



TOWNSHIP of HOPEWELL
MERCER COUNTY

201 WASHINGTON CROSSING – PENNINGTON ROAD
TITUSVILLE, NEW JERSEY 08560-1410

PROJECT / APPLICATION

BLOCK:

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**REPORTS AND SUPPORTING
DOCUMENTS**

TRAFFIC IMPACT STUDY

TRAFFIC IMPACT STUDY

For

**Venue at Hopewell (aka Deer Valley)
Hopewell Township
Mercer County, New Jersey**

Prepared For:

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LANGAN

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EXECUTIVE SUMMARY

Langan Engineering and Environmental Services, Inc. has prepared this study to assess the traffic impacts associated with the proposed age-restricted inclusionary residential development along the north side of Nursery Road (County Route (CR) 647) in the Hopewell Township, Mercer County, New Jersey. Upon completion, the development will consist of an approximate 600 unit age-restricted residential community made up of 272 single-family detached units, 208 single-family attached units, and 120 multifamily units (the units designated as affordable units). This new community is proposed to satisfy a portion of Hopewell Township's affordable housing obligation.

The development site is located along the westbound side of Nursery Road (CR 647). The site is bordered by residential land uses to the north, Nursery Road (CR 647) and residential uses to the south, Scotch Road (CR 611)/Nursery Road (CR 647) to the east, and residential uses to the west. Access to the development is proposed to be provided via three new streets along Nursery Road (CR 647). The easternmost access (site access 1) will be full-movement and form the third leg of a proposed roundabout intersection. The westernmost access (site access 2) will be full-movement form the north leg of T-shaped stop-controlled intersection. Nineteen of the 272 single-family detached units will be located outside the main development along Nursery Road (CR 647) and will be accessed via one new street (site access 3), which will be full-movement and form the north leg of T-shaped stop-controlled intersection.

Langan estimated the number of new trips the proposed residential development would generate based on data compiled for Land Use Code 251 (Senior Adult Housing – Single-Family) and Land Use Code 252 (Senior Adult Housing – Multifamily) by the Institute of Transportation Engineers (ITE) as contained in the publication Trip Generation, 11th Edition. We estimated that the development will generate approximately 175 total trips (57 enter, 118 exit) during the weekday morning peak hour and 206 total trips (124 enter, 82 exit) during the weekday evening peak hour.

We determined the directional distribution of the site-generated trips for the proposed development based on existing travel patterns in the study area, the location of area highways and major intersections, demographic data, and a review of other studies conducted for similar uses in the area.

We conducted capacity analyses at the following intersections:

- Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way
- Washington Crossing-Pennington Road (CR 546) and Scotch Road (CR 611)
- Washington Crossing-Pennington Road (CR 546) and Dublin Road

- Washington Crossing-Pennington Road (CR 546) and Ingleside Avenue (CR 631)/Reed Road
- Nursery Road (CR 647) and Site Access 1
- Nursery Road (CR 647) and Site Access 2
- Nursery Road (CR 647) and Site Access 3

Based on our analyses, we determined the adjacent roadway network has sufficient capacity to accommodate the site-generated trips associated with the proposed development. The Scotch Road corridor has sufficient capacity to accommodate the proposed project and area growth. The site's access points are expected to operate at acceptable levels of service during peak traffic hours. Moreover, the onsite circulation has been designed to provide logical and efficient circulation for vehicular and pedestrian traffic in accordance with the Residential Site Improvements Standards.

INTRODUCTION

Langan Engineering and Environmental Services, Inc. has prepared this study to assess the traffic impacts associated with the construction of 600 age-restricted inclusionary residential units along the north side of Nursery Road (CR 647) in the Hopewell Township, Mercer County, New Jersey.

Project Description

Upon completion, the development will consist of an approximate 600 unit age-restricted residential community made up of 272 single-family detached units, 208 single-family attached units, and 120 multifamily units (the units designated as affordable units). The property is designated as Block 93, Lots 19, 20, 45, 45.01, 46 and part of 60, along the north side of Nursery Road (CR 647) in the Hopewell Township, Mercer County, New Jersey. The site location is shown in Figure 1

Access to the development is proposed to be provided via three new streets along Nursery Road (CR 647). The easternmost access (site access 1) will be full-movement and form the north leg of a proposed roundabout. The westernmost access (site access 2) will be full-movement form the north leg of T-shaped stop-controlled intersection. Nineteen of the 272 single-family detached units will be located outside the main development along Nursery Road (CR 647) and will be accessed via one new street (site access 3), which will be full-movement and form the north leg of T-shaped stop-controlled intersection.

Study Area

We conducted capacity analyses at the following intersections:

- Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way
- Washington Crossing-Pennington Road (CR 546) and Scotch Road (CR 611)
- Washington Crossing-Pennington Road (CR 546) and Dublin Road
- Washington Crossing-Pennington Road (CR 546) and Ingleside Avenue (CR 631)/Reed Road
- Nursery Road (CR 647) and Site Access 1
- Nursery Road (CR 647) and Site Access 2
- Nursery Road (CR 647) and Site Access 3

An inventory of the physical road conditions is presented in the section “Description of Existing Conditions.”

Scope of Study

Langan undertook the following steps to prepare this study in accordance with standard traffic study methodologies:

1. Conducted a field examination of the site and surrounding road network to inventory physical and regulatory conditions including the number of lanes, lane assignments, channelization, traffic-control devices, lateral clearances and other factors that limit traffic capacity.
2. We arranged for a series of turning movement traffic counts at the study intersections. We conducted counts on a typical weekday from 6:00 AM to 9:00 AM and from 2:00 PM to 7:00 PM. We then identified existing weekday morning and evening peak hour traffic volumes based on the traffic count data.
3. Established existing traffic volumes using the obtained turning-movement traffic counts.
4. Established 2026 Base traffic volumes by applying the New Jersey Department of Transportation (NJDOT) Mercer County growth factor of 1.0 percent per year to the existing traffic volumes.
5. Identified other planned developments in the study area and established “2026 No-Build” traffic volumes with the other development generated trips.
6. Prepared trip generation estimates for the proposed development based on research data developed by the Institute of Transportation Engineers (ITE).
7. Developed trip distribution for the development based on existing travel patterns in the study area, the location of area highways and major intersections, demographic data, and a review of other studies conducted for similar uses in the area.
8. Assigned site-generated trips to the site access roads and surrounding road network based on the likely travel routes motorists will use to travel to and from the site.
9. Established future 2026 Build traffic volumes by adding site-generated trips to the 2026 No-Build traffic volumes.
10. Performed intersection capacity analyses for the weekday morning and evening peak hours using Synchro Software.

DESCRIPTION OF EXISTING CONDITIONS

This section describes the roads, intersections, and traffic volumes in the area of the proposed development in Hopewell Township, Mercer County, New Jersey.

Roads

Scotch Road (CR 611)

Scotch Road (CR 611) is classified as an urban minor arterial and is under Mercer County jurisdiction. The roadway has a general north-south orientation and provides two travel lanes in each direction. The northbound and southbound lanes are separated by a wide landscaped median. The posted speed limit is 45 mph in the immediate study area. To our knowledge, aside from the ongoing intersection work at the entrance to Hopewell Parc South, there are no State or County projects proposed along the highway within the immediate study area.

Washington Crossing-Pennington Road (CR 546)

Washington Crossing-Pennington Road (CR 546) is classified as an urban minor arterial and is under Mercer County jurisdiction. The roadway has a general east-west orientation and provides one travel lane in each direction. The posted speed limit is 45 mph in the immediate study area. To our knowledge, there are no State or County projects proposed along the highway within the immediate study area.

Nursery Road (CR 647)

Nursery Road (CR 647) is classified as an urban major collector and is under Mercer County jurisdiction. The roadway has a general east-west orientation and provides one travel lane in each direction. The posted speed limit is 40 mph in the immediate study area. To our knowledge, there are no State or County projects proposed along the highway within the immediate study area.

Capital Way

Capital Way is classified as a private road. The roadway has a general east-west orientation and provides one travel lane in each direction. There is no posted speed limit within the immediate study area.

Intersections

Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way

Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way intersect to form a four-legged intersection under signal control. The eastbound Nursery Road (CR 647) approach provides a

left-turn lane and a shared through/right-turn lane. The westbound Capital Way approach provides a left-turn lane, a through lane, and a shared through/right-turn lane. The northbound Scotch Road (CR 611) approach provides a left-turn lane, three through lanes, and a channelized right-turn lane. The southbound Scotch Road (CR 611) approach provides a left-turn lane, two through lanes, and a shared through/right-turn lane. It is noted U-turns are permitted along each approach with the exception of the eastbound Nursery Road (CR 647) approach.

Scotch Road (CR 611) and Washington Crossing-Pennington Road (CR 546)

Scotch Road (CR 611) and Washington Crossing-Pennington Road (CR 546) intersect to form a four-legged intersection under signal control. The eastbound CR 546 approach provides a left-turn lane, a through lane, and a right-turn lane. The westbound CR 546 approach provides a left-turn lane and a shared through/right-turn lane. The northbound Scotch Road (CR 611) approach provides a left-turn lane, a through lane, and a right-turn lane. The southbound Scotch Road (CR 611) approach provides a left-turn lane, a through lane, and a shared through/right-turn lane. It is noted U-turns are permitted along each approach with the exception of the northbound Scotch Road (CR 611) approach.

Washington Crossing-Pennington Road (CR 546) and Dublin Road

Washington Crossing-Pennington Road (CR 546) and Dublin Road intersect to form a T-shaped intersection under stop control. The eastbound CR 546 approach provides one shared left-turn/through lane. The westbound CR 546 approach provides one shared through/right-turn lane. The southbound Dublin Road approach provides one shared left-turn/right-turn lane and is stop-controlled.

Washington Crossing-Pennington Road (CR 546) and Dublin Road

Washington Crossing-Pennington Road (CR 546) and Dublin Road intersect to form a T-shaped intersection under stop control. The eastbound CR 546 approach provides one shared left-turn/through lane. The westbound CR 546 approach provides one shared through/right-turn lane. The southbound Dublin Road approach provides one shared left-turn/right-turn lane and is stop-controlled.

Washington Crossing-Pennington Road (CR 546) and Ingleside Avenue (CR 631)/Reed Road

Washington Crossing-Pennington Road (CR 546) and Ingleside Avenue (CR 631)/Reed Road intersect to form a four-legged intersection under stop control. The eastbound and westbound CR 546 approach provides one shared left-turn/through/right-turn lane. The westbound CR 546 approach provides one shared through/right-turn lane. The northbound Reed Road approach provides one shared left-turn/through/channelized right-turn lane and is stop-controlled. The

southbound CR 631 approach provides one shared left-turn/through/right-turn lane and is stop-controlled.

Traffic Volumes

To examine traffic conditions near the site, turning movement traffic counts were conducted during the morning and evening peak hours on a typical weekday at the study intersections. Note that schools were in session for in person learning during the counts. Specifically, turning movement counts were conducted on Thursday, October 19, 2023 from 6:00 AM to 9:00 AM and from 2:00 PM to 7:00 PM.

In addition, we obtained historical count data, which was conducted by Langan in 2019, prior to the COVID-19 pandemic. Due to the immediate proximity to the Merrill Lynch campus it is expected that current traffic volumes in the study area are lower than what the pre-COVID counts illustrate due to the ongoing work from home methods that are expected to continue over the next several years. We conservatively adjusted the 2023 existing volumes to be representative of the pre-pandemic Merrill Lynch operations.

The traffic counts identify distinct times during the weekday morning and evening periods when traffic experienced its highest levels. According to the traffic count data collected, the weekday morning peak hour generally occurs from 7:30 AM to 8:30 AM and the weekday evening peak hour generally occurs from 4:15 PM to 5:15 PM.

Figure 2 illustrates the existing weekday morning and evening peak hour traffic volumes. Summaries of the traffic counts are contained in Appendix B.

ESTIMATE OF FUTURE CONDITIONS

This section of the report covers background traffic growth, adjacent developments, site-generated trips, trip distribution, and future traffic volumes. We anticipate for the purposes of the Study that the project will be complete by the end of 2026. However, we recognize that the project will likely be developed over multiple years. Accordingly, we projected traffic volumes to include existing traffic, new traffic created by background growth, and other approved developments in the area, to derive the 2026 No-Build traffic volumes. We then added the site-generated trips to the 2026 No-Build traffic volumes to derive the 2026 Build traffic volumes. All volume worksheets are located in Appendix A.

Background Traffic Growth

The existing counted traffic volumes were increased by a compounded 1% annual growth rate established by the New Jersey Department of Transportation (NJDOT) for Mercer County for short term growth projections, to derive the 2026 Base traffic volumes. Figure 3 illustrates the 2026 Base traffic volumes.

No-Build Condition

In addition to general background growth, planned developments within the site's vicinity that will influence traffic on the surrounding road network. In preparing the future traffic projections, we have included the traffic associated with the planned development. We note that no information is available as to roadway improvements that would be associated with these other projects that is contributing to the regional growth and accordingly, mitigation by other developers is not considered in the analyses. The following are the developments considered in the No-Build condition:

- Hopewell Parc – 1,077 Single-Family and Multifamily Residential Units;
- CF Hopewell – 750 Multifamily Residential Units;
- CF Capitol Health – 150 Assisted Living Residential Units and 330 Senior Housing Units;
- The Collection at Hopewell – 379 Residential Units

Traffic associated with these developments were developed using data compiled for each specific land use by the ITE and from a review of their respective traffic studies. The total traffic volumes associated with the adjacent developments can be seen in Figure 4. To develop the 2026 No-Build traffic volumes, the total adjacent development traffic was added to the 2026 Base traffic volumes. The 2026 No-Build traffic volumes are shown in Figure 5.

