

J. Traffic and Transportation

The traffic and transportation section of this DGEIS includes an evaluation of the impact on project generated traffic on various roads in the site's vicinity and 24 intersections that were specified in the DGEIS scoping document.

1. Existing Conditions

Adjacent Roadway Network

The following is a description of the roadways in the vicinity of the Site:

Gilbert Avenue is a two-way street generally running in an east-west direction. It is designated as County Route 20 which then becomes Veterans Memorial Highway further east and forms the southern boundary of the Rockland Psychiatric Center.

South Middletown Road is a two-way north/south street, providing local access to the residential developments north and south of Gilbert Avenue.

Old Middletown Road is a two-way street running in a north-south direction. It generally provides local circulation within the Town of Orangetown serving the residential developments north of Gilbert Avenue.

Veterans Memorial Highway operates as a four-lane road running in an east-west direction. Veterans Memorial Highway is designated as County Route 20 as the roadway extends towards the Palisades Interstate Parkway. It serves as an access to Veteran's Memorial Park and the Rockland Psychiatric Center. It is the major east/west road immediately south of the RPC Campus.

South Blue Hill Road functions as a two-way north/south road. It is designated as County Route 23 and provides access into Montvale, New Jersey.

Blue Hill Road is a two-way north/south county road. It acts as a connector between Convent Road to the north and Veterans Memorial Highway to the south. Designated as County Route 23, it also serves as an access to Blue Hill Golf Course.

Hunt Road is a two-way Town road, between Veterans Memorial Highway and Blaisdell Road within the Town of Orangetown. It is a part of southern boundary of Veterans Memorial Park.

Blaisdell Road operates as a two-way north/south county road and is designated as County Route 17. It runs adjacent to the Veterans Memorial Park and provides access into Old Tappan, New Jersey in the south and the RPC Campus to the north.

Lester Drive is a two-way north/south road, providing local access to the residential areas south of Veterans Memorial Highway.

Edgewood Drive is a two-way north/south local road providing local access to the residential areas north of Veterans Memorial Highway.

Dutch Hill Road is a two-lane road running in north-south direction. It provides local circulation through the residential areas on both sides of Veterans Memorial Highway.

Western Highway functions as a two-lane road running in north-south direction. Western Highway is designated as County Route 15 and extends from Washington Street in Tappan to New York Route 59.

Mountain View Avenue operates as a two-way east/west road, providing access to the residential developments between Western Highway and New York Route 303.

Convent Road is designated as County Route 26 running in an east/west direction adjacent to the Rockland Psychiatric Center.

Parkway Drive is a two-way north/south road, providing local circulation in Orangeburg serving the residential developments.

Van Wyck Road is a two-way north/south road, providing local access to the residential developments north of Convent Road and connection between Erie Street and Route 303.

Third Avenue is a two-way north/south road through the Rockland Psychiatric Center providing access to the Site between Convent Road and Old Orangeburg Road.

Sickletown Road (County Route 23) is a two-way north/south road which provides local access to the residential developments north of Gilbert Avenue.

Swannekin Road extends from Convent Road to Old Blauvelt Road and functions as a two-way north/south road, providing local circulation in Blauvelt. Local residents on this road are particularly concerned with existing traffic that utilizes this street as a short-cut. They have also expressed interest in potential traffic calming measures.

Study Locations

The Scoping Document adopted by the Town of Orangetown identified the critical intersections to be analyzed to assess the potential traffic impacts of the project. They include intersections along Gilbert Avenue, Veterans Memorial Highway, Western Highway, Convent Road, Old Orangeburg Road, Swannekin Road and Van Wyck Road that provide access in the immediate vicinity of the Site. The Existing traffic volumes are depicted in Exhibit III.J-1 for the AM Peak Hour and in Exhibit III.J-2 for the PM Peak Hour.

The intersection of **Gilbert Avenue** with **South Middletown Road** is controlled by a two-phase traffic signal. All approaches operate with two lanes. Parking at the curb is not permitted.

A two-phase traffic signal controls the intersection of **Gilbert Avenue** with **Old Middletown Road** which is a “T-Intersection.” The eastbound approach of Gilbert Avenue is a two-lane roadway. The westbound Gilbert Avenue approach is two lanes wide with an exclusive right lane and a lane for through traffic. The southbound approach of Old Middletown Road is a two-lane roadway.

A three-phase traffic signal controls the intersection of **Gilbert Avenue** with **Veterans Memorial Highway** which is a “T-Intersection.” The control type is semi-actuated with roadway loop detection on southbound approach. The westbound approach of Veterans Memorial Highway is two lanes wide with a shared right and through lane and a lane for through traffic. The eastbound approach is three lanes wide with a left-turn bay and two lanes for through traffic. The southbound approach of Gilbert Avenue is two lanes wide with an exclusive left-turn lane and a right-turn lane for the turning movements. On-street parking is not permitted.

The intersection of **Veterans Memorial Highway** with **West Blue Hill Plaza** is controlled by a fully-actuated two-phase traffic signal, with roadway loop detection on all approaches. The southbound approach of Veterans Memorial Highway is three lanes wide with a right-turn channelized lane to access the Blue Hill Plaza, a through lane and a lane for a shared left-turn and through movements. The northbound approach of Veterans Memorial Highway is two lanes wide to accommodate all movements. Both the east and westbound approaches of Blue Hill Plaza are two lanes wide with a channelized right-turn lane and a lane for the shared left-turn and through movements.

The intersection of **Veterans Memorial Highway** with **East Blue Hill Plaza** is controlled by a three-phase traffic signal. The control type is semi-actuated with roadway loop detection on the northbound approach. The eastbound approach of Veterans Memorial Highway is four lanes wide with a channelized right-turn lane to access the Blue Hill Plaza, two through lanes and an exclusive left-turn lane. The westbound approach of Veterans Memorial Highway is three lanes wide with a shared lane for the through and right-turn movements, an exclusive left-turn lane and a lane for through traffic. The northbound approach of Blue Hill Plaza is two-lanes wide with a channelized right-turn lane and a lane for the left-turn and through movements. The southbound approach is a single lane for all movements.

A three-phase traffic signal controls the intersection of **Veterans Memorial Highway** with **South Blue Hill Road** which is a “T-Intersection.” The westbound approach of Veterans Memorial Highway is three lanes wide with an exclusive left-turn lane along with two lanes for through traffic. The eastbound approach is two lanes wide with a shared lane for the through and right-turn movements and one lane exclusively for

through traffic. The northbound approach is two lanes wide with an exclusive right-turn lane and an exclusive left-turn lane.

A two-phase semi-actuated traffic signal controls the intersection of **Veterans Memorial Highway** with **Blue Hill Road** which is a “T-Intersection.” The southbound approach of Blue Hill Road is two-lanes wide with an exclusive right-turn lane and an exclusive left-turn lane. The eastbound approach of Veterans Memorial Highway is a two-lane road with a lane for a shared left-turn and through movements and a lane exclusively for through traffic. Similarly, the westbound approach is a two-lane road with a shared lane for the right-turn and through movements and a lane exclusively for through traffic.

The intersection of **Veterans Memorial Highway** with **Hunt Road** is controlled by a STOP sign on the Hunt Road and Old Orangeburg Road approaches. Both the east- and westbound approaches of Veterans Memorial Highway are two-lanes wide to accommodate the through movements as well as turns to the left and right.

The intersection of **Veterans Memorial Highway** with **Blaisdell Road** is controlled by a three-phase traffic signal. Both the east- and westbound approaches of Veterans Memorial Highway are two-lane wide to accommodate all movements. The northbound approach of Blaisdell Road is two-lanes wide with a shared lane for the left-turn and through movements and a right-turn-only lane. The southbound approach of Blaisdell Road operates with one lane to accommodate all traffic movements.

The intersection of **Veterans Memorial Highway** with **Lester Drive/Edgewood Drive** is controlled by a three-phase traffic signal. The eastbound Veterans Memorial Highway approach is two lanes wide for all movements. The westbound approach of Veterans Memorial Highway has three travel lanes; an exclusive left-turn lane, a lane for through traffic and a shared lane for through and right-turn movements. The northbound approach is a two-lane approach, one lane for the shared left-turn and through movements and one lane for right-turn movements. The southbound approach, also designated as Edgewood Drive, is two-lanes wide with one lane for the shared left-turn and through movements and one lane for the shared right-turn and through movements.

The intersection of **Veterans Memorial Highway** with **Dutch Hill Road** is controlled by a three-phase traffic signal. The eastbound approach of Veterans Memorial Highway is four lanes wide with a right-turn lane, two through lanes and a left-turn lane. The westbound approach of Veterans Memorial Highway is three lanes wide with a shared lane for right-turn and through movements, a left-turn-only lane and a lane exclusively for through traffic. Both the north and southbound approaches of Dutch Hill Road are three-lane wide with a right-turn only lane, a left-turn-only lane and one lane for through traffic.

The intersection of **Veterans Memorial Highway** with **Western Highway** is controlled by a two-phase traffic signal. Both the east and westbound approaches of Veterans Memorial Highway are two-lanes wide to accommodate all movements. The north and southbound approaches of Western Highway contain a single lane approach to accommodate all movements.

The intersection of **Western Highway** with **Mountain View Avenue** is controlled by a three-phase traffic signal. There is also an exit from a Dominican College parking lot at the intersection which is controlled by a roadway loop. The north and southbound approaches of Western Highway include a single lane. The westbound approach of Mountain View Avenue operates with a single lane.

The intersection of **Western Highway** with **Convent Road** is a “T-Intersection.” This is a one-way STOP-controlled intersection with the STOP sign on the Convent Road approach. The north and southbound approaches of Western Highway are each a single lane wide.

The intersection of **Convent Road** with **Parkway Drive** is controlled by a four-way flashing light on the Parkway Drive approach, which gives the right-of-way to Convent Road. Both the east and westbound approaches of Convent Road operate with a single lane to accommodate all movements. Similarly, the north and southbound approaches of Parkway Drive operate with one lane in each direction.

The intersection of **Van Wyck Road** with **Convent Road** is a “T-Intersection.” This is a one-way STOP-controlled intersection with the STOP sign on the Van Wyck Road approach. Both approaches of Convent Road include a single lane. The southbound Van Wyck Road approach is one lane wide.

The intersection of **Van Wyck Road** with **Erie Street** is a “T-Intersection.” This is a one-way STOP-controlled intersection with the STOP sign on the Erie Street approach. Both the north and southbound approaches on Van Wyck Road operate with a single lane. The westbound approach on Erie Street operates with one lane.

A two-phase traffic signal controls the intersection of **Convent Road** with **Third Avenue** which is a “T-Intersection.” Both approaches of Convent Road operate with a single lane. The northbound approach of Third Avenue also operates with one lane.

The intersection of **Swannekin Road** with **Convent Road** is a “T-Intersection” controlled by a STOP sign on the Swannekin Road approach. Both the east and westbound approaches of Convent Road include a single lane. The southbound approach of Swannekin Road also operates with one lane.

The intersection of **Swannekin Road** with **Blauvelt Road** is a “T-Intersection.” This is a STOP-controlled intersection with the STOP sign on Swannekin Road, which is a single-lane approach. The east and westbound approaches of Blauvelt Road are also one-lane wide.

