A. INTRODUCTION

This chapter considers the potential transportation impacts from the Proposed Action. As described in Chapter 1, "Project Description," the Proposed Action includes; 1) the adoption of the MOD Zoning (the "Proposed Zoning Action") to establish a Medical Oriented District (MOD) in the area surrounding the existing New York Presbyterian Hospital (NYPH) facility recommended as part of *Envision* Cortlandt, the Town's Sustainable Comprehensive Plan; and 2) site plan approval for the MOD Development Plan (the "Proposed Project") proposed by the Applicants, Gyrodyne, LLC and VS Construction, including a mix of medical, residential, and commercial uses as well as parking and public amenities on multiple parcels within the MOD.

The Proposed Project includes the development of two sites, Gyrodyne and Evergreen, located on the south side of Route 202/35 opposite the NYPH. The Gyrodyne Project is proposed as a Class A medical office space with approximately 184,600 gsf on a 13.8 acre site directly across Route 202/35 from the NYPH entrance. The Gyrodyne Project would provide approximately 939 parking spaces (346 surface lot spaces and 593 spaces located in a parking structure.) Under existing conditions, the Gyrodyne site has 30,000 gsf of medical office that will be removed as part of the Gyrodyne Project. The Gyrodyne Project Site's driveway would utilize the existing driveway to the medical offices across from the NYPH entrance driveway on Route 202/35 forming a four-leg intersection. The proposed full access driveway would be improved to provide one shared left turn/through lane and one right turn only lane and would be signalized.

The Evergreen Project is proposed as a mix of uses including an 120 unit assisted living facility, 70 townhouses, 166 multi-family residential units and 7,000 sf of accessory retail uses. The site will also contain is proposed with an 120 unit assisted living facility, 166 residential units, 70 townhouses, and 7,427 surface parking spaces located across Route 202/35 from the NYPH campus between Lafayette and Conklin Avenues and adjacent to the Gyrodyne Project. Access to the Evergreen Project Site would be provided by a full access driveway at Route 202/35 opposite Conklin Avenue to create a four-leg intersection. The driveway would provide one left turn only lane and one shared through/right turn lane.

This chapter examines the potential effects of the Proposed Action on the study area transportation system, describing existing conditions within the Study Area and comparing future conditions in 2023 both without the Proposed Action (the "No Action" analysis), and with the Proposed Project (the "With Action" analyses). In addition, an Alternatives Build Program for the Gyrodyne site was analyzed.

PRINCIPAL CONCLUSIONS

Traffic conditions were evaluated at 25 intersections for the Weekday AM and PM peak hours. Under the 2023 With Action Condition

Table 11-1 identifies the locations of potential traffic impacts with the Proposed Action and where mitigation measures have been proposed to fully mitigate the impact. In addition, at two

intersections, mitigation measures were recommended to mitigate the projected impacts to one or more impacted movements to provide improvements where possible. No impacts were identified for vehicular and pedestrian safety, parking, pedestrians and transit.

Table 11-1 Summary of Traffic Impacts

Inters	ection	Proposed Action			
		Weekday AM		Weekda	y PM
EB/WB Street	NB/SB Street	Traffic Impact	Mit	Traffic Impact	Mit
Route 6	Dayton Lane	Not Impacted	N/A	NB-L	Yes
Route 6	Lexington Avenue	Not Impacted	N/A	EB - TR	No
Route 202/35	Lafayette Avenue/NYPH driveway	Not Impacted	N/A	EB-TR	Yes
Route 202/35	Bear Mountain Parkway	EB-LT	Yes	EB-LT	Yes
Route 202/35	Croton Avenue/ Maple Row	NB-L	No	WB-L WB-TR NB-L	No No No
Route 202/35	Lexington Avenue	EB-TR	Yes	EB-TR WB-T	No Yes
South Driveway	Dayton Lane	Not Impacted	N/A	WB-LR	No
Route 202/35	Dayton Lane	SB-LR	Yes	SB-LR	Yes
Route 202/35	Tamarack Drive	Not Impacted	N/A	NB-LR	Yes
Route 202/35	Shipley Drive/Dimond Avenue	Not Impacted	N/A	NB-LTR	No
Route 202/35	Locust Avenue	SB-LTR	No	Not Impacted	N/A
Bear Mountain Parkway	Arlo Lane	Not Impacted	N/A	NB-LTR	Yes
Total Impacted Inters	sections/Lane Groups	5/5		11/1	4

Notes: L = Left Turn, T = Through, R = Right Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, Mit = Mitigation Provided, NA = Not Applicable

The impacts and mitigation shown in **Table 11-1** are based on the additional time it would take to make an individual movement at an intersection under the proposed action. However, while some individual movements may experience an increase in delay, the total increase in delay through a series of movements along a route is not identified. For this reason, the total delay along the Route 202/35 corridor in the study area was also evaluated.

With the mitigation measures proposed the delay associated with the Proposed Project would be greatly reduced, however an increase in delay along the Route 202/35 corridor would still be experienced as compared to the 2023 No Action Condition. Therefore, additional mitigation measures are proposed to reduce travel time along the corridor with the Proposed Action:

- Route 202/35 and Lafayette Avenue/NY Presbyterian Hospital Driveway—signal phasing modifications to make the westbound left-turn a lagging phase.
- Route 202/35 from Dayton Lane to Conklin Avenue—Adjustments to the signal offsets to smooth traffic flow and progression between intersections.

With the implementation of these additional improvement measures, as well as the partial mitigation measures at the intersections of Route 202/35 and Bear Mountain Parkway and Route 202/35 and Lexington Avenue, additional storage capacity for turning vehicles would be provided and would improve the flow of through traffic along Route 202/35.

An Adaptive Traffic Control System (ATCS) is also proposed as an improvement measure and has the potential to further improve vehicle delay and number of stops along a congested arterial by approximately 10 percent (during the peak periods) when implemented correctly. In addition, as an ATCS adjusts traffic signal timing (offsets, cycle lengths and splits) based on real-time conditions it is better able to adapt to the variations in traffic volumes throughout the day, leading to a better driver experience through the corridor. Within the Town of Cortlandt, the U.S. Route 6 corridor from Jerome Avenue to Lexington Avenue currently operates under the control of an

11-2 March 15, 2022

ATCS and has shown improvements to travel times of approximately 10 percent during the peak periods, and greater improvements during the shoulder and weekend hours.

In addition to operational traffic improvements, the proposed mitigation measures for the Proposed Action would provide added safety benefits to many of the intersections along the Route 202/35 corridor in the study area. The proposed Project's Site Plan would also provide additional pedestrian facilities, including sidewalks and crosswalks, providing pedestrian connectivity between the Project Sites as well as the NYPH.

B. CAPACITY ANALYSIS METHODOLOGY

SIGNALIZED INTERSECTIONS

The operation of signalized intersections in the study area was analyzed by applying the Percentile Delay Methodology included in the Synchro 10 traffic signal software. The Percentile Delay Methodology differs from the *Highway Capacity Manual (HCM)* Methodology by calculating vehicle delays for five different percentile scenarios (10th, 30th, 50th, 70th and 90th) and taking the volume weighted average of the scenarios as compared to HCM which calculates delay for a single average scenario. In addition, the Percentile Delay Methodology includes an additional queue delay component to account for the effects of queues and blocking on short links and turning bays. The methodology evaluates signalized intersections for average delay per vehicle and level of service (LOS).

LOS can be characterized for the entire intersection, each intersection approach, and each lane group. Delay alone is used to characterize LOS for the entire intersection or an approach. Total delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operation with a delay of 10 seconds per vehicle 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 operation with delay between 10 and 20 seconds per vehicle 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 operation with delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operation with delay between 35 and 55 seconds per vehicle 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. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operation with delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity

11-3 March 15, 2022

ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operation with delay exceeding 80 seconds per vehicle 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. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 seconds per vehicle 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 seconds per vehicle represents failure from a delay perspective).

The delay criteria for the range of service levels for signalized intersections are shown in **Table 11-2**.

Table 11-2 LOS Criteria for Signalized Intersections

	_ 0 0 0 1 1 0 1 0 1 0 1 0 1 0 1 1 1 1 1				
	Level-of-Se	rvice (LOS) ⁽¹⁾			
Total Delay Per Vehicle	v/c ratio ≤ 1.0	v/c ratio > 1.0			
≤ 10.0 seconds	A	F			
>10.0 and ≤ 20.0 seconds	В	F			
>20.0 and ≤ 35.0 seconds	С	F			
>35.0 and ≤ 55.0 seconds	D	F			
>55.0 and ≤ 80.0 seconds	E	F			
>80.0 seconds	F	F			

Note: (1) For approach-based and intersection-wide assessments, LOS is defined solely by delay. **Source:** Transportation Research Board. *2010 Highway Capacity Manual.*

UNSIGNALIZED INTERSECTIONS

LOS for a two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections is determined by the computed or measured control delay using HCM Methodology. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns at TWSC intersections and for all movements at AWSC intersections. LOS is not defined for the intersection as a whole for TWSC intersections.

The LOS criteria for both TWSC and AWSC unsignalized intersections are summarized in **Table 11-3**.

Table 11-3 LOS Criteria for Unsignalized Intersections

	Level-of-Service (LOS) ⁽¹⁾			
Control Delay Per Vehicle	v/c ratio ≤ 1.0	v/c ratio > 1.0		
≤ 10.0 seconds	А	F		
>10.0 and ≤ 15.0 seconds	В	F		
>15.0 and ≤ 25.0 seconds	С	F		
>25.0 and ≤ 35.0 seconds	D	F		
>35.0 and ≤ 50.0 seconds	E	F		
>50.0 seconds	F	F		

Note: (1) For TWSC intersections, the LOS criteria apply to each lane on a given approach and to each approach on the minor street (for TWSC intersections). LOS is not calculated for major-street approaches or for the intersection as a whole.

Source: Transportation Research Board. 2010 Highway Capacity Manual.

11-4 March 15, 2022

Note that the LOS criteria for unsignalized intersections are somewhat different from the criteria used in signalized intersections. At TWSC intersections, drivers on the stop-controlled approaches are required to select gaps in the major-street flow in order to execute crossing or turning maneuvers. In the presence of a queue, each driver on the controlled approach must also use some time to move into the front-of-queue position and prepare to evaluate gaps in the major-street flow. AWSC intersections require drivers on all approaches to stop before proceeding into the intersection.

C. 2017 EXISTING CONDITIONS

To assess the traffic impacts associated with the Proposed Action, a Study Area was identified that considered key intersections that might be affected by project generated trips. As presented in **Figure 11-1,** a total of 25 locations were identified for analysis:

- 1. Route 202/35 and Dayton Lane
- 2. Route 202/35 and Buttonwood Avenue
- 3. Route 202/35 and Conklin Avenue
- 4. Route 202/35 and Tamarack Drive
- 5. Route 6 and Dayton Lane
- 6. Dayton Lane and Beach Shopping Center (North)
- 7. Dayton Lane and Beach Shopping Center (South)
- 8. Route 202/35 and Dimond Avenue/Shipley Drive
- 9. Route 202/35 and Locust Avenue
- 10. Route 202/35 and Crestview Avenue
- 11. Route 202/35 and Bear Mountain Parkway
- 12. Route 202/35 and Croton Avenue/Maple Row
- 13. Route 202/35 and Lexington Avenue
- 14. Route 202/35 and Medical Center Driveway/NYPH Driveway
- 15. Route 202/35 and Lafayette Avenue/NYPH Driveway
- 16. Route 6 and Conklin Avenue
- 17. Bear Mountain Parkway and Locust Avenue
- 18. Route 202/35 and Forest Avenue
- 19. Route 202/35 and Rick Lane
- 20. Bear Mountain Parkway and Arlo Lane
- 21. Route 202/35 and Arlo Lane
- 22. Route 6 and Lexington Avenue
- 23. Lafayette Avenue and Ridge Road
- 24. Route 6 and Bear Mountain Parkway Eastbound Ramps
- 25. Route 6 and Bear Mountain Parkway Westbound Ramps

Manual turning movement counts and vehicle classification counts were collected at all the study area intersections during the Weekday AM (7:00 AM to 9:00 AM) and Weekday PM (4:00 PM to 6:00 PM) peak periods. Existing traffic conditions at intersections 1 through 4 listed above were established based on traffic counts conducted in February 2016 and intersections 5 through 13 collected in May 2016. Traffic counts for intersections 14 and 15 were conducted in May 2017, intersections 16 through 22 were collected in October 2017 and intersection 23 was collected in October 2018. Traffic counts for intersections 24 and 25 were obtained from the Gasland Cortlandt Traffic Impact Study collected in March 2019. Traffic counts collected in 2016 were grown by two percent per year, consistent with historical data along the corridor and recent traffic studies in Cortlandt, for a baseline analysis year of 2017. Data collection sheets are provided in **Appendix VII**.

11-5 March 15, 2022



CORTLANDT MOD

Study Area Figure 11-1

In addition to the manual turning movement counts at study area intersections, Automatic Traffic Recorder (ATR) counts were conducted for one full week during the months of February 2017 on Route 202/35 (both east and west of Croton Avenue), October 2017 on Route 202/35 east of Lafayette Avenue, and September 2018 on Lafayette Avenue between Ridge Road and Route 202/35. Field inventories of roadway geometry and signal timings/phasings were also conducted to provide the appropriate inputs to the operational analyses and are provided in **Appendix VII**.

ROADWAY AND INTERSECTION CHARACTERISTICS

The following is a brief description of the major roadways and intersections within the study area.

ROUTE 202/35

U.S. Route 202 and NYS Route 35 ("Route 202/35"), also designated as Crompond Road, is a principal arterial roadway under the jurisdiction of the New York State Department of Transportation (NYSDOT) that generally traverses in an east-west direction. Route 202/35 within the Study Area generally provides one moving lane in each direction with two-way traffic volumes ranging from approximately 785 to 1,980 vehicles per hour (vph) and varies in width between approximately 32 and 50 feet. The shoulders along Route 202/35 in the study area are generally 6 feet wide or less. Based on field observations, the pavement along Route 202/35 in the study area is in good condition, as also reported by NYSDOT's *Highway Sufficiency Ratings*. Route 202/35 has a posted speed limit of 40 mph in the western portion of the study area and 45 mph in the eastern portion of the study area.

ROUTE 6

U.S. Route 6 ("Route 6"), also designated as Main Street, is a principal arterial roadway under the jurisdiction of NYSDOT that generally traverses in an east-west direction. Within the Study Area, Route 6 generally provides one moving lane in each direction with two-way traffic volumes ranging from approximately 700 to 2,130 vph and varies in width between approximately 50 and 60 feet without shoulders. Based on field observations, the pavement along Route 6 in the study area is in good condition, as also reported by NYSDOT's *Highway Sufficiency Ratings*. Route 6 has a posted speed limit of 30 mph in the western portion of the study area and 40 mph in the eastern portion of the study area.

BEAR MOUNTAIN STATE PARKWAY

Bear Mountain State Parkway is a limited-access principal arterial roadway under the jurisdiction of NYSDOT. Although generally an east-west roadway, Bear Mountain State Parkway intersects with Route 202/35 in a north-south direction. Bear Mountain State Parkway generally provides one moving lane in each direction within the Study Area and has a pavement width of approximately 30 feet in the vicinity of its intersection with Route 202/35. At its intersection with Route 202/35, Bear Mountain State Parkway has a gravel shoulder on the west side and provides no shoulder on the east side. At its interchange with Route 6, Bear Mountain State Parkway provides two moving lanes in the eastbound direction and one moving lane in the westbound direction. The eastbound and westbound on- and off-ramps at Route 6 provide one lane in each direction with two off-ramp lanes at the intersections. Based on field observations, the pavement along the Bear Mountain Parkway in the study area is in good condition. Bear Mountain State Parkway has a posted speed limit of 45 mph in the study area and two-way traffic volumes of approximately 755 to 1,145 vph.

11-6 March 15, 2022

LAFAYETTE AVENUE

Lafayette Avenue is classified by NYSDOT as a minor arterial roadway. Lafayette Avenue generally traverses in a north-south direction and provides one moving lane in each direction with two-way traffic volumes of approximately 180 to 345 vph. At its intersection with Route 202/35, Lafayette Avenue provides a single shared left turn/right turn lane. The north leg of the intersection provides egress from the NYPH campus. The pavement width along Lafayette Avenue is approximately 24 feet wide within the Study Area. The shoulders along Lafayette Avenue in the study area are generally 2 feet wide or less. Based on field observations, the pavement along Lafayette Avenue in the study area is in fair condition. Lafayette Avenue is under the jurisdiction of the Town of Cortlandt. Lafayette Avenue has a posted speed limit of 30 mph in the Study Area.

CROTON AVENUE

Croton Avenue is classified by NYSDOT as a minor arterial roadway that generally traverses in a north-south direction within the study area. Croton Avenue generally provides one moving lane in each direction with a two-way traffic volume of approximately 560 to 740 vph. At the northern end of Croton Avenue at its intersection with Route 202/35, Croton Avenue has a northbound left turn lane and a shared through/right turn lane to facilitate movements at the intersection. The pavement width along Croton Avenue varies between approximately 22 and 41 feet. The shoulders along Croton Avenue in the study area are generally less than 6 feet wide. Based on field observations, the pavement along Croton Avenue in the study area is in good condition. Croton Avenue is under the jurisdiction of the Town of Cortlandt within the study area. Croton Avenue has a posted speed limit of 30 mph within the study area.

LEXINGTON AVENUE

Lexington Avenue is classified by NYSDOT as a minor arterial roadway. Lexington Avenue generally traverses in a north-south direction and provides one moving lane in each direction with two-way traffic volumes of approximately 375 to 735 vph. At its intersection with Route 202/35, Lexington Avenue provides a dedicated right turn lane and a shared left turn/through lane. The pavement width along Lexington Avenue is approximately 24 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Lexington Avenue in the study area is in fair condition. Lexington Avenue is under the jurisdiction of the Town of Cortlandt. Lexington Avenue has a posted speed limit of 30 mph in the study area.

MAPLE ROW

Maple Row is classified by NYSDOT as a major collector roadway. Maple Row generally traverses in a north-south direction and generally provides one moving lane in each direction with two-way traffic volumes of approximately 295 to 340 vph. The pavement width along Maple Row is approximately 33 feet wide within the study area. The shoulders along Maple Row in the study area are generally less than 2 feet wide. Based on field observations, the pavement along Maple Row in the study area is in good condition. Maple Row is under the jurisdiction of the Town of Cortlandt within the study area. Maple Row has a posted speed limit of 30 mph in the study area.

DAYTON LANE

Dayton Lane is classified by NYSDOT as a local roadway. Dayton Lane generally traverses in a north-south direction and provides one moving lane in each direction with two-way traffic volumes of approximately 360 to 780 vph. At its intersection with Route 202/35, Dayton Lane provides a single shared left turn/right turn lane. The pavement width along Dayton Lane is approximately 38 feet wide within the study area and no shoulders are provided. Based on field

11-7 March 15, 2022

observations, the pavement along Dayton Lane in the study area is in fair condition. Dayton Lane is under the jurisdiction of the City of Peekskill. Dayton Lane has a speed limit of 30 mph in the study area.

BEACH SHOPPING CENTER DRIVEWAYS

The Beach Shopping Center Driveways are private driveways. The Beach Shopping Center Driveways generally traverse in an east-west direction and provide access to the Beach Shopping Center. Both the northern and southern driveways provide one moving lane in each direction and centerline striping is provided on the pavement to designate the travel lanes. The pavement width along approximately 24 and 27 feet wide along the northern and southern driveway, respectively. Based on field observations, the pavement along the Beach Shopping Center Driveways in the study area is in fair condition.

BUTTONWOOD AVENUE

Buttonwood Avenue is classified by NYSDOT as a local roadway with a two-way traffic volume of approximately 10 to 25 vph. Buttonwood Avenue generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Buttonwood Avenue provides a single shared left turn/right turn lane. The pavement width along Buttonwood Avenue is approximately 35 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Buttonwood Avenue in the study area is in fair condition. Buttonwood Avenue is under the jurisdiction of the Town of Cortlandt. Buttonwood Avenue has a posted speed limit of 30 mph in the study area.

NYPH DRIVEWAYS, CORTLANDT MEDICAL CENTER DRIVEWAYS

The NYPH and Cortlandt Medical Center Driveways are private driveways. The driveways generally traverse in a north-south direction and provide access to New York-Presbyterian Hudson Valley Hospital to the north of Route 202/35 and Cortlandt Medical Center to the south of Route 202/35. On the south side of Route 202/35, the Cortlandt Medical Center driveway provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. On the north side of Route 202/35, the westernmost New York Presbyterian driveway provides two receiving lanes for access to NYPH campus and egress is provided at the easternmost driveway at the intersection of Route 202/35 and Lafayette Avenue. The pavement width for each of the driveways is approximately 24 feet wide and no shoulders are provided. Based on field observations, the pavement of the NY Presbyterian and Medical Center Driveways in the study area is in fair condition. The driveways have a posted speed limit of 10 mph.

RIDGE ROAD

Ridge Road is classified by NYSDOT as a local roadway with two-way traffic volumes of approximately 50 to 90 vph. Ridge Road generally traverses in an east-west direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Lafayette Avenue, Ridge Road provides a single shared left turn/right turn lane. The pavement width along Ridge Road is approximately 30 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Ridge Road in the study area is in fair condition. Ridge Road is under the jurisdiction of the Town of Cortlandt. Ridge Road has a speed limit of 30 mph in the study area.

11-8 March 15, 2022

CONKLIN AVENUE

Conklin Avenue is classified by NYSDOT as a local roadway with two-way traffic volumes of approximately 420 to 460 vph. Conklin Avenue generally traverses in a north-south direction and provides one moving lane in each direction. At its intersection with Route 202/35, Conklin Avenue provides a dedicated left turn lane and a dedicated right turn lane. The pavement width along Conklin Avenue is approximately 24 feet wide within the study area. The shoulders along Conklin Avenue in the study area are generally 4 feet wide or less. Based on field observations, the pavement along Conklin Avenue in the study area is in fair condition. Conklin Avenue is under the jurisdiction of the Town of Cortlandt. Conklin Avenue has a posted speed limit of 30 mph in the study area.

TAMARACK DRIVE

Tamarack Drive is classified by NYSDOT as a local roadway with two-way traffic volumes of approximately 35 to 55 vph. Tamarack Drive generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Tamarack Drive provides a single shared left turn/right turn lane. The pavement width along Tamarack Drive is approximately 30 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Tamarack Drive in the study area is in fair condition. Tamarack Drive is under the jurisdiction of the Town of Cortlandt. Tamarack Drive has a posted speed limit of 30 mph in the study area.

DIMOND AVENUE

Dimond Avenue is classified by NYSDOT as a local roadway with two-way traffic volumes of approximately 40 to 145 vph. Dimond Avenue generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Dimond Avenue provides a single shared left turn/right turn lane. The pavement width along Dimond Avenue is approximately 26 feet wide within the study area. The shoulders along Dimond Avenue in the study area are generally 4 feet wide or less. Based on field observations, the pavement along Dimond Avenue in the study area is in fair condition. Dimond Avenue is under the jurisdiction of the Town of Cortlandt. Dimond Avenue has a posted speed limit of 30 mph in the study area.

SHIPLEY DRIVE

Shipley Drive is classified by NYSDOT as a local roadway with two-way traffic volumes of approximately 10 vph. Shipley Drive generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Shipley Drive provides a single shared left turn/right turn lane. The pavement width along Shipley Drive is approximately 30 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Shipley Drive in the study area is in fair condition. Shipley Drive is under the jurisdiction of the Town of Cortlandt. Shipley Drive has a speed limit of 30 mph in the study area.

LOCUST AVENUE

Locust Avenue is classified by NYSDOT as a local roadway with two-way of volumes of approximately 40 to 90 vph. Locust Avenue generally traverses in a north-south direction and provides one moving lane in each direction. At its intersection with Route 202/35, Locust Avenue provides a single shared left turn/right turn lane. The pavement width along Locust Avenue is

11-9 March 15, 2022

approximately 22 feet wide within the study area. The shoulders along Locust Avenue in the study area are generally 3 feet wide or less. Based on field observations, the pavement along Locust Avenue in the study area is in fair condition. Locust Avenue is under the jurisdiction of the Town of Cortlandt. Locust Avenue has a posted speed limit of 30 mph in the study area.

CRESTVIEW AVENUE

Crestview Avenue is classified by NYSDOT as a local roadway with two-way traffic volumes of 10 to 20 vph. Crestview Avenue generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Crestview Avenue provides a single shared left turn/right turn lane. The pavement width along Crestview Avenue is approximately 24 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Crestview Avenue in the study area is in fair condition. Crestview Avenue is under the jurisdiction of the Town of Cortlandt. Crestview Avenue has a posted speed limit of 30 mph in the study area.

FOREST AVENUE

Forest Avenue is classified by NYSDOT as a local roadway with two-way traffic volumes of approximately 20 vph. Forest Avenue generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Forest Avenue provides a single shared left turn/right turn lane. The pavement width along Forest Avenue is approximately 30 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Forest Avenue in the study area is in fair condition. Forest Avenue is under the jurisdiction of the Town of Cortlandt. Forest Avenue has a posted speed limit of 30 mph in the study area.

RICK LANE

Rick Lane is classified by NYSDOT as a local roadway with two-way traffic volumes of 10 to 20 vph. Rick Lane generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Rick Lane provides a single shared left turn/right turn lane. The pavement width along Rick Lane is approximately 24 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Rick Lane in the study area is in fair condition. Rick Lane is under the jurisdiction of the Town of Cortlandt. Rick Lane has a posted speed limit of 30 mph in the study area.

ARLO LANE

Arlo Lane is classified by NYSDOT as a local roadway with two-way traffic volumes of 20 to 60 vph. Arlo Lane generally traverses in a north-south direction and provides one moving lane in each direction; however, centerline striping is not provided on the pavement to designate the travel lanes. At its intersection with Route 202/35, Arlo Lane provides a single shared left turn/right turn lane. The pavement width along Arlo Lane is approximately 26 feet wide within the study area and no shoulders are provided. Based on field observations, the pavement along Arlo Lane in the study area is in fair condition. Arlo Lane is under the jurisdiction of the Town of Cortlandt. Arlo Lane has a speed limit of 30 mph in the study area.

11-10 March 15, 2022

LEVEL OF SERVICE CONDITIONS

Based on a review of all the traffic count data, the peak hours for the study area were determined to be 7:45 AM to 8:45 AM and 5:00 PM to 6:00 PM for the Weekday AM and Weekday PM peak hours, respectively. Traffic volumes for the 2017 existing peak hours analyzed are presented in **Figures 11-2** and **11-3**.

Traffic operating conditions at each study area intersection were analyzed using the Synchro 10 Percentile delay and *HCM2010* methodology (see **Appendix VII** for Synchro 10 outputs for all study area intersections) to compute delays, v/c ratios, and LOS as described in Section B above.

During peak hours, LOS D operations are generally considered to be acceptable operating conditions for signalized and unsignalized intersections. As shown in **Table 11-4** most of the study area intersection lane groups/approaches operate at LOS D or better under 2017 Existing Conditions during the peak hours analyzed. The following are exceptions:

- Route 6 and Conklin Avenue—the northbound left turn/through movement operates at LOS E during the Weekday PM peak hour.
- Route 6 and Lexington Avenue—the eastbound left turn operates at LOS F during the Weekday PM peak hour. The westbound through/right turn movement operates at LOS E during the Weekday PM peak hour. The northbound left turn operates at LOS E during the Weekday PM peak hour. The northbound through/right turn movement operates at LOS E during the Weekday AM and Weekday PM peak hours. The southbound through/right turn movement operates at LOS F during the Weekday PM peak hour.
- Route 202/35 and Lafayette Avenue/NYPH Driveway—the southbound left turn/through movement operates at LOS F during the Weekday AM and Weekday PM peak hours.
- Route 202/35 and the Bear Mountain State Parkway—the southbound approach operates at LOS F and LOS E during the Weekday AM and Weekday PM peak hours, respectively.
- Route 202/35 and Croton Avenue/Maple Row—the northbound left turn operates at LOS F during the Weekday AM and Weekday PM peak hours. The southbound approach operates at LOS F and LOS E during the Weekday AM and Weekday PM peak hours, respectively.
- Route 6 and Bear Mountain Parkway Westbound Ramps the northbound left turn operates at LOS F during the Weekday AM and Weekday PM peak hours. The southbound approach operates at LOS F during the Weekday PM peak hour.
- Dayton Lane and Beach Shopping Center Driveway (South)—the westbound approach operates at LOS F during the Weekday PM peak hour.
- Route 202/35 and Dayton Lane—the southbound approach operates at LOS F during the Weekday AM and Weekday PM peak hours.
- The Bear Mountain State Parkway and Arlo Lane—the northbound approach operates at LOS E during the Weekday AM and Weekday PM peak hours.

The Route 202/35 corridor has long standing traffic congestion concerns, particularly for the segment of the corridor from Yorktown to Cortlandt where the Bear Mountain Parkway merges with Route 202/35. This segment of Route 202/35 is primarily one lane in either direction with turning lanes. The intersections of Route 202/35 and Bear Mountain Parkway and Croton Avenue/Maple Row are at the western end of this segment and are closely spaced, operating with a single traffic controller. As shown in **Table 11-4**, these intersections currently operate at or above capacity under existing conditions and any additional traffic would further exacerbate these conditions.

