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TRAFFIC IMPACT ANALYSIS **for** **MONARCH COMMUNITIES**

Proposed Senior Housing Facility
Tax Map 79, Block 152.01, Lot 1445.01
481 Eagle Rock Avenue (CR 611)
West Orange Township
Essex County, New Jersey

A blue ink signature of Paul B. Going, written in a cursive style.

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March 29, 2022

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INTRODUCTION

Atlantic Traffic & Design Engineering, LLC (ATDE) has prepared this Traffic Impact Analysis to support the application to the Township of West Orange for the development of a Senior Housing Facility at Mayfair Farms.

The subject property is located along Eagle Rock Avenue, between the signalized intersection with Woodhull Avenue/West Orange Plaza and the unsignalized intersection with Terrace Avenue/Fitzrandolph Road.

As shown on appended **Figure 1** in the **Appendix**, Eagle Rock Avenue (CR 611) is generally oriented east west along the site frontage. While Eagle Rock Avenue (CR 611) is designated a north-south road, this report will consider it to be oriented east-west, with the subject property along its northerly side.

CURRENT CONDITION

The approximately 11-acre site is occupied by Mayfair Farms Catering. The facility includes two multi-story buildings in the northeast quadrant of the site, having a combined footprint of approximately 28,184 square feet. Mayfair Farms has formerly operated as a banquet hall, hosting events for approximately 250 to 500 guests, but is adopting a new business model strictly focused on catering.

Access to the site is provided via two driveways along Eagle Rock Avenue (CR 611). The westerly full movement driveway lies slightly west of the unsignalized intersection with Rosney Terrace. The easterly driveway is divided by a curbed island and is restricted to right-turn ingress/full movement egress.

PROPOSED CONDITION

It is proposed to subdivide Lot 1445.01 into two parcels and to develop the westerly 5-acre proposed lot, which currently consists of wooded and paved parking areas, with a 181,131 square foot Senior Housing Facility. Monarch Communities proposes a multi-level senior housing facility including

congregate care housing and assisted living, along with typical senior housing amenities, in a 2-1/2 story building. A total of 210 beds would be provided in 180 units: 106 congregate care units, 49 assisted living units and 25 memory care units.

The current access configuration would not be changed, but there are minor adjustments proposed to the curblines and corner radii at the westerly, full-movement driveway. Easements will be provided for the use of the driveways by the proposed Monarch development.

SCOPE OF STUDY

This study has been performed to evaluate potential traffic impacts associated with the development of the proposed Senior Housing Facility. Accordingly, this analysis includes the following:

- › A review of existing roadway and traffic conditions in the vicinity of the site, including roadway geometrics and traffic volumes;
- › Projection of the additional traffic expected to be generated by the proposed Senior Housing Facility;
- › Assessment of future traffic operations with and without the proposed redevelopment;
- › An evaluation of the Site Plan focusing on access, on-site circulation, and parking supply; and
- › Recommendations and conclusions.

EXISTING TRAFFIC CONDITIONS

SUBJECT PROPERTY

The Mayfair Farms property is located along westbound Eagle Rock Avenue (CR 611), approximately 400 feet west of the traffic signal at Woodhull Avenue/West Orange Plaza. The subject property has the following characteristics:

- Designated on Tax Map 79 as Block 152.01, Lot 1445.01.
- Has approximately 800 feet of frontage along westbound Eagle Rock Avenue (CR 611).
- The property is located in the B-2 retail business zoning district, where Assisted Living and Congregate Care Housing are permitted Conditional Uses.
- Land uses in the site vicinity are generally commercial to the east along the Eagle Rock Avenue corridor; and residential to the north, west and south.
- Currently occupied by Mayfair Farms Catering.
- Access is provided via 2 driveways: a full-movement driveway near the midpoint of the site frontage; and, near the easterly side lot line, a driveway where left-turn ingress is prohibited.

ROADWAY NETWORK

The subject property has frontage along westbound Eagle Rock Avenue (CR 611). The following is a description of the adjacent roadway network:

Eagle Rock Avenue (CR 611)

- Under Essex County jurisdiction.
- Designated as an east-west roadway.
- Classified as an Urban Minor Arterial.
- Carries 2 lanes in each direction of travel, with additional turn lanes at key signalized intersections.

- Parking is not permitted within the vicinity of the site.
- Sidewalks are generally provided along the south side of the roadway, opposite the subject property.
- The posted speed limit is 35 miles per hour along the site frontage with a speed restriction of 20 miles per hour for trucks and buses over 4 tons.
- Served by the NJ Transit 71 bus route, with stops along the site frontage at Robertson Road (westbound) and Blackburne Terrace (eastbound), as well as nearby at Woodhull Avenue (both directions).

EXISTING TRAFFIC VOLUMES

To examine the existing traffic demand at the project site, traffic counts were conducted during the weekday morning and weekday evening periods at the following locations:

1. Eagle Rock Avenue (CR 611) @ Robertson Road
2. Eagle Rock Avenue (CR 611) @ Rosney Terrace and the westerly site driveway
3. Eagle Rock Avenue (CR 611) @ the easterly site driveway

Specifically, manual turning movement counts were conducted on the following dates and times:

- Tuesday, March 8, 2022 from 7:00 am to 9:00 am
- Tuesday, March 8, 2022 from 4:00 pm to 7:00 pm

PEAK HOURS

The results of the traffic counts indicate there are distinct hours during the periods of study when site traffic generation experiences its highest level. Based on the traffic count information, the weekday morning peak hour occurred from **7:00 am to 8:00 am** and the weekday evening peak hour occurred from **4:15 pm to 5:15 pm**.

The manual turning movement count summaries are provided in the **Appendix**. The existing weekday morning and weekday evening peak hour traffic volumes are summarized in appended **Figure 2** in the **Appendix**.

PROPOSED DEVELOPMENT TRAFFIC CHARACTERISTICS

TRIP GENERATION

The next step in the analysis procedure is to project the volume of future traffic that would be generated as a result of the proposed Senior Housing Facility. For the purpose of this analysis, complete project approval, construction, and occupancy are assumed to occur within 2 years.

Trip generation for the proposed Senior Housing Facility was calculated based on data published by the Institute of Transportation Engineers (ITE) in the 11th Edition of *Trip Generation*, 2021.

The proposed facility will offer both Congregate Care Housing and Assisted Living/Memory Care. For this report, in order to provide a conservative analysis, trips were calculated using the higher trip generator of the two uses, *Land Use Code 254: "Assisted Living."* **Table 1** presents the resulting weekday morning and weekday evening peak hour trip generation of the proposed development.

Table 1
210-Bed Assisted Living
Peak Hour Trip Generation

Land Use	Weekday Morning			Weekday Evening		
	Enter	Exit	Total	Enter	Exit	Total
Proposed Senior Housing Facility	23	15	38	19	31	50

As shown, even under a conservative calculation, a maximum of 50 peak hour trips would be generated by the proposed Senior Housing Facility.