The intersection of **Sickletown Road** with **Blue Hill Road** is a “T-Intersection.” This is a one-way STOP-controlled intersection with the STOP sign on the Blue Hill Road approach. The northbound approach of Blue Hill Road operates as a two-lane road with exclusive left and right-turn lanes. The eastbound approach of Sickletown Road is a one-lane wide with a right turn bay and a lane for through traffic. The westbound approach of Convent Road is a single lane with shared left-turn and through movements.

The intersection of **Sickletown Road** with **Gilbert Avenue** is a “T-Intersection.” This is a STOP-controlled intersection with the STOP sign on the Gilbert Avenue approach. The eastbound approach on Gilbert Avenue operates as a one-lane road. Both the north and southbound approaches of Sickletown Road are also one-lane wide.

The intersection of **Old Orangeburg Road** with **Blaisdell Road** is a “T-Intersection.” This is a STOP-controlled intersection with the STOP sign on the Blaisdell Road approach, which is a single lane. The east and westbound approaches of Old Orangeburg Road are also one-lane wide.

The intersection of **Old Orangeburg Road** with **Third Avenue** is a “T-Intersection.” This is a STOP-controlled intersection with the STOP sign on the Third Avenue approach, which is one-lane wide. The east and westbound approaches of Old Orangeburg Road are also one-lane wide.

Public Transportation

Public bus transportation within Rockland County is provided by Transport of Rockland (TOR). The Veterans Memorial Highway corridor is served by the Route 92 bus. Service is provided approximately every hour in both directions along the corridor, between 5:00 a.m. and 7:00 p.m. on weekdays. On Saturdays and Sundays, hourly service is provided between approximately 8:00 a.m. and 5:00 p.m.

Pedestrian Activity

TOR permits passengers to board or exit the bus at any location that is considered to be safe on the side of the road along the route. Designated stops along the Route 92 corridor include Blue Hill Plaza, the Rockland Industrial Park, the Rockland Psychiatric Center, Western Highway (Orangetown Town Hall and Dominican College) and the Palisades Center. It is anticipated that bus operations, including providing service to the Hospital, will remain unchanged.

The pedestrian count data collected as part of the traffic study indicated that activity is generally minimal at most of the study intersections with less than 10 pedestrians observed in an hour. At many of these intersections, no pedestrian activity was observed. Moderate pedestrian activity, generally between 10 and 20 pedestrians in an hour, were observed along Veterans Memorial Highway at the intersections with

Blue Hill Plaza, Edgewood Drive and at Dutch Hill Road. The area around Dominican College also generated moderate pedestrian volumes, including the intersections of Convent Road with Western Highway, Mountain View Avenue with Western Highway and Convent Road with Parkway Drive. The pedestrian volume data were collected during peak commuter hours, between 7:00 a.m. and 9:30 a.m. and from 4:00 p.m. to 6:30 p.m. It is possible that higher pedestrian volumes may occur between 9:30 a.m. and 4:00 p.m. when classes are generally in session, however, vehicular traffic will be lower.

It should be noted that two-way traffic volumes along the eastern portion of Convent Road range between approximately 300 vehicles per hour and 400 vehicles per hour. Accordingly, there appears to be sufficient gaps in the traffic flow to permit pedestrians to cross Convent Road, even at the retail strip on the north side near First and Second Avenues.

Capacity Analysis

Traffic impacts are measured by intersection capacity analyses, computed in accordance with procedures outlined in the 2000 Highway Capacity Manual, published by the Transportation Research Board. In general, analyses' results are a measure of the ability of an intersection to process vehicles. This is evaluated for each approach to the intersection as well as for the entire intersection. The analyses' results are identified as Levels-of-Service (LOS) which range from "A" through "F", with LOS "A" representing the least delays and LOS "F" representing longer delays or capacity deficient operations. According to generally accepted practice, Levels-of-Service "A", "B" and "C" reflect clearly acceptable conditions, Level-of-Service "D" reflects the existence of delays within a generally tolerable range, Level-of-Service "E" is generally only tolerated on minor movements and Level-of-Service "F" indicates typically undesirable delays often associated with breakdown conditions. For signalized intersections, capital letters are used to indicate the LOS.

The Existing traffic volumes were compared with current roadway capacities using Synchro, Version 7. The Synchro software provides analyses of the street network, rather than individual intersections, and accounts for vehicle delays based on signal timing as well as roadway congestion and the resulting vehicle queues. A review of the surveyed traffic data revealed the peak hours of traffic activity to be 8:00 a.m. to 9:00 a.m. (Peak AM Highway Hour) and 5:00 p.m. to 6:00 p.m. (Peak PM Highway Hour). Detailed capacity analysis work sheets, which are included in Appendix F, are summarized in the table below.

**Table IIIJ-1
Level-of-Service Summary, Existing Conditions**

Intersection	Approach ¹	Peak AM		Peak PM	
		LOS ²	Delay ³	LOS	Delay
Gilbert Ave. at S. Middletown Road	EB l/t/r	B	16.6	B	15.2
	WB l/t/r	A	9.9	B	15.2
	NB l/t/r	A	8.5	B	12.3
	SB l/t/r	B	11.6	B	12.7
	Overall	B	12.3	B	14.3
Gilbert Avenue at Old Middletown Road	EB l/t	B	14.1	B	11.9
	WB t	A	4.3	A	6.7
	WB r	A	1.1	A	1.5
	SB l/r	F	172.2	D	48.7
	Overall	E	63.8	B	12.3
Gilbert Ave. at Veterans Memorial Highway	EB l	A	3.6	A	2.8
	EB t	A	4.1	A	2.6
	WB t/r	A	6.1	A	6.7
	SB l	C	25.7	C	21.5
	SB r	C	23.1	C	23.1
	Overall	A	6.5	A	5.9
Veterans Memorial Highway at Blue Hill Plaza (West)	EB l/t	C	20.9	D	46.0
	WB l/t	B	20.0	B	16.8
	WB r	B	16.0	B	10.3
	NB l/t/r	A	2.3	A	8.5
	SB l/t	A	2.2	A	7.7
	Overall	A	2.6	B	18.6
Veterans Memorial Highway at Blue Hill Plaza (East)	EB r	A	3.0	A	3.9
	EB t	A	5.8	A	6.6
	EB l	A	1.8	A	3.2
	WB l	A	4.5	A	3.9
	WB t/r	A	4.9	A	6.2
	NE l/t	C	26.3	C	26.6
	NE r	B	11.6	A	7.4
	SB l/t/r	B	16.8	B	16.0
	Overall	A	6.0	A	8.0
Veterans Memorial Highway at Blue Hill South	EB t/r	C	22.0	C	24.4
	WB l	B	10.3	C	31.6
	WB t	A	9.5	A	9.8
	NB l	C	22.3	C	21.8
	NB r	D	54.9	C	28.5
	Overall	C	26.1	C	21.8
Veterans Memorial Highway at Blue Hill North	EB l/t	A	5.9	A	6.2
	WB t/r	A	5.2	A	6.8
	SB l	C	20.8	C	22.4
	SB r	B	16.6	B	16.1
	Overall	A	6.7	A	7.8
Veterans Memorial Highway at Blaisdell Road	EB l/t/r	B	18.7	B	18.4
	WB l/t/r	B	19.9	A	9.9
	NB l/t	C	23.8	D	53.2
	NB r	A	7.1	D	36.6
	SB l/t/r	C	22.4	C	33.0
	Overall	B	19.0	C	22.6

Intersection	Approach ¹	Peak AM		Peak PM	
		LOS ²	Delay ³	LOS	Delay
Veterans Memorial Highway at Lester Drive/Edgewood Road	EB l/t/r	B	16.9	D	44.0
	WB l	A	9.1	D	45.2
	WB t/r	B	12.8	A	8.9
	NB l/t	C	28.4	C	29.5
	NB r	A	6.1	B	11.9
	SB l/t/r	C	23.6	C	24.0
	Overall	B	14.5	C	30.1
Veterans Memorial Highway at Dutch Hill Road	EB l	C	22.6	A	4.7
	EB t	D	40.8	B	12.5
	EB r	D	39.6	B	10.8
	WB l	A	9.6	A	8.6
	WB t/r	C	21.1	C	25.0
	NB l	C	24.8	C	28.8
	NB t	C	20.3	C	22.1
	NB r	B	10.4	A	9.8
	SB l	C	20.2	C	21.4
	SB t	C	20.6	C	21.5
	SB r	B	12.0	B	11.2
	Overall	C	28.6	B	17.5
Veterans Memorial Highway at Western Highway	EB l/t/r	B	18.3	C	21.3
	WB l/t/r	B	16.4	B	19.2
	NB l/t/r	B	19.7	C	22.5
	SB l/t/r	C	20.1	C	23.4
	Overall	B	18.2	C	21.1
Convent Road at Third Avenue	EB t/r	B	11.8	B	11.4
	WB l/t	B	13.1	B	13.8
	NB l/r	B	12.6	B	13.6
	Overall	B	12.5	B	13.1
Mountain View Ave. at Western Highway	EB l/t/r	C	29.0	C	30.0
	WB l/t/r	C	31.5	D	35.6
	NB l/t/r	B	11.2	B	13.5
	SB l/t/r	B	14.3	B	15.5
	Overall	B	14.9	B	18.0
Hunt Road/Old Orangeburg Road at Veterans Memorial Highway	EB l/t/r	a	0.5	a	0.3
	WB l/t/r	a	0.7	a	1.1
	NB l/t/r	e	40.9	f	860.2
	SB l/t/r	c	15.4	d	28.9
Gilbert Ave. at Sickletown Road	EB l/r	b	10.9	b	14.6
	NB l/t	a	1.1	a	0.8
	SB t/r	a	0.0	a	0.0
Convent Road at Blue Hill Road North	EB t/r	a	0.0	a	0.0
	WB l/t	a	2.4	a	0.9
	NB l/r	b	10.2	b	12.9
Convent Road at Swannekin Road	EB l/t/r	a	0.2	a	0.0
	WB l/t/r	a	0.9	a	0.1
	NB l/t/r	b	10.7	b	10.8
	SB l/t/r	b	10.7	b	11.4
Swannekin Road at Blauvelt Road	EB t/r	a	0.0	a	0.0
	WB l/t	a	0.2	a	1.0

Intersection	Approach ¹	Peak AM		Peak PM	
		LOS ²	Delay ³	LOS	Delay
	NB l/r	a	9.1	a	9.3
Convent Road at 2nd Ave/Van Wyck Road	EB l/t	a	2.3	a	4.6
	WB t/r	a	0.0	a	0.0
	SB l/r	a	10.5	b	13.5
Erie Street at Van Wyck Road	WB l/r	b	10.5	b	11.7
	NB t/r	a	0.0	a	0.0
	SB t/l	a	3.1	a	2.8
Convent Road at Parkway Drive	EB l/t/r	a	0.1	a	0.9
	WB l/t/r	a	0.5	a	0.8
	NB l/t/r	b	11.2	b	12.8
	SB l/t/r	b	10.6	b	11.4
Convent Road at Western Highway	EB l/r	b	12.5	b	13.7
	NB l/t	a	2.0	a	3.5
	SB t/r	a	0.0	a	0.0
Old Orangeburg Road at Third Avenue	EB l/t	a	3.7	a	4.1
	WB t/r	a	0.0	a	0.0
	SB l/r	a	9.1	a	9.5
Old Orangeburg Road at Blaisdell Road	EB l/t	a	0.0	a	0.0
	WB t/r	a	5.0	a	6.0
	NB l/r	a	9.6	b	10.5

Source: Adler Consulting

1. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, l = Left, t = Thru and r = Right.
2. Uppercase letters represent Levels-of-Service for signalized intersections, while lowercase letters represent those of unsignalized intersections.
3. Delays are the average for each lane group in seconds per vehicle. For signalized intersections, the average delay per vehicle for the entire intersection is also included. For unsignalized intersections, the value represents the average delay per vehicle for the lane group experiencing the greatest delays.

