.23	0.76	0.23
Control Delay	24.5	6.6	12.2	6.2	14.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	6.6	12.2	6.2	14.9	1.2
LOS	C	A	B	A	B	A
Approach Delay	16.5			8.5	11.2	
Approach LOS	B			A	B	
Queue Length 50th (ft)	41	0	16	22	110	0
Queue Length 95th (ft)	125	41	53	54	246	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	543	645	442	1370	1397	1109
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.23	0.26	0.14	0.46	0.21
Intersection Summary						
Area Type: CBD						
Cycle Length: 70						
Actuated Cycle Length: 47.1						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.76						
Intersection Signal Delay: 11.8				Intersection LOS: B		
Intersection Capacity Utilization 65.5%				ICU Level of Service C		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2033 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	205	582	218	187	255	90
Future Volume (vph)	205	582	218	187	255	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.964
Satd. Flow (prot)	1652	1492	1722	1599	0	1769
Flt Permitted	0.950					0.647
Satd. Flow (perm)	1652	1492	1722	1564	0	1187
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		594		191		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	3%	1%	3%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	209	594	222	191	260	92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	209	594	222	191	0	352
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2033 Build Traffic Volumes
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	24.0	24.0	26.0	26.0	10.0	36.0
Total Split (%)	40.0%	40.0%	43.3%	43.3%	16.7%	60.0%
Maximum Green (s)	19.0	19.0	21.0	21.0	5.0	31.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.9	11.9	20.3	20.3		20.3
Actuated g/C Ratio	0.28	0.28	0.47	0.47		0.47
v/c Ratio	0.46	0.71	0.27	0.23		0.63
Control Delay	18.3	7.1	8.1	2.2		14.8
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	18.3	7.1	8.1	2.2		14.8
LOS	B	A	A	A		B
Approach Delay	10.0		5.4			14.8
Approach LOS	B		A			B
Queue Length 50th (ft)	41	0	28	0		55
Queue Length 95th (ft)	110	64	76	24		154
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	797	1027	1024	1007		891
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	0.26	0.58	0.22	0.19		0.40
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 43.1						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.71						
Intersection Signal Delay: 9.9				Intersection LOS: A		
Intersection Capacity Utilization 56.0%				ICU Level of Service B		
Analysis Period (min) 15						

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2033 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	9	180	65	231	224	9
Future Volume (vph)	9	180	65	231	224	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.895		0.995	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1878	1619	0	1870	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1878	1619	0	1870	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	10	194	70	248	241	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	204	318	0	251	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	37.3%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 Build Traffic Volumes
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	5.1					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	9	180	65	231	224	9
Future Vol, veh/h	9	180	65	231	224	9
Conflicting Peds, #/hr	0	0	0	0	0	1
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	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	2	3	0
Mvmt Flow	10	194	70	248	241	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	318	0	-	0	408	195
Stage 1	-	-	-	-	194	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	4.1	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.2	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1253	-	-	-	597	851
Stage 1	-	-	-	-	836	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1253	-	-	-	592	850
Mov Cap-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	819	-
Approach	NB		SB		NE	
HCM Control Delay, s	0.4		0		15.3	
HCM LOS					C	
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	599	1253	-	-	-	
HCM Lane V/C Ratio	0.418	0.008	-	-	-	
HCM Control Delay (s)	15.3	7.9	0	-	-	
HCM Lane LOS	C	A	A	-	-	
HCM 95th %tile Q(veh)	2.1	0	-	-	-	

Year 2033 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	127	0	0	121	4	0	0	0	3	0	1
Future Volume (vph)	4	127	0	0	121	4	0	0	0	3	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.995						0.966	
Flt Protected		0.998									0.964	
Satd. Flow (prot)	0	1863	0	0	1837	0	0	0	0	0	1769	0
Flt Permitted		0.998									0.964	
Satd. Flow (perm)	0	1863	0	0	1837	0	0	0	0	0	1769	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	5	144	0	0	138	5	0	0	0	3	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	143	0	0	0	0	0	4	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	20.2%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2033 Build Traffic Volumes
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	4	127	0	0	121	4	0	0	0	3	0	1
Future Vol, veh/h	4	127	0	0	121	4	0	0	0	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	25	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	144	0	0	138	5	0	0	0	3	0	1
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	143	0	0	144	0	0				295	295	142
Stage 1	-	-	-	-	-	-				141	141	-
Stage 2	-	-	-	-	-	-				154	154	-
Critical Hdwy	4.35	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	1310	-	-	1451	-	-				700	620	911
Stage 1	-	-	-	-	-	-				891	784	-
Stage 2	-	-	-	-	-	-				879	774	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1310	-	-	1451	-	-				697	0	910
Mov Cap-2 Maneuver	-	-	-	-	-	-				697	0	-
Stage 1	-	-	-	-	-	-				887	0	-
Stage 2	-	-	-	-	-	-				879	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.2			0			9.9					
HCM LOS							A					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1310	-	-	1451	-	-	740					
HCM Lane V/C Ratio	0.003	-	-	-	-	-	0.006					
HCM Control Delay (s)	7.8	0	-	0	-	-	9.9					
HCM Lane LOS	A	A	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2033 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↗	
Traffic Volume (vph)	130	0	5	124	2	18
Future Volume (vph)	130	0	5	124	2	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.877	
Flt Protected				0.998	0.995	
Satd. Flow (prot)	1881	0	0	1814	1382	0
Flt Permitted				0.998	0.995	
Satd. Flow (perm)	1881	0	0	1814	1382	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	40%	3%	0%	22%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	148	0	6	141	2	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	0	0	147	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	20.6%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 Build Traffic Volumes
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	0	5	124	2	18
Future Vol, veh/h	130	0	5	124	2	18
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	88	88	88	88	88	88
Heavy Vehicles, %	1	0	40	3	0	22
Mvmt Flow	148	0	6	141	2	20
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	148	0	301	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	153	-
Critical Hdwy	-	-	4.5	-	6.4	6.42
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.56	-	3.5	3.498
Pot Cap-1 Maneuver	-	-	1231	-	695	849
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	880	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1231	-	692	849
Mov Cap-2 Maneuver	-	-	-	-	692	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	876	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		9.5	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	830	-	-	1231	-	
HCM Lane V/C Ratio	0.027	-	-	0.005	-	
HCM Control Delay (s)	9.5	-	-	7.9	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Year 2023 Build Traffic Volumes -Event Conditions
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	157	126	101	166	556	199
Future Volume (vph)	157	126	101	166	556	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1547	1583	1501	1535	1565	1330
Flt Permitted	0.950		0.349			
Satd. Flow (perm)	1545	1583	551	1535	1565	1293
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		133				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)	1		4			4
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	1%	1%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	165	133	106	175	585	209
Shared Lane Traffic (%)						
Lane Group Flow (vph)	165	133	106	175	585	209
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2023 Build Traffic Volumes -Event Conditions
1: Pleasantville Rd & N State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	21.0	21.0	49.0	49.0	49.0	21.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	30.0%
Maximum Green (s)	16.0	16.0	44.0	44.0	44.0	16.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	10.4	10.4	22.5	22.5	22.5	32.8
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.51	0.75
v/c Ratio	0.45	0.28	0.37	0.22	0.73	0.21
Control Delay	21.3	6.1	10.8	6.5	14.2	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	6.1	10.8	6.5	14.2	1.1
LOS	C	A	B	A	B	A
Approach Delay	14.5			8.1	10.8	
Approach LOS	B			A	B	
Queue Length 50th (ft)	32	0	13	19	89	0
Queue Length 95th (ft)	106	37	47	53	224	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	616	710	502	1399	1426	1121
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.19	0.21	0.13	0.41	0.19
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 43.7						
Natural Cycle: 45						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.73						
Intersection Signal Delay: 11.0				Intersection LOS: B		
Intersection Capacity Utilization 60.9%				ICU Level of Service B		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2023 Build Traffic Volumes -Event Conditions
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

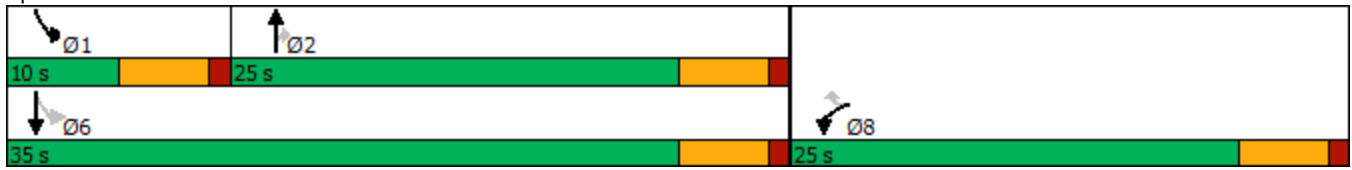
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	200	530	197	169	233	85
Future Volume (vph)	200	530	197	169	233	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.965
Satd. Flow (prot)	1652	1492	1739	1599	0	1762
Flt Permitted	0.950					0.661
Satd. Flow (perm)	1652	1492	1739	1564	0	1206
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		541		172		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	2%	1%	3%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	204	541	201	172	238	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	204	541	201	172	0	325
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2023 Build Traffic Volumes -Event Conditions
2: S State Rd & Pleasantville Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	25.0	25.0	25.0	25.0	10.0	35.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	20.0	20.0	20.0	20.0	5.0	30.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	11.7	11.7	18.4	18.4		18.4
Actuated g/C Ratio	0.29	0.29	0.45	0.45		0.45
v/c Ratio	0.43	0.67	0.26	0.22		0.60
Control Delay	16.7	6.4	8.3	2.4		14.3
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	16.7	6.4	8.3	2.4		14.3
LOS	B	A	A	A		B
Approach Delay	9.2		5.6			14.3
Approach LOS	A		A			B
Queue Length 50th (ft)	36	0	24	0		47
Queue Length 95th (ft)	104	58	71	24		143
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	882	1049	1019	988		923
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	0.23	0.52	0.20	0.17		0.35
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 41						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.67						
Intersection Signal Delay: 9.4				Intersection LOS: A		
Intersection Capacity Utilization 51.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2023 Build Traffic Volumes -Event Conditions
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	8	164	59	225	201	8
Future Volume (vph)	8	164	59	225	201	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.893		0.995	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1878	1615	0	1888	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1878	1615	0	1888	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	9	176	63	242	216	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	185	305	0	225	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.3%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 Build Traffic Volumes -Event Conditions
3: Elm Rd & S State Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	4.5					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	8	164	59	225	201	8
Future Vol, veh/h	8	164	59	225	201	8
Conflicting Peds, #/hr	0	0	0	0	0	1
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	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	2	2	0
Mvmt Flow	9	176	63	242	216	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	305	0	-	0	378	185
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	4.1	-	-	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.3
Pot Cap-1 Maneuver	1267	-	-	-	624	862
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1267	-	-	-	619	861
Mov Cap-2 Maneuver	-	-	-	-	619	-
Stage 1	-	-	-	-	841	-
Stage 2	-	-	-	-	839	-
Approach	NB	SB		NE		
HCM Control Delay, s	0.4	0		13.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	626	1267	-	-	-	
HCM Lane V/C Ratio	0.359	0.007	-	-	-	
HCM Control Delay (s)	13.9	7.9	0	-	-	
HCM Lane LOS	B	A	A	-	-	
HCM 95th %tile Q(veh)	1.6	0	-	-	-	

Year 2023 Build Traffic Volumes -Event Conditions
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	117	0	0	110	4	0	0	0	3	0	1
Future Volume (vph)	4	117	0	0	110	4	0	0	0	3	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.995						0.966	
Flt Protected		0.998									0.964	
Satd. Flow (prot)	0	1861	0	0	1837	0	0	0	0	0	1769	0
Flt Permitted		0.998									0.964	
Satd. Flow (perm)	0	1861	0	0	1837	0	0	0	0	0	1769	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	5	133	0	0	125	5	0	0	0	3	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	130	0	0	0	0	0	4	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	19.7%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2023 Build Traffic Volumes -Event Conditions
4: Elm Rd & Birch Rd

Weekday Peak PM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	4	117	0	0	110	4	0	0	0	3	0	1
Future Vol, veh/h	4	117	0	0	110	4	0	0	0	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	25	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	133	0	0	125	5	0	0	0	3	0	1
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	130	0	0	133	0	0		271	271	129		
Stage 1	-	-	-	-	-	-		128	128	-		
Stage 2	-	-	-	-	-	-		143	143	-		
Critical Hdwy	4.35	-	-	4.1	-	-		6.4	6.5	6.2		
Critical Hdwy Stg 1	-	-	-	-	-	-		5.4	5.5	-		
Critical Hdwy Stg 2	-	-	-	-	-	-		5.4	5.5	-		
Follow-up Hdwy	2.425	-	-	2.2	-	-		3.5	4	3.3		
Pot Cap-1 Maneuver	1325	-	-	1464	-	-		723	639	926		
Stage 1	-	-	-	-	-	-		903	794	-		
Stage 2	-	-	-	-	-	-		889	782	-		
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1325	-	-	1464	-	-		720	0	925		
Mov Cap-2 Maneuver	-	-	-	-	-	-		720	0	-		
Stage 1	-	-	-	-	-	-		899	0	-		
Stage 2	-	-	-	-	-	-		889	0	-		
Approach	EB			WB			SB					
HCM Control Delay, s	0.3			0			9.8					
HCM LOS							A					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1325	-	-	1464	-	-	762					
HCM Lane V/C Ratio	0.003	-	-	-	-	-	0.006					
HCM Control Delay (s)	7.7	0	-	0	-	-	9.8					
HCM Lane LOS	A	A	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2023 Build Traffic Volumes -Event Conditions
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	118	2	19	113	1	14
Future Volume (vph)	118	2	19	113	1	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.998				0.873	
Flt Protected				0.993	0.997	
Satd. Flow (prot)	1878	0	0	1774	1461	0
Flt Permitted				0.993	0.997	
Satd. Flow (perm)	1878	0	0	1774	1461	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	26%	3%	0%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	134	2	22	128	1	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	136	0	0	150	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	23.7%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2023 Build Traffic Volumes -Event Conditions
5: Site Driveway & Elm Rd

Weekday Peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	2	19	113	1	14
Future Vol, veh/h	118	2	19	113	1	14
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	88	88	88	88	88	88
Heavy Vehicles, %	1	0	26	3	0	14
Mvmt Flow	134	2	22	128	1	16
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	136	0	307	135
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	172	-
Critical Hdwy	-	-	4.36	-	6.4	6.34
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.434	-	3.5	3.426
Pot Cap-1 Maneuver	-	-	1313	-	689	883
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	863	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1313	-	677	883
Mov Cap-2 Maneuver	-	-	-	-	677	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	847	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		9.2	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	865	-	-	1313	-	
HCM Lane V/C Ratio	0.02	-	-	0.016	-	
HCM Control Delay (s)	9.2	-	-	7.8	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

Year 2033 Build Traffic Volumes - Event Conditions
1: Pleasantville Rd & N State Rd

Weekday peak PM Hour
11/23/2021

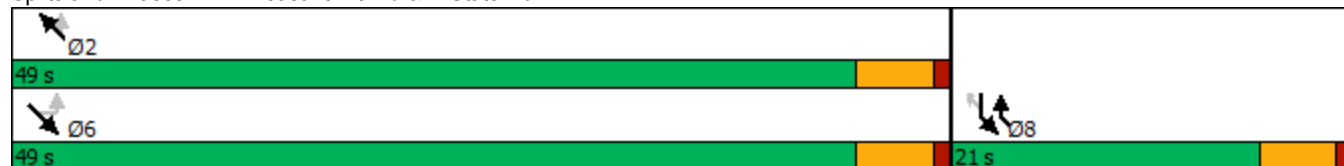
						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (vph)	173	139	111	183	610	220
Future Volume (vph)	173	139	111	183	610	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	10	10	10	10
Grade (%)	0%			0%	0%	
Storage Length (ft)	75	0	175			0
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1533	1583	1501	1535	1565	1317
Flt Permitted	0.950		0.310			
Satd. Flow (perm)	1530	1583	489	1535	1565	1281
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		146				
Link Speed (mph)	30			30	30	
Link Distance (ft)	302			390	575	
Travel Time (s)	6.9			8.9	13.1	
Confl. Peds. (#/hr)	1		4			4
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	1%	1%	4%	2%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	182	146	117	193	642	232
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	146	117	193	642	232
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.14	1.01	1.25	1.25	1.25	1.25
Turning Speed (mph)	15	9	15			9
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (ft)	20	20	20	100	100	20
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	Perm	NA	NA	pm+ov
Protected Phases	8			6	2	8
Permitted Phases		8	6			2
Detector Phase	8	8	6	6	2	8
Switch Phase						