An increase of fewer than 100 peak hour trips is not considered "significant" by the ITE and NJDOT. **The proposed project falls well below this threshold, and typically would not warrant further detailed analysis.**

Nonetheless, ATDE has conservatively conducted a full capacity and Level-of-Service analysis of the proposed condition.

TRIP DISTRIBUTION

Based on existing travel patterns observed along Eagle Rock Avenue (CR 611) it was assumed that 50 percent of site-generated traffic would arrive from and depart to the east and 50 percent would arrive from and depart to the west.

Most of the Senior Housing traffic was assigned to the westerly site driveway, with some trips made via the easterly driveway. The distribution of site-generated trips is illustrated on **Figure 3** in the **Appendix**. **Figure 4** in the **Appendix** summarizes the resulting traffic volumes.

FUTURE TRAFFIC CONDITIONS

It is recognized that traffic routinely fluctuates along various State and County roadways, as well as local streets, and varies not only day-to-day, but also on a monthly and yearly basis. It is expected that as development continues in the vicinity of the site, traffic may be expected to increase on a regular basis.

It is anticipated that the construction of the Senior Housing Facility will be completed within 2 years. As a result, minimal (if any) additional "background" traffic growth can be anticipated with such a short build-out.

Growth

NJDOT publishes an annual growth rate 2.00% for Urban Minor Arterials in Essex County. This level of general background growth in traffic volumes is a conservative rate, for planning purposes, that reflects the cumulative regional effect of population growth and commercial development.

Other Area Developments

In an effort to account for any additional approved developments or recent applications within the vicinity of the proposed site, it was selected to increase background growth rate from 2.00% annually to 3.00% annually.

FUTURE NO-BUILD TRAFFIC VOLUMES

The future-without-the-project, or No-Build condition, peak hour traffic volumes were therefore established by applying an annual growth rate of 3.00% percent to the observed roadway traffic volumes. This rate was selected in order to account for both general regional traffic growth and unknown local projects. The future No-Build traffic volumes are summarized on **Figure 5** in the **Appendix**.

FUTURE BUILD TRAFFIC VOLUMES

The future-with-the-project, or Build condition, peak hour traffic volumes were calculated by adding the site-generated traffic volumes associated with the proposed Senior Housing Facility to the No-Build peak hour traffic volumes. The resulting Build traffic volumes are shown on **Figure 6** in the **Appendix** for the weekday morning and weekday evening peak hours, respectively.

ANALYSIS OF FUTURE TRAFFIC VOLUMES

Volume/Capacity and Level of Service analyses were conducted for the future No-Build and Build conditions at the adjacent unsignalized intersections and site driveways. The definitions of Level of Service are provided in the **Appendix**.

The analyses were conducted using Synchro Software, Version 11. The Synchro reports are included in the **Appendix**. And the results are summarized in **Table 2**, below. A detailed discussion of the results follows.

Table 2
No-Build and Build Conditions
Delay and Level of Service Synchro Results

Intersection	Lane Group	No Build				Build			
		AM		PM		AM		PM	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Eagle Rock Ave (CR-611)	SB: LR			14.5	B	12.6	B	14.6	B
@Eastern Site Dwy	Overall	0.0	A	0.1	A	0.0	A	0.2	A
Rosney Terrace, Western	NB: LTR	18.0	C	14.9	B	19.1	C	14.4	B
Site Dwy @Eagle Rock Ave	SB: LTR			19.3	C	14.1	B	16.3	C
(CR-611)	Overall	0.5	A	0.3	A	0.8	A	1.0	A
Robertson Rd @Eagle Rock	WB: LT	8.8	A	8.7	A	8.9	A	8.7	A
Ave (CR-611)	NB: LR	12.4	B	12.6	B	12.5	B	12.7	B
	Overall	0.4	A	0.6	A	0.4	A	0.5	A

Eagle Rock Avenue (CR 611) @ Robertson Road

Movements at the unsignalized intersection of Eagle Rock Avenue (CR 611) and Robertson were calculated to operate at a Level of Service B or better during each of the study peak hours in both No-Build and Build conditions.

Eagle Rock Avenue (CR 611) @ Rosney Terrace and Westerly Site Driveway

Movements at the unsignalized intersection of Eagle Rock Avenue (CR 611) with Rosney Terrace and the westerly site driveway were calculated to operate at a Level of Service C or better during each of the study peak hours in the No-Build and Build conditions.

Eagle Rock Avenue (CR 611) @ Easterly Site Driveway

Movements at easterly site driveway intersection with Eagle Rock Avenue (CR 611) was calculated to operate at a Level of Service B during each of the study peak hours in both future No-Build and future Build conditions.

Levels of Service A, B and C are all favorable. Based on the analyses, it can be concluded that the proposed Senior Housing Facility will **not** result in a significant impact on area traffic.

SITE ACCESS AND CIRCULATION

An evaluation has been made of the Site Layout Plan for the proposed Multi-Level Senior Housing Facility, prepared by Bohler, dated February 1, 2022. In particular, the evaluation focuses on site access, on-site circulation and parking supply. The following items address these design characteristics:

Site Access

- › Access is currently provided at two driveways: the westerly, full-movement driveway and the easterly driveway, where left-turn ingress is prohibited.
- › In the proposed condition, there would be no change in operation of either driveway.

Parking

- › The Site Plan proposes parking spaces 9 feet in width by 18 feet in depth, served by 24-foot wide two-way drive aisles, meeting the Township requirements.
- › The Township of West Orange requires 1 parking stall per bed, or 210 stalls, for the proposed Senior Housing Facility.
- › The Township requirement is, however, superseded by the requirements on the New Jersey Residential Site Improvement Standards (RSIS), which require 1 stall for every two units, or 90 stalls for the proposed 180 units.
- › The Site Plan provides 148 parking stalls, exceeding the RSIS requirement. The proposed parking supply includes: 5 ADA-accessible stalls, one of which is van-accessible; and 4 Make-Ready Electric Vehicle (EV) charging stalls.
- › Per the New Jersey Electric Vehicle Charging Station Law the parking supply calculation counts each EV stall as 2 stalls. The proposed 148-stall supply therefore consists of 144 physical parking spaces, 4 of which are EV stalls.
- › Data published by the ITE in *Parking Generation*, 5th edition, 2019, indicates an 85th percentile demand rate of 0.46 parked vehicles per

unit for *Land Use Code 253: "Congregate Care Facility;"* and an 85th percentile demand rate of 0.58 parked vehicles per bed for *Land Use Code 254: "Assisted Living."*

- The ITE data is generally consistent with the RSIS requirement.
- Conservatively using the higher 85th percentile rate for Assisted Living, the proposed Senior Housing Facility is calculated to potentially generate demand for 122 parking stalls.
- On the basis of ITE data, the supply of 144 physical parking stalls is conservatively expected to operate with a 22-stall, or 15 percent, reserve capacity.

Remainder Lot

- 99 parking stalls would remain on the easterly lot to serve Mayfair Farms Catering.
- For catering facilities, the parking requirement can be calculated on the basis of fixed seating capacity (1 stall per 3 seats) or patron-accessible floor area (1 stall per 45 square feet).
- To comply with the Township parking ordinance, the proposed parking supply would limit Mayfair Farms to events that seat up to 297 guests; or, without seating, events at which up to 4,455 square feet are open to guests.
- Variance relief would be required for events serving more than 294 guests, or with more than 4,410 square feet of usable floor area.