A review of the analysis worksheets and of the information presented in Table IIIJ-1 indicates that the studied intersections currently experience generally acceptable (Level-of-Service “C”) or better peak-hour conditions.

Although operating conditions, with Level-of-Service “b” conditions or better, are currently observed at the remaining STOP controlled intersections, traffic conditions on local roads are of concern.

Accident Investigation

Accident information was obtained from New York State Department of Transportation Safety Information Management System for the roadways in the study area, including Veterans Memorial Highway, Convent Road, Western Highway and Blaisdell Road. Data were provided for the three-year period between January 1, 2005 and December 31, 2007. During this time period, there occurred a total of 61 accidents at intersections and 87 accidents on roadway segments within this study area. The accident data collected by municipal and county police departments are sent to NYSDOT which summarizes the data.

The analysis of the data for the roadway segments indicated that the average number of accidents was less than the Critical Accident Rate¹. For the intersections, the analysis indicated that the number of accidents was less than the Critical Accident Rate with the exception of three intersections: Gilbert Avenue with South Middletown Road; Convent Road with Swannekin Road; and, Convent Road with Parkway Drive. The intersection of Gilbert Avenue with South Middletown Road is controlled by a traffic signal, while both the intersection of Convent Road with Swannekin Road and the intersection of Convent Road with Parkway Drive are STOP controlled intersections. Based on the guidelines of the New York State Department of Transportation (NYSDOT), the intersection of Gilbert Avenue with South Middletown Road and the intersection of Convent Road with Parkway Drive would be considered as high-accident locations.

A total of 11 accidents were identified at the intersection of Gilbert Avenue with South Middletown Road, of which eight were either right angle accidents or involved a turn across traffic. Possible mitigation measures at the intersection include replacing the eight inch lenses of the traffic signals with new section heads that include 12-inch lenses and/or instituting changes to the signal phasing to provide time for vehicles to complete turns without conflict with on-coming traffic.

At the intersection of Convent Road with Parkway Drive, a total of six accidents were recorded of which five accidents were either right angle accidents or included a turn across traffic. Additional monitoring of the intersection is recommended. A review of the Manual on Uniform Traffic Control Devices (MUTCD) indicates that the installation of four-way STOP sign control would be warranted if there are five or more right angle or “turning” crashes in a 12-month period.

At the intersection of Convent Road with Swannekin Road, a total of four accidents were recorded of which three accidents were either right angle accidents or included a turn across traffic. Additional monitoring of the intersection is recommended. A review of the Manual on Uniform Traffic Control Devices (MUTCD) indicates that the installation of an all-way STOP sign control would be warranted if there are five or more right angle or “turning” crashes in a 12-month period.

2. Future Traffic Conditions

In determining future traffic volumes, Existing traffic volumes are projected forward to a Horizon Year, using a generalized growth factor. This growth factor is representative of non-development-specific, area-wide growth. Traffic anticipated to be generated by specific developments in the vicinity of the subject project are then added to these Horizon Year traffic volumes to obtain the “No-Build” traffic volumes.

¹ The Critical Accident Rate is calculated using the Rate Quality Control Method based on the accident rates of a particular location. The accident rates were based on the number of vehicles entering an intersection or on the vehicles miles traveled along a section of roadway. If the calculated accident rate is equal to or exceeds the critical accident rate, there is a 95 percent (NYSDOT criteria) probability that the location has a higher than average accident history.

The No-Build traffic volumes represent future traffic operating conditions without the development of the Proposed Project and are a benchmark against which potential project-related traffic impacts can be measured.

Based on a review of historical traffic growth in the area as well as discussions with the Town of Orangetown Highway Department, it was determined that the use of a two percent annual growth rate to account for non-development-specific growth in area traffic would be appropriate. Because it is expected that the Proposed Project will be operational in 2013, the 2008 Existing traffic volumes were increased by a total of ten percent. Specific vicinity development traffic volumes were added to the increased Existing traffic volumes, resulting in the No-Build volumes, which are presented in Exhibit III.J-3 for the AM Peak Hour and Exhibit III.J-4 for the PM Peak Hour.

The No-Build capacity analysis reveals that the No-Build operating conditions would deteriorate at some of the intersections studied. Below are the intersections anticipated to deteriorate, the complete analysis is located in the Traffic Impact Study in Appendix F. Table IIIJ-4 in the section below shows a comparison between the Existing, No-Build and Build capacities.

The overall intersection of Gilbert Avenue with South Middletown Road is expected to operate at Level-of-Service "F" during the PM Peak Hours, compared to Level-of-Service "B" in the Existing condition.

The overall intersection of Veterans Memorial Highway with Blue Hill Plaza (West) is expected to operate at Level-of-Service "D" during the PM Peak Hours, compared to Level-of-Service "B" in the Existing condition.

The overall intersection of Veterans Memorial Highway with Blue Hill South is expected to operate at Level-of-Service "D" during the AM Peak Hours and "E" during the PM Peak Hours, compared to Level-of-Service "C" during the AM Peak Hours and "C" during the PM Peak Hours in the Existing condition.

The overall intersection of Veterans Memorial Highway with Blaisdell Road is expected to operate at Level-of-Service "F" during the AM Peak Hours and "E" during the PM Peak Hours, compared to Level-of-Service "B" during the AM Peak Hours and "C" during the PM Peak Hours in the Existing condition.

The overall intersection of Veterans Memorial Highway with Lester Drive/Edgewood Road is expected to operate at Level-of-Service "F" during the PM Peak Hours, compared to Level-of-Service "C" in the Existing condition.

The overall intersection of Veterans Memorial Highway with Western Highway is expected to operate at Level-of-Service “D” during the PM Peak Hours, compared to Level-of-Service “C” in the Existing condition.

3. Potential Impacts

The Proposed Project includes 575 dwelling units of which 478 are expected to be age-restricted (55 years or older) townhouse/condominium units; 32 affordable age-restricted units; 33 age-restricted single-family homes; 20 units available for community volunteers; and, 12 market-rate, single-family homes. Trips anticipated to be generated by the proposed project were determined using trip generation information contained in Trip Generation, Seventh Edition, published by the Institute of Traffic Engineers (ITE). The resultant trip generation data are contained in the table below.

**Table IIIJ-2
Peak Hour New Site-Generated Traffic Volumes**

Development	AM		PM	
	In	Out	In	Out
Condominiums	31	150	145	72
Single-family Homes	20	58	66	39
Total	51	208	211	111

The Proposed Project is conservatively projected to add 51 arriving and 208 departing new trips to the surrounding roadway network during the Peak AM Highway Hour and 211 arriving and 111 departing new trips during the Peak PM Highway Hour.

It is anticipated that approximately three-quarters of the Site-generated traffic would travel on Veterans Memorial Highway/Orangeburg Road while the remaining 25 percent of the traffic would utilize Convent Road. Based on the current traffic flows, it is expected that approximately 60 percent of traffic generated by the Site would travel to or arrive from the easterly direction including the Palisades Parkway and NY Route 303 and that 40 percent of the Site-generated traffic would travel to and from the westerly direction and the general vicinity of the Garden State Parkway.

The Site-generated trips are shown in Exhibit IIIJ-5 for the AM Peak Hour. The anticipated Site-generated trips for the PM Peak Hour are depicted in Exhibit IIIJ-6.

Build Traffic Volumes

The Build traffic volumes are the addition of the Project-generated traffic volumes and the No-Build traffic volumes. The Conceptual Plan indicates that access to and from the Project Site will be from 3rd Avenue to Blaisdell Road or Old Orangeburg Road to Veterans Memorial Highway. The Proposed Action includes a reconfigured intersection of Blaisdell Road, Old Orangeburg Road and 3rd Avenue. This reconfiguration will improve access from the Project Site to Veterans Memorial Highway. Traffic to and from the Project Site would also utilize Convent Road at 3rd

Avenue with additional access from 2nd Avenue. The Build traffic volumes for the subject intersections are shown graphically in Exhibit III.J-7 for the AM Peak Hour and Exhibit III.J-8 for the PM Peak Hour.

Reconnecting the intersection of Veterans Memorial Highway with Old Orangeburg Road is not recommended at this time. It is already possible to travel from Veterans Memorial Highway to Old Orangeburg Road, either via the short connecting roadway located approximately 800 feet west of the previous connection or via Blaisdell Road. Veterans Memorial Highway operates with two travel lanes in each direction, with exclusive turn lanes at several intersections as appropriate. Old Orangeburg Road operates with one lane in each direction and provides access to the Rockland Psychiatric Center as well as neighborhood recreational facilities. Reconnecting the two roadways may lead to increased traffic volumes on Old Orangeburg Road as well as increased travel speeds. Given the nature of the land uses abutting Old Orangeburg Road, higher traffic volumes and speeds would not be desirable.

Build Capacity Analysis

The table below shows the Levels-of-Service anticipated at area intersections with Build conditions.

**Table IIIJ-3
Level-of-Service Summary, Build Conditions**

Intersection	Approach ¹	Peak AM		Peak PM	
		LOS ²	Delay ³	LOS	Delay
Gilbert Ave. at S. Middletown Road	EB l/t/r	C	23.8	C	21.2
	WB l/t/r	B	14.8	F	311.1
	NB l/t/r	A	9.0	B	13.0
	SB l/t/r	B	12.9	B	15.2
	Overall	B	16.7	F	164.4
Gilbert Avenue at Old Middletown Road	EB l/t	B	19.3	B	16.3
	WB t	A	5.3	B	18.4
	WB r	A	1.1	A	1.8
	SB l/r	F	222.7	E	57.7
	Overall	E	63.8	B	18.3
Gilbert Ave. at Veterans Memorial Highway	EB l	A	4.2	A	4.3
	EB t	A	5.8	A	3.8
	WB t/r	A	7.2	B	14.5
	SB l	C	27.1	C	23.0
	SB r	C	22.6	C	24.5
	Overall	A	7.8	B	11.2
Veterans Memorial Highway at Blue Hill Plaza (West)	EB l/t	B	18.8	F	135.7
	WB l/t	B	19.5	B	18.2
	WB r	A	9.6	B	10.1
	NB l/t/r	A	3.7	B	12.1
	SB l/t	A	2.8	A	9.7
	Overall	A	3.4	D	38.0
Veterans Memorial	EB r	A	3.5	A	6.9

