



TRAFFIC IMPACT STUDY

PROPOSED MIXED-USE DEVELOPMENT

Proposed Mixed-Use
Development

Block 701, Lot 1
Township of Neptune,
Monmouth County, New Jersey

Prepared For:
M&M at Neptune, LLC

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STONEFIELD

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EXECUTIVE SUMMARY

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed mixed-use development on the adjacent roadway network. The following is a summary of the findings within this Traffic Impact Study:

1. The subject property is bounded by Asbury Avenue to the north, NJSH Route 35 to the south, Hollow Brook to the east, and a NJSH Route 35/Asbury Avenue interchange to the west Neptune Township, Monmouth County, New Jersey. The subject property is presently occupied by a vacant Coca-Cola manufacturing and distribution center.
2. Under the proposed development program, 8,000-square-foot retail building with one (1) drive-through lane and one (1) bypass lane, a 20,442-square-foot discount supermarket, a 3,316-square-foot fast-food restaurant with two (2) drive-through lanes, and a 4,500-square-foot convenience market with six (6) fueling stations (12 fueling positions) would be constructed.
3. Existing access is provided via one (1) asphalt curb-cut along NJSH Route 35. Access to the site is proposed via one (1) right-in/right-out driveway and one (1) full-movement driveway along NJSH Route 35 and two (2) full-movement driveways along Asbury Avenue.
4. Under the proposed development plan, a two-way left-turn lane would be constructed along Asbury Avenue.
5. Traffic volumes were analyzed for both the peak summer-traffic condition and under conditions reflecting “average” monthly volumes.
6. A Level of Service/Volume Capacity Analysis was conducted at the proposed site driveways. Based on the analyses conducted, the proposed development would not have a significant impact to the Level of Service on the adjacent roadways.
7. The proposed site would provide 238 parking spaces, which meets the Ordinance requirement and would be sufficient to support the anticipated parking demand.

INTRODUCTION

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed mixed-use development on the adjacent roadway network. The subject property is bounded by Asbury Avenue to the north, NJSH Route 35 to the south, Hollow Brook to the east, and a NJSH Route 35/Asbury Avenue interchange to the west Neptune Township, Monmouth County, New Jersey. The site location is shown on appended **Figure I**.

The subject property is designated as Block 701, Lot 1 as depicted on the Township of Neptune Tax Map. The site has approximately 510 feet of frontage along NJSH Route 35 and approximately 1,200 feet of frontage along Asbury Avenue. The subject property is presently occupied by a vacant Coca-Cola manufacturing and distribution center. Existing access is provided via one (1) asphalt curb-cut along NJSH Route 35. Under the proposed development program, 8,000 square feet retail with one (1) drive-through lane and one (1) bypass lane, a 20,442-square-foot discount supermarket, a 3,316-square-foot fast-food restaurant with two (2) drive-through lanes, and a 4,500-square-foot convenience market with six (6) fueling stations (12 fueling positions) would be constructed. Access to the site is proposed via one (1) right-in/right-out driveway and one (1) full-movement driveway along NJSH Route 35 and two (2) full-movement driveways along Asbury Avenue.

METHODOLOGY

Stonefield Engineering & Design, LLC has prepared this Traffic Impact Study in accordance with the recommended guidelines and practices outlined by the Institute of Transportation Engineers (ITE) within Transportation Impact Analyses for Site Development. A detailed field investigation was performed to assess the existing conditions of the adjacent roadway network. A data collection effort was completed to identify the existing traffic volumes at the study intersections to serve as a base for the traffic analyses. Traffic volumes were analyzed for both the peak summer-traffic condition and under conditions reflecting “average” monthly volumes. Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the Highway Capacity Manual, 6th Edition (HCM) and Synchro 10 Software for all study conditions to assess the roadway operations.

For an unsignalized intersection, Level of Service (LOS) A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle. The Technical Appendix contains the Highway Capacity Analysis Detail Sheets for the study intersections analyzed in this assessment.

2019 EXISTING CONDITION

2019 EXISTING ROADWAY CONDITIONS

The proposed mixed-use development is bounded by Asbury Avenue to the north, NJSH Route 35 to the south, Hollow Brook to the east, and a NJSH Route 35/Asbury Avenue interchange to the west Neptune Township, Monmouth County, New Jersey. The subject property is designated as Block 701, Lot 1 as depicted on the Township of Neptune Tax Map. The site has approximately 510 feet of frontage along NJSH Route 35 and approximately 1,200 feet of frontage along Asbury Avenue. Land uses in the area are a mix of residential, retail, industrial and commercial uses.

NJSH Route 35 is classified as an Urban Principal Arterial roadway with a general north-south orientation and is under the jurisdiction of the NJDOT. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 35 mph. Curb is provided along both sides of the roadway, sidewalk is provided along the westerly side of the roadway, shoulders are provided along both sides of the roadway, and on-street parking is not permitted. NJSH Route 35 provides north-south mobility throughout Neptune Township and surrounding municipalities and provides access to NJSH Route 36 and NJSH Route 66 to the north of the site and NJSH Route 33 to the south of the site for a mix of residential, retail, commercial, and industrial uses.

Asbury Avenue is classified as an Urban Minor Arterial roadway with a general east-west orientation and is under the jurisdiction of Monmouth County. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 35 mph. Curb is provided along both sides of the roadway, sidewalk is not provided, shoulders are not provided, and on-street parking is not permitted. Asbury Avenue provided east-west mobility throughout Neptune Township and surrounding municipalities and provides access to NJSH Route 35 adjacent to the site and NJSH Route 18 to the west of the site for a mix of residential, retail, and industrial uses along its length.

2019 EXISTING TRAFFIC VOLUMES

Automated traffic recorder (ATR) counts were conducted to evaluate existing traffic conditions during the critical Summer season and identify the specific hours when traffic activity on the adjacent roadways is at a maximum and could be potentially impacted by the development of the site. ATR counts were conducted at the following locations from Friday, June 7, 2019 to Monday, June 17, 2019:

- ◆ NJSH Route 35 northbound and southbound 500 feet north of Bangs Avenue
- ◆ Asbury Avenue eastbound and westbound 300 feet east of Route 35 interchange

Based on the review of the June ATR count data the weekday morning peak hour occurred on Wednesday, June 12, 2019 from 7:30 a.m. to 8:30 a.m.; the weekday evening peak hour occurred on Wednesday, June 12, 2019 from 4:45 p.m. to 5:45 p.m.; and the Saturday midday peak hour occurred on Saturday, June 8, 2019 from 3:30 p.m. to 4:30 p.m. The Technical Appendix contains a summary of the turning movement count data. The 2019 Existing Traffic Volumes weekday morning, weekday evening, and Saturday midday peak hour volumes in the Peak Summer Period are summarized on appended **Figure 2**.

SEASONAL ADJUSTMENT – YEARLY AVERAGE CONDITION

It is important to note that the traffic volume counts were conducted during the Peak Summer Period when traffic volumes would be at a seasonal peak for areas located within the Jersey Shore and surrounding area. To provide an analysis of traffic volumes for a typical or average month, a seasonal adjustment factor was applied using the NJDOT's publish seasonal adjustment factors. Specifically, the Region 4 – Urban Principal Arterial roadway factor of 0.859 was applied for NJSH Route 35 and the Region 4 - Urban Minor Arterial roadway factor of 0.913 was applied for Asbury Avenue. The seasonal adjustment factors were applied to the as-counted traffic volumes to calculate the 2019 Existing Yearly Average traffic volumes weekday morning, weekday evening, and Saturday midday peak hour volumes. These volumes are summarized on appended **Figure 3**.

2023 NO-BUILD CONDITION

BACKGROUND GROWTH

The 2019 Existing Condition traffic volume data was grown to a future horizon year of 2023, which is a conservative estimate for when the proposed mixed-use development is expected to be fully constructed. In accordance with industry guidelines, the existing traffic volumes at the study intersections were increased by 1.25% annually for four (4) years. The 1.25% background growth rate was obtained from the NJDOT Annual Background Growth Rate Table.

OTHER PLANNED DEVELOPMENT PROJECTS

To evaluate the future traffic conditions, it is important to consider the potential site-generated traffic of other projects that could influence the traffic volume at the study intersections. Other planned development projects include those that are either in the entitlement process or have recently been approved for building permits in proximity to the proposed development. Based on research of the Neptune Township Planning Board meeting minutes and agendas, there are no known planned development projects within the area of the subject site. As such, the application of the background growth rate would be adequate to account for background traffic growth.

2023 NO-BUILD TRAFFIC VOLUMES

The background growth rate was applied to the 2019 Existing Traffic Volumes to calculate the 2023 No-Build Traffic Volumes for the weekday morning, weekday evening, and Saturday midday peak hours. The 2023 No-Build Peak Summer Period traffic volumes are summarized on appended **Figure 4** and the 2023 No-Build Yearly Average traffic volumes are summarized on appended **Figure 5**.

2023 BUILD CONDITION

The site-generated traffic volume of the proposed mixed-use development was estimated to identify the potential impacts of the project. For the purpose of this analysis, a complete project “build out” is assumed within three (3) years of the preparation of this study.

TRIP GENERATION

Trip generation projections for the proposed mixed-use development were prepared utilizing NJDOT’s Highway Access Permit System (HAPS) and ITE’s Trip Generation Manual, 10th Edition. It is noted that the HAPS does not contain data for the enter/exit trip distribution for its land uses. Therefore, the enter/exit trip distribution for each land use was obtained from the ITE’s Trip Generation Manual, 10th Edition. Trip generation rates associated with Land Use 820 “Shopping Center,” Land Use 854 “Discount Supermarket,” Land Use 934 “Fast Food Restaurant with Drive Through Window,” and Land Use 960 “Super Convenience Market/Gas Station” were cited for the proposed 8,000 square feet of retail, 20,442-square-foot discount supermarket, 3,316-square-foot fast food restaurant with drive-through service, and 4,500-square-foot convenience store with fuel sales, respectively. **Table I** provides the weekday morning, weekday evening, and Saturday midday peak hour trip generation volumes associated with the proposed mixed-use development.

TABLE I – PROPOSED TRIP GENERATION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
8,000 SF Shopping Center <i>HAPS Land Use 820</i>	5	3	8	44	48	92	44	40	84
20,442 SF Discount Supermarket <i>HAPS Land Use 854</i>	1	1	2	98	98	196	131	130	261
3,316 SF Fast-Food Restaurant with Drive Through <i>HAPS Land Use 934</i>	86	83	169	89	81	170	93	90	183
4,500 SF Super Convenience Store/Gas Station <i>HAPS Land Use 960</i>	187	187	374	156	156	312	144	143	287
Total	279	274	553	387	383	770	412	303	815

It is noted that for the Saturday midday peak hour, the trip generation rates published by the ITE reflect the individual peak hours of the specific uses. The calculated rates do not consider that the uses on-site likely

do not peak at the same time as each other or at the same time as the adjacent roadway network. As such, the Saturday trip generation rates for the individual uses were adjusted to reflect the same peak hour of traffic as the adjacent roadway network. Time-of-day factors published by the ITE were utilized, and detailed time-of-day calculations are appended herein. Appended **Table A-2** provides a summary of the calculated TOD factor adjustments for each land use. **Table 2** provides the weekday morning, weekday evening, and Saturday midday peak hour trip generation volumes after adjusting the Saturday volumes to reflect the roadway peak hour factors to the Saturday midday peak hour.

TABLE 2 – TIME-OF-DAY FACTOR REDUCTION (SATURDAY MIDDAY PEAK HOUR)

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
8,000 SF Shopping Center HAPS Land Use 820	5	3	8	44	48	92	44	40	84
96.6% Saturday TOD Factor Reduction	-	-	-	-	-	-	-2	-1	-3
<i>Total</i>	-	-	-	-	-	-	42	39	81
20,442 SF Discount Supermarket HAPS Land Use 854	1	1	2	98	98	196	131	130	261
84.0% Saturday TOD Factor Reduction	-	-	-	-	-	-	-21	-21	-42
<i>Total</i>	-	-	-	-	-	-	110	109	219
3,316 SF Fast-Food Restaurant with Drive Through HAPS Land Use 934	86	83	169	89	81	170	93	90	183
71.8% Saturday TOD Factor Reduction	-	-	-	-	-	-	-26	-26	-52
<i>Total</i>	-	-	-	-	-	-	67	64	131
4,500 SF Super Convenience Store/Gas Station HAPS Land Use 960	187	187	374	156	156	312	144	143	287
96.4% Saturday TOD Factor Reduction	-	-	-	-	-	-	-5	-5	-10
<i>Total</i>	-	-	-	-	-	-	139	138	277
Total	279	274	553	387	383	770	358	350	708

As stated within Chapter 6 of ITE's *Trip Generation Handbook*, 3rd Edition, internally captured trips can be a component of the travel patterns at mixed-use developments, such as the one proposed. When combined within a single development, individual land uses tend to interact, and thus attract a portion of each other's trip generation, such as customers of discount supermarket eating at the fast-food restaurant. Therefore, based on the nature of the proposed uses, an internal capture credit should be considered for this site. Utilizing published NJDOT data, internal trips were calculated between the proposed uses during the weekday morning, weekday evening, and Saturday midday peak hours. It is noted the published data for the Saturday midday peak hour is limited with respect to the land uses within the proposed development. For the purpose of this analysis, the Saturday midday peak hour internal trips associated with the restaurant use were calculated using the published weekday evening peak hour rates. The internal capture portion of the site-generated traffic is shown in **Table 3**.

TABLE 3 – INTERNAL TRIP CAPTURE REDUCTION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
8,000 SF Shopping Center HAPS Land Use 820	5	3	8	44	48	92	42	39	81
Internal Trip Capture Reduction	-	-	-	-23	-24	-47	-30	-24	-54
Subtotal	5	3	8	21	24	45	12	15	27
20,442 SF Discount Supermarket HAPS Land Use 854	1	1	2	98	98	196	110	109	219
Internal Trip Capture Reduction	-	-	-	-41	-38	-79	-54	-52	-106
Subtotal	1	1	2	57	60	117	56	57	113
3,316 SF Fast-Food Restaurant with Drive Through HAPS Land Use 934	86	83	169	89	81	170	67	64	131
Internal Trip Capture Reduction	-25	-12	-37	-26	-33	-59	-19	-26	-45
Subtotal	61	71	132	63	48	111	48	38	86
4,500 SF Super Convenience Store/Gas Station HAPS Land Use 960	187	187	374	156	156	312	139	138	277
Internal Trip Capture Reduction	-12	-25	-37	-47	-42	-89	-56	-57	-113
Subtotal	175	162	337	109	114	223	83	81	164
Total	242	237	479	250	246	496	199	191	390

As stated within Chapter 10 of ITE's Trip Generation Handbook, 3rd Edition, there are instances when the total number of trips generated by a site is different from the amount of new traffic added to the street system by the generator. Convenience stores with gas, retail stores, supermarkets, and fast-food restaurants are specifically located on or adjacent to busy streets to attract motorists already on the roadway. Therefore, the uses of the proposed development would be expected to attract a portion of its trips from the traffic passing the site on the way from an origin to an ultimate destination. These trips do not add new traffic to the adjacent roadway system and are referred to as pass-by trips.

Based upon the published NJDOT data, the following pass-by rates were utilized to calculate each land uses site-generated traffic volumes:

- ◆ Land Use 820 – 34% during the weekday evening peak hour and 26% during the Saturday midday peak hour;
- ◆ Land Use 854 – 21% during the weekday evening peak hour;
- ◆ Land Use 934 – 49% during the weekday morning peak hour and 50% during the weekday evening and Saturday midday peak hours;
- ◆ Land Use 960 – 76% during the weekday morning and weekday evening peak hours and 50% during the Saturday midday peak hours.

Table 4 shows the additional site generated traffic for the proposed development after applying the appropriate trip reductions to account for.

TABLE 4 – PROPOSED TRIP GENERATION (ADJUSTED)

Land Use Code	Land Use	Amount	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
820	Shopping Center	8,000 SF	5	3	8	44	48	92	42	39	81
854	Discount Supermarket	20,442 SF	1	1	2	98	98	196	110	109	219
934	Fast Food Restaurant with Drive Through	3,316 SF	81	77	158	83	76	159	63	60	123
960	Super Convenience Store/Gas Station	4,500 SF	187	187	374	156	156	312	139	138	277
ITE Trip Generation Total			274	268	542	381	378	759	354	346	700
Internal Capture Trip Reduction			-37	-37	-74	-137	-137	-274	-159	-159	-318
Land Use 820 Pass-By Trip Reduction			-	-	-	-8	-8	-16	-4	-4	-8
Land Use 854 Pass-By Trip Reduction			-	-	-	-12	-12	-24	-	-	-
Land Use 934 Pass-By Trip Reduction			-32	-32	-64	-28	-28	-56	-22	-22	-44
Land Use 960 Pass-By Trip Reduction			-128	-128	-256	-85	-85	-170	-41	-41	-82
Total New Vehicular Trips			82	77	159	117	113	230	132	124	256

At the site driveways, the calculated number of pass-by trips is shown as a negative number at the through movement as the vehicles are temporarily diverted from the through travel stream into and out of the site access point.