11-11 March 15, 2022



Legend

Signalized Intersection

Unsignalized Intersection

0 500 FEET



•

• Signalized Intersection

Unsignalized Intersection

2017 Existing Traffic Volumes Weekday AM Peak Hour Figure 11-2B



Legend

Signalized Intersection

Unsignalized Intersection

0 500 FEE1

2017 Existing Traffic Volumes Weekday PM Peak Hour Figure 11-3A



•

• Signalized Intersection

Unsignalized Intersection

2017 Existing Traffic Volumes Weekday PM Peak Hour Figure 11-3B

Table 11-4 2017 Existing Conditions Level of Service Analysis

				ug Coi	nditions L			iaiysis
Interes - C	L 0	Weekday		1.00	Lama Green	Weekday		160
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Route 6 and Dayton Lane		Si	gnalized Inters	ections				
Eastbound	L	0.04	5.2	Α	1	0.08	9.7	Α
Lastbourla	TR	0.04	8.0	A	TR	0.46	19.1	В
Westbound	L	0.11	5.3	A	L	0.33	11.3	В
	TR	0.14	9.6	A	TR	0.25	15.8	В
Northbound	L	0.39	32.2	С	L	0.81	47.3	D
	TR	0.22	27.6	С	TR	0.13	23.7	С
Southbound	LT	0.53	35.8	D	LT	0.08	23.1	С
	R	0.30	19.6	В	R	0.07	14.4	В
	Interse	ction	14.8	В	Interse	ection	22.4	С
Route 6 and Conklin Avenue								
Eastbound	L	0.01	2.6	A	L	0.01	3.0	A
Moothound	TR L	0.15	4.8	A A	TR L	0.24	5.7 4.2	A A
Westbound	TR	0.23 0.14	3.1 3.1	A	TR	0.29 0.17	3.6	A
Northbound	LT	0.14	55.0	D	LT	0.17	57.3	E
Northbourid	R	0.70	19.9	В	R	0.72	18.6	В
Southbound	LTR	0.23	33.6	C	LTR	0.41	38.8	D
222.000.00	Interse		8.0	A	Interse		9.4	A
Route 6 and Bear Mountain I				•			•	
Eastbound	L	0.16	35.2	D	L	0.22	40.6	D
	TR	0.42	12.6	В	TR	0.57	16.0	В
Westbound	LTR	0.67	20.5	С	LTR	0.82	28.7	С
Northbound	LTR	0.01	0.0	Α	LTR	0.02	0.2	Α
Southbound	L	0.62	27.2	С	L	0.68	31.9	С
	TR	0.17	7.1	A	TR	0.06	0.1	A
	Interse	ction	18.7	В	Interse	ection	24.0	С
Route 6 and Lexington Aven		0.00	47.0			0.07	00.4	
Eastbound	L	0.28	17.2	В	L TD	0.87	80.4	F
Westbound	TR	0.91 0.43	51.9 21.1	D C	TR I	0.89 0.32	44.8 17.6	D B
Westboulid	TR	0.43	38.7	D	TR	1.01	71.0	E
Northbound	L	0.29	33.8	C	L	0.85	75.8	E
. voi a la caria	TR	0.81	65.1	Ē	TR	0.65	69.7	E
Southbound	L	0.43	36.4	D	L	0.31	44.9	D
	TR	0.55	52.1	D	TR	0.91	99.2	F
	Interse		46.2	D	Interse	ection	64.3	E
Route 202/35 and Lafayette								
Eastbound	TR	0.49	18.8	В	TR	0.59	25.3	С
Westbound	<u> </u>	0.11	13.1	В	L	0.28	17.4	В
Newfile	T	0.51	19.1	В	T	0.51	23.4	С
Northbound	LTR	0.57	17.5	B F	LTR	0.82	41.8	D F
Southbound	LT R	0.78 0.13	87.2 0.9	A	LT R	1.41 0.34	259.7 7.6	A
	Interse		22.3	C	Interse		50.6	D
Route 202/35 and Conklin Av		J. J	22.0		i iiieise	,0d011	50.0	ע
Eastbound	L	0.32	1.9	Α	L	0.36	1.7	Α
	T	0.28	1.6	A	T	0.31	1.1	A
Westbound	TR	0.44	10.9	В	TR	0.49	11.6	В
Southbound	L	0.47	51.3	D	L	0.45	50.9	D
-	R	0.48	9.2	Α	R	0.34	6.7	Α
	Interse	ction	9.3	Α	Interse	ection	8.6	Α
Route 202/35 and Bear Mour			1					
Eastbound	LT_	0.76	53.0	D	LT _	0.71	47.6	D
Westbound	T	0.38	19.1	В	T	0.45	13.5	В
On other const	R	0.39	2.1	A	R	0.53	9.8	A
Southbound	LR	1.15	129.4	F	LR	0.83	60.1	E
Route 202/35 and Croton Av	Intersec	JUUII	63.3	E	Interse	CHOII	31.9	С
Eastbound	- I I I I I I I I I I I I I I I I I I I	0.10	1.7	Α	L	0.16	2.9	Α
Lastnoning	T	0.10	18.5	В	T	0.16	7.2	A
	R	0.81	0.6	A	R	0.04	1.0	A
Westbound	L	0.23	12.8	В	L	0.13	7.1	A
vvosibouriu	TR	0.56	17.5	В	TR	0.79	26.1	C
Northbound	L	1.44	287.0	F	L	0.94	114.7	F
	TR	0.38	26.2	С	TR	0.41	36.5	D
Southbound	LTR	0.89	86.1	F	LTR	0.71	69.5	E
	Interse		39.9	D	Interse		27.3	С
	•							

11-12 March 15, 2022

Table 11-4 (cont'd) 2017 Existing Conditions Level of Service Analysis

-		20	17 Existi	ng Coi	nditions L			iaiysis
		Weekday				Weekday		
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
D		Signaliz	ed Intersection	s (continu	ed)			
Route 202/35 and Lexington	1 Avenue	0.12	6.0	Λ .		0.52	24.4	C
Eastbound	TR	0.12 0.92	6.2 32.1	A C	TR	0.53 0.82	21.1 23.7	C
Westbound	1	0.92	6.6	A	118	0.02	6.0	A
Westbound		0.67	18.2	В	Ť	1.02	54.8	D
	R	0.10	3.0	A	R	0.21	2.5	A
Northbound	LTR	0.14	29.3	C	LTR	0.23	32.9	C
Southbound	LT	0.74	50.1	D	LT	0.69	49.9	D
	R	0.21	8.1	Α	R	0.18	5.5	Α
	Interse	ction	26.2	С	Interse	ection	35.7	D
			signalized Inter	rsections				
Bear Mountain Parkway We	stbound Ramps ar		1		1		T	
Eastbound	L .	0.00	9.0	A	L	0.02	9.7	A
Westbound	L	0.26	11.3	В	L	0.49	17.4	С
Northbound	L	0.18	61.7	F	L	0.77	386.7	F
Courthhound	TR LTR	0.08 0.11	15.1	C D	TR LTR	0.07	13.8 111.4	B F
Southbound Dayton Lane and Beach Sho			30.3	U	LIK	0.46	111.4	F
Westbound	LR	0.15	10.9	В	LR	0.23	13.7	В
Southbound	I	0.04	7.6	A	L	0.05	8.3	A
Dayton Lane and Beach She	opping Center Sou					0.00		
Westbound	LR	0.09	11.4	В	LR	0.83	55.0	F
Southbound	L	0.02	7.7	A	L	0.13	9.2	A
Route 202/35 and Dayton La	ane							
Eastbound	L	0.11	8.5	Α	L	0.15	9.6	Α
Southbound	LR	0.93	80.3	F	LR	1.13	127.4	F
Route 202/35 and Buttonwo	od Avenue							
Westbound	L	0.01	8.9	Α	L	0.00	8.4	Α
Northbound	LR	0.13	17.8	С	LR	0.01	14.7	В
Route 202/35 and Cortlandt	Medical Driveway					1		
Eastbound	<u> </u>	0.11	9.3	A	L .	0.04	9.3	A
Westbound	L	0.04	8.6	A	L	0.01	8.2	A
Northbound Route 202/35 and Tamarack	LTR	0.03	14.3	В	LTR	0.11	14.6	В
Westbound	l	0.00	8.3	Α	l i	0.03	8.7	Α
Northbound	LR	0.10	15.9	C	LR	0.07	16.1	C
Route 202/35 and Dimond A			10.0			0.07		
Eastbound	L	0.00	0.0	Α	L	0.01	8.7	Α
Westbound	L	0.01	8.3	Α	L	0.02	8.4	Α
Northbound	LTR	0.09	12.7	В	LTR	0.34	19.6	С
Southbound	LTR	0.03	10.7	В	LTR	0.00	0.0	Α
Route 202/35 and Locust Av	venue							
Eastbound	L	0.01	8.2	Α	L	0.03	8.6	Α
Southbound	LTR	0.29	21.2	С	LTR	0.07	12.5	В
Route 202/35 and Crestview	/ Avenue	1				1	1 .	
Westbound	L	0.00	8.4	A	L	0.00	8.4	A
Northbound	LTR	0.07	16.1	С	LTR	0.02	14.3	В
Route 202/35 and Forest Av		0.01	8.4	۸	1	0.01	0.5	А
Westbound Northbound	L LR	0.01	13.6	A B	L LR	0.01	8.5 15.4	C
Route 202/35 and Rick Lane		0.04	13.0	_ в	LN	0.04	13.4	
Westbound	, L	0.01	8.5	Α	L	0.01	8.5	Α
Northbound	LR	0.03	15.6	C	LR	0.03	15.3	C
Route 202/35 and Arlo Lane								
Eastbound	L	0.01	8.3	Α	L	0.03	8.7	Α
Southbound	LR	0.07	12.2	В	LR	0.05	14.8	В
Bear Mountain Parkway and	Locust Avenue							
Westbound	L	0.00	8.4	Α	L	0.00	8.6	Α
Northbound	R	0.02	11.3	В	R	0.01	11.8	В
Bear Mountain Parkway and	d Arlo Lane	1	1		1	1	r	1
Eastbound	L	0.01	8.3	A	L	0.01	8.8	A
Westbound	L	0.00	9.1	A	L	0.00	0.0	Α
Northbound	LTR	0.30	39.3	E	LTR	0.38	41.2	E
Southbound	LTR	0.23	25.0	D	LTR	0.08	15.4	С
Lafayette Avenue and Ridge		0.00	0.4	Ι .	1.0	0.00	10.0	<u> </u>
Westbound Southbound	LR	0.06 0.01	9.1 7.4	A A	LR L	0.09	10.0 7.7	B A
Notes: L = Left Turn, T = Thr	Cough D = Diaht T			I A	L	0.03	1.1	А
= Indicates poor ope		II, LUS = Leve	i oi Service					
= malcates poor ope	rating containons.							

11-13 March 15, 2022

PARKING CONDITIONS

Off-street parking facilities are provided for most of the land uses in the study area.

On-street parking is prohibited along most of the study area roadways, including the Route 202/35, Route 6, and Lexington Avenue corridors.

PEDESTRIAN AND BICYCLE CONDITIONS

Pedestrian and bicycle volumes were generally observed to be low in the study area. Pedestrian infrastructure (sidewalks, crosswalks, etc.) does not exist along Route 202/35 within the study area from Dayton Lane to Lexington Avenue. At the intersection of Dayton Lane and Route 202/35, sidewalk exists along the northern portion of Route 202/35 in the City of Peekskill and connects to the sidewalk on the west side of Dayton Lane which continues to connect to the sidewalk at U.S. Route 6. Sidewalks are provided along most of the length of Route 6 within the study area and pedestrian crosswalks are provided at the study area intersections along Route 6 (at Dayton Lane, Conklin Avenue, and Lexington Avenue). At the intersection of Route 202/35 and Lexington Avenue there exists a short segment of sidewalk on the southern side of the roadway from Old Crompond Road to approximately 300 feet east of Lexington Avenue and on the west side of Lexington Avenue for approximately 100 feet to provide access to the bus stop for the Westchester County Bee- Line Route 15. South and west crosswalks are provided at the intersection to connect the sidewalks. Bicycles and Pedestrians are prohibited on Bear Mountain Parkway.

PUBLIC TRANSPORTATION

The Westchester County Bee-Line Bus System operates the following bus routes within the study area: Routes 10 ("Croton Commuter"), 14 ("Peekskill-Yorktown-White Plains"), 15 ("Peekskill-Yorktown-White Plains"), 16 ("Peekskill-Yorktown"), 17 ("Peekskill-White Plains"), and 18 ("Peekskill Commuter"). Routes 10, 14, 15 and 17 operate along U.S. Route 6 in the study area. Route 16 operates between the Cortlandt Town Center and NYPH via Westbrook Drive, North Division Street and Route 202/35. Route 18 operates to/from the Peekskill Metro-North station along U.S. Route 6 to Conklin Avenue, along Route 202/35, and to Broad Avenue to return to Peekskill. The bus routes which service the study area offer service to various municipalities in northern and central Westchester County as well as target destinations in the study area, such as the Cortlandt Train Station and the Cortlandt Town Center Shopping Center.

The Metropolitan Transportation Authority's (MTA) Metro-North Railroad offers commuter rail service near the study area via its Hudson Line. The Cortlandt train station is located approximately 3 miles southwest of the proposed MOD. The Peekskill train station is located approximately 2 miles west of the proposed MOD. There are approximately 1 to 2 trains stop in each direction at both the Cortlandt and Peekskill stations during the AM and PM commuter hours. Both the Cortlandt and Peekskill train stations have commuter parking lots.

D. EXISTING CRASH HISTORY AND SAFETY ASSESSMENT

Table 11-5 summarizes the most recent three year's traffic crash data for each of the study area intersections compiled from the NYSDOT records for the period of January 1, 2016 through December 31, 2018 (see **Appendix VII** for NYSDOT crash data records).

11-14 March 15, 2022

Table 11-5
Intersection Crash Summary

-	intersection Crash Summa				ummur j				
Inte	rsection					Study Pe	riod		
		All Ve	hicle (Crashe	es by				
			Ye	ar		Crash	Crash Rate ¹		
							2017-2018		
							State	Total	
East-West	North-South					2016-2018	Average	Fatalitie	Total
Roadway	Roadway	2016	2017	2018	Total	(Acc/MEV) ²	(Acc/MEV) ²	s	Injuries
Route 6	Dayton Lane	11	10	13	34	1.59	0.23	0	10
Route 6	Conklin Avenue	7	5	12	24	1.25	0.23	0	15
Route 6	Bear Mountain Parkway Eastbound Ramps	8	8	7	23	0.78	0.15	1	5
Route 6	Bear Mountain Parkway Westbound Ramps	5	6	4	15	0.47	0.07	0	5
Route 6	Lexington Avenue	11	10	18	39	1.09	0.23	0	13
Beach Shopping Center Driveway (North)	Dayton Lane	0	1	0	1	0.10	0.18	0	0
Beach Shopping Center Driveway (South)	Dayton Lane	0	0	0	0	0.00	0.05	0	0
Route 202/35	Dayton Lane	6	1	3	10	0.50	0.12	0	4
Route 202/35	Buttonwood Avenue	1	1	0	2	0.12	0.12	0	2
Route 202/35	Medical Center Driveway/NY Presbyterian Driveway	1	3	3	7	0.43	0.15	0	3
Route 202/35	Lafayette Avenue/NY Presbyterian Driveway	0	3	2	5	0.24	0.23	0	2
Route 202/35	Conklin Avenue	3	5	5	13	0.67	0.15	0	5
Route 202/35	Tamarack Drive	0	0	1	1	0.07	0.18	0	1
Route 202/35	Dimond Avenue/Shipley Drive	2	0	2	4	0.31	0.15	0	2
Route 202/35	Locust Avenue	2	3	1	6	0.49	0.18	0	3
Route 202/35	Crestview Avenue	0	0	0	0	0.00	0.18	0	0
Route 202/35	Forest Avenue	3	0	0	3	0.22	0.18	0	2
Route 202/35	Rick Lane	1	0	0	1	0.07	0.18	0	0
Route 202/35	Arlo Lane	0	1	2	3	0.21	0.18	0	1
Route 202/35	Bear Mountain State Parkway	5	15	13	33	1.12	0.31	0	5
Route 202/35	Croton Avenue/Maple Row	9	6	9	24	0.70	0.23	0	9
Route 202/35	Lexington Avenue	6	8	6	20	0.68	0.23	0	7
Bear Mountain State Parkway	Locust Avenue	0	0	0	0	0.00	0.12	0	0
Bear Mountain State Parkway	Arlo Lane	2	0	1	3	0.20	0.20	0	0
Ridge Road	Lafayette Avenue	0	0	0	0	0.00	0.18	0	0
	Total	70	72	91	233	-	-	1	94

Notes:

Bold intersections have crash rates exceeding the statewide average crash rates for similar facilities and have five or more reported crashes in a 12-month period.

Source: NYSDOT, January 1, 2016 through December 31, 2018 crash data and January 1, 2017 through December 31, 2018 Average Accident Rates

INTERSECTION CRASHES

During the January 1, 2016 through December 31, 2018 three-year period, a total of 271 reportable and non-reportable crashes with no fatalities and 86 injuries occurred at the study area intersections.

As shown in **Table 11-5**, 16 intersections exceed the statewide average crash rate. For the purpose of this safety assessment, ten intersections that have crash rates exceeding the statewide average

11-15 March 15, 2022

⁽¹⁾ A crash rate is the number of crashes that occur at a given location for a specified time period divided by a measure of exposure for the same period.

⁽²⁾ Acc/MEV is the accident for the time period identified divided by Million Entering Vehicles (MEV) which uses the total number of vehicles entering an intersection as the measure of exposure.

crash rates for similar facilities and have five or more reported crashes in a 12-month period are discussed in detail below:

- 1. Route 6 and Dayton Lane
- 2. Route 6 and Conklin Avenue
- 3. Route 6 and Bear Mountain Parkway Eastbound Ramps
- 4. Route 6 and Bear Mountain Parkway Westbound Ramps
- 5. Route 6 and Lexington Avenue
- 6. Route 202/35 and Dayton Lane
- 7. Route 202/35 and Conklin Avenue
- 8. Route 202/35 and Bear Mountain State Parkway
- 9. Route 202/35 and Croton Avenue/Maple Row
- 10. Route 202/35 and Lexington Avenue

Intersections with fewer than five crashes in a 12-month period were not examined further as the sample size is insufficient for identifying predominant crash patterns or geometric deficiencies.

Potential safety improvements and their safety improvement factors are provided where a crash pattern was identified and potential safety improvements are feasible. The primary safety improvement factor is a Crash Modification Factors (CMF) which is a factor for a given countermeasure that when multiplied by the existing crashes provides an estimate of the future crashes with the countermeasure. For example, if 100 crashes exist today and an improvement measure has a CMF of 0.8, it is anticipated that there would be 80 crashes if the proposed countermeasure was implemented. CMFs were derived from the FHWA Crash Modification Factors Clearinghouse and the 2018 NYSDOT PIES - Reduction Factor Report.

ROUTE 6 AND DAYTON LANE

As shown in **Table 11-5**, during the three-year period, 34 crashes occurred at the Route 6 and Dayton Lane intersection, resulting in ten injuries. The crash rate for this intersection is 1.59 Accidents/MEV.

As shown in **Table 11-6**, the predominant crash type at the intersection is a rear end collision with right turn and left turn crashes secondary. In addition, dark-road lighted conditions (24 percent of the total crashes) and wet road surface conditions (18 percent of total crashes) were common contributing environmental conditions. 85 percent of the crashes at the intersection were attributed to driver error.

Table 11-6
Route 6 and Dayton Lane Crash Types

_	· · · · · · · · · · · · · · · · · · ·	J 1			
Crash Type	Number	Percentage			
Rear End	11	32%			
Right Turn	6	18%			
Left Turn	5	15%			
Sideswipe	4	12%			
Right Angle	4	12%			
Overtaking	1	3%			
Fixed Object	1	3%			
Head On	1	3%			
Animal	0	0%			
Other/Unknown	1	3%			
Total	34	-			
Source: NYSDOT, January 1, 2016	Source: NYSDOT, January 1, 2016 through December 31, 2018 crash data.				

11-16 March 15, 2022

Potential Safety Improvements

- Install a "Signal Ahead" anticipatory warning sign along Route 6 eastbound and westbound (CMF of 0.83 for rear-end crashes and 0.85 for left turn crashes)
- Improve roadway lighting at the intersection (CMF of 0.32 for nighttime crashes)

ROUTE 6 AND CONKLIN AVENUE

As shown in **Table 11-5**, during the three-year period, 24 crashes occurred at the Route 6 and Conklin Avenue intersection, resulting in 12 injuries and three serious injuries. The crash rate for this intersection is 1.25 Accidents/MEV.

As shown in **Table 11-7**, the predominant crash type at the intersection is a rear end collision with right turn and left turn crashes secondary. In addition, dark-road lighted conditions (13 percent of total crashes) and wet or snow/ice road surface conditions (17 percent of total crashes) were common contributing environmental conditions.79 percent of the crashes at the intersection were attributed to driver error.

Table 11-7
Route 6 and Conklin Avenue Crash Types

Crash Type	Number	Percentage
Rear End	12	50%
Right Turn	3	13%
Left Turn	4	17%
Sideswipe	1	4%
Right Angle	1	4%
Overtaking	1	4%
Fixed Object	1	4%
Head On	1	4%
Animal	0	0%
Other/Unknown	0	0%
Total	24	-
Source: NYSDOT, January 1, 2016	through December 3	1, 2018 crash data.

Potential Safety Improvements

- Install yellow retroreflective signal backplates to improve signal visibility (CMF of 0.85 for all crashes)
- Install left turn flashing yellow arrow signals with supplemental traffic signs with text "Left Turn Yield on Flashing Yellow Arrow" (CMF of 0.86 for left turn crashes)

ROUTE 6 AND BEAR MOUNTAIN PARKWAY EASTBOUND RAMPS

As shown in **Table 11-5**, during the three-year period, 23 crashes occurred at the Route 6 and Bear Mountain Parkway Eastbound Ramps intersection, resulting in 1 fatality and 5 injuries. The crash rate for this intersection is 0.78 Accidents/MEV.

As shown in **Table 11-8**, the predominant crash type at the intersection is a rear end collision with overtaking and left turn crashes secondary. In addition, dark-road lighted conditions (13 percent of total crashes) and wet or snow/ice road surface conditions (22 percent of total crashes) were common contributing environmental conditions. 87 percent of the crashes at the intersection were attributed to driver error.

11-17 March 15, 2022

Table 11-8
Route 6 and Bear Mountain Parkway Eastbound Ramps
Crash Types

Crash Type	Number	Percentage
Rear End	16	70%
Right Turn	1	4%
Left Turn	2	9%
Sideswipe	0	0%
Right Angle	1	4%
Overtaking	3	13%
Fixed Object	0	0%
Head On	0	0%
Animal	0	0%
Other/Unknown	0	0%
Total	23	-
Source: NYSDOT, January 1, 2016 the	rough December 31	, 2018 crash data.

Potential Safety Improvements

- Coordinate adjacent traffic signals (CMF of 0.79 for all crashes)
- Install yellow retroreflective signal backplates to improve signal visibility (CMF of 0.85 for all crashes)

ROUTE 6 AND BEAR MOUNTAIN PARKWAY WESTBOUND RAMPS

As shown in **Table 11-5**, during the three-year period, 15 crashes occurred at the Route 6 and Bear Mountain Parkway Westbound Ramps intersection, resulting in 5 injuries. The crash rate for this intersection is 0.47 Accidents/MEV.

As shown in **Table 11-9**, the predominant crash types at the intersection are a left turn crash and an overtaking crash with rear end collision crashes secondary. In addition, dark-road lighted conditions (40 percent of total crashes) and wet or snow/ice road surface conditions (20 percent of total crashes) were common contributing environmental conditions. 87 percent of the crashes at the intersection were attributed to driver error.

Table 11-9
Route 6 and Bear Mountain Parkway Westbound Crash
Types

Crash Type	Number	Percentage
Rear End	3	20%
Right Turn	0	0%
Left Turn	5	33%
Sideswipe	0	0%
Right Angle	1	7%
Overtaking	5	33%
Fixed Object	0	0%
Head On	1	7%
Animal	0	0%
Other/Unknown	0	0%
Total	15	-
Source: NYSDOT, January 1, 2016 th	rough December 31	, 2018 crash data.

11-18 March 15, 2022

Potential Safety Improvements

- Install yellow retroreflective signal backplates to improve signal visibility (CMF of 0.85 for all crashes)
- Improve roadway lighting at the intersection (CMF of 0.32 for nighttime crashes)
- Installation of a new red/yellow/green signal (CMF of 0.78 for all crashes and 0.75 for left turn crashes) (proposed as part of the Gasland Cortlandt transportation improvements)

ROUTE 6 AND LEXINGTON AVENUE

As shown in **Table 11-5**, during the three-year period, 39 crashes occurred at the Route 6 and Lexington Avenue intersection, resulting in 12 injuries and one serious injury. The crash rate for this intersection is 1.25 Accidents/MEV.

As shown in **Table 11-10**, the predominant crash type at the intersection is a rear end collision with left turn and overtaking secondary. Nearly half of all rear end collisions occur in the eastbound direction. In addition, 23 percent of total accidents occurred at night in dark-road lighted or unlighted conditions and 15 percent occurred during wet or snow/ice road surface conditions. 90 percent of crashes at the intersection are attributed to driver error.

Table 11-10 Route 6 and Lexington Avenue Crash Types

110die o died 25migeon 11 (ende erusii 1 jpes				
Crash Type	Number	Percentage		
Rear End	20	51%		
Right Turn	1	3%		
Left Turn	5	13%		
Sideswipe	0	0%		
Right Angle	0	0%		
Overtaking	7	18%		
Fixed Object	1	3%		
Head On	1	3%		
Animal	0	0%		
Other/Unknown	4	10%		
Total	39	-		
Source: NYSDOT, January 1, 2016 through	December 31, 2018	crash data.		

Potential Safety Improvement Measures

An Adaptive Traffic Control System (ATCS) was installed along a portion of the Route 6 corridor including the intersection of Lexington Avenue and Route 6 in spring of 2018. An ATCS system has a CMF of 0.87 for all crash types. In addition, the following measures could provide additional improvements:

- Improve roadway lighting at the intersection (CMF of 0.32 for nighttime crashes)
- Install yellow retroreflective signal backplates to improve signal visibility (CMF of 0.85 for all crashes)

ROUTE 202/35 AND DAYTON LANE

As shown in **Table 11-5**, during the three-year period, ten crashes occurred at the Route 202/35 and Dayton Lane intersection, resulting in zero injuries. The crash rate for this intersection is 0.5 Accidents/MEV.

As shown in **Table 11-11**, the predominant crash type at the intersection is a left turn collision with the remaining crashes being either rear end or fixed object collisions. In addition, 30 percent of crashes

11-19 March 15, 2022

occurred at night in dark-road lighted or unlighted conditions. All of the crashes at the intersection are attributed to driver error, with the majority due to a vehicle failing to yield right-of-way.

Table 11-11 Route 202/35 and Dayton Lane Crash Types

	<u> </u>	- J
Crash Type	Number	Percentage
Rear End	1	10%
Right Turn	0	0%
Left Turn	8	80%
Sideswipe	0	0%
Right Angle	0	0%
Overtaking	0	0%
Fixed Object	1	10%
Head On	0	0%
Animal	0	0%
Other/Unknown	0	0%
Total	10	-
Source: NYSDOT, January 1, 2016 through	December 31, 2018	crash data.

Potential Safety Improvement Measures

- Installation of a new red/yellow/green signal (CMF of 0.78 for all crashes and 0.75 for left turn crashes)
- Install left turn only lane for the southbound Dayton Lane approach (CMF of 0.75 for all crashes)

ROUTE 202/35 AND CONKLIN AVENUE

As shown in **Table 11-5**, during the three-year period, 13 crashes occurred at the Route 202/35 and Conklin Avenue intersection, resulting in no injuries. The intersection crash rate is 0.67 Accidents/MEV.

As shown in **Table 11-12**, the predominant crash types at the intersection are rear end and fixed object collisions. Of the fixed object collisions, two occurred making a right turn onto Conklin Avenue two occurred traveling eastbound on Route 202/35 and one occurred traveling westbound on Route 202/35 involving the stone wall on the northwest corner and the majority involved darkroad lighted conditions. A majority of the crashes at the intersection (69 percent) are attributed to driver error, most commonly following too closely and improper turning. In addition, dark-road lighted or unlighted conditions (38 percent of total crashes) and wet or snow/ice road surface conditions (23 percent of total crashes) were common contributing environmental conditions.

Table 11-12 Route 202/35 and Conklin Avenue

Crash Type	Number	Percentage				
Rear End	5	38%				
Right Turn	0	0%				
Left Turn	2	15%				
Sideswipe	0	0%				
Right Angle	0	0%				
Overtaking	0	0%				
Fixed Object	5	38%				
Head On	0	0%				
Animal	0	0%				
Other/Unknown	1	8%				
Total 13 -						
Source: NYSDOT, January 1, 2016 throug	Source: NYSDOT, January 1, 2016 through December 31, 2018 crash data.					