Intersection	Approach ¹	Peak AM		Peak PM	
		LOS ²	Delay ³	LOS	Delay
Highway at Blue Hill Plaza (East)	EB t	A	6.5	B	11.0
	EB l	A	1.7	A	3.7
	WB l	B	10.3	A	7.4
	WB t/r	A	5.9	B	10.5
	NE l/t	C	25.6	C	24.8
	NE r	A	8.8	C	20.8
	SB l/t/r	C	20.9	B	14.4
	Overall	A	7.5	B	12.8
Veterans Memorial Highway at Blue Hill South	EB t/r	C	23.5	D	37.7
	WB l	C	31.4	F	246.6
	WB t	B	10.7	B	10.9
	NB l	C	23.2	C	25.2
	NB r	F	113.9	D	51.3
	Overall	D	40.8	E	69.7
Veterans Memorial Highway at Blue Hill North	EB l/t	A	7.5	B	15.3
	WB t/r	A	8.0	B	10.5
	SB l	C	21.4	C	24.3
	SB r	B	17.5	B	16.6
	Overall	A	8.6	B	13.5
Veterans Memorial Highway at Blaisdell Road	EB l/t/r	D	44.5	F	236.4
	WB l/t/r	F	155.5	D	51.6
	NB l/t	C	30.0	F	133.2
	NB r	A	7.1	F	107.3
	SB l/t/r	D	54.2	F	246.9
	Overall	F	104.7	F	140.9
Veterans Memorial Highway at Lester Drive/Edgewood Road	EB l/t/r	C	21.0	F	240.3
	WB l	B	12.6	D	54.6
	WB t/r	C	22.5	A	9.1
	NB l/t	C	31.2	C	32.1
	NB r	B	14.0	B	13.0
	SB l/t/r	C	22.9	C	21.5
	Overall	C	21.7	F	124.8
Veterans Memorial Highway at Dutch Hill Road	EB l	C	22.9	C	23.2
	EB t	D	43.1	B	15.6
	EB r	D	38.6	B	11.2
	WB l	B	10.1	A	9.0
	WB t/r	C	24.4	C	34.1
	NB l	C	29.8	C	32.6
	NB t	C	20.4	C	22.3
	NB r	B	10.5	A	9.9
	SB l	C	20.3	C	21.7
	SB t	C	20.7	C	21.6
	SB r	B	13.3	B	11.7
	Overall	C	30.4	C	23.0
Veterans Memorial Highway at Western Highway	EB l/t/r	C	27.5	F	139.5
	WB l/t/r	B	19.4	E	61.7
	NB l/t/r	C	20.7	C	28.5
	SB l/t/r	C	22.4	C	30.2
	Overall	C	23.3	F	81.8

Intersection	Approach ¹	Peak AM		Peak PM	
		LOS ²	Delay ³	LOS	Delay
Convent Road at Third Avenue	EB t/r	B	12.2	B	12.2
	WB l/t	B	14.2	B	16.6
	NB l/r	B	14.3	B	14.5
	Overall	B	13.5	B	14.8
Mountain View Ave. at Western Highway	EB l/t/r	C	29.3	C	30.0
	WB l/t/r	C	31.5	D	36.6
	NB l/t/r	B	11.5	B	14.7
	SB l/t/r	B	15.8	B	18.7
	Overall	B	15.7	B	19.8
Hunt Road/Old Orangeburg Road at Veterans Memorial Highway	EB l/t	A	4.8	D	46.7
	EB r	A	0.9	A	1.7
	WB l/t/r	A	5.0	B	14.8
	NB l	C	24.5	E	59.4
	NB l/t/r	B	18.8	A	7.7
	SB l/t/r	B	15.3	B	17.7
	Overall	A	5.1	C	28.5
Gilbert Ave. at Sickletown Road	EB l/r	b	11.5	c	18.3
	NB l/t	a	1.1	a	0.9
	SB t/r	a	0.0	a	0.0
Convent Road at Blue Hill Road North	EB t/r	a	0.0	a	0.0
	WB l/t	a	2.2	a	1.2
	NB l/r	b	10.7	c	15.9
Convent Road at Swannekin Road	EB l/t/r	a	0.2	a	0.0
	WB l/t/r	a	0.8	a	0.1
	NB l/t/r	b	11.2	b	11.5
	SB l/t/r	b	11.2	b	12.2
Swannekin Road at Blauvelt Road	EB t/r	a	0.0	a	0.0
	WB l/t	a	0.2	a	1.0
	NB l/r	a	9.2	a	9.4
Convent Road at 2nd Ave/Van Wyck Road	EB l/t/r	a	2.2	a	4.6
	WB l/t/r	a	0.2	a	0.3
	NB l/t/r	b	11.3	b	13.9
	SB l/t/r	b	11.6	c	18.2
Erie Street at Van Wyck Road	WB l/r	b	10.8	b	12.4
	NB t/r	a	0.0	a	0.0
	SB t/l	a	3.2	a	2.8
Convent Road at Parkway Drive	EB l/t/r	a	0.1	a	0.8
	WB l/t/r	a	0.4	a	0.7
	NB l/t/r	b	12.0	b	14.9
	SB l/t/r	b	11.2	b	12.5
Convent Road at Western Highway	EB l/r	b	14.2	c	17.8
	NB l/t	a	2.3	a	4.2
	SB t/r	a	0.0	a	0.0
Old Orangeburg Road at Third Avenue	EB l/t	a	3.8	a	4.8
	WB t/r	a	0.0	a	0.0
	SB l/r	b	10.6	b	11.7
Old Orangeburg Road at Blaisdell Road	EB l/t	a	0.0	a	0.0
	WB t/r	a	5.3	a	6.2
	NB l/r	b	11.0	b	14.0

1. EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, l = Left, t = Thru and r = Right.
2. Uppercase letters represent Levels-of-Service for signalized intersections, while lowercase letters represent those of unsignalized intersections.
3. Delays are the average for each lane group in seconds per vehicle. For signalized intersections, the average delay per vehicle for the entire intersection is also included. For unsignalized intersections, the value represents the average delay per vehicle for the lane group experiencing the greatest delays.

4. Mitigation

Based on a comparison of the No-Build and Build conditions, mitigation measures are recommended at some, but not all, intersections. There are also intersections which do not require mitigation, but where minimal changes to the signal timing would result in less delay for motorists. Many of the mitigation measures discussed here involve optimizing the traffic signals in this study by changing signal timings.

For the intersection of Gilbert Avenue with South Middletown Road, the overall intersection is expected to operate at Level-of-Service “B” conditions during the AM Peak Hour. A shift of 10 seconds of green time from the north-and southbound approaches to the east-and westbound approaches would result in Level-of-Service “D” conditions during the PM Peak Hour.

For the intersection of Gilbert Avenue with Old Middletown Road, a shift of five (5) seconds of green time from the Gilbert Avenue approaches to the Middletown Road approach in the AM Peak Hour would result in Level-of-Service “C” conditions. For the PM Peak Hour, a shift of three seconds of green time from the Gilbert Avenue approaches to the Middletown Road approach would result in Level-of-Service “C” conditions.

The intersection of Veterans Memorial Highway with Blue Hill Plaza West is expected to experience Level-of-Service “A” conditions during the AM Peak Hour. During the PM Peak Hour, a shift of five seconds of green time from the Blue Hill Plaza approaches to the Veterans Memorial Highway approaches would result in Level-of-Service “C” conditions.

For the intersection of Veterans Memorial Highway with Blue Hill South, additional changes to the signal timing would result in improved Levels-of-Service. In the AM Peak Hour, a shift of five seconds of green time from the Veterans Memorial Highway approaches to the Blue Hill South approach would result in Level-of-Service “C” conditions. In the PM Peak Hour, a shift of two seconds of green time from the east- and westbound through movement to the westbound left-turn movement would result in Level-of-Service “E” conditions, with an anticipated delay of approximately nine seconds less than expected in the No-Build conditions. In addition, the expected delay for the westbound left-turn movement is approximately 80 seconds less than the delay anticipated for the No-Build Condition. Further modifications to the signal timing would not be expected to improve the Levels-of-Service. In addition, with the intersection located adjacent to Lake Tappan, it does

not appear to be feasible to construct an additional lane on the Blue Hill South approach.

The construction of left-turn lanes on both approaches of Veterans Memorial Highway as well as the construction of an additional southbound approach lane for Blaisdell Road is recommended. With the construction of these additional lanes, together with changes to the signal timing, Level-of-Service "D" conditions are anticipated during the AM Peak Hour. In the PM Peak Hour, Level-of-Service "C" operating conditions are expected.

The construction of an exclusive left-turn lane for the eastbound Veterans Memorial Highway approach with the intersection of Lester Drive and Edgewood Drive would result in improved operating conditions. The signal phasing at the intersection already includes an exclusive phase to permit the westbound left-turn movement and the northbound right-turn movement. It would be possible to permit a left-turn for the eastbound approach during the same signal phase. In addition, a shift of 11 seconds of green time from the westbound through movement to the exclusive turning phases would provide acceptable Levels-of-Service in the AM Peak Hour and improve operations to Level-of-Service "D" in the PM Peak Hour.

With the shifting of four seconds of green time from the Western Highway approaches to the east- and westbound Veterans Memorial Highway approaches, it is anticipated that the intersection of Veterans Memorial Highway with Western Highway would operate at Level-of-Service "C" during the AM and at Level-of-Service "D" during the PM Peak Hour.

It is anticipated that the intersection of Veterans Memorial Highway and Hunt Road/Old Orangeburg Road would operate with Level-of-Service "A" conditions during the AM Peak Hour. Allowing traffic in the northbound "choice" lane to turn left onto westbound Veterans Memorial Highway would improve overall operating conditions. In the PM Peak Hour, the intersection is expected to operate with Level-of-Service "B" conditions.

It is noted that the intersection of Old Orangeburg Road with Third Avenue and the intersection of Old Orangeburg Road with Blaisdell Avenue are currently offset from each other by approximately 160 feet. Although this intersection will be realigned as a four way intersection, as a conservative measure, the analyses were performed assuming that this minor offset would be retained. The capacity analysis indicated that acceptable operating conditions with Level-of-Service "c" or better would be expected at both the intersections. If the intersections were to be realigned, as is proposed, it is anticipated that acceptable operating conditions would also occur.

The New York State Department of Transportation (NYSDOT) recommends that an array of improvements be considered when a community makes the decision to improve traffic operations. Depending upon the particular conditions in the area, the improvements that may be considered include the construction of roundabouts,

installation of traffic signals, the construction of one or more turning lanes and roadway widening. A roundabout has been considered for the intersection of Blaisdell Road and Old Orangeburg Road.

Traffic Calming

Although not required as a mitigation measure to ameliorate the impacts of the Proposed Project, instituting traffic calming measures along Swanekin Road between Convent Road and Blauvelt Road was also investigated due to local concern. In this area, Swanekin Road is approximately 30 feet wide and generally does not have pavement markings. Applying white roadway pavement markings to define roadway shoulders as well as instituting a yellow center line would have the effect of defining the traveled way and narrowing the amount of roadway pavement available for vehicle use. When a roadway is defined by centerline and edge of pavement markings, motorists generally reduce their speed when traveling along the roadway section. In addition, a parking lane could be striped further reducing the travel lane. Additional traffic calming measures that may be applied may include roadway narrowing or roadway neckdowns. The roadway narrowing or neckdowns could be prepared using pavement markings or may be created using planters to physically narrow the pavement area available for vehicle use. In addition, the installation of a series of speed humps along Swanekin Road could be considered to reduce operating speeds.

The table below shows a comparison between the Levels-of-Service for the Existing, No-Build, Build, and Mitigated conditions.