Year 2033 Build Traffic Volumes - Event Conditions
1: Pleasantville Rd & N State Rd

Weekday peak PM Hour
11/23/2021

						
Lane Group	SBL	SBR	SEL	SET	NWT	NWR
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	21.0	21.0	49.0	49.0	49.0	21.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	30.0%
Maximum Green (s)	16.0	16.0	44.0	44.0	44.0	16.0
Yellow Time (s)	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
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)	7.0	7.0			14.0	7.0
Flash Dont Walk (s)	11.0	11.0			24.0	11.0
Pedestrian Calls (#/hr)	0	0			0	0
Act Effct Green (s)	11.3	11.3	25.8	25.8	25.8	37.1
Actuated g/C Ratio	0.23	0.23	0.54	0.54	0.54	0.77
v/c Ratio	0.51	0.30	0.45	0.23	0.77	0.23
Control Delay	24.5	6.5	12.9	6.5	15.5	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	6.5	12.9	6.5	15.5	1.1
LOS	C	A	B	A	B	A
Approach Delay	16.5			8.9	11.7	
Approach LOS	B			A	B	
Queue Length 50th (ft)	42	0	16	23	112	0
Queue Length 95th (ft)	128	41	56	56	257	0
Internal Link Dist (ft)	222			310	495	
Turn Bay Length (ft)	75		175			
Base Capacity (vph)	560	671	425	1335	1361	1113
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.22	0.28	0.14	0.47	0.21
Intersection Summary						
Area Type:	CBD					
Cycle Length: 70						
Actuated Cycle Length: 48.1						
Natural Cycle: 55						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.77						
Intersection Signal Delay: 12.2				Intersection LOS: B		
Intersection Capacity Utilization 65.7%				ICU Level of Service C		
Analysis Period (min) 15						

Splits and Phases: 1: Pleasantville Rd & N State Rd



Year 2033 Build Traffic Volumes - Event Conditions
2: S State Rd & Pleasantville Rd

Weekday peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	219	582	218	190	255	93
Future Volume (vph)	219	582	218	190	255	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	150	0		110	0	
Storage Lanes	1	1		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor				0.98		1.00
Frt		0.850		0.850		
Flt Protected	0.950					0.965
Satd. Flow (prot)	1652	1492	1722	1599	0	1757
Flt Permitted	0.950					0.649
Satd. Flow (perm)	1652	1492	1722	1564	0	1181
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		594		194		
Link Speed (mph)	30		30			30
Link Distance (ft)	573		191			399
Travel Time (s)	13.0		4.3			9.1
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	3%	1%	3%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	223	594	222	194	260	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	223	594	222	194	0	355
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	10		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	1	6
Switch Phase						

Year 2033 Build Traffic Volumes - Event Conditions
2: S State Rd & Pleasantville Rd

Weekday peak PM Hour
11/23/2021

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	24.0	24.0	26.0	26.0	10.0	36.0
Total Split (%)	40.0%	40.0%	43.3%	43.3%	16.7%	60.0%
Maximum Green (s)	19.0	19.0	21.0	21.0	5.0	31.0
Yellow Time (s)	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	None
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)	12.2	12.2	20.7	20.7		20.7
Actuated g/C Ratio	0.28	0.28	0.47	0.47		0.47
v/c Ratio	0.48	0.70	0.27	0.23		0.64
Control Delay	18.9	7.1	8.2	2.2		15.1
Queue Delay	0.0	0.0	0.0	0.0		0.0
Total Delay	18.9	7.1	8.2	2.2		15.1
LOS	B	A	A	A		B
Approach Delay	10.3		5.4			15.1
Approach LOS	B		A			B
Queue Length 50th (ft)	45	0	29	0		58
Queue Length 95th (ft)	117	64	76	25		157
Internal Link Dist (ft)	493		111			319
Turn Bay Length (ft)	150			110		
Base Capacity (vph)	784	1020	1017	1003		874
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	0.28	0.58	0.22	0.19		0.41
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 43.8						
Natural Cycle: 60						
Control Type: Semi Act-Uncoord						
Maximum v/c Ratio: 0.70						
Intersection Signal Delay: 10.1				Intersection LOS: B		
Intersection Capacity Utilization 56.0%				ICU Level of Service B		
Analysis Period (min) 15						

Year 2033 Build Traffic Volumes - Event Conditions
 2: S State Rd & Pleasantville Rd

Weekday peak PM Hour
 11/23/2021

Splits and Phases: 2: S State Rd & Pleasantville Rd



Year 2033 Build Traffic Volumes - Event Conditions
3: Elm Rd & S State Rd

Weekday peak PM Hour
11/23/2021

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	9	180	65	247	227	9
Future Volume (vph)	9	180	65	247	227	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	14	14
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			0	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.893		0.995	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1878	1602	0	1870	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1878	1602	0	1870	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		271	191		190	
Travel Time (s)		6.2	4.3		4.3	
Confl. Peds. (#/hr)						1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	10	194	70	266	244	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	204	336	0	254	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		14	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.04	1.04	0.92	0.92
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.4%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 Build Traffic Volumes - Event Conditions
3: Elm Rd & S State Rd

Weekday peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	5.1					
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	9	180	65	247	227	9
Future Vol, veh/h	9	180	65	247	227	9
Conflicting Peds, #/hr	0	0	0	0	0	1
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	93	93	93	93	93	93
Heavy Vehicles, %	0	1	0	3	3	0
Mvmt Flow	10	194	70	266	244	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	336	0	-	0	417	204
Stage 1	-	-	-	-	203	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	4.1	-	-	-	6.43	6.2
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.2	-	-	-	3.527	3.3
Pot Cap-1 Maneuver	1235	-	-	-	590	842
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1235	-	-	-	585	841
Mov Cap-2 Maneuver	-	-	-	-	585	-
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	819	-
Approach	NB		SB		NE	
HCM Control Delay, s	0.4		0		15.6	
HCM LOS					C	
Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR	
Capacity (veh/h)	592	1235	-	-	-	
HCM Lane V/C Ratio	0.429	0.008	-	-	-	
HCM Control Delay (s)	15.6	7.9	0	-	-	
HCM Lane LOS	C	A	A	-	-	
HCM 95th %tile Q(veh)	2.1	0	-	-	-	

Year 2033 Build Traffic Volumes - Event Conditions
4: Elm Rd & Birch Rd

Weekday peak PM Hour
11/23/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	128	0	0	122	4	0	0	0	3	0	1
Future Volume (vph)	4	128	0	0	122	4	0	0	0	3	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		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
Ped Bike Factor												
Frt					0.995						0.966	
Flt Protected		0.998									0.964	
Satd. Flow (prot)	0	1863	0	0	1837	0	0	0	0	0	1769	0
Flt Permitted		0.998									0.964	
Satd. Flow (perm)	0	1863	0	0	1837	0	0	0	0	0	1769	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			449			277			383	
Travel Time (s)		7.5			10.2			6.3			8.7	
Confl. Peds. (#/hr)												1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	25%	1%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	5	145	0	0	139	5	0	0	0	3	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	144	0	0	0	0	0	4	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Free			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	20.3%											
Analysis Period (min)	15											
ICU Level of Service A												

Year 2033 Build Traffic Volumes - Event Conditions
4: Elm Rd & Birch Rd

Weekday peak PM Hour
11/23/2021

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕	
Traffic Vol, veh/h	4	128	0	0	122	4	0	0	0	3	0	1
Future Vol, veh/h	4	128	0	0	122	4	0	0	0	3	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	25	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	5	145	0	0	139	5	0	0	0	3	0	1
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	144	0	0	145	0	0				297	297	143
Stage 1	-	-	-	-	-	-				142	142	-
Stage 2	-	-	-	-	-	-				155	155	-
Critical Hdwy	4.35	-	-	4.1	-	-				6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-				5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.4	5.5	-
Follow-up Hdwy	2.425	-	-	2.2	-	-				3.5	4	3.3
Pot Cap-1 Maneuver	1309	-	-	1450	-	-				698	618	910
Stage 1	-	-	-	-	-	-				890	783	-
Stage 2	-	-	-	-	-	-				878	773	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1309	-	-	1450	-	-				695	0	909
Mov Cap-2 Maneuver	-	-	-	-	-	-				695	0	-
Stage 1	-	-	-	-	-	-				886	0	-
Stage 2	-	-	-	-	-	-				878	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0.2			0			9.9					
HCM LOS							A					
Minor Lane/Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	1309	-	-	1450	-	-	738					
HCM Lane V/C Ratio	0.003	-	-	-	-	-	0.006					
HCM Control Delay (s)	7.8	0	-	0	-	-	9.9					
HCM Lane LOS	A	A	-	A	-	-	A					
HCM 95th %tile Q(veh)	0	-	-	0	-	-	0					

Year 2033 Build Traffic Volumes - Event Conditions
5: Site Driveway & Elm Rd

Weekday peak PM Hour
11/23/2021

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	
Traffic Volume (vph)	130	2	21	124	2	21
Future Volume (vph)	130	2	21	124	2	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.998				0.875	
Flt Protected				0.993	0.996	
Satd. Flow (prot)	1878	0	0	1781	1409	0
Flt Permitted				0.993	0.996	
Satd. Flow (perm)	1878	0	0	1781	1409	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	449			343	298	
Travel Time (s)	10.2			7.8	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	23%	3%	0%	19%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	148	2	24	141	2	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	150	0	0	165	26	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.0%			ICU Level of Service A		
Analysis Period (min)	15					

Year 2033 Build Traffic Volumes - Event Conditions
5: Site Driveway & Elm Rd

Weekday peak PM Hour
11/23/2021

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	2	21	124	2	21
Future Vol, veh/h	130	2	21	124	2	21
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	88	88	88	88	88	88
Heavy Vehicles, %	1	0	23	3	0	19
Mvmt Flow	148	2	24	141	2	24
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	150	0	338	149
Stage 1	-	-	-	-	149	-
Stage 2	-	-	-	-	189	-
Critical Hdwy	-	-	4.33	-	6.4	6.39
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.407	-	3.5	3.471
Pot Cap-1 Maneuver	-	-	1312	-	662	855
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	848	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1312	-	649	855
Mov Cap-2 Maneuver	-	-	-	-	649	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	831	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		9.5	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	832	-	-	1312	-	
HCM Lane V/C Ratio	0.031	-	-	0.018	-	
HCM Control Delay (s)	9.5	-	-	7.8	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

Traffic Impact Study

Appendix F | Traffic Count Data

HOURLY TRAFFIC VOLUMES

	Intersection	7-8 AM	8-9 AM	9-10 AM	10-11 AM	2-3 PM	3-4 PM	4-5 PM	5-6 PM	6-7 PM	7-8 PM
1.	Pleasantville Road & N. State Road	895	966	822	650	850	1014	1256	1235	852	508
2.	Pleasantville Road & S. State Road	837	977	734	634	794	1049	1229	1334	829	457
3.	S. State Road & Elm Road	355	518	413	384	375	523	510	620	411	226
4.	Elm Road & Birch Road	138	242	176	148	196	233	203	235	179	96

Traffic counts conducted on Thursday September 23, 2021.

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 1.Pleasantville_Rd_and_North_State_Rd-_Thurs_880549_09-23-2021

Site Code :

Start Date : 9/23/2021

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	Pleasantville Rd From North					North State Rd From East					Pleasantville Rd From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	90	49	0	139	19	0	18	0	37	13	10	0	0	23	0	0	0	0	0	199
07:15 AM	0	104	45	0	149	15	0	28	0	43	18	10	0	0	28	0	0	0	0	0	220
07:30 AM	0	98	56	0	154	13	0	27	1	41	15	16	0	0	31	0	0	0	0	0	226
07:45 AM	0	102	46	0	148	30	0	32	2	64	17	21	0	0	38	0	0	0	0	0	250
Total	0	394	196	0	590	77	0	105	3	185	63	57	0	0	120	0	0	0	0	0	895
08:00 AM	0	79	45	0	124	25	0	36	4	65	34	19	0	0	53	0	0	0	0	0	242
08:15 AM	0	93	44	0	137	24	0	44	2	70	32	28	0	0	60	0	0	0	0	0	267
08:30 AM	0	49	39	0	88	32	0	21	1	54	32	37	0	0	69	0	0	0	0	0	211
08:45 AM	0	62	37	0	99	39	0	40	1	80	30	37	0	0	67	0	0	0	0	0	246
Total	0	283	165	0	448	120	0	141	8	269	128	121	0	0	249	0	0	0	0	0	966
09:00 AM	0	76	51	0	127	37	0	43	2	82	23	31	0	0	54	0	0	0	0	0	263
09:15 AM	0	44	28	0	72	38	0	42	0	80	23	27	0	0	50	0	0	0	0	0	202
09:30 AM	0	39	30	0	69	24	0	38	2	64	34	20	0	0	54	0	0	0	0	0	187
09:45 AM	0	37	17	0	54	21	0	34	1	56	28	32	0	0	60	0	0	0	0	0	170
Total	0	196	126	0	322	120	0	157	5	282	108	110	0	0	218	0	0	0	0	0	822
10:00 AM	0	21	28	0	49	19	0	40	2	61	42	26	0	0	68	0	0	0	0	0	178
10:15 AM	0	32	19	0	51	33	0	24	2	59	26	33	0	0	59	0	0	0	0	0	169
10:30 AM	0	39	11	0	50	18	0	37	1	56	19	33	0	3	55	0	0	0	0	0	161
10:45 AM	0	24	18	0	42	26	0	30	0	56	20	24	0	0	44	0	0	0	0	0	142
Total	0	116	76	0	192	96	0	131	5	232	107	116	0	3	226	0	0	0	0	0	650
Grand Total	0	989	563	0	1552	413	0	534	21	968	406	404	0	3	813	0	0	0	0	0	3333
Apprch %	0	63.7	36.3	0		42.7	0	55.2	2.2		49.9	49.7	0	0.4		0	0	0	0		
Total %	0	29.7	16.9	0	46.6	12.4	0	16	0.6	29	12.2	12.1	0	0.1	24.4	0	0	0	0	0	
Lights	0	965	537	0	1502	376	0	497	0	873	380	386	0	0	766	0	0	0	0	0	3141
% Lights	0	97.6	95.4	0	96.8	91	0	93.1	0	90.2	93.6	95.5	0	0	94.2	0	0	0	0	0	94.2
Buses	0	8	16	0	24	20	0	12	0	32	3	5	0	0	8	0	0	0	0	0	64
% Buses	0	0.8	2.8	0	1.5	4.8	0	2.2	0	3.3	0.7	1.2	0	0	1	0	0	0	0	0	1.9
Trucks	0	16	10	0	26	17	0	25	0	42	23	13	0	0	36	0	0	0	0	0	104
% Trucks	0	1.6	1.8	0	1.7	4.1	0	4.7	0	4.3	5.7	3.2	0	0	4.4	0	0	0	0	0	3.1
Pedestrians	0	0	0	0	0	0	0	0	21	21	0	0	0	3	3	0	0	0	0	0	24
% Pedestrians	0	0	0	0	0	0	0	0	100	2.2	0	0	0	100	0.4	0	0	0	0	0	0.7

Valhalla, NY 10595

Page No : 2

[illegible]

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 1.Pleasantville_Rd_and_North_State_Rd-_Thurs_880549_09-23-2021

Site Code :