CONCLUSIONS

It has been determined from the conduct of a detailed traffic count study that the proposed Senior Housing Facility redevelopment **will not significantly impact traffic conditions** in the site vicinity. The adjacent unsignalized intersections are calculated to continue to operate at a Level of Service C or better for any movement at each of the study intersections under Build conditions.

The site has been designed in accordance with the Township of West Orange and accepted traffic engineering and design standards. The proposed parking supply exceeds the requirements of New Jersey RSIS. In addition, the proposed parking supply is sufficient based on ITE data.

Technical Appendix

Proposed Senior Housing Facility
West Orange Township
Essex County, New Jersey

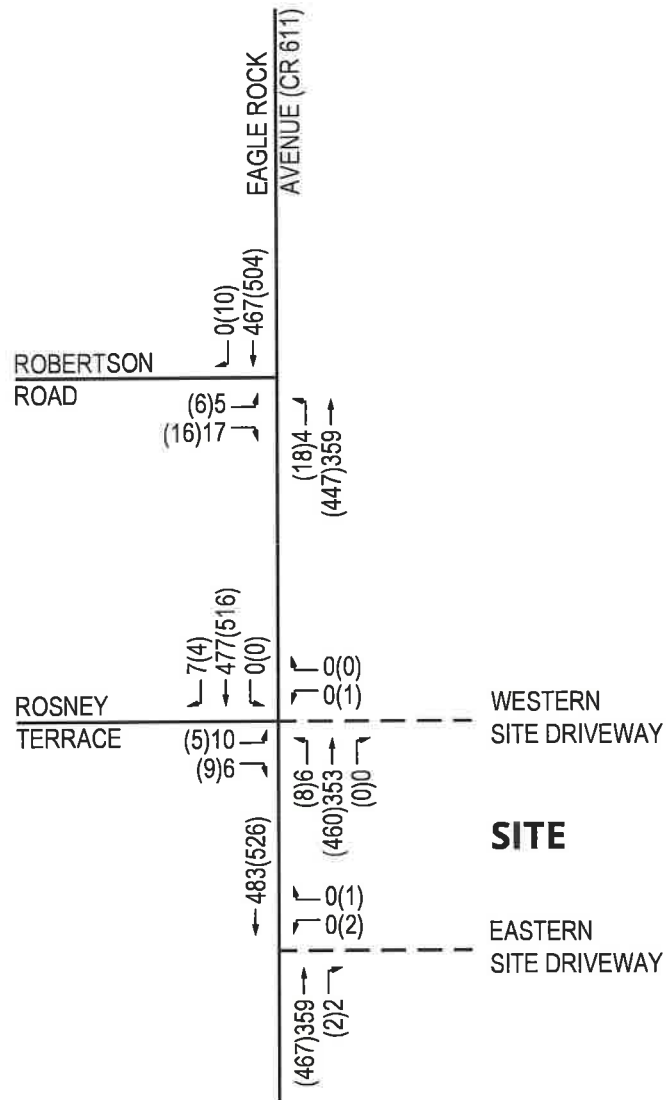
Site Location Map



\\BHLERENG\NET\SHARES\AIDE - PROJECTS\2022\WIA22012.00\ANALYSIS - PERMITTING\DATA - TRAFFIC\FIGURES\WIA22012 REPORT FIGURES - -->LAYOUT LOCATION MAP

Proposed Senior Housing Facility
West Orange Township
Essex County, New Jersey

Existing 2022 Traffic Volumes



LEGEND

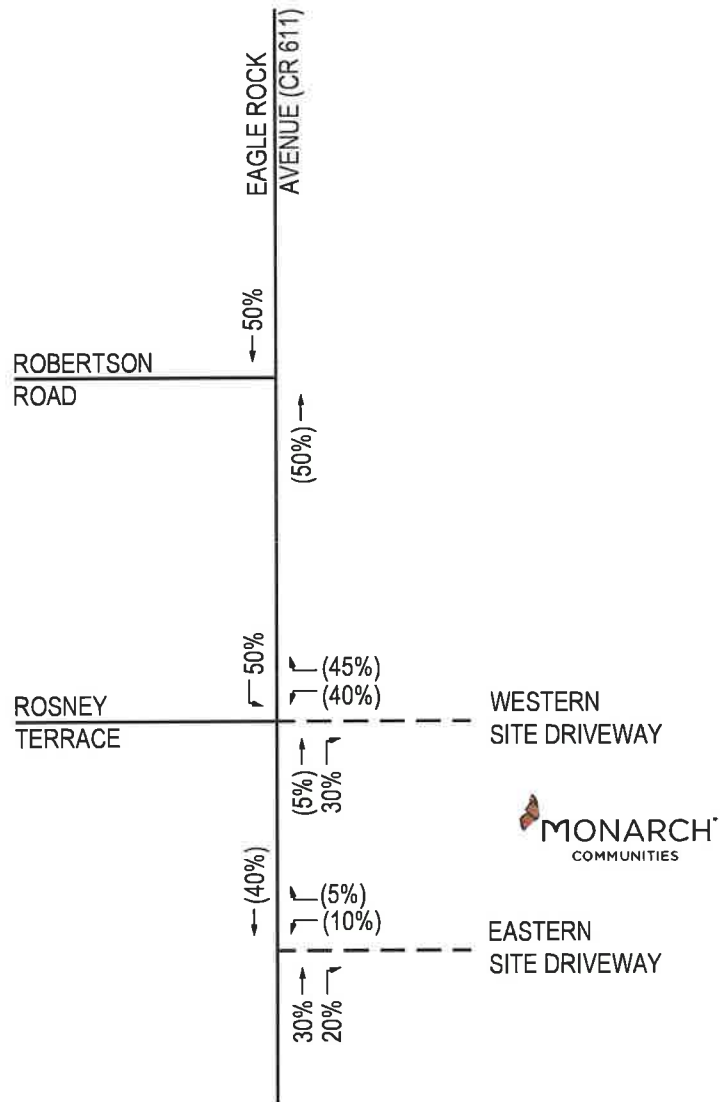
AA(BB)[CC] AM(PM)[SAT] PEAK HOUR VOLUMES