**Table IIIJ-4
Level-of-Service Comparison**

Intersection	App.	AM				PM			
		Existing	No-Build	Build	Mitigated	Existing	No-Build	Build	Mitigated
Gilbert Avenue at S. Middletown Road	EB l/t/r	B (16.6)	C (23.1)	C (23.8)	C (23.8)	B (15.2)	B (19.6)	C (21.2)	A (9.7)
	WB l/t/r	A (9.9)	B (12.5)	B (14.8)	B (12.3)	B (15.2)	F (259.5)	F (311.1)	D (47.5)
	NB l/t/r	A (8.5)	A (9.0)	A (9.0)	A (9.0)	B (12.3)	B (13.0)	B (13.0)	C (27.1)
	SB l/t/r	B (11.6)	B (12.8)	B (12.9)	B (12.9)	B (12.7)	B (14.9)	B (15.2)	D (36.5)
	Overall	B (12.3)	B (15.9)	B (16.7)	B (16.0)	B (14.3)	F (140.3)	F (164.4)	C (34.4)
Gilbert Ave at Old Middletown Road	EB l/t	B (14.1)	B (19.0)	B (19.3)	C (23.5)	B (11.9)	B (15.1)	B (16.3)	B (17.4)
	WB t	A (4.3)	A (4.9)	A (5.3)	A (8.3)	A (6.7)	B (16.0)	B (18.4)	C (28.6)
	WB r	A (1.1)	A (1.1)	A (1.1)	A (1.7)	A (1.5)	A (1.8)	A (1.8)	A (2.0)
	SB l/r	F (172.2)	F (222.7)	F (222.7)	D (53.6)	D (48.7)	E (57.7)	E (57.7)	D (36.2)
	Overall	E (63.8)	E (66.5)	E (63.8)	C (25.7)	B (12.3)	B (17.0)	B (18.3)	C (20.7)
Gilbert Avenue at Veterans Memorial Highway	EB l	A (3.6)	A (4.2)	A (4.2)	A (4.2)	A (2.8)	A (4.2)	A (4.3)	A (4.3)
	EB t	A (4.1)	A (5.7)	A (5.8)	A (5.8)	A (2.6)	A (3.7)	A (3.8)	A (3.8)
	WB t/r	A (6.1)	A (7.0)	A (7.2)	A (7.2)	A (6.7)	B (13.9)	B (14.5)	B (14.5)
	NB t/r	C (25.7)	C (27.1)	C (27.1)	C (27.1)	C (21.5)	C (23.1)	C (23.0)	C (23.0)

Intersection	App.	AM				PM			
		Existing	No-Build	Build	Mitigated	Existing	No-Build	Build	Mitigated
	SB l/r	C (23.1)	C (22.3)	C (22.6)	C (22.6)	C (23.1)	C (24.5)	C (24.5)	C (24.5)
	Overall	A (6.5)	A (7.7)	A (7.8)	A (7.8)	A (5.9)	B (11.0)	B (11.2)	B (11.2)
Veterans Memorial Highway at Blue Hill Plaza (West)	EB l/t	C (20.9)	B (18.8)	B (18.8)	B (18.8)	D (46.0)	F (135.7)	F (135.7)	D (46.0)
	WB l/t	B (20.0)	B (19.5)	B (19.5)	B (19.5)	B (16.8)	B (18.2)	B (18.2)	B (13.4)
	WB r	B (16.0)	A (9.6)	A (9.6)	A (9.6)	B (10.3)	B (10.1)	B (10.1)	A (7.4)
	NB l/t/r	A (2.3)	A (3.6)	A (3.7)	A (3.7)	A (8.5)	B (11.7)	B (12.1)	B (18.7)
	SB l/t	A (2.2)	A (2.7)	A (2.8)	A (2.8)	A (7.7)	A (9.3)	A (9.7)	B (14.7)
	Overall	A (2.6)	A (3.3)	A (3.4)	A (3.4)	B (18.6)	D (38.9)	D (38.0)	C (23.2)
Veterans Memorial Highway at Blue Hill Plaza (East)	EB r	A (3.0)	A (3.5)	A (3.5)	A (3.5)	A (3.9)	A (6.5)	A (6.9)	A (6.9)
	EB t	A (5.8)	A (6.5)	A (6.5)	A (6.5)	A (6.6)	B (10.2)	B (11.0)	B (11.0)
	EB l	A (1.8)	A (1.7)	A (1.7)	A (1.7)	A (3.2)	A (3.6)	A (3.7)	A (3.7)
	WB l	A (4.5)	A (9.8)	B (10.3)	B (10.3)	A (3.9)	A (6.8)	A (7.4)	A (7.4)
	WB t/r	A (4.9)	A (5.7)	A (5.9)	A (5.9)	A (6.2)	A (9.9)	B (10.5)	B (10.5)
	NE l/t	C (26.3)	C (25.6)	C (25.6)	C (25.6)	C (26.6)	C (25.5)	C (24.8)	C (24.8)
	NE r	B (11.6)	A (8.8)	A (8.8)	A (8.8)	A (7.4)	B (19.6)	C (20.8)	C (20.8)
	SB l/t/r	B (16.8)	C (20.9)	C (20.9)	C (20.9)	B (16.0)	B (14.9)	B (14.4)	B (14.4)
Overall	A (6.0)	A (7.4)	A (7.5)	A (7.5)	A (8.0)	B (12.2)	B (12.8)	B (12.8)	
Veterans Memorial Highway at Blue Hill South	EB t/r	C (22.0)	C (23.3)	C (23.5)	C (29.5)	C (24.4)	C (33.9)	D (37.7)	D (54.4)
	WB l	B (10.3)	C (30.3)	C (31.4)	D (45.5)	C (31.6)	F (246.6)	F (246.6)	F (164.4)
	WB t	A (9.5)	B (10.4)	B (10.7)	B (14.5)	A (9.8)	B (10.8)	B (10.9)	B (10.9)
	NB l	C (22.3)	C (23.2)	C (23.2)	B (18.9)	C (21.8)	C (25.2)	C (25.2)	C (25.2)
	NB r	D (54.9)	F (113.9)	F (113.9)	D (52.7)	C (28.5)	D (51.3)	D (51.3)	D (51.3)
	Overall	C (26.1)	D (41.3)	D (40.8)	C (32.3)	C (21.8)	E (69.7)	E (69.7)	E (60.9)
Veterans Memorial Highway at Blue Hill North	EB l/t	A (5.9)	A (7.4)	A (7.5)	A (7.5)	A (6.2)	B (13.2)	B (15.3)	B (15.3)
	WB t/r	A (5.2)	A (7.6)	A (8.0)	A (8.0)	A (6.8)	A (10.0)	B (10.5)	B (10.5)
	SB l	C (20.8)	C (21.4)	C (21.4)	C (21.4)	C (22.4)	C (24.3)	C (24.3)	C (24.3)
	SB r	B (16.6)	B (17.5)	B (17.5)	B (17.5)	B (16.1)	B (16.6)	B (16.6)	B (16.6)
	Overall	A (6.7)	A (8.4)	A (8.6)	A (8.6)	A (7.8)	B (12.3)	B (13.5)	B (13.5)
	EB l	N.A.	N.A.	N.A.	C (22.2)	N.A.	N.A.	N.A.	D (40.4)
Veterans Memorial Highway at Blaisdell Road	EB l/t/r	B (18.7)	C (22.5)	D (44.5)	D (54.7)	B (18.4)	E (64.9)	F (236.4)	D (47.7)
	WB l	N.A.	N.A.	N.A.	E (68.5)	N.A.	N.A.	N.A.	D (47.6)
	WB l/t/r	B (19.9)	F (147.5)	F (155.5)	A (7.0)	A (9.9)	C (30.1)	D (51.6)	B (13.8)
	NB l/t	C (23.8)	C (28.4)	C (30.0)	D (35.6)	D (53.2)	F (122.8)	F (133.2)	C (33.6)
	NB r	A (7.1)	A (7.1)	A (7.1)	A (8.2)	D (36.6)	F (107.3)	F (107.3)	D (44.8)
	SB l	N.A.	N.A.	N.A.	D (54.9)	N.A.	N.A.	N.A.	C (31.7)
	SB l/t/r	C (22.4)	C (24.6)	D (54.2)	B (11.5)	C (33.0)	F (106.1)	F (246.9)	B (10.4)
	Overall	B (19.0)	F (95.0)	F (104.7)	D (36.1)	C (22.6)	E (66.4)	F (140.9)	C (33.8)
Veterans Memorial Highway at	EB l/t/r	B (16.9)	B (19.7)	C (21.0)	N.A.	D (44.0)	F (222.4)	F (240.3)	N.A.
	EB l	N.A.	N.A.	N.A.	A (6.5)	N.A.	N.A.	N.A.	A (3.8)