Start Date : 9/23/2021

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	Pleasantville Rd From North					North State Rd From East					Pleasantville Rd From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	0	29	23	0	52	27	0	52	2	81	27	47	0	1	75	0	0	0	0	0	208
02:15 PM	0	31	19	0	50	33	0	31	0	64	43	50	0	1	94	0	0	0	0	0	208
02:30 PM	0	31	19	0	50	35	0	49	0	84	30	48	0	0	78	0	0	0	0	0	212
02:45 PM	0	34	30	0	64	32	0	45	1	78	33	47	0	0	80	0	0	0	0	0	222
Total	0	125	91	0	216	127	0	177	3	307	133	192	0	2	327	0	0	0	0	0	850
03:00 PM	0	34	23	0	57	27	0	36	0	63	38	53	0	0	91	0	0	0	0	0	211
03:15 PM	0	35	22	0	57	43	0	33	1	77	48	70	0	1	119	0	0	0	0	0	253
03:30 PM	0	44	33	0	77	29	0	39	1	69	44	88	0	0	132	0	0	0	0	0	278
03:45 PM	0	49	35	0	84	25	0	28	0	53	38	96	0	1	135	0	0	0	0	0	272
Total	0	162	113	0	275	124	0	136	2	262	168	307	0	2	477	0	0	0	0	0	1014
04:00 PM	0	38	35	0	73	30	0	41	0	71	33	105	0	0	138	0	0	0	0	0	282
04:15 PM	0	27	31	0	58	36	0	35	0	71	54	126	0	0	180	0	0	0	0	0	309
04:30 PM	0	49	27	0	76	30	0	40	2	72	47	132	0	1	180	0	0	0	0	0	328
04:45 PM	0	43	24	0	67	37	0	38	0	75	51	144	0	0	195	0	0	0	0	0	337
Total	0	157	117	0	274	133	0	154	2	289	185	507	0	1	693	0	0	0	0	0	1256
05:00 PM	0	29	25	0	54	31	0	42	1	74	41	135	0	0	176	0	0	0	0	0	304
05:15 PM	0	42	23	0	65	26	0	30	1	57	54	134	0	0	188	0	0	0	0	0	310
05:30 PM	0	37	16	0	53	35	0	44	0	79	50	120	0	0	170	0	0	0	0	0	302
05:45 PM	0	50	21	0	71	32	0	32	0	64	47	137	0	0	184	0	0	0	0	0	319
Total	0	158	85	0	243	124	0	148	2	274	192	526	0	0	718	0	0	0	0	0	1235
06:00 PM	0	33	25	0	58	30	0	34	0	64	41	108	0	0	149	0	0	0	0	0	271
06:15 PM	0	40	25	0	65	31	0	8	0	39	31	85	0	0	116	0	0	0	0	0	220
06:30 PM	0	22	20	0	42	35	0	24	1	60	20	60	0	0	80	0	0	0	0	0	182
06:45 PM	0	36	22	0	58	23	0	21	1	45	18	58	0	0	76	0	0	0	0	0	179
Total	0	131	92	0	223	119	0	87	2	208	110	311	0	0	421	0	0	0	0	0	852
07:00 PM	0	21	11	0	32	26	0	26	0	52	22	49	0	0	71	0	0	0	0	0	155
07:15 PM	0	31	21	0	52	19	0	18	1	38	28	37	0	0	65	0	0	0	0	0	155
07:30 PM	0	13	9	0	22	24	0	13	1	38	9	31	0	0	40	0	0	0	0	0	100
07:45 PM	0	19	6	0	25	19	0	20	0	39	8	26	0	0	34	0	0	0	0	0	98
Total	0	84	47	0	131	88	0	77	2	167	67	143	0	0	210	0	0	0	0	0	508
Grand Total	0	817	545	0	1362	715	0	779	13	1507	855	1986	0	5	2846	0	0	0	0	0	5715
Apprch %	0	60	40	0		47.4	0	51.7	0.9		30	69.8	0	0.2		0	0	0	0		
Total %	0	14.3	9.5	0	23.8	12.5	0	13.6	0.2	26.4	15	34.8	0	0.1	49.8	0	0	0	0	0	
Lights	0	791	521	0	1312	678	0	760	0	1438	829	1950	0	0	2779	0	0	0	0	0	5529
% Lights	0	96.8	95.6	0	96.3	94.8	0	97.6	0	95.4	97	98.2	0	0	97.6	0	0	0	0	0	96.7
Buses	0	10	16	0	26	27	0	14	0	41	11	13	0	0	24	0	0	0	0	0	91
% Buses	0	1.2	2.9	0	1.9	3.8	0	1.8	0	2.7	1.3	0.7	0	0	0.8	0	0	0	0	0	1.6
Trucks	0	16	8	0	24	10	0	5	0	15	15	23	0	0	38	0	0	0	0	0	77
% Trucks	0	2	1.5	0	1.8	1.4	0	0.6	0	1	1.8	1.2	0	0	1.3	0	0	0	0	0	1.3
Pedestrians	0	0	0	0	0	0	0	0	13	13	0	0	0	5	5	0	0	0	0	0	18
% Pedestrians	0	0	0	0	0	0	0	0	100	0.9	0	0	0	100	0.2	0	0	0	0	0	0.3

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 1.Pleasantville_Rd_and_North_State_Rd-_Thurs_880549_09-23-2021

Site Code :

Start Date : 9/23/2021

Page No : 3

	Pleasantville Rd From North					North State Rd From East					Pleasantville Rd From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 07:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	49	27	0	76	30	0	40	2	72	47	132	0	1	180	0	0	0	0	0	328
04:45 PM	0	43	24	0	67	37	0	38	0	75	51	144	0	0	195	0	0	0	0	0	337
05:00 PM	0	29	25	0	54	31	0	42	1	74	41	135	0	0	176	0	0	0	0	0	304
05:15 PM	0	42	23	0	65	26	0	30	1	57	54	134	0	0	188	0	0	0	0	0	310
Total Volume	0	163	99	0	262	124	0	150	4	278	193	545	0	1	739	0	0	0	0	0	1279
% App. Total	0	62.2	37.8	0		44.6	0	54	1.4		26.1	73.7	0	0.1		0	0	0	0		
PHF	.000	.832	.917	.000	.862	.838	.000	.893	.500	.927	.894	.946	.000	.250	.947	.000	.000	.000	.000	.000	.949
Lights	0	157	98	0	255	123	0	148	0	271	191	536	0	0	727	0	0	0	0	0	1253
% Lights	0	96.3	99.0	0	97.3	99.2	0	98.7	0	97.5	99.0	98.3	0	0	98.4	0	0	0	0	0	98.0
Buses	0	1	1	0	2	1	0	1	0	2	0	2	0	0	2	0	0	0	0	0	6
% Buses	0	0.6	1.0	0	0.8	0.8	0	0.7	0	0.7	0	0.4	0	0	0.3	0	0	0	0	0	0.5
Trucks	0	5	0	0	5	0	0	1	0	1	2	7	0	0	9	0	0	0	0	0	15
% Trucks	0	3.1	0	0	1.9	0	0	0.7	0	0.4	1.0	1.3	0	0	1.2	0	0	0	0	0	1.2
Pedestrians	0	0	0	0	0	0	0	0	4	4	0	0	0	1	1	0	0	0	0	0	5
% Pedestrians	0	0	0	0	0	0	0	0	100	1.4	0	0	0	100	0.1	0	0	0	0	0	0.4

Valhalla, NY 10595

Page No : 1

	Pleasantville Rd From North				Pleasantville Rd From East				South State Rd From South				From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	15	95	0	20	0	13	0	26	4	0	0	0	0	0	0	173
07:15 AM	0	16	101	0	13	0	20	0	24	9	0	0	0	0	0	0	183
07:30 AM	0	25	107	0	28	0	21	1	31	10	0	0	0	0	0	0	223
07:45 AM	0	29	92	0	33	0	36	1	60	7	0	0	0	0	0	0	258
Total	0	85	395	0	94	0	90	2	141	30	0	0	0	0	0	0	837
08:00 AM	0	18	89	0	53	0	47	0	58	9	0	0	0	0	0	0	274
08:15 AM	0	27	83	0	34	0	38	0	50	14	0	0	0	0	0	0	246
08:30 AM	0	22	64	0	53	0	43	0	35	19	0	0	0	0	0	0	236
08:45 AM	0	23	71	0	47	0	24	1	37	18	0	0	0	0	0	0	221
Total	0	90	307	0	187	0	152	1	180	60	0	0	0	0	0	0	977
09:00 AM	0	24	71	0	37	0	36	0	32	23	0	0	0	0	0	0	223
09:15 AM	0	24	56	0	40	0	34	0	22	14	0	0	0	0	0	0	190
09:30 AM	0	23	44	0	30	0	28	1	18	13	0	0	0	0	0	0	157
09:45 AM	0	20	39	0	30	0	24	2	28	21	0	0	0	0	0	0	164
Total	0	91	210	0	137	0	122	3	100	71	0	0	0	0	0	0	734
10:00 AM	0	13	42	0	27	0	32	0	20	20	0	0	0	0	0	0	154
10:15 AM	0	14	31	0	23	0	33	0	22	16	0	0	0	0	0	0	139
10:30 AM	0	17	43	0	34	0	35	0	21	13	0	0	0	0	0	0	163
10:45 AM	0	13	40	0	34	0	37	0	36	18	0	0	0	0	0	0	178
Total	0	57	156	0	118	0	137	0	99	67	0	0	0	0	0	0	634
Grand Total	0	323	1068	0	536	0	501	6	520	228	0	0	0	0	0	0	3182
Apprch %	0	23.2	76.8	0	51.4	0	48	0.6	69.5	30.5	0	0	0	0	0	0	
Total %	0	10.2	33.6	0	16.8	0	15.7	0.2	16.3	7.2	0	0	0	0	0	0	
Lights	0	308	1037	0	513	0	475	0	497	223	0	0	0	0	0	0	3053
% Lights	0	95.4	97.1	0	95.7	0	94.8	0	95.6	97.8	0	0	0	0	0	0	95.9
Buses	0	3	15	0	3	0	20	0	18	0	0	0	0	0	0	0	59
% Buses	0	0.9	1.4	0	0.6	0	4	0	3.5	0	0	0	0	0	0	0	1.9
Trucks	0	12	16	0	20	0	6	0	5	5	0	0	0	0	0	0	64
% Trucks	0	3.7	1.5	0	3.7	0	1.2	0	1	2.2	0	0	0	0	0	0	2
Pedestrians	0	0	0	0	0	0	0	6</									

Valhalla, NY 10595

Page No : 2

[illegible]

Valhalla, NY 10595

Page No : 1

	Pleasantville Rd From North					Pleasantville Rd From East					South State Rd From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	0	12	55	0	67	58	0	21	1	80	37	16	0	0	53	0	0	0	0	0	200
02:15 PM	0	21	37	0	58	65	0	57	0	122	23	17	0	0	40	0	0	0	0	0	220
02:30 PM	0	20	50	0	70	56	0	22	1	79	27	14	0	0	41	0	0	0	0	0	190
02:45 PM	0	14	57	0	71	52	0	17	0	69	27	17	0	0	44	0	0	0	0	0	184
Total	0	67	199	0	266	231	0	117	2	350	114	64	0	0	178	0	0	0	0	0	794
03:00 PM	0	17	50	0	67	63	0	47	0	110	36	24	0	0	60	0	0	0	0	0	237
03:15 PM	0	11	55	0	66	81	0	33	0	114	41	32	0	0	73	0	0	0	0	0	253
03:30 PM	0	21	49	0	70	89	0	23	0	112	58	35	0	0	93	0	0	0	0	0	275
03:45 PM	0	19	66	0	85	100	0	41	0	141	31	27	0	0	58	0	0	0	0	0	284
Total	0	68	220	0	288	333	0	144	0	477	166	118	0	0	284	0	0	0	0	0	1049
04:00 PM	0	12	59	0	71	105	0	34	0	139	34	40	0	0	74	0	0	0	0	0	284
04:15 PM	0	18	49	0	67	123	0	30	0	153	34	46	0	0	80	0	0	0	0	0	300
04:30 PM	0	14	57	0	71	132	0	28	0	160	31	46	0	0	77	0	0	0	0	0	308
04:45 PM	0	21	57	0	78	149	0	34	0	183	28	48	0	0	76	0	0	0	0	0	337
Total	0	65	222	0	287	509	0	126	0	635	127	180	0	0	307	0	0	0	0	0	1229
05:00 PM	0	25	60	0	85	117	0	50	0	167	45	27	0	0	72	0	0	0	0	0	324
05:15 PM	0	12	52	0	64	137	0	40	1	178	40	60	0	0	100	0	0	0	0	0	342
05:30 PM	0	20	59	0	79	117	0	55	0	172	37	51	0	0	88	0	0	0	0	0	339
05:45 PM	0	15	61	0	76	122	0	45	0	167	44	42	0	0	86	0	0	0	0	0	329
Total	0	72	232	0	304	493	0	190	1	684	166	180	0	0	346	0	0	0	0	0	1334
06:00 PM	0	26	50	0	76	112	0	43	0	155	48	31	0	0	79	0	0	0	0	0	310
06:15 PM	0	12	27	0	39	82	0	33	0	115	28	20	0	0	48	0	0	0	0	0	202
06:30 PM	0	15	24	0	39	52	0	14	0	66	27	25	0	0	52	0	0	0	0	0	157
06:45 PM	0	15	33	0	48	48	0	24	0	72	25	15	0	0	40	0	0	0	0	0	160
Total	0	68	134	0	202	294	0	114	0	408	128	91	0	0	219	0	0	0	0	0	829
07:00 PM	0	13	40																		

Valhalla, NY 10595

Page No : 3

[illegible]

Valhalla, NY 10595

Page No : 1

	South State Rd From North						From East						South State Rd From South						Elm St From West						Southeastbound Approach From Northwest						
Start Time	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
07:00 AM	0	14	14	0	0	28	0	0	0	0	0	0	0	5	0	0	0	5	1	0	26	0	0	27	0	0	0	0	0	0	60
07:15 AM	0	11	25	0	0	36	0	0	0	0	0	0	0	7	0	0	0	7	1	0	26	0	0	27	0	0	0	0	0	0	70
07:30 AM	0	23	24	0	0	47	0	0	0	0	0	0	0	8	0	2	0	10	0	0	36	0	0	36	0	0	0	0	0	0	93
07:45 AM	0	37	28	0	0	65	0	0	0	0	0	0	0	16	0	1	0	17	0	0	50	0	0	50	0	0	0	0	0	0	132
Total	0	85	91	0	0	176	0	0	0	0	0	0	0	36	0	3	0	39	2	0	138	0	0	140	0	0	0	0	0	0	355
08:00 AM	0	40	27	0	0	67	0	0	0	0	0	0	0	14	0	2	0	16	4	0	56	0	0	60	0	0	0	0	0	0	143
08:15 AM	0	35	31	0	0	66	0	0	0	0	0	0	0	15	0	2	0	17	3	0	50	0	0	53	0	0	0	0	0	0	136
08:30 AM	0	36	26	0	0	62	0	0	0	0	0	0	0	19	0	0	0	19	4	0	39	0	0	43	0	0	0	0	0	0	124
08:45 AM	0	35	14	0	0	49	0	0	0	0	0	0	0	24	0	2	2	28	6	0	32	0	0	38	0	0	0	0	0	0	115
Total	0	146	98	0	0	244	0	0	0	0	0	0	0	72	0	6	2	80	17	0	177	0	0	194	0	0	0	0	0	0	518
09:00 AM	0	37	24	0	0	61	0	0	0	0	0	0	0	13	0	3	1	17	3	0	42	0	0	45	2	0	0	0	0	2	125
09:15 AM	0	39	18	0	0	57	0	0	0	0	0	0	0	7	0	2	0	9	1	0	31	0	0	32	0	0	0	0	0	0	98
09:30 AM	0	25	26	0	0	51	0	0	0	0	0	0	0	11	0	2	1	14	2	0	22	0	0	24	0	0	0	0	0	0	89
09:45 AM	0	35	11	0	0	46	0	0	0	0	0	0	0	16	0	0	4	20	0	0	35	0	0	35	0	0	0	0	0	0	101
Total	0	136	79	0	0	215	0	0	0	0	0	0	0	47	0	7	6	60	6	0	130	0	0	136	2	0	0	0	0	2	413
10:00 AM	0	32	13	0	0	45	0	0	0	0	0	0	0	9	0	0	0	9	3	0	32	0	0	35	0	0	0	1	0	1	90
10:15 AM	0	41	8	0	0	49	0	0	0	0	0	0	0	14	0	2	0	16	2	0	28	0	0	30	0	0	0	0	0	0	95
10:30 AM	0	46	9	0	0	55	0	0	0	0	0	0	0	11	0	1	0	12	1	0	28	0	0	29	0	0	0	0	0	0	96
10:45 AM	0	39																													

Valhalla, NY 10595

Page No : 2

[illegible]

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 3._South_State_Rd_and_Elm_Rd-_Thurs_880572_09-23-2021

Site Code :