TRIP ASSIGNMENT/DISTRIBUTION

To determine the trip assignment along the adjacent roadway network for the proposed development a gravity model was analyzed utilizing a three (3)-mile radius. The “new” trips associated with the retail uses generated by the proposed development were distributed according to a Gravity Model prepared for the site. The methodology used in the preparation of the Gravity Model assumes that trip distribution is proportional to population densities and travel distance within a given radius from the site. The municipalities within the market area were divided by census tract, with the population information identified through 2010 Census Data published by the US Census Bureau. Tables summarizing the Gravity Model results are in the Appendix. The results of the Gravity Model were used to distribute the site-generated traffic along the adjacent roadway network and are summarized in **Table 5. Figure 6** illustrates the “New” Site-Generated Traffic Volumes.

TABLE 5 – GRAVITY MODEL TRIP DISTRIBUTION

Origin	Percentage
From North – Asbury Avenue	9%
From South – NJSH Route 35	33%
From East – Asbury Avenue	46%
From West – NJSH Route 35	12%
TOTAL	100%

To determine the trip assignment and distribution of pass-by trips along the site driveways, patterns from existing traffic volumes and the site driveway access points were analyzed. Existing peak hour traffic volumes were used to distribute the pass-by traffic at site driveways, and **Figure 7** illustrates the “Pass-by” Site-Generated Traffic Volumes. At the site driveways, the calculated number of pass-by trips is shown as a negative number at the through movement as the vehicles are temporarily diverted from the through travel stream into and out of the site access point. **Table 6** summarizes the pass-by site generated trip distributions for the weekday morning, weekday evening, and Saturday midday peak hours.

TABLE 6 – PASS-BY TRIP DISTRIBUTION

Origin	Weekday Morning	Weekday Evening	Saturday Midday
From North – NJSH Route 35	23%	16%	18%
From South – NJSH Route 35	22%	28%	25%
From East – Asbury Avenue	26%	34%	32%
From West - Asbury Avenue	29%	22%	25%
TOTAL	100%	100%	100%

2023 BUILD TRAFFIC VOLUMES

The site-generated trips were added to the 2023 No-Build Traffic Volumes to calculate the 2023 Build Traffic Volumes. The 2023 Build Peak Summer Period traffic volumes are summarized on appended **Figure 8** and the 2023 Build Yearly Average traffic volumes are summarized on appended **Figure 9**.

ASBURY AVENUE ROADWAY IMPROVEMENTS

Under the proposed development plan, a 12-foot-wide two-way left-turn lane would be constructed along the Asbury Avenue frontage to facilitate left-turn movements into and out of the site. The proposed two-way left-turn lane would provide access to the proposed site driveways along Asbury Avenue eastbound and to Colonial Avenue and Bimble Boulevard along Asbury Avenue westbound. The proposed two-way left-turn lane would provide additional capacity for left-turn movements into the site and onto the side streets that would impede through traffic along Asbury Avenue.

2023 BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2023 Build Condition during the weekday morning, weekday evening, and Saturday midday peak hours at the proposed site driveways. Appended **Table A-I** compares the Peak Summer Period and Yearly Average Build Conditions Level of Service and delay values.

PEAK SUMMER PERIOD LEVEL OF SERVICE

Based on the Peak Summer Period traffic volumes, the turning movement at the unsignalized intersection of NJSH Route 35 and the northerly site driveway is calculated to operate at Level of Service B during the studied peak hours. The turning movements at the unsignalized intersection of NJSH Route 35 and the southerly site driveway are calculated to operate at Level of Service D or better during the weekday morning and Saturday midday peak hours and Level of Service E or better during the weekday evening peak hour. The turning movements at the unsignalized intersection of Asbury Avenue and the easterly site driveway are calculated to operate at Level of Service C or better during the weekday morning and Saturday midday peak hours and at Level of Service D or better during the weekday evening peak hour. The turning movements at the unsignalized intersection of Asbury Avenue and the westerly site driveway are calculated to operate at Level of Service C or better during the weekday morning and Saturday midday peak hours and at Level of Service D or better during the weekday evening peak hour.

TYPICAL YEARLY AVERAGE LEVEL OF SERVICE

Based on the yearly average traffic volumes, the turning movement at the unsignalized intersection of NJSH Route 35 and the northerly site driveway is calculated to operate at Level of Service B during the studied peak hours. The turning movements at the unsignalized intersection of NJSH Route 35 and the southerly site driveway are calculated to operate at Level of Service C or better during the weekday morning and Saturday midday peak hours and Level of Service D or better during the weekday evening peak hour. The turning movements at the unsignalized intersection of Asbury Avenue and the easterly site driveway are calculated to operate at Level of Service C or better during the studied peak hours. The turning movements at the unsignalized intersection of Asbury Avenue and the westerly site driveway are calculated to operate at Level of Service C or better during the studied peak hours.

SITE CIRCULATION & ACCESS

A review was conducted of the proposed mixed-use development using the Site Plan prepared by our office, dated December 29, 2020. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Under the proposed development program, an 8,000-square-foot retail building with one (1) drive-through lane and one (1) bypass lane would be constructed on the northwesterly portion of the property, a 20,442-square-foot discount supermarket would be constructed on the northeasterly portion of the property, a 3,316-square-foot fast-food restaurant with two (2) drive-through lanes would be constructed on the southwesterly portion of the property, and a 4,500-square-foot convenience market with six (6) fueling stations (12 fueling positions) would be constructed on the southeasterly portion of the property. The proposed retail development drive-through and bypass lanes would be located along the northerly side of the building and the proposed fast-food restaurant drive-through lanes would be located along the southerly side of the building. The fueling stations would be located to the south of the proposed convenience store building. Access to the site is proposed via one (1) right-in/right-out driveway and one (1) full-movement driveway along NJSH Route 35 and two (2) full-movement driveways along Asbury Avenue. Two-way vehicular circulation throughout the site would be facilitated via a minimum of 24-foot-wide drive aisles and one-way vehicular circulation throughout the site would be facilitated via a minimum of 12-foot-wide drive aisles. Surface parking lots and right-angle parking spaces along the drive aisles would be provided throughout the site. Trash enclosures would be located to the east of the proposed retail and convenience store buildings and to the west of the proposed fast-food restaurant.

The site was evaluated to assess the size and frequency of truck deliveries for each land use of the proposed mixed-use development (although specific tenants for each of the uses are not finalized). The proposed retail development with drive-through service is expected to require one (1) WB-60 truck delivery per week. The proposed discount supermarket is expected to require one (1) WB-50 truck delivery and five (5) box truck deliveries per day. The proposed fast-food restaurant with drive-through service is expected to require between five (5) and six (6) tractor trailer deliveries per week. The proposed convenience store with fuel sales is expected to require between five (5) and six (6) WB-50 truck fuel deliveries per week, between six (6) and eight (8) WB-50 truck convenience store deliveries per week, and between five (5) and six (6) box truck convenience store deliveries per day.

The proposed westerly driveway along Asbury Avenue was evaluated with respect to egress sight distance. The American Association of State Highway and Transportation Officials (AASHTO) standards for stopping sight distance were utilized for analysis. The stopping sight-distance design criteria for a roadway with a design speed limit of 30 mph is 200 feet. It is noted that vehicles exiting the NJSH Route 35 and Asbury Avenue interchange would generally be travelling at speeds at or lower than 30 mph. Based on the location of the westerly driveway and the location of the retail drive-through, a vehicle travelling along the Route 35 and Asbury Avenue interchange 200 feet along the roadway to the west of the westerly site driveway would not be obstructed by on-site buildings, features, or circulation aisles.

PARKING SUPPLY

Regarding the parking requirements for the proposed development, Neptune Township requires one (1) parking space per 250 square feet of retail/sales space, one (1) parking space per 250 square feet of shopping center space, one (1) parking space per 60 square feet of restaurant/take-out space plus one (1) space per employee on a peak shift, and one (1) parking space per 200 square feet of convenience store with gas plus one (1) spaces per employee on a maximum shift. For the proposed 8,000 square feet of retail, 20,442-square-foot supermarket, 3,316-square-foot fast-food restaurant with drive-through service and a maximum of three (3) employees, and 4,500-square-foot convenience store with fuel sales and a maximum three (3) employees, this equates to 199 required parking spaces. The site would provide 238 total parking spaces, inclusive of 10 ADA accessible parking spaces, which meets the parking requirement and would be sufficient to support this project's parking demand. The spaces would be nine (9) feet wide by 18 feet deep in accordance with Neptune Township and industry standards.

CONCLUSIONS

This report was prepared to examine the potential traffic impact of the proposed mixed-use development. The analysis findings, which have been based on industry-standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The mixed-use nature of the site would result in a reduced traffic generation as compared to a similar suburban development with separate land uses per lot. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property for passenger vehicles and delivery trucks. The proposed two-way left-turn lane along Asbury Avenue would accommodate vehicles turning from Asbury Avenue into the site and avoid blocking through traffic along Asbury Avenue. Based on the Neptune Township Ordinance and industry standards, the parking supply would be sufficient to support this project.

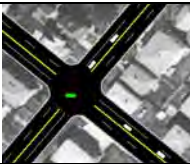
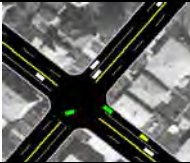

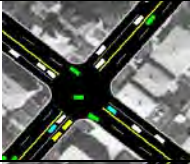
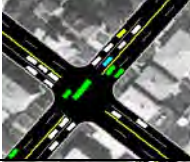
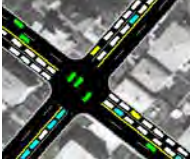
TECHNICAL APPENDIX

**LEVEL OF SERVICE/AVERAGE CONTROL DELAY
CRITERIA & COMPARISON TABLES**

LEVEL OF SERVICE /AVERAGE CONTROL DELAY CRITERIA

The ability of a roadway to effectively accommodate traffic demand is determined through an assessment of the volume-to-capacity ratio, delay and Level of Service of the lane group and/or intersection. The volume-to-capacity ratio is the ratio of traffic flow rate to capacity for a given transportation facility. As defined within the Highway Capacity Manual, 6th Edition (HCM), intersection delay is the total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility. Level of service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle and LOS F denotes operations with delay in excess of 80 seconds per vehicle.

	Level Of Service (LOS)	Signalized Delay Range (average control delay in sec/veh)	Unsignalized Delay Range (average control delay in sec/veh)
	A	<=10	<=10
	B	>10 and <=20	>10 and <=15
	C	>20 and <=35	>15 and <=25
	D	>35 and <=55	>25 and <=35
	E	>55 and <=80	>35 and <=50
	F	>80	>50

Source: Highway Capacity Manual, 6th Edition

STONEFIELD

Table A-1
Comparative Level of Service (Delay) Tables
X (n) = Level of Service (seconds of delay)

Intersection	Lane Group	2023 Build Condition (Summer Peak Period)				2023 Build Condition (Yearly Average)			
		Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Midday Peak Hour	Saturday Midday Peak Hour	Weekday Morning Peak Hour	Weekday Evening Peak Hour	Saturday Midday Peak Hour	Saturday Midday Peak Hour
NJSH Route 35 & Northerly Site Driveway	WB Right	B (13.9)	B (11.4)	B (11.9)	B (12.7)	B (10.9)	B (11.3)		
	WB Left/Right	D (32.9)	E (35.4)	D (30.7)	C (24.6)	D (25.9)	C (23.6)		
NJSH Route 35 & Southerly Site Driveway	SB Left/Through	A (9.9)	A (8.9)	A (9.2)	A (9.4)	A (8.6)	A (8.8)		
	WB Left/Through	A (9.9)	B (12.7)	B (12.3)	A (9.6)	B (11.9)	B (11.6)		
Asbury Avenue & Easterly Site Driveway	NB Left/Right	C (19.0)	D (25.0)	C (22.9)	C (17.4)	C (22.1)	C (20.4)		
	WB Left/Through	A (9.7)	B (12.3)	B (12.1)	A (9.4)	B (11.6)	B (11.4)		
Westerly Site Driveway	NB Left/Right	C (16.5)	D (28.0)	C (24.9)	C (15.3)	C (23.8)	C (21.6)		

**TRAFFIC COUNT DATA & SEASONAL
ADJUSTMENT FACTORS**

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey
Asbury Avenue between Colonial Avenue & Overbrook Avenue
ATR Summary - Hourly Volumes

Hour	6/3/2019 Monday			6/4/2019 Tuesday			6/5/2019 Wednesday			6/6/2019 Thursday			6/7/2019 Friday			6/8/2019 Saturday			6/9/2019 Sunday			Tuesday/Wednesday/Thursday Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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11:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Daily Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM Peak Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Midday Peak Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey
Asbury Avenue between Colonial Avenue & Overbrook Avenue
ATR Summary - Hourly Volumes

Hour	6/10/2019 Monday			6/11/2019 Tuesday			6/12/2019 Wednesday			6/13/2019 Thursday			6/14/2019 Friday			6/15/2019 Saturday			6/16/2019 Sunday			Tuesday/Wednesday/Thursday Average		
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	74	94	168	107	47	154	94	69	163	87	104	191	99	89	188	213	265	478	234	420	654	96	73	169
1:00 AM	44	44	88	39	22	61	41	49	90	50	49	99	59	39	98	143	219	362	206	313	519	43	40	83
2:00 AM	29	32	61	31	26	57	30	37	67	34	34	68	24	39	63	86	198	284	120	249	369	32	32	64
3:00 AM	13	34	47	22	32	54	16	41	57	24	34	58	23	28	51	48	64	112	39	77	116	21	36	57
4:00 AM	34	84	118	45	70	115	38	68	106	27	68	95	38	69	107	36	53	89	37	60	97	37	69	106
5:00 AM	88	214	302	104	203	307	94	221	315	86	184	270	108	196	304	54	96	150	43	51	94	95	203	298
6:00 AM	299	548	847	260	547	807	285	552	837	267	502	769	295	513	808	187	240	427	75	151	226	271	534	805
7:00 AM	535	725	1260	571	749	1320	673	770	1443	592	718	1310	654	796	1450	360	345	705	180	211	391	612	746	1358
8:00 AM	612	777	1389	610	820	1430	651	833	1484	614	755	1369	702	768	1470	638	457	1095	351	359	710	625	803	1428
9:00 AM	510	557	1067	595	570	1165	607	549	1156	590	534	1124	714	610	1324	939	529	1468	579	529	1108	597	551	1148
10:00 AM	536	491	1027	626	532	1158	643	528	1171	500	486	986	728	577	1305	1096	588	1684	750	583	1333	590	515	1105
11:00 AM	517	521	1038	643	519	1162	639	484	1123	601	505	1106	880	622	1502	1154	697	1851	960	669	1629	628	503	1131
12:00 PM	597	560	1157	700	576	1276	652	581	1233	668	618	1286	921	681	1602	1137	708	1845	878	682	1560	673	592	1265
1:00 PM	544	554	1098	676	563	1239	708	593	1301	640	601	1241	928	699	1627	1090	741	1831	920	881	1801	675	586	1261
2:00 PM	615	674	1289	698	713	1411	715	688	1403	682	636	1318	900	771	1671	1140	898	2038	780	822	1602	698	679	1377
3:00 PM	742	653	1395	843	748	1591	877	737	1614	847	661	1508	1097	788	1885	1238	851	2089	687	721	1408	856	715	1571
4:00 PM	849	654	1503	937	724	1661	1067	729	1796	988	679	1667	1150	713	1863	1255	852	2107	703	679	1382	997	711	1708
5:00 PM	895	593	1488	1145	673	1818	1156	712	1868	1083	681	1764	1255	703	1958	1222	797	2019	711	628	1339	1128	689	1817
6:00 PM	781	470	1251	860	573	1433	1021	607	1628	875	491	1366	1089	610	1699	1159	882	2041	650	659	1309	919	557	1476
7:00 PM	567	392	959	734	476	1210	775	463	1238	718	424	1142	1006	563	1569	891	835	1726	514	538	1052	742	454	1196
8:00 PM	469	296	765	540	405	945	592	537	1129	577	411	988	755	531	1286	762	698	1460	492	417	909	570	451	1021
9:00 PM	320	309	629	361	337	698	450	393	843	460	354	814	672	557	1229	643	714	1357	353	306	659	424	361	785
10:00 PM	205	182	387	284	256	540	268	299	567	301	234	535	544	511	1055	584	561	1145	221	211	432	284	263	547
11:00 PM	161	99	260	177	188	365	209	190	399	180	156	336	411	378	789	452	502	954	163	124	287	189	178	367
Daily Total	10036	9557	19593	11608	10369	21977	12301	10730	23031	11491	9919	21410	15052	11851	26903	16527	12790	29317	10646	10340	20986	11802	10341	22143
AM Peak Volume	7:30 AM 617	7:30 AM 801	7:30 AM 1418	8:15 AM 665	7:30 AM 877	7:30 AM 1504	7:30 AM 771	7:30 AM 883	7:30 AM 1654	7:30 AM 645	7:30 AM 794	7:30 AM 1439	9:15 AM 722	7:30 AM 858	7:30 AM 1578	9:45 AM 1091	9:45 AM 572	9:45 AM 1663	9:45 AM 696	9:45 AM 590	9:45 AM 1286	7:30 AM 681	7:30 AM 851	7:30 AM 1532
Midday Peak Volume	11:45 AM 610	1:45 PM 621	1:45 PM 1200	12:00 PM 700	1:45 PM 691	1:45 PM 1365	1:00 PM 708	1:45 PM 657	1:45 PM 1346	1:45 PM 677	12:30 PM 629	12:00 PM 1286	12:45 PM 956	1:45 PM 761	12:45 PM 1664	11:00 AM 1154	1:45 PM 869	1:45 PM 1988	11:15 AM 966	1:15 PM 916	1:15 PM 1811	1:45 PM 680	1:45 PM 650	1:45 PM 1330
PM Peak Volume	5:00 PM 895	2:45 PM 684	4:30 PM 1542	5:00 PM 1145	2:45 PM 752	4:45 PM 1848	5:00 PM 1156	2:30 PM 760	4:45 PM 1872	4:45 PM 1086	4:45 PM 701	4:45 PM 1787	3:00 PM 1255	5:00 PM 788	5:00 PM 1958	4:15 PM 1296	2:00 PM 898	4:15 PM 2181	2:00 PM 780	2:00 PM 822	2:00 PM 1602	5:00 PM 1128	2:30 PM 728	4:45 PM 1836