Intersection	App.	AM				PM			
		Existing	No-Build	Build	Mitigated	Existing	No-Build	Build	Mitigated
Lester Drive/Edgewood Road	EB t/r	N.A.	N.A.	N.A.	B (19.2)	N.A.	N.A.	N.A.	E (71.5)
	WB l	A (9.1)	B (11.7)	B (12.6)	B (11.9)	D (45.2)	E (55.4)	D (54.6)	E (62.8)
	WB t/r	B (12.8)	C (21.7)	C (22.5)	D (48.4)	A (8.9)	A (9.1)	A (9.1)	C (23.4)
	NB l/t	C (28.4)	C (31.2)	C (31.2)	C (32.5)	C (29.5)	C (32.1)	C (32.1)	E (61.5)
	NB r	A (6.1)	B (12.2)	B (14.0)	B (14.2)	B (11.9)	B (12.9)	B (13.0)	C (20.9)
	SB l/t/r	C (23.6)	C (22.9)	C (22.9)	C (23.7)	C (24.0)	C (21.5)	C (21.5)	C (28.8)
	Overall	B (14.5)	C (20.7)	C (21.7)	C (34.5)	C (30.1)	F (117.6)	F (124.8)	D (51.3)
Veterans Memorial Highway at Dutch Hill Road	EB l	C (22.6)	C (23.3)	C (22.9)	C (23.2)	A (4.7)	C (20.8)	C (23.2)	B (18.3)
	EB t	D (40.8)	D (41.7)	D (43.1)	D (43.3)	B (12.5)	B (14.8)	B (15.6)	C (33.4)
	EB r	D (39.6)	D (39.1)	D (38.6)	D (38.9)	B (10.8)	B (11.3)	B (11.2)	C (28.1)
	WB l	A (9.6)	A (9.9)	B (10.1)	B (10.1)	A (8.6)	A (9.0)	A (9.0)	A (9.0)
	WB t/r	C (21.1)	C (24.1)	C (24.4)	C (24.4)	C (25.0)	C (30.1)	C (34.1)	C (34.1)
	NB l	C (24.8)	C (29.8)	C (29.8)	C (29.8)	C (28.8)	C (32.6)	C (32.6)	C (32.6)
	NB t	C (20.3)	C (20.4)	C (20.4)	C (20.4)	C (22.1)	C (22.3)	C (22.3)	C (22.3)
	NB r	B (10.4)	B (10.5)	B (10.5)	B (10.5)	A (9.8)	A (9.9)	A (9.9)	A (9.9)
	SB l	C (20.2)	C (20.3)	C (20.3)	C (20.3)	C (21.4)	C (21.7)	C (21.7)	C (21.7)
	SB t	C (20.6)	C (20.7)	C (20.7)	C (20.7)	C (21.5)	C (21.6)	C (21.6)	C (21.6)
	SB r	B (12.0)	B (13.3)	B (13.3)	B (13.3)	B (11.2)	B (11.7)	B (11.7)	B (11.7)
Overall	C (28.6)	C (29.6)	C (30.4)	C (30.5)	B (17.5)	C (21.2)	C (23.0)	C (29.2)	
Veterans Memorial Highway at Western Hwy.	EB l/t/r	B (18.3)	C (24.0)	C (27.5)	C (27.5)	C (21.3)	F (88.9)	F (139.5)	D (52.7)
	WB l/t/r	B (16.4)	B (18.7)	B (19.4)	B (19.4)	B (19.2)	D (36.0)	E (61.7)	C (26.3)
	NB l/t/r	B (19.7)	C (20.5)	C (20.7)	C (20.7)	C (22.5)	C (25.7)	C (28.5)	D (44.8)
	SB l/t/r	C (20.1)	C (21.1)	C (22.4)	C (22.4)	C (23.4)	C (27.2)	C (30.2)	D (51.4)
	Overall	B (18.2)	C (21.4)	C (23.3)	C (23.3)	C (21.1)	D (53.5)	F (81.8)	D (42.0)
Convent Road at Third Avenue	EB t/r	B (11.8)	B (12.1)	B (12.2)	B (12.2)	B (11.4)	B (11.9)	B (12.2)	B (12.2)
	WB l/t	B (13.1)	B (13.9)	B (14.2)	B (14.2)	B (13.8)	B (15.2)	B (16.6)	B (16.6)
	NB l/r	B (12.6)	B (14.4)	B (14.3)	B (13.0)	B (13.6)	B (14.5)	B (14.5)	B (14.3)
	Overall	B (12.5)	B (13.2)	B (13.5)	B (13.2)	B (13.1)	B (14.1)	B (14.8)	B (14.8)
Mountain View Ave. at Western Hwy.	EB l/t/r	C (29.0)	C (29.3)	C (29.3)	C (29.3)	C (30.0)	C (30.0)	C (30.0)	C (30.0)
	WB l/t/r	C (31.5)	C (31.5)	C (31.5)	C (31.5)	D (35.6)	D (36.6)	D (36.6)	D (36.6)
	NB l/t/r	B (11.2)	B (11.5)	B (11.5)	B (11.5)	B (13.5)	B (14.2)	B (14.7)	B (14.7)
	SB l/t/r	B (14.3)	B (15.4)	B (15.8)	B (15.8)	B (15.5)	B (17.7)	B (18.7)	B (18.7)
	Overall	B (14.9)	B (15.5)	B (15.7)	B (15.7)	B (18.0)	B (19.3)	B (19.8)	B (19.8)
Hunt Road/Old Orangeburg Road at Veterans Memorial Highway	EB l/t/r	a (0.5)	A (5.2)	A (4.8)	A (4.8)	a (0.3)	D (32.2)	D (46.7)	C (27.9)
	EB r	N.A.	A (0.9)	A (0.9)	A (0.9)	N.A.	A (1.7)	A (1.7)	A (1.6)
	WB l/t/r	a (0.7)	A (5.4)	A (5.0)	A (5.0)	a (1.1)	B (13.2)	B (14.8)	B (11.9)
	NB l	N.A.	C (24.5)	C (24.5)	C (24.2)	N.A.	E (59.4)	E (59.4)	D (37.1)
	NB l/t/r	e (40.9)	B (18.8)	B (18.8)	C (20.6)	f (860.2)	A (7.7)	A (7.7)	C (25.2)
	SB l/t/r	c (15.4)	B (15.2)	B (15.3)	B (15.3)	d (28.9)	B (17.1)	B (17.7)	C (20.6)
	Overall	N.A.	A (5.4)	A (5.1)	A (5.1)	N.A.	C (22.3)	C (28.5)	B (18.9)

Intersection	App.	AM				PM			
		Existing	No-Build	Build	Mitigated	Existing	No-Build	Build	Mitigated
Gilbert Ave at Sickletown Road	EB l/r	b (10.9)	b (11.3)	b (11.5)	b (11.5)	b (14.6)	c (17.5)	c (18.3)	c (18.3)
	NB l/t	a (1.1)	a (1.1)	a (1.1)	a (1.1)	a (0.8)	a (0.9)	a (0.9)	a (0.9)
	SB t/r	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
Convent Road at Blue Hill Road North	EB t/r	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
	WB l/t	a (2.4)	a (2.6)	a (2.2)	a (2.2)	a (0.9)	a (1.3)	a (1.2)	a (1.2)
	NB l/r	b (10.2)	b (10.5)	b (10.7)	b (10.7)	b (12.9)	c (15.0)	c (15.9)	c (15.9)
Convent Road at Swannekin Road	EB l/t/r	a (0.2)	a (0.2)	a (0.2)	a (0.2)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
	WB l/t/r	a (0.9)	a (0.9)	a (0.8)	a (0.8)	a (0.1)	a (0.1)	a (0.1)	a (0.1)
	NB l/t/r	b (10.7)	b (11.0)	b (11.2)	b (11.2)	b (10.8)	b (11.1)	b (11.5)	b (11.5)
	SB l/t/r	b (10.7)	b (10.9)	b (11.2)	b (11.2)	b (11.4)	b (11.8)	b (12.2)	b (12.2)
Swannekin Road at Blauvelt Road	EB t/r	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
	WB l/t	a (0.2)	a (0.2)	a (0.2)	a (0.2)	a (1.0)	a (1.0)	a (1.0)	a (1.0)
	NB l/r	a (9.1)	a (9.2)	a (9.2)	a (9.2)	a (9.3)	a (9.4)	a (9.4)	a (9.4)
Convent Road at Second Ave/Van Wyck Road	EB l/t	a (2.3)	a (2.4)	N.A.	N.A.	a (4.6)	a (4.8)	N.A.	N.A.
	EB l/t/r	N.A.	N.A.	a (2.2)	a (2.2)	N.A.	N.A.	a (4.6)	a (4.6)
	WB t/r	a (0.0)	a (0.0)	N.A.	N.A.	a (0.0)	a (0.0)	N.A.	N.A.
	WB l/t/r	N.A.	N.A.	a (0.2)	a (0.2)	N.A.	N.A.	a (0.3)	a (0.3)
	NB l/t/r	N.A.	N.A.	b (11.3)	b (11.3)	N.A.	N.A.	b (13.9)	b (13.9)
	SB l/r	b (10.5)	b (11.0)	N.A.	N.A.	b (13.5)	c (15.3)	N.A.	N.A.
	SB l/t/r	N.A.	N.A.	b (11.6)	b (11.6)	N.A.	N.A.	c (18.2)	c (18.2)
Erie Street at Van Wyck Road	WB l/r	b (10.5)	b (10.8)	b (10.8)	b (10.8)	b (11.7)	b (12.4)	b (12.4)	b (12.4)
	NB t/r	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
	SB t/l	a (3.1)	a (3.2)	a (3.2)	a (3.2)	a (2.8)	a (2.8)	a (2.8)	a (2.8)
Convent Road at Parkway Drive	EB l/t/r	a (0.1)	a (0.1)	a (0.1)	a (0.1)	a (0.9)	a (0.9)	a (0.8)	a (0.8)
	WB l/t/r	a (0.5)	a (0.4)	a (0.4)	a (0.4)	a (0.8)	a (0.8)	a (0.7)	a (0.7)
	NB l/t/r	b (11.2)	b (11.6)	b (12.0)	b (12.0)	b (12.8)	b (13.9)	b (14.9)	b (14.9)
	SB l/t/r	b (10.6)	b (10.9)	b (11.2)	b (11.2)	b (11.4)	b (12.0)	b (12.5)	b (12.5)
Convent Road at Western Highway	EB l/r	b (12.5)	b (13.4)	b (14.2)	b (14.2)	b (13.7)	c (15.8)	c (17.8)	c (17.8)
	NB l/t	a (2.0)	a (2.1)	a (2.3)	a (2.3)	a (3.5)	a (3.7)	a (4.2)	a (4.2)
	SB t/r	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
Old Orangeburg Road at Third Avenue	EB l/t	a (3.7)	a (3.7)	a (3.8)	a (3.8)	a (4.1)	a (4.5)	a (4.8)	a (4.8)
	WB t/r	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
	SB l/r	a (9.1)	a (9.2)	b (10.6)	b (10.6)	a (9.5)	a (9.7)	b (11.7)	b (11.7)
Old Orangeburg Road at Blaisdell Road	EB l/t	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)	a (0.0)
	WB t/r	a (5.0)	a (5.0)	a (5.3)	a (5.3)	a (6.0)	a (6.0)	a (6.2)	a (6.2)
	NB l/r	a (9.6)	a (9.7)	b (11.0)	b (11.0)	b (10.5)	b (10.8)	b (14.0)	b (14.0)