Start Date : 9/23/2021

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	South State Rd From North						From East						South State Rd From South						Elm St From West						Southeastbound Approach From Northwest						
Start Time	Hard Right	Right	Thru	Left	Peds	App. Total	Right	Bear Right	Thru	Left	Peds	App. Total	Right	Thru	Bear Left	Left	Peds	App. Total	Right	Thru	Left	Hard Left	Peds	App. Total	Hard Right	Bear Right	Bear Left	Hard Left	Peds	App. Total	Int. Total
02:00 PM	0	19	14	0	0	33	0	0	0	0	0	0	0	12	0	0	0	12	0	0	41	0	0	41	0	0	0	0	0	0	86
02:15 PM	0	57	23	0	0	80	0	0	0	0	0	0	0	9	0	2	0	11	1	0	32	0	0	33	0	0	0	0	0	0	124
02:30 PM	0	26	13	0	0	39	0	0	0	0	0	0	0	8	0	1	1	10	2	0	35	0	0	37	0	0	0	0	0	0	86
02:45 PM	0	23	8	0	0	31	0	0	0	0	0	0	0	14	0	4	0	18	0	0	30	0	0	30	0	0	0	0	0	0	79
Total	0	125	58	0	0	183	0	0	0	0	0	0	0	43	0	7	1	51	3	0	138	0	0	141	0	0	0	0	0	0	375
03:00 PM	1	52	17	0	0	70	0	0	0	0	0	0	0	31	0	1	0	32	3	0	32	0	0	35	0	0	0	0	0	0	137
03:15 PM	0	27	14	0	0	41	0	0	0	0	0	0	0	31	0	0	0	31	0	0	49	0	0	49	0	0	0	0	0	0	121
03:30 PM	0	30	15	0	0	45	0	0	0	0	0	0	0	27	0	3	0	30	3	0	64	0	0	67	0	0	0	0	0	0	142
03:45 PM	0	40	18	0	0	58	0	0	0	0	0	0	0	25	0	4	0	29	0	0	36	0	0	36	0	0	0	0	0	0	123
Total	1	149	64	0	0	214	0	0	0	0	0	0	0	114	0	8	0	122	6	0	181	0	0	187	0	0	0	0	0	0	523
04:00 PM	0	32	11	0	0	43	0	0	0	0	0	0	0	38	0	4	0	42	1	0	37	0	0	38	0	0	0	0	0	0	123
04:15 PM	0	39	10	0	0	49	0	0	0	0	0	0	0	37	0	3	0	40	0	0	41	0	0	41	0	0	0	0	0	0	130
04:30 PM	0	32	8	0	0	40	0	0	0	0	0	0	0	37	0	1	0	38	0	0	45	0	0	45	0	0	0	0	0	0	123
04:45 PM	0	46	9	0	0	55	0	0	0	0	0	0	0	41	0	0	0	41	2	0	36	0	0	38	0	0	0	0	0	0	134
Total	0	149	38	0	0	187	0	0	0	0	0	0	0	153	0	8	0	161	3	0	159	0	0	162	0	0	0	0	0	0	510
05:00 PM	0	54	23	0	0	77	0	0	0	0	0	0	0	29	0	1	0	30	2	0	49	0	0	51	0	0	0	0	0	0	158
05:15 PM	0	39	11	0	0	50	0	0	0	0	0	0	0	51	0	1	1	53	1	0	43	0	0	44	0	0	0	0	0	0	147
05:30 PM	1	54	20	0	0	75	0	0	0	0	0	0	0	45	0	2	0	47	4	0	42	0	0	46	0	0	0	0	0	0	168
05:45 PM	0	51	8	0	0	59	0	0	0	0	0	0	0	36	0	1	0	37	1	0	50	0	0	51	0	0	0	0	0	0	147
Total	1	198	62	0	0	261	0	0	0	0	0	0	0	161	0	5	1	167	8	0	184	0	0	192	0	0	0	0	0	0	620
06:00 PM	0	57	19	0	0	76	0	0	0	0	0	0	0	29	0	4	0	33	2	0	49	0	0	51	0	0	0	0	0	0	160
06:15 PM	0	33	10	0	0	43	0	0	0	0	0	0	0	17	0	0	0	17	0	0	32	0	0	32	0	0	0	0	0	0	92
06:30 PM	0	25	4	0	0	29	0	0	0	0	0	0	0	14	0	0	0	14	0	0	34	0	0	34	0	0	0	0	0	0	77
06:45 PM	0	29	9	0	0	38	0	0	0	0	0	0	0	17	0	0	0	17	2	0	25	0	0	27	0	0	0	0	0	0	82
Total	0	144	42	0	0	186	0	0	0	0	0	0	0	77	0	4	0	81	4	0	140	0	0	144	0	0	0	0	0	0	411
07:00 PM	0	22	12	0	0	34	0	0	0	0	0	0	0	8	0	1	0	9	0	0	30	0	0	30	0	0	0	0	0	0	73
07:15 PM	0	20	3	0	0	23	0	0	0	0	0	0	0	6	0	0	0	6	0	0	24	0	0	24	0	0	0	0	0	0	53
07:30 PM	0	12	6	0	0	18	0	0	0	0	0	0	0	7	0	1	0	8	0	0	15	0	0	15	0	0	0	0	0	0	41
07:45 PM	0	17	5	0	0	22	0	0	0	0	0	0	0	7	0	0	0	7	0	0	30	0	0	30	0	0	0	0	0	0	59
Total	0	71	26	0	0	97	0	0	0	0	0	0	0	28	0	2	0	30	0	0	99	0	0	99	0	0	0	0	0	0	226
Grand Total	2	836	290	0	0	1128	0	0	0	0	0	0	0	576	0	34	2	612	24	0	901	0	0	925	0	0	0	0	0	0	2665
Apprch %	0.2	74.1	25.7	0	0		0	0	0	0	0		0	94.1	0	5.6	0.3		2.6	0	97.4	0	0		0	0	0	0	0		
Total %	0.1	31.4	10.9	0	0	42.3	0	0	0	0	0	0	0	21.6	0	1.3	0.1	23	0.9	0	33.8	0	0	34.7	0	0	0	0	0	0	
Lights	2	803	277	0	0	1082	0	0	0	0	0	0	0	554	0	32	0	586	24	0	869	0	0	893	0	0	0	0	0	0	2561
% Lights	100	96.1	95.5	0	0	95.9	0	0	0	0	0	0	0	96.2	0	94.1	0	95.8	100	0	96.4	0	0	96.5	0	0	0	0	0	0	96.1
Buses	0	24	4	0	0	28	0	0	0	0	0	0	0	10	0	0	0	10	0	0	13	0	0	13	0	0	0	0	0	0	51
% Buses	0	2.9	1.4	0	0	2.5	0	0	0	0	0	0	0	1.7	0	0	0	1.6	0	0	1.4	0	0	1.4	0	0	0	0	0	0	1.9
Trucks	0	9	9	0	0	18	0	0	0	0	0	0	0	12	0	2	0	14	0	0	19	0	0	19	0	0	0	0	0	0	51
% Trucks	0	1.1	3.1	0	0	1.6	0	0	0	0	0	0	0	2.1	0	5.9	0	2.3	0	0	2.1	0	0	2.1	0	0	0	0	0	0	1.9

Valhalla, NY 10595

Page No : 2

[illegible]

Valhalla, NY 10595

Page No : 3

[illegible]

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 4._Elm_Rd_and_Birch_Rd-_Thurs_880580_09-23-2021

Site Code :

Start Date : 9/23/2021

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	Birch Rd From North					Elm Rd From East					Birch Rd From South					Elm Rd From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	14	0	0	14	17
07:15 AM	1	0	0	1	2	0	7	0	0	7	0	0	0	0	0	0	11	0	1	12	21
07:30 AM	1	0	0	0	1	1	13	0	0	14	0	0	0	0	0	0	26	0	0	26	41
07:45 AM	0	0	2	0	2	2	26	0	0	28	0	0	0	0	0	0	28	1	0	29	59
Total	2	0	2	1	5	3	49	0	0	52	0	0	0	0	0	0	79	1	1	81	138
08:00 AM	0	0	1	2	3	3	25	0	0	28	0	0	0	0	0	0	46	0	0	46	77
08:15 AM	2	0	0	0	2	5	29	0	0	34	0	0	0	0	0	0	32	1	0	33	69
08:30 AM	0	0	1	0	1	1	24	0	0	25	0	0	0	0	0	0	27	0	0	27	53
08:45 AM	1	0	1	0	2	3	14	0	0	17	0	0	0	0	0	0	24	0	0	24	43
Total	3	0	3	2	8	12	92	0	0	104	0	0	0	0	0	0	129	1	0	130	242
09:00 AM	0	0	1	0	1	2	31	0	0	33	0	0	0	0	0	0	31	0	0	31	65
09:15 AM	1	0	0	0	1	1	23	0	0	24	0	0	0	0	0	0	19	1	0	20	45
09:30 AM	0	0	1	2	3	1	16	0	0	17	0	0	0	0	0	0	15	0	0	15	35
09:45 AM	0	0	0	0	0	2	10	0	0	12	0	0	0	0	0	0	19	0	0	19	31
Total	1	0	2	2	5	6	80	0	0	86	0	0	0	0	0	0	84	1	0	85	176
10:00 AM	0	0	1	0	1	1	13	0	0	14	0	0	0	0	0	0	19	3	0	22	37
10:15 AM	2	0	4	0	6	4	13	0	0	17	0	0	0	0	0	0	18	2	0	20	43
10:30 AM	0	0	2	0	2	1	14	0	0	15	0	0	0	0	0	0	12	2	0	14	31
10:45 AM	1	1	0	0	2	1	12	0	0	13	0	1	0	0	1	0	18	3	0	21	37
Total	3	1	7	0	11	7	52	0	0	59	0	1	0	0	1	0	67	10	0	77	148
Grand Total	9	1	14	5	29	28	273	0	0	301	0	1	0	0	1	0	359	13	1	373	704
Apprch %	31	3.4	48.3	17.2		9.3	90.7	0	0		0	100	0	0		0	96.2	3.5	0.3		
Total %	1.3	0.1	2	0.7	4.1	4	38.8	0	0	42.8	0	0.1	0	0	0.1	0	51	1.8	0.1	53	
Lights	5	1	14	0	20	26	244	0	0	270	0	1	0	0	1	0	338	12	0	350	641
% Lights	55.6	100	100	0	69	92.9	89.4	0	0	89.7	0	100	0	0	100	0	94.2	92.3	0	93.8	91.1
Buses	1	0	0	0	1	0	15	0	0	15	0	0	0	0	0	0	13	1	0	14	30
% Buses	11.1	0	0	0	3.4	0	5.5	0	0	5	0	0	0	0	0	0	3.6	7.7	0	3.8	4.3
Trucks	3	0	0	0	3	2	14	0	0	16	0	0	0	0	0	0	8	0	0	8	27
% Trucks	33.3	0	0	0	10.3	7.1	5.1	0	0	5.3	0	0	0	0	0	0	2.2	0	0	2.1	3.8
Pedestrians	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6
% Pedestrians	0	0	0	100	17.2	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.3	0.9

Valhalla, NY 10595

Page No : 2

[illegible]

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 4._Elm_Rd_and_Birch_Rd-_Thurs_880580_09-23-2021

Site Code :

Start Date : 9/23/2021

Page No : 1

Groups Printed- Lights - Buses - Trucks - Pedestrians

	Birch Rd From North					Elm Rd From East					Birch Rd From South					Elm Rd From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
02:00 PM	0	0	0	0	0	2	12	0	0	14	0	0	0	0	0	0	30	0	1	31	45
02:15 PM	0	0	1	0	1	0	40	0	0	40	0	0	0	0	0	0	18	1	0	19	60
02:30 PM	1	0	1	0	2	0	20	0	1	21	0	0	0	0	0	0	30	0	1	31	54
02:45 PM	2	0	1	0	3	1	15	1	0	17	0	0	0	0	0	0	17	0	0	17	37
Total	3	0	3	0	6	3	87	1	1	92	0	0	0	0	0	0	95	1	2	98	196
03:00 PM	1	0	0	0	1	0	32	0	0	32	0	0	0	0	0	0	24	1	0	25	58
03:15 PM	1	0	1	0	2	0	29	0	0	29	0	0	0	0	0	0	24	0	0	24	55
03:30 PM	0	0	0	0	0	2	17	0	0	19	0	0	0	0	0	0	44	2	0	46	65
03:45 PM	0	0	1	0	1	0	24	0	0	24	0	0	0	0	0	0	29	1	0	30	55
Total	2	0	2	0	4	2	102	0	0	104	0	0	0	0	0	0	121	4	0	125	233
04:00 PM	1	0	2	0	3	2	18	0	0	20	0	0	0	0	0	0	26	1	0	27	50
04:15 PM	0	0	0	1	1	1	26	0	0	27	0	0	0	0	0	0	22	1	0	23	51
04:30 PM	2	0	4	0	6	0	14	0	0	14	0	0	0	0	0	0	26	1	0	27	47
04:45 PM	0	0	0	0	0	0	27	0	0	27	0	0	0	0	0	1	27	0	0	28	55
Total	3	0	6	1	10	3	85	0	0	88	0	0	0	0	0	1	101	3	0	105	203
05:00 PM	0	0	3	0	3	1	32	0	0	33	1	0	0	0	1	1	29	0	0	30	67
05:15 PM	0	0	0	0	0	1	24	0	0	25	0	0	0	0	0	0	25	1	0	26	51
05:30 PM	0	0	0	0	0	2	31	0	0	33	0	0	0	0	0	0	24	3	1	28	61
05:45 PM	1	0	0	0	1	0	20	0	0	20	0	0	0	0	0	0	35	0	0	35	56
Total	1	0	3	0	4	4	107	0	0	111	1	0	0	0	1	1	113	4	1	119	235
06:00 PM	0	0	1	0	1	2	33	0	0	35	0	0	0	0	0	0	27	0	0	27	63
06:15 PM	0	0	0	0	0	3	27	0	0	30	0	0	0	0	0	0	19	0	0	19	49
06:30 PM	0	0	1	0	1	0	15	0	0	15	0	0	0	0	0	0	22	0	0	22	38
06:45 PM	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	13	0	0	13	29
Total	0	0	2	0	2	5	91	0	0	96	0	0	0	0	0	0	81	0	0	81	179
07:00 PM	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	0	11	1	0	12	31
07:15 PM	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	11	1	0	12	24
07:30 PM	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	0	11	0	0	11	19
07:45 PM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	12	0	0	12	22
Total	0	0	0	0	0	1	48	0	0	49	0	0	0	0	0	0	45	2	0	47	96
Grand Total	9	0	16	1	26	18	520	1	1	540	1	0	0	0	1	2	556	14	3	575	1142
Apprch %	34.6	0	61.5	3.8		3.3	96.3	0.2	0.2		100	0	0	0		0.3	96.7	2.4	0.5		
Total %	0.8	0	1.4	0.1	2.3	1.6	45.5	0.1	0.1	47.3	0.1	0	0	0	0.1	0.2	48.7	1.2	0.3	50.4	
Lights	4	0	14	0	18	18	499	1	0	518	1	0	0	0	1	2	530	11	0	543	1080
% Lights	44.4	0	87.5	0	69.2	100	96	100	0	95.9	100	0	0	0	100	100	95.3	78.6	0	94.4	94.6
Buses	4	0	0	0	4	0	14	0	0	14	0	0	0	0	0	0	11	1	0	12	30
% Buses	44.4	0	0	0	15.4	0	2.7	0	0	2.6	0	0	0	0	0	0	2	7.1	0	2.1	2.6
Trucks	1	0	2	0	3	0	7	0	0	7	0	0	0	0	0	0	15	2	0	17	27
% Trucks	11.1	0	12.5	0	11.5	0	1.3	0	0	1.3	0	0	0	0	0	0	2.7	14.3	0	3	2.4
Pedestrians	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	3	3	5
% Pedestrians	0	0	0	100	3.8	0	0	0	100	0.2	0	0	0	0	0	0	0	0	100	0.5	0.4

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

File Name : 4._Elm_Rd_and_Birch_Rd-_Thurs_880580_09-23-2021

Site Code :