11-20 March 15, 2022

- Install a "Signal Ahead" anticipatory warning sign along Route 202/35 westbound (CMF of 0.83 for rear-end crashes and 0.85 for left turn crashes)
- Improve roadway lighting at the intersection (CMF of 0.32 for nighttime crashes and 0.44 for fixed object crashes occurring at night)

ROUTE 202/35 AND BEAR MOUNTAIN STATE PARKWAY

As shown in **Table 11-5**, during the three-year period, 33 crashes occurred at the Route 202/35 and Bear Mountain State Parkway intersection, resulting in four injuries and one serious injury. The crash rate for this intersection is 1.12 Accidents/MEV.

As shown in **Table 11-13**, the predominant crash type at the intersection is rear end collisions with left turn and overtaking being secondary. Of the rear end crashes, 63 percent occur in the eastbound direction. The majority of crashes at the intersection (88 percent) are attributed to driver error, with following too closely being the most frequent factor. In addition, common contribution environmental conditions included dark-road lighted or unlighted conditions (36 percent) and wet road surface condition (18 percent).

Table 11-13
Route 202/35 and Bear Mountain State Parkway

Route 202/35 and Bear Wountain State I arkway					
Crash Type	Number	Percentage			
Rear End	19	58%			
Right Turn	0	0%			
Left Turn	5	15%			
Sideswipe	1	3%			
Right Angle	0	0%			
Overtaking	5	15%			
Fixed Object	2	6%			
Head On	0	0%			
Animal	1	3%			
Other/Unknown	0	0%			
Total	33	-			
Source: NYSDOT, January 1, 2016 th	rough December 31	, 2018 crash data.			

Potential Safety Improvement Measures

- Install a "Signal Ahead" anticipatory warning sign along Route 202/35 eastbound (CMF of 0.83 for rear-end crashes)
- Install yellow retroreflective signal backplates to improve signal visibility (CMF of 0.85 for all crashes)
- Install left turn lane along the Route 202/35 eastbound approach (CMF of 0.88 for all crashes)
- Improve roadway lighting at the intersection (CMF of 0.32 for nighttime crashes)

ROUTE 202/35 AND CROTON AVENUE/MAPLE ROW

As shown in **Table 11-5**, during the three-year period, 24 crashes occurred at the Route 202/35 and Croton Avenue/Maple Row intersection, resulting in nine injuries. The crash rate for this intersection is 0.70 Accidents/MEV.

As shown in **Table 11-14**, the predominant crash type for the intersection is rear end collisions. 88 percent of the total crashes being attributed to driver error with following too closely being the

11-21 March 15, 2022

most frequent factor. In addition, wet road surface conditions (17 percent of total crashes) was a common contributing environmental condition.

> **Table 11-14** Route 202/35 and Croton Avenue/Maple Row

Crash Type	Number	Percentage
Rear End	15	63%
Right Turn	4	17%
Left Turn	4	17%
Sideswipe	0	0%
Right Angle	0	0%
Overtaking	0	0%
Fixed Object	1	4%
Head On	0	0%
Animal	0	0%
Other/Unknown	0	0%
Total	24	-
Source: NYSDOT, January 1, 2016	through December 3	1, 2018 crash data.

Potential Safety Improvement Measures

- Install a "Signal Ahead" anticipatory warning sign along Route 202/35 westbound (CMF of 0.83 for rear-end crashes and 0.85 for left turn crashes)
- Install yellow retroreflective signal backplates to improve signal visibility (CMF of 0.85 for all crashes)
- Install pavement markings to better delineate and channelize Croton Avenue northbound left turn lane (CMF of 0.65 for left turn crashes)

ROUTE 202/35 AND LEXINGTON AVENUE

As shown in **Table 11-5**, during the three-year period, 20 crashes occurred at the Route 202/35 and Lexington Avenue intersection, resulting in six injuries and one serious injury. The crash rate for this intersection is 0.68.

As shown in **Table 11-15**, the predominant crash type for this intersection is rear end collisions. A majority of the crashes (85 percent) are attributed to driver error with following too closely being the most frequent factor. In addition, 20 percent of the total crashes occurred at night in dark-road lighted conditions.

Table 11-15 Route 202/35 and Lexington Avenue

Crash Type	Number	Percentage
Rear End	10	50%
Right Turn	0	0%
Left Turn	3	15%
Sideswipe	0	0%
Right Angle	2	10%
Overtaking	3	15%
Fixed Object	2	10%
Head On	0	0%
Animal	0	0%
Other/Unknown	0	0%
Total	20	-
Source: NYSDOT, January 1, 2016 thi	ough December 31	, 2018 crash data.

11-22 March 15, 2022

- Add a "Signal Ahead" anticipatory warning sign along Route 202/35 westbound and Lexington Avenue southbound (CMF of 0.83 for rear-end crashes and 0.85 for left turn crashes)
- Install yellow retroreflective signal backplates to improve signal visibility (CMF of 0.85 for all crashes)

ROADWAY SEGMENT CRASHES

During the January 1, 2016 through December 31, 2018 three-year period, a total of 150 reportable and non-reportable crashes with no fatalities, 51 injuries, and 6 serious injuries occurred along the 1.56-mile Route 202/35 corridor from Dayton Lane to Croton Avenue/Maple Row, as shown in **Table 11-16**.

Table 11-16 Segment Crash Summary

	Seament Study Period									
	Segme	ent					Study Per	rioa		
			All Vehicle Crashes by Year			All Vehicle Crashes by Year Crash Rate ¹				
Roadway	То	From	2016 2017 2018 Total		2016-2018 (Acc/MVM) ²	State Average (Acc/MVM) ²	Total Fatalities	Total Injuries		
Route 202/35	Dayton Lane	Conklin Avenue	13	12	12	37	6.97	3.50	0	19
Route 202/35	Conklin Avenue	Arlo Lane	12	9	11	32	3.01	3.50	0	9
Route 202/35	Arlo Lane	Croton Avenue/Maple Row	20	31	30	81	10.44	3.50	0	29
	·	Total	45	52	53	150	-	-	0	57

Notes:

Bold segments have crash rates exceeding the statewide average crash rates for similar facilities and have five or more reported crashes in a 12-month period.

Source: NYSDOT, January 1, 2016 through December 31, 2018 crash data.

The crash data identified two segments, Route 202/35 between Dayton Lane and Conklin Avenue and Route 202/35 between Arlo Lane and Croton Avenue/Maple Row, where the crash rates exceeding the statewide average crash rates for similar facilities and there are five or more reported crashes in a 12-month period.

ROUTE 202/35 BETWEEN DAYTON LANE AND CONKLIN AVENUE

As shown in **Table 11-16**, during the three-year period, 37 crashes occurred along the 0.40-mile long segment of Route 202/35 between Dayton Lane and Conklin Avenue, resulting in 15 injuries and four serious injuries. The crash rate for this roadway segment is 6.97 Accidents/MVM.

As shown in **Table 11-17**, the predominant crash type for the roadway segment is left turn collisions with fixed object and rear end collisions being secondary. Of the left turn collisions, approximately half occurred at or near the intersection of Dayton Lane and Route 202/35 and involved driver error failing to yield right of way at a stop sign control. The majority of the fixed object collisions occurred near the intersection of Conklin Avenue and Route 202/35 of which 30 percent were attributed to speeding in the westbound direction and 40 percent occurred at night or at dawn and can be attributed to poor visibility and lack of roadway lighting at the intersection. The majority of rear end collisions occurred near the intersection of Lafayette Avenue and Route 202/35 with 70 percent of crashes occurring in the westbound direction and all crashes citing following too closely as the factor.

11-23 March 15, 2022

⁽¹⁾ A crash rate is the number of crashes that occur at a given location for a specified time period divided by a measure of exposure for the same period. (2) Acc/MVM is the accidents for the time period identified divided by Million Vehicle Miles (MVM) which uses the number of vehicles traveling on a roadway segment, expressed as vehicle miles traveled or VMT, as the measure of exposure.

Table 11-17 Route 202/35 between Dayton Lane and Conklin Avenue Crash Types

Crash Type	Number	Percentage				
Rear End	9	24%				
Right Turn	0	0%				
Left Turn	13	35%				
Sideswipe	1	3%				
Right Angle	3	8%				
Overtaking	1	3%				
Fixed Object	10	27%				
Head On	0	0%				
Animal	0	0%				
Other/Unknown	0	0%				
Total	37	-				
Source: NYSDOT, January 1, 2016 through December 31, 2018 crash data.						

As the majority of crashes (62 percent) along this segment of roadway occur as a result of deficiencies at the intersections of Route 202/35 and Dayton Lane and Route 202/35 and Conklin Avenue, the potential intersection safety improvement measures listed above would also reduce the crash rate along this segment of roadway.

ROUTE 202/35 BETWEEN ARLO LANE AND CROTON AVENUE/MAPLE ROW

As shown in **Table 11-16**, during the three-year period, 81 crashes occurred along the 0.36-mile long segment of Route 202/35 between Arlo Lane and Croton Avenue/Maple Row, resulting in 27 injuries and two serious injuries. The crash rate for this roadway segment is 10.44 Accidents/MVM.

As shown in **Table 11-18**, the predominant crash type for the roadway segment is rear end collisions with left turn collisions being secondary. Of the rear-end collisions, 58 percent occurred in the eastbound direction with 26 percent occurring in the westbound direction and the remaining coming from the north or south. The majority of rear end crashes were attributed to following too closely with unsafe speed also being a contributing factor. More than half of the left turn collisions occurred at night or at dawn and can be attributed to poor visibility and lack of roadway lighting at the intersection.

Table 11-18 Route 202/35 between Arlo Lane and Croton Avenue/Maple Row

Crash Type	Number	Percentage
Rear End	46	57%
Right Turn	4	5%
Left Turn	9	11%
Sideswipe	1	1%
Right Angle	1	1%
Overtaking	8	10%
Fixed Object	4	5%
Head On	3	4%
Animal	4	5%
Other/Unknown	1	1%
Total	81	-
Source: NYSDOT, January 1	, 2016 through December 31,	2018 crash data.

11-24 March 15, 2022

As the majority of crashes (86 percent) along this segment of roadway occur at or between the intersections of Route 202/35 and Bear Mountain Parkway and Route 202/35 and Croton Avenue/Maple Row, the potential intersection safety improvement measures listed above would also reduce the crash rate along this segment of roadway.

VEHICLE SPEED DATA

Vehicle speed data was collected at two locations along Route 202/35 in the vicinity of the MOD developments and at one location along Lafayette Avenue between Ridge Road and Route 202/35 to determine the 85th percentile speed on these corridors. **Table 11-19** presents a comparison of collected 85th percentile speeds and the posted speed limits. As shown in **Table 11-19**, the 85th percentile speeds are greater than the respective posted speed limits by between 2 and 13 mph.

Table 11-19 Speed Data Summary¹

ATR Location	Direction	85th Percentile Speed (mph)	Posted Speed Limit (mph)
Crompond Road (Route 202/35) - from	Eastbound	43	40 ²
Taylor Ave. to Whittier Ave.	Westbound	42	40
Crompond Road (Route 202/35) - from	Eastbound	49	45
Forest Avenue to Rick Lane	Westbound	53	40
Lafayette Avenue - from Ridge Road to	Northbound	38	30
Crompond Road (Route 202/35)	Southbound	39	30

Notes:

POTENTIAL TRAFFIC CALMING MEASURES

As described above, speeding occurs along both the Route 202/35 and Lafayette Avenue corridors. Potential traffic calming measures and their associated CMFs are presented below.

Route 202/35

- Narrow travel lane widths to 11 feet using shoulder striping at locations where the travel lanes are currently greater than 11 feet (CMF of 0.69 for all crashes)
- Driver speed feedback signs (e.g., fixed location radar speed signs) (CMF of 0.95 for all crashes)
- After implementing traffic calming measures, reassess speed limits

Lafayette Avenue

- Driver speed feedback signs (e.g., fixed location radar speed signs) (CMF of 0.95 for all crashes)
- Installation of centerline rumble strips (CMF of 0.91 for all crashes)

Along the Route 202/35 corridor, a speed limit change would have a CMF of 0.57 for wet road crashes. The installation of speed advisory panels would have a CMF 0.58 for wet road crashes, 0.68 for rear-end crashes, and 0.72 for speed-related crashes.

INTERSECTION SIGHT DISTANCE

The required intersection sight distances (ISD) for selected unsignalized intersections along Route 202/35 in the study area were determined based on guidelines presented in *A Policy on Geometric Design of Highways and Streets*, 2011, published by the American Association of State Highway Transportation Officials (AASHTO) and NYSDOT design guidance (EB 17-007).

11-25 March 15, 2022

^{1.} Based on ATR counts collected from September 21 through October 3, 2018.

^{2. 35} mph warning sign on this segment. Standard posted speed limit is 40 mph.

Table 11-20 presents the AASHTO recommended sight distances for unsignalized intersections along Route 202/35 in the areas where the 85th Percentile Speeds were recorded (as presented in **Table 11-19**). The existing sight distances for the unsignalized intersections within the study area should be confirmed to comply with the recommended distances below and where necessary brush and other landscaping should be trimmed to improve sight distance (CMF of 0.74 for all crashes). In addition, to improve the visibility and warn drivers of the presence of unsignalized intersections from Route 202/35, advanced intersection warning signs should be considered where appropriate along Route 202/35 (CMF of 0.73 for all crashes).

Table 11-20
Intersection Sight Distance Summary
Typical Unsignalized Intersections on Route 202/35

			Intersection Sight Distance (feet) ¹		
				Left Turn fron	n Side Street
Route 202/35 Segment	Side S	treet Location	Looking Left	Looking Left	Looking Right
Taylor Avenue to Whittier	North Side of Route 202/35				
Avenue	Sido Stroots:	Taylor Avenue Whittier Avenue	405	465	475
Avenue	Side Streets.	Whittier Avenue			
	South Sid	e of Route 202/35			
Forest Avenue to Rick Lane	Cida Ctraata	Forest Avenue	470	545	585
Side Site		Forest Avenue Rick Lane			
Note: 1. Based on AASHTO r			ercentile Speeds p	resented in Table	e 6.

E. 2023 NO ACTION CONDITIONS

The Future without the Proposed Action, or "No Action," traffic condition is an interim scenario that establishes a future baseline condition without the Proposed Action. The No Action year is the same year as the build year of the MOD Development Plan (2023). No Action traffic conditions were ascertained based on the following procedure:

- Increase the 2017 Existing Conditions traffic volumes by 1.0 percent per year from 2017 (existing year) to 2023 (build year) for background growth, resulting in an overall compounded growth rate of 6.15 percent. The use of 1.0 percent per year was based historical data for the corridor.
- Manually add trips from pending developments ("No Action projects") located in the vicinity of the Proposed Action.
- Consideration of major roadway improvements in the vicinity of study area.

The Cortlandt Planning Office, Yorktown Planning Office and Peekskill Planning Office were contacted for a list of pending developments located in the vicinity of the project site. **Table 11-21** (approved for use in this study by the Town of Cortlandt) lists the 46 pending projects identified by the three municipalities. Where possible, information was provided about the project build year and the project status. **Table 11-21** indicates which developments were included as part of the background growth factor and which developments have discrete trips added to the No Action traffic network. Any discrete trips generated by these developments were either provided by the corresponding published traffic studies or calculated utilizing trip generation rates contained in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition*. The trips generated and trip rates for these developments are included in **Appendix VII**.

Based on available information, there are no other major roadway improvements scheduled through 2023 which would affect traffic patterns along the study area roadways.

11-26 March 15, 2022

Table 11-21 No Action Projects Expected to be Complete by 2023

Davidanii 1	1 0		No Action Project			
Development	Location	Size	Development Type of Cortlandt	Build Year	Status	Action
Valeria	341 Furnace Dock Road	147 Units	Townhouse/Condo	2021	Under Construction	Analyzed in No Action
Picciano	Intersection of Maple Avenue & Furnace Dock Road	2 Units	Single Family	2014	Approved	Included in Background Growth
Maple Avenue Partners	Maple Avenue	4 Units	Single Family	Unknown	Approved	Included in Background Growth
Rustic Meadows	South and west side of Croton Avenue at intersection of Jacob Street	4 Units	Single Family	Unknown	Approved	Included in Background Growth
Khan	Lexington Avenue	3 Units	Single Family	Unknown	Approved	Included in Background Growth
Cortlandt Crossing	U.S. Route 6	130,000 SF	Commercial	2021	Under Construction	Analyzed in No Action
GasLand	U.S. Route 6	12 Fueling Positions 2,600 SF Convenience Store	Gas Station	2021	Approved	Analyzed in No Build
Palisades Fuel	U.S. Route 6	12 Fueling Positions 2,600 SF Convenience Store	Gas Station	2022	Approval Pending	Analyzed in No Build
Pondview Commons	U.S. Route 6 and Regina Avenue	56 Units	Single Family	2019	Approval Pending	Analyzed in No Action
Dimension Energy, LLC	Croton Avenue between Route 202/35 and Furnace Dock Road	5 Acres	Solar Farm	2016	Constructed	Included in Background Growth
		Town	of Yorktown			
Lowe's (formerly Costco)	3200 Crompond Road	120,663 SF 12,500 SF 5,783 SF 4,000 SF	Home Improvement Specialty Grocer Coffee Shop w/ drive through Retail/Bank	2021	Under Construction	Analyzed in No Action
BJ's/Staples Shopping Center	3303-3399 Crompond Road	2,500 SF	Restaurant	2020	Under Construction	Included in Background Growth
RPG/Mohegan Court	3574 Lexington Avenue	8 Units	Townhouse	2020	Under Construction	Included in Background Growth
Mohegan Audi Expansion	1791 & 1805 East Main Street (U.S. Route 6)	11,000 SF	Service Center Addition	2020	Constructed	Included in Background Growth
Faith Bible Church	3500 Mohegan Avenue	352 Seats	Church	Unknown	Approved	Included in Background Growth
Fieldstone Manor Subdivision	3680 Lexington Avenue	7 Units 14 Units	Apartments Single Family	Unknown	Approved	Analyzed in No Action
Granite Knolls Sports Complex	Stony Street	N/A	Park	2018	Constructed	Analyzed in No Action
Shrub Oak International School	3151 Stony Street	521 Employees	Private School	2018	Constructed	,
CVS/pharmacy	3320 Crompond Road	14,698 SF	Pharmacy	2021	Approved	Analyzed in No Action
Taco Bell	3605 Crompond Road	3,102 SF 1,698 SF	Restaurant Restaurant/Retail	2021	Approved	Included in Background Growth
McDonald's remodel	3418 Crompond Road	Proposed 886 SF addition for cold storage and 2nd drive-thru lane	Restaurant	2021	Pending Approval	Included in Background Growth
Americo Realty	3320 Old Crompond Road	6,750 SF 20 Units 12 Units	Retail Apartments Townhouses	Unknown	Pending Approval	Analyzed in No Action

11-27 March 15, 2022

Table 11-21 (cont'd) No Action Projects Expected to be Complete by 2023

Development	Location	Size	Development Type	Build Year		Action
Development	Location		of Peekskill	Bulla Teal	Otatus	Action
Fort Hill Apartments	St Mary's Convent	178 Units	Apartments	2018	Constructed	Analyzed in No Action
Gateway	Main and Spring Street	16 Units	Apartments	2018	Constructed	Analyzed in No Action
Townhomes Lofts at Main	Main and Diven Street	75 Units	Apartments	2019	Constructed	Analyzed in No Action
Senior Independent			,		Under	•
Living	1847 Crompond Road	53 Units	Senior Living	2021	Construction	Analyzed in No Action
One Park Place	Park and Brown Street	181 Units	Apartments	2021	Under Construction	Analyzed in No Action
216 S. Division Street	216 S. Division Street	22 Units	Apartments	2021	Under Construction	Analyzed in No Action
645 Main Street	645 Main Street	82 Units	Apartments	2022	Under Construction	Analyzed in No Action
505 South Street	505 South Street	51 Units	Condominiums	2022	Approved	Analyzed in No Action
653 Central Avenue	653 Central Avenue	78 Units	Apartments	2023	Pending Approval	Analyzed in No Action
Museum and Visitor Center	10 S. Water Street Lincoln Depot		Museum and Visitor Center	2020	Constructed	Included in Background Growth
Urban Farm	800 Main Street		Urban Farm	2021	Under Construction	Included in Background Growth
Craftsman Spaces	190 N Water Street		Renovation	2021	Under Construction	Included in Background Growth
104 S. Division Street	104 S. Division Street	9 Units	Renovation	2021	Under Construction	Included in Background Growth
400 S. Division Street	400 S. Division Street		School Use Renovation	2021	Under Construction	Included in Background Growth
108 N. Division Street	108 N. Division Street	13 units	Apartments and retail space	2021	Under Construction	Included in Background Growth
Credit Union	3 N. Broad Street		Credit Union	2022	Pending Approval	Included in Background Growth
Lockwood Drive	Lockwood Drive	47 units	Subdivision	2023	Pending Approval	Included in Background Growth
125 Vail Avenue	125 Vail Avenue	8 units	Attached Housing	2023	Pending Approval	Included in Background Growth
Grocery Store	630 Washington Street		Renovation	2022	Pending Approval	Included in Background Growth
701 Washington Street	701 Washington Street	1	Kitchen incubator business space	2022	Pending Approval	Included in Background Growth
Boys & Girls Club	709 Main Street		Renovation	2023	Pending Approval	Included in Background Growth
41 N. Division Street	41 N. Division Street		Renovation	2023	Pending Approval	Included in Background Growth
823 South Street	823 South Street	9 Units	Apartments and retail space	2023	Pending Approval	Included in Background Growth
Central Firehouse	Main and Broad Street	30,000 SF	Firehouse	2018	Under Construction	Included in
Sources: Town of Cor	tlandt Planning Department, Town	of Yorktown F	Planning Department. City	of Peekskill		

LEVEL OF SERVICE CONDITIONS

The traffic from the No Action projects were added to the grown 2023 traffic volumes to develop the 2023 No Action volumes. Traffic volumes for the 2023 No Action peak hours analyzed are shown in **Figures 11-4** and **11-5**. **Table 11-22** presents a comparison of 2017 Existing and 2023 No Action LOS Conditions for the study area intersections for the Weekday AM and PM peak hours. Synchro 10 outputs for the 2023 No Action Condition are provided in **Appendix VII**.

11-28 March 15, 2022



Legend

Signalized Intersection

Unsignalized Intersection

0 500 FEET

2023 No Action Traffic Volumes Weekday AM Peak Hour Figure 11-4A



•

• Signalized Intersection

Unsignalized Intersection

2023 No Action Traffic Volumes Weekday AM Peak Hour Figure 11-4B



Legend

Signalized Intersection

Unsignalized Intersection

0 500 FEET

2023 No Action Traffic Volumes Weekday PM Peak Hour Figure 11-5A



•

• Signalized Intersection

Unsignalized Intersection

2023 No Action Traffic Volumes Weekday PM Peak Hour Figure 11-5B

Table 11-22 2017 Existing and 2023 No Action Conditions Level of Service Analysis

	ĺ			\Mool		LXISTIN	z anu	<i>4</i> 0 <i>4</i> 3	INUA	CHOII	Collui			1 SCI V	ICC AII	arysis
		2017 E	xisting	week	day AM	2023 No <i>A</i>	Action			2017 E	victing	vveek	day PM	2023 No	Action	
	Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	V/C	Delay	
Intersection	Group		(sec)	LOS	Group	Ratio	(sec)	LOS		Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
						Sign	alized I	nterse	ctions							
Route 6 and Day	ton Lan	е														
Eastbound	L	0.04	5.2	Α	L	0.04	5.4	Α	L	0.08	9.7	Α	L	0.11	10.4	В
	TR	0.24	8.0	Α	TR	0.35	10.6	В	TR	0.46	19.1	В	TR	0.63	23.5	С
Westbound	L	0.11	5.3	Α	L	0.14	5.7	A	L	0.33	11.3	В	L	0.45	14.2	В
Manufala a consul	TR	0.14	9.6	A	TR	0.24	10.4	В	TR	0.25	15.8	В	TR	0.40	18.4	В
Northbound	L TR	0.39	32.2 27.6	C	L TR	0.44 0.25	33.7 27.9	C	L TR	0.81	47.3 23.7	D	L TR	0.84 0.13	49.9 23.5	D C
Southbound	LT	0.22	35.8	D	LT	0.25	37.4	D	LT	0.13	23.1	C	LT	0.13	23.5	C
Coatriboaria	R	0.30	19.6	В	R	0.32	19.9	В	R	0.07	14.4	В	R	0.07	14.2	В
	Interse	_	14.8	В		ection	15.2	В	Inters		22.4	C	Inters		24.8	C
Route 6 and Co																
Eastbound	L	0.01	2.6	Α	L	0.01	2.7	Α	L	0.01	3.0	Α	L	0.02	3.6	Α
	TR	0.15	4.8	Α	TR	0.23	5.4	Α	TR	0.24	5.7	Α	TR	0.34	7.0	Α
Westbound	L	0.23	3.1	Α	L	0.29	3.9	Α	L	0.29	4.2	Α	L	0.39	6.2	Α
	TR	0.14	3.1	Α	TR	0.20	3.4	Α	TR	0.17	3.6	Α	TR	0.26	4.6	Α
Northbound	LT	0.23	55.0	D	LT	0.24	55.1	E	LT	0.35	57.3	E	LT	0.37	57.8	E
O a cettle be a consist	R	0.70	19.9	В	R	0.71	19.7	В	R	0.72	18.6	В	R	0.73	18.2	В
Southbound	LTR	0.23	33.6 8.0	C	LTR	0.24	32.3 7.6	C	LTR	0.41	38.8 9.4	D	LTR	0.43	39.2 9.5	D
Route 6 and Be	Interse			A		ection	7.0	Α	Inters	ection	9.4	Α	Inters	ection	9.5	Α
Eastbound	ai widuii	0.16	35.2	D	L L	0.41	18.0	В	L	0.22	40.6	D	<u> </u>	0.41	20.0	С
Lastboaria	TR	0.42	12.6	В	TR	0.52	21.5	С	TR	0.57	16.0	В	TR	0.75	28.0	C
Westbound	LTR	0.67	20.5	C	L	0.17	15.8	В	LTR	0.82	28.7	C	L	0.30	13.7	В
					TR	0.67	25.6	С					TR	0.86	28.1	С
Northbound	LTR	0.01	0.0	Α	LT	0.55	56.2	Е	LTR	0.02	0.2	Α	LT	0.64	66.2	Е
					R	0.16	1.0	Α					R	0.18	1.4	Α
Southbound	L	0.62	27.2	С	L	0.70	47.7	D	L	0.68	31.9	С	L	0.77	50.5	D
					T	0.70	47.1	D				-	T	0.76	49.6	D
	TR	0.17	7.1	A	R	0.23	1.2	Α	TR	0.06	0.1	A	R	0.11	0.5	A
Davita 6 and Lay	Interse		18.7	В	Inters	section	27.0	С	Interse	ection	24.0	С	Inters	section	31.3	С
Route 6 and Lex Eastbound	lington /	0.28	17.2	В	1	0.36	18.1	В	L	0.87	80.4	F		0.95	98.3	F
Lasibourid	TR	0.20	51.9	D	TR	0.94	54.4	D	TR	0.89	44.8	D	TR	1.07	85.2	F
Westbound	L	0.43	21.1	C	L	0.53	24.8	С	L	0.32	17.6	В	L	0.50	35.4	D
11001200110	TR	0.79	38.7	D	TR	0.84	42.8	D	TR	1.01	71.0	E	TR	1.20	140.1	F
Northbound	L	0.29	33.8	С	L	0.40	40.4	D	L	0.85	75.8	Е	L	1.01	110.3	F
	TR	0.81	65.1	Е	TR	0.95	92.3	F	TR	0.65	69.7	E	TR	0.68	71.2	E
Southbound	L	0.43	36.4	D	L	0.58	46.8	D	L	0.31	44.9	D	L	0.35	45.5	D
	TR	0.55	52.1	D	TR	0.69	63.7	Е	TR	0.91	99.2	F	TR	0.97	109.3	F
	Interse		46.2	D		section	54.1	D	Interse	ection	64.3	E	Inters	section	105.0	F
Route 202/35 ar						0.04	1 00 0		TD	0.50	05.0		T-0	0.70	00.4	
Eastbound Westbound	TR	0.49	18.8 13.1	B B	TR	0.64 0.15	23.2 13.5	C B	TR L	0.59 0.28	25.3 17.4	C B	TR	0.76 0.40	32.1 19.9	C B
vvestbound	L T	0.11	19.1	В	L T	0.15		С	T	0.28	23.4	С	L T	0.40	30.4	С
Northbound	LTR	0.57	17.5	В	LTR	0.60	21.9	C	LTR	0.82	41.8	D	LTR	0.87	49.0	D
Southbound	LT	0.37	87.2	F	LT	0.62	85.0	F	LT	1.41	259.7	F	LT	1.47	280.6	F
Codinbodia	R	0.13	0.9	A	R	0.15	1.0	A	R	0.34	7.6	A	R	0.39	10.1	В
	Interse		22.3	C		section	24.9	C	Interse		50.6	D	1	section	55.2	E
Route 202/35 ar			nue													
Eastbound	L	0.32	1.9	Α	L	0.38	2.4	Α	L	0.36	1.7	Α	L	0.45	3.1	Α
	Т	0.28	1.6	Α	Т	0.38	1.7	Α	Т	0.31	1.1	Α	Т	0.39	1.1	Α
Westbound	TR	0.44	10.9	В	TR	0.55	14.2	В	TR	0.49	11.6	В	TR	0.66	19.0	В
Southbound	L	0.47	51.3	D	L	0.49	51.6	D	L	0.45	50.9	D	L	0.46	51.2	D
	R	0.48	9.2	A	R	0.54	16.4	В	R	0.34	6.7	A	R	0.34	9.3	A
	Interse	ection	9.3	Α	inters	section	11.2	В	Interse	ection	8.6	Α	inters	section	12.0	В