NOT TO SCALE

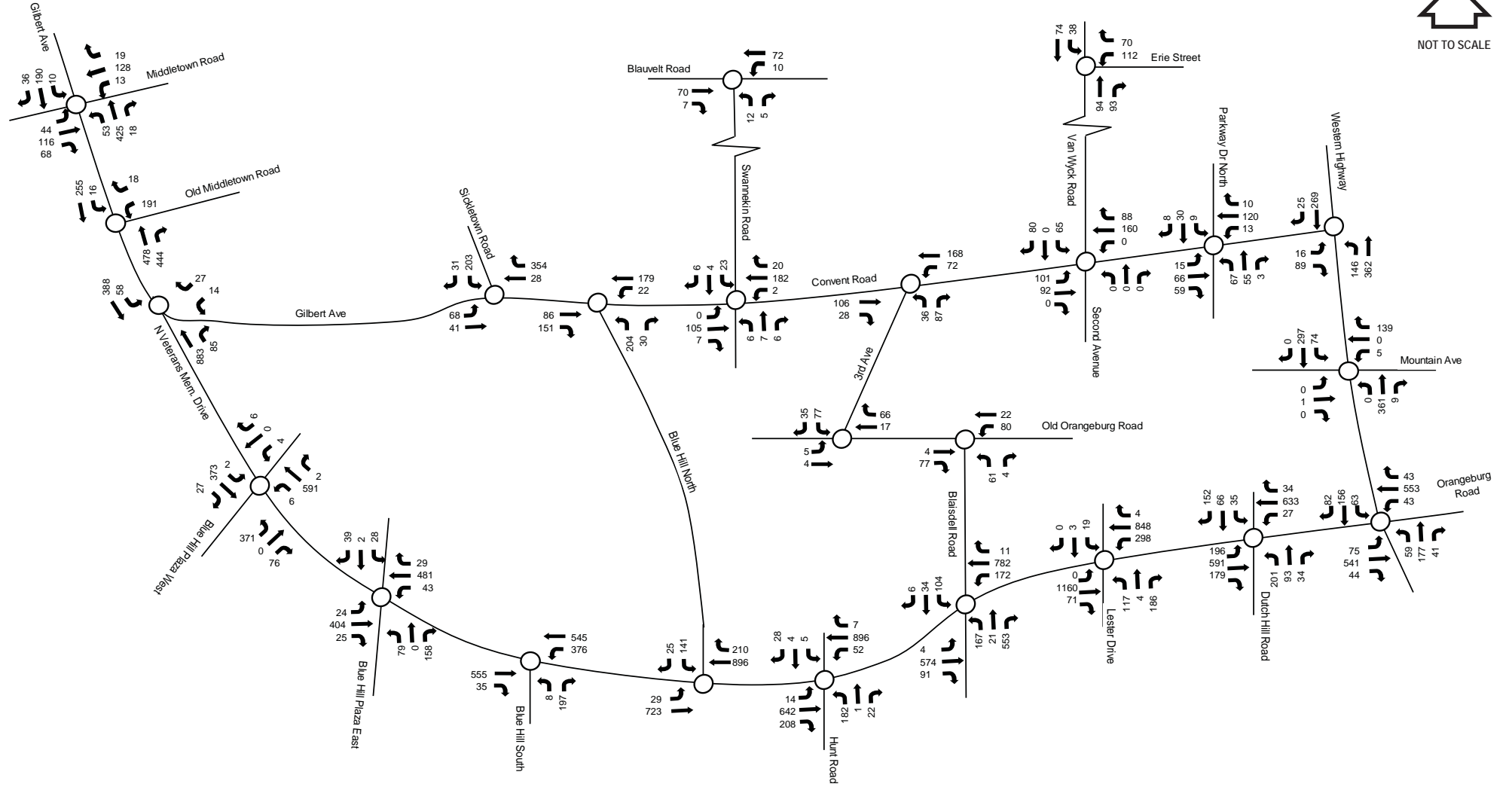


Exhibit III.J-2
**EXISTING PM PEAK HOUR
 TRAFFIC VOLUMES**

**FOUR SEASONS AT ORANGETOWN
 ROCKLAND PSYCHIATRIC CENTER**
 Town of Orangetown, New York



NOT TO SCALE

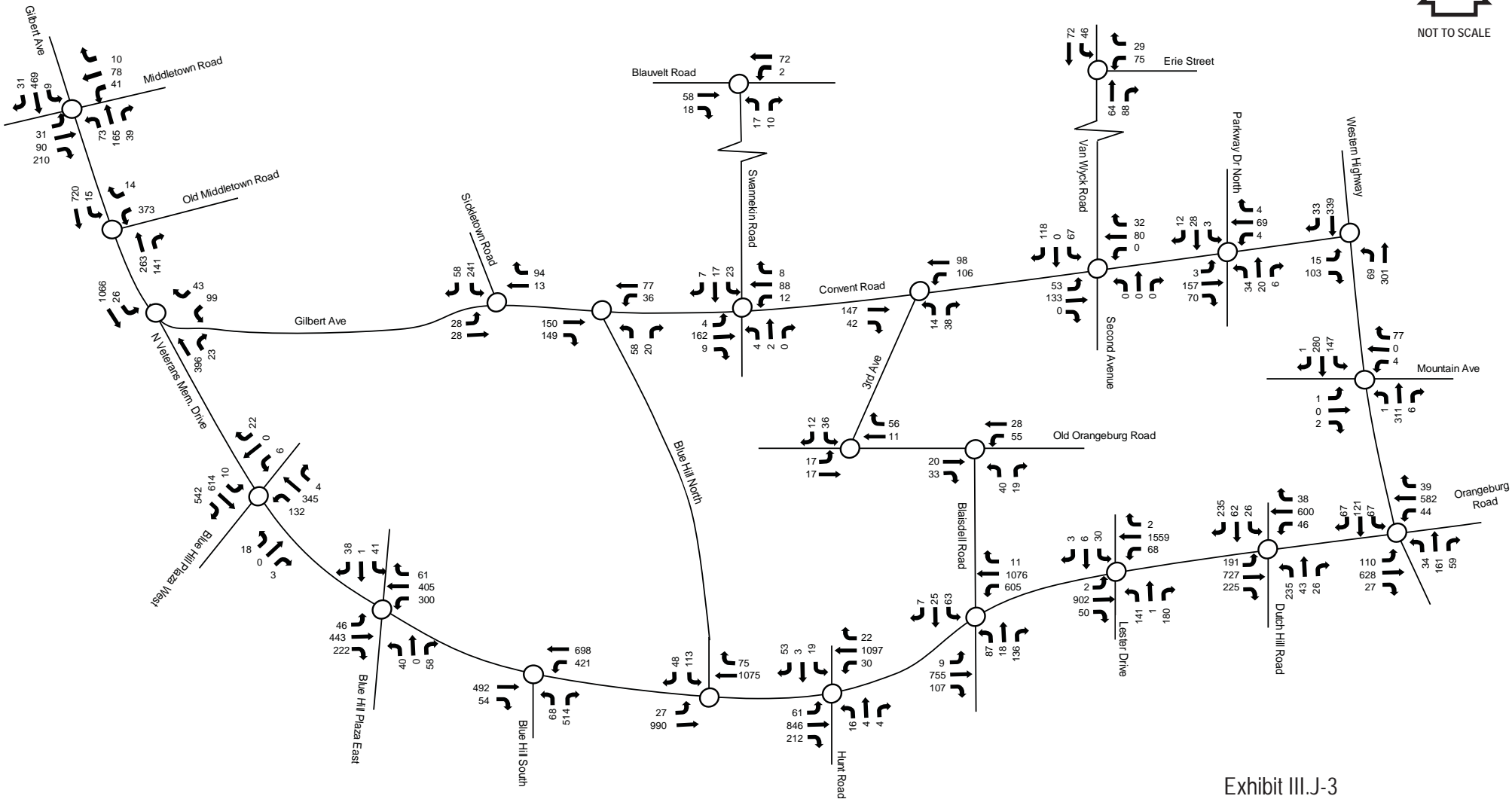


Exhibit III.J-3
**NO-BUILD AM PEAK HOUR
 TRAFFIC VOLUMES**

**FOUR SEASONS AT ORANGETOWN
 ROCKLAND PSYCHIATRIC CENTER**
 Town of Orangetown, New York



NOT TO SCALE

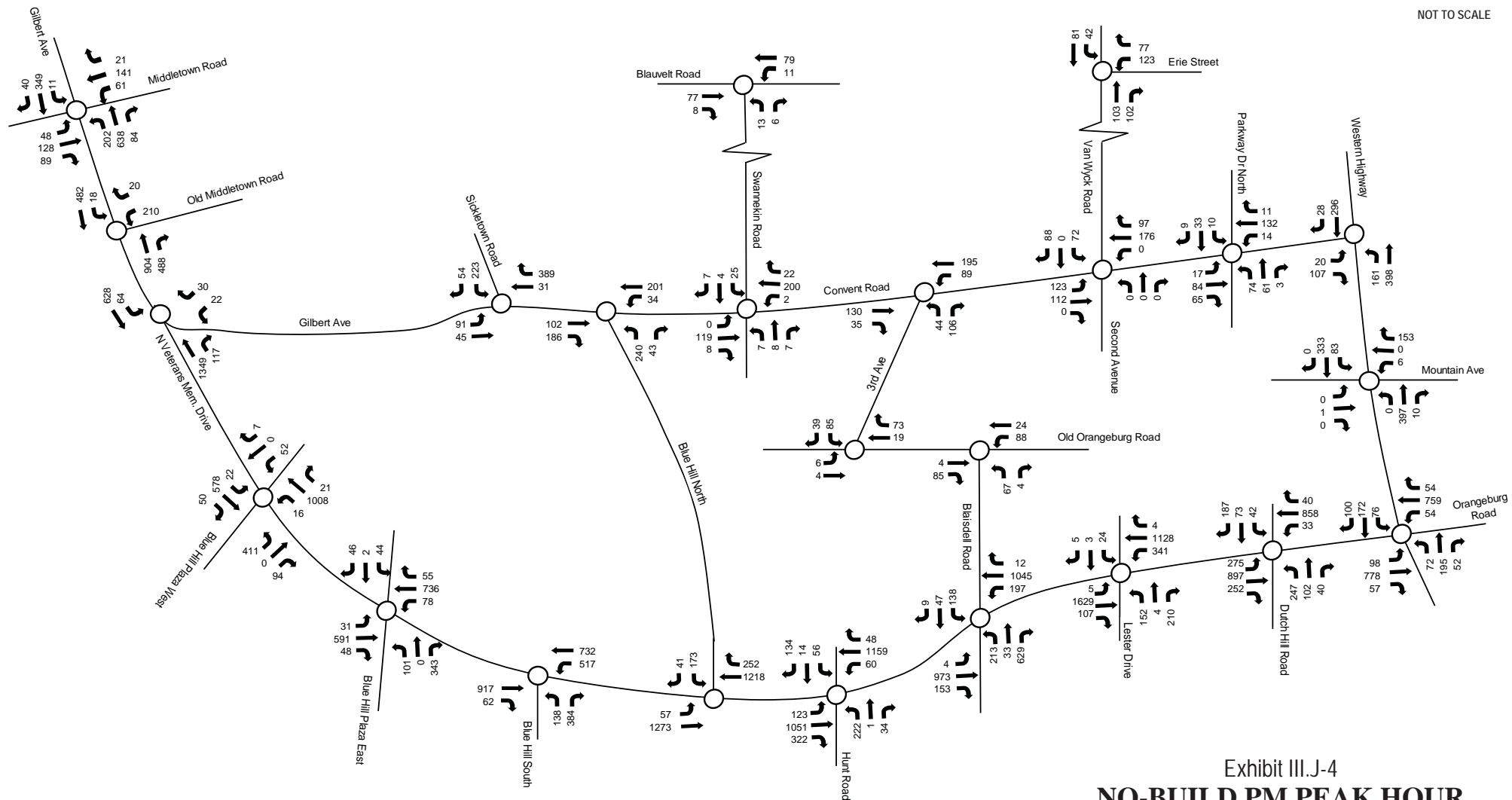


Exhibit III.J-4
**NO-BUILD PM PEAK HOUR
 TRAFFIC VOLUMES**

**FOUR SEASONS AT ORANGETOWN
 ROCKLAND PSYCHIATRIC CENTER**
 Town of Orangetown, New York