Start Date : 9/23/2021

Page No : 3

	Birch Rd From North					Elm Rd From East					Birch Rd From South					Elm Rd From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 07:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	3	0	3	1	32	0	0	33	1	0	0	0	1	1	29	0	0	30	67
05:15 PM	0	0	0	0	0	1	24	0	0	25	0	0	0	0	0	0	25	1	0	26	51
05:30 PM	0	0	0	0	0	2	31	0	0	33	0	0	0	0	0	0	24	3	1	28	61
05:45 PM	1	0	0	0	1	0	20	0	0	20	0	0	0	0	0	0	35	0	0	35	56
Total Volume	1	0	3	0	4	4	107	0	0	111	1	0	0	0	1	1	113	4	1	119	235
% App. Total	25	0	75	0		3.6	96.4	0	0		100	0	0	0		0.8	95	3.4	0.8		
PHF	.250	.000	.250	.000	.333	.500	.836	.000	.000	.841	.250	.000	.000	.000	.250	.250	.807	.333	.250	.850	.877
Lights	1	0	3	0	4	4	103	0	0	107	1	0	0	0	1	1	112	3	0	116	228
% Lights	100	0	100	0	100	100	96.3	0	0	96.4	100	0	0	0	100	100	99.1	75.0	0	97.5	97.0
Buses	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	1	0	1	4
% Buses	0	0	0	0	0	0	2.8	0	0	2.7	0	0	0	0	0	0	0	25.0	0	0.8	1.7
Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Trucks	0	0	0	0	0	0	0.9	0	0	0.9	0	0	0	0	0	0	0.9	0	0	0.8	0.9
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.8	0.4

Project: 235 ELM ROAD
 Location: BRIARCLIFF MANOR, NY
 MC Job No. 21003367A

Colliers Engineering

400 Columbus Avenue, Ste 180 E
 Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 21003367 888

Station ID:

ELM ROAD (WEST OS SITE ACCESS DRIVEWAY)

Latitude: 0' 0.0000 Undefined

Start Time	20-Sep-21		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	6	2	*	*	*	*	*	*	6	2
01:00	*	*	*	*	*	*	1	0	*	*	*	*	*	*	1	0
02:00	*	*	*	*	*	*	2	2	*	*	*	*	*	*	2	2
03:00	*	*	*	*	*	*	0	0	*	*	*	*	*	*	0	0
04:00	*	*	*	*	*	*	1	0	*	*	*	*	*	*	1	0
05:00	*	*	*	*	*	*	9	3	*	*	*	*	*	*	9	3
06:00	*	*	*	*	*	*	22	9	*	*	*	*	*	*	22	9
07:00	*	*	*	*	*	*	69	31	*	*	*	*	*	*	69	31
08:00	*	*	*	*	*	*	133	119	*	*	*	*	*	*	133	119
09:00	*	*	*	*	*	*	91	89	*	*	*	*	*	*	91	89
10:00	*	*	*	*	*	*	78	56	*	*	*	*	*	*	78	56
11:00	*	*	*	*	*	*	86	72	*	*	*	*	*	*	86	72
12:00 PM	*	*	*	*	*	*	85	82	*	*	*	*	*	*	85	82
01:00	*	*	*	*	*	*	73	72	*	*	*	*	*	*	73	72
02:00	*	*	*	*	*	*	119	89	*	*	*	*	*	*	119	89
03:00	*	*	*	*	*	*	123	102	*	*	*	*	*	*	123	102
04:00	*	*	*	*	*	*	99	85	*	*	*	*	*	*	99	85
05:00	*	*	*	*	*	*	116	119	*	*	*	*	*	*	116	119
06:00	*	*	*	*	*	*	97	96	*	*	*	*	*	*	97	96
07:00	*	*	*	*	*	*	50	54	*	*	*	*	*	*	50	54
08:00	*	*	*	*	*	*	23	31	*	*	*	*	*	*	23	31
09:00	*	*	*	*	*	*	13	24	*	*	*	*	*	*	13	24
10:00	*	*	*	*	*	*	6	14	*	*	*	*	*	*	6	14
11:00	*	*	*	*	*	*	10	4	*	*	*	*	*	*	10	4
Lane	0	0	0	0	0	0	1312	1155	0	0	0	0	0	0	1312	1155
Day	0		0		0		2467		0		0		0		2467	
AM Peak	-	-	-	-	-	-	08:00	08:00	-	-	-	-	-	-	08:00	08:00
Vol.	-	-	-	-	-	-	133	119	-	-	-	-	-	-	133	119
PM Peak	-	-	-	-	-	-	15:00	17:00	-	-	-	-	-	-	15:00	17:00
Vol.	-	-	-	-	-	-	123	119	-	-	-	-	-	-	123	119

Comb.
Total

0

0

0

2467

0

0

0

2467

ADT

ADT 2,477

AADT 2,477

Project: 235 ELM ROAD
 Location: BRIARCLIFF MANOR, NY
 MC Job No. 21003367A

Colliers Engineering

400 Columbus Avenue, Ste 180 E
 Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 21003367 888

Station ID:

ELM ROAD (WEST OS SITE ACCESS DRIVEWAY)

Latitude: 0' 0.0000 Undefined

Start Time	20-Sep-21		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	8	21	8	21
01:00	*	*	*	*	*	*	*	*	*	*	*	*	6	5	6	5
02:00	*	*	*	*	*	*	*	*	*	*	*	*	1	1	1	1
03:00	*	*	*	*	*	*	*	*	*	*	*	*	1	1	1	1
04:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	2	0	2	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	7	2	7	2
07:00	*	*	*	*	*	*	*	*	*	*	*	*	35	16	35	16
08:00	*	*	*	*	*	*	*	*	*	*	*	*	44	22	44	22
09:00	*	*	*	*	*	*	*	*	*	*	*	*	75	42	75	42
10:00	*	*	*	*	*	*	*	*	*	*	*	*	88	59	88	59
11:00	*	*	*	*	*	*	*	*	*	*	*	*	109	63	109	63
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	96	60	96	60
01:00	*	*	*	*	*	*	*	*	*	*	*	*	82	54	82	54
02:00	*	*	*	*	*	*	*	*	*	*	*	*	102	75	102	75
03:00	*	*	*	*	*	*	*	*	*	*	*	*	81	76	81	76
04:00	*	*	*	*	*	*	*	*	*	*	*	*	67	75	67	75
05:00	*	*	*	*	*	*	*	*	*	*	*	*	73	63	73	63
06:00	*	*	*	*	*	*	*	*	*	*	*	*	48	66	48	66
07:00	*	*	*	*	*	*	*	*	*	*	*	*	43	50	43	50
08:00	*	*	*	*	*	*	*	*	*	*	*	*	25	34	25	34
09:00	*	*	*	*	*	*	*	*	*	*	*	*	7	22	7	22
10:00	*	*	*	*	*	*	*	*	*	*	*	*	9	2	9	2
11:00	*	*	*	*	*	*	*	*	*	*	*	*	3	2	3	2
Lane	0	0	0	0	0	0	0	0	0	0	0	0	1012	811	1012	811
Day	0		0		0		0		0		0		1823		1823	
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	11:00	11:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	109	63	109	63
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	14:00	15:00	14:00	15:00
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	102	76	102	76

Comb.
Total

0

0

0

0

0

0

1823

1823

ADT

ADT 2,477

AADT 2,477

Project: 235 ELM ROAD
 Location: BRIARCLIFF MANOR, NY
 MC Job No. 21003367A

Colliers Engineering

400 Columbus Avenue, Ste 180 E
 Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 21003367 999

Station ID:

ELM ROAD (EAST OF SITE ACCESS DRIVEWAY)

Latitude: 0' 0.0000 Undefined

Start Time	20-Sep-21		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	*	*	5	2	*	*	*	*	*	*	5	2
01:00	*	*	*	*	*	*	1	0	*	*	*	*	*	*	1	0
02:00	*	*	*	*	*	*	2	2	*	*	*	*	*	*	2	2
03:00	*	*	*	*	*	*	0	0	*	*	*	*	*	*	0	0
04:00	*	*	*	*	*	*	1	1	*	*	*	*	*	*	1	1
05:00	*	*	*	*	*	*	10	3	*	*	*	*	*	*	10	3
06:00	*	*	*	*	*	*	25	10	*	*	*	*	*	*	25	10
07:00	*	*	*	*	*	*	81	55	*	*	*	*	*	*	81	55
08:00	*	*	*	*	*	*	127	119	*	*	*	*	*	*	127	119
09:00	*	*	*	*	*	*	93	94	*	*	*	*	*	*	93	94
10:00	*	*	*	*	*	*	75	56	*	*	*	*	*	*	75	56
11:00	*	*	*	*	*	*	89	82	*	*	*	*	*	*	89	82
12:00 PM	*	*	*	*	*	*	90	79	*	*	*	*	*	*	90	79
01:00	*	*	*	*	*	*	88	81	*	*	*	*	*	*	88	81
02:00	*	*	*	*	*	*	105	97	*	*	*	*	*	*	105	97
03:00	*	*	*	*	*	*	129	107	*	*	*	*	*	*	129	107
04:00	*	*	*	*	*	*	107	93	*	*	*	*	*	*	107	93
05:00	*	*	*	*	*	*	121	120	*	*	*	*	*	*	121	120
06:00	*	*	*	*	*	*	89	101	*	*	*	*	*	*	89	101
07:00	*	*	*	*	*	*	48	52	*	*	*	*	*	*	48	52
08:00	*	*	*	*	*	*	21	32	*	*	*	*	*	*	21	32
09:00	*	*	*	*	*	*	12	27	*	*	*	*	*	*	12	27
10:00	*	*	*	*	*	*	9	13	*	*	*	*	*	*	9	13
11:00	*	*	*	*	*	*	10	5	*	*	*	*	*	*	10	5
Lane	0	0	0	0	0	0	1338	1231	0	0	0	0	0	0	1338	1231
Day	0		0		0		2569		0		0		0		2569	
AM Peak	-	-	-	-	-	-	08:00	08:00	-	-	-	-	-	-	08:00	08:00
Vol.	-	-	-	-	-	-	127	119	-	-	-	-	-	-	127	119
PM Peak	-	-	-	-	-	-	15:00	17:00	-	-	-	-	-	-	15:00	17:00
Vol.	-	-	-	-	-	-	129	120	-	-	-	-	-	-	129	120

Comb.
Total

0

0

0

2569

0

0

0

2569

ADT

ADT 2,560

AADT 2,560

Project: 235 ELM ROAD
 Location: BRIARCLIFF MANOR, NY
 MC Job No. 21003367A

Colliers Engineering

400 Columbus Avenue, Ste 180 E
 Valhalla, NY 10595

Customer Loyalty through Client Satisfaction

Site Code: 21003367 999

Station ID:

ELM ROAD (EAST OF SITE ACCESS DRIVEWAY)

Latitude: 0' 0.0000 Undefined

Start Time	20-Sep-21		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	7	20	7	20
01:00	*	*	*	*	*	*	*	*	*	*	*	*	6	3	6	3
02:00	*	*	*	*	*	*	*	*	*	*	*	*	1	1	1	1
03:00	*	*	*	*	*	*	*	*	*	*	*	*	1	1	1	1
04:00	*	*	*	*	*	*	*	*	*	*	*	*	0	0	0	0
05:00	*	*	*	*	*	*	*	*	*	*	*	*	2	0	2	0
06:00	*	*	*	*	*	*	*	*	*	*	*	*	12	7	12	7
07:00	*	*	*	*	*	*	*	*	*	*	*	*	34	13	34	13
08:00	*	*	*	*	*	*	*	*	*	*	*	*	54	32	54	32
09:00	*	*	*	*	*	*	*	*	*	*	*	*	81	49	81	49
10:00	*	*	*	*	*	*	*	*	*	*	*	*	88	52	88	52
11:00	*	*	*	*	*	*	*	*	*	*	*	*	105	68	105	68
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	104	65	104	65
01:00	*	*	*	*	*	*	*	*	*	*	*	*	82	55	82	55
02:00	*	*	*	*	*	*	*	*	*	*	*	*	95	77	95	77
03:00	*	*	*	*	*	*	*	*	*	*	*	*	77	76	77	76
04:00	*	*	*	*	*	*	*	*	*	*	*	*	77	80	77	80
05:00	*	*	*	*	*	*	*	*	*	*	*	*	69	65	69	65
06:00	*	*	*	*	*	*	*	*	*	*	*	*	46	64	46	64
07:00	*	*	*	*	*	*	*	*	*	*	*	*	36	55	36	55
08:00	*	*	*	*	*	*	*	*	*	*	*	*	27	30	27	30
09:00	*	*	*	*	*	*	*	*	*	*	*	*	6	21	6	21
10:00	*	*	*	*	*	*	*	*	*	*	*	*	9	3	9	3
11:00	*	*	*	*	*	*	*	*	*	*	*	*	6	2	6	2
Lane	0	0	0	0	0	0	0	0	0	0	0	0	1025	839	1025	839
Day	0		0		0		0		0		0		1864		1864	
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	11:00	11:00	11:00	11:00
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	105	68	105	68
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	12:00	16:00	12:00	16:00
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	104	80	104	80