11-29 March 15, 2022

Table 11-22 (cont'd) 2017 Existing and 2023 No Action Conditions Level of Service Analysis

				\A/I		ZAISUII	5 and	202.	J NU A	CHOII	Condi			JI DCI V	icc ixii	arysis
		0047 F		week	day AM	2000 N - A	1		-	0047.5		week	day PM	0000 N -	A - 11	
		1	xisting	1		2023 No A				2017 E				2023 No		
Intersection	Lane Group	v/c Patio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
intersection	Group	itatio	(360)	LUJ	•	ignalized					(360)	LUJ	Group	itatio	(360)	LOS
Route 202/35 an	d Rear N	lounta	in Parky	vav		ignanzeu	interse	CHOIR	s (contine	ieu)						
Eastbound	LT	0.76	53.0	D	LT	1.08	107.0	F	LT	0.71	47.6	D	LT	1.38	224.3	F
Westbound	T	0.38	19.1	В	T	0.47	19.8	С	T	0.45	13.5	В	T	0.59	18.3	C
	R	0.39	2.1	Α	R	0.47	6.1	A	R	0.53	9.8	A	R	0.66	15.4	В
Southbound	LR	1.15	129.4	F	LR	1.40	230.9	F	LR	0.83	60.1	Е	LR	1.00	118.7	F
	Interse	ction	63.3	Е	Inters	ection	113.7	F	Interse	ection	31.9	С	Inter	section	89.7	F
Route 202/35 an	d Crotor	n Aven	ue / Map	le Rov	V											
Eastbound	L	0.10	1.7	Α	L	0.14	2.8	Α	L	0.16	2.9	Α	L	0.34	29.0	С
	Т	0.81	18.5	В	Т	1.05	61.7	Е	Т	0.64	7.2	Α	Т	0.87	59.5	Е
	R	0.23	0.6	Α	R	0.25	1.7	Α	R	0.13	1.0	Α	R	0.14	1.6	Α
Westbound	L	0.53	12.8	В	L	1.04	124.6	F	L	0.27	7.1	Α	L	0.52	14.2	В
	TR	0.56	17.5	В	TR	0.70	22.0	С	TR	0.79	26.1	С	TR	1.07	81.7	F
Northbound	L	1.44	287.0	F	L	1.67	376.8	F	L	0.94	114.7	F	L	0.96	118.1	F
	TR	0.38	26.2	С	TR	0.42	27.7	С	TR	0.41	36.5	D	TR	0.43	38.1	D
Southbound	LTR	0.89	86.1	F	LTR	1.01	111.6	F	LTR	0.71	69.5	E	LTR	0.74	71.9	E
Pouto 202/25	Interse		39.9	D	Inters	section	69.0	Е	Interse	ection	27.3	С	Inter	section	66.4	E
Route 202/35 an				Ι Δ		0.20	7.6	Ι Λ	<u> </u>	0.52	24.4	С	1 1	0.57	24.4	
Eastbound	TR	0.12	6.2 32.1	A C	L TR	0.20 1.21	7.6 122.9	A F	L TR	0.53	21.1	C	TR	0.57 1.10	24.4 81.7	C F
Westbound	L	0.92	6.6	A	L	0.11	7.3	А	L	0.02	6.0	A	L	0.20	8.7	A
Westboaria	T	0.67	18.2	В	T	0.85	27.9	C	T	1.02	54.8	D	T	1.39	206.1	F
	R	0.10	3.0	A	R	0.03	2.9	A	R	0.21	2.5	A	R	0.25	4.4	A
Northbound	LTR	0.14	29.3	C	LTR	0.14	29.1	C	LTR	0.23	32.9	C	LTR	0.23	32.6	C
Southbound	LT	0.74	50.1	D	LT	0.76	50.7	D	LT	0.69	49.9	D	LT	0.74	52.7	D
	R	0.21	8.1	A	R	0.22	9.3	A	R	0.18	5.5	A	R	0.18	6.2	A
	Interse	ection	26.2	С	Inters	section	72.6	Е	Inters	ection	35.7	D	Inter	section	121.3	F
Route 6 and Bea	ar Mount	ain Pa	rkway W	/estbo	und Ram	ps	•	•	•		•	•	•		•	
Eastbound					LTR	0.58	6.8	Α					LTR	0.98	38.2	D
Westbound					L	0.51	12.6	В					L	0.78	39.4	D
	Uncid	analiza	d in Exis	tina	TR	0.31	3.7	Α	Line	signalize	d in Evic	tina	TR	0.46	9.2	Α
Northbound	Onsi	Cond		urig	L	0.41	46.8	D	Ons		litions	ung	L	0.71	68.9	E
		Oona	1110110		TR	0.25	22.2	С		00110	1110110		TR	0.23	21.6	С
Southbound	1				LTR	0.64	31.9	С					LTR	0.67	35.9	D
					Inters	section	8.9	Α					Inter	section	29.0	С
							ınalized	Inters	sections							
Route 6 and Bea	ar Mount				und Ram	ps				0.00	0.7	Α.	1			
Eastbound Westbound	<u> </u>	0.00	9.0	A B					<u> </u>	0.02	9.7 17.4	A C	-			
Northbound	L L	0.26	61.7	F	Sigr	alized in I	No Actio	n	L	0.49	386.7	F	Si	3	in No Act	ion
INOLUBOULU	TR	0.18		С	1	Condition	ons		TR	0.77	13.8	В	1	Cond	ditions	
Southbound	LTR	0.08	30.3	D					LTR	0.46	111.4		1			
Dayton Lane an					rth Drive	wav				0.70	1	'	1			
Westbound	LR	0.15		В	LR	0.17	11.3	В	LR	0.23	13.7	В	LR	0.27	14.6	В
Southbound	L	0.04	7.6	A	L	0.04	7.6	A	L	0.05	8.3	A	L	0.06	8.4	A
Dayton Lane an					uth Drive				. –				. –			
Westbound	LR	0.09		В	LR	0.10	11.6	В	LR	0.83	55.0	F	LR	0.97	84.9	F
Southbound	L	0.02	7.7	Α	L	0.02	7.7	Α	L	0.13	9.2	Α	L	0.14	9.4	Α
Route 202/35 an	d Dayto	n Lane														
Eastbound	L	0.11	8.5	Α	L	0.13	8.9	Α	L	0.15	9.6	Α	L	0.18	10.6	В
Southbound	LR	0.93	80.3	F	LR	1.44	276.3	F	LR	1.13	127.4	F	LR	1.77	404.2	F
Route 202/35 an	d Buttor				1 .	ı	1			1	1	1		1		
Westbound	L	0.01	8.9	A	L 	0.01	9.4	A	<u>L</u>	0.00	8.4	A	<u>L</u>	0.00	8.8	A
Northbound	LR	0.13	17.8	С	LR	0.20	24.4	С	LR	0.01	14.7	В	LR	0.01	18.2	С

11-30 March 15, 2022

Table 11-22 (cont'd) 2017 Existing and 2023 No Action Conditions Level of Service Analysis

				Week	day AM	ZAISUII	5						day PM			- J = = = = = = = = = = = = = = = = = =
		2017 E	xistina			2023 No A	ction			2017 E	kistina			2023 No	Action	
	Lane	v/c	Delay		Lane	v/c	Delav		Lane	v/c	Delav		Lane	v/c	Delay	
Intersection			(sec)	LOS	Group	Ratio		LOS	Group		(sec)	LOS	Group	Ratio	(sec)	LOS
					Un	signalize	d Inters	ection	s (conti	nued)						
Route 202/35 ar	nd Cortla	ndt Me	dical Dr	iveway	/NYPH D	riveway				•						
Eastbound	L	0.11	9.3	Α	L	0.14	10.0	Α	L	0.04	9.3	Α	L	0.06	10.1	В
Westbound	L	0.04	8.6	Α	L	0.04	9.0	Α	L	0.01	8.2	Α	L	0.01	8.6	Α
Northbound	LTR	0.03	14.3	В	LTR	0.04	17.7	С	LTR	0.11	14.6	В	LTR	0.15	18.3	С
Route 202/35 ar	nd Tamai	rack Dr	ive													
Westbound	L	0.00	8.3	Α	L	0.00	8.7	Α	L	0.03	8.7	Α	L	0.04	9.1	Α
Northbound	LR	0.10	15.9	С	LR	0.14	20.3	С	LR	0.07	16.1	С	LR	0.10	20.0	С
Route 202/35 ar	nd Dimor	nd Aver	nue/Ship	oley Dr	ive											
Eastbound	L	0.00	0.0	Α	L	0.00	0.0	Α	L	0.01	8.7	Α	L	0.02	9.2	Α
Westbound	L	0.01	8.3	Α	L	0.01	8.8	Α	L	0.02	8.4	Α	L	0.03	8.8	Α
Northbound	LTR	0.09	12.7	В	LTR	0.13	15.1	С	LTR	0.34	19.6	С	LTR	0.50	30.6	D
Southbound	LTR	0.03	10.7	В	LTR	0.03	11.5	В	LTR	0.00	0.0	Α	LTR	0.00	0.0	Α
Route 202/35 ar	<u>ıd Locus</u>															
Eastbound	L	0.01	8.2	Α	L	0.01	8.4	Α	L	0.03	8.6	Α	L	0.03	9.1	Α
Southbound	LTR	0.29	21.2	С	LTR	0.44	32.9	D	LTR	0.07	12.5	В	LTR	0.09	14.4	В
Route 202/35 ar	nd Cresty				1	1	1		-		1		1		1	
Westbound	L	0.00	8.4	Α	L	0.00	8.8	Α	L	0.00	8.4	Α	L	0.00	8.8	Α
Northbound	LTR	0.07	16.1	С	LTR	0.10	21.1	С	LTR	0.02	14.3	В	LTR	0.03	17.4	С
Route 202/35 ar											T = =				T = =	
Westbound	L	0.01	8.4	A	L L	0.01	8.9	Α	L_	0.01	8.5	A	L	0.01	8.9	A
Northbound	LR	0.04	13.6	В	LR	0.05	16.3	С	LR	0.04	15.4	С	LR	0.06	19.1	С
Route 202/35 ar	nd Rick L										1				1	
Westbound	L L	0.01	8.5	A	<u>_</u> _	0.01	8.9	A	<u>L</u>	0.01	8.5	A	L L	0.01	8.9	A
Northbound	LR	0.03	15.6	С	LR	0.05	19.5	С	LR	0.03	15.3	С	LR	0.04	18.9	С
Route 202/35 ar			0.0			1 0 04	100			0.00	1		.	0.04	1 00	
Eastbound	L	0.01	8.3	A	L	0.01	8.6	A	L	0.03	8.7	A	L	0.04	9.3	A
Southbound	LR	0.07	12.2	В	LR	0.09	13.7	В	LR	0.05	14.8	В	LR	0.07	18.2	С
Bear Mountain						0.00	0.0	Λ.		0.00	100		 	0.00	T 0.4	T _ ^
Westbound	L	0.00	8.4	A	L	0.00	8.9	A	L	0.00	8.6	A	L	0.00	9.1	A
Northbound Bear Mountain	R	0.02	11.3	В	R	0.03	12.6	В	R	0.01	11.8	В	R	0.02	13.5	В
	Parkway	_				0.04	0.0	Λ.		0.04	100		 	0.04	1 0 5	T _ ^
Eastbound Westbound	L	0.01	8.3 9.1	A	L	0.01	8.6 9.7	A	L L	0.01	8.8	A	<u> </u>	0.01	9.5	A
	LTR	0.00	39.3	E	LTR	0.00	71.6	F	LTR	0.00	41.2	E	LTR	0.00	119.8	
Northbound Southbound	LTR	0.30	25.0	D	LTR	0.47	38.2	E	LTR	0.38	15.4	C	LTR	0.74	20.7	C
Lafayette Aveni				ט	LIK	0.55	30.2		LIK	0.00	10.4		LIK	0.13	20.7	
Westbound	LR	0.06	9.1	Α	LR	0.04	9.1	Α	LR	0.09	10.0	В	LR	0.06	9.7	Α
Southbound	L	0.00	7.4	A	I	0.04	7.5	A	I	0.03	7.7	A	I	0.08	7.6	A
Notes: L = Left	_				rn IOS -					0.03	1.1	_ ^		0.03	7.0	
					perating c		OCI VICE									
– Ind	ioutos ill	Labic ut	Jonorali	511 III U	Joi aming th	or idition is										

Under the 2023 No Action Conditions, there would be the following notable changes in LOS for the study area intersections:

- Route 6 and Conklin Avenue—the northbound left turn/through movement would deteriorate from LOS D to LOS E during the Weekday AM peak hour.
- Route 6 and Lexington Avenue—the eastbound left turn movement would deteriorate within LOS F during the Weekday PM peak hour. The eastbound through/right turn movement would deteriorate from LOS D to LOS F during the Weekday PM peak hour. The westbound through/right turn movement will deteriorate from LOS E to LOS F during the Weekday PM peak hour. The northbound left turn movement will deteriorate from LOS E to LOS F during the Weekday PM peak hour. The northbound through/right turn lane will deteriorate from LOS E to LOS F during

11-31 March 15, 2022

Chapter 11: Traffic and Transportation

- the Weekday AM peak hour. The SB through/right turn movement will deteriorate from LOS D to LOS E during the Weekday AM peak hour and within LOS F during the Weekday PM peak hour.
- Route 202/35 and Lafayette Avenue/NY Presbyterian Driveway—the southbound left turn/through movement would deteriorate within LOS F during the Weekday PM peak hour.
- Route 202/35 and Bear Mountain State Parkway—the eastbound left turn/through movement would deteriorate from LOS D to LOS F during the Weekday AM and PM peak hours. The southbound left turn/right turn would deteriorate within LOS F during the Weekday AM peak hour and from LOS E to LOS F during the Weekday PM peak hour.
- Route 202/35 and Croton Avenue/Maple Row—the eastbound through movement would deteriorate from LOS B to LOS E during the Weekday AM peak hour and from LOS A to LOS E during the Weekday PM peak hour. The westbound left turn movement would deteriorate from LOS B to LOS F during the Weekday AM peak hour. The westbound through/right turn movement would deteriorate from LOS C to LOS F during the Weekday PM peak hour. The northbound left turn movement would deteriorate within LOS F during the Weekday AM peak hour. The southbound approach would deteriorate within LOS F during the Weekday AM peak hour.
- Route 202/35 and Lexington Avenue—the eastbound through/right turn movement would deteriorate from LOS C to LOS F during the Weekday AM and PM peak hours. The westbound through movement would deteriorate from LOS D to LOS F during the Weekday PM peak hour.
- Dayton Lane and Beach Shopping Center South Driveway—the westbound left turn/right turn
 movement would deteriorate within LOS F during the Weekday PM peak hour.
- Route 202/35 and Dayton Lane—the southbound left turn/right turn lane would deteriorate within LOS F during the Weekday AM and PM peak hours.
- Bear Mountain Parkway and Arlo Lane —the northbound approach would deteriorate from LOS E to LOS F during the Weekday AM and PM peak hours. The southbound approach would deteriorate from LOS D to LOS E during the Weekday AM peak hour.

TRAFFIC SAFETY CONDITIONS

With the increase in development surrounding the study area and accompanying traffic volumes, there may be an increase in the number of crashes experienced under 2023 No Action Condition. Based on the anticipated increase in traffic due to the No Action projects (see **Table 11-21**), the following intersections are estimated to have one or more additional accidents per year:

- Route 6 and Dayton Lane (estimated 3.5 additional accidents/year)
- Route 6 and Conklin Avenue (estimated 2.6 additional accidents/year)
- Route 6 and Lexington Avenue (estimated 2.0 additional accidents/year)
- Route 202/35 and Bear Mountain Parkway (estimated 2.9 additional accidents/year)
- Route 202/35 and Croton Avenue/Maple Row (estimated 1.9 additional accidents/year)
- Route 202/35 and Lexington Avenue (estimated 2.0 additional accidents/year)
- Route 6 and Bear Mountain Parkway Eastbound Ramps (estimated 2.6 additional accidents/year)
- Route 6 and Bear Mountain Parkway Westbound Ramps (estimated 1.4 additional accidents/year)

There are no known safety improvement or traffic calming measures being implemented within the study area in conjunction with the No Action projects listed in **Table 11-21**.

11-32 March 15, 2022

PARKING CONDITIONS

Similar to existing conditions, off-street parking facilities are proposed for most of the No Action projects shown in **Table 11-21** and therefore, no significant changes to parking conditions within the study area are expected in the 2023 No Action Condition.

PEDESTRIAN AND BICYCLE CONDITIONS

As none of the No Action projects located within the study area propose changes to the pedestrian and bicycle infrastructure or are expected to generate substantial pedestrian or bicycle volumes, no significant changes are expected under 2023 No Action Conditions.

PUBLIC TRANSPORTATION

No significant changes in public transportation conditions are expected under 2023 No Action Condition. While a minor increase in public transit ridership is expected with the No Action projects, it is the policy of the transit agencies (Metro-North Commuter Railroad and the Bee-Line Bus System) to adjust their operating schedules to reflect demand as needed.

F. 2023 WITH ACTION CONDITION

PROJECT DESCRIPTION

The Proposed Project includes the development of two sites, Gyrodyne and Evergreen, located on the south side of Route 202/35 opposite the NYPH. The Gyrodyne Project is proposed as a Class A medical office space with approximately 184,600 gsf on a 13.8 acre site directly across Route 202/35 from the NYPH entrance. The Gyrodyne Project would provide approximately 939 parking spaces (346 surface lot spaces and 593 spaces located in a parking structure.) Under existing conditions, the Gyrodyne site has 30,000 gsf of medical office that will be removed as part of the Gyrodyne Project. The Gyrodyne Project Site's driveway would utilize the existing driveway to the medical offices across from the NYPH entrance driveway on Route 202/35 forming a four-leg intersection. The proposed full access driveway would be improved to provide one shared left turn/through lane and one right turn only lane and would be signalized.

The Evergreen Project is proposed as a mix of uses including an 120 unit assisted living facility, 70 townhouses, 166 multi-family residential units and 7,000 sf of accessory retail uses. The site will also contain an 120 unit assisted living facility, 166 residential units, 70 townhouses, and 7,427 surface parking spaces located across Route 202/35 from the NYPH campus between Lafayette and Conklin Avenues and adjacent to the Gyrodyne Project. Access to the Evergreen Project Site would be provided by a full access driveway at Route 202/35 opposite Conklin Avenue to create a four-leg intersection. The driveway would provide one left turn only lane and one shared through/right turn lane.

PROJECT TRIP GENERATION

The estimated number of trips generated by the Proposed Project was based on trip generation rates provided by the *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition)*. As the Proposed Project has been revised and no longer classifies as a mixed-use development per trip generation guidance, credits have been removed for internal trips between multiple land uses and adjacent sites. Based on discussions with NYSDOT, the Weekday AM and PM Peak Hour of Adjacent Street Traffic was used for all land uses without any adjustments.

11-33 March 15, 2022

Chapter 11: Traffic and Transportation

Based on discussions with the Town of Cortlandt Department of Technical Services Code Enforcement, the existing 30,000 gsf of medical office on the Gyrodyne site is and currently operates as fully occupied. Trip reductions are taken based on the existing gross square feet of the development.

As shown in **Table 11-23** it is estimated that the Proposed Project would generate approximately 437 net new trips during the Weekday AM peak hour (289 entering, 148 exiting) and 759 net new trips during the Weekday PM peak hour (269 entering, 490 exiting).

PROJECT VEHICLE TRIP DISTRIBUTION AND ASSIGNMENT

For the purpose of estimating the likely distribution of project generated trips to and from the Proposed Project, a directional distribution of vehicle trips was created for each peak hour utilizing the existing travel patterns in the study area. These trip distribution patterns are shown in **Figure 11-6** and represent the most logical approach and departure paths to and from the project site. **Figures 11-7** and **11-8** show the project generated vehicle trips for the Weekday AM and PM peak hours, respectively, for the Proposed Project.

LEVEL OF SERVICE CONDITIONS

The project generated vehicle trips for the Proposed Project described above were added to the No Action traffic volumes in order to estimate the With Action traffic volumes. **Figures 11-9** and **11-10** show the 2023 With Action traffic volumes for the Weekday AM and PM peak hours, respectively, for the Proposed Project. **Table 11-24** presents a comparison of the 2023 No Action and 2023 With Action LOS conditions for the Proposed Project. Synchro 10 outputs for the 2023 With Action condition are provided in **Appendix VII**.

Under the 2023 With Action condition, absent any additional improvements beyond those specified in the project description above, there would be impacts at the following locations;

- Route 6 and Dayton Lane—the northbound left turn movements would deteriorate from LOS D to LOS E during the Weekday PM peak hour.
- Route 6 and Lexington Avenue—the eastbound through/right turn movement would deteriorate within LOS F during the Weekday PM peak hour.
- Route 202/35 and Lafayette Avenue/NYPH Driveway—the eastbound approach would deteriorate from LOS C to LOS F during the Weekday PM peak hour.
- Route 202/35 and Bear Mountain State Parkway—the eastbound approach would deteriorate within LOS F during the Weekday AM and PM peak hours.
- Route 202/35 and Croton Avenue/Maple Row—the westbound left turn movement would deteriorate from LOS B to LOS E during the Weekday PM peak hour. The westbound through/right turn movement would deteriorate within LOS F during the Weekday PM peak hour. The northbound left turn movement would deteriorate within LOS F during the Weekday AM and PM peak hours.
- Route 202/35 and Lexington Avenue—the eastbound through/right turn movement would deteriorate within LOS F during the Weekday AM and PM peak hours. The westbound through movement would deteriorate within LOS F during the Weekday PM peak hour.
- Dayton Lane and Beach Shopping Center South Driveway—the westbound left turn/right turn movement would deteriorate within LOS F during the Weekday PM peak hour.
- Route 202/35 and Dayton Lane—the southbound approach would deteriorate within LOS F during the Weekday AM and PM peak hours.
- Route 202/35 and Tamarack Drive—the northbound approach would deteriorate from LOS C to LOS E during the Weekday PM peak hour.

11-34 March 15, 2022



CORTLANDT MOD



Legend

Signalized Intersection

Unsignalized Intersection

Project Generated Increments - MOD Development Plan Weekday AM Peak Hour Figure 11-7A



Leyeпи

• Signalized Intersection

Unsignalized Intersection

Project Generated Increments - MOD Development Plan Weekday AM Peak Hour Figure 11-7B



Legend

Signalized Intersection

Unsignalized Intersection

Project Generated Increments - MOD Development Plan Weekday PM Peak Hour Figure 11-8A



Legenu

• Signalized Intersection

Unsignalized Intersection

Project Generated Increments - MOD Development Plan Weekday PM Peak Hour Figure 11-8B



Legend

Signalized Intersection

Unsignalized Intersection

0 500 FEET

2023 With Action Traffic Volumes
Weekday AM Peak Hour
Figure 11-9A



Loyona

• Signalized Intersection

Unsignalized Intersection

2023 With Action Traffic Volumes Weekday AM Peak Hour Figure 11-9B



Legend

Signalized Intersection

Unsignalized Intersection

2023 With Action Traffic Volumes

Weekday PM Peak Hour Figure 11-10A



-

• Signalized Intersection

Unsignalized Intersection

2023 With Action Traffic Volumes Weekday PM Peak Hour Figure 11-10B

Table 11-23 Proposed Project Trip Generation

					ITE Da	nta		•	Trip	Genera	tion	
Building	Develo	pment			ITE Land Use		Average			Total	Trips	Total
Component	Si	ze	Hour	#	Name	Independent Variable	ITE Trip Rate ¹	% In	% Out	In	Out	Trips
				# Name 1 720 Medical-Dental Office Building								
Medical Office ²	188.6	Ksf	AM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	2.78	0.78	0.22	307	86	393
Medical Office-	100.0	I/21	PM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	3.46	0.28	0.72	179	462	641
Medical Office ²	30	Ksf	AM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	-2.78	0.78	0.22	-59	-17	-76
(To Be Removed)	30	NSI	PM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	-3.46	0.28	0.72	-29	-75	-104
	,								Net Trips	248	69	317
							Gyrody	yne PM	Net Trips	150	387	537
Evergreen Gyrodyne PM Net Tr												
Assisted Living ³	120	Beds	AM	254	Assisted Living	Beds	0.19	0.63	0.37	14	9	23
Assisted Living	120	beas	PM	254	Assisted Living	Beds	0.26	0.38	0.62	12	19	31
Townhouses ⁴	70	Units	AM	220	Multifamily Housing (Low-Rise)	Dwelling Units	0.46	0.23	0.77	8	26	34
rownnouses	70	Units	PM	220	Multifamily Housing (Low-Rise)	Dwelling Units	0.56	0.63	0.37	27	16	43
Retail⁵	7	Ksf	AM	820	Shopping Center	1,000 SF Leasable Area	0.94	0.62	0.38	4	3	7
Relaiis	'	I/21	PM	820	Shopping Center	1,000 SF Leasable Area	3.81	0.48	0.52	36	40	76
Residential ⁶	166	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.26	0.74	15	41	56
(Apartments)	100	Units	PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.61	0.39	44	28	72
							Evergre	een AM	Net Trips	41	79	120
							Evergre	een PM	Net Trips	119	103	222
								Total	AM Trips	289	148	437
								Total	PM Trips	269	490	759

Notes:

ksf = 1,000 square feet

- 1. Based on discussions with NYSDOT, rates shown are peak hour of adjacent street traffic rates from the *Institute of Transportation Engineers (ITE) Trip Generation Manual*, 10th Edition
- 2. Rates shown for Medical Office land use are calculated using the ITE fitted curve equations for the weekday AM and PM peak hour.
- 3. Rates shown for the Assisted Living land use are calculated using the average ITE trip rate.
- 4. Rates shown for the Townhouses land use are calculated using the average ITE trip rate.
- 5. Rates shown for the Retail land use are calculated using the average ITE trip rate during the weekday AM peak hour and the ITE fitted curve equation for the weekday PM peak hour.