— — — — — EXISTING ROADWAY

- - - - - EXISTING DRIVEWAY

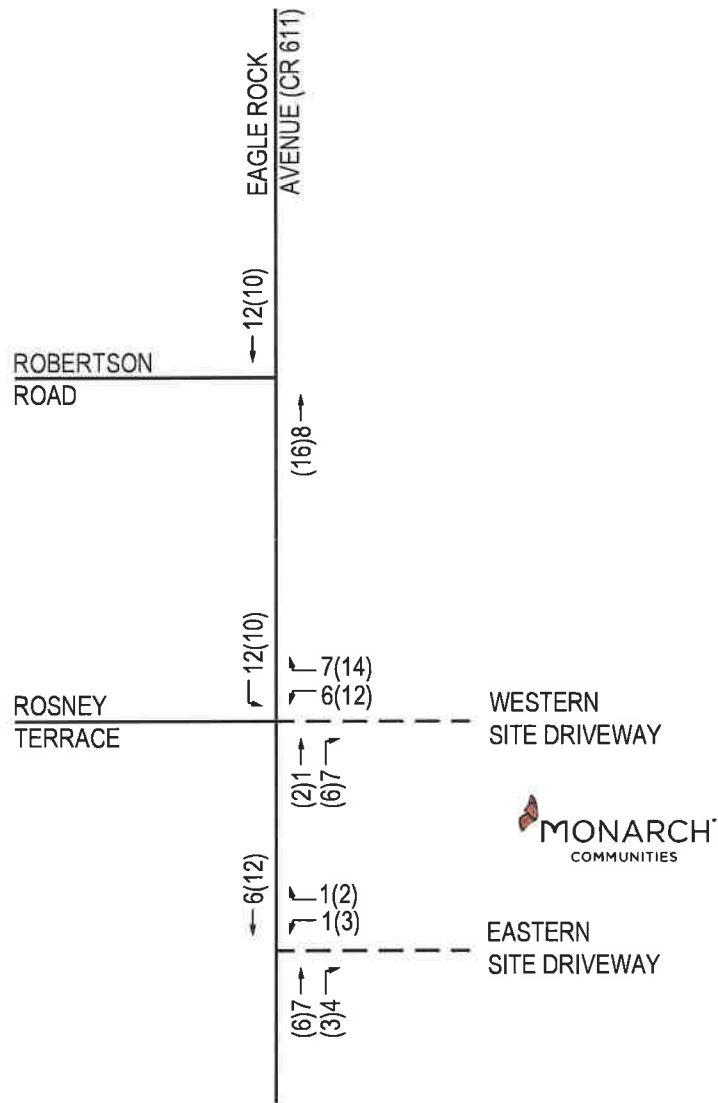
Proposed Senior Housing Facility
West Orange Township
Essex County, New Jersey

Distribution of New Project-Generated Trips



Proposed Senior Housing Facility
West Orange Township
Essex County, New Jersey

Total Project-Generated New Traffic Volumes



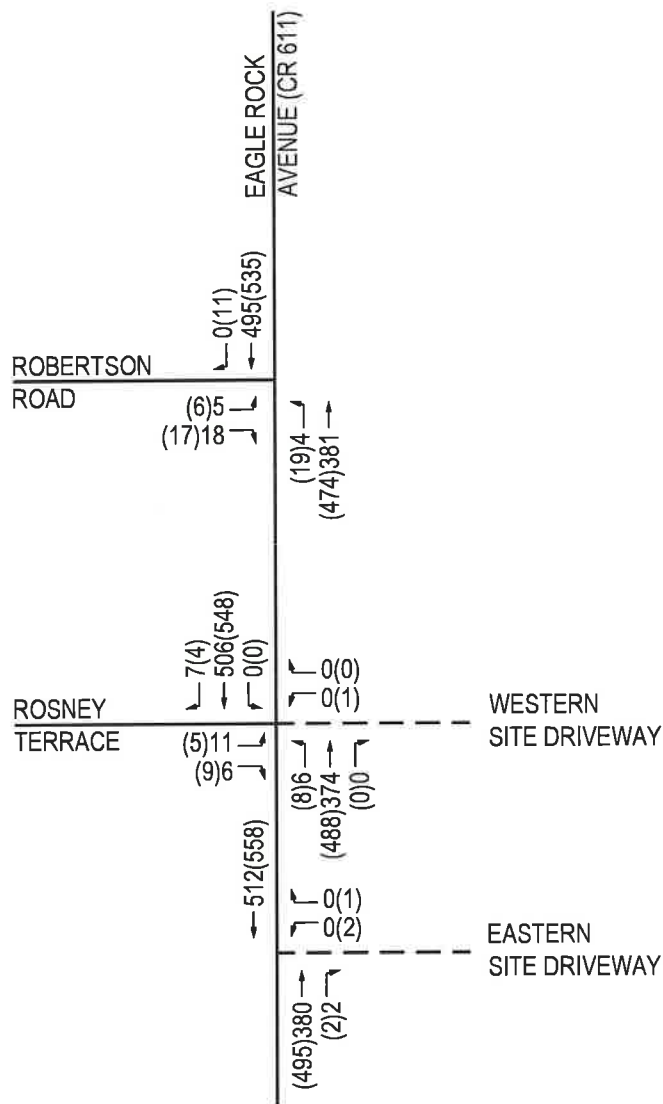
LEGEND

AA(BB)[CC] AM(PM)[SAT] PEAK HOUR VOLUMES
 ————— EXISTING ROADWAY
 - - - - - EXISTING DRIVEWAY

PEAK HOUR	ENTER	EXIT	TOTAL
AM	23	15	38
PM	19	31	50

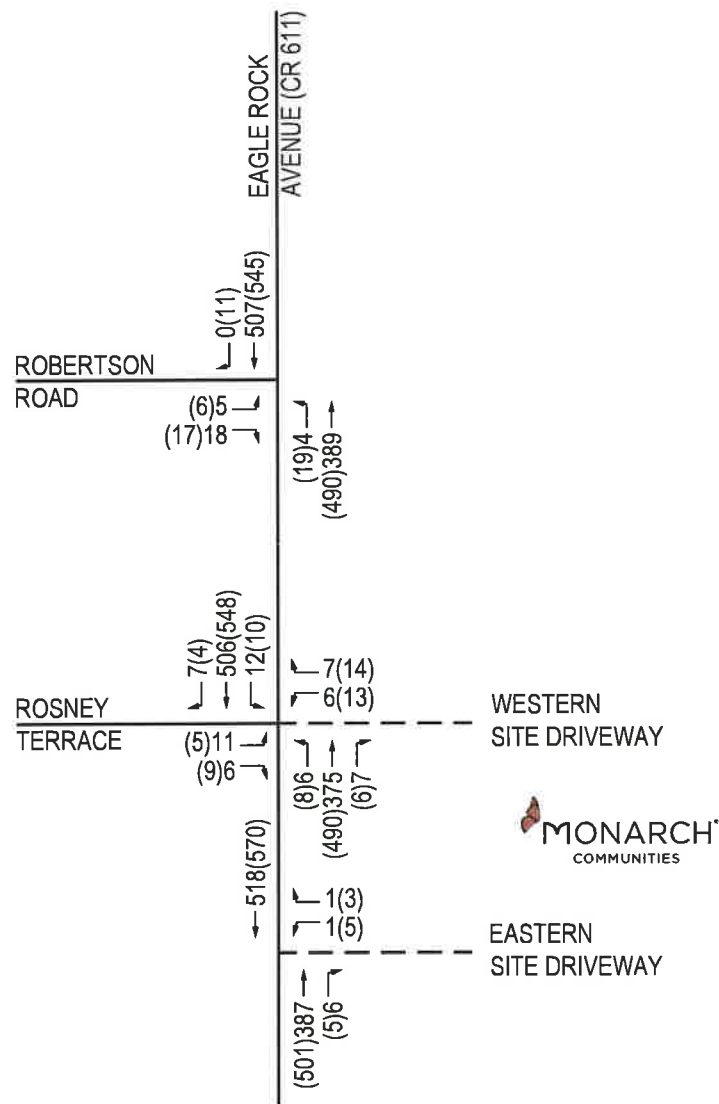
Proposed Senior Housing Facility
West Orange Township
Essex County, New Jersey