Comb.
Total

0

0

0

0

0

0

1864

1864

ADT

ADT 2,560

AADT 2,560

Traffic Impact Study

Appendix G | Accident Data

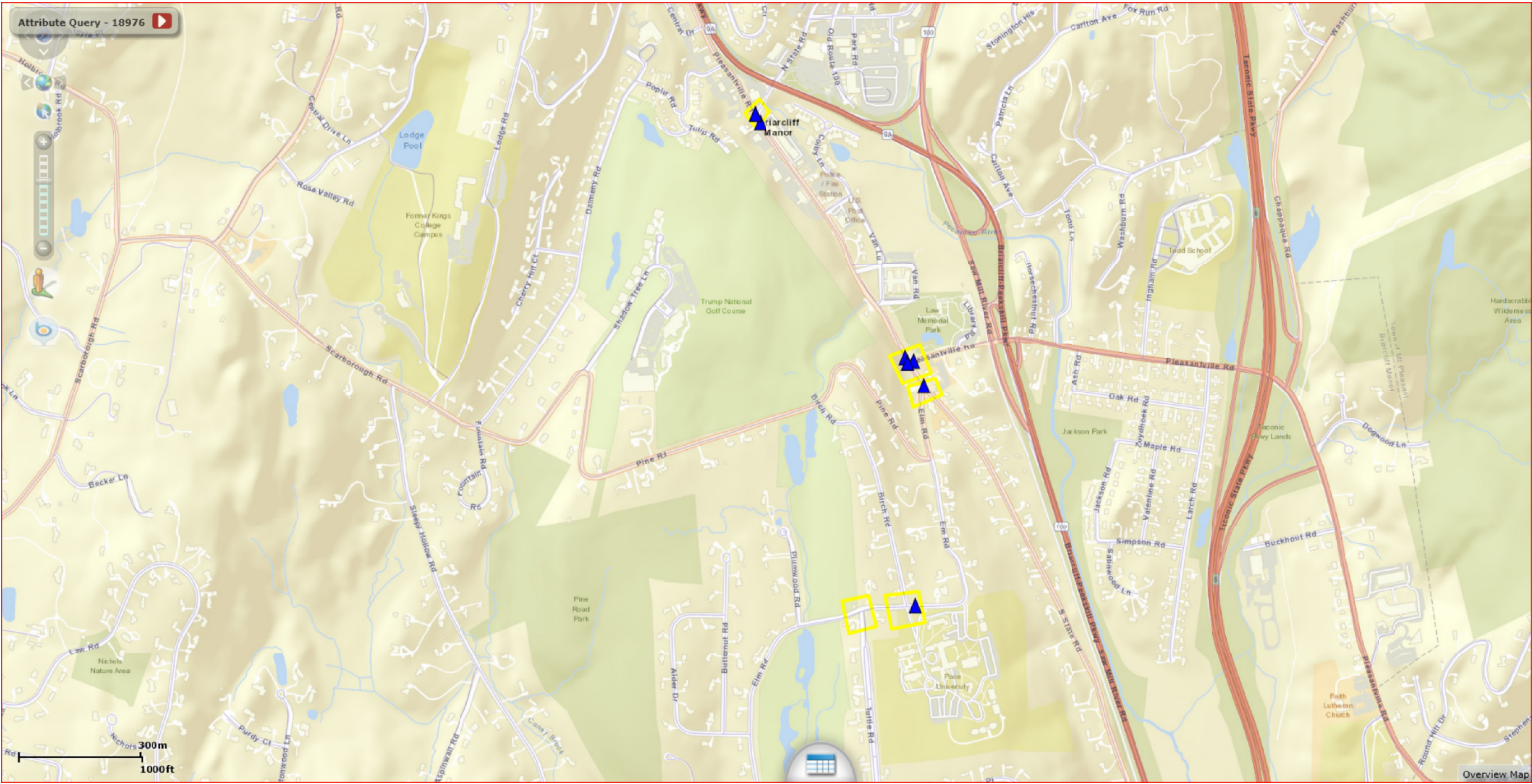
TABLE NO. 4
ACCIDENT SUMMARY TABLE

CASE NO.	LOCATION		DATE	TIME	TRAFFIC CONTROL	ACCIDENT CLASS ²	# OF VEHICLES	# OF INJURIES	LIGHT CONDITION	ROAD CONDITION	WEATHER	MANNER OF COLLISION	APPARENT CONTRIBUTING FACTORS	
	ON STREET	CLOSEST STREET											VEHICLE 1	VEHICLE 2
37467523	PLEASANTVILLE RD	N STATE RD	05/04/2018	04:21pm	TRAFFIC SIGNAL	PDO	2	0	DAYLIGHT	DRY	CLOUDY	REAR END	NOT ENTERED	DRIVER INATTENTION
37467527	PLEASANTVILLE RD	N STATE RD	05/18/2018	02:40pm	NO PASSING ZONE	PDO	2	0	DAYLIGHT	DRY	CLEAR	UNKNOWN	UNKNOWN	NOT ENTERED
37419700	N STATE RD	PLEASANTVILLE RD	07/18/2018	06:46pm	TRAFFIC SIGNAL	PDO	2	0	DAYLIGHT	DRY	CLEAR	REAR END	NOT ENTERED	UNKNOWN
37379857	PLEASANTVILLE RD	S STATE RD	04/28/2017	09:06am	TRAFFIC SIGNAL	PDO	2	0	DAYLIGHT	DRY	CLEAR	REAR END	FOLLOWING TOO CLOSELY	NOT ENTERED
36870631	PLEASANTVILLE RD	S STATE RD	08/11/2017	05:30pm	TRAFFIC SIGNAL	PDO	2	0	UNKNOWN	UNKNOWN	UNKNOWN	REAR END	NOT ENTERED	NOT ENTERED
37811549	PLEASANTVILLE RD	S State Rd	12/28/2018	05:33pm	TRAFFIC SIGNAL	PDO	3	0	DARK-ROAD LIGHTED	WET	RAIN	OTHER	NOT APPLICABLE	DRIVER INATTENTION
37825743	ELM RD	S STATE RD	02/11/2019	03:52pm	STOP SIGN	PDO	2	0	DAYLIGHT	DRY	CLOUDY	REAR END	FOLLOWING TOO CLOSELY	NOT APPLICABLE
37466842	ELM RD	BIRCH RD	02/18/2018	07:56am	NO PASSING ZONE	PDO	2	0	DAYLIGHT	SLUSH	CLEAR	SIDESWIPE	UNKNOWN	UNKNOWN

NOTES:

1) ACCIDENT DATA OBTAINED FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) RECORDS ACCESS DEPARTMENT FOR THE TIME PERIOD BETWEEN JANUARY 1, 2017 THROUGH DECEMBER 31, 2019.

2) ACCIDENT CLASS: PDO = PROPERTY DAMAGE ONLY, I = INJURY, F = FATALITY, UNKOWN = NON-REPORTABLE



Accident Location Information System(ALIS)

Date:
10/1/2021
11:41:09 AM

Accident Verbal Description

18976_VDR

Date in this report covers the period -1/1/2017-3/31/2021

Complete Accident data from NYSDMV is only available thru 3/31/2021 12:00:00 AM

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: PLEASANTVILLE RD
AT INTERSECTION WITH S STATE RD

8/11/2017 Fri 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36870631**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4136 State of Registration: NY
Num of Occupants: 3 Driver's Age: 39 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: PLEASANTVILLE RD
AT INTERSECTION WITH S STATE RD

4/28/2017 Fri 09:06 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37379857**
Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4545 State of Registration: NY
Num of Occupants: 1 Driver's Age: 17 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 5256 State of Registration: NY
Num of Occupants: 2 Driver's Age: 19 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: N STATE RD
AT INTERSECTION WITH PLEASANTVILLE RD

7/18/2018 Wed 18:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37419700**
Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2445 State of Registration: NY
Num of Occupants: 1 Driver's Age: 74 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3045 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 18 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: UNKNOWN, NOT ENTERED

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: ELM RD
 21 Meters East of BIRCH RD

2/18/2018 Sun 07:56 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37466842**
 Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
 Manner of Collision: SIDESWIPE Weather: CLEAR
 Road Surface Condition: SLUSH Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4181 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: Y
 Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3423 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: PLEASANTVILLE RD
 AT INTERSECTION WITH N STATE RD

5/4/2018 Fri 16:21 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37467523**
 Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4645 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 5581 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 61 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT ENTERED, DRIVER INATTENTION

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: PLEASANTVILLE RD
 26 Meters South of N STATE RD

5/18/2018 Fri 14:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37467527**
 Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4457 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING FROM PARKING

Apparent Factors: UNKNOWN, NOT ENTERED

Veh :2 OTHER Registered Weight: State of Registration: MA
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: PARKED
 Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: PLEASANTVILLE RD
 15 Meters East of S State Rd

12/28/2018 Fri 17:33 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: Case: 2018-37811549
 Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3573 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 54 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 2480 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration: -3
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: BACKING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: ELM RD
 AT INTERSECTION WITH S STATE RD

2/11/2019 Mon 15:52 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: Case: 2019-37825743
 Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: REAR END Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3957 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 74 Sex: F Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 4585 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: PLEASANTVILLE RD
 15 Meters North of S STATE RD

1/28/2020 Tue 13:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: Case: 2020-38313058
 Accident Class: PROPERTY DAMAGE Police Agency: BRIARCLIFF MANOR PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: HEAD ON Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3781 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 4126 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 67 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Briarcliff Manor(V) Ref. Marker: Street: PLEASANTVILLE RD
 AT INTERSECTION WITH S STATE RD

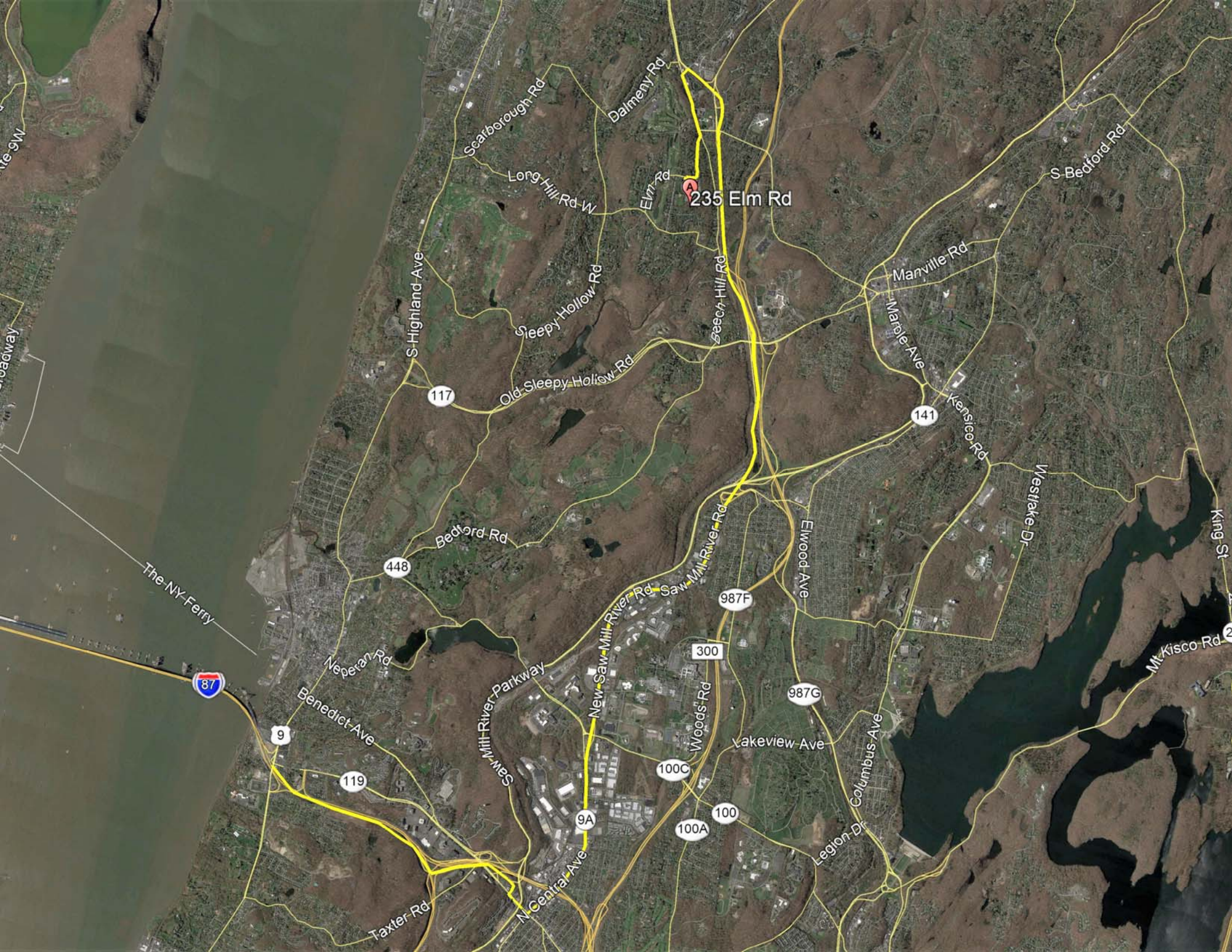
12/16/2020 Wed 13:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2020-38662195**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: REAR END Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3209 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 89 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: UNKNOWN
 Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4564 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 56 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
 Pre-Accd Action: UNKNOWN
 Apparent Factors: NOT ENTERED, NOT ENTERED

Traffic Impact Study

Appendix H | Proposed Travel Route, Bus Dimensions, Turning Movement Diagrams



235 Elm Rd

The NY Ferry

87

9

119

117

448

9A

100C

100

100A

987F

987G

300

141

Scarborough Rd

Long Hill Rd W

Sleepy Hollow Rd

Old Sleepy Hollow Rd

Bedford Rd

Neperan Rd

Benedict Ave

Taxter Rd

Saw Mill River Parkway

N Central Ave

New Saw Mill River Rd

Saw Mill River Rd

Woods Rd

Lakeview Ave

Elwood Ave

Columbus Ave

Legion Dr

Manville Rd

N Maple Ave

Kensico Rd

Westlake Dr

S Bedford Rd

Mt Kisco Rd

King St

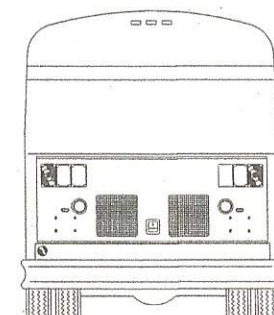
Dalmeny Rd

Elm Rd

Beech Hill Rd

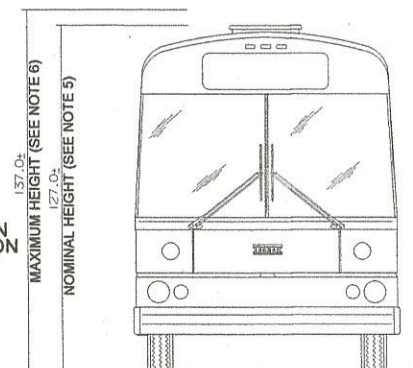
Diagram illustrating the side view of a motorhome, highlighting emergency exits and storage areas. The diagram includes the following labels and features:

- EMERGENCY EXIT**: Three locations are marked along the upper side of the motorhome.
- STORAGE AREA NOT ALLOWED IN THIS SPACE**: A label pointing to a specific area below the windows.
- NOTE THAT LUGGAGE BOX EXTENDS 13.25 INCHES REARWARD OF DOOR OPENING**: A note pointing to the rear extension of the luggage box.
- LARGE BATTERY**: A label pointing to the battery compartment located near the rear wheel.

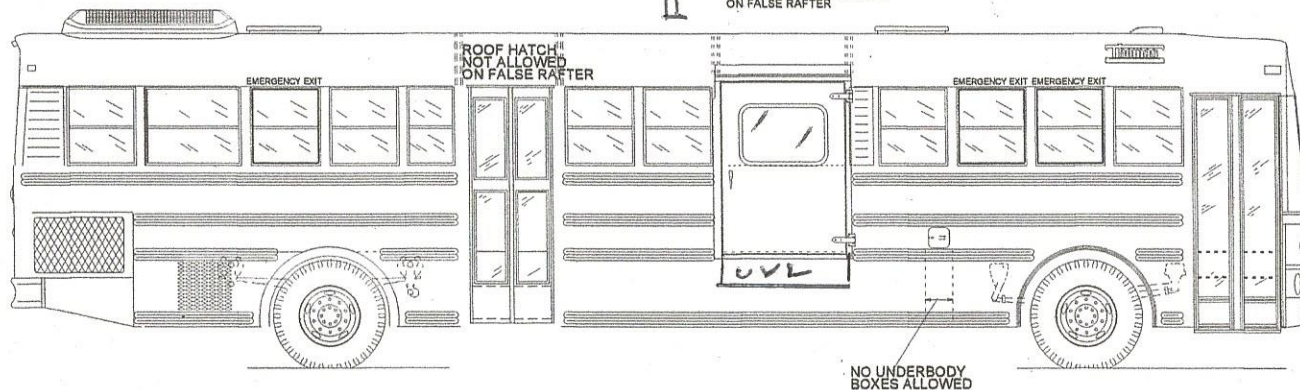


CAUTION - LEFT SIDE BARRIER IS NOT IN
STANDARD LOCATION - SEE SEATING PLAN

CAUTION! - RIGHT SIDE BARRIER IS NOT IN STANDARD LOCATION. SEE SEATING PLAN.

[illegible]EQUIPPED
WITH ALLISON
TRANSMISSION

NOTES:
UNIT EQUIPPED WITH PLYWOOD FLOOR
23K REAR SUSPENSION
UNIT EQUIPPED WITH OVERHEAD TRACK REINFORCEMENT



NO UNDERBODY
BOXES ALLOWED

ALL DIMENSIONS ARE
FOR REFERENCE ONLY

GENERAL NOTES

1. SOME ITEMS, SUCH AS CY MIRRORS, ROOF LUGGAGE RACKS, AND OTHER ITEMS, ARE SHOWN IN ONE VIEW.
2. THIS DRAWING IS A REPRESENTATION ONLY AND MAY NOT HAVE ALL DETAILS REQUIRED.
3. THE CLEARANCE BETWEEN BOTTOM OF BUS OR BOTTOM OF TRUCK AND GROUND SHALL BE MAINTAINED TO WILL VARY ACCORDING TO TIRE SIZE, BUS LOAD, AND
4. THE MAXIMUM WIDTH AT BELT LINE OVER GUARD
5. THE MINIMUM BUS HEIGHT IS BASED ON A STANDARD
6. THE MINIMUM TRUCK HEIGHT IS BASED ON BODY WITH
7. OTHER EQUIPMENT AS ACCESSORIES, STROBE LIGHT,
8. TO BE USED IN THE CITY DOES NOT TAKE INTO
9. CONSIDERATION THE BUS, SUCH AS MIRRORS, LIGHTS

THIS DRAWING AND ALL INFORMATION PROVIDED WITH IT ARE THE PROPERTY OF THOMAS BUILT BUSES, INC. ANY REPRODUCTION OR DISTRIBUTION OF THIS MATERIAL OR ANY PART WITHOUT WRITTEN PERMISSION OF THOMAS BUILT BUSES, INC. IS STRICTLY PROHIBITED.
COPYRIGHT THOMAS BUILT BUSES, INC.