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey
NJSH Route 35 - 500' north of Bangs Avenue
ATR Summary - Hourly Volumes

Hour	6/3/2019 Monday			6/4/2019 Tuesday			6/5/2019 Wednesday			6/6/2019 Thursday			6/7/2019 Friday			6/8/2019 Saturday			6/9/2019 Sunday			Tuesday/Wednesday/Thursday Average		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
1:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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7:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Daily Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM Peak Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Midday Peak Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Proposed Mixed-Use Development - NJSH Route 35 & Asbury Avenue - Township of Neptune, Monmouth County, New Jersey
NJSH Route 35 - 500' north of Bangs Avenue
ATR Summary - Hourly Volumes

Hour	6/10/2019 Monday			6/11/2019 Tuesday			6/12/2019 Wednesday			6/13/2019 Thursday			6/14/2019 Friday			6/15/2019 Saturday			6/16/2019 Sunday			Tuesday/Wednesday/ Thursday Average		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	64	119	183	64	115	179	96	127	223	68	117	185	89	157	246	-	-	-	-	-	-	76	120	196
1:00 AM	42	47	89	37	67	104	61	78	139	54	63	117	62	90	152	-	-	-	-	-	-	51	69	120
2:00 AM	27	28	55	27	27	54	64	54	118	35	41	76	37	33	70	-	-	-	-	-	-	42	41	83
3:00 AM	28	26	54	33	29	62	35	31	66	28	32	60	30	23	53	-	-	-	-	-	-	32	31	63
4:00 AM	56	38	94	73	51	124	69	59	128	64	55	119	72	51	123	-	-	-	-	-	-	69	55	124
5:00 AM	140	116	256	148	128	276	152	141	293	139	125	264	143	128	271	-	-	-	-	-	-	146	131	277
6:00 AM	379	311	690	363	303	666	380	310	690	351	296	647	345	313	658	-	-	-	-	-	-	365	303	668
7:00 AM	548	503	1051	578	603	1181	607	647	1254	582	602	1184	592	644	1236	-	-	-	-	-	-	589	617	1206
8:00 AM	617	589	1206	609	567	1176	603	645	1248	634	559	1193	607	668	1275	-	-	-	-	-	-	615	590	1205
9:00 AM	545	630	1175	569	602	1171	563	654	1217	490	597	1087	575	739	1314	-	-	-	-	-	-	541	618	1159
10:00 AM	537	647	1184	520	699	1219	524	701	1225	529	607	1136	566	833	1399	-	-	-	-	-	-	524	669	1193
11:00 AM	582	695	1277	587	773	1360	591	786	1377	636	717	1353	601	905	1506	-	-	-	-	-	-	605	759	1364
12:00 PM	557	789	1346	622	821	1443	614	817	1431	618	821	1439	645	914	1559	-	-	-	-	-	-	618	820	1438
1:00 PM	595	827	1422	585	803	1388	582	791	1373	583	788	1371	651	884	1535	-	-	-	-	-	-	583	794	1377
2:00 PM	580	837	1417	578	845	1423	609	803	1412	591	834	1425	655	933	1588	-	-	-	-	-	-	593	827	1420
3:00 PM	593	901	1494	629	878	1507	634	878	1512	638	935	1573	621	944	1565	-	-	-	-	-	-	634	897	1531
4:00 PM	559	909	1468	554	927	1481	540	933	1473	567	911	1478	538	969	1507	-	-	-	-	-	-	554	924	1478
5:00 PM	514	881	1395	534	961	1495	526	951	1477	510	964	1474	516	967	1483	-	-	-	-	-	-	523	959	1482
6:00 PM	447	812	1259	524	900	1424	509	872	1381	506	857	1363	570	966	1536	-	-	-	-	-	-	513	876	1389
7:00 PM	399	589	988	474	748	1222	438	742	1180	466	731	1197	516	827	1343	-	-	-	-	-	-	459	740	1199
8:00 PM	349	560	909	468	678	1146	416	612	1028	416	647	1063	472	759	1231	-	-	-	-	-	-	433	646	1079
9:00 PM	284	413	697	371	567	938	341	567	908	347	538	885	421	692	1113	-	-	-	-	-	-	353	557	910
10:00 PM	169	270	439	284	362	646	226	355	581	224	359	583	364	556	920	-	-	-	-	-	-	245	359	604
11:00 PM	128	211	339	188	244	432	186	245	431	172	271	443	260	381	641	-	-	-	-	-	-	182	253	435
Daily Total	8739	11748	20487	9419	12698	22117	9366	12799	22165	9248	12467	21715	9948	14376	24324	-	-	-	-	-	-	9345	12655	22000
AM Peak Volume	7:45 AM 629	8:45 AM 669	8:15 AM 1233	7:30 AM 649	8:45 AM 649	7:30 AM 1269	7:30 AM 685	8:45 AM 691	7:30 AM 1335	7:15 AM 647	8:15 AM 635	7:30 AM 1250	7:45 AM 650	8:45 AM 806	9:45 AM 1363	-	-	-	-	-	-	7:30 AM 666	8:45 AM 648	9:45 AM 1284
Midday Peak Volume	1:15 PM 601	1:00 PM 827	1:00 PM 1422	1:30 PM 637	1:30 PM 834	12:00 PM 1443	11:30 AM 631	1:15 PM 828	11:45 AM 1435	11:15 AM 676	12:00 PM 821	1:30 AM 1453	1:30 PM 677	1:45 PM 930	1:30 PM 1599	-	-	-	-	-	-	11:30 AM 642	12:00 PM 820	1:00 PM 1438
PM Peak Volume	3:30 PM 598	4:15 PM 922	3:30 PM 1513	3:00 PM 629	4:45 PM 976	4:15 PM 1514	3:00 PM 634	5:15 PM 954	3:15 PM 1535	2:45 PM 663	5:00 PM 964	3:15 PM 1575	2:00 PM 655	3:45 PM 980	2:00 PM 1588	-	-	-	-	-	-	2:45 PM 639	5:00 PM 959	3:00 PM 1531

New Jersey Department Of Transportation

Seasonal Factors 2019

Region 1 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.150	1.090	1.020	0.986	0.957	0.949	0.966	0.950	0.974	0.969	1.000	1.064
	2	1.085	1.037	0.996	0.961	0.975	0.965	1.007	1.005	0.969	0.971	1.001	1.044
	3	1.072	1.035	1.007	0.986	0.987	0.959	0.993	0.975	0.974	0.977	1.009	1.049
	4	1.047	1.078	1.010	0.997	0.976	0.933	1.021	1.039	0.968	0.955	1.021	1.007
	5	1.125	1.054	0.981	0.958	0.899	0.864	0.975	1.041	1.007	0.908	1.059	1.045
	6	1.239	1.246	1.035	0.977	1.053	0.941	0.898	0.943	1.031	1.059	0.988	1.134
	7	1.002	1.066	0.955	1.041	0.970	0.923	0.915	1.001	0.956	1.014	0.993	1.018
Urban	1	1.150	1.090	1.020	0.986	0.957	0.949	0.966	0.950	0.974	0.969	1.000	1.064
	2	1.085	1.037	0.996	0.961	0.975	0.965	1.007	1.005	0.969	0.971	1.001	1.044
	3	1.072	1.035	1.007	0.986	0.987	0.959	0.993	0.975	0.974	0.977	1.009	1.049
	4	1.047	1.078	1.010	0.997	0.976	0.933	1.021	1.039	0.968	0.955	1.021	1.007
	5	1.024	1.031	0.976	0.973	0.967	0.946	1.012	1.033	0.958	1.010	1.023	1.064
	6	1.239	1.246	1.035	0.977	1.053	0.937	0.898	0.943	1.031	1.059	0.988	1.134
	7	1.002	1.066	0.955	1.041	0.970	0.923	0.915	1.001	0.956	1.014	0.993	1.018

Region 2 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.140	1.077	1.060	1.004	0.999	0.952	0.946	0.923	1.008	0.996	1.022	1.067
	2	1.232	1.094	1.069	0.991	0.971	0.925	0.949	0.924	0.961	0.961	1.160	1.008
	3	1.149	1.130	1.028	0.979	0.949	0.906	0.904	0.923	0.953	0.953	0.990	1.042
	4	1.072	1.077	1.025	0.978	0.950	0.929	0.975	0.987	0.981	1.009	1.040	1.034
	5	1.026	1.076	1.009	0.980	0.927	0.959	0.993	0.997	0.932	1.009	1.061	1.091
	6	1.059	1.069	0.998	0.946	0.922	0.952	1.004	1.062	0.926	0.987	1.063	1.106
	7	1.116	1.093	1.091	0.934	0.893	0.867	0.877	1.036	1.061	1.012	1.054	1.035
Urban	1	1.192	1.157	1.092	1.064	0.975	0.944	0.899	0.876	0.980	0.982	1.025	1.014
	2	1.232	1.094	1.069	0.991	0.971	0.925	0.949	0.924	0.961	0.961	1.160	1.008
	3	1.116	1.087	1.029	0.982	0.963	0.936	0.971	0.953	0.973	0.962	1.014	1.059
	4	1.080	1.046	1.001	0.975	0.962	0.954	1.041	1.016	0.956	0.943	1.004	1.042
	5	1.058	1.075	0.967	0.971	0.985	0.963	0.939	0.961	0.978	0.987	1.042	1.074
	6	1.201	1.222	1.093	0.954	0.930	0.912	0.888	0.918	0.997	1.056	1.065	1.084
	7	1.056	0.990	0.966	0.962	0.952	0.963	1.073	1.017	0.992	1.009	0.971	1.021

Region 3 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.252	1.214	1.123	1.006	0.955	0.886	0.853	0.835	0.934	0.962	1.070	1.109
	2	1.102	1.031	1.023	0.958	1.008	0.980	1.014	0.996	0.963	0.957	0.981	1.034
	3	1.231	1.180	1.061	0.972	0.925	0.846	0.861	0.870	0.960	0.970	1.042	1.141
	4	1.157	1.075	1.027	0.980	0.961	0.946	0.933	0.963	0.954	0.960	1.036	1.050
	5	1.153	1.137	1.009	0.971	0.963	0.928	0.953	0.911	0.956	0.941	1.088	1.080
	6	1.153	1.137	1.009	0.971	0.963	0.928	0.953	0.911	0.956	0.941	1.088	1.080
	7	1.153	1.137	1.009	0.971	0.963	0.928	0.953	0.911	0.956	0.941	1.088	1.080
Urban	1	1.107	1.094	1.013	0.954	0.975	0.939	1.019	0.987	0.985	0.978	1.023	1.051
	2	1.102	1.031	1.023	0.958	1.008	0.980	1.014	0.996	0.963	0.957	0.981	1.034
	3	1.106	1.074	1.020	0.990	0.993	0.938	0.961	0.964	0.972	0.982	1.012	1.035
	4	1.081	1.050	0.996	0.964	0.965	0.945	0.986	1.007	0.966	0.973	1.039	1.040
	5	1.073	1.063	1.034	0.958	0.955	0.948	1.040	1.057	0.950	0.979	1.022	1.090
	6	1.073	1.063	1.034	0.958	0.955	0.948	1.040	1.057	0.950	0.979	1.022	1.090
	7	1.073	1.063	1.034	0.958	0.955	0.948	1.040	1.057	0.950	0.979	1.022	1.090

Route 35

Region 4 2019		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rural	1	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	2	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	3	1.291	1.221	1.117	1.037	0.956	0.807	0.749	0.736	0.910	1.037	1.150	1.241
	4	1.247	1.266	1.132	1.018	0.938	0.852	0.809	0.859	0.960	1.047	1.179	1.207
	5	1.131	1.090	1.112	1.045	1.007	0.950	0.855	0.913	0.967	1.011	1.082	1.077
	6	1.183	1.086	1.140	1.045	0.947	0.862	0.911	0.850	0.937	1.028	1.149	1.127
	7	1.273	1.193	1.167	0.954	0.955	0.844	0.808	0.860	0.901	1.055	1.128	1.190
Urban	1	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	2	1.224	1.166	1.098	1.054	0.954	0.860	0.800	0.836	0.949	1.058	1.135	1.188
	3	1.275	1.200	1.102	1.042	0.942	0.859	0.830	0.810	0.939	1.051	1.169	1.193
	4	1.145	1.109	1.025	0.992	0.968	0.913	0.910	0.922	0.982	1.019	1.089	1.089
	5	1.168	1.158	1.083	1.009	0.941	0.900	0.813	0.918	0.910	0.969	1.150	1.265
	6	1.168	1.158	1.083	1.009	0.941	0.900	0.813	0.918	0.910	0.969	1.150	1.265
	7	1.168	1.158	1.083	1.009	0.941	0.900	0.813	0.918	0.910	0.969	1.150	1.265

Asbury Ave

NJDOT TIME OF DAY FACTOR CALCULATIONS

STONEFIELD

Table A-2
Saturday Midday Time of Day Factor Adjustments

Land Use Code	Land Use	Size	Weekend 3:30 PM TOD Factor	Maximum Weekend TOD Factor	Saturday Midday Peak Hour TOD Adjustment
820	Shopping Center	8,000 SF	8.5	8.8	96.6%
854	Discount Supermarket	20,442 SF	8.9	10.6	84.0%
934	Fast Food Restaurant with Drive Through	3,316	7.4	10.3	71.8%
960	Super Convenience Store/Gas Station	4,500 SF	8.0	8.3	96.4%

Land Use 820 - Shopping Center

Time	Average Weekday ^a		Average Saturday ^b		Average Sunday ^c	
	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic	Percent of 24-Hour Entering Traffic	Percent of 24-Hour Exiting Traffic
6 a.m.–7 a.m.	0.8	0.3	0.2	0.2	0.2	0.1
7 a.m.–8 a.m.	2.0	0.9	0.9	0.4	0.4	0.3
8 a.m.–9 a.m.	3.1	1.2	2.7	1.0	0.9	0.5
9 a.m.–10 a.m.	5.5	2.0	5.5	2.2	1.7	1.1
10 a.m.–11 a.m.	7.0	4.3	8.6	4.8	3.8	2.5
11 a.m.–12 p.m.	8.4	6.2	10.8	7.5	10.0	4.6
12 p.m.–1 p.m.	9.4	8.3	11.8	9.3	15.1	7.9
1 p.m.–2 p.m.	8.2	8.6	12.1	10.3	16.7	12.0
2 p.m.–3 p.m.	7.7	8.9	11.8	11.8	15.8	14.7
3 p.m.–4 p.m.	7.8	8.8	10.7	12.5	13.0	15.6
4 p.m.–5 p.m.	8.0	8.9	8.8	12.5	9.4	15.8
5 p.m.–6 p.m.	8.4	9.2	5.3	11.3	5.1	13.0
6 p.m.–7 p.m.	8.0	7.5	3.3	6.7	2.3	4.6
7 p.m.–8 p.m.	7.9	7.2	2.7	2.9	1.7	1.9
8 p.m.–9 p.m.	4.3	7.7	1.8	2.2	1.1	1.3
9 p.m.–10 p.m.	1.8	7.2	1.0	1.6	0.7	1.1
10 p.m.–6 a.m.	1.7	2.8	2.0	2.8	2.1	3.0