6. Rates shown for the Residential land use are calculated using the average ITE trip rate.

11-35 March 15, 2022

Table 11-24 2023 No Action and With Action Conditions Level of Service Analysis – Proposed Project

	202) 110 A		Weekd		CHUII	Cont	11(1()]	is Lev		,C1 VIC		day PM	rrope	iscu I I	ojeci
		2023 No		vveera		23 With	Action)		2023 No	Action			2023 Wit	h Action	
	Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay	
Intersection	Group	Ratio	(sec)	LOS	Group		(sec)			Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
						Signa	alized Ir	ntersec	tions							
Route 6 and Day	yton Lar			^		0.04		^	,	0.44	1 40 4		,	0.44	40.0	
Eastbound	L	0.04	5.4	A	L TD	0.04	5.4	A	L TD	0.11	10.4	B C	L TD	0.11	10.8	В
Westbound	TR L	0.35 0.14	10.6 5.7	B A	TR L	0.37	10.5 5.8	B A	TR L	0.63 0.45	23.5 14.2	В	TR L	0.68	25.4 15.9	C B
Westbound	TR	0.14	10.4	В	TR	0.13	10.4	B	TR	0.40	18.4	В	TR	0.49	19.5	В
Northbound	L	0.44	33.7	C	L	0.53	37.1	D	L	0.84	49.9	D	L	0.90	57.5	E
	TR	0.25	27.9	C	TR	0.25	27.9	С	TR	0.13	23.5	С	TR	0.12	23.1	С
Southbound	LT	0.57	37.4	D	LT	0.57	37.4	D	LT	0.08	22.8	С	LT	0.08	22.6	С
	R	0.32	19.9	В	R	0.32	19.9	В	R	0.07	14.2	В	R	0.07	14.0	В
		ection	15.2	В	Inters	ection	15.5	В	Inters	ection	24.8	С	Inters	ection	27.8	С
Route 6 and Co			0.7	•		0.04				0.00	1 0 0	Δ.		0.00	1.0	
Eastbound	L	0.01	2.7	A	L	0.01	2.9	A	L TR	0.02	3.6	A	L	0.02	4.0	A
Westbound	TR L	0.23	5.4 3.9	A	TR L	0.23	5.4 4.4	A A	L	0.34	7.0 6.2	A A	TR L	0.34	8.0 7.9	A A
Mesmonin	TR	0.29	3.4	A	TR	0.34	3.4	A	TR	0.39	4.6	A	TR	0.43	5.7	A
Northbound	LT	0.24	55.1	E	LT	0.23	54.7	D	LT	0.20	57.8	E	LT	0.27	55.5	E
	R	0.71	19.7	В	R	0.72	19.6	В	R	0.73	18.2	В	R	0.77	17.7	В
Southbound	LTR	0.24	32.3	С	LTR	0.24	31.9	C	LTR	0.43	39.2	D	LTR	0.41	37.2	D
		ection	7.6	Α	Inters		7.8	Α	Inters	ection	9.5	Α	Inters	ection	10.4	Α
Route 6 and Be	ar Mour				nd Ramp				_ _							
Eastbound	L	0.41	18.0	В	L	0.41	18.3	В	L	0.41	20.0	С	L	0.41	20.0	С
10/	TR	0.52	21.5	С	TR	0.53	21.8	<u>C</u>	TR	0.75	28.0	C	TR	0.79	30.0	С
Westbound	L	0.17	15.8	В	L	0.17	15.9	В	L	0.30	13.7	В	L	0.31	14.6	В
Northbound	TR LT	0.67 0.55	25.6 56.2	C E	TR LT	0.68	25.9 56.2	<u>C</u> E	TR LT	0.86 0.64	28.1 66.2	C E	TR LT	0.86 0.64	28.6 66.2	C E
INOLLIDOULIG	R	0.55	1.0	A	R	0.55	1.0	A	R	0.64	1.4	A	R	0.64	1.4	A
Southbound	L	0.70	47.7	D	L	0.70	47.7		L	0.77	50.5	D	L	0.77	50.6	D
	T	0.70	47.1	D	T	0.70	47.2	D	T	0.76	49.6	D	T	0.76	49.7	D
	R	0.23	1.2	A	R	0.28	2.9	A	R	0.11	0.5	A	R	0.16	0.7	A
		ection	27.0	С	Inters	ection	27.0	С	Inters	ection	31.3	С	Inters	ection	32.0	С
Route 6 and Lex				-												
Eastbound	L	0.36	18.1	В	L	0.35	17.8	<u>B</u>	L	0.95	98.3	F	L	0.95	97.8	F
10/	TR	0.94	54.4	D	TR	0.94	54.5	D	TR	1.07	85.2	F	TR	1.11	100.9	F
Westbound	L TR	0.53 0.84	24.8 42.8	C D	L TR	0.54	25.9	C D	L TR	0.50 1.20	35.4	D F	L TR	0.52 1.21	36.5	D F
Northbound	L	0.84	42.8	D	L	0.83	41.9 41.2	D	L	1.20	140.1 110.3	F	L	1.04	141.1 116.0	F
INOTHIDOUTIU	TR	0.40	92.3	F	TR	0.41	98.3	F	TR	0.68	71.2	E	TR	0.72	72.9	E
Southbound	L	0.58	46.8	D	L	0.60	48.5	D	L	0.35	45.5	D	L	0.72	45.8	D
	TR	0.69	63.7	E	TR	0.71	65.2	E	TR	0.97	109.3	F	TR	0.97	109.8	F
		ection	54.1	D	Inters		55.1	Е		ection	105.0	F		ection	110.7	F
Route 202/35 an	d Gyrod	lyne/NY	PH Drive	eway												
Eastbound]			_	L	0.24	5.1	Α]				L	0.16	6.9	Α
10/ /:					TR	0.52	5.9	Α					TR	0.50	9.0	A
Westbound	Inters	ection U	nsignaliz	ed in	L	0.39	2.5	A	Intersed	ction Un	signalize	ed in No	L TR	0.22	2.4	A
		o Action			TR LT	0.55	2.9 43.4		A Intersection Unsignalized in No Action Condition					0.71 0.59	8.5 47.5	A D
Northbound	-				R	0.23	13.2		D Action Condition					0.59	10.6	В
INOTHIDOUTIU	1				Inters		5.4	A					R Inters	ection	11.6	В
Route 202/35 an	d Lafav	ette Ave	nue/NYI	PH Driv					I.							
Eastbound	TR	0.64	23.2	С	TR	0.71	22.5	С	TR	0.76	32.1	С	TR	1.15	106.2	F
Westbound	L	0.15	13.5	В	L	0.18	14.1	В	L	0.40	19.9	В	L	0.60	23.7	С
	Т	0.60	21.9	С	Т	0.76	30.4	С	Т	0.65	30.4	С	Т	0.79	35.3	D
Northbound	LTR	0.62	21.1	С	LTR	0.65	23.7	c	LTR	0.87	49.0	D	LTR	0.89	54.7	D
Southbound	LT	0.79	85.0	F	LT	0.76	80.9	F	LT	1.47	280.6	F	LT	1.44	271.5	F
	R	0.15	1.0	A	R	0.15	1.0	A	R	0.39	10.1	В	R	0.39	10.2	В
	inters	ection	24.9	С	Inters	ection	28.2	С	Inters	ection	55.2	D	inters	ection	80.5	F

11-36 March 15, 2022

Table 11-24 (cont'd) 2023 No Action and With Action Conditions Level of Service Analysis – Proposed Project

	 	11011		Weekd					15 230 (01 01 0	, , , , , ,		day PM	торс	, 5 C G I I	i ojeci
		2023 No	Action	vveeku	-	23 Witl	n Action	`	,	2023 No	Action			2023 Wit	h Action	
	Lane	v/c	Delay		Lane	v/c	Delay	•	Lane	v/c	Delay		Lane	v/c	Delay	
Intersection		Ratio	(sec)	LOS	Group		(sec)	LOS			(sec)	LOS	Group	Ratio	(sec)	LOS
			(333)						(continu		(000)				(333)	
Route 202/35 an	d Conkl	in Aven	ue/Ever	areen C					(00	,						
Eastbound	L	0.38	2.4	A	L	0.43	3.8	Α	L	0.45	3.1	Α	L	0.55	2.7	Α
	Т	0.38	1.7	Α	TR	0.44	3.8	Α	Т	0.39	1.1	Α	Т	0.60	3.5	Α
Westbound	TR	0.55	14.2	В	LTR	0.74	20.6	С	TR	0.66	19.0	В	LTR	0.92	36.3	D
Northbound	L	-	-	-	L	0.51	67.3	Е	L	-	-	=	L	0.53	62.3	Е
	TR	-	-	-	TR	0.20	17.2	В	TR	-	-	=	TR	0.24	15.8	В
Southbound	L	0.49	51.6	D	L	0.55	54.0	D	L	0.46	51.2	D	L	0.50	50.5	D
	R	0.54	16.4	В	TR	0.64	12.4	В	R	0.34	9.3	Α	TR	0.53	12.7	В
	Inters	ection	11.2	В	Inters	ection	15.1	В	Inters	ection	12.0	В	Inters	ection	19.7	В
Route 202/35 an	d Bear I	Mountai	in Parkw													
Eastbound	LT	1.08	107.0	F	LT	1.53	283.6	F	LT	1.38	224.3	F	LT	2.80	839.3	F
Westbound	Т	0.47	19.8	В	Т	0.59	22.8	С	Т	0.59	18.3	В	Т	0.70	39.9	D
	R	0.47	6.1	Α	R	0.49	9.5	Α	R	0.66	15.4	В	R	0.68	18.9	В
Southbound	LR	1.40	230.9	F	LR	1.40	231.4	F	LR	1.00	118.7	F	LR	1.00	119.5	F
		ection	113.7	F	Interse	ection	154.8	F	Inters	ection	89.7	F	Inters	ection	274.7	F
Route 202/35 an	d Croto				1	1	1	1	1		1		1		1	1
Eastbound	L	0.14	2.8	Α	L	0.18	3.1	Α	L	0.34	29.0	С	L	0.34	25.8	С
	T	1.05	61.7	E	T	1.10	64.7	E	T	0.87	59.5	E	T	1.01	58.8	E
	R	0.25	1.7	A	R	0.27	2.2	A	R	0.14	1.6	Α	R	0.19	2.9	Α
Westbound	L	1.04	124.6	F	L	1.04	124.6	F	L	0.52	14.2	В	L	0.82	74.0	E
N. 41.	TR	0.70	22.0	С	TR	0.79	26.7	С	TR	1.07	81.7	F	TR	1.15	105.8	F
Northbound	L	1.67	376.8	F	L	1.98	505.9	F	L	0.96	118.1	F	L	1.10	149.7	F
O a cotta la accoract	TR	0.42	27.7	C	TR	0.42	27.7	C	TR	0.43	38.1	D	TR	0.43	38.0	D
Southbound	LTR	1.01	111.6	F	LTR	1.01	111.6	F	LTR	0.74	71.9	E	LTR	0.73	70.8	E
Davida 202/25 am		ection	69.0	Е	Inters	ection	80.2	F	inters	ection	66.4	E	inters	ection	79.2	Е
Route 202/35 an	a Lexin	·		Ι Λ	l ,	0.20	10.2	В	1	0.57	24.4	С	l ı	0.62	20.0	С
Eastbound	TR	0.20 1.21	7.6 122.9	A F	TR	0.30	135.3	F	TR	0.57 1.10	24.4 81.7	F	TR	0.63 1.24	28.8 138.7	F
Westbound		0.11	7.3	A	L	0.11	7.4	A	L	0.20	8.7	A	L	0.20	9.0	A
vvestbound	L T	0.11	27.9	C	T	0.11	42.5	D	T	1.39	206.1	F	T	1.49	249.4	F
	R	0.03	2.9	A	R	0.30	2.9	A	R	0.25	4.4	A	R	0.26	5.0	А
Northbound	LTR	0.11	29.1	C	LTR	0.11	30.5	C	LTR	0.23	32.6	C	LTR	0.20	34.5	C
Southbound	LT	0.76	50.7	D	LT	0.78	53.5	D	LT	0.74	52.7	D	LT	0.27	54.1	D
Coatriboaria	R	0.70	9.3	A	R	0.76	11.3	В	R	0.18	6.2	A	R	0.73	8.6	A
		ection	72.6	E	Interse		82.7	F		ection	121.3	F		ection	159.9	F
Route 6 and Be			,	_			02.7	<u>'</u>	1111010	230011	121.0		micorc		100.0	
Eastbound	LTR	0.58	6.8	A	LTR	0.59	7.3	Α	LTR	0.98	38.2	D	LTR	1.02	46.4	D
Westbound	L	0.51	12.6	В	L	0.52	13.1	В	L	0.78	39.4	D	L	0.80	43.3	D
	TR	0.31	3.7	A	TR	0.32	3.7	A	TR	0.46	9.2	A	TR	0.46	9.3	A
Northbound	L	0.41	46.8	D	L	0.41	46.9	D	L	0.71	68.9	E	L	0.71	68.9	E
	TR	0.25	22.2	C	TR	0.25	22.2	C	TR	0.23	21.6	C	TR	0.23	21.6	C
Southbound	LTR	0.64	31.9	Č	LTR	0.64	32.0	C	LTR	0.67	35.9	D	LTR	0.67	35.9	D
		ection	8.9	Ā	Interse		9.1	Ā		ection	29.0	C		ection	33.4	C

11-37 March 15, 2022

Table 11-24 (cont'd) 2023 No Action and With Action Conditions Level of Service Analysis – Proposed Project

	2023	110 A				CHOII	Conc	ши	S LCV	1015	CI VICC		lysis –	тторо	scu I I	ojeci
		1000 No		Weekd		00 14/:41				0000 Na	A =4! = :=	week	day PM	000 14/:41		
			Action				Action	1			Action				Action	
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
Intersection	Огоар	Italio	(300)	LOU	Oroup		nalized			Itatio	(300)		Group	Italio	(300)	
Dayton Lane an	d Reach	Shonn	ina Cent	er Nort	h Drivev		ilalizeu	iiitei se	CHOIIS							
Westbound	LR	0.17	11.3	В	LR	0.18	11.6	В	LR	0.27	14.6	В	LR	0.31	16.1	С
Southbound	i	0.04	7.6	A	I	0.05	7.7	A	ı	0.06	8.4	A	I	0.06	8.6	A
Dayton Lane and	d Beach				th Drivey		1	, , , , , , , , , , , , , , , , , , ,		0.00	0.4	- / \		0.00	0.0	- / \
Westbound	LR	0.10	11.6	В	LR	0.10	12.1	В	LR	0.97	84.9	F	LR	1.12	135.4	F
Southbound	L	0.02	7.7	A	L	0.02	7.7	A	L	0.14	9.4	A	L	0.15	9.7	Α
Route 202/35 an	d Dayto															
Eastbound	L	0.13	8.9	Α	L	0.14	9.2	Α	L	0.18	10.6	В	L	0.22	11.9	В
Southbound	LR	1.44	276.3	F	LR	2.09	564.2	F	LR	1.77	404.2	F	LR	2.92	933.2	F
Route 202/35 an	d Buttor	wood							ı		_			_		
Westbound	L	0.01	9.4	Α	L	0.01	10.0	Α	L	0.00	8.8	Α	L	0.00	9.1	Α
Northbound	LR	0.20	24.4	С	LR	0.26	31.6	D	LR	0.01	18.2	С	LR	0.02	23.8	С
Route 202/35 an	d Cortla	ndt Me	dical Dri	veway/	NYPH Dr	iveway	,									
Eastbound	0.14	10.0	Α	0.14				. al !.a	L	0.06	10.1	В	1-4	4: C:	-:	۸ ما: م
Westbound	0.04	9.0	Α	0.04			Signalize ondition		L	0.01	8.6	Α	intersec	tion Sigr Cond	nalized in	Action
Northbound	0.04	17.7	С	0.04	-	CHOIT C	orialilori		LTR	0.15	18.3	С		Conc	IIIIOII	
Route 202/35 an	d Tamar	ack Dri	ve													
Westbound	L	0.00	8.7	Α	L	0.00	8.9	Α	L	0.04	9.1	Α	L	0.04	10.1	В
Northbound	LR	0.14	20.3	С	LR	0.21	28.1	D	LR	0.10	20.0	С	LR	0.19	35.3	E
Route 202/35 an	d Dimon		ue/Ship	ley Driv	/e											
Eastbound	L	0.00	0.0	Α	L	0.00	0.0	Α	L	0.02	9.2	Α	L	0.02	9.7	Α
Westbound	L	0.01	8.8	Α	L	0.01	9.1	Α	L	0.03	8.8	Α	L	0.03	9.7	Α
Northbound	LTR	0.13	15.1	С	LTR	0.15	17.4	С	LTR	0.50	30.6	D	LTR	0.83	88.6	F
Southbound	LTR	0.03	11.5	В	LTR	0.04	12.8	В	LTR	0.00	0.0	Α	LTR	0.00	0.0	Α
Route 202/35 an		t Avenu						1								
Eastbound	L	0.01	8.4	Α	L	0.01	8.9	Α	L	0.03	9.1	Α	L	0.04	9.6	Α
Southbound	LTR	0.44	32.9	D	LTR	0.61	56.3	F	LTR	0.09	14.4	В	LTR	0.12	17.1	С
Route 202/35 an																
Westbound	L	0.00	8.8	Α	L	0.00	9.0	A	L	0.00	8.8	A	L	0.00	9.6	Α
Northbound	LTR	0.10	21.1	С	LTR	0.14	27.3	D	LTR	0.03	17.4	С	LTR	0.04	24.9	С
Route 202/35 an																
Westbound	L	0.01	8.9	A	L	0.01	9.1	A	L	0.01	8.9	<u>A</u>	L	0.01	9.9	A
Northbound	LR	0.05	16.3	С	LR	0.06	19.1	С	LR	0.06	19.1	С	LR	0.09	27.9	D
Route 202/35 an			0.0	^		0.04	0.4	^		0.04	0.0	^		0.04	0.0	^
Westbound	L LR	0.01	8.9 19.5	A C	L LR	0.01	9.1 24.3	A C	L LR	0.01	8.9 18.9	A C	L LR	0.01	9.8 27.6	A D
Northbound Route 202/35 an			19.5	C	LK	0.06	24.3	C	LK	0.04	10.9		LK	0.07	27.0	D
Eastbound	I AIIU L	0.01	8.6	Α	1	0.02	9.0	Α	J	0.04	9.3	Α	1	0.06	9.8	Α
Southbound	LR	0.01	13.7	В	LR	0.02	15.9	C	LR	0.04	18.2	C	LR	0.08	23.0	C
Bear Mountain F		· '			LIX	0.13	13.3	C	LIX	0.07	10.2		LIX	0.13	23.0	U
Westbound	ai Kway	0.01	8.9	A	1	0.01	8.9	Α	1	0.00	9.1	Α	1	0.00	9.2	Α
Northbound	R	0.03	12.6	В	R	0.03	12.7	В	R	0.02	13.5	В	R	0.02	13.6	В
Bear Mountain F					11	0.00	12.7			0.02	10.0		- 1	0.02	10.0	
Eastbound	I	0.01	8.6	Α	1	0.01	8.6	Α	L	0.01	9.5	Α		0.01	9.5	Α
Westbound	⊢ i−	0.00	9.7	A	-i	0.00	9.7	A	L	-	0.0	A	-	-	0.0	A
Northbound	LTR	0.47	71.6	F	LTR	0.52	77.9	F	LTR	0.74	119.8	F	LTR	0.95	171.0	F
Southbound	LTR	0.35	38.2	E.	LTR	0.35	39.1	E	LTR	0.13	20.7	С	LTR	0.13	20.9	С
Lafayette Avenu						0.00								0.10		
Westbound	LR	0.04	9.1	Α	LR	0.04	9.1	Α	LR	0.06	9.7	Α	LR	0.06	9.8	Α
Southbound	L	0.01	7.5	A	L	0.01	7.5	A	L	0.03	7.6	A	L	0.03	7.7	A
Notes: L = Left 7												-	. –			-
	icates no							-								
					<u> </u>											

11-38 March 15, 2022

- Route 202/35 and Shipley Drive—the northbound approach would deteriorate from LOS D to LOS F during the Weekday PM peak hour.
- Route 202/35 and Locust Avenue—the southbound approach would deteriorate from LOS D to LOS F during the Weekday AM peak hour.
- Bear Mountain Parkway and Arlo Lane—the northbound approach would deteriorate within LOS F during the Weekday PM peak hour.

MEASURES OF EFFECTIVENESS

For the 2023 With Action condition, several locations along the NYS Route 202/35 corridor exceed LOS D, the minimum acceptable LOS for state roadways as identified in Chapter 5 of the NYSDOT *Highway Design Manual (HDM)*. Variance from standard accepted values requires additional justification to warrant design trade-offs. In addition, additional Measures of Effectiveness (MOEs), quantitative where possible, are necessary to properly evaluate a corridor nearing or at fully saturated conditions. Based guidance provided in the HDM, queue lengths and corridor delay were also evaluated.

QUEUE CONDITIONS

Queue lengths are a quantitative measure of traffic demand. In saturated conditions, as is the case on the Route 202/35 corridor, queue lengths represent the unmet demand where a building queue indicates a worsening of congestion. A review of the Synchro 95th Percentile queue data shows that under 2023 With Action conditions the majority of intersection approaches and turning lanes which under 2023 No Action conditions extend to or beyond the storage length would be improved or continue to exceed the storage length under 2023 With Action conditions. Locations where the 95th percentile queues would exceed the storage capacity only under the 2023 With Action Condition (as a result of the Proposed Project) and would be considered an impact are listed below.

- The eastbound and westbound shared through/right turn lane at the intersection of Route 202/35 and Gyrodyne Driveway/NYPH Driveway
- The westbound through lane at the intersection of Route 202/35 and Lafayette Avenue/NYPH Driveway
- The eastbound approach at the intersection of Route 202/35 and Bear Mountain Parkway
- The westbound left turn lane at the intersection of Route 202/35 and Croton Avenue/Maple Row
- The northbound approach at the intersection of Route 202/35 and Lexington Avenue
- The southbound approach at the intersection of Route 202/35 and Dayton Lane

For the detailed queue results see Appendix VII.

CORRIDOR DELAY

Delay is a quantitative measure describing the additional time it takes to travel through a segment. Lane group delays as shown in **Table 11-24** identify the additional time it takes to make individual movements throughout the study area, but does not provide information on the additional travel time through a series of movements along a route. The total delay along a route, usually measured in minutes per vehicle, includes control, queue and geometric (due to added roadway curvature, increased travel distance, etc.) delay which represent the additional time for the average vehicle to travel a segment in each direction.

As the Proposed Project does not include changes in the alignment of Route 202/35 or other geometric modifications, the geometric delays are not anticipated to increase. Therefore, as only

11-39 March 15, 2022

Chapter 11: Traffic and Transportation

the queue and control delay would be affected by the Proposed Project, the Synchro approach delays were summarized for the 2023 No Action and 2023 With Action condition to identify the additional travel time for the Route 202/35 corridor in the study area with the Proposed Project. **Table 11-25** presents a comparison of the 2023 No Action and 2023 With Action corridor delays for the Proposed Project.

Table 11-25 2023 No Action and With Action Conditions Corridor Delay – Proposed Project

		Weekday AM			Weekday PM	
Intersection	2023 No Action Delay (mins/veh)	2023 With Action Delay (mins/veh)	Difference	2023 No Action Delay (mins/veh)	2023 With Action Delay (mins/veh)	Difference
Route 202/35 D	ayton Lane to Conl	klin Avenue	•		, ,	•
Eastbound	00:44.0	00:41.3	-00:02.7	00:54.4	02:10.3	01:15.9
Westbound	00:53.9	01:02.8	00:08.9	01:05.2	01:27.0	00:21.8
Total	01:34.9	01:42.0	00:06.2	01:59.6	03:37.3	01:37.7
Route 202/35 D	ayton Lane to Arlo	Lane				
Eastbound	01:01.0	00:59.2	-00:01.8	01:22.0	02:39.4	01:17.4
Westbound	01:38.0	01:48.0	00:10.0	01:49.7	02:16.1	00:26.4
Total	02:39.0	02:47.2	00:08.2	03:11.7	04:55.5	01:43.8
Route 202/35 B	ear Mountain Parky	way to Lexington Ave	nue			
Eastbound	04:35.3	07:45.9	32:10.6	05:51.7	16:56.9	11:05.2
Westbound	01:16.9	01:36.4	00:19.5	04:25.4	05:44.1	01:18.7
Total	05:52.2	09:22.3	03:30.1	10:17.1	22:41.0	12:23.9
Route 202/35 D	ayton Lane to Lexi	ngton Avenue	•			•
Eastbound	05:36.3	08:45.1	03:08.8	07:13.7	19:36.3	12:22.6
Westbound	02:54.9	03:24.4	00:29.5	06:15.1	08:00.2	01:45.1
Total	08:31.2	12:09.5	03:38.3	13:28.8	27:36.5	14:07.7

PARKING

The Proposed Project would provide approximately 644 parking spaces (341 surface lot spaces and 303 spaces located in a parking structure) on the Gyrodyne Project Site and 587 surface parking spaces on the Evergreen Project Site.

Parking generation rates and time-of-day distributions provided by the *ITE Parking Generation Manual*, 5th Edition were used to estimate the parking demand throughout a typical weekday for each land use on the Gyrodyne and Evergreen Project Sites. As the parking lots for Gyrodyne and Evergreen Projects are not connected, parking for each site was considered separately. In addition, based on the layout of the Gyrodyne Project Site parking spaces are considered shared for all land uses whereas the Evergreen Project Site provides separate parking for the retail land uses (75 parking spaces), the assisted living (77 parking spaces), the town houses (191 parking spaces) and residential apartments (244 parking spaces).

As shown in **Table 11-26** it is estimated that the peak period parking demand for a typical weekday would be 625 parking spaces on the Gyrodyne Project Site. As the Gyrodyne Project Site provides 644 parking spaces, the available parking supply would exceed the parking demand and it is not anticipated that the Gyrodyne project would result in a parking shortfall.

11-40 March 15, 2022

Table 11-26 Gyrodyne Project Site Time-of-Day Distribution of Parking Demand¹

	Land Use	<u> </u>
Hour Beginning	Medical Office ²	Total
12:00 AM	0	0
1:00 AM	0	0
2:00 AM	0	0
3:00 AM	0	0
4:00 AM	0	0
5:00 AM	0	0
6:00 AM	0	0
7:00 AM	75	75
8:00 AM	269	269
9:00 AM	550	550
10:00 AM	619	619
11:00 AM	625	625
12:00 PM	519	519
1:00 PM	463	463
2:00 PM	588	588
3:00 PM	581	581
4:00 PM	538	538
5:00 PM	338	338
6:00 PM	0	0
7:00 PM	0	0
8:00 PM	0	0
9:00 PM	0	0
10:00 PM	0	0
11:00 PM	0	0

Notes:

- Parking Demand was calculated using average rates or fitted curve equations and time-of-day distributions from the ITE Parking Generation Manual, 5th Edition
- Medical Office peak period parking demand is based on the fitted curve equation for land use code 720.

As shown in **Table 11-27** it is estimated that the peak period parking demand for a typical weekday would be 318 parking spaces on the Evergreen Project Site which is less than the 587 parking spaces provided. The peak period parking demand for the parking associated with the assisted living land use would be 47 parking spaces, less than the 77 parking spaces provided. In addition, both the low-rise (townhouse) residential peak period parking demand of 78 parking spaces and the mid-rise residential peak period parking demand of 214 parking spaces are less than the 191 and 244 parking spaces provided, respectively. However, the peak parking demand for the parking associated with the retail land use would be 110 parking spaces, exceeding the 75 parking spaces provided. As the Evergreen Project Site provides 587 parking spaces, the available parking supply would exceed the parking demand. However, because the Evergreen Project Site provides distinct parking lots, the dedicated parking for the retail use may require additional parking to avoid a parking shortfall.

11-41 March 15, 2022

Table 11-27 Evergreen Project Site Time-of-Day Distribution of Parking Demand¹

	<u> </u>	Lar	id Use		
Hour Beginning	Assisted Living ²	Retail ³	Residential (Low-Rise) ⁴	Residential (Mid-Rise) ⁵	Total
12:00 AM	0	0	78	214	292
1:00 AM	0	0	78	214	292
2:00 AM	0	0	78	214	292
3:00 AM	0	0	78	214	292
4:00 AM	0	0	78	214	292
5:00 AM	0	0	76	201	277
6:00 AM	0	0	70	178	248
7:00 AM	24	0	60	152	236
8:00 AM	29	17	44	131	221
9:00 AM	37	36	35	118	226
10:00 AM	39	60	31	116	246
11:00 AM	44	79	29	113	265
12:00 PM	45	110	28	107	290
1:00 PM	47	111	28	105	291
2:00 PM	45	100	29	105	279
3:00 PM	40	92	34	107	273
4:00 PM	35	90	35	124	284
5:00 PM	32	93	43	137	305
6:00 PM	29	95	51	143	318
7:00 PM	0	89	57	150	296
8:00 PM	0	70	60	163	293
9:00 PM	0	47	67	178	292
10:00 PM	0	17	72	193	282
11:00 PM	0	0	76	199	275

Notes:

- 1. Parking Demand was calculated using average rates or fitted curve equations and time-of-day distributions from the ITE Parking Generation Manual, 5th Edition
- 2. Assisted Living peak period parking demand is based on the average rate for land use code 254.
- 3. Retail peak period parking demand is on the fitted curve equation of the average peak parking demand for a non-Friday weekday (non-December) for land use code 820.
- 4. Residential peak period parking demand is based on the fitted curve equation for general urban/suburban apartments not nearby rail transit for land use code 220.
- 5. Residential peak period parking demand is based on the fitted curve equation for general urban/suburban apartments not nearby rail transit for land use code 221.

TRAFFIC SAFETY CONDITIONS

With increased traffic volumes in the study area from the Proposed Project, it is possible that there would be an increase in the accident experience in the study area under 2023 With Action Conditions. Based on the anticipated increase in traffic due to the Proposed Project, and absent any improvement measures, the following intersections are estimated to have one or more additional accidents per year as compared to the 2023 No Action Condition:

- Route 202/35 and Medical Center Driveway/NY Presbyterian Driveway (estimated 1.3 additional accidents/year)
- Route 202/35 and Conklin Avenue (estimated 1.7 additional accidents/year)
- Route 202/35 and Bear Mountain Parkway (estimated 1.7 additional accidents/year)
- Route 202/35 and Croton Avenue/Maple Row (estimated 1.0 additional accidents/year)

The estimated increases in accidents/year at the study area intersections are not anticipated to create or exacerbate traffic safety conditions without the Proposed Project (2023 No Action Condition).

11-42 March 15, 2022

PEDESTRIAN AND BICYCLE CONDITIONS

As part of the Proposed Project, pedestrian facilities providing connectivity between the Gyrodyne and Evergreen Project Sites as well as the NYPH are proposed. As shown on the Evergreen Site Plan, the internal sidewalks and crosswalks will provide accessibility throughout the site and will provide connection to Route 202/35 via a sidewalk along the west side of the proposed driveway to Route 202/35 at its intersections with Conklin Avenue. The Evergreen Project Site sidewalk will continue along the south side of Route 202/35 from Conklin Avenue to Lafayette Avenue. At the intersection of Route 202/35 and Lafayette Avenue/NYPH exit driveway, a crosswalk will be provided across the Lafayette Avenue approach to connect the Evergreen Project's sidewalk with the Gyrodyne Project's sidewalk. As shown on the Gyrodyne Site Plan, Gyrodyne will construct sidewalk along the south side of Route 202/35 from Lafayette Avenue to the Gyrodyne driveway/NYPH entrance driveway and continue into the Gyrodyne Project Site along the west side of the driveway with accessibility throughout the site. At the intersection of Route 202/35 and the Gyrodyne driveway/NYPH entrance driveway, crosswalks will be provided on all approaches.

PUBLIC TRANSPORTATION

No significant changes are expected in the study area's public transportation conditions under 2023 With Action Condition with the Proposed Project.

G. TRAFFIC MITIGATION

For the impacted locations described in **Table 11-1**, mitigation measures, such as signal installation or retiming and roadway restriping, were examined as a means to improve traffic operating conditions. In addition, improvement measure for impacts to queue lengths and deterioration of corridor delay were also assessed. A discussion of the recommended mitigation measures is provided below.