THOMAS BUILT BUSES, INC.
HIGH POINT, NC

TITLE PLAN AND ELEVATION
BODY 141YN

DRN:05-21-18	BY:J. Domini	SIZE	DWG. NO
--------------	--------------	------	---------

SCALE 3/8"=12"	S	733597
----------------	---	--------

MANUAL CHANGES Program

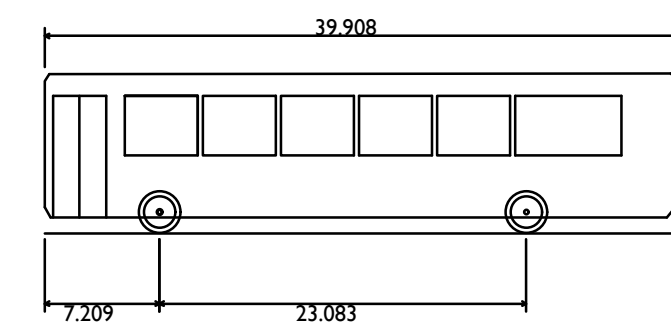
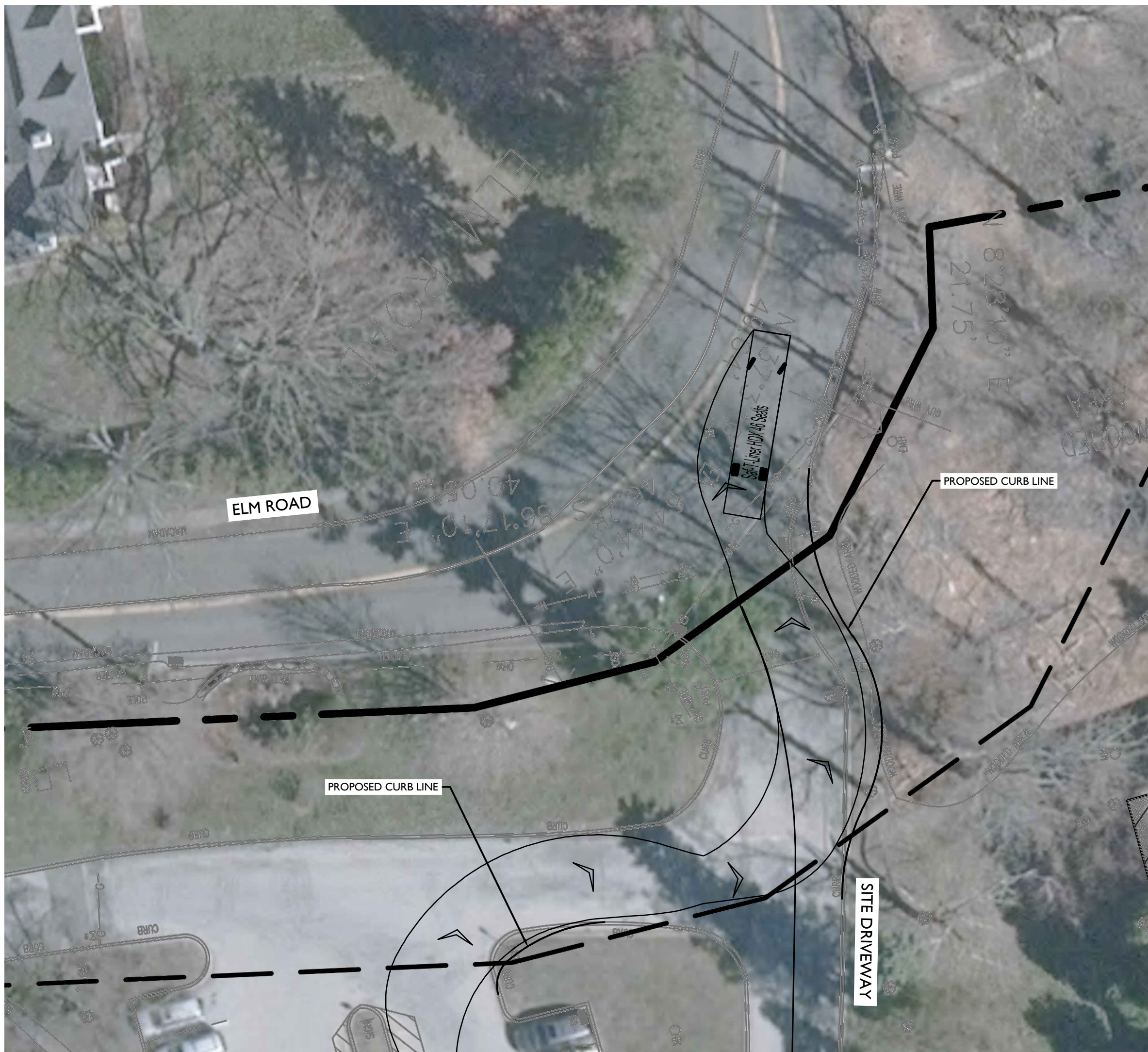
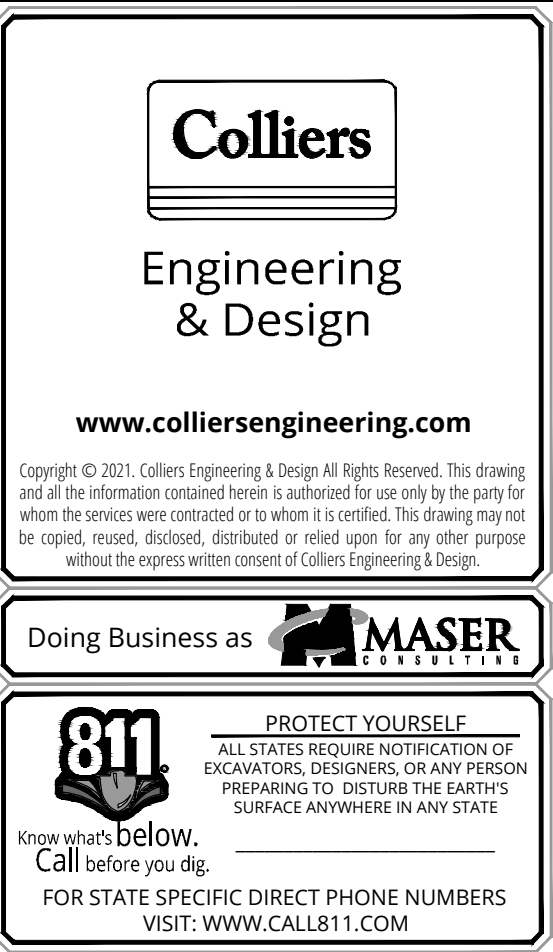
SIDE	ROW	SPACING	KNEE ROCK
LEFT		32.4	29.5
RIGHT		28.7	25.5
RIGHT		33.5	30.7

S 733597

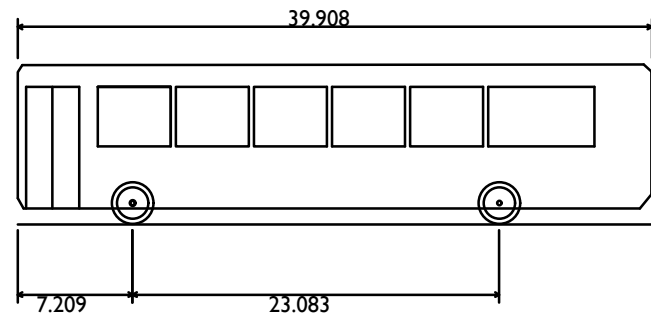
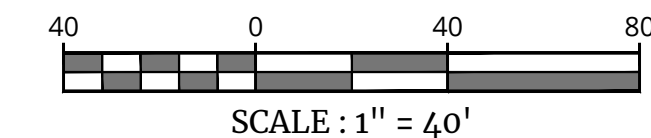
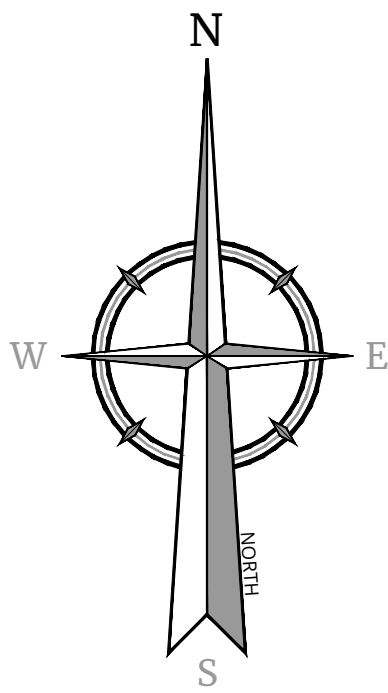
CAD DRAWING - DO NOT MAKE MANUAL CHANGES

CAD DRAWING - DO NOT MAKE MANUAL CHANGES

Program Version: 16.5.16.1



39.908ft
8.000ft
10.053ft
1.09ft
7.500ft
5.00s
34.40°



Saf-T-Liner HDX (46 Seats)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Max Steering Angle (Virtual)

39.908ft
8.000ft
10.053ft
1.09ft
7.500ft
5.00s
34.40°

Colliers

Engineering & Design

www.colliersengineering.com

Doing Business as

MASER CONSULTING

811

PROTECT YOURSELF

ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

Know what's below. Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
1	9/6/21	P.W.G.	UPDATED INTERNAL CIRCULATION AND ADDED PROPOSED CURB LINE.

VEHICLE TURNING TRACKS
FOR
235 ELM ROAD
VILLAGE OF
BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK

Colliers

Engineering & Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING AND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	8/16/21	P.W.G.	A.P.R.

PROJECT NUMBER:	DRAWING NAME:
21003367A	210727P.W.G., TURNING TRACKS

SHEET TITLE:
SCHOOL BUS TURNING TRACKS (INTERNAL)

SHEET NUMBER:	of	
3	of	3

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

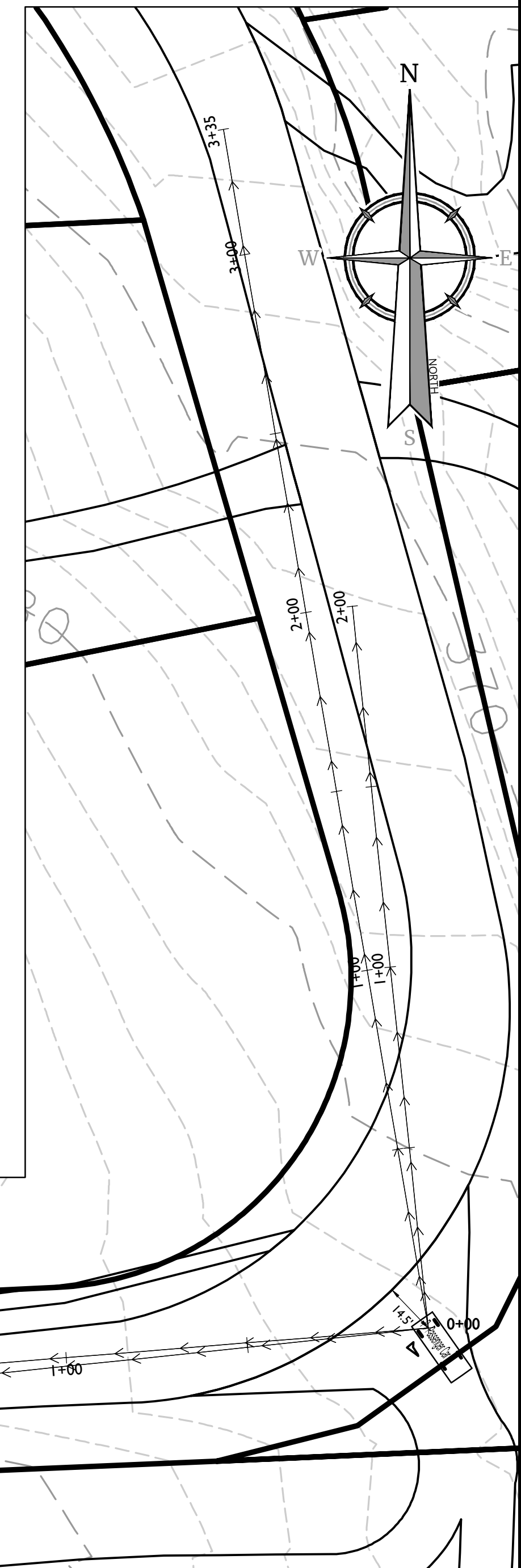
Traffic Impact Study

Appendix I | Sight Distance Evaluation

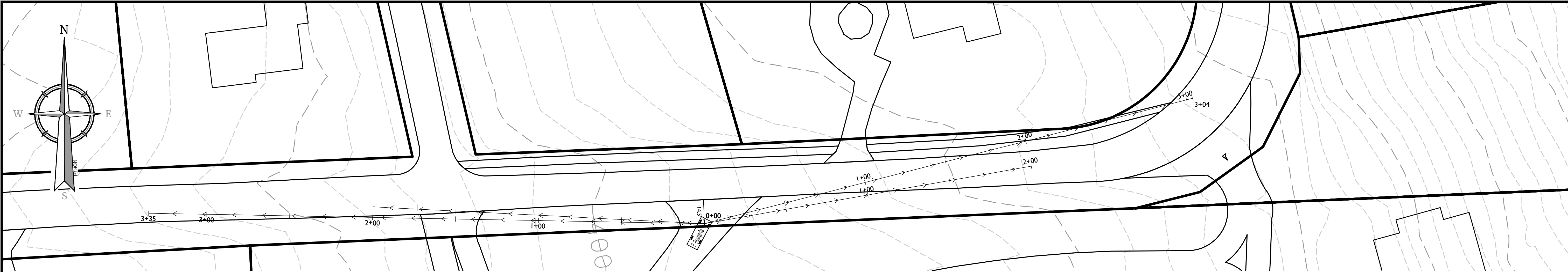


NOTES:

- 1) BASED ON THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 7TH EDITION 2018.
- 2) AASHTO SIGHT DISTANCES ARE BASED ON 30 MPH OPERATING SPEED ALONG THE ROADWAY IN THE VICINITY OF THE SITE ACCESS LOCATION FOR PASSENGER CARS.
- 3) AVAILABLE SIGHT DISTANCES SHOWN ARE FOR EXISTING CONDITIONS AND FOR FUTURE CONDITIONS AFTER COMPLETION OF ANY IMPROVEMENTS SUCH AS VEGETATIVE PRUNING/CLEARING .