Sites ranged in size from 11,000 to 1,750,000 square feet gross leasable area

^a Source numbers – 13, 73, 88, 190, 217, 220, 225 and 376; based on ten studies

^b Source numbers – 13, 73, 88, 190, 220, 225 and 376; based on nine studies

^c Source numbers – 13, 73, 88, 190, 220 and 225; based on eight studies

Percent of Daily Traffic During the 60-Minute Period Beginning at Displayed Time

Land Use	850 Supermarket								851 Convenience Market							
	Setting		Dense Multi-Use Urban						Setting		Dense Multi-Use Urban					
Time Period	Weekday		Weekday		Saturday		Sunday		Weekday		Weekday		Saturday		Sunday	
Trip Type	Vehicle		Vehicle		Vehicle		Vehicle		Vehicle		Person		Person		Person	
# Data Sites	1		1		1		1		2		3		3		3	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0.0	7.3	0.0	9.7	0.0	9.5	0.0	11.9	0.0	6.8	0.5	9.9	1.9	6.9	1.8	6.4
12:15	0.0	7.3	0.0	9.5	0.0	9.8	0.0	11.1	0.0	4.6	0.4	8.7	1.5	6.9	1.1	6.6
12:30	0.0	7.2	0.0	9.1	0.0	10.0	0.0	10.8	0.0	4.1	0.3	7.9	1.3	6.4	0.9	6.2
12:45	0.0	7.4	0.0	8.9	0.0	9.3	0.0	10.8	0.0	4.4	0.3	8.0	1.4	5.5	1.0	6.7
1:00	0.0	7.3	0.0	8.6	0.0	10.0	0.0	11.2	0.0	3.9	0.5	8.2	1.1	5.3	0.9	7.1
1:15	0.0	7.7	0.0	8.5	0.0	9.6	0.0	11.4	0.0	5.8	0.5	7.5	1.2	5.2	0.9	7.3
1:30	0.0	7.8	0.0	8.6	0.0	9.5	0.0	11.0	0.0	5.8	0.5	6.9	1.2	5.3	1.0	7.4
1:45	0.0	7.7	0.0	8.5	0.0	9.9	0.0	10.5	0.0	8.3	0.5	6.2	1.0	5.5	0.9	7.4
2:00	0.0	7.3	0.0	8.4	0.0	9.9	0.0	10.7	0.0	6.6	0.6	5.4	0.9	6.0	0.8	8.0
2:15	0.0	7.6	0.0	8.4	0.0	10.4	0.0	10.4	0.0	5.3	0.6	6.0	0.7	5.7	0.8	9.1
2:30	0.0	7.5	0.0	8.5	0.0	10.6	0.0	10.8	0.0	4.6	0.6	6.2	0.9	5.5	0.6	8.9
2:45	0.0	7.9	0.0	8.7	0.0	10.0	0.0	10.9	0.0	3.2	0.6	6.2	1.0	6.0	0.4	8.6
3:00	0.0	8.1	0.0	9.2	0.0	9.0	0.0	10.8	0.0	3.9	0.5	6.2	1.0	5.5	0.7	7.9
3:15	0.0	8.7	0.0	9.5	0.0	9.0	0.0	11.4	0.0	4.1	0.5	5.6	1.2	5.7	0.9	7.5
3:30	0.0	9.8	0.0	9.7	0.0	8.9	0.0	11.6	0.0	6.1	0.4	5.0	0.8	6.4	1.0	8.1
3:45	0.0	9.9	0.0	9.8	0.0	9.7	0.0	11.7	0.0	4.4	0.3	5.2	0.8	6.2	1.2	8.3
4:00	0.0	10.4	0.0	9.8	0.0	10.3	0.0	11.0	0.0	11.9	0.3	5.7	0.9	6.9	0.9	8.9
4:15	0.0	10.2	0.0	9.6	0.0	10.0	0.0	10.5	0.0	14.8	0.2	5.5	1.1	6.8	1.3	7.9
4:30	0.0	9.9	0.0	9.4	0.0	9.6	0.0	9.9	0.0	14.3	0.4	5.4	1.6	6.8	1.1	7.9
4:45	0.0	9.8	0.0	9.7	0.0	8.7	0.0	9.6	0.0	17.7	0.8	4.4	2.1	6.3	1.2	7.7
5:00	0.0	10.0	0.0	10.1	0.0	8.7	0.0	8.7	0.0	12.1	1.3	4.1	2.7	6.1	1.2	7.4
5:15	0.3	9.9	0.0	10.7	0.1	8.5	0.1	7.7	0.0	10.7	2.0	4.5	2.6	6.2	0.8	7.7
5:30	0.3	10.3	0.0	10.4	0.2	8.4	0.1	6.7	0.0	11.7	2.9	4.9	2.7	5.7	1.2	7.3
5:45	0.4	9.6	0.1	9.7	0.2	8.4	0.1	5.3	0.2	13.6	3.8	5.7	3.0	5.9	1.4	7.9
6:00	0.6	9.0	0.2	8.8	0.3	7.8	0.1	4.7	0.2	15.0	5.1	5.8	2.8	5.4	1.9	7.7
6:15	0.7	8.2	0.3	7.7	0.2	7.2	0.0	4.0	1.2	12.1	5.5	5.7	3.2	5.6	2.1	6.8
6:30	1.3	7.5	0.3	7.4	0.2	7.0	0.1	3.3	4.4	9.7	5.3	5.6	2.9	5.4	2.1	6.8
6:45	2.2	7.4	0.4	6.7	0.4	5.9	0.1	3.0	5.8	4.1	5.3	5.2	2.3	6.1	2.5	6.0
7:00	3.1	6.2	0.5	6.1	0.7	5.3	0.3	2.6	7.8	0.0	4.5	4.7	2.2	6.6	2.6	6.1
7:15	3.9	6.0	1.1	5.5	1.1	4.9	0.6	2.4	8.5	0.0	4.4	4.7	2.1	6.1	3.0	6.4
7:30	5.0	4.2	2.1	4.4	1.6	4.2	1.2	2.5	7.0	0.0	4.5	4.5	2.2	6.3	3.2	6.6
7:45	5.5	3.3	2.7	4.2	2.4	3.8	2.2	2.2	8.7	0.0	4.3	4.4	2.3	5.4	3.2	6.9
8:00	5.4	4.0	3.3	4.0	2.9	3.6	2.7	2.1	7.3	0.0	4.3	4.3	2.7	4.7	2.9	7.2
8:15	5.4	3.0	3.6	3.4	3.6	3.0	3.2	2.1	7.8	0.0	5.2	4.0	3.0	5.1	3.2	7.2
8:30	4.9	3.0	3.7	3.5	4.1	2.6	3.9	1.6	6.3	0.0	6.1	3.9	3.6	5.0	3.3	6.3
8:45	4.8	3.3	4.2	3.3	4.5	2.6	3.8	1.6	5.6	0.0	7.4	3.8	4.2	5.3	3.9	5.5
9:00	5.3	4.1	4.5	3.0	4.9	2.3	4.4	1.5	8.3	0.0	7.8	4.0	4.6	5.7	4.4	4.0
9:15	5.3	3.8	4.6	2.6	5.3	2.0	4.9	1.2	9.7	0.0	7.4	4.0	4.8	5.2	4.0	3.4
9:30	5.5	3.4	4.6	1.8	5.8	1.6	5.4	1.0	10.7	0.0	6.6	3.5	5.3	5.9	4.2	3.0
9:45	6.0	2.3	4.8	1.2	6.1	1.0	6.5	0.7	9.5	0.0	5.8	3.6	5.5	5.6	3.6	2.9
10:00	5.2	0.2	5.0	0.6	6.6	0.6	7.0	0.5	7.5	0.0	5.4	3.1	5.7	5.2	3.2	2.7
10:15	5.8	0.0	5.6	0.3	7.2	0.4	7.9	0.3	6.1							
10:30	6.0	0.0	6.5	0.2	7.4	0.2	8.4	0.2	7.5							
10:45	6.1	0.0	7.2	0.1	7.4	0.1	8.5	0.1	7.8							
11:00	6.6	0.0	8.3	0.0	7.4	0.1	10.0	0.0	8.7							
11:15	6.3	0.0	9.0	0.0	7.5	0.0	10.8	0.0	9.2							
11:30	6.5	0.0	9.7	0.0	7.9	0.0	11.5	0.0	7.8							
11:45	6.4	0.0	9.8	0.0	9.3	0.0	12.3	0.0	6.8	0.0	10.5	0.9	7.2	2.3	6.4	1.8

NOTE: ITE does not provide weekend time-of-day data for Land Use 854 "Discount Supermarket." Comparable Land Use 850 Supermarket" was utilized.

Percent of Daily Traffic During the 60-Minute Period Beginning at Displayed Time

Land Use	933 Fast-Food Restaurant without Drive-Through Window		934 Fast-Food Restaurant with Drive-Through Window									
	General Urban/Suburban		General Urban/Suburban						Dense Multi-Use Urban			
Setting	General Urban/Suburban		Weekday		Saturday		Sunday		Weekday		Saturday	
Time Period	Weekday		Weekday		Saturday		Sunday		Weekday		Saturday	
Trip Type	Vehicle		Vehicle		Vehicle		Vehicle		Vehicle		Vehicle	
# Data Sites	4		46		6		4		1		1	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	1.1	14.6	0.9	11.8	0.4	10.1	0.4	8.9	0.3	10.6	0.6	7.6
12:15	0.5	15.4	0.8	11.2	0.3	10.3	0.4	9.3	0.2	10.0	0.2	8.2
12:30	0.7	14.3	0.7	10.2	0.1	10.0	0.3	9.7	0.3	9.0	0.2	6.6
12:45	0.7	13.9	0.5	9.3	0.1	9.5	0.2	9.5	0.3	7.8	0.1	6.1
1:00	1.0	11.7	0.5	8.3	0.1	8.7	0.1	9.2	0.3	7.0	0.1	6.0
1:15	1.0	10.5	0.4	7.6	0.1	8.3	0.0	8.6	0.3	5.6	0.5	6.3
1:30	0.6	8.8	0.4	7.1	0.1	8.0	0.1	8.1	0.2	5.3	0.5	6.5
1:45	0.5	8.2	0.4	6.6	0.1	8.1	0.1	7.9	0.2	4.9	0.5	7.6
2:00	0.0	7.7	0.4	6.1	0.1	7.8	0.1	7.6	0.0	4.3	0.4	7.9
2:15	0.0	7.7	0.3	5.7	0.1	7.7	0.1	8.0	0.0	5.0	0.1	9.0
2:30	0.0	8.1	0.3	5.5	0.1	7.5	0.0	8.3	0.0	4.9	0.1	9.5
2:45	0.0	8.1	0.3	5.4	0.1	7.2	0.0	8.4	0.0	5.2	0.1	8.0
3:00	0.0	9.1	0.3	5.6	0.1	7.3	0.0	8.4	0.0	5.7	0.1	8.0
3:15	0.0	8.0	0.3	5.6	0.0	7.3	0.0	8.4	0.0	5.3	0.0	6.8
3:30	0.0	7.1	0.3	5.6	0.1	7.4	0.0	8.0	0.0	5.7	0.0	6.1
3:45	0.0	6.1	0.3	5.7	0.1	7.3	0.0	8.1	0.0	5.8	0.0	5.7
4:00	0.0	5.1	0.3	5.6	0.1	7.4	0.0	8.3	0.0	5.8	0.0	4.7
4:15	0.0	4.9	0.4	5.8	0.2	7.4	0.0	8.6	0.0	6.0	0.3	4.3
4:30	0.0	4.9	0.6	6.1	0.2	7.6	0.0	9.4	0.0	6.5	0.5	4.3
4:45	0.0	5.8	0.7	6.3	0.2	8.3	0.0	9.5	0.0	6.8	0.5	4.9
5:00	0.0	6.5	0.7	6.6	0.1	8.4	0.1	9.9	0.0	7.2	0.5	6.4
5:15	0.0	7.0	1.0	6.8	0.2	8.5	0.2	10.3	0.0	7.3	0.2	6.9
5:30	0.0	8.0	1.2	7.1	0.3	8.6	0.3	10.3	0.0	7.4	0.0	8.2
5:45	0.1	6.9	1.6	7.3	0.4	8.3	0.4	11.1	0.0	7.7	0.0	9.0
6:00	0.1	6.6	2.1	7.3	0.4	8.2	0.5	10.9	0.1	8.1	0.1	9.4
6:15	0.2	6.7	2.4	7.2	0.6	8.4	0.5	10.8	0.1	8.1	0.3	9.7
6:30	0.4	5.4	2.7	7.0	0.6	8.3	0.6	10.9	0.1	7.9	0.3	8.8
6:45	0.4	5.0	2.9	6.8	0.7	8.2	0.7	10.6	0.2	8.3	0.3	8.2
7:00	0.6	4.4	3.0	6.5	1.0	8.0	0.8	10.6	0.2	8.2	0.2	7.6
7:15	0.7	4.2	3.2	6.3	1.2	7.6	0.8	10.2	0.3	8.6	0.2	8.3
7:30	0.7	4.8	3.2	6.2	1.2	7.5	0.8	9.6	0.3	8.8	0.2	9.8
7:45	0.7	5.2	3.3	6.1	1.4	7.5	0.8	8.5	0.3	7.8	0.3	9.8
8:00	0.7	5.5	3.3	5.9	1.5	7.3	0.8	7.6	0.3	8.6	0.4	9.7
8:15	0.9	5.2	3.3	5.7	1.6	7.1	0.9	6.8	0.2	9.1	0.2	9.1
8:30	1.1	4.8	3.2	5.5	1.8	7.0	1.3	5.6	0.3	9.0	0.3	8.5
8:45	1.5	4.4	3.3	4.9	1.9	6.9	1.5	4.8	0.3	9.5	0.2	9.1
9:00	1.8	4.4	3.2	4.6	2.1	6.7	2.1	4.0	0.3	8.9	0.2	10.0
9:15	2.1	4.1	3.3	4.2	2.2	6.1	2.4	3.1	0.2	8.0	0.5	12.0
9:30	2.1	3.3	3.4	3.6	2.3	5.2	2.4	2.5	0.4	7.6	0.8	10.8
9:45	2.7	3.2	3.5	3.4	2.5	4.0	2.6	1.8	0.9	8.8	1.5	10.2
10:00	3.8	2.1	3.9	3.0	3.0	3.2	2.4	1.4	1.3	9.4	1.7	8.7
10:15	5.7	1.7	4.5	2.6	3.4	2.7	2.6	1.0	2.5	10.0	2.0	5.5
10:30	8.0	1.6	5.5	2.3	4.2	2.0	3.1	0.8	4.1	9.8	2.4	6.0
10:45	9.6	1.7	6.9	2.0	5.6	1.8	4.3	0.8	5.9	7.2	3.2	5.4
11:00	11.6	1.6	8.4	1.8	6.6	1.4	5.0	0.6	8.3	5.3	4.6	5.0
11:15	11.9	1.7	9.9	1.5	7.7	1.0	6.3	0.5	10.2	2.9	5.0	4.6
11:30	13.9	1.5	11.1	1.3	8.9	1.0	7.3	0.4	10.8	1.5	7.1	2.6
11:45	14.2	1.0	11.6	1.1	9.4	0.6	7.8	0.3	11.3	1.0	7.6	1.8