Site-Generated Trips

We prepared trip generation estimates for the proposed redevelopments using data compiled for Land Use Code 251 (Senior Adult Housing – Single-Family) and Land Use Code 252 (Senior Adult Housing – Multifamily) by the ITE as contained in the publication Trip Generation, 11th edition. Table 1 summarizes the trip generation estimates for the project during the weekday morning and evening peak hours.

Table 1 - Trip Generation Estimates

Use	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
272 Single-Family Detached Units	27	56	83	59	38	97
208 Single-Family Attached Units	22	46	68	48	31	79
120 Multifamily Apartment Units	8	16	24	17	13	30
Total (600 Residential Units)	57	118	175	124	82	206

Trip Distribution

The directional distribution of site-generated trips were determined based on existing travel patterns in the study area, the location of area highways and major intersections, demographic data, and a Journey to Work Model. Table 2 outlines the resulting trip distribution within the study area for new site trips based on the traffic assignment

Table 2 – Arrival and Departure Distributions

Direction (To/From)	Arrival and Departure Distributions
Interstate 295 (North)	4%
Interstate 295 (South)	54%
Scotch Road – CR 611 (North)	19%
Scotch Road – CR 611 (South)	2%
Ingleside Avenue – CR 631 (North)	5%
Washington Pennington-Crossing Road – CR 546 (East)	2%
Nursery Road – CR 647 (West)	14%
Total	100%

Figures 6 and 7 show the arrival and departure distributions for the age-restricted single-family detached section and the age-restricted single-family attached / multifamily sections of the development, respectively. The site-generated traffic was then applied to the adjacent roadway system as per the above distributions. The new site-generated trips assigned to the roadway network for the age-restricted single-family detached section, the age-restricted single-family attached section, and the age-restricted multifamily section are shown in Figures 8, 9, and 10, respectively. The total site generated trips are shown in Figure 11.

Build Traffic Volumes

The 2026 Build traffic volumes were derived by adding the total site-generated trips to the 2026 No-Build traffic volumes. Figure 12 illustrates the 2026 Build weekday morning and evening peak hour traffic volumes.

ANALYSIS OF TRAFFIC OPERATIONS

This section describes the capacity analysis we conducted to assess traffic operations for the No-Build and Build conditions. Capacity analysis provides an indication of the adequacy of road facilities to serve traffic demand.

Level of Service Criteria

Level of Service (LOS) is the term used to denote different operating conditions that occur on a given road segment under various traffic volume demands. LOS is a qualitative measure that considers a number of factors including road geometry, speed, travel delay and freedom to maneuver. LOS designations range from A to F and provide an index of operational qualities of a road segment or an intersection. LOS A represents the best operating conditions; LOS F represents the worst.

LOS designations are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection. For unsignalized intersections, the analysis considers the operation of all movements that conflict with other movements, such as main-line left turns and traffic exiting a side street. The evaluation criteria used to analyze the study area intersections are based on the Highway Capacity Manual, 7th edition, (HCM), published by the Transportation Research Board and the Synchro and HCS Software.

The HCM defines LOS for signalized intersections as follows:

<u>LOS</u>	<u>Control Delay per Vehicle</u>
A	≤ 10 sec
B	> 10 and ≤ 20 sec
C	> 20 and ≤ 35 sec
D	> 35 and ≤ 55 sec
E	> 55 and ≤ 80 sec
F	> 80 sec

The HCM defines LOS for unsignalized intersections as follows:

<u>LOS</u>	<u>Delay Range (sec/veh)</u>
A	≤ 10 sec
B	> 10 and ≤ 15 sec
C	> 15 and ≤ 25 sec
D	> 25 and ≤ 35 sec
E	> 35 and ≤ 50 sec
F	> 50 sec

Capacity Analysis

We conducted capacity analyses for the study intersections and found that the proposed development will not significantly impact area traffic operations. Table 3 summarizes the 2026 No-Build and 2026 Build levels of service at each study intersection during the weekday morning and evening peak hours. Note that all capacity analyses worksheets are contained in Appendix D.

Table 3 – Intersection Capacity Analysis Summary

Location	Movement		Weekday Morning Peak Hour		Weekday Evening Peak Hour	
			No-Build	Build	No-Build	Build
Signalized Intersections						
Scotch Road (CR 611) and Nursery Road (CR 647)/ Capital Way	EB	L	D (52.9)	E (56.0)	D (39.5)	D (43.3)
		T,R	C (32.3)	B (19.1)	C (24.7)	B (18.8)
	WB	L	D (53.1)	D (53.8)	D (35.3)	D (51.5)
		T,R	C (20.3)	C (20.7)	A (8.8)	B (11.8)
	NB	L	D (52.9)	E (55.4)	D (42.1)	D (50.9)
		T	C (21.5)	C (25.6)	C (21.9)	B (13.3)
		R	A (0.8)	A (0.8)	A (0.2)	A (0.2)
	SB	L	E (55.1)	E (55.2)	D (40.3)	D (37.0)
		T,R	B (11.3)	B (16.9)	F (105.4)	E (73.8)
	Overall		B (18.3)	C (22.2)	E (68.4)	D (51.4)
Washington Crossing- Pennington Road (CR 546) and Scotch Road (CR 611)	EB	L	C (22.2)	C (22.2)	D (35.6)	C (33.9)
		T	D (46.4)	D (46.6)	C (33.3)	C (30.6)
		R	A (6.0)	A (6.0)	A (6.1)	A (5.6)
	WB	L	B (14.7)	B (14.9)	B (18.0)	B (18.5)
		T,R	B (13.2)	B (13.1)	C (33.0)	C (28.6)
	NB	L	B (13.8)	B (13.8)	B (15.1)	B (15.4)
		T	B (14.1)	B (14.6)	B (13.3)	B (12.0)
		R	A (3.2)	A (3.1)	A (3.1)	A (2.8)
	SB	L	C (25.5)	C (25.7)	C (29.9)	C (27.7)
		T,R	C (20.6)	C (21.2)	C (26.9)	C (25.5)
	Overall		B (19.7)	B (19.7)	C (22.3)	B (20.6)
	Unsignalized Intersection					
Washington Crossing- Pennington Road (CR 546) and Dublin Road	EB	L	A (8.1)	A (8.1)	A (8.4)	A (8.5)
	SB	L,R	C (16.8)	C (17.1)	C (18.2)	C (18.5)
Washington Crossing- Pennington Road (CR 546) and Ingleside Ave. (CR 631) / Reed Road	EB	L	A (7.8)	A (7.8)	A (8.1)	A (8.1)
	WB	L	A (8.3)	A (8.4)	A (8.3)	A (8.3)
	NB	L,T,R	C (15.9)	C (16.4)	D (29.1)	D (31.0)
	SB	L,T,R	B (14.0)	B (14.1)	C (24.7)	C (24.5)
Nursery Road (CR 647) and Site Access 1	EB	L,T	-	A (3.3)	-	A (3.3)
	WB	T,R	-	A (3.4)	-	A (3.6)
	SB	L,R	-	A (3.3)	-	A (3.2)
Nursery Road (CR 647) and Site Access 2	EB	L	-	A (7.3)	-	A (7.4)
	SB	L,R	-	A (9.1)	-	A (9.3)
Nursery Road (CR 647) and Site Access 3	EB	L	-	A (7.3)	-	A (7.4)
	SB	L,R	-	A (9.1)	-	A (9.2)

Based on Synchro Software [*Level of Service (Average vehicle delay (seconds per vehicle))]

Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way

This signalized intersection is expected to operate at an overall LOS B during the weekday morning peak hour and overall LOS E during the weekday evening peak hour under the No-Build condition.

The signal experiences a significant delay during the no-build condition to the southbound Scotch Road (CR 611) approach during the weekday evening peak hour. With the addition of the site-generated trips the approach will experience minor degradation. However, with a signal timing adjustment, this movement would operate at a better LOS than in the No-Build condition. Under the Build condition, the intersection is expected to continue to operate at an overall LOS C during the weekday morning peak hour and at an overall LOS D during the weekday evening peak hour.

Washington Crossing-Pennington Road (CR 546) and Scotch Road (CR 611)

This signalized intersection is expected to operate at an overall LOS B during the weekday morning peak hour and at an overall LOS C during the weekday evening peak hour under the No-Build condition. Under the Build condition, the intersection is expected to operate at an overall LOS B during both the weekday morning and evening peak hours.

Washington Crossing-Pennington Road (CR 546) and Dublin Road

All movements at this stop-controlled intersection are expected to operate at LOS C or better during both the weekday morning and evening peak hours under the No-Build condition. Under the Build condition all movements are expected to continue to operate at LOS C or better during both the morning and evening peak hours.

Washington Crossing-Pennington Road (CR 546) and Ingleside Avenue (CR 631) / Reed Road

All movements at this stop-controlled intersection are expected to operate at LOS D or better during both the weekday morning and evening peak hours under the No-Build condition. Under the Build condition all movements are expected to continue to operate at LOS D or better during both the morning and evening peak hours.

Nursey Road (CR 647) and Site Access 1

The Site Driveway 1 is proposed to intersect Nursery Road (CR 647) as the third leg of a proposed roundabout. The eastbound Nursery Road (CR 647) approach will provide one shared left-turn/through lane and will be yield-controlled. The westbound Nursery Road (CR 647) approach will provide one shared through/right-turn lane and will be yield-controlled. The southbound site driveway approach will provide one shared left-turn/right-turn lane and will yield-controlled. All

movements at the yield-controlled roundabout are expected to operate at LOS A during both the weekday morning and evening peak hours under the Build condition.

Nursery Road (CR 647) and Site Access 2

The Site Driveway 2 is proposed to intersect Nursery Road (CR 647) and form T-shaped intersection under stop-control. The eastbound Nursery Road (CR 647) approach will provide one shared left-turn/through lane. The westbound Nursery Road approach will provide one shared through/right-turn lane. The southbound site driveway approach will provide one shared left-turn/right-turn lane and will be stop-controlled. All movements at this stop-controlled intersection are expected to operate at LOS A during both the weekday morning and evening peak hours under the Build condition.

Nursery Road (CR 647) and Site Access 3

The Site Driveway 3 is proposed to intersect Nursery Road (CR 647) and form T-shaped intersection under stop-control. The eastbound Nursery Road (CR 647) approach will provide one shared left-turn/through lane. The westbound Nursery Road approach will provide one shared through/right-turn lane. The southbound site driveway approach will provide one shared left-turn/right-turn lane and will be stop-controlled. All movements at this stop-controlled intersection are expected to operate at LOS A during both the weekday morning and evening peak hours under the Build condition.

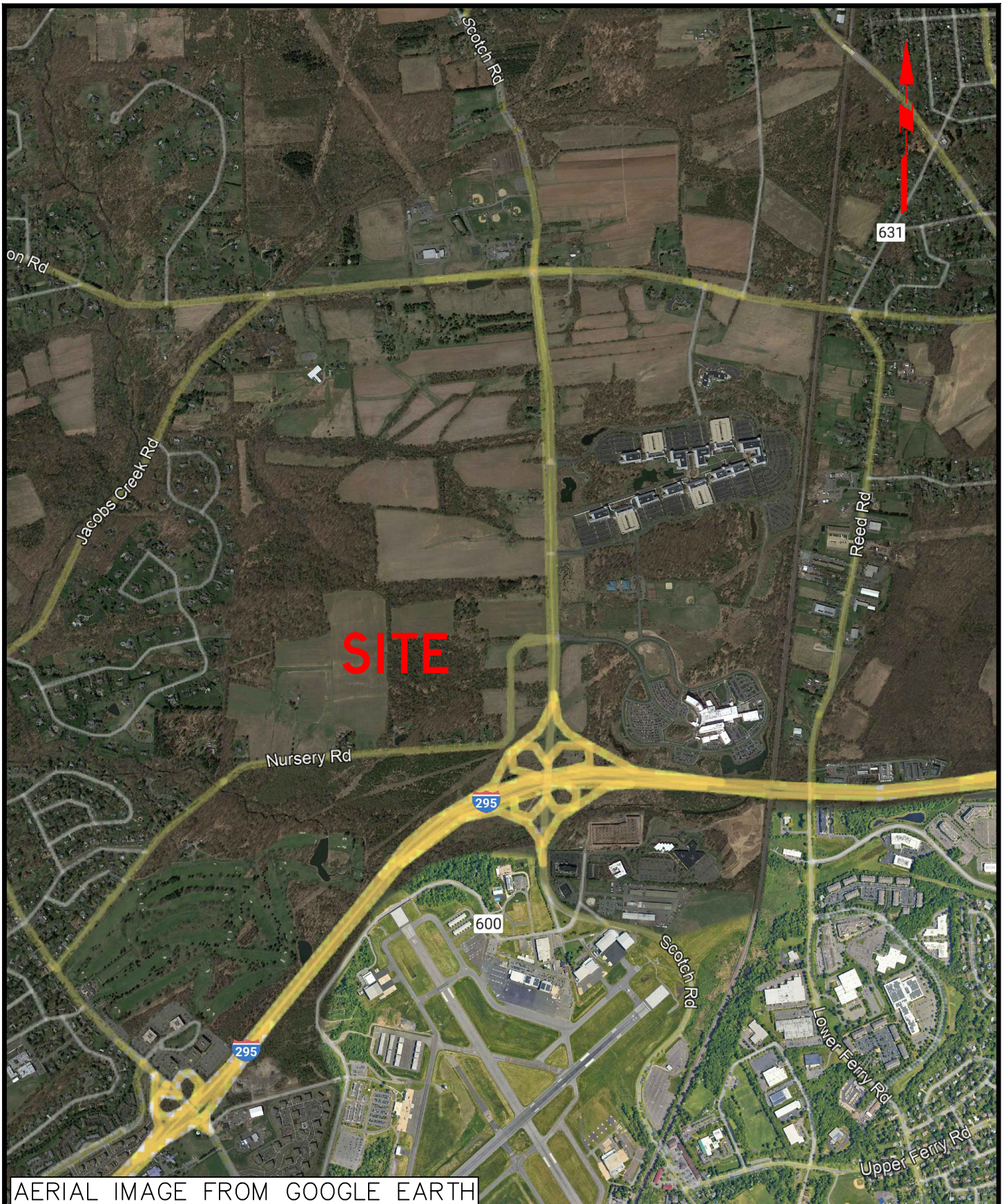
CONCLUSIONS

Based on our analyses, we determined the adjacent roadway network has sufficient capacity to accommodate the site-generated trips associated with the proposed development. The Scotch Road corridor has sufficient capacity to accommodate the proposed project and area growth. The site's access points are expected to operate at acceptable levels of service during peak traffic hours. Moreover, the onsite circulation has been designed to provide logical and efficient circulation for vehicular and pedestrian traffic in accordance with the Residential Site Improvements Standards.