No-Build Traffic Volumes



LEGEND

- AA(BB) AM(PM) PEAK HOUR VOLUMES
- EXISTING ROADWAY
- EXISTING DRIVEWAY



LEGEND

AA(BB)[CC]	AM(PM)[SAT] PEAK HOUR VOLUMES
————	EXISTING ROADWAY
-----	EXISTING DRIVEWAY

B | Turning Movement Count Summary

Proposed Assisted Living Facility
481 Eagle Rock Avenue (CR 611)
West Orange Township
Essex County, New Jersey

ATDE Project No. ATA220012

TURNING MOVEMENT COUNTS

Weekday Morning

		Eagle Rock Avenue (CR 611) & Rosney Terrace/Site Driveways									Eagle Rock Avenue (CR 611) & Robertson Road					15-Min	Hour
		NB		SB East Dvwy		SB West Dvwy	EB	WB			NB		EB		WB	Sum	Sum
Interval	Start	L	R	L	R	R	R	L	T	R	L	R	T	R	L		
1	7:00 AM	1	1	0	0	0	2	0	95	0	1	2	77	0	1	180	883
2	7:15 AM	5	3	0	0	0	1	2	101	0	1	2	153	0	0	268	881
3	7:30 AM	3	2	0	0	0	4	2	80	1	1	6	132	0	2	233	820
4	7:45 AM	1	0	0	0	0	0	2	83	1	2	7	105	0	1	202	790
5	8:00 AM	0	2	0	0	0	1	2	85	0	1	7	79	0	1	178	802
6	8:15 AM	1	1	0	0	0	0	2	87	1	3	4	103	1	4	207	
7	8:30 AM	0	3	0	0	0	1	0	99	0	2	3	93	1	1	203	
8	8:45 AM	1	2	0	0	0	0	2	94	1	0	3	109	1	1	214	

	Peak Hour Summary													
	NB		SB East Dvwy		SB West Dvwy	EB	WB			NB		EB		WB
	L	R	L	R	R	R	L	T	R	L	R	T	R	L
Peak Hour Volume	10	6	0	0	0	7	6	359	2	5	17	467	0	4
% Heavy Vehicles	0%	17%	0%	0%	0%	0%	0%	6%	0%	0%	0%	5%	0%	0%
Peak Hour Factor	0.50		No Data		No Data	0.44	0.89			0.61		0.76		0.50

Weekday Evening

		Eagle Rock Avenue (CR 611) & Rosney Terrace/Site Driveways									Eagle Rock Avenue (CR 611) & Robertson Road					15-Min	Hour
		NB		SB East Dvwy		SB West Dvwy	EB	WB			NB		EB		WB	Sum	Sum
Interval	Start	L	R	L	R	R	R	L	T	R	L	R	T	R	L		
1	4:00 PM	1	1	0	0	0	2	2	121	0	1	3	112	0	3	246	1037
2	4:15 PM	3	3	0	0	0	0	2	111	0	0	4	135	2	6	266	1053
3	4:30 PM	0	2	0	0	0	1	3	109	1	1	4	129	2	6	258	1001
4	4:45 PM	2	2	0	0	0	2	2	117	1	1	4	128	5	3	267	983
5	5:00 PM	0	2	2	1	1	1	1	130	0	4	4	112	1	3	262	965
6	5:15 PM	0	2	0	0	0	0	2	88	0	2	2	111	0	7	214	918
7	5:30 PM	1	1	0	0	0	5	4	95	1	0	2	129	1	1	240	898
8	5:45 PM	2	0	0	0	1	3	2	110	1	1	7	115	2	5	249	828
9	6:00 PM	2	1	0	0	0	2	2	97	0	0	5	101	1	4	215	743
10	6:15 PM	0	1	0	0	0	2	6	86	0	1	2	93	0	3	194	
11	6:30 PM	0	2	0	0	0	2	6	79	0	1	1	76	0	3	170	
12	6:45 PM	0	2	0	0	0	0	5	72	0	0	2	80	0	3	164	

		Peak Hour Summary													
		NB		SB East Dvwy		SB West Dvwy	EB	WB			NB		EB		WB
		L	R	L	R	R	R	L	T	R	L	R	T	R	L
Peak Hour Volume	5	9	2	1	1	4	8	467	2	6	16	504	10	18	
% Heavy Vehicles	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	2%	0%	0%	
Peak Hour Factor	0.58		0.25		0.25	0.50	0.91			0.69		0.94		0.75	

C | ITE Trip Generation

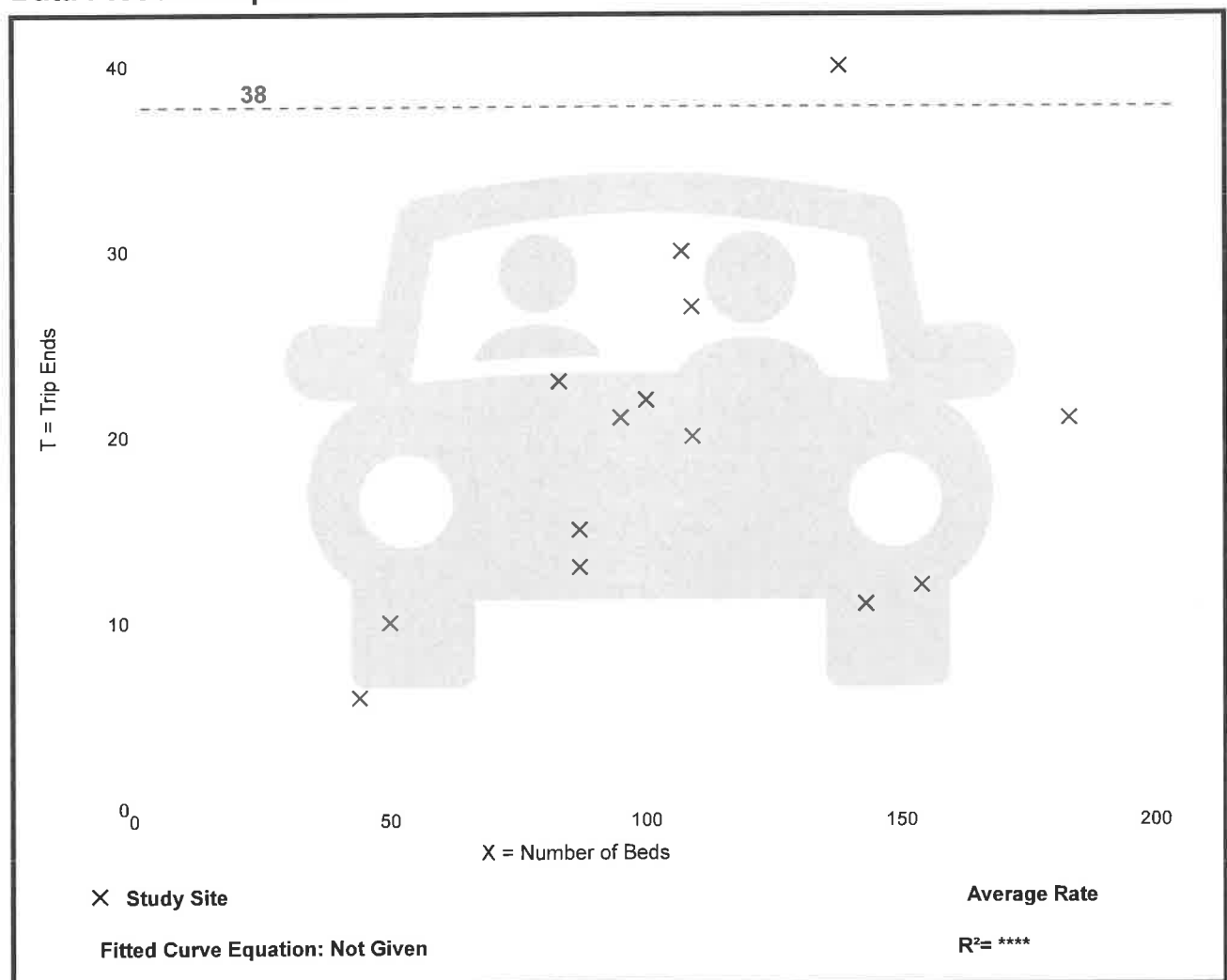
Assisted Living (254)