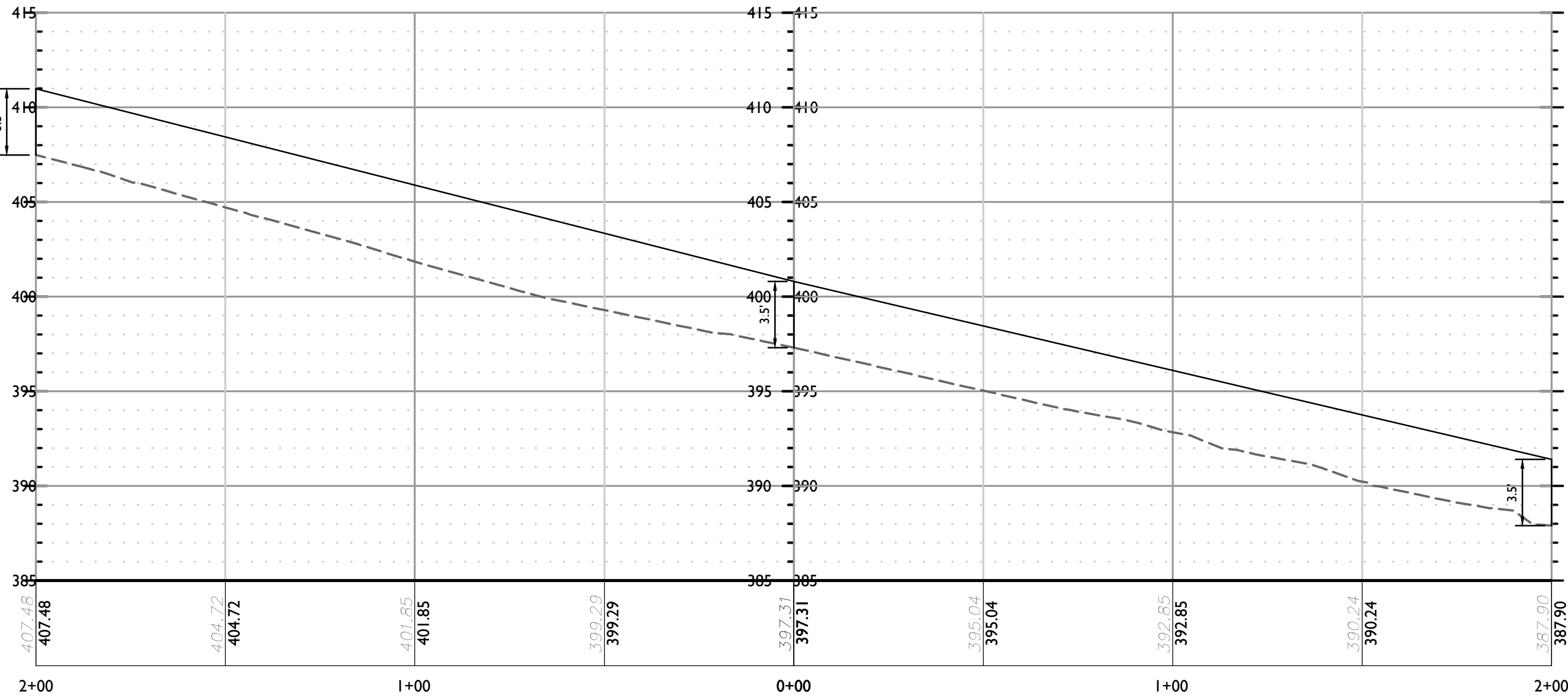


VILLAGE OF
BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



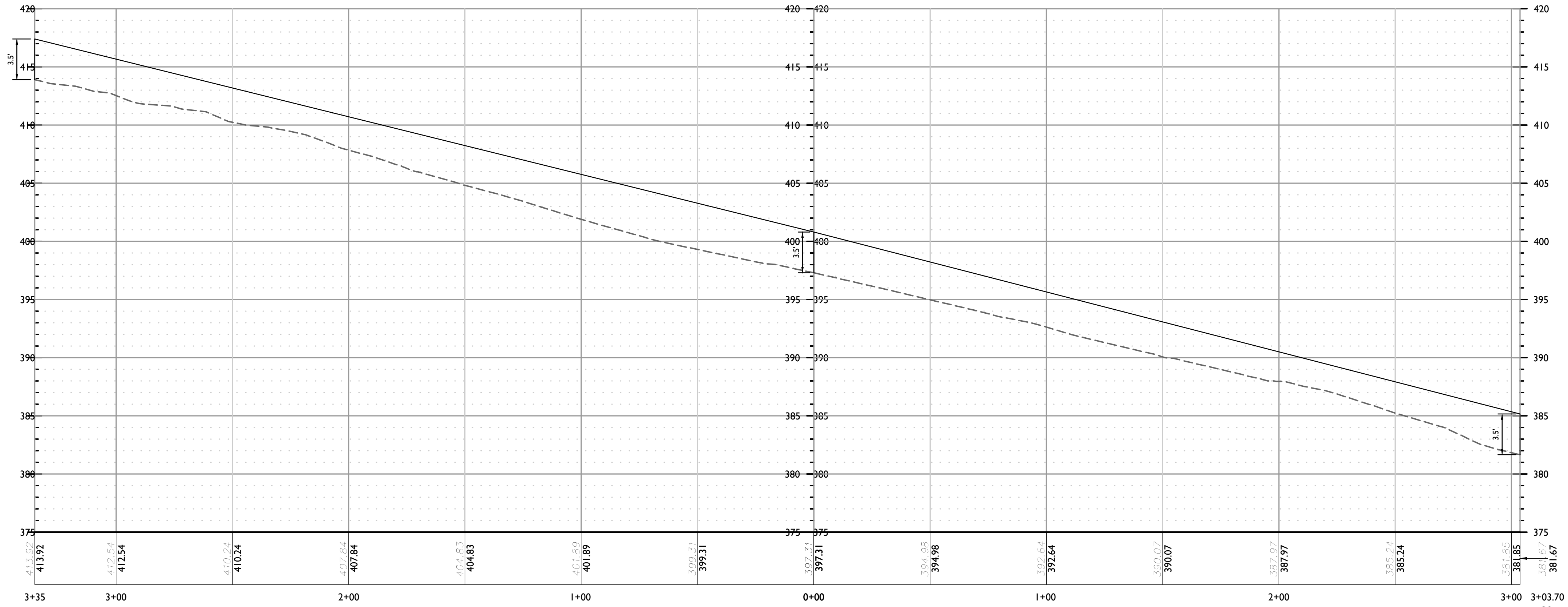
SIGHT DISTANCE SUMMARY TABLE					
ROADWAY DESIGN SPEED <u>30 MPH</u>		AVAILABLE SIGHT DISTANCE (FT)		AASHTO SIGHT DISTANCES	
		EXISTING	PROPOSED	STOPPING SIGHT DISTANCE (FT)	INTERSECTION SIGHT DISTANCE (FT)
LEFT TURN FROM SITE ACCESS	LOOKING LEFT	335+	335+	200	335
	LOOKING RIGHT	304	304	200	335

NOTES:
1) BASED ON THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 7TH EDITION 2018.
2) AASHTO SIGHT DISTANCES ARE BASED ON 30 MPH OPERATING SPEED ALONG THE ROADWAY IN THE VICINITY OF THE SITE ACCESS LOCATION FOR PASSENGER CARS.
3) AVAILABLE SIGHT DISTANCES SHOWN ARE FOR EXISTING CONDITIONS AND FOR FUTURE CONDITIONS AFTER COMPLETION OF ANY IMPROVEMENTS SUCH AS VEGETATIVE PRUNING/CLEARING.



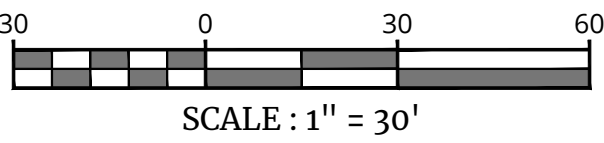
PROFILE OF WEST EXIT SSD - LOOKING LEFT
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 6'

PROFILE OF WEST EXIT SSD - LOOKING RIGHT
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 6'



PROFILE OF WEST EXIT ISD - LOOKING LEFT
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 6'

PROFILE OF WEST EXIT ISD - LOOKING RIGHT
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 6'



Colliers

Engineering
& Design

www.colliersengineering.com

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

Doing Business as



PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF
EXCAVATORS, DESIGNERS, OR ANY PERSON
PREPARING TO DISTURB THE EARTH'S
SURFACE ANYWHERE IN ANY STATE
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS
VISIT: WWW.CALL811.COM

REV. DATE. DRAWN BY. DESCRIPTION.

SIGHT LINE ANALYSIS

FOR
235 ELM ROAD

VILLAGE OF
BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK

Colliers

Engineering
& Design

WESTCHESTER
400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595
Phone: 914.347.7500
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

SCALE: AS SHOWN. DATE: 11/29/21. DRAWN BY: P.W.G. CHECKED BY: A.P.R.

PROJECT NUMBER: 21003367A. DRAWING NAME: R-SIGHT.

SHEET TITLE:

WEST EXIT SIGHT LINES

SHEET NUMBER:

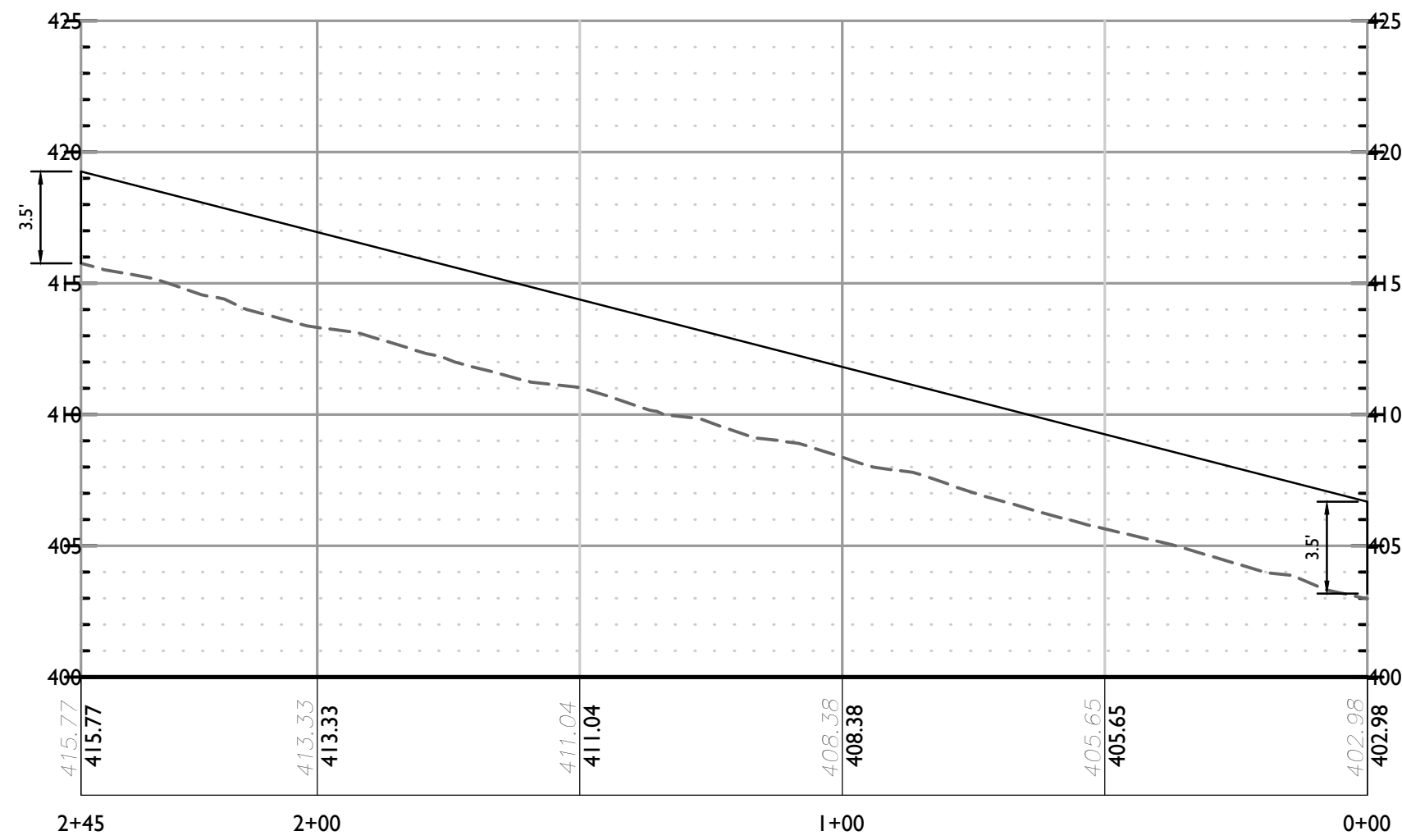
3 of 4

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

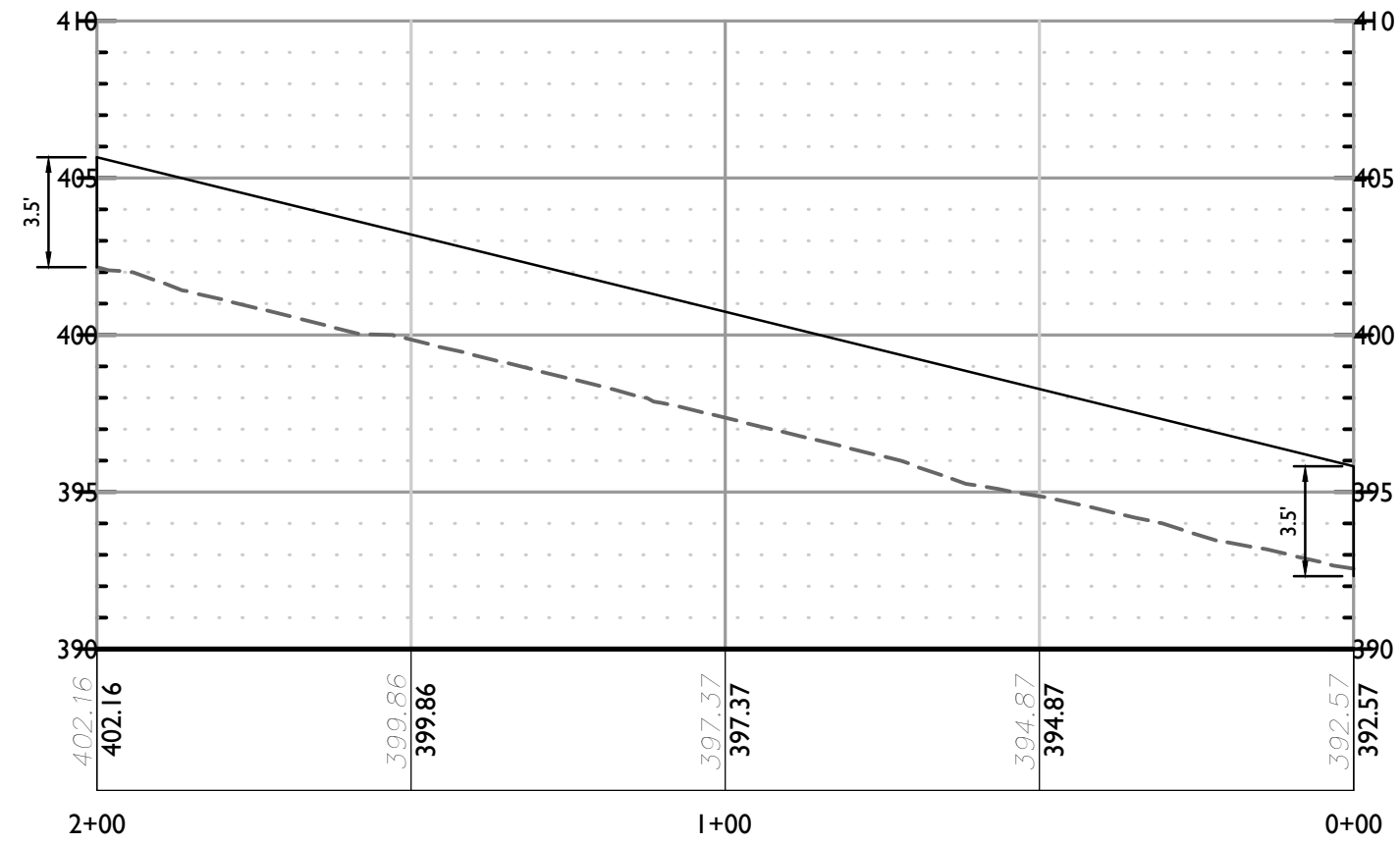


SIGHT DISTANCE SUMMARY TABLE					
ROADWAY DESIGN SPEED <u>30 MPH</u>		AVAILABLE SIGHT DISTANCE (FT)		AASHTO SIGHT DISTANCES	
		EXISTING	PROPOSED	STOPPING SIGHT DISTANCE (FT)	INTERSECTION SIGHT DISTANCE (FT)
LEFT TURN FROM MAJOR ROAD	LEFT TURN ENTRY	245+	245+	200	245
	REAR END	200+	200+	200	200

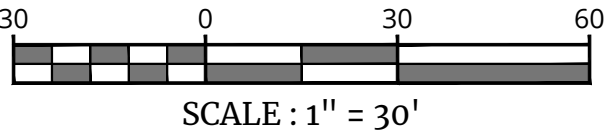
NOTES:
1) BASED ON THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 7TH EDITION 2018.
2) AASHTO SIGHT DISTANCES ARE BASED ON 30 MPH OPERATING SPEED ALONG THE ROADWAY IN THE VICINITY OF THE SITE ACCESS LOCATION FOR PASSENGER CARS.



PROFILE OF WEST ENTRANCE ISD - LEFT TURN ENTRY
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 6'



PROFILE OF WEST ENTRANCE ISD - REAR END
HORIZONTAL : 1" = 30'
VERTICAL : 1" = 6'



Engineering
& Design

www.colliersengineering.com

Copyright © 2021, Colliers Engineering & Design All Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

Doing Business as



PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below.
Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV. DATE. DRAWN BY. DESCRIPTION.

SIGHT LINE ANALYSIS

FOR
235 ELM ROAD

VILLAGE OF
BRIARCLIFF MANOR
WESTCHESTER COUNTY
NEW YORK



Engineering
& Design

WESTCHESTER

400 Columbus Avenue,
Suite 180E
Valhalla, NY 10595

Phone: 914.347.7500

COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING
ENGINEERING & LAND SURVEYING

SCALE: AS SHOWN	DATE: 11/29/21	DRAWN BY: P.W.G.	CHECKED BY: A.P.R.
PROJECT NUMBER: 21003367A	DRAWING NAME: R-SGHT		

SHEET TITLE:
WEST ENTRANCE SIGHT LINES

SHEET NUMBER:
4 of 4

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



Engineering
& Design

Colliers Engineering & Design is a trusted provider of multi-discipline engineering, design and consulting services providing customized solutions for public and private clients through a network of offices nationwide.

For a full listing of our office locations, please visit colliersengineering.com

1 877 627 3772



*Civil/Site • Traffic/Transportation • Governmental • Survey/Geospatial
Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy*

Accelerating success.