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APPENDIX A

FIGURES



AERIAL IMAGE FROM GOOGLE EARTH

LANGAN

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Princeton, NJ 08540

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NJ Certificate of Authorization No.24GA27996400

Project
**VENUE AT HOPEWELL
(AKA DEER VALLEY)**
BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60
HOPEWELL TOWNSHIP
MERCER COUNTY NEW JERSEY

Drawing Title

**SITE LOCATION
MAP**

Project No.
130208601

Date
05/06/2024

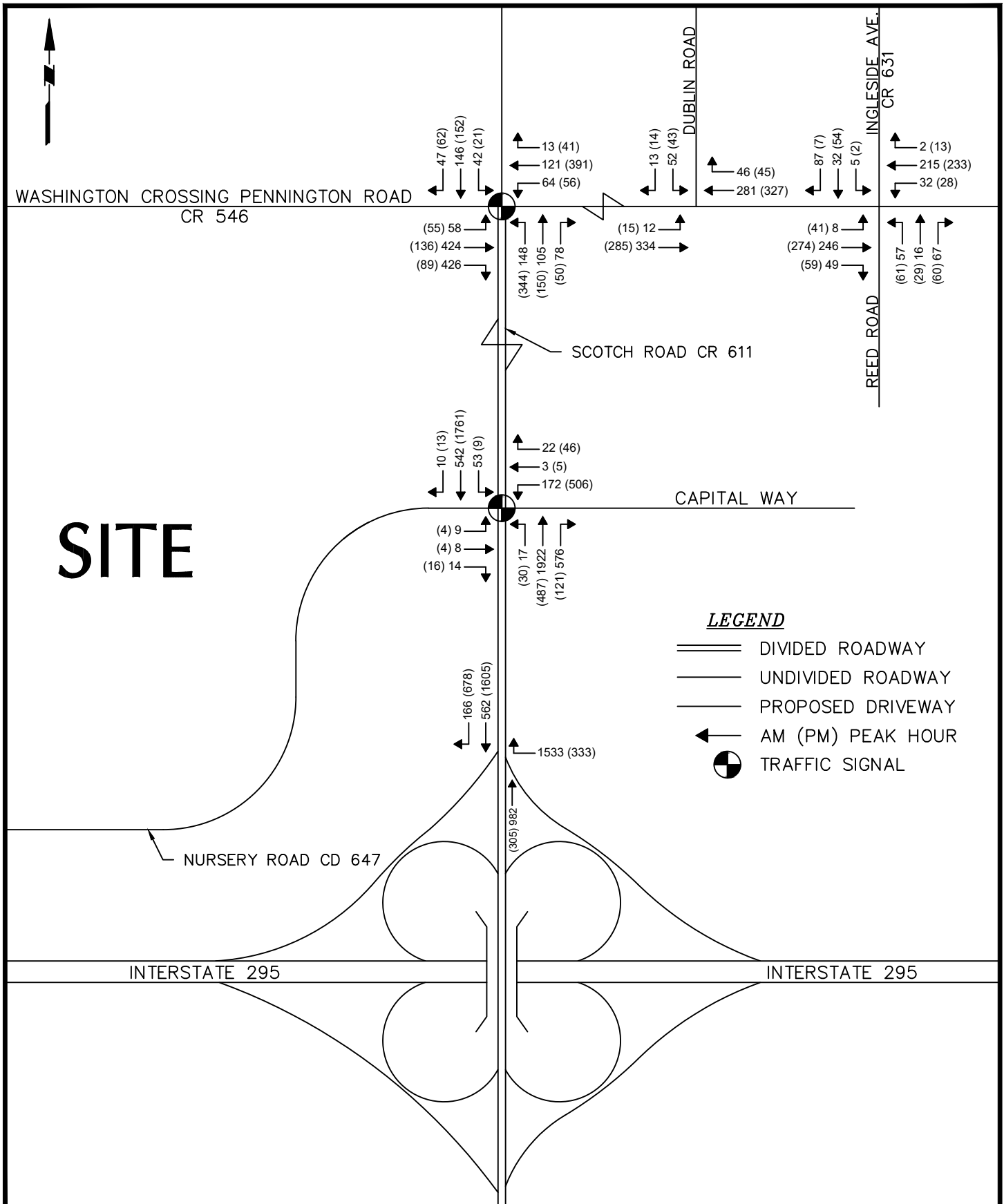
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Figure

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Project
VENUE AT HOPEWELL
(AKA DEER VALLEY)

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP
MERCER COUNTY NEW JERSEY

Drawing Title

**2023 EXISTING
TRAFFIC VOLUMES**

Project No.
130208601

Date
05/06/2024

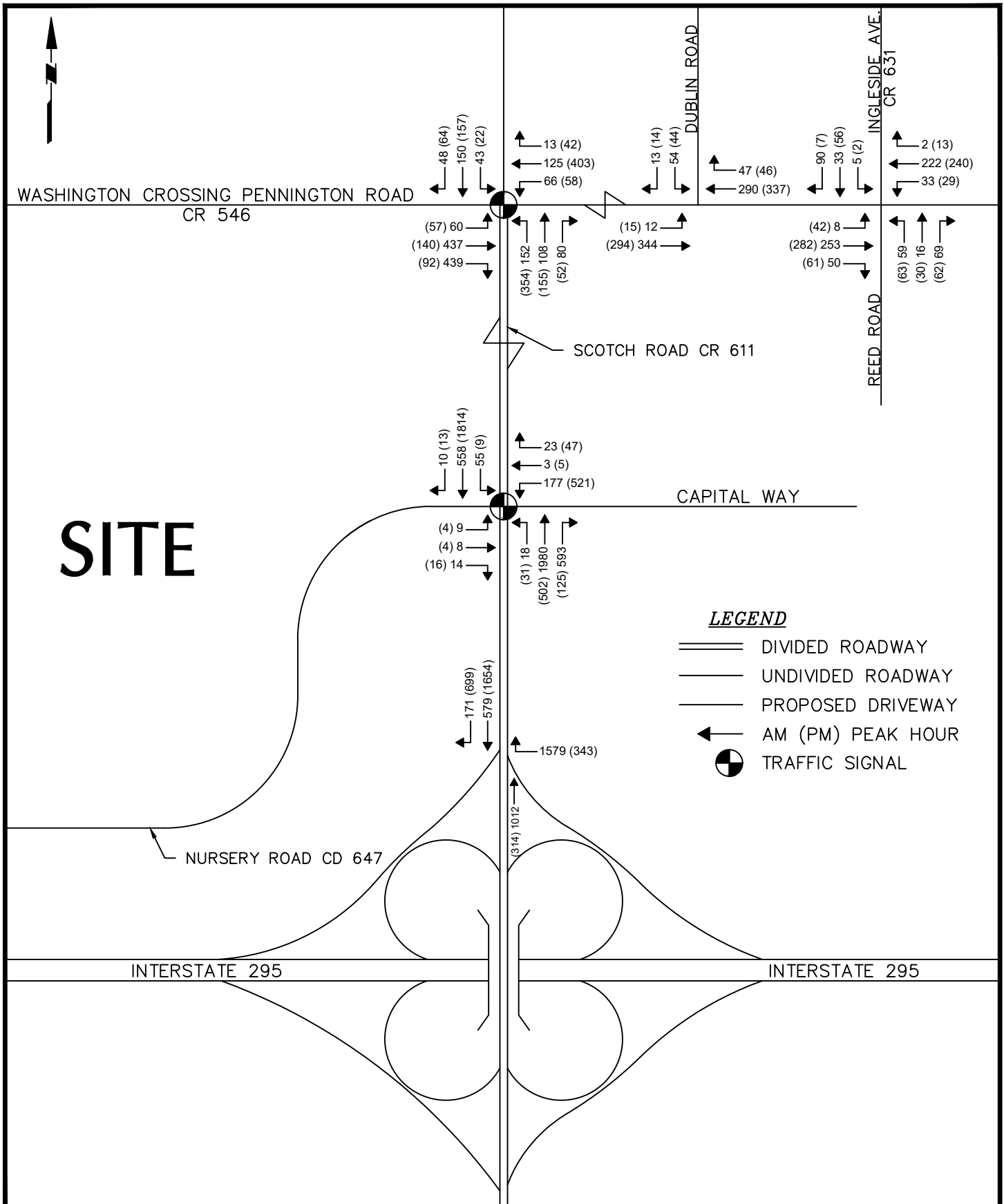
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Project
VENUE AT HOPEWELL
(AKA DEER VALLEY)

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP
MERCER COUNTY NEW JERSEY

Drawing Title

2026 BASE
TRAFFIC VOLUMES

Project No.
130208601

Date
05/06/2024

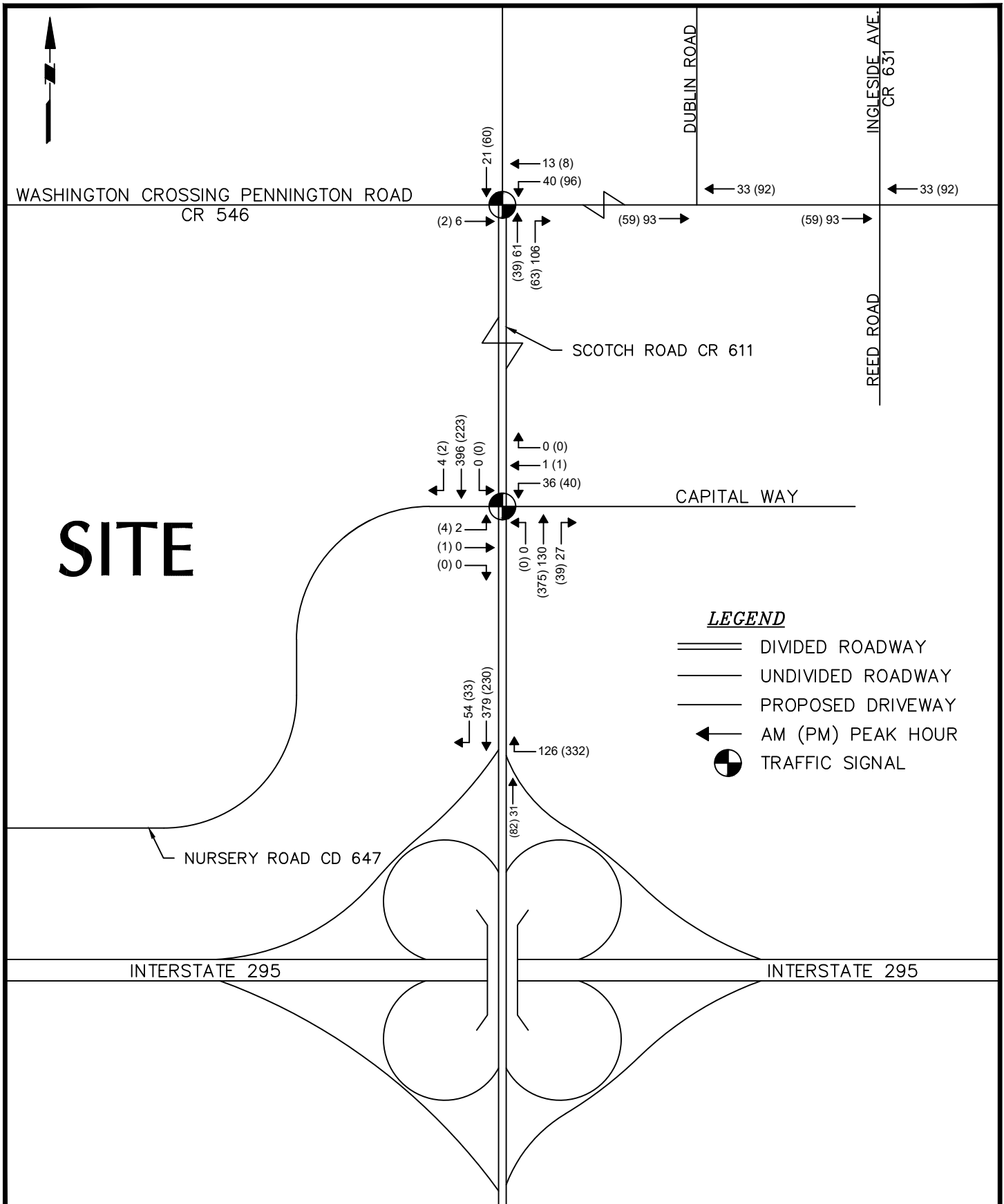
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Project
**VENUE AT HOPEWELL
(AKA DEER VALLEY)**