Percent of Daily Traffic During the 60-Minute Period Beginning at Displayed Time

Land Use	944 Gasoline/Service Station						945 Gasoline/Service Station with Convenience Market			
	General Urban/Suburban						Center City Core		General Urban/Suburban	
Setting	General Urban/Suburban						Center City Core		General Urban/Suburban	
Time Period	Weekday		Saturday		Sunday		Weekday		Weekday	
Trip Type	Vehicle		Vehicle		Vehicle		Vehicle		Vehicle	
# Data Sites	16		1		1		1		14	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0.8	6.6	2.2	6.0	1.7	7.1	0.4	5.9	1.1	5.9
12:15	0.6	6.4	2.1	6.0	1.1	7.2	0.4	6.5	0.9	5.9
12:30	0.4	6.2	1.6	5.7	1.1	6.7	0.2	7.0	0.8	5.8
12:45	0.4	6.2	1.8	5.9	1.3	6.0	0.2	6.7	0.7	5.7
1:00	0.3	6.0	1.6	5.7	1.1	6.4	0.2	6.8	0.6	5.6
1:15	0.3	6.1	1.6	5.8	0.9	5.4	0.2	6.8	0.6	5.8
1:30	0.2	6.0	1.3	5.9	0.7	5.8	0.1	6.4	0.5	5.9
1:45	0.2	6.2	1.1	6.8	0.5	7.9	0.0	6.7	0.4	6.0
2:00	0.1	6.3	1.1	6.1	0.4	8.2	0.2	7.2	0.5	6.1
2:15	0.1	6.2	0.9	5.2	0.6	8.2	0.2	7.0	0.4	6.0
2:30	0.1	6.7	0.7	5.5	0.6	8.3	0.3	7.2	0.5	6.1
2:45	0.2	6.8	0.7	5.6	0.5	7.3	0.3	7.8	0.6	6.3
3:00	0.2	7.2	0.5	6.4	0.7	6.5	0.1	7.8	0.6	6.6
3:15	0.2	7.5	0.6	7.6	0.6	6.4	0.1	8.1	0.7	6.8
3:30	0.3	7.4	0.6	8.0	0.9	5.9	0.1	8.2	0.8	7.1
3:45	0.4	7.5	0.4	7.8	1.1	5.9	0.1	7.8	0.9	7.0
4:00	0.4	7.4	0.3	7.2	0.8	6.3	0.1	7.9	1.1	6.8
4:15	0.6	7.7	0.4	8.3	0.7	7.0	0.1	8.3	1.3	6.7
4:30	0.7	7.6	0.4	7.6	0.8	7.6	0.3	8.9	1.5	6.8
4:45	0.9	7.4	0.5	7.5	0.9	7.3	0.4	9.5	1.8	6.8
5:00	1.1	7.5	0.8	7.6	1.1	6.4	0.7	10.0	2.3	6.8
5:15	1.5	7.5	1.0	5.7	1.6	5.5	0.9	9.8	3.0	6.7
5:30	2.0	7.8	1.2	5.1	1.8	5.0	1.6	8.6	3.7	6.5
5:45	2.4	7.8	1.7	4.8	1.9	5.3	2.1	7.9	4.4	6.3
6:00	2.8	7.7	1.8	5.1	2.5	5.3	2.4	6.8	4.8	6.1
6:15	3.2	7.2	2.2	5.3	3.0	5.0	3.7	5.9	5.1	5.9
6:30	3.5	6.7	2.6	5.6	4.1	5.2	4.4	5.6	5.4	5.5
6:45	4.2	6.5	2.9	5.1	4.5	4.7	4.9	5.6	5.7	5.2
7:00	5.0	6.1	3.5	4.6	4.6	4.5	5.1	5.1	6.1	4.9
7:15	5.3	6.2	3.6	4.1	4.9	4.7	4.9	4.4	6.2	4.7
7:30	5.7	6.2	4.4	3.6	5.1	3.9	4.8	4.3	6.2	4.4
7:45	5.6	5.8	5.5	3.8	5.3	4.3	4.4	4.2	6.2	4.2
8:00	5.4	5.5	5.3	4.6	6.0	4.7	4.9	4.4	6.1	4.0
8:15	5.2	5.1	5.1	4.9	5.5	5.2	4.9	4.5	6.0	3.7
8:30	5.0	4.6	6.0	5.3	5.0	5.3	4.6	4.2	5.8	3.6
8:45	5.0	4.3	6.5	5.1	4.8	4.1	5.5	3.9	5.6	3.5
9:00	4.9	4.0	6.8	4.4	4.1	4.0	5.5	3.4	5.5	3.3
9:15	4.8	3.6	7.7	3.7	4.4	3.7	5.5	3.3	5.3	3.1
9:30	4.7	3.3	6.7	3.7	4.4	3.9	5.4	3.2	5.3	2.9
9:45	4.4	3.0	5.2	4.2	4.3	4.1	5.4	2.5	5.4	2.7
10:00	4.4	2.7	6.2	3.3	5.0	3.6				
10:15	4.8	2.5	5.9	3.2	4.9	3.5				
10:30	5.3	2.1	5.8	2.9	5.5	3.0				
10:45	5.7	1.8	6.2	2.4	6.0	3.1				
11:00	6.0	1.5	6.5	2.5	6.1	2.8				
11:15	6.2	1.2	6.8	2.3	7.2	2.4				
11:30	6.3	1.2	7.3	2.6	7.1	2.5				
11:45	6.5	1.0	6.5	2.2	6.9	1.8	5.9	0.6	5.9	1.3

NOTE: ITE does not provide weekend time-of-day data for Land Use 960 "Super Convenience Store/Gas Station" Comparable Land Use 944 "Gasoline/Service Station" was utilized.

INTERNAL CAPTURE CALCULATIONS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Proposed Mixed-Use Development	Organization:	SE&D
Project Location:	Neptune , Monmouth County, New Jersey	Performed By:	NK
Scenario Description:	PRI-200142	Date:	11/20/2020
Analysis Year:	2023	Checked By:	JRC
Analysis Period:	AM Street Peak Hour	Date:	11/20/2020

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
All Retail Combined	820/854/960	14,942	SF	384	193	191
Restaurant	934	3,316	SF	169	86	83
Retail 1	820	8,000	SF			
Retail 2	854	2,442	SF			
Retail 3	960	4,500	SF			
				553	279	274

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			25			
Restaurant		12				
Retail 1					0	0
Retail 2				0		0
Retail 3				0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	0	0	0
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips ⁵	0	0	0
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed-Use Development
Analysis Period:	AM Street Peak Hour

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Combined Retail	1.00	193	193	1.00	191	191
Restaurant	1.00	86	86	1.00	83	83
Retail 1	1.00	0	0	1.00	0	0
Retail 2	1.00	0	0	1.00	0	0
Retail 3	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			25			
Restaurant		12				
Retail 1					0	0
Retail 2				0		0
Retail 3				0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			43			
Restaurant		15				
Retail 1					0	0
Retail 2				0		0
Retail 3				0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates					
	Internal					
Combined Retail	12					
Restaurant	25					
Retail 1	0					
Retail 2	0					
Retail 3	0					
Total	37					

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates					
	Internal					
Combined Retail	25					
Restaurant	12					
Retail 1	0					
Retail 2	0					
Retail 3	0					
Total	37					

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Proposed Mixed-Use Development	Organization:	SE&D
Project Location:	Neptune , Monmouth County, New Jersey	Performed By:	NK
Scenario Description:	PRI-200142	Date:	11/20/2020
Analysis Year:	2023	Checked By:	JRC
Analysis Period:	PM Street Peak Hour	Date:	11/20/2020

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
All Retail Combined	820/854/960	14,942	SF	600	298	302
Restaurant	934	3,316	SF	170	89	81
Retail 1	820	8,000	SF	92	44	48
Retail 2	854	2,442	SF	196	98	98
Retail 3	960	4,500	SF	312	156	156
				770	387	383

Table 2-p: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail						
Restaurant		33				
Retail 1					10	10
Retail 2				9		20
Retail 3				9	20	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	0	0	0
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips ⁵	0	0	0
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed-Use Development
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Combined Retail	1.00	298	298	1.00	302	302
Restaurant	1.00	89	89	1.00	81	81
Retail 1	1.00	44	44	1.00	48	48
Retail 2	1.00	98	98	1.00	98	98
Retail 3	1.00	156	156	1.00	156	156

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			88			
Restaurant		33				
Retail 1					10	10
Retail 2				20		20
Retail 3				31	31	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			26			
Restaurant		149				
Retail 1					20	31
Retail 2				9		31
Retail 3				9	20	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates					
	Internal	External	Total			
Combined Retail	33					
Restaurant	26					
Retail 1	18					
Retail 2	30					
Retail 3	30					
Total	137					

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates					
	Internal	External	Total			
Combined Retail	26					
Restaurant	33					
Retail 1	20					
Retail 2	29					
Retail 3	29					
Total	137					

¹ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
² Person-Trips
³ Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Proposed Mixed-Use Development	Organization:	SE&D
Project Location:	Neptune , Monmouth County, New Jersey	Performed By:	NK
Scenario Description:	PRI-200142	Date:	11/20/2020
Analysis Year:	2023	Checked By:	JRC
Analysis Period:	Saturday Peak Hour	Date:	11/20/2020

Table 1-S: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
All Retail Combined	820/854/960	14,942	SF	577	291	286
Restaurant	934	3,316	SF	131	67	64
Retail 1	820	8,000	SF	81	42	39
Retail 2	854	2,442	SF	219	110	109
Retail 3	960	4,500	SF	277	139	138
				708	358	350

Table 2-S: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 3-S: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3	
Combined Retail						
Restaurant						
Retail 1						
Retail 2						
Retail 3						

Table 4-S: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3	
Combined Retail		19				
Restaurant	26					
Retail 1				11	11	
Retail 2			13			32
Retail 3			13	34		

Table 5-S: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	0	0	0
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips ⁵	0	0	0
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-S: Internal Trip Capture Percentages by Land Use		

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in *ITE Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-S vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-S, 9-S (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-S.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Proposed Mixed-Use Development
Analysis Period:	Saturday Peak Hour

Table 7-S: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-S (D): Entering Trips			Table 7-S (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Combined Retail	1.00	291	291	1.00	286	286
Restaurant	1.00	67	67	1.00	64	64
Retail 1	1.00	42	42	1.00	39	39
Retail 2	1.00	110	110	1.00	109	109
Retail 3	1.00	139	139	1.00	138	138

Table 8-S (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			83			
Restaurant		26				
Retail 1					11	11
Retail 2				32		32
Retail 3				40	40	

Table 8-S (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
		Comb. Retail	Restaurant	Retail 1	Retail 2	Retail 3
Combined Retail			19			
Restaurant		34				
Retail 1					34	43
Retail 2				13		43
Retail 3				13	34	

Table 9-S (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates					
	Internal	External	Total			
Combined Retail	26					
Restaurant	19					
Retail 1	26					
Retail 2	45					
Retail 3	43					
Total	159					

Table 9-S (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates					
	Internal	External	Total			
Combined Retail	19					
Restaurant	26					
Retail 1	22					
Retail 2	45					
Retail 3	47					
Total	159					

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-S
²Person-Trips
³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

Table 7.1a Adjusted Internal Trip Capture Rates for Trip Origins within a Multi-Use Development

Land Use Pairs		Weekday			Weekend	
		AM Peak Hour	PM Peak Hour	Sat Peak Hour	Sat Peak Hour	
From COMBINED RETAIL	To Combined Retail	0.0%	0.0%	0.0%	0.0%	
	To Restaurant	13.0%	29.0%	29.0%	29.0%	
	To Retail 1	0.0%	0.0%	0.0%	0.0%	
	To Retail 2	0.0%	0.0%	0.0%	0.0%	
From RESTAURANT	To Retail 3	0.0%	0.0%	0.0%	0.0%	
	To Combined Retail	14.0%	41.0%	41.0%	41.0%	
	To Restaurant	0.0%	0.0%	0.0%	0.0%	
	To Retail 1	0.0%	0.0%	0.0%	0.0%	
From RETAIL 1	To Retail 2	0.0%	0.0%	0.0%	0.0%	
	To Retail 3	0.0%	0.0%	0.0%	0.0%	
	To Combined Retail	0.0%	0.0%	0.0%	0.0%	
	To Restaurant	0.0%	0.0%	0.0%	0.0%	
From RETAIL 2	To Retail 1	0.0%	0.0%	0.0%	0.0%	
	To Retail 2	20.0%	20.0%	20.0%	29.0%	
	To Retail 3	20.0%	20.0%	20.0%	29.0%	
	To Combined Retail	0.0%	0.0%	0.0%	0.0%	
From RETAIL 3	To Restaurant	0.0%	0.0%	0.0%	0.0%	
	To Retail 1	20.0%	20.0%	20.0%	29.0%	
	To Retail 2	0.0%	0.0%	0.0%	0.0%	
	To Retail 3	20.0%	20.0%	20.0%	29.0%	
From COMBINED RETAIL	To Combined Retail	0.0%	0.0%	0.0%	0.0%	
	To Restaurant	0.0%	0.0%	0.0%	0.0%	
	To Retail 1	20.0%	20.0%	20.0%	29.0%	
	To Retail 2	0.0%	0.0%	0.0%	0.0%	
From RETAIL 1	To Retail 3	20.0%	20.0%	20.0%	29.0%	
	To Combined Retail	0.0%	0.0%	0.0%	0.0%	
	To Restaurant	0.0%	0.0%	0.0%	0.0%	
	To Retail 1	20.0%	20.0%	20.0%	29.0%	
From RETAIL 2	To Retail 2	0.0%	0.0%	0.0%	0.0%	
	To Retail 3	20.0%	20.0%	20.0%	29.0%	
	To Combined Retail	0.0%	0.0%	0.0%	0.0%	
	To Restaurant	0.0%	0.0%	0.0%	0.0%	
From RETAIL 3	To Retail 1	20.0%	20.0%	20.0%	29.0%	
	To Retail 2	20.0%	20.0%	20.0%	29.0%	
	To Retail 3	0.0%	0.0%	0.0%	0.0%	
	To Combined Retail	0.0%	0.0%	0.0%	0.0%	

Table 7.2a Adjusted Internal Trip Capture Rates for Trip Destinations within a Multi-Use Development					
Land Use Pairs		Weekday			Weekend
		AM Peak Hour	PM Peak Hour	SAT Peak Hour	SAT Peak Hour
From COMBINED RETAIL	From Combined Retail	0.0%	0.0%	0.0%	0.0%
	From Restaurant	8.0%	50.0%	50.0%	50.0%
	From Retail 1	0.0%	0.0%	0.0%	0.0%
To RESTAURANT	From Retail 2	0.0%	0.0%	0.0%	0.0%
	From Retail 3	0.0%	0.0%	0.0%	0.0%
	From Combined Retail	50.0%	29.0%	29.0%	29.0%
To RESTAURANT	From Restaurant	0.0%	0.0%	0.0%	0.0%
	From Retail 1	0.0%	0.0%	0.0%	0.0%
	From Retail 2	0.0%	0.0%	0.0%	0.0%
To RETAIL 1	From Retail 3	0.0%	0.0%	0.0%	0.0%
	From Combined Retail	0.0%	0.0%	0.0%	0.0%
	From Restaurant	0.0%	0.0%	0.0%	0.0%
To RETAIL 2	From Retail 1	0.0%	0.0%	0.0%	0.0%
	From Retail 2	20.0%	20.0%	31.0%	31.0%
	From Retail 3	20.0%	20.0%	31.0%	31.0%
To RETAIL 3	From Combined Retail	0.0%	0.0%	0.0%	0.0%
	From Restaurant	0.0%	0.0%	0.0%	0.0%
	From Retail 1	20.0%	20.0%	31.0%	31.0%
To RETAIL 3	From Retail 2	0.0%	0.0%	0.0%	0.0%
	From Retail 3	20.0%	20.0%	31.0%	31.0%
	From Combined Retail	0.0%	0.0%	0.0%	0.0%
To RETAIL 3	From Restaurant	0.0%	0.0%	0.0%	0.0%
	From Retail 1	20.0%	20.0%	31.0%	31.0%
	From Retail 2	20.0%	20.0%	31.0%	31.0%
To RETAIL 3	From Retail 3	0.0%	0.0%	0.0%	0.0%
	From Combined Retail	0.0%	0.0%	0.0%	0.0%
	From Restaurant	0.0%	0.0%	0.0%	0.0%

GRAVITY MODEL SUMMARY

STONEFIELD

GRAVITY MODEL - 3 MILE RADIUS
Proposed Mixed-Use Development
Township of Neptune, Monmouth County, New Jersey

Attractor/Generator Census Tract	2010 Population	% Population Within Study Area	Study Area Population (Ai)	Roadway Distance (d)	Ai / d^2	Trip Percent (Tij)
Census Tract 8063	2,502	54%	1,343	2.8	172.23	0.60%
Census Tract 8074	3,342	100%	3,342	1.9	906.54	3.18%
Census Tract 8076 (West)	3,342	57%	1,894	0.8	2959.38	10.37%
Census Tract 8076 (East)	3,342	43%	1,448	0.8	2262.50	7.93%
Census Tract 8080.02	2,177	88%	1,926	3.5	156.32	0.55%
Census Tract 8078	4,432	100%	4,432	2.4	799.13	2.80%
Census Tract 8079	3,609	93%	3,349	3.0	369.97	1.30%
Census Tract 8066	5,561	100%	5,561	1.6	2127.34	7.45%
Census Tract 8065.03	3,885	100%	3,885	2.4	678.14	2.38%
Census Tract 8065.04	2,664	100%	2,664	1.6	1103.07	3.86%
Census Tract 8124	2,260	84%	1,907	2.8	243.47	0.85%
Census Tract 8048	9,727	10%	978	2.9	119.03	0.42%
Census Tract 9900	0	2%	0	1.8	0.00	0.00%
Census Tract 8081	4,869	100%	4,869	2.0	1217.25	4.26%
Census Tract 8085	6,516	11%	732	3.9	47.74	0.17%
Census Tract 8071	2,736	100%	2,736	1.0	2750.83	9.64%
Census Tract 8080.01	4,157	100%	4,157	4.6	192.33	0.67%
Census Tract 8073	2,975	100%	2,975	0.9	3447.48	12.08%
Census Tract 8070.04	3,091	100%	3,091	2.0	754.68	2.64%
Census Tract 8070.03	4,998	100%	4,998	1.7	1814.46	6.36%
Census Tract 8072	2,316	100%	2,316	1.3	1304.93	4.57%
Census Tract 8075	2,980	100%	2,980	1.5	1401.16	4.91%
Census Tract 8082	4,298	100%	4,298	2.6	627.46	2.20%
Census Tract 8084.02	3,605	30%	1,082	5.0	43.03	0.15%
Census Tract 8084.01	2,181	43%	939	3.6	71.75	0.25%
Census Tract 8083	1,901	100%	1,901	3.1	199.73	0.70%
Census Tract 8086	6,213	3%	197	4.9	8.05	0.03%
Census Tract 8065.02	3,518	97%	3,428	7.8	56.44	0.20%
Census Tract 8065.01	4,120	24%	1,006	3.8	70.14	0.25%
Census Tract 8064	5,041	70%	3,530	3.7	263.72	0.92%
Census Tract 8077	4,013	100%	4,013	1.3	2544.69	8.31%
					28540.75	100.00%