MITIGATION MEASURES

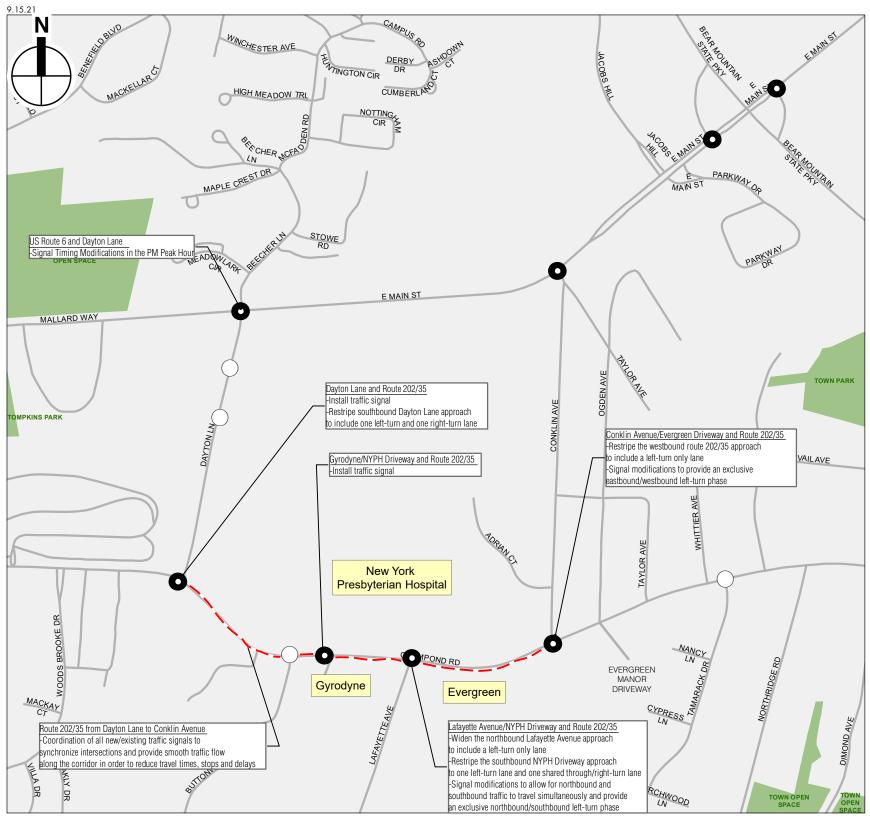
Table 11-28 and **Figure 11-11** presents the recommended mitigation measures that address the identified impacts with the proposed MOD Development Plan.

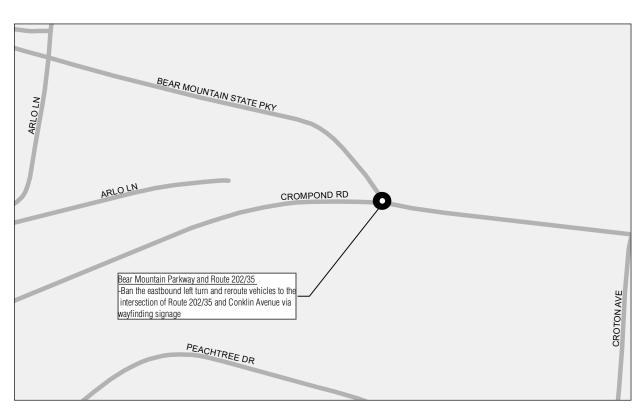
With the implementation of these mitigation measures which are subject to review and approval by the Town and NYSDOT, the significant adverse traffic impacts identified above in Section F could be fully mitigated except for the signalized intersections of US Route 6 and Lexington Avenue (Weekday PM peak hour), Route 202/35 and Croton Avenue/Maple Row (Weekday AM and PM peak hours) and Route 202/35 and Lexington Avenue (Weekday PM peak hour). In addition, the unsignalized intersections of Dayton Lane and Beach Shopping Center south driveway (weekday PM peak hour), Route 202/35 and Shipley Drive/Dimond Avenue (Weekday PM peak hour), and Route 202/35 and Locust Avenue (Weekday AM peak hour) could not be fully mitigated.

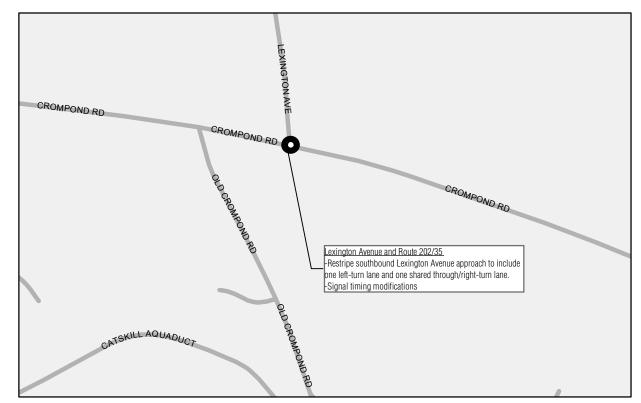
ROUTE 202/35 AND BEAR MOUNTAIN PARKWAY AND CROTON AVENUE/MAPLE ROW

The intersections of Route 202/35 and Bear Mountain Parkway and Route 202/35 and Croton Avenue/Maple Row are located approximately 1.2 miles from the MOD Development Plan, however under existing conditions are operating at or over capacity. The 2023 No Action Condition shows considerable deterioration to the Route 202/35 and Bear Mountain Parkway approaches without any proposed improvements to increase capacity. In addition, these locations are not currently included on the Statewide Transportation Improvements Plan (STIP), a comprehensive list of projects in New York State proposed to receive federal funding for

11-43 March 15, 2022







Legend

Signalized intersection

Unsignalized intersection

0 500 FEET

Proposed Mitigation Measures

Chapter 11: Traffic and Transportation

improvements. As such, they represent an existing choke point along the corridor. Furthermore, as the two intersections are closely spaced and operate as a single traffic signal, signal retiming is not feasible unless coupled with increasing the roadway capacity. Increasing the roadway capacity for the critical eastbound approach is not feasible as sufficient right-of-way does not exist due to the NYCDEP aqueduct in the vicinity of the approach.

With signal retiming and increasing capacity being unfeasible mitigation measures, diverting trips away from the area of congestion would be the most cost effective and practical improvement to operating conditions. As shown in Figures 11-2 and 11-3, approximately 27 and 30 vehicles currently make an eastbound left turn from Route 202/35 to the Bear Mountain Parkway during the Weekday AM and PM peak hours, respectively. However, the limited vehicles making a left turn have the potential to create substantial delay for the larger number of eastbound through vehicles as the eastbound approach of Route 202/35 is not wide enough to accommodate vehicles maneuvering around waiting left turn vehicles. In addition, the eastbound left turn is a difficult maneuver due to the alignment of Route 202/35 with the Bear Mountain Parkway, a factor which may be contributing to the high crash rate at this location. After consultation with the Town of Cortlandt and NYSDOT, it is recommended that the eastbound left turn be banned and the limited number of vehicles wishing to travel northbound on Bear Mountain Parkway from Route 202/35 be rerouted via wayfinding signage to Conklin Avenue where vehicles can turn right onto U.S. Route 6 and then turn right onto the Bear Mountain Parkway northbound ramp. This rerouting creates a safe, effective route for vehicles traveling to the Bear Mountain Parkway and greatly reduces eastbound congestion at the Route 202/35 and Bear Mountain Parkway intersection.

LEVEL OF SERVICE CONDITIONS

Table 11-29 presents a comparison of the 2023 No Action, With Action and Mitigation Conditions for the study area intersections with the MOD Development Plan for the Weekday AM and PM peak hours. Synchro 10 outputs for the 2023 Mitigation condition are provided in **Appendix VII**.

MEASURES OF EFFECTIVENESS

As several locations along the NYS Route 202/35 corridor exceed LOS D under the 2023 With Action condition (with the Proposed Project), addition MOEs including queue length and corridor delay were used to evaluate the corridor. Similarly, these additional MOEs were evaluated for the 2023 With Mitigation condition to assess the proposed mitigation measures along the corridor.

QUEUE CONDITIONS

A review of the Synchro 95th Percentile queue data shows that under 2023 With Mitigation Conditions, the majority of queues impacted under the 2023 With Action Condition would be mitigated by the proposed mitigation measures listed in **Table 11-28**. An assessment of the remaining impacted queues under the 2023 With Action Condition identified improvements which would increase the storage capacity for the impacted movements and mitigate the 95th Percentile queues with the Proposed Project for all approaches with the exception of the left turn lane at the intersection of Route 202/35 and Bear Mountain Parkway which is constricted by available right-of-way as discussed above. The additional improvement measures are listed below.

• The westbound left turn lane at the intersection of Route 202/35 and Croton Avenue/Maple Row would be increased in length from 100 feet to 225 feet.

For the detailed queue results see **Appendix VII**.

11-44 March 15, 2022

Medical Oriented District (FGEIS) & MOD Development Plan (FEIS)

Table 11-28 Recommended Intersection Mitigation Measures

	Recommended Mi	itigation Measures
Intersection/Roadway Segment	Weekday AM Peak Hour	Weekday PM Peak Hour
	Signalized Intersections	
US Route 6 and Dayton Lane	No significant Impact	Signal Timing Modifications
US Route 6 and Lexington Avenue	No significant Impact	Unmitigated ⁸
Route 202/35 and Dayton Lane	Restripe the SB Dayton Lane approach from one lane to one left turn only lane and one right turn only lane 2) Signalize the intersection ¹	Restripe the SB Dayton Lane approach from one lane to one left turn only lane and one right turn only lane Signalize the intersection ¹
Route 202/35 and Lafayette Avenue / NY Presbyterian Driveway	1) Widen the NB Lafayette Avenue approach from one lane to one 100-foot left turn only lane and one through/right turn lane 2) Restripe the SB NY Presbyterian driveway approach from one left turn/through lane and one right turn lane to one left turn lane and one through/right turn lane 3) Signal phasing modifications to allow for protected/permitted NB/SB left turns ⁶	1) Widen the NB Lafayette Avenue approach from one lane to one 100-foot left turn only lane and one through/right turn lane 2) Restripe the SB NY Presbyterian driveway approach from one left turn/through lane and one right turn lane to one left turn lane and one through/right turn lane 3) Signal phasing modifications to allow for protected/permitted NB/SB left turns
Route 202/35 from Dayton Lane to Conklin Avenue	Coordinate the corridor with optimized offsets ⁷	Coordinate the corridor with optimized offsets ⁷
Route 202/35 and Bear Mountain Parkway	Ban the EB left turn, reroute to the intersection of Route 202/35 and Conklin Avenue via wayfinding signage	Ban the EB left turn, reroute to the intersection of Route 202/35 and Conklin Avenue via wayfinding signage
Route 202/35 and Croton Avenue/Maple Row	Unmitigated	Unmitigated
Route 202/35 and Lexington Avenue	Restripe the SB Lexington Avenue approach from one left turn/through lane and one right turn lane to one left turn lane and one through/right turn lane Signal Timing Modifications	Restripe the SB Lexington Avenue approach from one left turn/through lane and one right turn lane to one left turn lane and one through/right turn lane Signal Timing Modifications ²
	Unsignalized Intersections	
Dayton Lane and South Shopping Center Driveway ³	No significant impact	Unmitigated
Route 202/35 and Shipley Drive ^{3,4}	No significant impact	Unmitigated
Route 202/35 and Locust Avenue ^{3,4}	Unmitigated	No significant impact

Notes: EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound.

- (1) Traffic Signal is warranted with or without the Proposed Action.
- (2) Does not fully mitigate the intersection
- (3) Unsignalized intersection which does not meet signal warrant criteria under With Action Condition.
- (4) Not uncommon for unsignalized minor approaches/driveways on a state/city roadway to operate at LOS E and F
- (6) Mitigation not necessary for peak hour
- (7) Coordination and offsets synchronize traffic signals together in order to provide smooth flow of traffic along a segment with closely spaced intersections in order to reduce travel time, stops and delay.
- (8) The Proposed Action would only add six vehicles to eastbound through/right-tun movement, however, since this approach is already above capacity in the No Action condition, any additional vehicle would result in large increases in delay. It should be noted that the analysis does not reflect potential improvements from the implementation of an Adaptive Traffic Control System.

March 15, 2022

Chapter 11: Traffic and Transportation

Table 11-29 2023 No Action, With Action and Mitigation Conditions Analysis

													202,	<i>3</i> 110 <i>1</i>	ACHOI	l, VV I	ııı Acı			_	non C	onaru	JIIS AII	iaiysis
					п		ekday A										Т		day PM		π			
		023 No				2023 Wit		1		2023 Mi			.	2023 No				023 With				2023 Wit		
	Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay	
Intersection	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
	4										Signalized	Intersec	tions											
Route 6 and Da	yton Lane		- 4			0.04				0.04				0.44	40.4			0.44	40.0			0.40	40.0	
Eastbound	L	0.04	5.4	Α	L	0.04	5.4	A		0.04	4.5	A	_ L	0.11	10.4	В	L	0.11	10.8	В	L	0.12	12.0	В
	TR	0.35	10.6	В	TR	0.37	10.5	В	TR	0.35	9.3	A	TR	0.63	23.5	С	TR	0.68	25.4	С	TR	0.72	27.6	С
Westbound	L 	0.14	5.7	A	L 	0.15	5.8	A	L 	0.13	4.8	A	L	0.45	14.2	В	L	0.49	15.9	В	L	0.51	17.5	В
	TR	0.24	10.4	В	TR	0.24	10.4	В	TR	0.22	9.2	Α	TR	0.40	18.4	В	TR	0.42	19.5	В	TR	0.44	20.9	С
Northbound	L	0.44	33.7	С	L	0.53	37.1	D	L	0.48	33.1	С	L	0.84	49.9	D	L	0.90	57.5	Е	L	0.87	49.9	D
	TR	0.25	27.9	С	TR	0.25	27.9	С	TR	0.21	25.4	С	TR	0.13	23.5	С	TR	0.12	23.1	С	TR	0.12	21.2	С
Southbound	LT	0.57	37.4	D	LT	0.57	37.4	D	LT	0.48	31.7	С	LT	0.08	22.8	С	LT	0.08	22.6	С	LT	0.07	20.6	С
	R	0.32	19.9	В	R	0.32	19.9	В	R	0.29	18.1	В	R	0.07	14.2	В	R	0.07	14.0	В	R	0.07	12.4	В
	Interse	ection	15.2	В	Inters	ection	15.5	В	Inters	ection	13.7	В	Inters	ection	24.8	С	Interse	ection	27.8	С	Inters	ection	27.8	С
Route 6 and Co	nklin Ave	nue																						
Eastbound	L	0.01	2.7	Α	L	0.01	2.9	Α	L	0.01	2.6	Α	L	0.02	3.6	Α	L	0.02	4.0	Α	L	0.02	4.8	Α
	TR	0.23	5.4	Α	TR	0.23	5.4	Α	TR	0.22	5.0	Α	TR	0.34	7.0	Α	TR	0.34	8.0	Α	TR	0.35	8.9	Α
Westbound	L	0.29	3.9	Α	L	0.34	4.4	Α	L	0.33	4.0	Α	L	0.39	6.2	Α	L	0.45	7.9	Α	L	0.46	9.0	Α
	TR	0.20	3.4	Α	TR	0.20	3.4	Α	TR	0.20	3.1	Α	TR	0.26	4.6	Α	TR	0.27	5.7	Α	TR	0.27	6.5	Α
Northbound	LT	0.24	55.1	Е	LT	0.23	54.7	D	LT	0.17	49.4	D	LT	0.37	57.8	E	LT	0.34	55.5	E	LT	0.30	51.7	D
	R	0.71	19.7	В	R	0.72	19.6	В	R	0.72	16.1	В	R	0.73	18.2	В	R	0.77	17.7	В	R	0.81	17.9	В
Southbound	LTR	0.24	32.3	С	LTR	0.24	31.9	С	LTR	0.19	28.4	С	LTR	0.43	39.2	D	LTR	0.41	37.2	D	LTR	0.37	34.0	С
	Interse	ection	7.6	Α	Inters	ection	7.8	Α	Inters	ection	7.1	Α	Inters	ection	9.5	Α	Interse	ection	10.4	В	Inters	ection	11.3	В
Route 6 and Be	ar Mounta	ain Park	way Eas	stboun	d Ramps	5						U			U				U		u .			
Eastbound	L	0.41	18.0	В	L	0.41	18.3	В	L	0.33	14.3	В	L	0.41	20.0	С	L	0.41	20.0	С	L	0.41	20.0	С
	TR	0.52	21.5	С	TR	0.53	21.8	С	TR	0.52	19.8	В	TR	0.75	28.0	С	TR	0.79	30.0	С	TR	0.85	38.2	D
Westbound	L	0.17	15.8	В	L	0.17	15.9	В	L	0.15	13.3	В	L	0.30	13.7	В	L	0.31	14.6	В	L	0.31	14.6	В
	TR	0.67	25.6	С	TR	0.68	25.9	С	TR	0.61	21.7	С	TR	0.86	28.1	С	TR	0.86	28.6	С	TR	0.86	28.6	С
Northbound	LT	0.55	56.2	Е	LT	0.55	56.2	Е	LT	0.55	54.1	D	LT	0.64	66.2	Е	LT	0.64	66.2	Е	LT	0.64	66.2	Е
	R	0.16	1.0	Α	R	0.16	1.0	Α	R	0.16	1.0	Α	R	0.18	1.4	Α	R	0.18	1.4	Α	R	0.18	1.4	Α
Southbound	L	0.70	47.7	D	L	0.70	47.7	D	L	0.63	41.1	D	L	0.77	50.5	D	L	0.77	50.6	D	L	0.77	50.8	D
	Т	0.70	47.1	D	Т	0.70	47.2	D	Т	0.63	40.7	D	Т	0.76	49.6	D	Т	0.76	49.7	D	Т	0.76	49.8	D
	R	0.23	1.2	A	R	0.28	2.9	Α	R	0.26	2.6	A	R	0.11	0.5	Α	R	0.16	0.7	Α	R	0.16	0.7	A
	Interse	ection	27.0	С	Inters	ection	27.0	С	Inters	ection	23.5	С	Inters	ection	31.3	С	Interse	ection	32.0	С	Inters	ection	35.0	D

11-46 March 15, 2022

Medical Oriented District (FGEIS) & MOD Development Plan (FEIS)

Table 11-29 (cont'd) 2023 No Action, With Action and Mitigation Conditions Analysis

		Weekday AM																Weel	kday PM					
	2	2023 No	Action			2023 Wit		1		2023 M	itigation			2023 No	Action		2023 With Action					2023 Mi	tigation	
	Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay	
Intersection	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
Davita 6 and La	vinatan A									Signa	lized Inter	sections	(continu	ed)										
Route 6 and Lex	xington A		18.1	В		0.35	17.8	В		0.31	15.8			0.95	98.3	F		0.05	97.8	F		0.95	97.8	F
Eastbound	TR	0.36	54.4		TR		54.5	D	TR		50.0	B D	TR		96.3 85.2	F	L TR	0.95 1.11	100.9	F	TR	1.11	100.9	F
		0.94	54.4 24.8	D C	IK	0.94 0.54	25.9	С		0.92 0.47	20.5	С	L L	1.07 0.50	85.2 35.4	D		0.52	36.5	D		0.52	36.5	F D
Westbound	L TR	0.53		D	TR			D	L TR			D	TR			F	L TR			F	L TR			F
	IK	0.84	42.8	_	IK	0.83	41.9			0.81	39.2		IK ,	1.20	140.1	F		1.21	141.1	F	IK .	1.21	141.1	
Northbound	L	0.40	40.4	D	_ L	0.41	41.2	D	L	0.37	38.2	D	_ L	1.01	110.3		L	1.04	116.0		L	1.04	116.0	F
	TR	0.95	92.3	F	TR	0.97	98.3	F	TR	0.91	82.0	F	TR	0.68	71.2	E	TR	0.72	72.9	E	TR	0.72	72.9	E
Southbound	L	0.58	46.8	D	L	0.60	48.5	D	L	0.52	42.5	D	_ L	0.35	45.5	D	L	0.36	45.8	D	L	0.36	45.8	D
	TR	0.69	63.7	Е	TR	0.71	65.2	Е	TR	0.66	60.5	Е	TR	0.97	109.3	F	TR	0.97	109.8	F	TR	0.97	109.8	'
	Interse		54.1	D	Inters	ection	55.1	Е	Inters	ection	49.4	D	Inters	ection	105.0	F	Interse	ection	110.7	F	Inters	ection	110.7	F
Route 202/35 ar	nd Daytor	Lane			1					1			ı				11					1		
Eastbound									L	0.25	6.0	Α									L	0.62	22.7	С
									Т	0.53	7.6	Α									Т	0.38	6.2	Α
Westbound			ignalized	l in No	Intersection Unsignalized in Action Conditions				TR	0.39	3.4	Α	Intersection Unsignalized in No			Intersection Unsignalized in Action Conditions				TR	0.75	8.7	Α	
Southbound	F	Action C	ondition						L	0.66	49.5	D		Action C	Condition		Α	ction Co	nditions		L	0.67	52.8	D
									R	0.20	9.5	Α	4						R	0.44	8.7	Α		
									Inters	ection	11.5	В									Inters	ection	13.3	В
Route 202/35 ar	nd Gyrody	yne/NYF	PH Drive	way	•				•	,		,							,				1	
Eastbound					L	0.24	5.1	Α	L	0.24	3.7	Α					L	0.16	6.9	Α	L	0.16	4.9	Α
					TR	0.52	5.9	Α	TR	0.51	3.8	Α					TR	0.50	9.0	Α	TR	0.50	6.4	Α
Westbound	1-4	4: I I	:	l ! NI	L	0.39	2.5	Α	L	0.39	3.6	Α	1-4	-4: 1.1	_:	:- NI-	L	0.22	2.4	Α	L	0.22	3.4	Α
		tion Uns Action C	ignalized	ı ın No	TR	0.55	2.9	Α	TR	0.54	3.0	Α	Interse		signalized Condition	in ino	TR	0.71	8.5	Α	TR	0.71	6.1	Α
Northbound	<i>'</i>	ACTION C	orialition		LT	0.23	43.4	D	LT	0.21	41.9	D		Action	onalion		LT	0.59	47.5	D	LT	0.59	47.5	D
					R	0.30	13.2	В	R	0.28	12.5	В					R	0.57	10.6	В	R	0.57	9.7	Α
					Inters	ection	5.4	Α	Inters	ection	4.5	Α	l				Interse	ection	11.6	В	Inters	ection	9.7	Α
Route 202/35 ar	nd Lafaye	tte Avei	nue/NYP	H Driv	eway																			
Eastbound	TR	0.64	23.2	С	TR	0.71	22.5	С	TR	0.54	8.0	Α	TR	0.76	32.1	С	TR	1.15	106.2	F	TR	0.98	45.1	D
Westbound	L	0.15	13.5	В	L	0.18	14.1	В	L	0.12	2.7	Α	L	0.40	19.9	В	L	0.60	23.7	С	L	0.65	36.7	D
	Т	0.60	21.9	С	Т	0.76	30.4	С	Т	0.62	4.1	Α	Т	0.65	30.4	С	Т	0.79	35.3	D	Т	0.71	6.1	Α
Northbound	LTR	0.62	21.1	С	LTR	0.65	23.7	С	L	0.31	38.8	D	LTR	0.87	49.0	D	LTR	0.89	54.7	D	L	0.46	37.5	D
									TR	0.20	1.0	Α									TR	0.39	3.3	Α
Southbound	LT	0.79	85.0	F	LT	0.76	80.9	F	L	0.32	38.9	D	LT	1.47	280.6	F	LT	1.44	271.5	F	L	0.57	40.0	D
	R	0.15	1.0	Α	R	0.15	1.0	Α	TR	0.39	26.4	С	R	0.39	10.1	В	R	0.39	10.2	В	TR	0.57	20.8	С
	Interse	ection	24.9	С	Inters	ection	28.2	С	Inters	ection	8.6	Α	Inters	ection	55.2	Е	Interse	ection	80.5	F	Inters	ection	27.0	С

11-47 March 15, 2022

Chapter 11: Traffic and Transportation

Table 11-29 (cont'd) 2023 No Action, With Action and Mitigation Conditions Analysis

		Weekday AM														Week	day PM	0						
	2	023 No	Action		2	023 Wit	h Actior	1		2023 Mi	itigation		2023 No Action			2023 With Action				2023 Mitigation				
	Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay	
Intersection	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
										Signal	lized Inter	sections	(continu	ed)										
Route 202/35 ar	nd Conklir				riveway	0.40						_		0.45										
Eastbound	L	0.38	2.4	A	L	0.43	3.8	A	L	0.60	13.3	В	L	0.45	3.1	A	L	0.55	2.7	A	L	0.85	30.2	С
	T	0.38	1.7	A	TR	0.44	3.8	A	TR	0.42	5.7	A	T	0.39	1.1	A	T	0.60	3.5	A	TR	0.58	13.2	В
Westbound	TR	0.55	14.2	В	LTR	0.74	20.6	С	LTR	0.72	17.3	В	TR	0.66	19.0	В	LTR	0.92	36.3	D	LTR	0.93	37.4	D
Northbound	L	-	-	-	L	0.51	67.3	Е	L	0.23	38.1	D	L	-	-	-	L	0.53	62.3	Е	L	0.27	38.2	D
	TR	-		-	TR	0.20	17.2	В	TR	0.24	20.8	С	TR	-		_	TR	0.24	15.8	В	TR	0.32	20.9	С
Southbound	L	0.49	51.6	D	L	0.55	54.0	D	L	0.44	43.6	D	L	0.46	51.2	D	L 	0.50	50.5	D	L	0.40	41.4	D
	TR	0.54	16.4	В	TR	0.64	12.4	В	TR	0.65	13.4	В	TR	0.34	9.3	Α	TR	0.53	12.7	В	TR	0.62	17.7	С
	Interse		11.2	В	Inters	ection	15.1	В	Inters	ection	14.8	В	Inters	ection	12.0	В	Interse	ection	19.7	В	Inters	ection	26.9	С
Route 202/35 ar				_							1										1			
Eastbound	LT	1.08	107.0	F	LI	1.53	283.6	F	_	-		_	LT	1.38	224.3	F	LT	2.80	839.3	F	_		-	-
	-	-	-	-	-	-	-	-	 -	0.96	73.3	E	-	-	-	-	-	-	-	-	T	1.17	135.3	F
Westbound		0.47	19.8	В	1	0.59	22.8	С	ı	0.58	22.2	С		0.59	18.3	В	T	0.70	39.9	D	T	0.70	39.9	D
	R	0.47	6.1	A	K	0.49	9.5	A	R	0.48	9.0	A	R	0.66	15.4	В	R	0.68	18.9	В	R	0.68	18.9	B
Southbound	LR	1.40	230.9	F	LR	1.40	231.4	F	LR	1.38	219.9	F	LR	1.00	118.7	F	LR	1.00	119.5	F	LR	1.00	119.5	
	Interse		113.7	F	Inters	ection	154.8	F	Inters	ection	98.5	F	Inters	ection	89.7	F	Interse	ection	274.7	F	Inters	ection	77.9	E
Route 202/35 ar	nd Croton					0.40	0.4	•		0.47	0.5			0.04	00.0			0.04	05.0	_		0.04	05.7	
Eastbound	L -	0.14	2.8	A	L -	0.18	3.1	A	L -	0.17	2.5	A	L _	0.34	29.0	С	L	0.34	25.8	С	L -	0.34	25.7	С
		1.05	61.7	E	ı	1.10	64.7	E	ı	1.09	61.0	E		0.87	59.5	E	T	1.01	58.8	E	T	1.01	56.6	E
I	R	0.25	1.7	A	ĸ	0.27	2.2	A	R	0.26	1.6	A	R	0.14	1.6	A	R	0.19	2.9	A	R	0.19	2.8	A
Westbound	L	1.04	124.6		L	1.04	124.6	F 0	L	0.97	105.2	F	L	0.52	14.2	В	L	0.82	74.0	E	L	0.82	74.0	E
	TR	0.70	22.0	С	TR	0.79	26.7	С	LTR	0.79	25.6	С	TR	1.07	81.7	F	TR	1.15	105.8	F	TR	1.15	105.8	
Northbound	L	1.67	376.8	F	L	1.98	505.9	F	L	1.92	480.5	F	L	0.96	118.1	F	L	1.10	149.7	F	L	1.10	149.7	F
	TR	0.42	27.7	С	TR	0.42	27.7	С	TR	0.41	26.7	С	TR	0.43	38.1	D	TR	0.43	38.0	D	TR	0.43	38.0	D
Southbound	LTR	1.01	111.6	F	LTR	1.01	111.6	F -	LTR	0.96	100.2	F	LTR	0.74	71.9	E	LTR	0.73	70.8	E	LTR	0.73	70.8	E -
	Interse	ection	69.0	Е	Inters	ection	80.2	F	Inters	ection	74.8	Е	Inters	ection	66.4	Е	Interse	ection	79.2	Е	Inters	ection	78.4	Е

March 15, 2022

Medical Oriented District (FGEIS) & MOD Development Plan (FEIS)

Table 11-29 (cont'd) 2023 No Action, With Action and Mitigation Conditions Analysis