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP

MERCER COUNTY NEW JERSEY

Drawing Title

**TOTAL ADJACENT
DEVELOPMENT
TRAFFIC VOLUMES**

Project No.
130208601

Date
05/06/2024

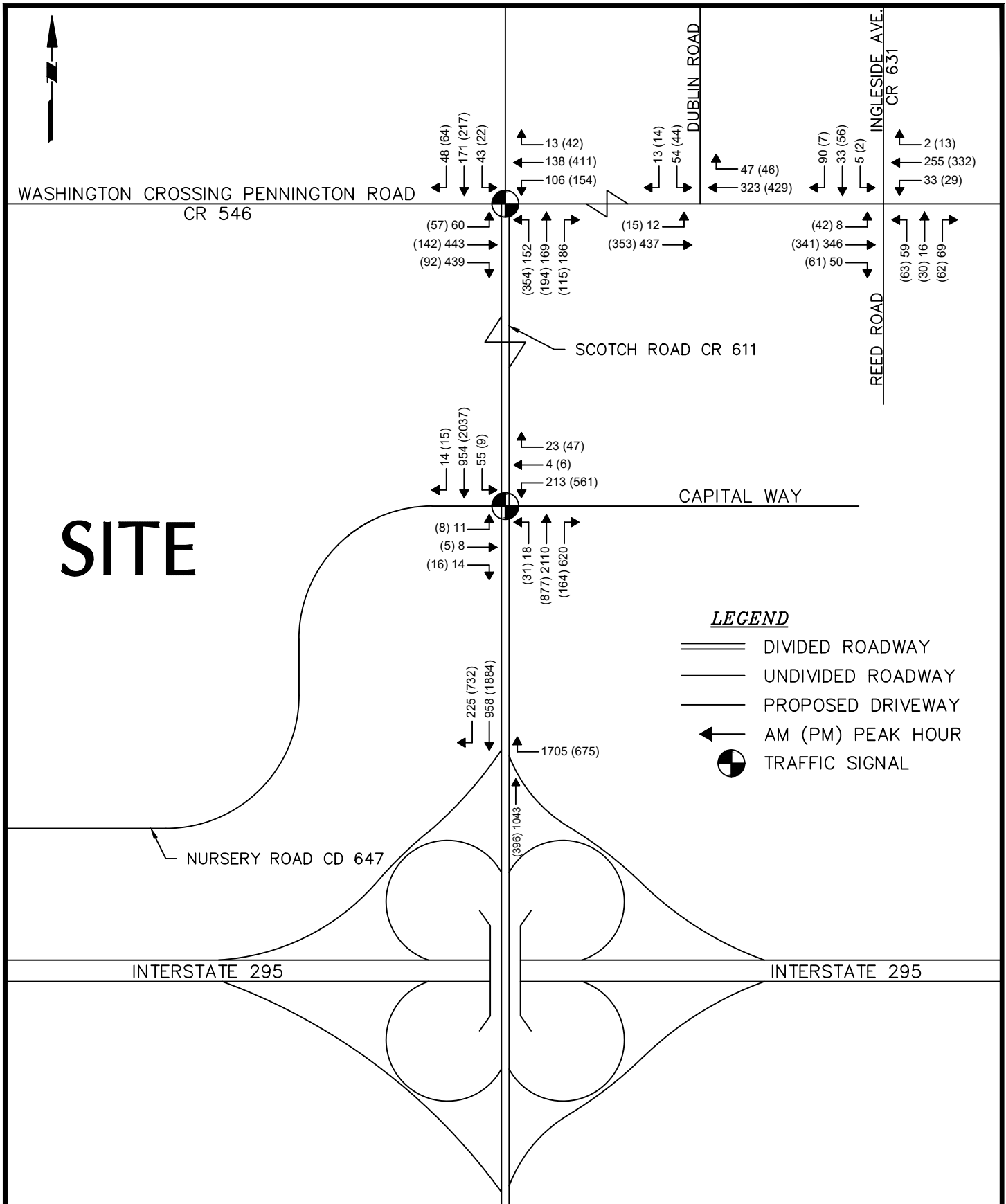
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Project
VENUE AT HOPEWELL
(AKA DEER VALLEY)

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP
MERCER COUNTY NEW JERSEY

Drawing Title

2026 NO-BUILD
TRAFFIC VOLUMES

Project No.

130208601

Date

05/06/2024

Drawn By

EJV

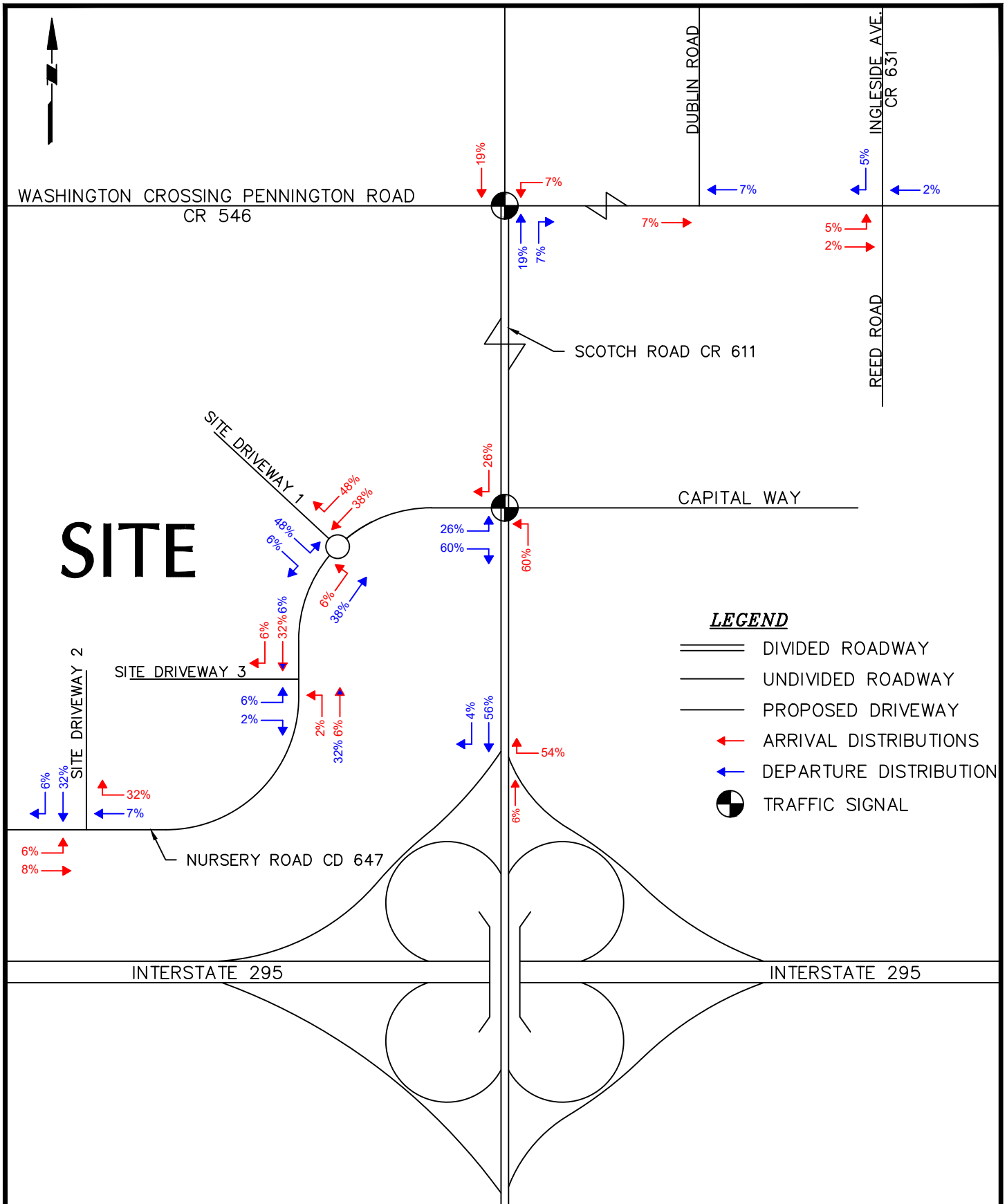
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Project
**VENUE AT HOPEWELL
(AKA DEER VALLEY)**

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP

MERCER COUNTY NEW JERSEY

Drawing Title

**ARRIVAL AND DEPARTURE
DISTRIBUTIONS -
AGE RESTRICTED
SINGLE-FAMILY DETACHED**

Project No.

130208601

Date

05/06/2024

Drawn By

EJV

Checked By

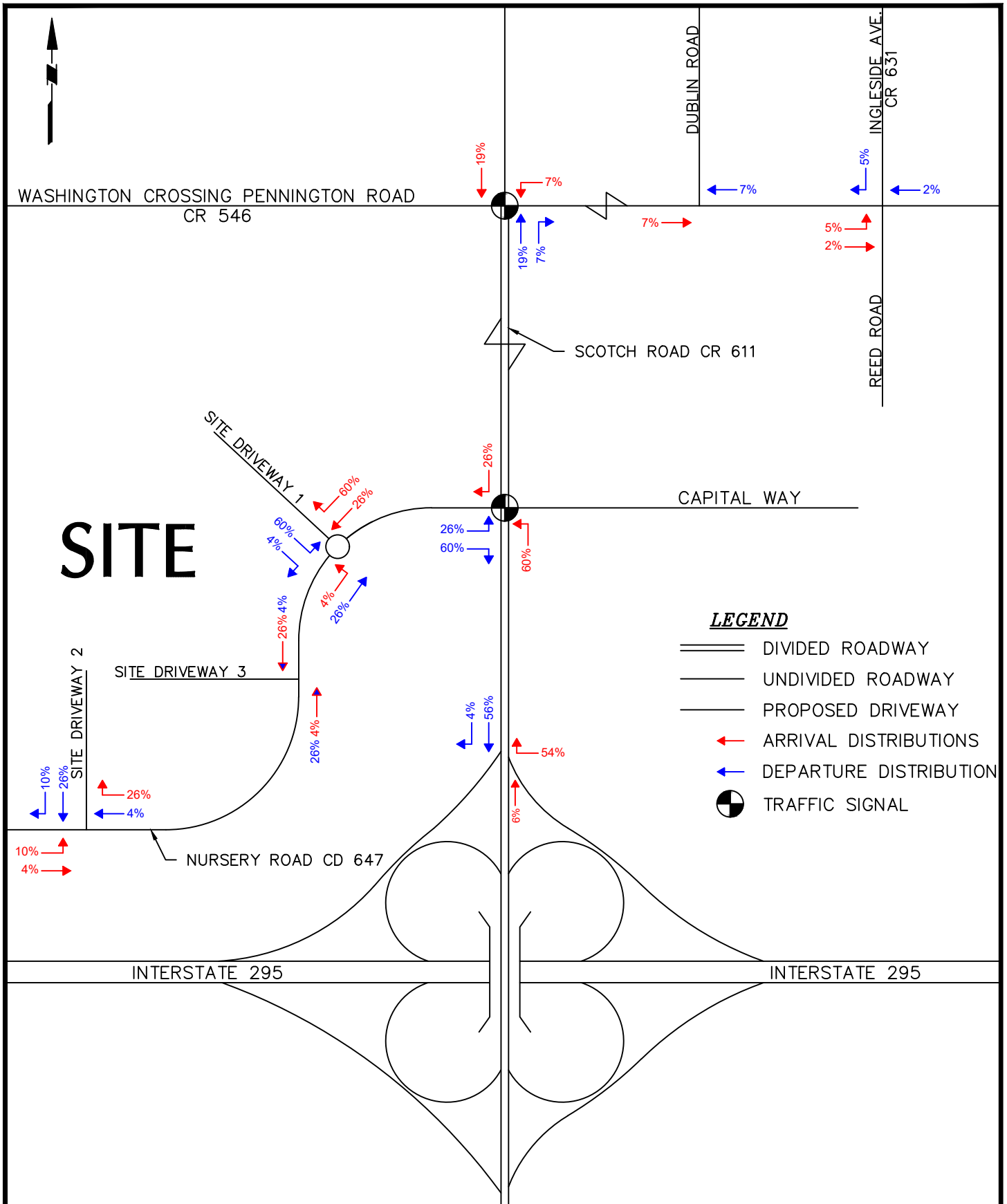
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Project
**VENUE AT HOPEWELL
(AKA DEER VALLEY)**