SUMMARY TABLE - TO

	Calculated	Assumed
From North - Asbury Ave	8.91%	9%
From South - NJ-35	32.57%	33%
From East - Asbury Ave	46.39%	46%
From West - NJ-35	12.12%	12%
	100.00%	100.00%

SUMMARY TABLE - FROM

	Calculated	Assumed
To North - Asbury Ave	8.91%	9%
To South - NJ-35	32.57%	33%
To East - Asbury Ave	46.39%	46%
To West - NJ-35	12.12%	12%
	100.00%	100.00%

State Highway Trips 45%
Alternative Access 55%

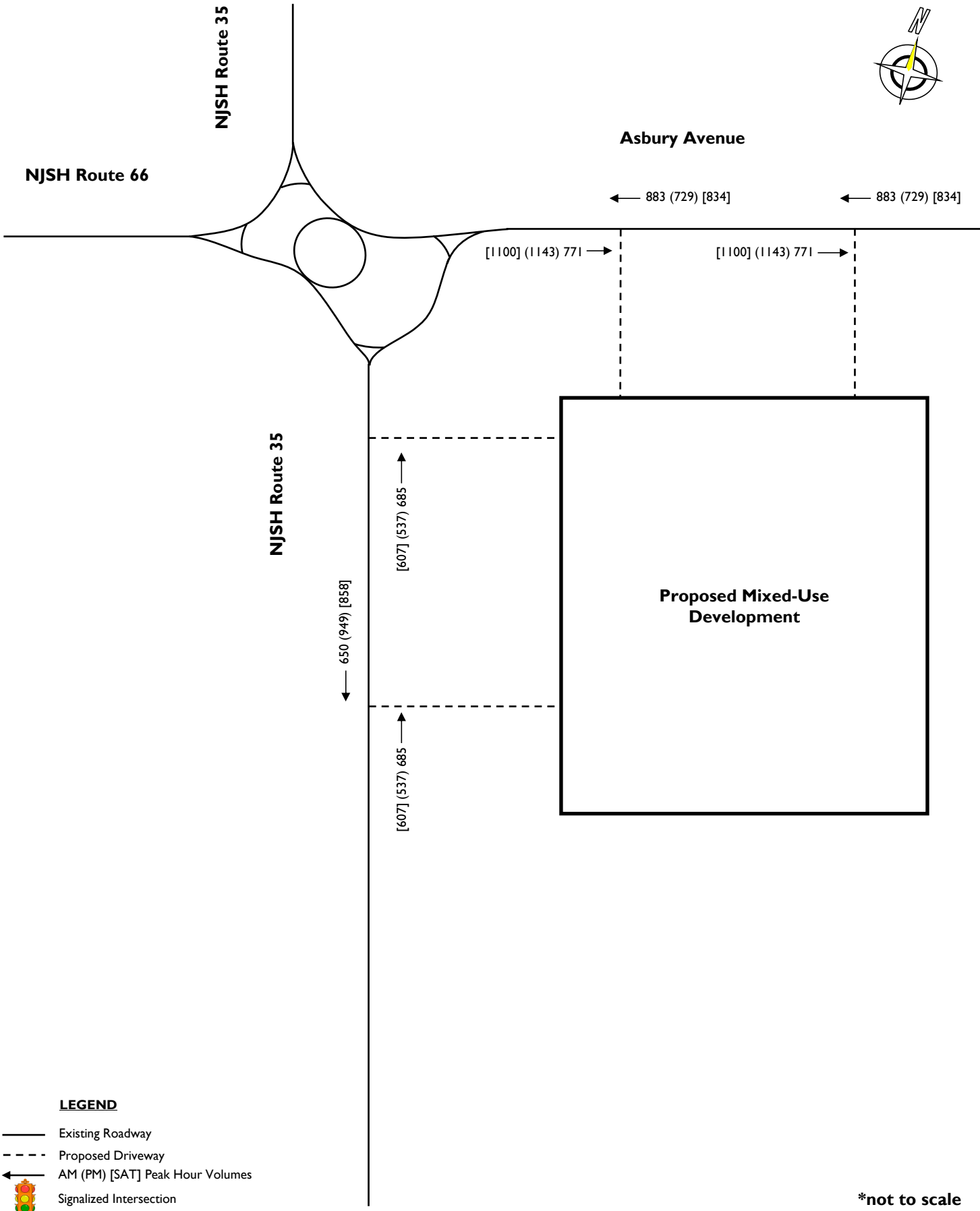
FIGURES



STONEFIELD

Mixed-Use Development
NJSH Route 35 and Asbury Avenue
Neptune Township, Monmouth County, New Jersey
Traffic Impact Study

Figure I
Site Location Map



LEGEND

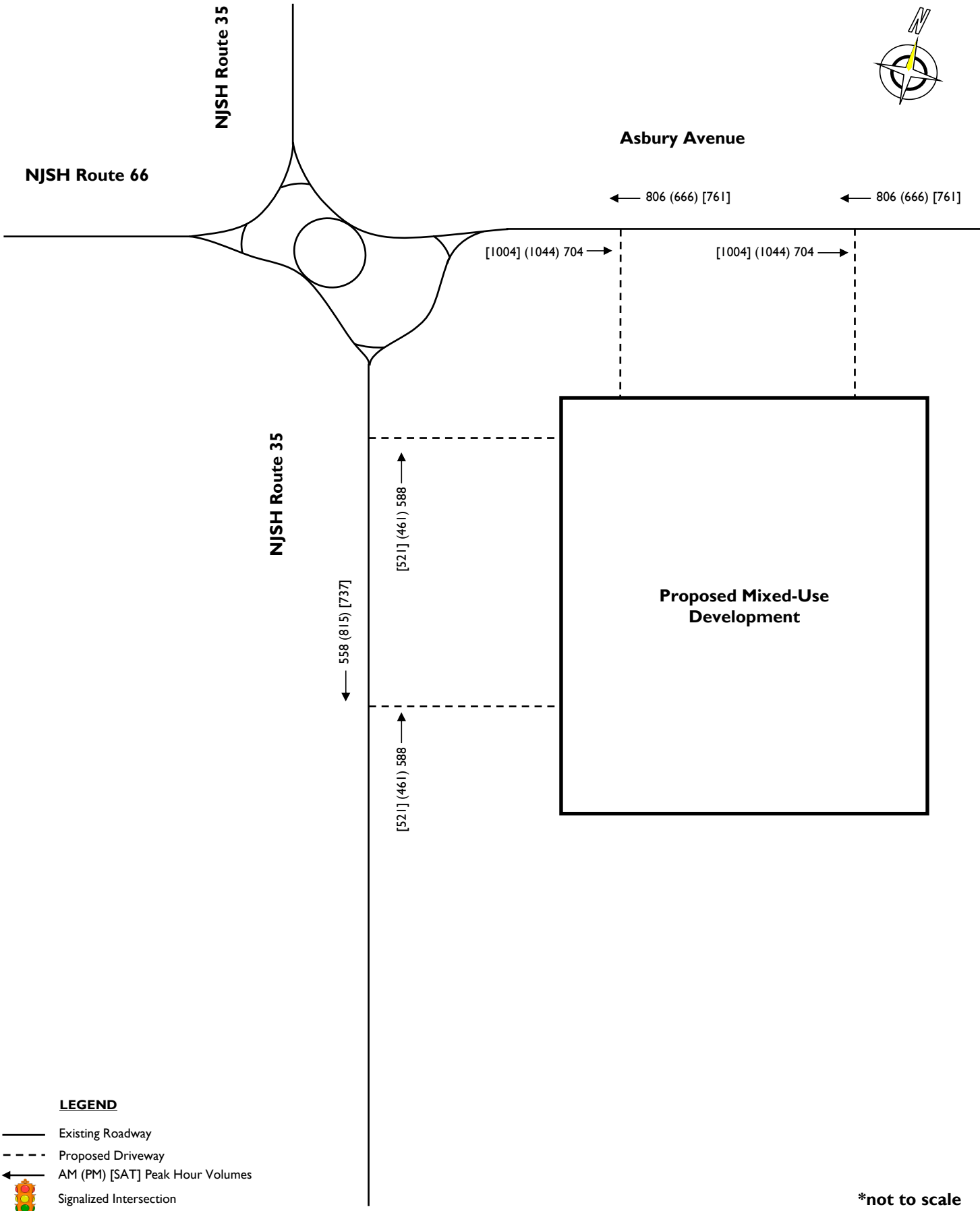
- Existing Roadway
- - - Proposed Driveway
- ← AM (PM) [SAT] Peak Hour Volumes
- Signalized Intersection

*not to scale

STONEFIELD

Mixed-Use Development
NJSH Route 35 and Asbury Avenue
 Neptune Township, Monmouth County, New Jersey
Traffic Impact Study

FIGURE 2
2019 Existing Traffic Volumes
(Peak Summer Period)



LEGEND

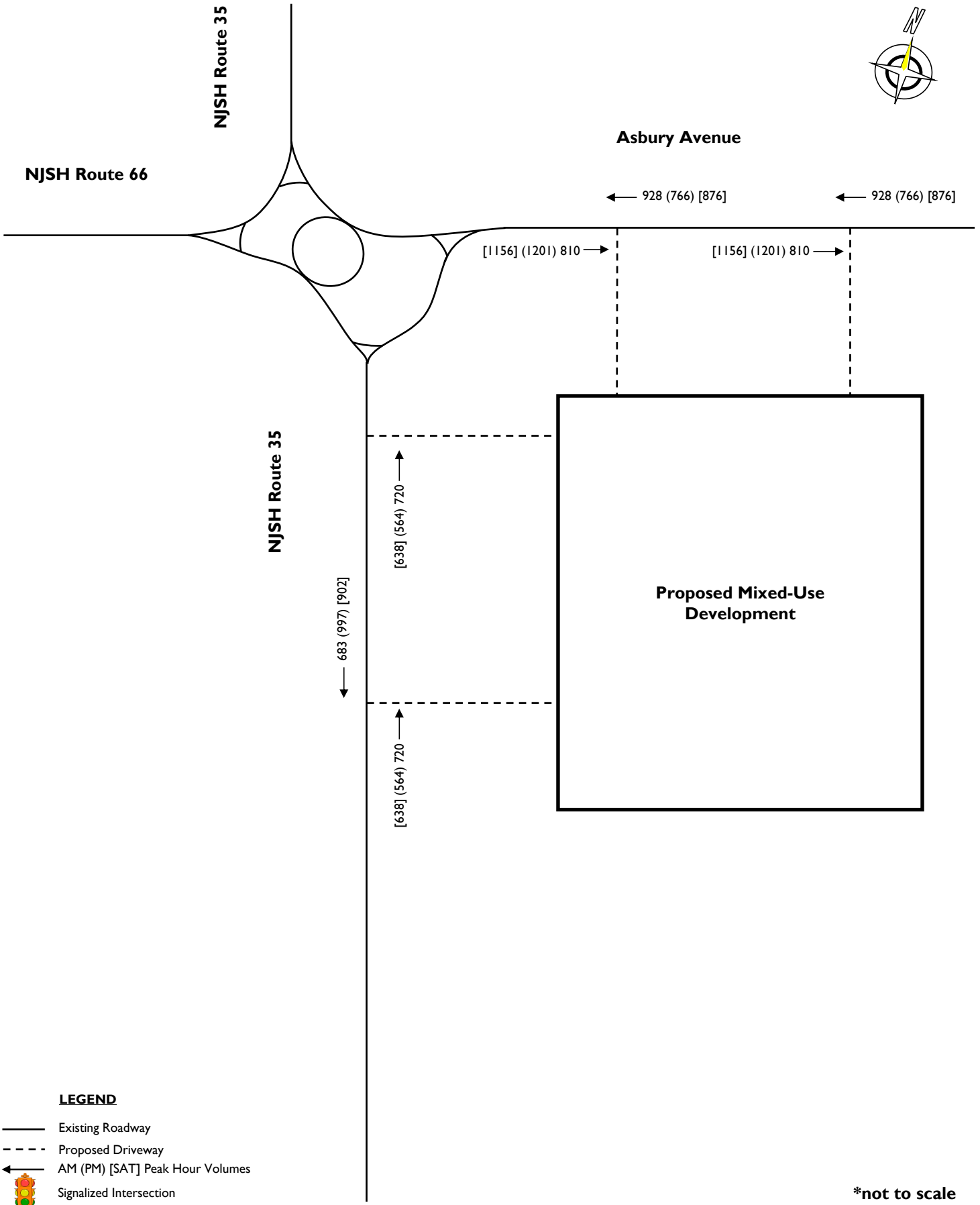
- Existing Roadway
- - - Proposed Driveway
- ← AM (PM) [SAT] Peak Hour Volumes
- Signalized Intersection

*not to scale

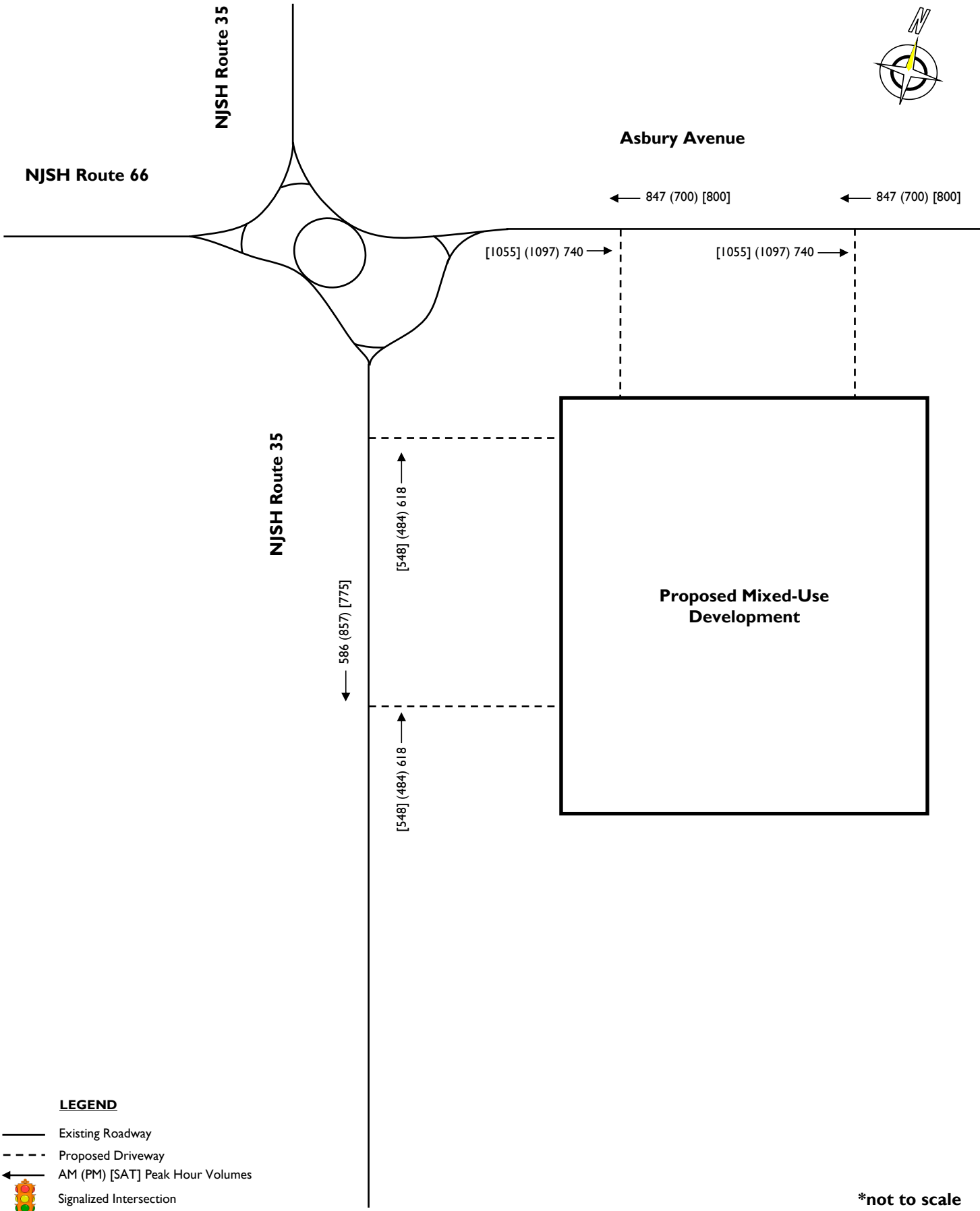
STONEFIELD

Mixed-Use Development
NJSH Route 35 and Asbury Avenue
 Neptune Township, Monmouth County, New Jersey
Traffic Impact Study