		Weekday AM										Weekday PM												
	2	023 No	Action			2023 Wit				2023 Mi	itigation		2023 No Action			2023 With Action				2023 Mitigation				
	Lane	v/c	Delay		Lane	v/c	Delav		Lane	v/c	Delav		Lane	v/c	Delay		Lane	v/c	Delay	1	Lane	v/c	Delav	
Intersection	Group	Ratio	(sec)	LOS		Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
			()				()		p		ized Inter				(/	1	p		()		p		(/	
Route 202/35 an	nd Lexing	ton Ave	enue										,											
Eastbound	L	0.20	7.6	Α	L	0.30	10.2	В	L	0.23	7.1	Α	L	0.57	24.4	О	L	0.63	28.8	С	L	0.74	42.5	D
	TR	1.21	122.9	F	TR	1.24	135.3	F	TR	1.14	91.3	F	TR	1.10	81.7	F	TR	1.24	138.7	F	TR	1.18	109.7	F
Westbound	L	0.11	7.3	Α	L	0.11	7.4	Α	L	0.10	6.2	Α	L	0.20	8.7	Α	L	0.20	9.0	Α	L	0.22	8.6	Α
	Т	0.85	27.9	С	Т	0.96	42.5	D	Т	0.88	28.0	С	Т	1.39	206.1	F	Т	1.49	249.4	F	Т	1.37	193.7	F
	R	0.11	2.9	Α	R	0.11	2.9	Α	R	0.11	2.4	Α	R	0.25	4.4	Α	R	0.26	5.0	Α	R	0.24	3.0	Α
Northbound	LTR	0.14	29.1	С	LTR	0.18	30.5	С	LTR	0.17	31.7	С	LTR	0.23	32.6	С	LTR	0.27	34.5	С	LTR	0.25	36.5	D
Southbound	LT	0.76	50.7	D	LT	0.78	53.5	D	L	0.67	47.1	D	LT	0.74	52.7	D	LT	0.75	54.1	D	L	0.72	56.5	Е
	R	0.22	9.3	Α	R	0.25	11.3	В	TR	0.34	13.0	В	R	0.18	6.2	Α	R	0.21	8.6	Α	TR	0.32	15.0	В
	Interse	ection	72.6	Е	Inters	ection	82.7	F	Inters	ection	56.4	Е	Inters	ection	121.3	F	Interse	ection	159.9	F	Inters	ection	126.6	F
Route 6 and Bea	ar Mounta	ain Park	way We	stboun	nd Ramp	s									ı		ı			l	II.			
Eastbound	LTR	0.58	6.8	Α	LTR	0.59	7.3	Α	LTR	0.61	7.9	Α	LTR	0.98	38.2	D	LTR	1.02	46.4	D	LTR	1.07	62.4	Е
Westbound	L	0.51	12.6	В	L	0.52	13.1	В	L	0.51	13.3	В	L	0.78	39.4	D	L	0.80	43.3	D	L	0.81	44.1	D
	TR	0.31	3.7	Α	TR	0.32	3.7	Α	TR	0.31	3.4	Α	TR	0.46	9.2	Α	TR	0.46	9.3	Α	TR	0.46	9.3	Α
Northbound	L	0.41	46.8	D	L	0.41	46.9	D	L	0.38	44.6	D	L	0.71	68.9	Е	L	0.71	68.9	Е	L	0.71	68.9	Е
	TR	0.25	22.2	С	TR	0.25	22.2	С	TR	0.23	21.3	С	TR	0.23	21.6	С	TR	0.23	21.6	С	TR	0.23	21.6	С
Southbound	LTR	0.64	31.9	С	LTR	0.64	32.0	С	LTR	0.59	28.7	С	LTR	0.67	35.9	D	LTR	0.67	35.9	D	LTR	0.67	35.9	D
	Interse	ection	8.9	Α	Inters	ection	9.1	Α	Inters	ection	9.1	Α	Inters	ection	29.0	С	Interse	ection	33.4	С	Inters	ection	41.8	D
				1				ı		U	nsignaliz	ed Interse	ections		ı		I		ı		U			
Dayton Lane and	d Beach	Shoppii	ng Cente	er Nortl	h Drivew	ay																		
Westbound	LR	0.17	11.3	В	LR	0.18	11.6	В	LR	0.18	11.6	В	LR	0.27	14.6	В	LR	0.31	16.1	С	LR	0.31	16.1	С
Southbound	L	0.04	7.6	Α	L	0.05	7.7	Α	L	0.05	7.7	Α	L	0.06	8.4	Α	L	0.06	8.6	Α	L	0.06	8.6	Α
Dayton Lane and	d Beach	Shoppii	ng South	h Cente	er South	Drivewa	ıy																	
Westbound	LR	0.10	11.6	В	LR	0.10	12.1	В	LR	0.10	12.1	В	LR	0.97	84.9	F	LR	1.12	135.4	F	LR	1.12	135.4	F
Southbound	L	0.02	7.7	Α	L	0.02	7.7	Α	L	0.02	7.7	Α	L	0.14	9.4	Α	L	0.15	9.7	Α	L	0.15	9.7	Α
Route 202/35 an	nd Dayton	Lane																						
Eastbound	L	0.13	8.9	Α	L	0.14	9.2	Α	Interse		alized in M	itigation	L	0.18	10.6	В	L	0.22	11.9	В	Intersed		alized in M	itigation
Southbound	LR	1.44	276.3	F	LR	2.09	564.2	F		Con	dition		LR	1.77	404.2	F	LR	2.92	933.2	F		Con	dition	
Route 202/35 an	d Button				.	1	1	1		1	ı				1		1		1		Г		ı	
Westbound	L	0.01	9.4	Α	L	0.01	10.0	Α	L	0.01	10.0	Α	L	0.00	8.8	Α	L	0.00	9.1	Α	L	0.00	9.1	Α
Northbound	LR	0.20	24.4	С	LR	0.26	31.6	D	LR	0.26	31.6	D	LR	0.01	18.2	С	LR	0.02	23.8	С	LR	0.02	23.8	С
Route 202/35 an	nd Cortlar	ndt Med	ical Driv	eway/N	YPH Dr	iveway								1	T		ı				П			
Eastbound	L	0.14	10.0	Α	Interes	ection Sig	nalized	in \Mith	Interce	otion Sign	alized in M	itigation	L	0.06	10.1	В	B Intersection Signalized in With			\\/ith	h Intersection Signalized in Mitigation			itigation
Westbound	L	0.04	9.0	Α	interse	Action C			merse		alized in ivi dition	iugation	L	0.01	8.6	Α	A Action Condition			interset	Condition			
Northbound	LTR	0.04	17.7	С						20	.=		LTR	0.15	18.3	С						20		

11-49 March 15, 2022

Chapter 11: Traffic and Transportation

Table 11-29 (cont'd) 2023 No Action, With Action and Mitigation Conditions Analysis

						We	ekday A	М										Weel	kday PM					
	- 2	2023 No	Action			2023 Wit	h Action			2023 M	itigation		2023 No Action			2023 With Action					2023 Mi	tigation		
	Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay	
Intersection	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
										Unsigr	nalized Inte	ersections	(continu	ed)										
Route 202/35 and	d Tamarac	k Drive					1											1	1		1			
Westbound	L	0.00	8.7	Α	L	0.00	8.9	Α	L	0.00	8.8	Α	L	0.04	9.1	Α	L	0.04	10.1	В	L	0.04	9.7	Α
Northbound	LR	0.14	20.3	С	LR	0.21	28.1	D	LR	0.20	25.9	D	LR	0.10	20.0	С	LR	0.19	35.3	Е	LR	0.17	30.7	D
Route 202/35 and	d Dimond	Avenue/	Shipley [Drive														1						
Eastbound	L	-	0.0	Α	L	-	0.0	Α	L	-	0.0	Α	L	0.02	9.2	Α	L	0.02	9.7	Α	L	0.02	9.7	Α
Westbound	L	0.01	8.8	Α	L	0.01	9.1	Α	L	0.01	8.9	Α	L	0.03	8.8	Α	L	0.03	9.7	Α	L	0.03	9.3	Α
Northbound	LTR	0.13	15.1	С	LTR	0.15	17.4	С	LTR	0.14	16.4	С	LTR	0.50	30.6	D	LTR	0.83	88.6	F	LTR	0.73	63.4	F
Southbound	LTR	0.03	11.5	В	LTR	0.04	12.8	В	LTR	0.04	12.8	В	LTR	-	0.0	Α	LTR	-	0.0	Α	LTR	-	0.0	Α
Route 202/35 and	d Locust A	venue																						
Eastbound	L	0.01	8.4	Α	L	0.01	8.9	Α	L	0.01	8.9	Α	L	0.03	9.1	Α	L	0.04	9.6	Α	L	0.04	9.6	Α
Southbound	LTR	0.44	32.9	D	LTR	0.61	56.3	F	LTR	0.57	48.9	Е	LTR	0.09	14.4	В	LTR	0.12	17.1	С	LTR	0.12	16.7	С
Route 202/35 and	d Crestviev	v Avenu	ie																					
Westbound	L	0.00	8.8	Α	L	0.00	9.0	Α	L	0.00	8.8	Α	L	0.00	8.8	Α	L	0.00	9.6	Α	L	0.00	9.3	Α
Northbound	LTR	0.10	21.1	С	LTR	0.14	27.3	D	LTR	0.13	25.4	D	LTR	0.03	17.4	С	LTR	0.04	24.9	С	LTR	0.04	22.5	С
Route 202/35 and	d Forest A	venue																						
Westbound	L	0.01	8.9	Α	L	0.01	9.1	Α	L	0.01	9.0	Α	L	0.01	8.9	Α	L	0.01	9.9	Α	L	0.01	9.5	Α
Northbound	LR	0.05	16.3	С	LR	0.06	19.1	С	LR	0.06	18.1	С	LR	0.06	19.1	С	LR	0.09	27.9	D	LR	0.08	25.2	D
Route 202/35 and	d Rick Lan	е											-											
Westbound	L	0.01	8.9	Α	L	0.01	9.1	Α	L	0.01	9.0	Α	L	0.01	8.9	Α	L	0.01	9.8	Α	L	0.01	9.5	Α
Northbound	LR	0.05	19.5	С	LR	0.06	24.3	С	LR	0.06	22.9	С	LR	0.04	18.9	С	LR	0.07	27.6	D	LR	0.06	24.8	С
Route 202/35 and	d Arlo Lan	е											_											
Eastbound	L	0.01	8.6	Α	L	0.02	9.0	Α	L	0.00	0.0	Α	L	0.04	9.3	Α	L	0.06	9.8	Α	L	0.00	0.0	Α
Southbound	LR	0.09	13.7	В	LR	0.13	15.9	С	LR	0.13	15.5	С	LR	0.07	18.2	С	LR	0.13	23.0	С	LR	0.11	20.3	С
Bear Mountain P	arkway an	d Locus	t Avenue	9																				
Westbound	L	0.01	8.9	Α	L	0.01	8.9	Α	L	0.01	8.9	Α	L	0.00	9.1	Α	L	0.00	9.2	Α	L	0.00	9.2	Α
Northbound	R	0.03	12.6	В	R	0.03	12.7	В	R	0.03	12.7	В	R	0.02	13.5	В	R	0.02	13.6	В	R	0.02	13.6	В
Bear Mountain P	arkway an	d Arlo L	ane																					
Eastbound	L	0.01	8.6	Α	L	0.01	8.6	Α	L	0.01	8.5	Α	L	0.01	9.5	Α	L	0.01	9.5	Α	L	0.01	9.3	Α
Westbound	L	0.00	9.7	Α	L	0.00	9.7	Α	L	0.00	9.7	Α	L	0.00	0.0	Α	L	0.00	0.0	Α	L	0.00	0.0	Α
Northbound	LTR	0.47	71.6	F	LTR	0.52	77.9	F	LTR	0.24	50.5	F	LTR	0.74	119.8	F	LTR	0.95	171.0	F	LTR	0.14	50.3	F
Southbound	LTR	0.35	38.2	Ε	LTR	0.35	39.1	E	LTR	0.34	36.5	E	LTR	0.13	20.7	С	LTR	0.13	20.9	С	LTR	0.12	19.9	С
Lafayette Avenu	e and Ridg	e Road																						
Westbound	LR	0.04	9.1	Α	LR	0.04	9.1	Α	LR	0.04	9.1	Α	LR	0.06	9.7	Α	LR	0.06	9.8	Α	LR	0.06	9.8	Α
Southbound	L	0.01	7.5	Α	L	0.01	7.5	Α	L	0.01	7.5	Α	L	0.03	7.6	Α	L	0.03	7.7	Α	L	0.03	7.7	Α
Notes: * Indicates	s exceeds S	Synchro	capacity ι	using H	CM 2010	•	•			•	•			•		•	*		•	•				

11-50 March 15, 2022

Chapter 11: Traffic and Transportation

CORRIDOR DELAY

As identified in **Table 11-25**, there would be an increase in corridor delays with the Proposed Action. With the proposed mitigation measures identified in **Table 11-28**, the delay associated with the Proposed Action would be greatly reduced, however an increase in delay along the Route 202/35 corridor would still be experienced as compared to the 2023 No Action Condition. Therefore, additional mitigation measures listed below are proposed to reduce travel time along the corridor with the Proposed Action.

- Route 202/35 and Lafayette Avenue/NY Presbyterian Hospital Driveway—signal phasing modifications to make the westbound left-turn a lagging phase.
- Route 202/35 from Dayton Lane to Conklin Avenue—Adjustments to the signal offsets to smooth traffic flow and progression between intersections.

With the implementation of these additional improvement measures, as well as the partial mitigation measures at the intersections of Route 202/35 and Bear Mountain Parkway and Route 202/35 and Lexington Avenue (see **Table 11-30**), additional storage capacity for turning vehicles would be provided and would improve the flow of through traffic along Route 202/35.

Table 11-30 2023 No Action, With Action and Mitigation Conditions Corridor Delay Proposed Project

									oposc	u i rojeci
			Weekday Al	И				Weekday Pl	И	
	2023 No					2023 No			202	3 With
	Action	2023 W	ith Action	2023 Wit	h Mitigation	Action	2023 W	ith Action	Miti	igation
	Delay	Delay	Difference	Delay	Difference	Delay	Delay	Difference	Delay	Difference
	(mins/	(mins	(mins/	(mins/	(mins/	(mins/	(mins/	(mins	(mins/	(mins/
Intersection	veh)	/veh)	veh)	veh)	`veh)	veh)	veh)	/veh)	veh)	`veh)
Route 202/35	Dayton La	ane to Con	klin Avenue	•						
Eastbound	00:44.0	00:41.3	-00:02.7	00:25.8	-00:18.2	00:54.4	02:10.3	01:15.9	00:55.3	00:00.9
Westbound	00:53.9	01:02.8	00:08.9	00:38.0	-00:15.9	01:05.2	01:27.0	00:21.8	01:09.6	00:04.4
Total	01:37.9	01:44.1	00:06.2	01:03.8	-00:34.1	01:59.6	03:37.3	01:37.7	02:04.9	00:05.3
Route 202/35	Dayton L	ane to Arle	Lane							
Eastbound	01:01.0	00:59.2	-00:01.8	00:34.7	-00:26.3	01:22.0	02:39.4	01:17.4	01:14.6	-00:07.4
Westbound	01:38.0	01:48.0	00:10.0	01:22.5	-00:15.5	01:49.7	02:16.1	00:26.4	01:56.9	00:07.2
Total	02:39.0	02:47.2	00:08.2	01:57.2	-00:41.8	03:11.7	04:55.5	01:43.8	03:11.5	-00:00.2
Route 202/35	Bear Mou	ıntain Parl	way to Lexi	ngton Av	enue					
Eastbound	04:35.3	07:45.9	03:10.6	03:30.1	-01:05.2	05:51.7	16:56.9	11:05.2	04:46.3	-01:05.4
Westbound	01:16.9	01:36.4	00:19.5	01:19.0	00:02.1	04:25.4	05:44.1	01:18.7	04:56.7	00:31.3
Total	05:52.2	09:22.3	03:30.1	04:49.1	-01:03.1	10:17.1	22:41.0	12:23.9	09:43.0	-00:34.1
Route 202/35	Dayton L	ane to Lex	ington Aver	nue	·			·		_
Eastbound	05:36.3	08:45.1	03:08.8	04:04.8	-01:31.5	07:13.7	19:36.3	12:22.6	06:00.9	-01:12.8
Westbound	02:54.9	03:24.4	00:29.5	02:41.5	-00:13.4	06:15.1	08:00.2	01:45.1	06:53.6	00:38.5
Total	08:31.2	12:09.5	03:38.3	06:46.3	-01:44.9	13:28.8	27:36.5	14:07.7	12:54.5	-00:34.3

The ATCS which is also proposed as an improvement measure and has the potential to further improve vehicle delay and number of stops along a congested arterial by approximately 10 percent (during the peak periods) when implemented correctly. In addition, as an ATCS adjusts traffic signal timing (offsets, cycle lengths and splits) based on real-time conditions it is better able to adapt to the variations in traffic volumes throughout the day, leading to a better driver experience through the corridor. Within the Town of Cortlandt, the U.S. Route 6 corridor from Jerome Avenue to Lexington Avenue currently operates under the control of an ATCS and has shown improvements to travel times of approximately 10 percent during the peak periods, and greater improvements during the shoulder and weekend hours.

11-51 March 15, 2022

TRAFFIC SAFETY CONDITIONS

Although the Proposed Project is not anticipated to exacerbate traffic safety conditions, the following improvements, included as mitigation measures above, would also be beneficial to traffic safety conditions:

- Route 202/35 and Dayton Lane—Installation of a new red/yellow/green signal (CMF of 0.78 for all crashes and 0.75 for left turn crashes) and Installation of a left turn only lane for the southbound Dayton Lane approach (CMF of 0.75 for all crashes)
- Route 202/35 and Conklin Avenue—Installation of a left turn lane for westbound Route 202/35 approach and signal timing modifications to provide protected/permitted eastbound, westbound, northbound and southbound left turns (CMF of 0.62 for left turn crashes along Route 202/35)
- Route 202/35 and Bear Mountain Parkway—Installation of a left turn lane along the Route 202/35 eastbound approach (CMF of 0.88 for all crashes) In addition, for the left turn prohibition discussed above there would be a CMF of 0.40 for left turn crashes, and 0.77 for rear end crashes.
- Route 202/35 corridor from Dayton Lane to Conklin Avenue—Coordinate arterial signals (CMF of 0.79 for all crashes)

H. GYRODYNE ALTERNATIVE PROGRAM

PROJECT DESCRIPTION

An alternative development program was also developed for the Gyrodyne site. The proposed alternative provides approximately 83,500 gsf of medical office use and 160 apartments in place of the proposed 188,600 gsf of exclusive medical office use. The Evergreen development would remain unchanged with the proposed Gyrodyne alternative development program.

PROJECT TRIP GENERATION

Similar to the methodology used for the Proposed Project, the estimated number of trips generated by the proposed alternative was based on trip generation rates provided by the *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition)*. Based on discussions with NYSDOT, the Weekday AM and PM Peak Hour of Adjacent Street Traffic was used for all land uses without any adjustments.

The alternative program proposed for the Gyrodyne site combined with the Evergreen development program would reduce the Weekday AM and PM peak hours by approximately 149 and 286 trips respectively (as compared to the build out of the Proposed Project). As shown in **Table 11-31**, it is estimated that the build out of both sites with the proposed alternative on the Gyrodyne site would generate approximately 288 net new trips during the Weekday AM peak hour (144 entering, 144 exiting) and 473 net new trips during the Weekday PM peak hour (213 entering, 260 exiting).

11-52 March 15, 2022

Table 11-31
Proposed Project Trip Generation

							= = 3P 3 .		- i	_		
Building	Develo	pment	Peak		ITE Da	ta			Trip	Genera		
Component		ize	Hour		ITE Land Use	Independent Variable	ITE Trip	% In	% Out	Total	Trips	Total
Component	3	126	Hour	#	Name	independent variable	Rate ¹	/0 111	∕₀ Out	In	Out	Trips
Medical Office ²	83.5	Ksf	AM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	2.78	0.78	0.22	148	42	190
Medical Office-	03.5	I/21	PM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	3.46	0.28	0.72	80	205	285
Residential ⁶	160	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.26	0.74	14	40	54
(Apartments)	160	PM		221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.61	0.39	43	27	70
Medical Office ²	30	Ksf	AM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	-2.78	0.78	0.22	-59	-17	-76
(To Be Removed)	30	r\SI	PM	720	Medical-Dental Office Building	1,000 SF Gross Floor Area	-3.46	0.28	0.72	-29	-75	-104
							Gyrod	yne AM	Net Trips	103	65	168
							Gyrod	yne PM	Net Trips	94	157	251
Evergreen												
Assistad Living3	100	Beds	AM	254	Assisted Living	Beds	0.19	0.63	0.37	14	9	23
Assisted Living ³	120	beus	PM	254	Assisted Living	Beds	0.26	0.38	0.62	12	19	31
Townhouses ⁴	70	Units	AM	220	Multifamily Housing (Low-Rise)	Dwelling Units	0.46	0.23	0.77	8	26	34
rownnouses.	70	Units	PM	220	Multifamily Housing (Low-Rise)	Dwelling Units	0.56	0.63	0.37	27	16	43
Retail ⁵	7	Ksf	AM	820	Shopping Center	1,000 SF Leasable Area	0.94	0.62	0.38	4	3	7
Retail	,	NSI	PM	820	Shopping Center	1,000 SF Leasable Area	3.81	0.48	0.52	36	40	76
Residential ⁶	166	Units	AM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.36	0.26	0.74	15	41	56
(Apartments)	100	Units	PM	221	Multifamily Housing (Mid-Rise)	Dwelling Units	0.44	0.61	0.39	44	28	72
<u> </u>					-		Evergre	een AM	Net Trips	41	79	120
							Evergr	een PM	Net Trips	119	103	222
·								Total	AM Trips	144	144	288
								Total	PM Trips	213	260	473

Notes:

ksf = 1 000 square feet

- 1. Based on discussions with NYSDOT, rates shown are peak hour of adjacent street traffic rates from the *Institute of Transportation Engineers (ITE) Trip Generation Manual*. 10th Edition
- 2. Rates shown for Medical Office land use are calculated using the ITE fitted curve equations for the weekday AM and PM peak hour.
- 3. Rates shown for the Assisted Living land use are calculated using the average ITE trip rate.
- 4. Rates shown for the Townhouses land use are calculated using the average ITE trip rate.5. Rates shown for the Retail land use are calculated using the average ITE trip rate during the weekday AM peak hour and the ITE fitted curve equation for the weekday PM
- peak hour.

 Rates shown for the Residential land use are calculated using the average ITE trip rate.

PROJECT VEHICLE TRIP DISTRIBUTION AND ASSIGNMENT

Similar to the Proposed Project, the directional distribution of vehicle trips for the proposed alternative utilized the existing travel patterns in the study area for each peak hour and assigned trips to project driveways based the anticipated development locations. These trip distribution patterns are shown in **Figure 11-6** and represent the most logical approach and departure paths to and from the project site. **Figures 11-12** and **11-13** show the project generated vehicle trips with the proposed alternative for the Weekday AM and PM peak hours, respectively.

LEVEL OF SERVICE CONDITIONS

The project generated vehicle trips for proposed alternative described above were added to the No Action traffic volumes in order to estimate the With Action traffic volumes. **Figures 11-14** and **11-15** show the 2023 With Action traffic volumes for the Weekday AM and PM peak hours, respectively, for the proposed alternative. **Table 11-32** presents a comparison of the 2023 No Action and 2023 With Action LOS conditions for the proposed alternative. Synchro 10 outputs for the 2023 With Action condition are provided in **Appendix VII**.

Under the 2023 With Action condition, absent any additional improvements beyond those specified for the proposed alternative, there would be impacts at the following locations;

11-53 March 15, 2022



Signalized Intersection

Unsignalized Intersection

Project Generated Increments - Gyrodyne Build Alternative Weekday AM Peak Hour Figure 11-12A



•

Signalized Intersection

Unsignalized Intersection

Project Generated Increments - Gyrodyne Build Alternative Weekday AM Peak Hour Figure 11-12B



Signalized Intersection

Unsignalized Intersection

Project Generated Increments - Gyrodyne Build Alternative Weekday PM Peak Hour Figure 11-13A



•

Signalized Intersection

Unsignalized Intersection

Project Generated Increments - Gyrodyne Build Alternative Weekday PM Peak Hour Figure 11-13B



Signalized Intersection

Unsignalized Intersection

2023 With Action Traffic Volumes - Gyrodyne Build Alternative Weekday AM Peak Hour Figure 11-14A



• Signalized Intersection

Unsignalized Intersection

2023 With Action Traffic Volumes - Gyrodyne Build Alternative Weekday AM Peak Hour Figure 11-14B



Signalized Intersection

Unsignalized Intersection

2023 With Action Traffic Volumes - Gyrodyne Build Alternative Weekday PM Peak Hour Figure 11-15A



• Signalized Intersection

Unsignalized Intersection

2023 With Action Traffic Volumes - Gyrodyne Build Alternative Weekday PM Peak Hour Figure 11-15B

- Route 6 and Lexington Avenue—the eastbound through/right turn movement would deteriorate within LOS F during the Weekday PM peak hour.
- Route 202/35 and Bear Mountain State Parkway—the eastbound approach would deteriorate within LOS F during the Weekday AM and PM peak hours.