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP
MERCER COUNTY NEW JERSEY

Drawing Title
**ARRIVAL AND DEPARTURE
DISTRIBUTIONS -
AGE RESTRICTED
SINGLE-FAMILY ATTACHED
/MULTIFAMILY**

Project No.
130208601

Date
05/06/2024

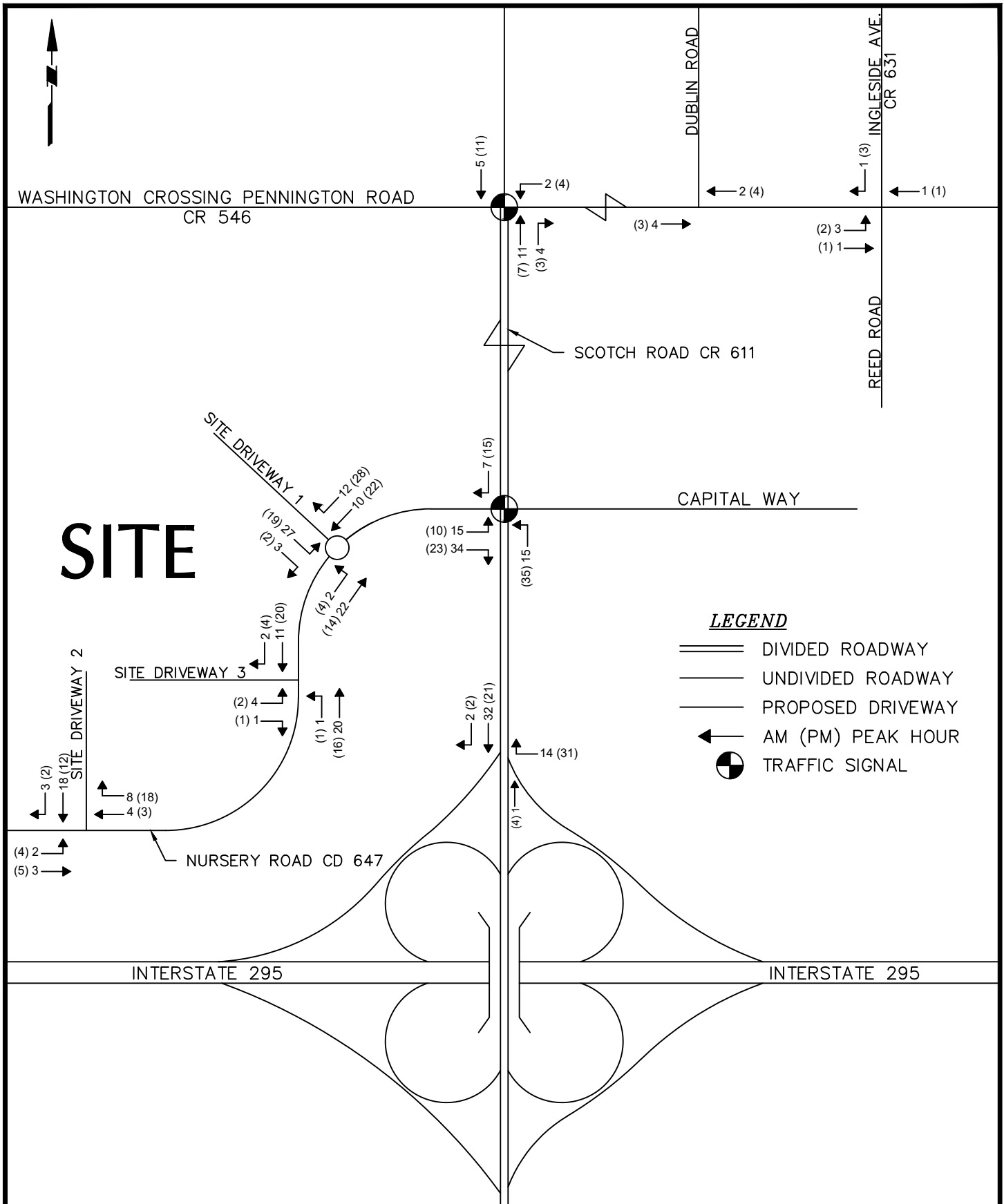
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NJ Certificate of Authorization No.24GA27996400

Project
VENUE AT HOPEWELL
(AKA DEER VALLEY)

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP

MERCER COUNTY NEW JERSEY

Drawing Title

**SITE-GENERATED TRIPS -
AGE RESTRICTED
SINGLE-FAMILY DETACHED**

Project No.

130208601

Date

05/06/2024

Drawn By

EJV

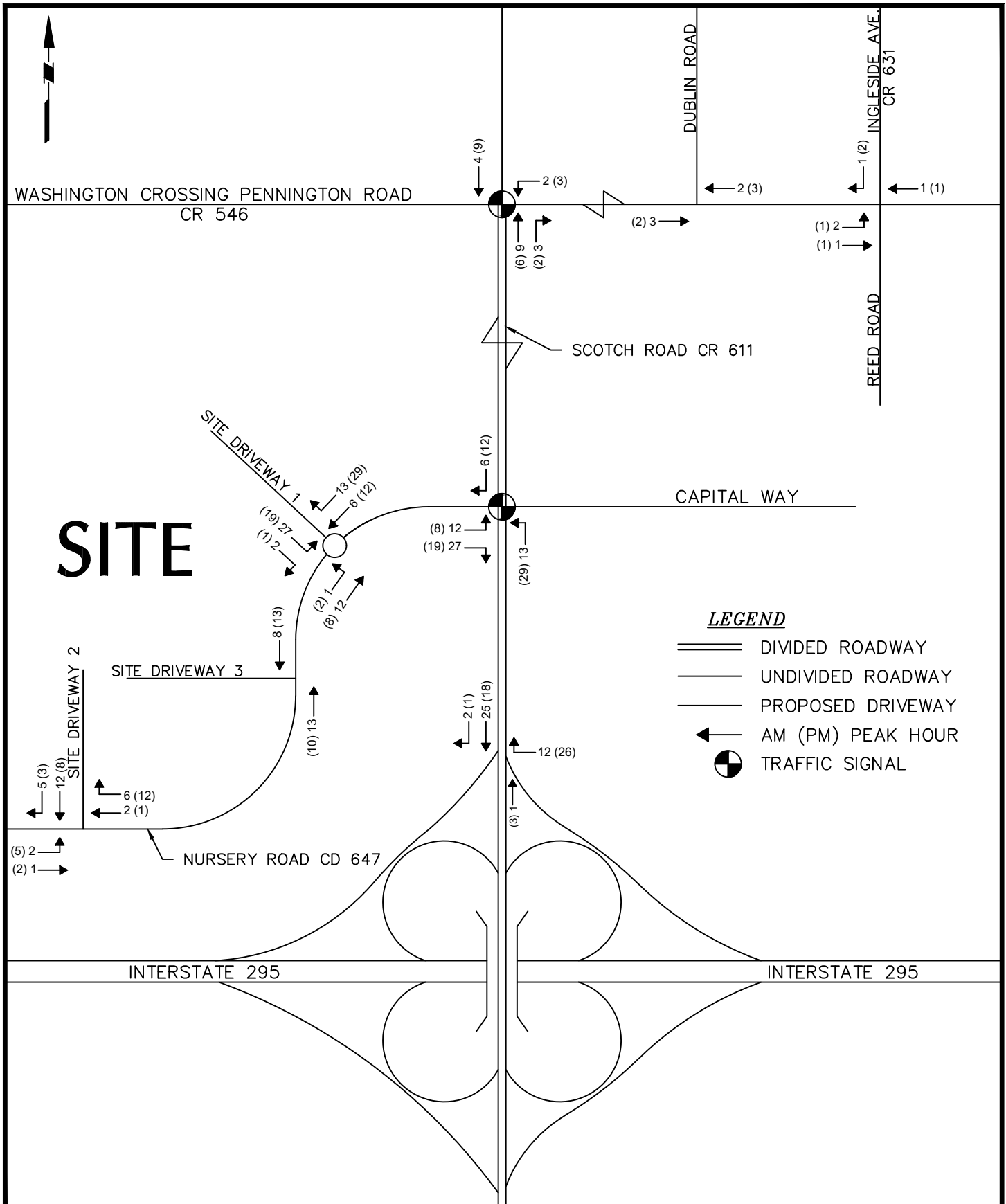
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Project
VENUE AT HOPEWELL
(AKA DEER VALLEY)

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP

MERCER COUNTY NEW JERSEY

Drawing Title

**SITE-GENERATED TRIPS -
AGE RESTRICTED
SINGLE-FAMILY ATTACHED**

Project No.
130208601

Date
05/06/2024

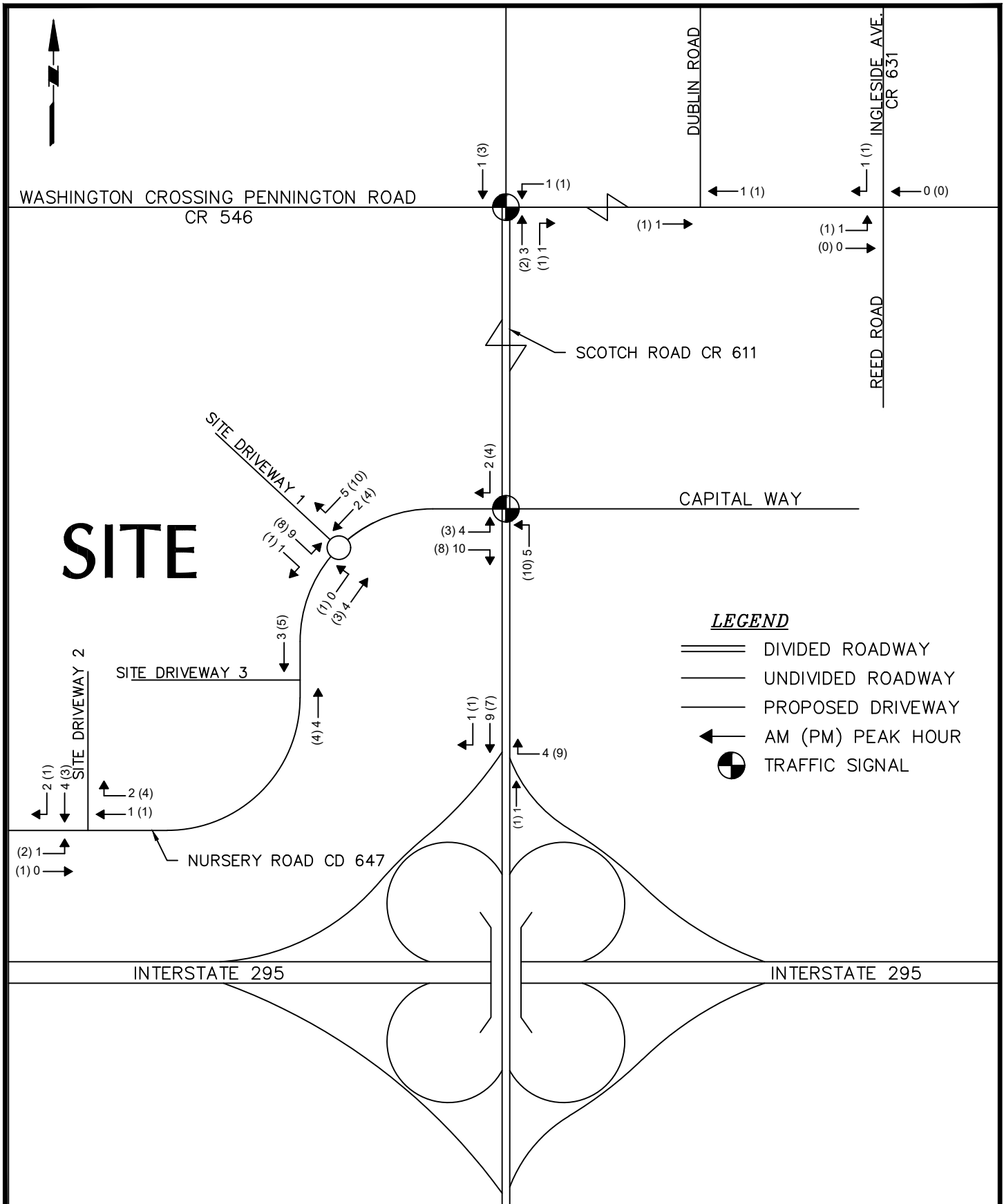
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Project
VENUE AT HOPEWELL
(AKA DEER VALLEY)

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP

MERCER COUNTY NEW JERSEY

Drawing Title

**SITE-GENERATED TRIPS -
AGE RESTRICTED
MULTIFAMILY**

Project No.