Vehicle Trip Ends vs: Beds
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 14
 Avg. Num. of Beds: 106
 Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.18	0.08 - 0.29	0.08

Data Plot and Equation



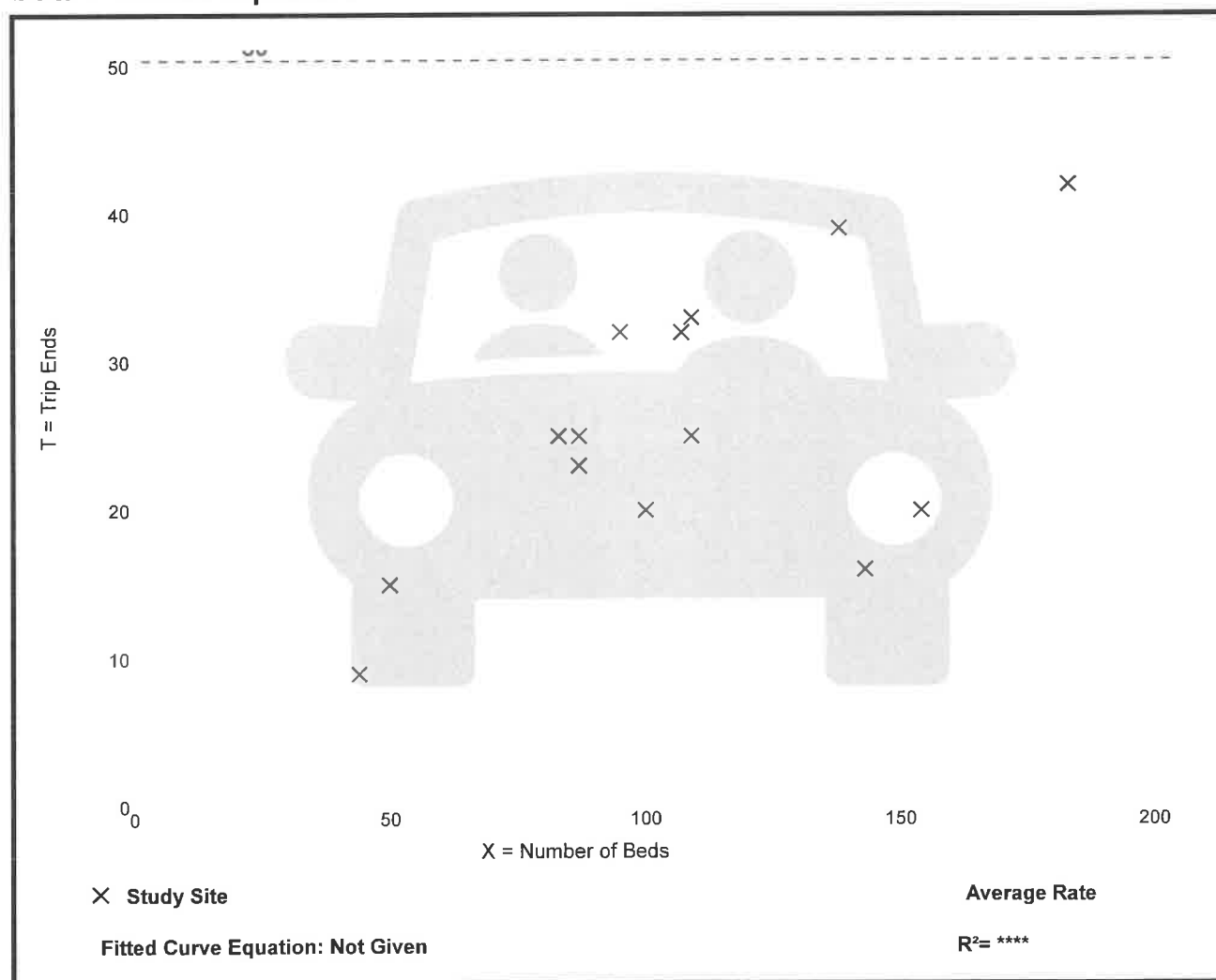
Assisted Living (254)

Vehicle Trip Ends vs: Beds
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 14
 Avg. Num. of Beds: 106
 Directional Distribution: 39% entering, 61% exiting

Vehicle Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.24	0.11 - 0.34	0.07

Data Plot and Equation



D | Level of Service Descriptions

Table 4
Level of Service and Average Delay
For Unsignalized Intersections

Level of Service	Average Delay (seconds/vehicle)
A	Up to 10 seconds
B	More than 10 seconds; up to 15 seconds
C	More than 15 seconds; up to 25 seconds
D	More than 25 seconds; up to 35 seconds
E	More than 35 seconds; up to 50 seconds
F	More than 50 seconds

Table 5
Level of Service and Average Delay
For Signalized Intersections

Level of Service	Average Delay (seconds/vehicle)	Description
A	Up to 10 seconds	Very short delay, good progression; most vehicles do not stop at intersection.
B	More than 10 seconds Up to 20 seconds	Generally good signal progression and/or short cycle length; more vehicles stop at intersection than Level of Service A.
C	More than 20 seconds Up to 35 seconds	Fair progression and/or longer cycle length; significant number of vehicles stop at intersection.
D	More than 35 seconds Up to 55 seconds	Congestion becomes noticeable; individual cycle failures; longer delays from unfavorable progression, long cycle length; or high volume/capacity ratios; most vehicles stop at intersection.
E	More than 55 seconds Up to 80 seconds	Usually considered limit of acceptable delay indicative of poor progression long cycle length, or high volume/capacity ratio; frequent individual cycle failures.
F	More than 80 seconds	Could be considered excessive delay in some areas, frequently an indication of over-saturation (i.e., arrival flows exceed capacity), or very long cycle lengths with minimal side street green time. Capacity is not necessarily exceeded under this Level of Service.