FIGURE 3
2019 Existing Traffic Volumes
(Yearly Average)

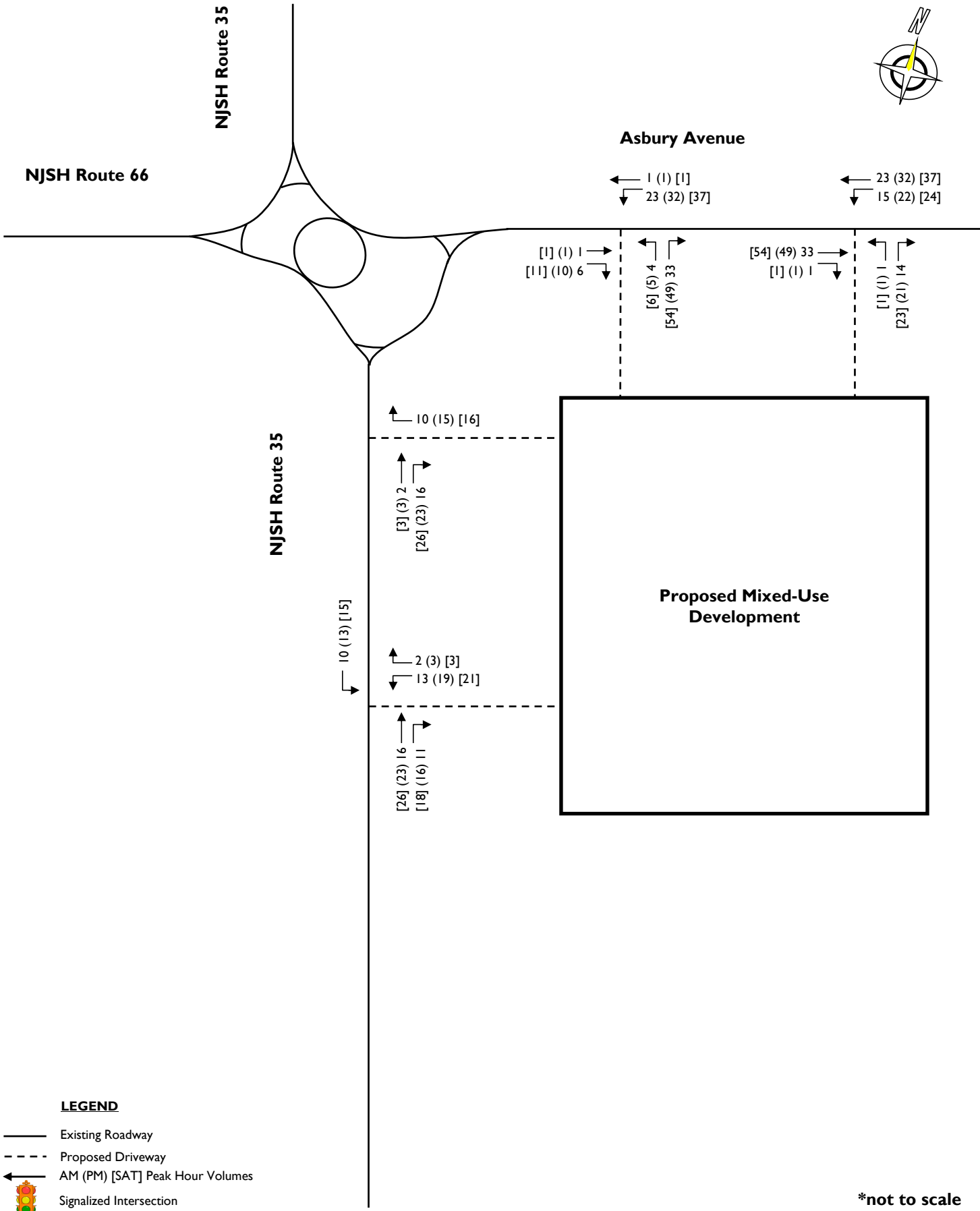


<p>STONEFIELD</p>	<p>Mixed-Use Development NJSH Route 35 and Asbury Avenue Neptune Township, Monmouth County, New Jersey Traffic Impact Study</p>	<p>FIGURE 4 2023 No-Build Traffic Volumes (Peak Summer Period)</p>
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*not to scale

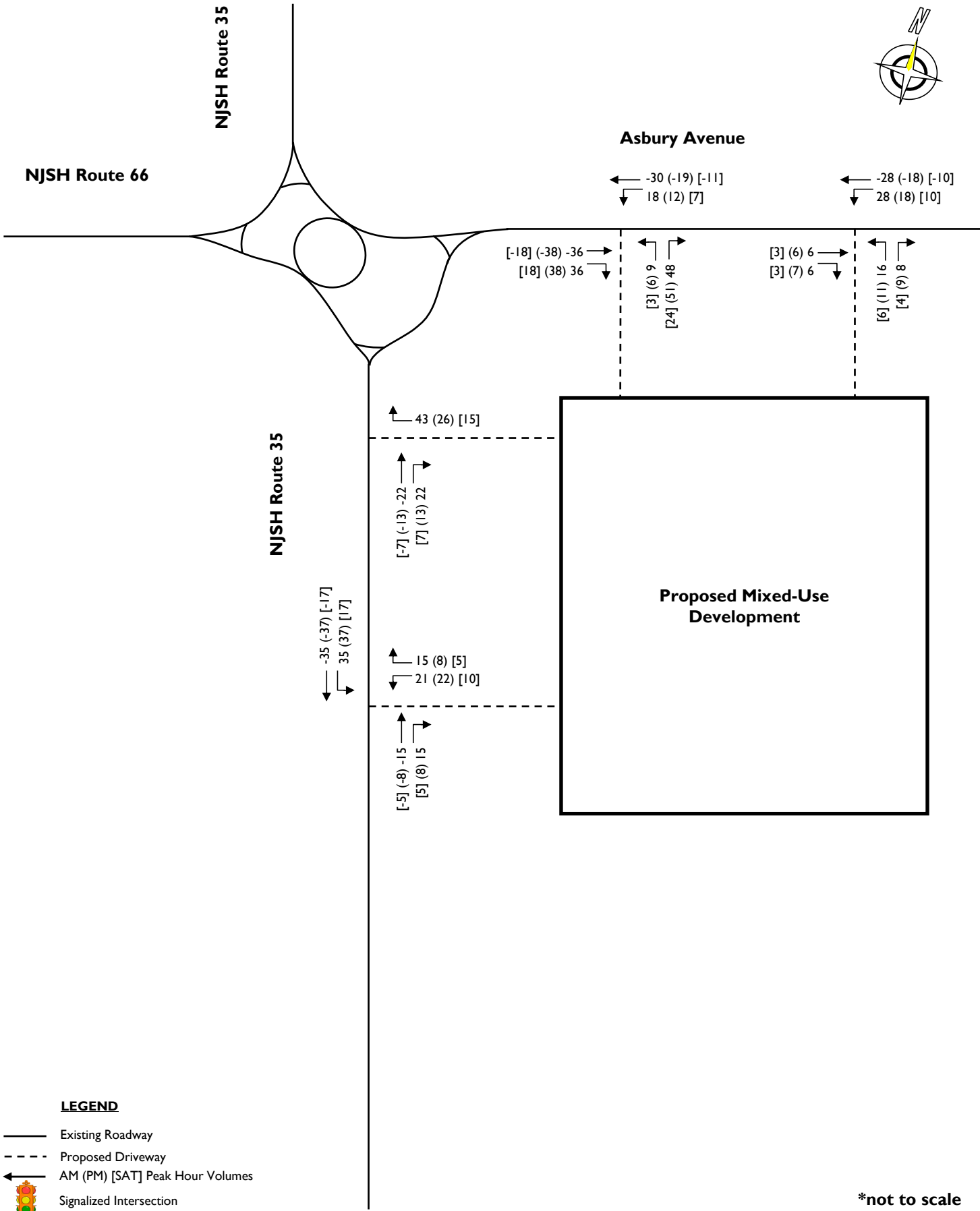
<p>STONEFIELD</p>	<p>Mixed-Use Development NJSH Route 35 and Asbury Avenue Neptune Township, Monmouth County, New Jersey Traffic Impact Study</p>	<p>FIGURE 5 2023 No-Build Traffic Volumes (Yearly Average)</p>
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STONEFIELD

Mixed-Use Development
NJSH Route 35 and Asbury Avenue
 Neptune Township, Monmouth County, New Jersey
Traffic Impact Study

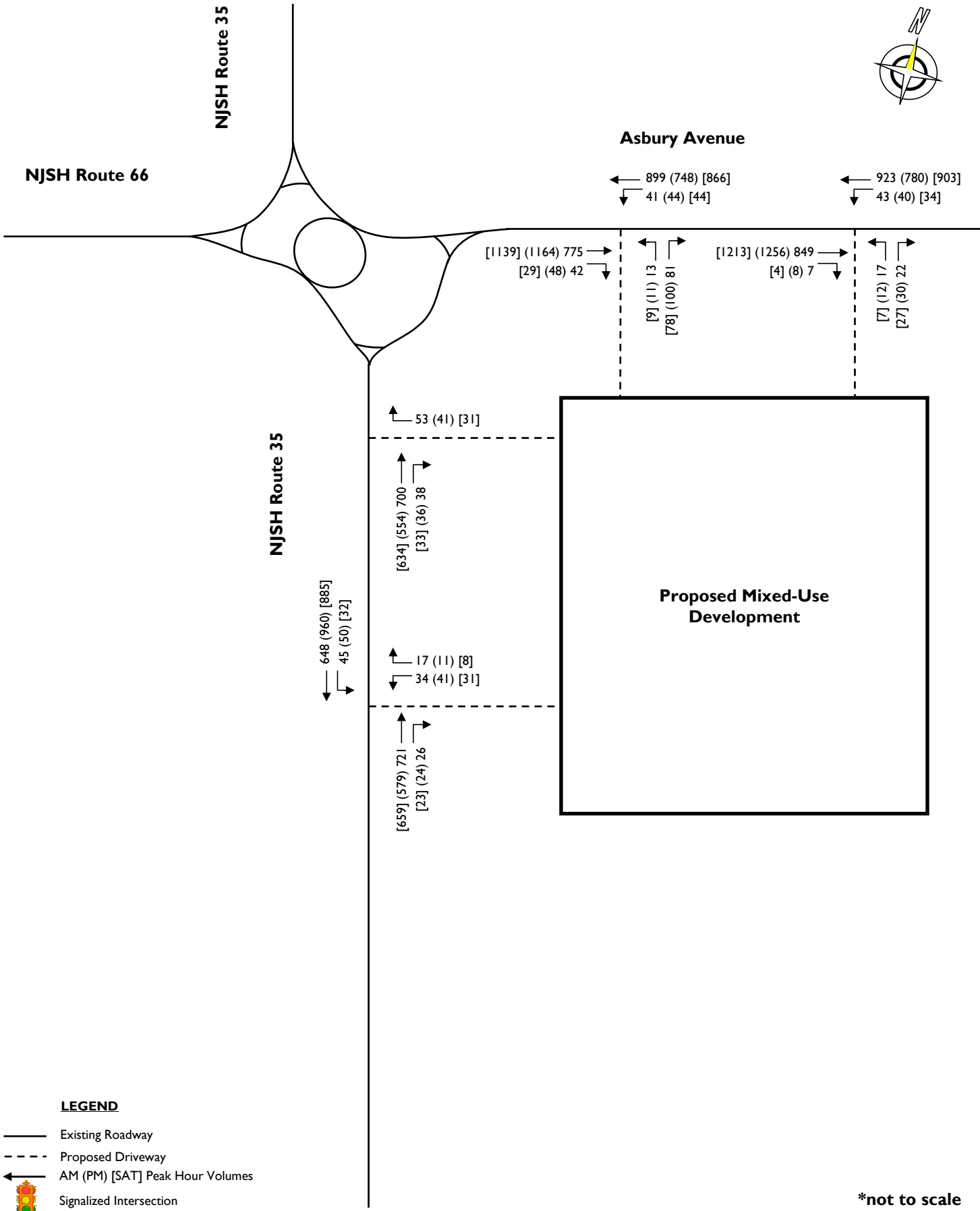
FIGURE 6
"New" Site-Generated Traffic Volumes



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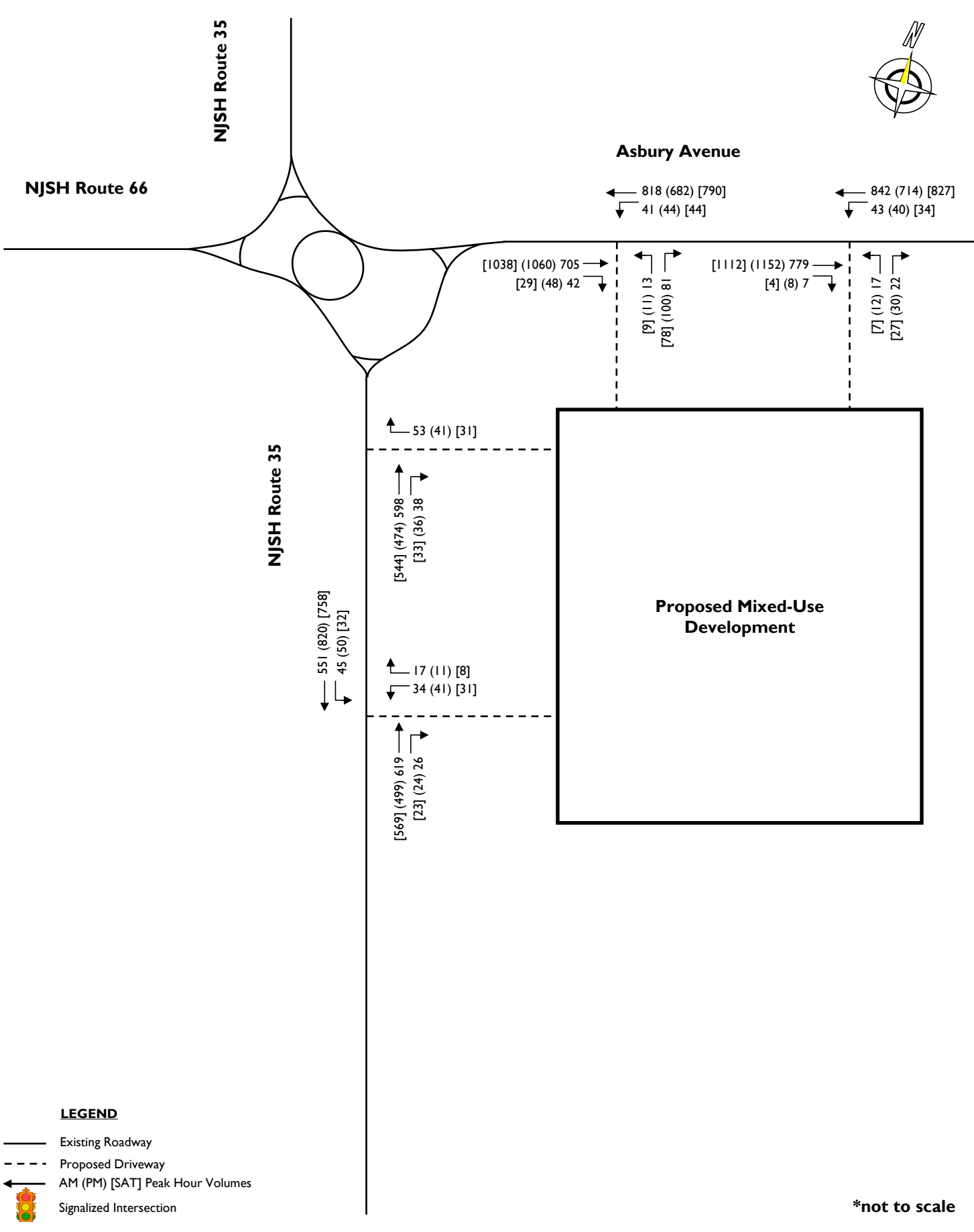
Mixed-Use Development
NJSH Route 35 and Asbury Avenue
 Neptune Township, Monmouth County, New Jersey
Traffic Impact Study