130208601

Date

05/06/2024

Drawn By

EJV

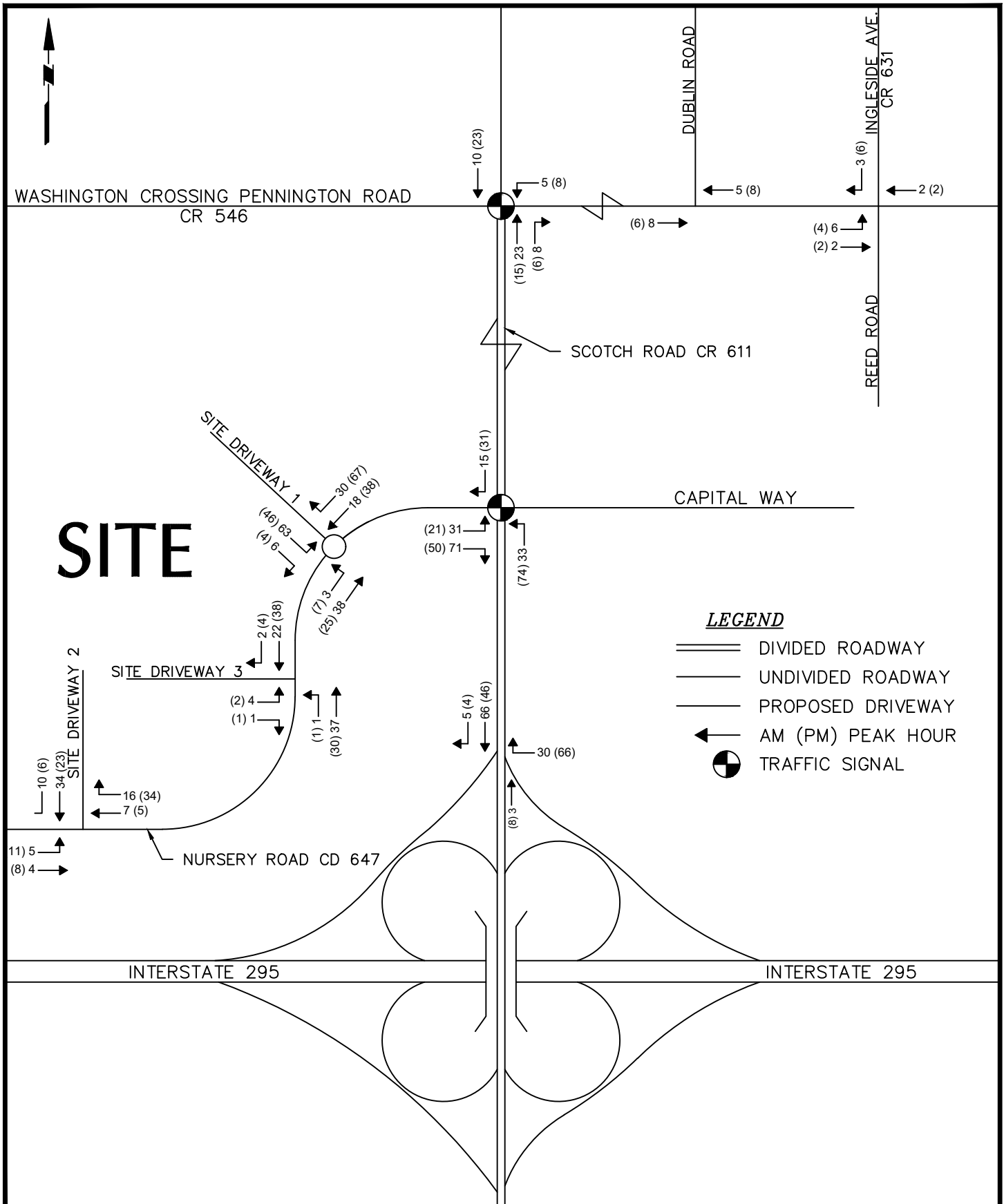
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Project
VENUE AT HOPEWELL
(AKA DEER VALLEY)

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP

MERCER COUNTY NEW JERSEY

Drawing Title

TOTAL
SITE-GENERATED
TRIPS

Project No.

130208601

Date

05/06/2024

Drawn By

EJV

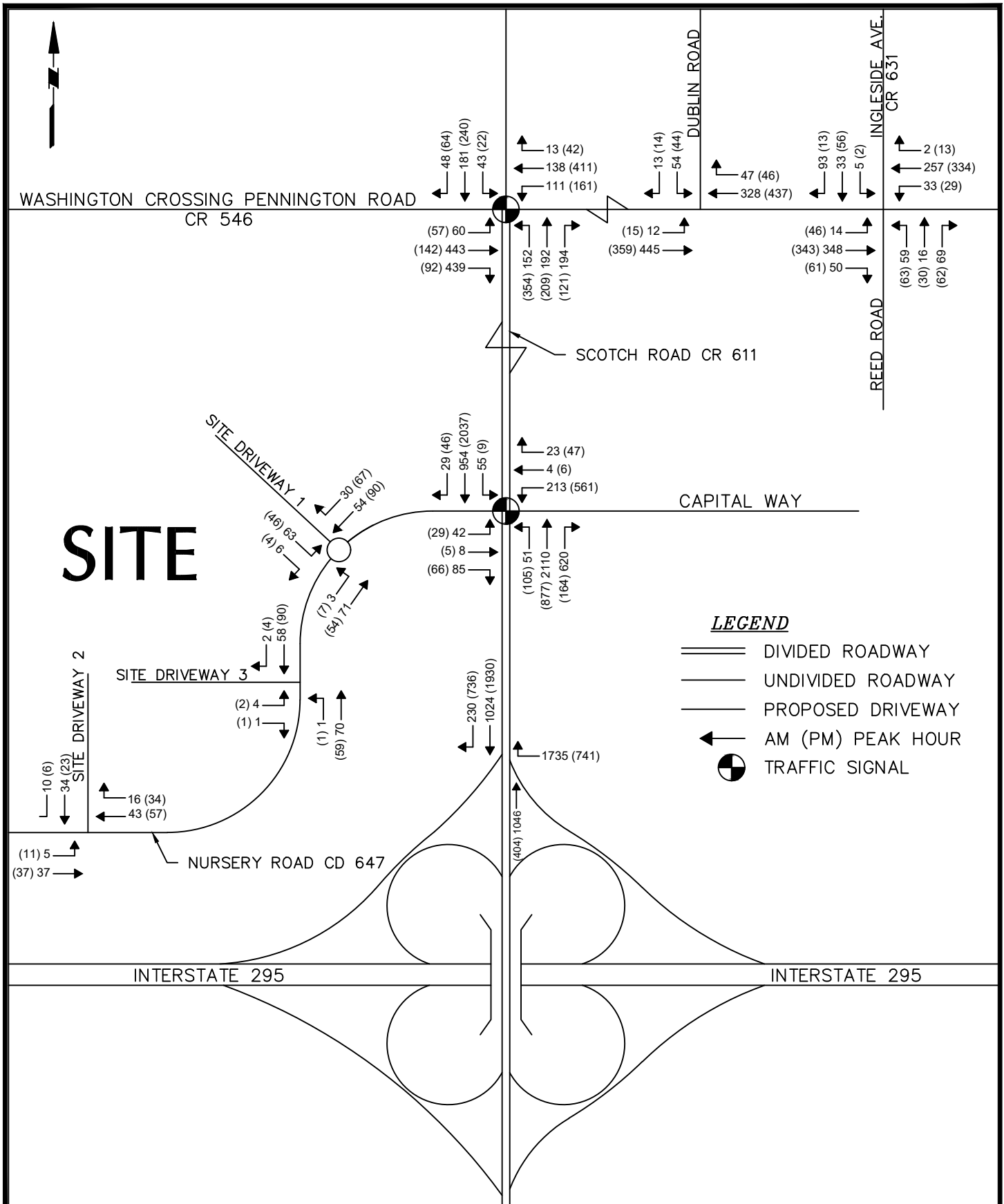
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Project
**VENUE AT HOPEWELL
(AKA DEER VALLEY)**

BLOCK No. 90, LOT Nos. 19, 20, 45,
45.01, 46, AND 60

HOPEWELL TOWNSHIP
MERCER COUNTY NEW JERSEY

Drawing Title

**2026 BUILD
TRAFFIC VOLUMES**

Project No.
130208601

Date
05/06/2024

Drawn By
EJV

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Figure

12

Sheet 12 of 12

APPENDIX B
TRAFFIC COUNTS

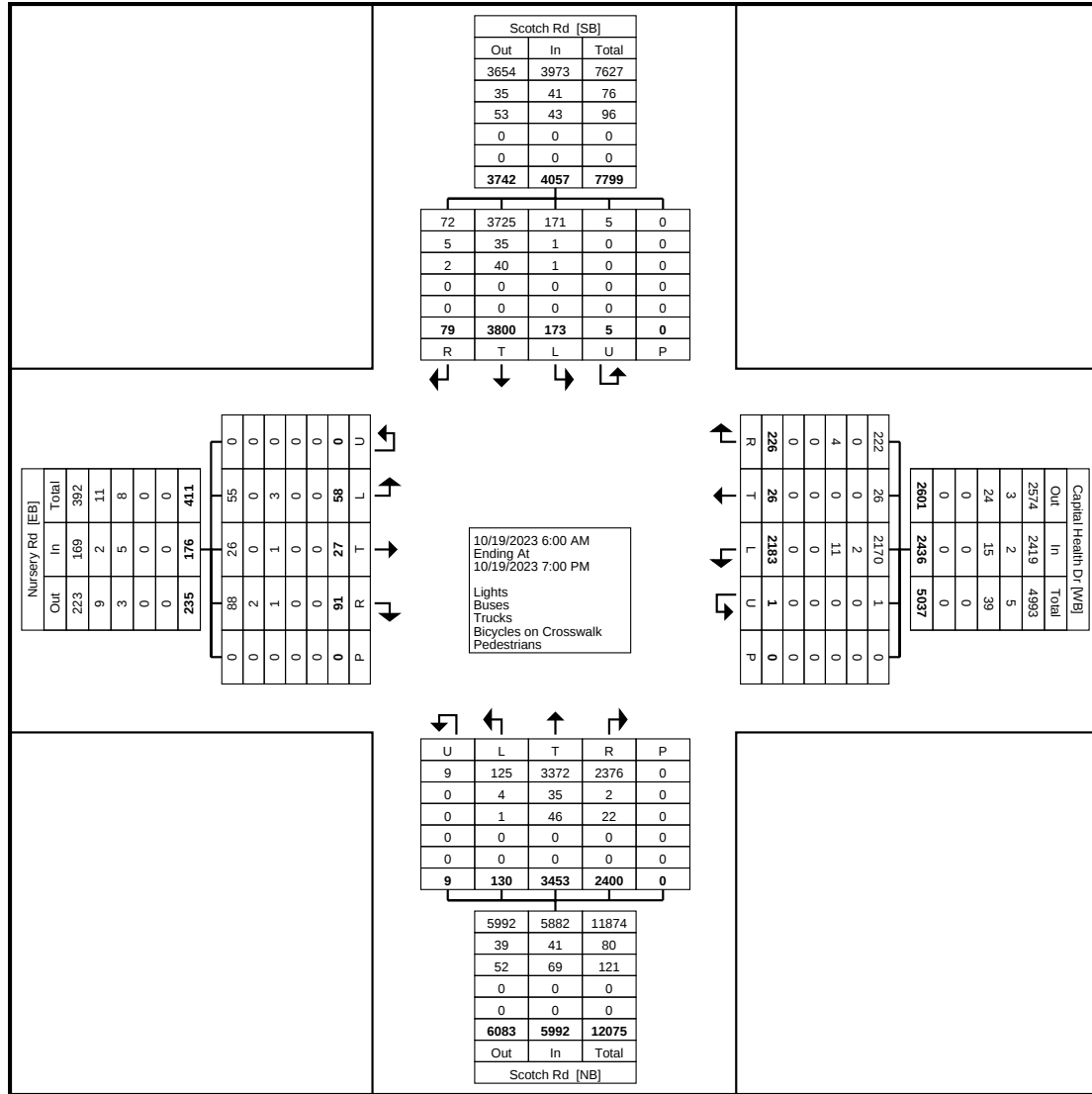


Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Scotch Rd &
Nursery Rd/Capital Health Dr
Site Code:
Start Date: 10/19/2023
Page No: 1

Start Time	Nursery Rd							Capital Health Dr							Scotch Rd							Scotch Rd							Int. Total
	Eastbound							Westbound							Northbound							Southbound							
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
6:00 AM	0	0	0	0	0	0	0	8	0	0	0	0	0	8	1	32	48	2	0	0	83	1	20	0	0	0	0	21	112
6:15 AM	0	0	0	0	0	0	0	6	0	0	0	0	0	6	1	44	85	5	0	0	135	5	21	0	0	0	0	26	167
6:30 AM	1	0	1	1	0	0	3	7	0	1	1	0	0	9	1	56	127	38	0	0	222	10	42	0	0	0	0	52	286
6:45 AM	3	1	1	1	0	0	6	12	0	2	1	0	0	15	0	91	171	68	0	0	330	13	44	2	0	0	0	59	410
Hourly Total	4	1	2	2	0	0	9	33	0	3	2	0	0	38	3	223	431	113	0	0	770	29	127	2	0	0	0	158	975
7:00 AM	1	0	0	1	0	0	2	28	0	0	2	0	0	30	1	95	95	29	0	0	220	8	41	0	0	0	0	49	301
7:15 AM	2	2	0	1	0	0	5	41	0	1	1	0	0	43	2	166	82	37	0	0	287	10	77	1	0	0	0	88	423
7:30 AM	3	1	1	2	0	0	7	76	0	5	1	0	0	82	3	192	67	80	0	0	342	11	72	0	1	1	0	85	516
7:45 AM	1	0	2	3	0	0	6	41	0	1	5	0	0	47	3	252	111	60	1	0	427	19	65	2	0	0	0	86	566
Hourly Total	7	3	3	7	0	0	20	186	0	7	9	0	0	202	9	705	355	206	1	0	1276	48	255	3	1	1	0	308	1806
8:00 AM	3	3	1	1	0	0	8	25	2	5	0	0	0	32	3	251	90	45	1	0	390	15	81	3	0	0	0	99	529
8:15 AM	2	4	4	0	0	0	10	30	1	4	1	0	0	36	8	300	82	41	0	0	431	8	73	4	0	0	0	85	562
8:30 AM	1	1	0	2	0	0	4	39	0	2	2	0	0	43	2	280	63	34	0	0	379	8	92	0	0	1	0	101	527
8:45 AM	8	1	1	3	0	0	13	43	0	2	4	0	0	49	6	287	81	34	0	0	408	10	73	2	0	0	0	85	555
Hourly Total	14	9	6	6	0	0	35	137	3	13	7	0	0	160	19	1118	316	154	1	0	1608	41	319	9	0	1	0	370	2173
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hourly 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	0	0	0	0	0
2:00 PM	2	2	0	2	0	0	6	81	2	4	4	0	0	91	6	65	32	24	0	0	127	1	99	2	0	0	0	102	326
2:15 PM	2	2	0																										