NOT TO SCALE

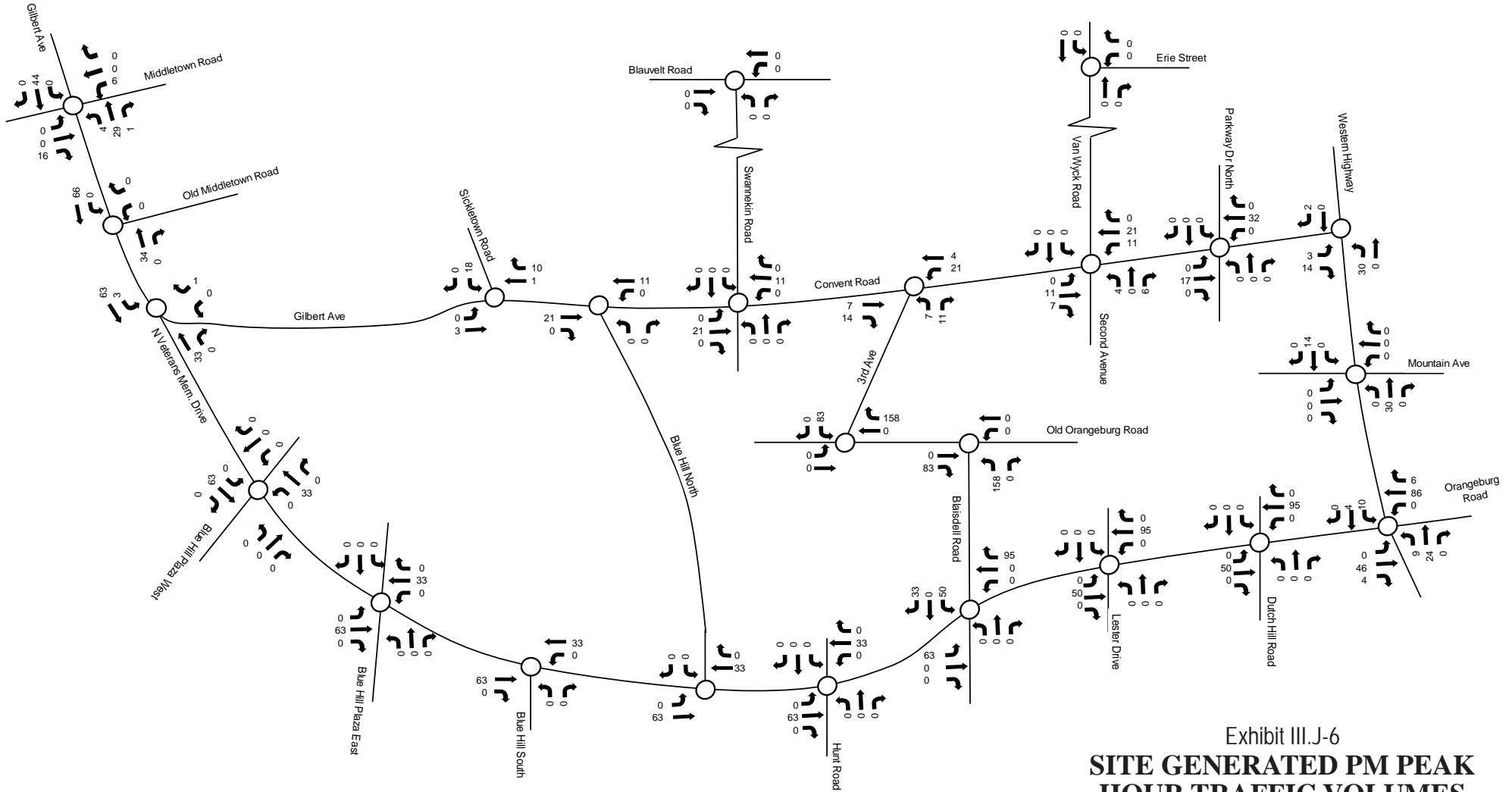


Exhibit III.J-6
**SITE GENERATED PM PEAK
 HOUR TRAFFIC VOLUMES**

**FOUR SEASONS AT ORANGETOWN
 ROCKLAND PSYCHIATRIC CENTER**
 Town of Orangetown, New York



NOT TO SCALE

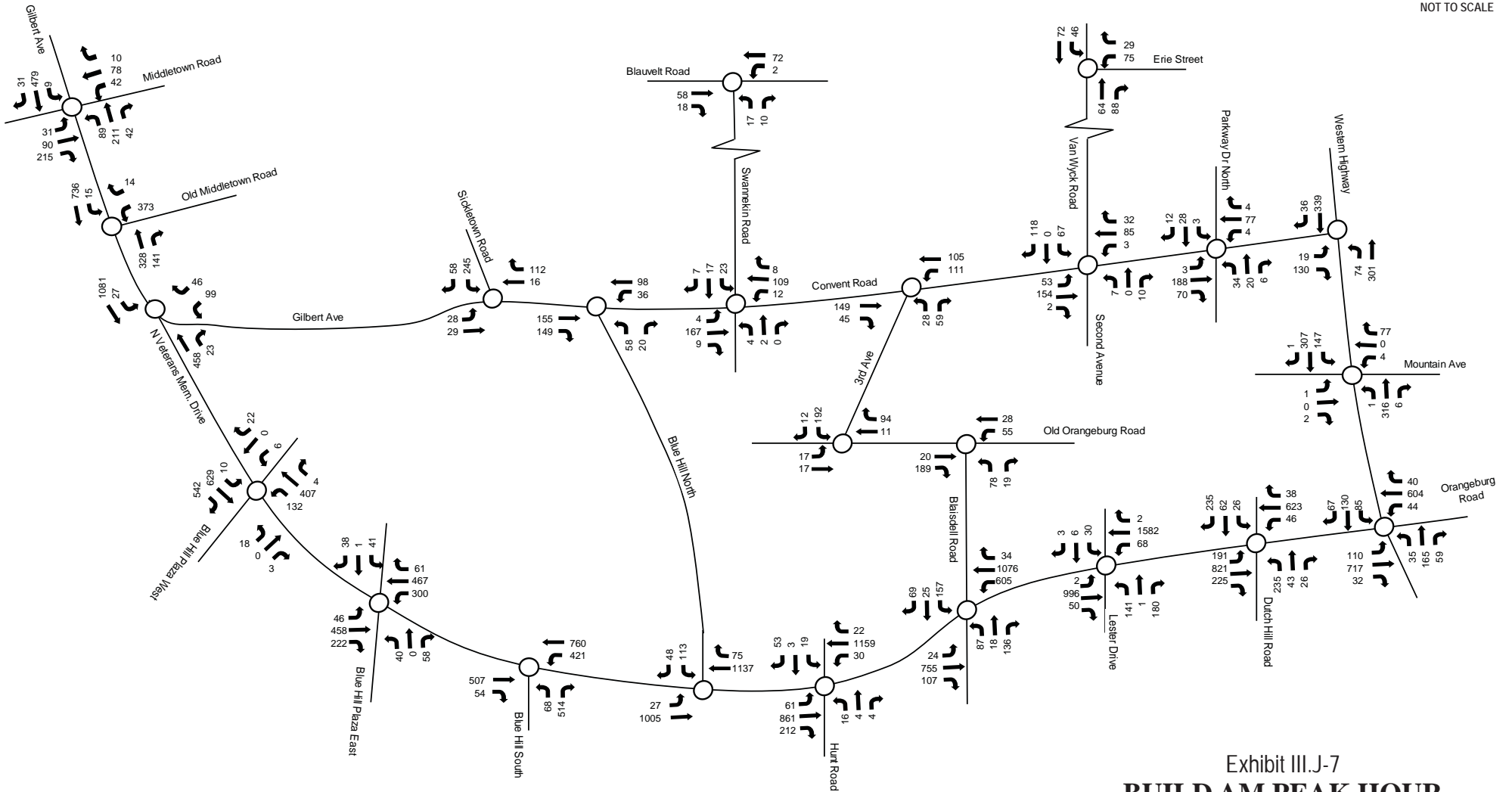


Exhibit III.J-7
**BUILD AM PEAK HOUR
 TRAFFIC VOLUMES**

**FOUR SEASONS AT ORANGETOWN
 ROCKLAND PSYCHIATRIC CENTER**
 Town of Orangetown, New York



NOT TO SCALE

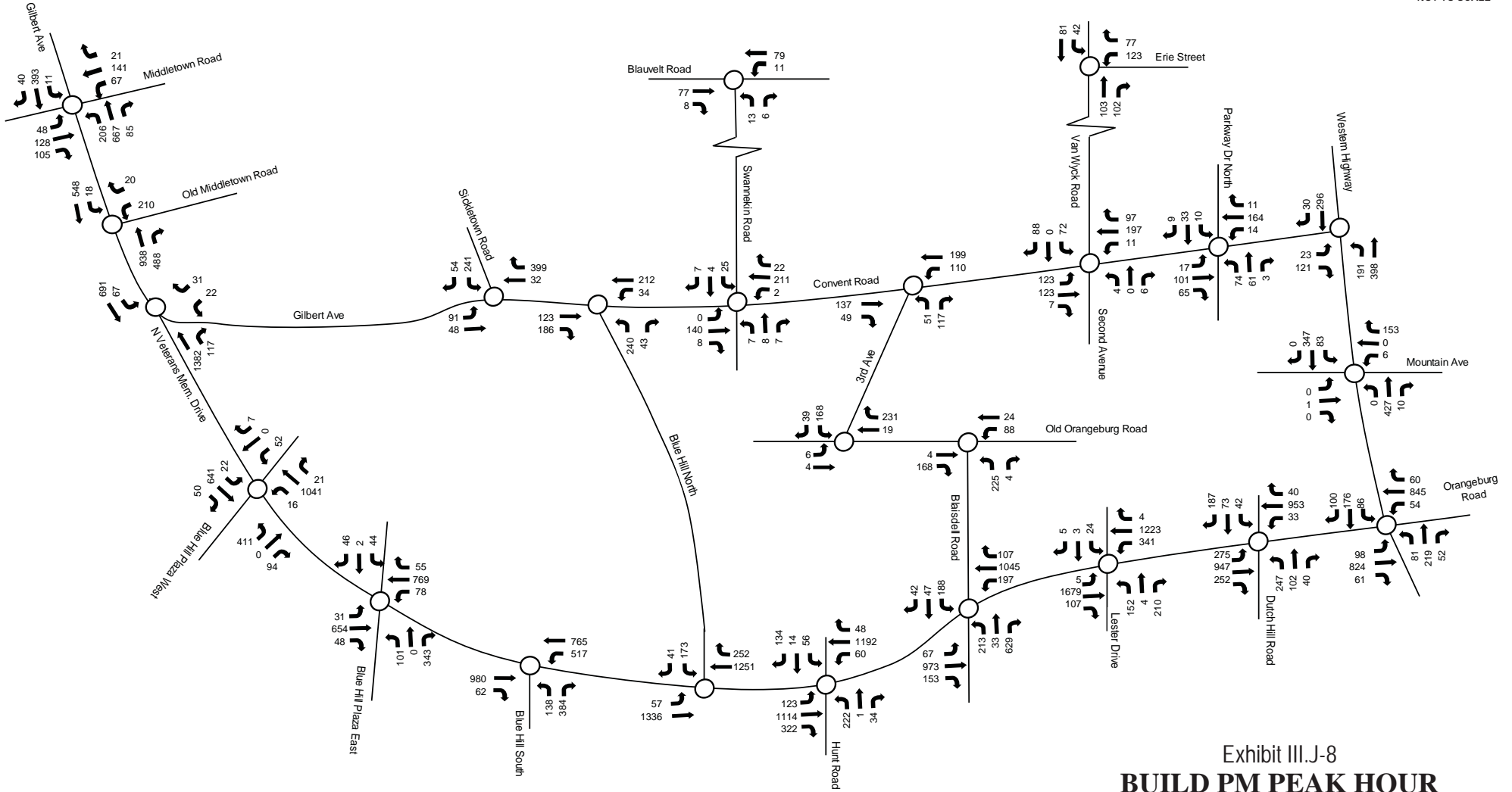


Exhibit III.J-8
**BUILD PM PEAK HOUR
 TRAFFIC VOLUMES**

**FOUR SEASONS AT ORANGETOWN
 ROCKLAND PSYCHIATRIC CENTER**
 Town of Orangetown, New York