FIGURE 7
"Pass-By" Site-Generated Traffic Volumes



Mixed-Use Development
NJSH Route 35 and Asbury Avenue
 Neptune Township, Monmouth County, New Jersey
Traffic Impact Study

FIGURE 8
2023 Build Traffic Volumes (Peak Summer Period)



STONEFIELD

Mixed-Use Development
NJSH Route 35 and Asbury Avenue
Neptune Township, Monmouth County, New Jersey
Traffic Impact Study

FIGURE 9
2023 Build Traffic Volumes
(Yearly Average)

CAPACITY ANALYSIS DETAIL SHEETS

HCM 6th TWSC
 1: NJSH Route 35 & Northerly Site Driveway

2023 Build Condition (Peak Summer Period)
 Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	53	700	38	0	693
Future Vol, veh/h	0	53	700	38	0	693
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	62	814	44	0	806

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	836	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	467	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	467	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	467
HCM Lane V/C Ratio	-	-	0.132
HCM Control Delay (s)	-	-	13.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.5

HCM 6th TWSC
2: NJSH Route 35 & Southerly Site Driveway

2023 Build Condition (Peak Summer Period)
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	17	721	26	45	648
Future Vol, veh/h	34	17	721	26	45	648
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	40	20	838	30	52	753

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1710	853	0	0	868	0
Stage 1	853	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	162	459	-	-	785	-
Stage 1	421	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	144	459	-	-	785	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	371	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.9	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	187	785
HCM Lane V/C Ratio	-	-	0.317	0.067
HCM Control Delay (s)	-	-	32.9	9.9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	1.3	0.2

HCM 6th TWSC
3: Easterly Site Driveway & Asbury Avenue

2023 Build Condition (Peak Summer Period)
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	849	7	43	923	17	22
Future Vol, veh/h	849	7	43	923	17	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	875	7	44	952	18	23

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	882	0	1919
Stage 1	-	-	-	-	879
Stage 2	-	-	-	-	1040
Critical Hdwy	-	-	4.1	-	5.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	775	-	128
Stage 1	-	-	-	-	409
Stage 2	-	-	-	-	344
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	775	-	113
Mov Cap-2 Maneuver	-	-	-	-	209
Stage 1	-	-	-	-	409
Stage 2	-	-	-	-	303

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	19
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	298	-	-	775	-
HCM Lane V/C Ratio	0.135	-	-	0.057	-
HCM Control Delay (s)	19	-	-	9.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

HCM 6th TWSC
4: Westerly Site Driveway & Asbury Avenue

2023 Build Condition (Peak Summer Period)
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	775	42	41	899	13	81
Future Vol, veh/h	775	42	41	899	13	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	799	43	42	927	13	84

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	842	0	1832 821
Stage 1	-	-	-	-	821 -
Stage 2	-	-	-	-	1011 -
Critical Hdwy	-	-	4.1	-	5.4 5.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	802	-	141 474
Stage 1	-	-	-	-	436 -
Stage 2	-	-	-	-	355 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	802	-	126 474
Mov Cap-2 Maneuver	-	-	-	-	223 -
Stage 1	-	-	-	-	436 -
Stage 2	-	-	-	-	317 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	410	-	-	802	-
HCM Lane V/C Ratio	0.236	-	-	0.053	-
HCM Control Delay (s)	16.5	-	-	9.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.2	-

HCM 6th TWSC
 1: NJSH Route 35 & Northerly Site Driveway

2023 Build Condition (Peak Summer Period)
 Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	41	554	36	0	1010
Future Vol, veh/h	0	41	554	36	0	1010
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	42	571	37	0	1041

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	590	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	602	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	602	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	602
HCM Lane V/C Ratio	-	-	0.07
HCM Control Delay (s)	-	-	11.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

HCM 6th TWSC
2: NJSH Route 35 & Southerly Site Driveway

2023 Build Condition (Peak Summer Period)
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	41	11	579	24	50	960
Future Vol, veh/h	41	11	579	24	50	960
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	42	11	597	25	52	990

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1704	610	0	0	622	0
Stage 1	610	-	-	-	-	-
Stage 2	1094	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	163	590	-	-	969	-
Stage 1	546	-	-	-	-	-
Stage 2	324	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	144	590	-	-	969	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	285	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	35.4	0	0.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	171	969
HCM Lane V/C Ratio	-	-	0.313	0.053
HCM Control Delay (s)	-	-	35.4	8.9
HCM Lane LOS	-	-	E	A
HCM 95th %tile Q(veh)	-	-	1.3	0.2

HCM 6th TWSC
3: Easterly Site Driveway & Asbury Avenue

2023 Build Condition (Peak Summer Period)
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1256	8	40	780	12	30
Future Vol, veh/h	1256	8	40	780	12	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1351	9	43	839	13	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1360	0	2281
Stage 1	-	-	-	-	1356
Stage 2	-	-	-	-	925
Critical Hdwy	-	-	4.1	-	5.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	512	-	84
Stage 1	-	-	-	-	242
Stage 2	-	-	-	-	389
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	512	-	71
Mov Cap-2 Maneuver	-	-	-	-	159
Stage 1	-	-	-	-	242
Stage 2	-	-	-	-	328

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	25
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	225	-	-	512	-
HCM Lane V/C Ratio	0.201	-	-	0.084	-
HCM Control Delay (s)	25	-	-	12.7	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

HCM 6th TWSC
4: Westerly Site Driveway & Asbury Avenue

2023 Build Condition (Peak Summer Period)
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1164	48	44	748	11	100
Future Vol, veh/h	1164	48	44	748	11	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1252	52	47	804	12	108

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	1304	0
Stage 1	-	-	-	1278
Stage 2	-	-	-	898
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	538	-
Stage 1	-	-	-	264
Stage 2	-	-	-	401
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	538	-
Mov Cap-2 Maneuver	-	-	-	171
Stage 1	-	-	-	264
Stage 2	-	-	-	338

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	28
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	273	-	-	538	-
HCM Lane V/C Ratio	0.437	-	-	0.088	-
HCM Control Delay (s)	28	-	-	12.3	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	2.1	-	-	0.3	-

HCM 6th TWSC
1: NJSH Route 35 & Northerly Site Driveway

2023 Build Condition (Peak Summer Period)

Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	31	634	33	0	917
Future Vol, veh/h	0	31	634	33	0	917
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	32	660	34	0	955

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	677	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	551	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	551	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	551
HCM Lane V/C Ratio	-	-	0.059
HCM Control Delay (s)	-	-	11.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

HCM 6th TWSC
2: NJSH Route 35 & Southerly Site Driveway

2023 Build Condition (Peak Summer Period)
Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	8	659	23	32	885
Future Vol, veh/h	31	8	659	23	32	885
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	32	8	686	24	33	922

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1686	698	0	0	710	0
Stage 1	698	-	-	-	-	-
Stage 2	988	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	167	539	-	-	899	-
Stage 1	497	-	-	-	-	-
Stage 2	364	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	539	-	-	899	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	337	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.7	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	180	899
HCM Lane V/C Ratio	-	-	0.226	0.037
HCM Control Delay (s)	-	-	30.7	9.2
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	0.8	0.1

HCM 6th TWSC
3: Easterly Site Driveway & Asbury Avenue

2023 Build Condition (Peak Summer Period)

Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1213	4	34	903	7	27
Future Vol, veh/h	1213	4	34	903	7	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1318	4	37	982	8	29

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1322	0	2376 1320
Stage 1	-	-	-	-	1320 -
Stage 2	-	-	-	-	1056 -
Critical Hdwy	-	-	4.1	-	5.4 5.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	529	-	75 279
Stage 1	-	-	-	-	252 -
Stage 2	-	-	-	-	338 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	529	-	63 279
Mov Cap-2 Maneuver	-	-	-	-	151 -
Stage 1	-	-	-	-	252 -
Stage 2	-	-	-	-	286 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	22.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	238	-	-	529	-
HCM Lane V/C Ratio	0.155	-	-	0.07	-
HCM Control Delay (s)	22.9	-	-	12.3	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

HCM 6th TWSC
4: Westerly Site Driveway & Asbury Avenue

2023 Build Condition (Peak Summer Period)
Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1139	29	44	866	9	78
Future Vol, veh/h	1139	29	44	866	9	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1238	32	48	941	10	85

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	1270	0
Stage 1	-	-	-	1254
Stage 2	-	-	-	1037
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	554	-
Stage 1	-	-	-	271
Stage 2	-	-	-	345
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	554	-
Mov Cap-2 Maneuver	-	-	-	157
Stage 1	-	-	-	271
Stage 2	-	-	-	282

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	24.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	274	-	-	554	-
HCM Lane V/C Ratio	0.345	-	-	0.086	-
HCM Control Delay (s)	24.9	-	-	12.1	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.5	-	-	0.3	-

HCM 6th TWSC
 1: NJSH Route 35 & Northerly Site Driveway

2023 Build Condition (Yearly Average)
 Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	53	598	38	0	596
Future Vol, veh/h	0	53	598	38	0	596
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	62	695	44	0	693

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	717	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	528	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	528	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	528
HCM Lane V/C Ratio	-	-	0.117
HCM Control Delay (s)	-	-	12.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.4

HCM 6th TWSC
2: NJSH Route 35 & Southerly Site Driveway

2023 Build Condition (Yearly Average)
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	17	619	26	45	551
Future Vol, veh/h	34	17	619	26	45	551
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	40	20	720	30	52	641

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1480	735	0	0	750	0
Stage 1	735	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	211	519	-	-	868	-
Stage 1	478	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	191	519	-	-	868	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	429	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.6	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	242	868
HCM Lane V/C Ratio	-	-	0.245	0.06
HCM Control Delay (s)	-	-	24.6	9.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2

HCM 6th TWSC
3: Easterly Site Driveway & Asbury Avenue

2023 Build Condition (Yearly Average)
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	779	7	43	842	17	22
Future Vol, veh/h	779	7	43	842	17	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	803	7	44	868	18	23

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	810	0	1763
Stage 1	-	-	-	-	807
Stage 2	-	-	-	-	956
Critical Hdwy	-	-	4.1	-	5.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	825	-	153
Stage 1	-	-	-	-	442
Stage 2	-	-	-	-	376
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	825	-	137
Mov Cap-2 Maneuver	-	-	-	-	235
Stage 1	-	-	-	-	442
Stage 2	-	-	-	-	337

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	17.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	330	-	-	825	-
HCM Lane V/C Ratio	0.122	-	-	0.054	-
HCM Control Delay (s)	17.4	-	-	9.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

HCM 6th TWSC
4: Westerly Site Driveway & Asbury Avenue

2023 Build Condition (Yearly Average)
Weekday Morning Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	705	42	41	818	13	81
Future Vol, veh/h	705	42	41	818	13	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	727	43	42	843	13	84

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	770	0	1676 749
Stage 1	-	-	-	-	749 -
Stage 2	-	-	-	-	927 -
Critical Hdwy	-	-	4.1	-	5.4 5.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	854	-	169 511
Stage 1	-	-	-	-	471 -
Stage 2	-	-	-	-	389 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	854	-	153 511
Mov Cap-2 Maneuver	-	-	-	-	252 -
Stage 1	-	-	-	-	471 -
Stage 2	-	-	-	-	353 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	15.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	447	-	-	854	-
HCM Lane V/C Ratio	0.217	-	-	0.049	-
HCM Control Delay (s)	15.3	-	-	9.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

HCM 6th TWSC
1: NJSH Route 35 & Northerly Site Driveway

2023 Build Condition (Yearly Average)
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	41	474	36	0	870
Future Vol, veh/h	0	41	474	36	0	870
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	42	489	37	0	897

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	508	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	655	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	655	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	655
HCM Lane V/C Ratio	-	-	0.065
HCM Control Delay (s)	-	-	10.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

HCM 6th TWSC
2: NJSH Route 35 & Southerly Site Driveway

2023 Build Condition (Yearly Average)
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	11	499	24	50	820
Future Vol, veh/h	41	11	499	24	50	820
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	42	11	514	25	52	845

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1476	527	0	0	539
Stage 1	527	-	-	-	-
Stage 2	949	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	212	643	-	-	1040
Stage 1	596	-	-	-	-
Stage 2	379	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	192	643	-	-	1040
Mov Cap-2 Maneuver	192	-	-	-	-
Stage 1	596	-	-	-	-
Stage 2	343	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.9	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	225	1040
HCM Lane V/C Ratio	-	-	0.238	0.05
HCM Control Delay (s)	-	-	25.9	8.6
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2

HCM 6th TWSC
3: Easterly Site Driveway & Asbury Avenue

2023 Build Condition (Yearly Average)
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1152	8	40	714	12	30
Future Vol, veh/h	1152	8	40	714	12	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1239	9	43	768	13	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1248	0	2098
Stage 1	-	-	-	-	1244
Stage 2	-	-	-	-	854
Critical Hdwy	-	-	4.1	-	5.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	565	-	104
Stage 1	-	-	-	-	274
Stage 2	-	-	-	-	421
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	565	-	90
Mov Cap-2 Maneuver	-	-	-	-	183
Stage 1	-	-	-	-	274
Stage 2	-	-	-	-	365

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	22.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	255	-	-	565	-
HCM Lane V/C Ratio	0.177	-	-	0.076	-
HCM Control Delay (s)	22.1	-	-	11.9	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

HCM 6th TWSC
4: Westerly Site Driveway & Asbury Avenue

2023 Build Condition (Yearly Average)
Weekday Evening Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1060	48	44	682	11	100
Future Vol, veh/h	1060	48	44	682	11	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1140	52	47	733	12	108

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1192	0	1993
Stage 1	-	-	-	-	1166
Stage 2	-	-	-	-	827
Critical Hdwy	-	-	4.1	-	5.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	593	-	117
Stage 1	-	-	-	-	299
Stage 2	-	-	-	-	433
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	593	-	101
Mov Cap-2 Maneuver	-	-	-	-	197
Stage 1	-	-	-	-	299
Stage 2	-	-	-	-	375

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	23.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	309	-	-	593	-
HCM Lane V/C Ratio	0.386	-	-	0.08	-
HCM Control Delay (s)	23.8	-	-	11.6	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.8	-	-	0.3	-

HCM 6th TWSC
 1: NJSH Route 35 & Northerly Site Driveway

2023 Build Condition (Yearly Average)
 Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↘			↑
Traffic Vol, veh/h	0	31	544	33	0	790
Future Vol, veh/h	0	31	544	33	0	790
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	32	567	34	0	823

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	584	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	5.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	606	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	606	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	606
HCM Lane V/C Ratio	-	-	0.053
HCM Control Delay (s)	-	-	11.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.2

HCM 6th TWSC
2: NJSH Route 35 & Southerly Site Driveway

2023 Build Condition (Yearly Average)
Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	8	569	23	32	758
Future Vol, veh/h	31	8	569	23	32	758
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	32	8	593	24	33	790

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1461	605	0	0	617	0
Stage 1	605	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Critical Hdwy	5.4	5.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	215	593	-	-	973	-
Stage 1	549	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	202	593	-	-	973	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	395	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.6	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	234	973
HCM Lane V/C Ratio	-	-	0.174	0.034
HCM Control Delay (s)	-	-	23.6	8.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1

HCM 6th TWSC
3: Easterly Site Driveway & Asbury Avenue

2023 Build Condition (Yearly Average)
Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1112	4	34	827	7	27
Future Vol, veh/h	1112	4	34	827	7	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1209	4	37	899	8	29

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1213	0	2184 1211
Stage 1	-	-	-	-	1211 -
Stage 2	-	-	-	-	973 -
Critical Hdwy	-	-	4.1	-	5.4 5.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	582	-	94 314
Stage 1	-	-	-	-	285 -
Stage 2	-	-	-	-	370 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	582	-	82 314
Mov Cap-2 Maneuver	-	-	-	-	175 -
Stage 1	-	-	-	-	285 -
Stage 2	-	-	-	-	323 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	270	-	-	582	-
HCM Lane V/C Ratio	0.137	-	-	0.063	-
HCM Control Delay (s)	20.4	-	-	11.6	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

HCM 6th TWSC
4: Westerly Site Driveway & Asbury Avenue

2023 Build Condition (Yearly Average)
Saturday Midday Peak Hour

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1038	29	44	790	9	78
Future Vol, veh/h	1038	29	44	790	9	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	1128	32	48	859	10	85

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1160	0	2099
Stage 1	-	-	-	-	1144
Stage 2	-	-	-	-	955
Critical Hdwy	-	-	4.1	-	5.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	610	-	104
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	377
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	610	-	88
Mov Cap-2 Maneuver	-	-	-	-	183
Stage 1	-	-	-	-	306
Stage 2	-	-	-	-	320

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	310	-	-	610	-
HCM Lane V/C Ratio	0.305	-	-	0.078	-
HCM Control Delay (s)	21.6	-	-	11.4	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	1.3	-	-	0.3	-