Pedestrian s	- - - - - 0 -	- - - - - 0 -	- - - - - 0 -	- - - - - 0 -	-
% Pedestrian s	- - - - - - -	- - - - - - -	- - - - - - -	- - - - - - -	-



Turning Movement Data Plot

Scotch Rd & Nursery Rd/Capital Health Dr - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123347, Location: 40.294747, -74.811143



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Nursery Rd Eastbound							Capital Health Dr Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2023-10-19 7:30AM	3	1	1	0	2	7	0	76	0	5	0	1	82	0
7:45AM	1	0	2	0	3	6	0	41	0	1	0	5	47	0
8:00AM	3	3	1	0	1	8	0	25	2	5	0	0	32	0
8:15AM	2	4	4	0	0	10	0	30	1	4	0	1	36	0
Total	9	8	8	0	6	31	0	172	3	15	0	7	197	0
% Approach	29.0%	25.8%	25.8%	0%	19.4%	-	-	87.3%	1.5%	7.6%	0%	3.6%	-	-
% Total	0.4%	0.4%	0.4%	0%	0.3%	1.4%	-	7.9%	0.1%	0.7%	0%	0.3%	9.1%	-
PHF	0.750	0.500	0.500	-	0.500	0.775	-	0.566	0.375	0.750	-	0.350	0.601	-
Lights	9	8	8	0	6	31	-	167	3	14	0	7	191	-
% Lights	100%	100%	100%	0%	100%	100%	-	97.1%	100%	93.3%	0%	100%	97.0%	-
Articulated Trucks and Single-Unit Trucks	0	0	0	0	0	0	-	4	0	1	0	0	5	-
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	-	2.3%	0%	6.7%	0%	0%	2.5%	-
Buses	0	0	0	0	0	0	-	1	0	0	0	0	1	-
% Buses	0%	0%	0%	0%	0%	0%	-	0.6%	0%	0%	0%	0%	0.5%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Scotch Rd & Nursery Rd/Capital Health Dr - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123347, Location: 40.294747, -74.811143



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Scotch Rd Northbound								Scotch Rd Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*		Int
2023-10-19 7:30AM	3	192	67	0	80	342	0		11	72	0	1	1	85	0		516
7:45AM	3	252	111	1	60	427	0		19	65	2	0	0	86	0		566
8:00AM	3	251	90	1	45	390	0		15	81	3	0	0	99	0		529
8:15AM	8	300	82	0	41	431	0		8	73	4	0	0	85	0		562
Total	17	995	350	2	226	1590	0		53	291	9	1	1	355	0		2173
% Approach	1.1%	62.6%	22.0%	0.1%	14.2%	-	-		14.9%	82.0%	2.5%	0.3%	0.3%	-	-		-
% Total	0.8%	45.8%	16.1%	0.1%	10.4%	73.2%	-		2.4%	13.4%	0.4%	0%	0%	16.3%	-		-
PHF	0.531	0.829	0.788	0.500	0.706	0.922	-		0.697	0.898	0.563	0.250	0.250	0.896	-		0.960
Lights	14	975	347	2	224	1562	-		53	276	6	1	1	337	-		2121
% Lights	82.4%	98.0%	99.1%	100%	99.1%	98.2%	-		100%	94.8%	66.7%	100%	100%	94.9%	-		97.6%
Articulated Trucks and Single-Unit Trucks	1	9	3	0	2	15	-		0	6	2	0	0	8	-		28
% Articulated Trucks and Single-Unit Trucks	5.9%	0.9%	0.9%	0%	0.9%	0.9%	-		0%	2.1%	22.2%	0%	0%	2.3%	-		1.3%
Buses	2	11	0	0	0	13	-		0	9	1	0	0	10	-		24
% Buses	11.8%	1.1%	0%	0%	0%	0.8%	-		0%	3.1%	11.1%	0%	0%	2.8%	-		1.1%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Scotch Rd & Nursery Rd/Capital Health Dr - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123347, Location: 40.294747, -74.811143



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Scotch Rd

Total: 1382

In: 355 Out: 1027

10
291
53
1

[W] Nursery Rd

Total: 61

In: 31 Out: 30

14
9

22
3
172

Out: 637 In: 197

Total: 834

[E] Capital Health Dr

Out: 479

In: 1590

Total: 2069

[S] Scotch Rd

2
17

995

576

Scotch Rd & Nursery Rd/Capital Health Dr - TMC

Thu Oct 19, 2023

PM Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123347, Location: 40.294747, -74.811143



Provided by: Tri-State Traffic Data, Inc.
48 Greensburg Street, Suite 397,
Delmont, PA, 15626-9998, US

[N] Scotch Rd

Total: 1419

In: 1030 Out: 389

13
1008
9

[W] Nursery Rd

Total: 72

In: 24 Out: 48

4
4
16

46
5
506

Out: 134 In: 557

Total: 691

[E] Capital Health Dr

Out: 1530 In: 490

Total: 2020

[S] Scotch Rd

30
339
121



Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Scotch Rd &
Nursery Rd/Capital Health Dr
Site Code:
Start Date: 10/19/2023
Page No: 6

[illegible]

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Scotch Rd &
Nursery Rd/Capital Health Dr
Site Code:
Start Date: 10/19/2023
Page No: 7



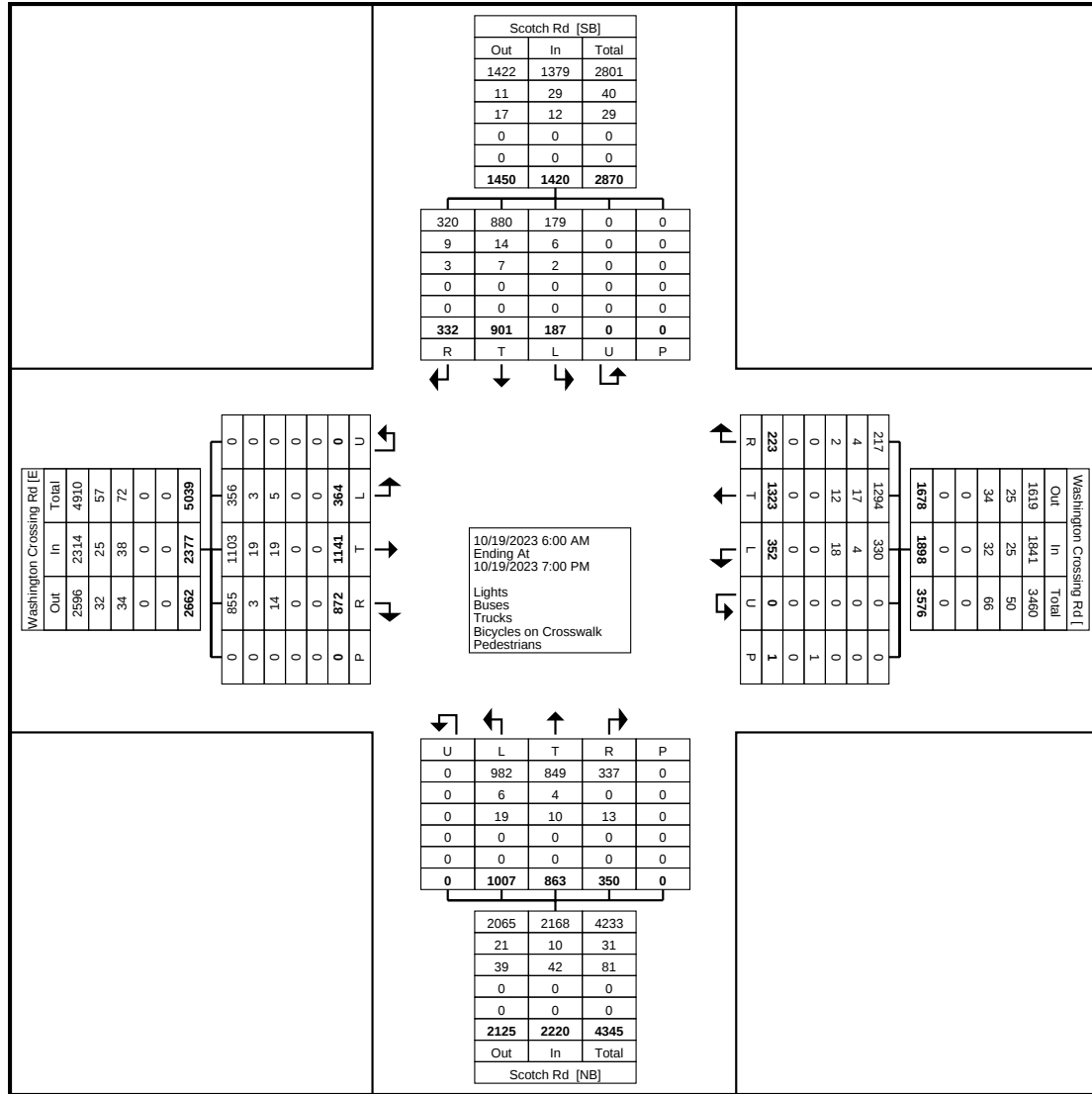


Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Scotch Rd &
Washington Crossing Rd
Site Code:
Start Date: 10/19/2023
Page No: 1

Start Time	Washington Crossing Rd							Washington Crossing Rd							Scotch Rd							Scotch Rd							Int. Total
	Eastbound							Westbound							Northbound							Southbound							
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
6:00 AM	1	5	9	0	0	0	15	1	4	1	0	0	0	6	3	5	2	0	0	0	10	0	4	1	0	0	0	5	36
6:15 AM	3	10	17	0	0	0	30	6	7	1	0	0	0	14	4	4	0	1	0	0	9	0	9	0	1	0	0	10	63
6:30 AM	6	20	28	10	0	0	64	11	7	2	0	0	0	20	8	6	0	5	0	0	19	3	14	0	1	0	0	18	121
6:45 AM	6	30	13	18	0	0	67	8	14	2	0	0	0	24	11	13	0	4	0	0	28	2	18	0	1	0	0	21	140
Hourly Total	16	65	67	28	0	0	176	26	32	6	0	0	0	64	26	28	2	10	0	0	66	5	45	1	3	0	0	54	360
7:00 AM	10	26	17	13	0	0	66	6	10	2	0	0	0	18	14	30	0	7	0	0	51	1	15	1	0	0	0	17	152
7:15 AM	31	36	44	10	0	0	121	10	22	5	1	0	0	38	10	45	0	15	0	0	70	2	24	2	2	0	0	30	259
7:30 AM	38	59	28	8	0	0	133	11	22	4	0	0	0	37	27	37	5	16	0	0	85	15	42	8	4	0	0	69	324
7:45 AM	12	72	31	18	0	0	133	15	33	5	0	0	0	53	22	29	4	13	0	0	68	11	31	13	3	0	0	58	312
Hourly Total	91	193	120	49	0	0	453	42	87	16	1	0	0	146	73	141	9	51	0	0	274	29	112	24	9	0	0	174	1047
8:00 AM	5	61	38	11	0	0	115	22	32	3	0	0	0	57	28	21	7	10	0	0	66	8	39	9	2	0	0	58	296
8:15 AM	3	75	28	18	0	0	124	16	34	0	1	0	0	51	21	18	12	11	0	0	62	8	34	7	1	0	0	50	287
8:30 AM	17	65	43	14	0	0	139	11	35	2	0	0	0	48	28	28	4	5	0	0	65	13	46	13	2	0	0	74	326
8:45 AM	6	64	30	11	0	0	111	12	31	4	4	0	0	51	12	30	3	6	0	0	51	13	39	4	5	0	0	61	274
Hourly Total	31	265	139	54	0	0	489	61	132	9	5	0	0	207	89	97	26	32	0	0	244	42	158	33	10	0	0	243	1183
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly 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	0	0	0	0	0
2:00 PM	9	29	12	6	0	0	56	6	38	5	1	0	0	50	20	16	5	13	0	0	54	5	19	4	5	0	0	33	19

Pedestrian s	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrian s	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-



Turning Movement Data Plot

Scotch Rd & Washington Crossing Rd - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123348, Location: 40.308991, -74.812738



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Washington Crossing Rd Eastbound							Washington Crossing Rd Westbound						
Time	L	T	R	U	RR	App	Ped*	L	T	R	U	RR	App	Ped*
2023-10-19 7:30AM	38	59	28	0	8	133	0	11	22	4	0	0	37	0
7:45AM	12	72	31	0	18	133	0	15	33	5	0	0	53	0
8:00AM	5	61	38	0	11	115	0	22	32	3	0	0	57	0
8:15AM	3	75	28	0	18	124	0	16	34	0	0	1	51	0
Total	58	267	125	0	55	505	0	64	121	12	0	1	198	0
% Approach	11.5%	52.9%	24.8%	0%	10.9%	-	-	32.3%	61.1%	6.1%	0%	0.5%	-	-
% Total	4.8%	21.9%	10.3%	0%	4.5%	41.4%	-	5.3%	9.9%	1.0%	0%	0.1%	16.2%	-
PHF	0.382	0.890	0.822	-	0.764	0.949	-	0.727	0.890	0.600	-	0.250	0.868	-
Lights	58	254	123	0	54	489	-	59	115	11	0	1	186	-
% Lights	100%	95.1%	98.4%	0%	98.2%	96.8%	-	92.2%	95.0%	91.7%	0%	100%	93.9%	-
Articulated Trucks and Single-Unit Trucks	0	7	2	0	1	10	-	5	1	0	0	0	6	-
% Articulated Trucks and Single-Unit Trucks	0%	2.6%	1.6%	0%	1.8%	2.0%	-	7.8%	0.8%	0%	0%	0%	3.0%	-
Buses	0	6	0	0	0	6	-	0	5	1	0	0	6	-
% Buses	0%	2.2%	0%	0%	0%	1.2%	-	0%	4.1%	8.3%	0%	0%	3.0%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Scotch Rd & Washington Crossing Rd - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123348, Location: 40.308991, -74.812738