Reference: *Highway Capacity Manual*, (HCM2010), 2010, Transportation Research Board, Washington, D.C.

ATA220012 Proposed Monarch Senior Living - West Orange, NJ
 1: Eagle Rock Avenue (CR 611) & Eastern Site Driveway

No-Build
 AM

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	0	512	380	2	0	0
Future Vol, veh/h	0	512	380	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	2	-	0	-
Peak Hour Factor	76	76	89	89	65	65
Heavy Vehicles, %	0	5	6	0	0	0
Mvmt Flow	0	674	427	2	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0 764 214
Stage 1	-	-	- 427 -
Stage 2	-	-	- 337 -
Critical Hdwy	-	-	- 6.8 6.9
Critical Hdwy Stg 1	-	-	- 5.8 -
Critical Hdwy Stg 2	-	-	- 5.8 -
Follow-up Hdwy	-	-	- 3.5 3.3
Pot Cap-1 Maneuver	0	-	0 344 797
Stage 1	0	-	0 632 -
Stage 2	0	-	0 701 -
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	-	-	- 344 797
Mov Cap-2 Maneuver	-	-	- 344 -
Stage 1	-	-	- 632 -
Stage 2	-	-	- 701 -

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

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	-	-	0
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	-

ATA220012 Proposed Monarch Senior Living - West Orange, NJ
 2: Rosney Terrace/Western Site Driveway & Eagle Rock Avenue (CR 611)

No-Build

AM

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↕			↕	
Traffic Vol, veh/h	0	506	7	6	374	0	11	0	6	0	0	0
Future Vol, veh/h	0	506	7	6	374	0	11	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	8	-	-	-5	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	89	89	89	65	65	65	65	65	65
Heavy Vehicles, %	0	5	0	0	6	0	0	0	17	0	0	0
Mvmt Flow	0	666	9	7	420	0	17	0	9	0	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	675	0	0	895	1105	338	767	1109	210
Stage 1	-	-	-	-	-	-	671	671	-	434	434	-
Stage 2	-	-	-	-	-	-	224	434	-	333	675	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	7.24	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.47	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	926	-	-	239	213	616	295	211	802
Stage 1	0	-	-	-	-	-	417	458	-	576	585	-
Stage 2	0	-	-	-	-	-	764	585	-	660	456	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	926	-	-	237	211	616	289	209	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	237	211	-	289	209	-
Stage 1	-	-	-	-	-	-	417	458	-	576	579	-
Stage 2	-	-	-	-	-	-	756	579	-	650	456	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	18	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	303	-	-	926	-	-	-
HCM Lane V/C Ratio	0.086	-	-	0.007	-	-	-
HCM Control Delay (s)	18	-	-	8.9	-	-	0
HCM Lane LOS	C	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-	-	-

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	495	0	4	381	5	18
Future Vol, veh/h	495	0	4	381	5	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	9	-	-	-9	0	-
Peak Hour Factor	76	76	89	89	65	65
Heavy Vehicles, %	5	0	0	6	0	0
Mvmt Flow	651	0	4	428	8	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	651
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	945
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	945
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	525	-	-	945	-
HCM Lane V/C Ratio	0.067	-	-	0.005	-
HCM Control Delay (s)	12.4	-	-	8.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	0	558	495	2	2	1
Future Vol, veh/h	0	558	495	2	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	2	-	0	-
Peak Hour Factor	94	94	91	91	65	65
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	0	594	544	2	3	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0 841 272
Stage 1	-	-	- 544 -
Stage 2	-	-	- 297 -
Critical Hdwy	-	-	- 6.8 6.9
Critical Hdwy Stg 1	-	-	- 5.8 -
Critical Hdwy Stg 2	-	-	- 5.8 -
Follow-up Hdwy	-	-	- 3.5 3.3
Pot Cap-1 Maneuver	0	-	0 308 732
Stage 1	0	-	0 551 -
Stage 2	0	-	0 734 -
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	-	-	- 308 732
Mov Cap-2 Maneuver	-	-	- 308 -
Stage 1	-	-	- 551 -
Stage 2	-	-	- 734 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	382
HCM Lane V/C Ratio	-	-	0.012
HCM Control Delay (s)	-	-	14.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

ATA220012 Proposed Monarch Senior Living - West Orange, NJ
 2: Rosney Terrace/Western Site Driveway & Eagle Rock Avenue (CR 611)

No-Build
 PM

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↕			↕	
Traffic Vol, veh/h	0	548	4	8	488	0	5	0	9	1	0	0
Future Vol, veh/h	0	548	4	8	488	0	5	0	9	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	8	-	-	-5	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	91	91	91	65	65	100	65	65	65
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	0	583	4	9	536	0	8	0	9	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	587	0	0	871	1139	294	846	1141	268
Stage 1	-	-	-	-	-	-	585	585	-	554	554	-
Stage 2	-	-	-	-	-	-	286	554	-	292	587	-
Critical Hdwy	-	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	998	-	-	248	203	708	259	202	736
Stage 1	0	-	-	-	-	-	469	501	-	489	517	-
Stage 2	0	-	-	-	-	-	703	517	-	697	500	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	998	-	-	246	200	708	253	199	736
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	200	-	253	199	-
Stage 1	-	-	-	-	-	-	469	501	-	489	510	-
Stage 2	-	-	-	-	-	-	694	510	-	688	500	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.9	19.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	380	-	-	998	-	-	253
HCM Lane V/C Ratio	0.044	-	-	0.009	-	-	0.006
HCM Control Delay (s)	14.9	-	-	8.6	-	-	19.3
HCM Lane LOS	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-	0

ATA220012 Proposed Monarch Senior Living - West Orange, NJ
 3: Robertson Road & Eagle Rock Avenue (CR 611)

No-Build
 PM

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	535	11	19	474	6	17
Future Vol, veh/h	535	11	19	474	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	9	-	-	-9	0	-
Peak Hour Factor	94	94	91	91	69	69
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	569	12	21	521	9	25

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	581
Stage 1	-	-	575
Stage 2	-	-	303
Critical Hdwy	-	4.1	6.8
Critical Hdwy Stg 1	-	-	5.8
Critical Hdwy Stg 2	-	-	5.8
Follow-up Hdwy	-	2.2	3.5
Pot Cap-1 Maneuver	-	1003	291
Stage 1	-	-	532
Stage 2	-	-	729
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1003	283
Mov Cap-2 Maneuver	-	-	283
Stage 1	-	-	532
Stage 2	-	-	708

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	510	-	-	1003	-
HCM Lane V/C Ratio	0.065	-	-	0.021	-
HCM Control Delay (s)	12.6	-	-	8.7	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