Table 11-32 2023 No Action and With Action Conditions Level of Service Analysis – Alternative

	Weekday AM									Weekday PM								
		2023 No		cenu		23 With	Action	1	2023 No Action 2023 With Action									
	Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay			
Intersection	Group	Ratio	(sec)	LOS	Group	Ratio		LOS			(sec)	LOS	Group	Ratio	(sec)	LOS		
					•		alized Ir			-			•					
Route 6 and Dayton Lane																		
Eastbound	L	0.04	5.4	Α	L	0.04	5.4	Α	L	0.11	10.4	В	L	0.11	10.7	В		
	TR	0.35	10.6	В	TR	0.36	10.5	В	TR	0.63	23.5	С	TR	0.66	24.7	С		
Westbound	L	0.14	5.7	Α	L	0.15	5.7	Α	L	0.45	14.2	В	L	0.48	15.2	В		
	TR	0.24	10.4	В	TR	0.24	10.4	В	TR	0.40	18.4	В	TR	0.41	19.1	В		
Northbound	L	0.44	33.7	С	L	0.53	37.1	D	L	0.84	49.9	D	L	0.88	53.4	D		
	TR	0.25	27.9	С	TR	0.25	27.9	С	TR	0.13	23.5	С	TR	0.13	23.2	С		
Southbound	LT	0.57	37.4	D	LT	0.57	37.4	D	LT	0.08	22.8	С	LT	0.08	22.6	С		
	R	0.32	19.9	В	R	0.32	19.9	В	R	0.07	14.2	В	R	0.07	14.0	В		
		ection	15.2	В	Interse	ection	15.6	В	Inters	ection	24.8	С	Inters	ection	26.4	С		
Route 6 and Cor	-		1 _							1 _				T _	I			
Eastbound	L	0.01	2.7	A	L 	0.01	2.9	<u>A</u>	L	0.02	3.6	A	L	0.02	3.9	A		
10/ //	TR	0.23	5.4	A	TR	0.23	5.4	Α	TR	0.34	7.0	Α	TR	0.34	7.7	Α		
Westbound	L	0.29	3.9	A	L	0.32	4.2	A	L	0.39	6.2	A	L	0.44	7.4	A		
N a mtla la carra d	TR	0.20	3.4	A	TR	0.20	3.4	<u>A</u>	TR	0.26	4.6	A	TR	0.27	5.4	A		
Northbound	LT	0.24	55.1	E	LT	0.23	54.7	D B	LT	0.37	57.8	E	LT	0.35	56.4	<u>E</u>		
Southbound	R LTR	0.71	19.7 32.3	B C	R LTR	0.72	19.6		R LTR	0.73	18.2	B D	R LTR	0.75 0.42	17.8	B D		
Soumbound							31.9	<u>C</u>			39.2				38.0	A		
Intersection 7.6 A Intersection 7.8 A Intersection 9.5 A Intersection 10.1 Route 6 and Bear Mountain Parkway Eastbound Ramps													А					
Eastbound	ai ivioui	0.41	18.0	B	iu naiiip	<u>s</u> 0.41	18.2	В		0.41	20.0	С		0.41	20.0	С		
Lasibouilu	TR	0.52	21.5	С	TR	0.41	21.7	C	TR	0.41	28.0	C	TR	0.41	28.9	C		
Westbound	L	0.32	15.8	В	L	0.33	15.8	В	L	0.73	13.7	В	L	0.77	14.6	В		
**************************************	TR	0.67	25.6	С	TR	0.67	25.7	C	TR	0.86	28.1	C	TR	0.86	28.5	С		
Northbound	LT	0.55	56.2	E	LT	0.55	56.2	E	LT	0.64	66.2	E	LT	0.64	66.2	E		
	R	0.16	1.0	A	R	0.16	1.0	A	R	0.18	1.4	A	R	0.18	1.4	A		
Southbound	L	0.70	47.7	D	L	0.70	47.7	D	L	0.77	50.5	D	L	0.77	50.6	D		
	T	0.70	47.1	D	T	0.70	47.2	D	T	0.76	49.6	D	T	0.76	49.6	D		
	R	0.23	1.2	A	R	0.26	2.1	A	R	0.11	0.5	A	R	0.15	0.7	A		
		ection	27.0	С	Interse		27.0					С		ection	31.6	С		
Route 6 and Lex	ington	Avenue																
Eastbound	L	0.36	18.1	В	L	0.35	17.9	В	L	0.95	98.3	F	L	0.95	97.5	F		
	TR	0.94	54.4	D	TR	0.94	54.4	D	TR	1.07	85.2	F	TR	1.11	99.7	F		
Westbound	L	0.53	24.8	С	L	0.53	24.9	С	L	0.50	35.4	D	L	0.51	36.0	D		
	TR	0.84	42.8	D	TR	0.84	42.3	D	TR	1.20	140.1	F	TR	1.21	140.7	F		
Northbound	L	0.40	40.4	D	L	0.41	40.9	D	L	1.01	110.3	F	L	1.02	112.0	F		
	TR	0.95	92.3	F	TR	0.97	97.1	F	TR	0.68	71.2	E	TR	0.70	72.1	Е		
Southbound	L	0.58	46.8	D	L	0.60	48.0	D	L	0.35	45.5	D	L	0.35	45.6	D		
	TR	0.69	63.7	Е	TR	0.70	64.5	Е	TR	0.97	109.3	F	TR	0.97	109.9	F		
		ection		D	Interse	ection	54.9	D	Inters	ection	105.0	F	Inters	ection	110.0	F		
Route 202/35 an	d Gyroc	lyne/NY	PH Drive	eway					1									
Eastbound					L	0.24	5.1	A					L	0.13	5.0	A		
10/ //					TR	0.47	5.4	A					TR	0.45	6.3	A		
Westbound	Inters	ection U	nsignaliz	zed in	L	0.19	1.2	A	Intersec	ction Un	signalize	d in No	L	0.12	1.5	A		
		o Action			TR	0.55	3.1	A			Condition		TR	0.67	5.4	<u>A</u>		
No who be accounted	ł				LT	0.22	43.2	D					LT	0.38	45.8	D		
Northbound	-				R	0.29	13.4	B					R	0.45	11.6	<u>B</u>		
					Interse	ection	5.2	Α	<u> </u>				inters	ection	7.6	Α		

11-54 March 15, 2022

Table 11-32 (cont'd) 2023 No Action and With Action Conditions Level of Service Analysis – Alternative

T				nditions Level of Service Analysis – Alternative												
		2022 No		Weekd		00 M/:41	A -4!	Weekday PM 2023 No Action 2023 With Action								
			Action			23 With		1						v/c		
Intersection	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	Ratio	Delay (sec)	LOS
Signalized Intersections (continued)																
Route 202/35 and Lafayette Avenue/NYPH Driveway																
Eastbound	TR	0.64	23.2	С	TR	0.70	22.5	С	TR	0.76	32.1	С	TR	0.96	51.9	D
Westbound	L	0.15	13.5	В	L	0.17	14.2	В	L	0.40	19.9	В	L	0.60	24.8	С
	Т	0.60	21.9	С	Т	0.69	26.8	С	Т	0.65	30.4	С	Т	0.75	32.8	С
Northbound	LTR	0.62	21.1	С	LTR	0.64	22.7	С	LTR	0.87	49.0	D	LTR	0.89	52.6	D
Southbound	LT	0.79	85.0	F	LT	0.77	83.2	F	LT	1.47	280.6	F	LT	1.47	280.6	F
	R	0.15	1.0	Α	R	0.15	1.0	Α	R	0.39	10.1	В	R	0.39	10.2	В
	Inters		24.9	С		ection	26.6	С	Inters	ection	55.2	D	Inters	ection	60.7	E
Route 202/35 and Conklin Avenue/Evergreen Driveway																
Eastbound	L	0.38	2.4	A	<u>L</u>	0.40	3.3	A	L	0.45	3.1	A	L	0.49	1.7	Α
M/s a the second	T	0.38	1.7	A	TR	0.44	3.9	A	T	0.39	1.1	<u>A</u>	T	0.52	1.8	A
Westbound	TR	0.55	14.2	В	LTR	0.66	17.9	В	TR	0.66	19.0	В	LTR	0.86	29.6	С
Northbound	L TR	-	-	-	L TR	0.51	66.5 17.2	E B	L TR	-	-	-	L TR	0.49	58.1 15.8	E B
Southbound	L	0.49	51.6	- D	L	0.20	54.0	D B	L	0.46	- 51.2	 D	L	0.24	50.5	D
Southbound	R	0.49	16.4	В	TR	0.62	11.9	В	R	0.40	9.3	A	TR	0.51	12.6	В
			11.2	В			13.8	В			12.0	В			17.2	В
Intersection 11.2 B Intersection 13.8 B Intersection 12.0 B Intersection 17.2 B Route 202/35 and Bear Mountain Parkway																
Eastbound	LT	1.08	107.0	F	LT	1.35	207.4	F	LT	1.38	224.3	F	LT	2.19	571.6	F
Westbound	Т	0.47	19.8	В	Т	0.53	21.1	С	Т	0.59	18.3	В	Т	0.68	31.9	С
	R	0.47	6.1	Α	R	0.48	8.1	Α	R	0.66	15.4	В	R	0.68	18.2	В
Southbound	LR	1.40	230.9	F	LR	1.40	231.7	F	LR	1.00	118.7	F	LR	1.00	119.0	F
	Inters		113.7	F	Interse	ection	137.9	F	Inters	ection	89.7	F	Inters	ection	185.6	F
Route 202/35 an				-												
Eastbound	L T	0.14	2.8	A	0.16	3.0	A	0.16	L	0.34	29.0	<u> </u>	L	0.34	26.9	С
	T	1.05	61.7	E	1.10	64.5	E	1.10	T	0.87	59.5	E	T	0.94	59.1	E
Westbound	R	0.25 1.04	1.7 124.6	A F	0.26 1.04	2.2 124.6	A F	0.26 1.04	R	0.14	1.6 14.2	A B	R	0.17 0.69	2.3 40.5	A D
vvestbound	TR	0.70	22.0	С	0.75	24.0	С	0.75	L TR	1.07	81.7	F	TR	1.13	99.1	F
Northbound	I	1.67	376.8	F	1.82	438.6	F	1.82	L	0.96	118.1	F	L	1.13	142.6	F
Northbound	TR	0.42	27.7	С	0.42	27.7	С	0.42	TR	0.43	38.1	D	TR	0.43	38.0	D
Southbound	LTR	1.01	111.6	F	1.01	111.6	F	1.01	LTR	0.74	71.9	E	LTR	0.73	70.8	E
	Inters		69.0	Ē	Interse		74.4	E		ection	66.4	Ē		ection	75.7	E
Route 202/35 an	d Lexin	gton Av	enue										·L			
Eastbound	L	0.20	7.6	Α	0.26	8.8	Α	0.26	L	0.57	24.4	С	L	0.60	26.6	С
	TR	1.21	122.9	F	1.24	135.0	F	1.24	TR	1.10	81.7	F	TR	1.18	111.3	F
Westbound	L	0.11	7.3	Α	0.11	7.4	Α	0.11	L	0.20	8.7	Α	L	0.20	8.8	Α
	Т	0.85	27.9	С	0.92	35.7	D	0.92	Т	1.39	206.1	F	Т	1.47	238.1	F
	R	0.11	2.9	A	0.11	2.9	A	0.11	R	0.25	4.4	A	R	0.25	4.8	A
Northbound	LTR	0.14	29.1	С	0.17	30.2	С	0.17	LTR	0.23	32.6	<u>C</u>	LTR	0.26	34.0	С
Southbound	LT	0.76	50.7	D	0.78	53.5	D	0.78	LT	0.74	52.7	<u>D</u>	LT	0.75	53.5	D
	R	0.22	9.3	A	0.24	10.3	B 91.0	0.24	R	0.18	6.2	<u> </u>	R	0.21	8.1	A
Intersection 72.6 E Intersection 81.0 F Intersection 121.3 F Intersection 145.5 F Route 6 and Bear Mountain Parkway Westbound Ramps																
Eastbound	LTR	0.58	6.8	A	LTR	0.59	7.3	Α	LTR	0.98	38.2	D	LTR	1.00	42.7	D
Westbound	L	0.51	12.6	В	L	0.53	13.0	В	L	0.78	39.4	D	L	0.79	41.5	D
11001000110	TR	0.31	3.7	A	TR	0.31	3.7	A	TR	0.46	9.2	A	TR	0.46	9.3	A
Northbound	L	0.41	46.8	D	L	0.41	46.9	D	L	0.71	68.9	E	L	0.71	68.9	E
			22.2	C	TR	0.25	22.2	C	TR	0.23	21.6	C	TR	0.23	21.6	C
	TR	0.25	22.2		111	0.20	22.2	_	111	0.20	20	_		00		
Southbound	LTR	0.25	31.9	O	LTR	0.64	31.9	C	LTR	0.67	35.9	D	LTR	0.67	35.9	D

11-55 March 15, 2022

Table 11-32 (cont'd) 2023 No Action and With Action Conditions Level of Service Analysis – Alternative

Unsignalized Intersections	2023 No Action and With Action Conditions Level of Service Analysis – Alternative																
Lane W/c Group Ratio																	
Intersection Group Ratio (see) LOS Combination LOS Combinati		2	2023 No	Action		20	23 With	n Action	1		2023 No	Action		2			
Description		Lane	v/c	Delay			v/c	Delay		Lane	v/c	Delay		Lane	v/c	Delay	
Dayton Lane and Beach Shopping Center South Driveway	Intersection	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS	Group	Ratio	(sec)	LOS
Westbound							Unsig	nalized	Interse	ections							
Southbound L 0.04 7.6 A L 0.05 7.7 A L 0.06 8.4 A L 0.06 8.5 A Depton Lane and Beach Shopping Centers South Drivews	Dayton Lane and Beach Shopping Center North Driveway																
Dayton Lane and Beach Shopping Center South Driveway Westbound	Westbound	LR	0.17	11.3	В	LR	0.18	11.5	В	LR	0.27	14.6	В	LR	0.29	15.4	С
Westbound L 0.00 1.16 B LR 0.10 11.9 B LR 0.97 84.9 F LR 1.06 113.6 F Southbound L 0.02 7.7 A L 0.02 7.7 A L 0.14 9.4 A L 0.15 9.5 A Route 20/2/\$3 and Dayron Lane L 0.13 8.9 A 0.14 9.2 A 0.14 L 0.18 10.6 B L 0.20 11.2 B Southbound L 0.13 8.9 A 0.14 9.2 A 0.14 L 0.18 10.6 B L 0.20 11.2 B Southbound L 0.01 8.4 A L 0.00 9.7 A L 0.00 8.8 A L 0.00 9.0 A Northbound L 0.01 8.4 A L 0.01 9.7 A L 0.00 8.8 A L 0.00 9.0 A Northbound 0.04 9.0 A 0.14 Northbound 0.04 17.7 C 0.04 Northbound 0.04 0.05 C 0	Southbound	L	0.04	7.6	Α	L	0.05	7.7	Α	L	0.06	8.4	Α	L	0.06	8.5	Α
Southbound L 0.02 7.7 A L 0.02 7.7 A L 0.14 9.4 A L 0.15 9.5 A	Dayton Lane and	d Beach	Shopp	ing Cen	ter Sou	th Drive	way										
Route 202/35 and Daryon Lane Eastbound L 0.13 8.9 A 0.14 9.2 A 0.14 L 0.18 10.6 B L 0.20 11.2 B Southbound L 0.13 8.9 A 0.14 9.2 A 0.14 L 0.18 10.6 B L 0.20 11.2 B Southbound L 0.01 9.4 A L 0.01 9.7 A L 0.00 8.8 A L 0.00 9.0 A Northbound L 0.01 0.01 9.4 A L 0.01 9.7 A L 0.00 8.8 A L 0.00 9.0 A Northbound L 0.01 0.0	Westbound	LR	0.10	11.6	В	LR	0.10	11.9	В	LR	0.97	84.9	F	LR	1.06	113.6	F
Eastbound	Southbound	L	0.02	7.7	Α	L	0.02	7.7	Α	L	0.14	9.4	Α	L	0.15	9.5	Α
Southbound	Route 202/35 an	d Dayto	n Lane														
Westbound L 0.01 9.4 A L 0.01 9.7 A L 0.00 8.8 A L 0.00 9.0 A C Route 20/235 and Continuous L 0.01 9.4 A L 0.01 9.7 A L 0.00 8.8 A L 0.00 9.0 A C Route 20/235 and Continuous C C L C L C L C L C L C L C C	Eastbound		0.13	8.9	Α	0.14	9.2		0.14	L	0.18	10.6	В		0.20	11.2	В
Westbound	Southbound	LR	1.44	276.3	F	1.80	432.6	F	1.80	LR	1.77	404.2	F	LR	2.42	704.0	F
Northbound	Route 202/35 an	d Buttor	nwood .	Avenue													
Eastbound	Westbound	L	0.01	9.4	Α	L	0.01	9.7	Α	L	0.00	8.8	Α	L	0.00	9.0	Α
Eastbound	Northbound	LR	0.20	24.4	С	LR	0.23	28.6	D	LR	0.01	18.2	С	LR	0.02	21.6	С
Mestbound	Route 202/35 an	d Cortla	ndt Me	dical Dri	veway/	NYPH D	riveway	/									
Northbound 0.04 1.77 C 0.04 Action Condition L 0.01 8.5 A Condition		0.14	10.0	Α		Into	ootion (Pianali-	nd in	L	0.06		В	Intorne	otion Ci-	منا محنامه	
Northbound	Westbound	0.04	9.0	Α	0.04					L	0.01	8.6	A	merse	•		Action
Westbound	Northbound	0.04	17.7	С	0.04		CHOIT C	onullion	<u> </u>	LTR	0.15	18.3	С		CONC	aitiOi I	
Northbound	Route 202/35 an	d Tamar	ack Dri	ive													
Route 202/35 and Dimond Avenue/Shipley Drive	Westbound	L	0.00	8.7	Α	L	0.00	8.9	Α	L	0.04	9.1	Α	L	0.04	9.6	Α
Eastbound	Northbound	LR	0.14	20.3	С	LR	0.18	24.6	С	LR	0.10	20.0	С	LR	0.16	28.9	D
Westbound																	
Northbound	Eastbound	L	0.00	0.0	Α	L	0.00	0.0	Α	L	0.02	9.2	Α	L	0.02	9.6	Α
Southbound	Westbound	L	0.01	8.8	Α	L	0.01	9.0	Α	L	0.03	8.8	Α	L	0.03	9.2	Α
Route 202/35 and Locust Avenue	Northbound	LTR	0.13	15.1	С	LTR	0.14	16.9	С	LTR	0.50	30.6	D	LTR	0.68	54.0	F
Eastbound	Southbound	LTR	0.03	11.5	В	LTR	0.03	12.1	В	LTR	0.00	0.0	Α	LTR	0.00	0.0	Α
Southbound LTR 0.44 32.9 D LTR 0.55 46.5 E LTR 0.09 14.4 B LTR 0.11 16.2 C	Route 202/35 an	d Locus	t Aveni	ue		•	•		•	•	•			•	•	•	
Westbound	Eastbound	L	0.01	8.4	Α	L	0.01	8.6	Α	L	0.03	9.1	Α	L	0.04	9.5	Α
Westbound L 0.00 8.8 A L 0.00 9.0 A L 0.00 8.8 A L 0.00 9.2 A	Southbound	LTR	0.44	32.9	D	LTR	0.55	46.5	Е	LTR	0.09	14.4	В	LTR	0.11	16.2	С
Westbound L 0.00 8.8 A L 0.00 9.0 A L 0.00 8.8 A L 0.00 9.2 A	Route 202/35 an	d Cresty	iew Av	enue		•					•			•	•	•	
Northbound LTR 0.10 21.1 C LTR 0.12 25.0 D LTR 0.03 17.4 C LTR 0.04 21.4 C					Α	L	0.00	9.0	Α	L	0.00	8.8	Α	L	0.00	9.2	Α
Westbound	Northbound	LTR	0.10	21.1		LTR	0.12	25.0	D	LTR	0.03	17.4	С	LTR	0.04	21.4	
Northbound	Route 202/35 an	d Forest	Avenu	ie		•	•		•	•	•			•	•	•	
Northbound L 0.01 8.9 A L 0.01 9.1 A L 0.01 8.9 C LR 0.06 23.5 C	Westbound	L	0.01	8.9	Α	L	0.01	9.1	Α	L	0.01	8.9	Α	L	0.01	9.4	Α
Westbound L 0.01 8.9 A L 0.01 9.1 A L 0.01 8.9 A L 0.01 9.1 A L 0.01 8.9 A L 0.01 9.4 A Northbound LR 0.05 19.5 C LR 0.06 22.5 C LR 0.04 18.9 C LR 0.06 23.5 C Route 202/35 and Arlo Lane Eastbound L 0.01 8.6 A L 0.02 8.8 A L 0.04 9.3 A L 0.05 9.7 A Southbound LR 0.09 13.7 B LR 0.11 14.9 B LR 0.07 18.2 C LR 0.11 20.8 C Bear Mountain Parkway and Locust Avenue Eastbound R 0.01 8.9 A L 0.00 9.1 A L	Northbound	LR	0.05	16.3	С	LR	0.06	18.2	С	LR	0.06	19.1	С	LR	0.08	23.7	С
Northbound	Route 202/35 an	d Rick L	ane	•		•	•		•	•	•			•	•	•	
Northbound LR 0.05 19.5 C LR 0.06 22.5 C LR 0.04 18.9 C LR 0.06 23.5 C Route 202/35 and Arlo Lane	Westbound	L	0.01	8.9	Α	L	0.01	9.1	Α	L	0.01	8.9	Α	L	0.01	9.4	Α
Route 202/35 and Arlo Lane Eastbound L 0.01 8.6 A L 0.02 8.8 A L 0.04 9.3 A L 0.05 9.7 A Southbound LR 0.09 13.7 B LR 0.11 14.9 B LR 0.07 18.2 C LR 0.11 20.8 C Bear Mountain Parkway and Locust Avenue	Northbound	LR	0.05	19.5		LR	0.06	22.5		LR	0.04	18.9		LR	0.06	23.5	
Eastbound L 0.01 8.6 A L 0.02 8.8 A L 0.04 9.3 A L 0.05 9.7 A Southbound LR 0.09 13.7 B LR 0.11 14.9 B LR 0.07 18.2 C LR 0.11 20.8 C Bear Mountain Parkway and Locust Avenue Westbound L 0.01 8.9 A L 0.01 8.9 A L 0.00 9.1 A L 0.00 9.2 A Northbound R 0.03 12.6 B R 0.03 12.6 B R 0.02 13.5 B R 0.02 13.6 B Bear Mountain Parkway and Arlo Lane B R 0.03 12.6 B R 0.01 8.6 A L 0.01 9.5 A L 0.01 9.5 A L 0.01	Route 202/35 an	d Arlo L	ane								•			•	•		-
Southbound LR 0.09 13.7 B LR 0.11 14.9 B LR 0.07 18.2 C LR 0.11 20.8 C				8.6	Α	L	0.02	8.8	Α	L	0.04	9.3	Α	L	0.05	9.7	Α
Westbound						LR				LR				LR			
Westbound L 0.01 8.9 A L 0.01 8.9 A L 0.00 9.1 A L 0.00 9.2 A Northbound R 0.03 12.6 B R 0.03 12.6 B R 0.02 13.5 B R 0.02 13.6 B Bear Mountain Parkway and Arlo Lane Eastbound L 0.01 8.6 A L 0.01 8.6 A L 0.01 9.5 A L 0.01 9.5 A Westbound L 0.00 9.7 A L 0.00 9.7 A L 0.00 9.7 A L 0.00 A L - 0.0 A L - 0.0 A Westbound LTR 0.47 71.6 F LTR 0.52 77.9 F LTR 0.74 119.8 F LTR 0.85					enue						•			•	•		-
Northbound R 0.03 12.6 B R 0.03 12.6 B R 0.02 13.5 B R 0.02 13.6 B		-				L	0.01	8.9	Α	L	0.00	9.1	Α	L	0.00	9.2	Α
Bear Mountain Parkway and Arlo Lane Eastbound L 0.01 8.6 A L 0.01 8.6 A L 0.01 9.5 A L 0.01 9.5 A Westbound L 0.00 9.7 A L 0.00 9.7 A L - 0.0 A L - 0.0 A Northbound LTR 0.47 71.6 F LTR 0.52 77.9 F LTR 0.74 119.8 F LTR 0.85 146.6 F Southbound LTR 0.35 38.2 E LTR 0.35 38.8 E LTR 0.13 20.7 C LTR 0.13 20.8 C Lafayette Avenue and Ridge Road Westbound LR 0.04 9.1 A LR 0.04 9.1 A LR 0.06 9.7 A LR 0.06 9.7 A Southbound <td></td> <td></td> <td></td> <td></td> <td></td> <td>R</td> <td></td>						R											
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Westbound L 0.00 9.7 A L 0.00 9.7 A L - 0.00 A L - 0.0 A Northbound LTR 0.47 71.6 F LTR 0.52 77.9 F LTR 0.74 119.8 F LTR 0.85 146.6 F Southbound LTR 0.35 38.2 E LTR 0.35 38.8 E LTR 0.13 20.7 C LTR 0.13 20.8 C Lafayette Avenue and Ridge Road Westbound LR 0.04 9.1 A LR 0.06 9.7 A LR 0.06 9.7 A Southbound L 0.01 7.5 A L 0.01 7.5 A L 0.03 7.6 A L 0.03 7.6 A Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service L 0.03 7.6 A L					Α	L	0.01	8.6	Α	L	0.01	9.5	Α	L	0.01	9.5	Α
Northbound LTR 0.47 71.6 F LTR 0.52 77.9 F LTR 0.74 119.8 F LTR 0.85 146.6 F Southbound LTR 0.35 38.2 E LTR 0.35 38.8 E LTR 0.13 20.7 C LTR 0.13 20.8 C Lafayette Avenue and Ridge Road Westbound LR 0.04 9.1 A LR 0.04 9.1 A LR 0.06 9.7 A LR 0.06 9.7 A Southbound L 0.01 7.5 A L 0.01 7.5 A L 0.03 7.6 A L 0.03 7.6 A Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service L 0.03 7.6 A L 0.03 7.6 A		_				L											
Southbound LTR 0.35 38.2 E LTR 0.35 38.8 E LTR 0.13 20.7 C LTR 0.13 20.8 C Lafayette Avenue and Ridge Road Westbound LR 0.04 9.1 A LR 0.04 9.1 A LR 0.06 9.7 A LR 0.06 9.7 A Southbound L 0.01 7.5 A L 0.01 7.5 A L 0.03 7.6 A L 0.03 7.6 A Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service Service Service Service						LTR					0.74				0.85		
Lafayette Avenue and Ridge Road Westbound LR 0.04 9.1 A LR 0.06 9.7 A LR 0.06 9.7 A Southbound L 0.01 7.5 A L 0.01 7.5 A L 0.03 7.6 A L 0.03 7.6 A Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service																	
Westbound LR 0.04 9.1 A LR 0.04 9.1 A LR 0.06 9.7 A LR 0.06 9.7 A Southbound L 0.01 7.5 A L 0.01 7.5 A L 0.03 7.6 A L 0.03 7.6 A Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service					•	•			•	•				•			
Southbound L 0.01 7.5 A L 0.01 7.5 A L 0.03 7.6 A L 0.03 7.6 A Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service					Α	LR	0.04	9.1	Α	LR	0.06	9.7	Α	LR	0.06	9.7	Α
Notes: L = Left Turn, T = Through, R = Right Turn, LOS = Level of Service						L											
						n. I OS =						,					
= Indicates intante determination in operating conditions									-								

11-56 March 15, 2022

- Route 202/35 and Croton Avenue/Maple Row—The westbound through/right turn movement
 would deteriorate within LOS F during the Weekday PM peak hour. The northbound left turn
 movement would deteriorate within LOS F during the Weekday AM and PM peak hours.
- Route 202/35 and Lexington Avenue—the eastbound through/right turn movement would deteriorate within LOS F during the Weekday PM peak hour. The westbound through movement would deteriorate within LOS F during the Weekday PM peak hour.
- Dayton Lane and Beach Shopping Center South Driveway—the westbound left turn/right turn movement would deteriorate within LOS F during the Weekday PM peak hour.
- Route 202/35 and Dayton Lane—the southbound approach would deteriorate within LOS F during the Weekday AM and PM peak hours.
- Route 202/35 and Shipley Drive—the northbound approach would deteriorate from LOS D to LOS F during the Weekday PM peak hour.
- Route 202/35 and Locust Avenue—the southbound approach would deteriorate from LOS D to LOS E during the Weekday AM peak hour.
- Bear Mountain Parkway and Arlo Lane—the northbound approach would deteriorate within LOS F during the Weekday PM peak hour.

I. SATURDAY QUALITATIVE ASSESSMENT

Based on discussions with NYSDOT and due to the unique characteristics of the Proposed Project, an assessment of Saturday traffic conditions was conducted to ensure additional impacts to traffic operations would not be expected during the weekend peak hour.

EXISTING CONDITIONS

As discussed in Section C above, ATR counts were conducted on Route 202/35 east of Lafayette Avenue for one full week during October 2017. **Table 11-33** presents a comparison of the 2017 Existing Volumes. As shown, the existing Saturday peak hour volumes along the Route 202/35 corridor adjacent to the Proposed Project are less than both the existing Weekday AM and PM peak hour volumes in both directions.

Table 11-33 Existing 2017 ATR Volume Comparison

		Traffic Volumes								
ATR Location	Direction of Travel	Weekday AM Peak Hour (7:45AM-8:45AM)	Weekday PM Peak Hour (5:00PM-6:00PM)	Saturday Peak Hour (11:45AM-12:45PM)						
Route 202/35 east of	Eastbound	503	669	502						
Lafayette Avenue	Westbound	514	577	456						

TRIP GENERATION

Similar to the methodology used for the Weekday AM and PM peak hours, the estimated number of trips generated by the Proposed Project was based on trip generation rates provided by the *Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition)* using the Saturday Peak Hour Generator.

11-57 March 15, 2022

The Proposed Project for the Saturday peak hour would generate approximately 498 trips. As shown in **Table 11-34**, the Saturday peak hour trip generation estimates are less than the weekday PM peak hour trip generation estimates.

Table 11-34
Trip Generation Comparison – Proposed Project

				o cinera		iipui isoii	110	Poseu -	rojece				
	Wee	ekday AM Pea	k Hour	Weeko	lay PM Peak	Saturday Peak Hour ¹							
Project Component	In	Out	Total	In	Out	Total	ln	Out	Total				
Gyrodyne	248	69	317	150	387	537	181	136	317				
Evergreen	41	79	120	119	103	222	91	90	181				
То	al 289	148	437	269	490	759	272	226	498				
Note:(1) Conservatively no inter	ote:(1) Conservatively, no internal trips were considered for the Saturday peak hour												

J. ROADWAY CONVERSION FEASIBILITY ASSESSMENT

The Route 202/35 and Dimond Avenue/Shipley Drive unsignalized intersection remains unmitigated during the Weekday PM peak hour. While a signal could improve operations for the intersection and create gaps for the adjacent unsignalized intersections accessing Route 202/35, the peak hour volumes do not meet a signal warrant. To meet a signal warrant at this location, thus mitigating an impact and improving safety by providing a signalized intersection for vehicles to exit onto Route 202/35, some of the adjacent side streets would need to be converted to one-way streets to re-route vehicles to Dimond Avenue/Shipley Drive.

To achieve this, the following roadway operations could be modified as there are alternative routes to access Route 202/35:

- John Dorsey Drive convert to one-way northbound between Route 202/45 and Douglas Mombray Road. Vehicles traveling southbound would be re-routed to Douglas Mombray Road to southbound on Shipley Drive
- Crestview Avenue convert to one-way southbound between Route 202/35 and Edgewood Road. Vehicles traveling northbound would be rerouted to Edgewood Road/Habitat Lane to northbound on Dimond Avenue or to Cross Lane to northbound on Forest Avenue. This would also require the opening the connection between Edgewood Road and Habitat Lane that are currently dead-end streets.

While the roadway conversions could result in a signal being warranted at Dimond Avenue/Shipley Drive, this would result in traffic diversions on some of the local neighborhood streets.

K. POST CONSTRUCTION TRAFFIC MONITORING PLAN

The intersection analysis and associated mitigation measures are based on vehicle trip estimates anticipated to be generated by the Proposed Project. In order to ensure sufficient mitigation measures are identified and implemented, a post construction traffic monitoring plan will be conducted to determine if additional improvements beyond those identified in Section G would be needed. The mitigations identified in Section G will be implemented independent of the results of the post construction monitoring plan.

Twice a year for the first two years following full occupancy of the Proposed Project, Weekday AM and PM peak period driveway counts will be collected at each of the project site driveways. For each data collection period, traffic counts will be collected on a Tuesday, Wednesday, and

11-58 March 15, 2022

Chapter 11: Traffic and Transportation

Thursday to capture any fluctuations in traffic generated by the Proposed Project. Prior to data collection, a data collection protocol will be submitted to the Town for approval.

Following each data collection period, a memorandum will be submitted to the Town presenting a comparison of the driveway counts to the trip generation estimates presented in this study. If the driveway peak hour counts exceed the trip generation estimates, the Town may require additional traffic analyses to be conducted at the study intersections to determine if additional improvements should be implemented. Any future analysis will be coordinated and approved by the Town and could include collecting intersection peak hour traffic turning movement counts and conducting peak hour intersection operations analyses to identify additional improvements.

11-59 March 15, 2022