ATA220012 Proposed Monarch Senior Living - West Orange, NJ
1: Eagle Rock Avenue (CR 611) & Eastern Site Driveway

Build
AM

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	0	518	387	6	1	1
Future Vol, veh/h	0	518	387	6	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	2	-	0	-
Peak Hour Factor	76	76	89	89	65	65
Heavy Vehicles, %	0	5	6	0	0	0
Mvmt Flow	0	682	435	7	2	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0 776 218
Stage 1	-	-	- 435 -
Stage 2	-	-	- 341 -
Critical Hdwy	-	-	- 6.8 6.9
Critical Hdwy Stg 1	-	-	- 5.8 -
Critical Hdwy Stg 2	-	-	- 5.8 -
Follow-up Hdwy	-	-	- 3.5 3.3
Pot Cap-1 Maneuver	0	-	0 338 792
Stage 1	0	-	0 626 -
Stage 2	0	-	0 698 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- 338 792
Mov Cap-2 Maneuver	-	-	- 338 -
Stage 1	-	-	- 626 -
Stage 2	-	-	- 698 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	474
HCM Lane V/C Ratio	-	-	0.006
HCM Control Delay (s)	-	-	12.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

ATA220012 Proposed Monarch Senior Living - West Orange, NJ
 2: Rosney Terrace/Western Site Driveway & Eagle Rock Avenue (CR 611)

Build
AM

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↔			↔	
Traffic Vol, veh/h	12	506	7	6	375	7	11	0	6	6	0	7
Future Vol, veh/h	12	506	7	6	375	7	11	0	6	6	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	8	-	-	-5	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	89	89	89	65	65	65	65	65	65
Heavy Vehicles, %	0	5	0	0	6	0	0	0	17	0	0	0
Mvmt Flow	16	666	9	7	421	8	17	0	9	9	0	11

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	429	0	0	675	0	0	928	1146	338	804	1146	215
Stage 1	-	-	-	-	-	-	703	703	-	439	439	-
Stage 2	-	-	-	-	-	-	225	443	-	365	707	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	7.24	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.47	3.5	4	3.3
Pot Cap-1 Maneuver	1141	-	-	926	-	-	226	201	616	278	201	796
Stage 1	-	-	-	-	-	-	399	443	-	572	582	-
Stage 2	-	-	-	-	-	-	763	579	-	632	441	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1141	-	-	926	-	-	218	195	616	267	195	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	218	195	-	267	195	-
Stage 1	-	-	-	-	-	-	390	433	-	559	576	-
Stage 2	-	-	-	-	-	-	745	573	-	609	431	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	19.1	14.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	282	1141	-	-	926	-	-	416
HCM Lane V/C Ratio	0.093	0.014	-	-	0.007	-	-	0.048
HCM Control Delay (s)	19.1	8.2	-	-	8.9	-	-	14.1
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

Intersection

Int Delay, s/veh 0.4

Movement EBT EBR WBL WBT NBL NBR

Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	507	0	4	389	5	18
Future Vol, veh/h	507	0	4	389	5	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	9	-	-	-9	0	-
Peak Hour Factor	76	76	89	89	65	65
Heavy Vehicles, %	5	0	0	6	0	0
Mvmt Flow	667	0	4	437	8	28

Major/Minor Major1 Major2 Minor1

Conflicting Flow All	0	0	667	0	894	334
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	227	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	932	-	284	668
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	795	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	932	-	282	668
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	790	-

Approach EB WB NB

HCM Control Delay, s	0	0.1	12.5
HCM LOS			B

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h)	515	-	-	932	-
HCM Lane V/C Ratio	0.069	-	-	0.005	-
HCM Control Delay (s)	12.5	-	-	8.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	0	570	501	5	5	3
Future Vol, veh/h	0	570	501	5	5	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	5	2	-	0	-
Peak Hour Factor	94	94	91	91	65	65
Heavy Vehicles, %	0	2	1	0	0	0
Mvmt Flow	0	606	551	5	8	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	854 276
Stage 1	-	-	-	-	551 -
Stage 2	-	-	-	-	303 -
Critical Hdwy	-	-	-	-	6.8 6.9
Critical Hdwy Stg 1	-	-	-	-	5.8 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	302 727
Stage 1	0	-	-	0	547 -
Stage 2	0	-	-	0	729 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	302 727
Mov Cap-2 Maneuver	-	-	-	-	302 -
Stage 1	-	-	-	-	547 -
Stage 2	-	-	-	-	729 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	387
HCM Lane V/C Ratio	-	-	0.032
HCM Control Delay (s)	-	-	14.6
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

ATA220012 Proposed Monarch Senior Living - West Orange, NJ
 2: Rosney Terrace/Western Site Driveway & Eagle Rock Avenue (CR 611)

Build
PM

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑			↑↑			↑↑			↑↑		
Traffic Vol, veh/h	10	548	4	8	490	6	5	0	9	13	0	14
Future Vol, veh/h	10	548	4	8	490	6	5	0	9	13	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	8	-	-	-5	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	91	91	91	65	65	65	65	65	65
Heavy Vehicles, %	0	2	0	0	1	0	0	0	0	2	2	2
Mvmt Flow	11	583	4	9	538	7	8	0	14	20	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	545	0	0	587	0	0	894	1170	294	874	1169	273
Stage 1	-	-	-	-	-	-	607	607	-	560	560	-
Stage 2	-	-	-	-	-	-	287	563	-	314	609	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.54	5.54	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.52	4.02	3.32
Pot Cap-1 Maneuver	1034	-	-	998	-	-	239	195	708	244	192	725
Stage 1	-	-	-	-	-	-	455	489	-	480	509	-
Stage 2	-	-	-	-	-	-	702	512	-	671	484	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1034	-	-	998	-	-	227	189	708	234	186	725
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	189	-	234	186	-
Stage 1	-	-	-	-	-	-	448	481	-	472	502	-
Stage 2	-	-	-	-	-	-	672	505	-	647	476	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	14.4	16.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	403	1034	-	-	998	-	-	361
HCM Lane V/C Ratio	0.053	0.01	-	-	0.009	-	-	0.115
HCM Control Delay (s)	14.4	8.5	-	-	8.6	-	-	16.3
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4

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 3: Robertson Road & Eagle Rock Avenue (CR 611)

Build
PM

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	545	11	19	490	6	17
Future Vol, veh/h	545	11	19	490	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	9	-	-	-9	0	-
Peak Hour Factor	94	94	91	91	69	69
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	580	12	21	538	9	25

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	592	0	897
Stage 1	-	-	-	-	586
Stage 2	-	-	-	-	311
Critical Hdwy	-	-	4.1	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	994	-	283
Stage 1	-	-	-	-	525
Stage 2	-	-	-	-	722
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	994	-	275
Mov Cap-2 Maneuver	-	-	-	-	275
Stage 1	-	-	-	-	525
Stage 2	-	-	-	-	700

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	501	-	-	994	-
HCM Lane V/C Ratio	0.067	-	-	0.021	-
HCM Control Delay (s)	12.7	-	-	8.7	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-