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Scotch Rd Northbound								Scotch Rd Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*		Int
2023-10-19 7:30AM	27	37	5	0	16	85	0		15	42	8	0	4	69	0		324
7:45AM	22	29	4	0	13	68	0		11	31	13	0	3	58	0		312
8:00AM	28	21	7	0	10	66	0		8	39	9	0	2	58	0		296
8:15AM	21	18	12	0	11	62	0		8	34	7	0	1	50	0		287
Total	98	105	28	0	50	281	0		42	146	37	0	10	235	0		1219
% Approach	34.9%	37.4%	10.0%	0%	17.8%	-	-		17.9%	62.1%	15.7%	0%	4.3%	-	-		-
% Total	8.0%	8.6%	2.3%	0%	4.1%	23.1%	-		3.4%	12.0%	3.0%	0%	0.8%	19.3%	-		-
PHF	0.875	0.709	0.583	-	0.781	0.826	-		0.700	0.869	0.712	-	0.625	0.851	-		0.941
Lights	90	102	22	0	47	261	-		40	137	34	0	10	221	-		1157
% Lights	91.8%	97.1%	78.6%	0%	94.0%	92.9%	-		95.2%	93.8%	91.9%	0%	100%	94.0%	-		94.9%
Articulated Trucks and Single-Unit Trucks	7	1	6	0	3	17	-		0	3	0	0	0	3	-		36
% Articulated Trucks and Single-Unit Trucks	7.1%	1.0%	21.4%	0%	6.0%	6.0%	-		0%	2.1%	0%	0%	0%	1.3%	-		3.0%
Buses	1	2	0	0	0	3	-		2	6	3	0	0	11	-		26
% Buses	1.0%	1.9%	0%	0%	0%	1.1%	-		4.8%	4.1%	8.1%	0%	0%	4.7%	-		2.1%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Scotch Rd & Washington Crossing Rd - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123348, Location: 40.308991, -74.812738



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Scotch Rd

Total: 411

In: 235 Out: 176

47

146

42

[W] Washington Crossing Rd

Total: 771

In: 505 Out: 266

58
267
180

13
121
64

Out: 387 In: 198

Total: 585

[E] Washington Crossing Rd

Out: 390

In: 281

Total: 671

[S] Scotch Rd

98

105

78

Scotch Rd & Washington Crossing Rd - TMC

Thu Oct 19, 2023

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123348, Location: 40.308991, -74.812738



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Washington Crossing Rd Eastbound								Washington Crossing Rd Westbound							
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*	
2023-10-19 4:15PM	10	33	14	0	10	67	0		12	51	12	0	1	76	0	
4:30PM	14	40	14	0	7	75	0		17	79	7	0	3	106	0	
4:45PM	19	29	14	0	11	73	0		9	75	7	0	3	94	0	
5:00PM	12	34	11	0	8	65	0		18	77	7	0	1	103	0	
Total	55	136	53	0	36	280	0		56	282	33	0	8	379	0	
% Approach	19.6%	48.6%	18.9%	0%	12.9%	-	-		14.8%	74.4%	8.7%	0%	2.1%	-	-	
% Total	4.1%	10.3%	4.0%	0%	2.7%	21.1%	-		4.2%	21.3%	2.5%	0%	0.6%	28.6%	-	
PHF	0.724	0.850	0.946	-	0.818	0.933	-		0.778	0.892	0.688	-	0.667	0.894	-	
Lights	55	132	51	0	36	274	-		55	276	33	0	8	372	-	
% Lights	100%	97.1%	96.2%	0%	100%	97.9%	-		98.2%	97.9%	100%	0%	100%	98.2%	-	
Articulated Trucks and Single-Unit Trucks	0	0	2	0	0	2	-		0	5	0	0	0	5	-	
% Articulated Trucks and Single-Unit Trucks	0%	0%	3.8%	0%	0%	0.7%	-		0%	1.8%	0%	0%	0%	1.3%	-	
Buses	0	4	0	0	0	4	-		1	1	0	0	0	2	-	
% Buses	0%	2.9%	0%	0%	0%	1.4%	-		1.8%	0.4%	0%	0%	0%	0.5%	-	
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Scotch Rd & Washington Crossing Rd - TMC

Thu Oct 19, 2023

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123348, Location: 40.308991, -74.812738



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Scotch Rd Northbound								Scotch Rd Southbound								
Time	L	T	R	U	RR	App	Ped*		L	T	R	U	RR	App	Ped*		Int
2023-10-19 4:15PM	63	30	8	0	5	106	0		3	32	7	0	6	48	0		297
4:30PM	64	31	4	0	10	109	0		9	28	8	0	9	54	0		344
4:45PM	48	32	5	0	6	91	0		5	44	11	0	2	62	0		320
5:00PM	57	57	1	0	11	126	0		4	48	16	0	3	71	0		365
Total	232	150	18	0	32	432	0		21	152	42	0	20	235	0		1326
% Approach	53.7%	34.7%	4.2%	0%	7.4%	-	-		8.9%	64.7%	17.9%	0%	8.5%	-	-		-
% Total	17.5%	11.3%	1.4%	0%	2.4%	32.6%	-		1.6%	11.5%	3.2%	0%	1.5%	17.7%	-		-
PHF	0.906	0.658	0.563	-	0.727	0.857	-		0.583	0.792	0.656	-	0.556	0.827	-		0.908
Lights	232	149	18	0	32	431	-		21	152	42	0	20	235	-		1312
% Lights	100%	99.3%	100%	0%	100%	99.8%	-		100%	100%	100%	0%	100%	100%	-		98.9%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	0	0	-		0	0	0	0	0	0	-		7
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	0%	-		0.5%
Buses	0	1	0	0	0	1	-		0	0	0	0	0	0	-		7
% Buses	0%	0.7%	0%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	0%	-		0.5%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Scotch Rd & Washington Crossing Rd - TMC

Thu Oct 19, 2023

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123348, Location: 40.308991, -74.812738



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Scotch Rd

Total: 481

In: 235 Out: 246

62 152 21



Out: 297 In: 432

Total: 729

[S] Scotch Rd

[W] Washington Crossing Rd

Total: 856

Out: 576

In: 280

55 136 89

41 282 56

Out: 207 In: 379

Total: 586

[E] Washington Crossing Rd

Hopewell, NJ
Washington Crossing & Dublin
Rd
Thursday, October 19, 2023
Location: 40.308299, -
74.802212

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Washington
Crossing Rd & Dublin Rd
Site Code:
Start Date: 10/19/2023
Page No: 1

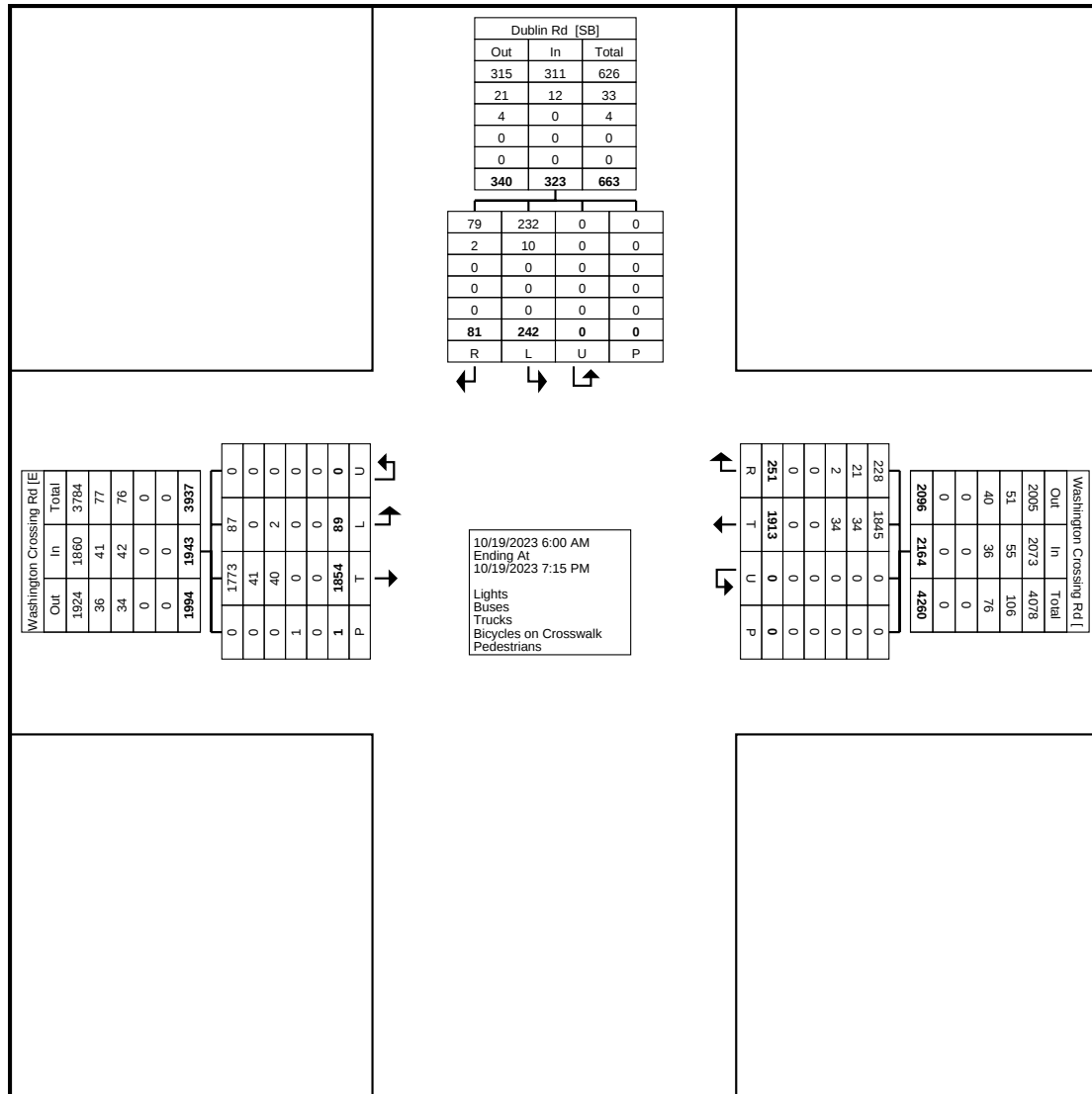
Turning Movement Data

Start Time	Washington Crossing Rd Eastbound					Washington Crossing Rd Westbound					Dublin Rd Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
6:00 AM	1	5	0	0	6	7	0	0	0	7	0	0	0	0	0	13
6:15 AM	0	10	0	0	10	18	0	0	0	18	4	0	0	0	4	32
6:30 AM	1	21	0	0	22	23	1	0	0	24	1	0	0	0	1	47
6:45 AM	0	31	0	0	31	25	0	0	0	25	1	2	0	0	3	59
Hourly Total	2	67	0	0	69	73	1	0	0	74	6	2	0	0	8	151
7:00 AM	3	24	0	0	27	23	3	0	0	26	2	1	0	0	3	56
7:15 AM	5	35	0	0	40	51	23	0	0	74	7	2	0	0	9	123
7:30 AM	1	72	0	0	73	56	32	0	0	88	18	4	0	0	22	183
7:45 AM	6	61	0	0	67	97	7	0	0	104	13	3	0	0	16	187
Hourly Total	15	192	0	0	207	227	65	0	0	292	40	10	0	0	50	549
8:00 AM	4	77	0	0	81	87	3	0	0	90	7	4	0	0	11	182
8:15 AM	4	75	0	0	79	87	3	0	0	90	5	3	0	0	8	177
8:30 AM	5	66	0	0	71	79	4	0	0	83	3	4	0	0	7	161
8:45 AM	2	46	0	0	48	85	1	0	0	86	4	4	0	0	8	142
Hourly Total	15	264	0	0	279	338	11	0	0	349	19	15	0	0	34	662
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	3	68	0	0	71	50	4	0	0	54	5	5	0	0	10	135
2:15 PM	4	50	0	1	54	52	15	0	0	67	1	1	0	0	2	123
2:30 PM	3	38	0	0	41	53	12	0	0	65	6	2	0	0	8	114
2:45 PM	3	46	0	0	49	60	7	0	0	67	13	7	0	0	20	136
Hourly Total	13	202	0	1	215	215	38	0	0	253	25	15	0	0	40	508
3:00 PM	2	89	0	0	91	86	4	0	0	90	30	4	0	0	34	215
3:15 PM	1	81	0	0	82	80	8	0	0	88	5	3	0	0	8	178
3:30 PM	0	66	0	0	66	59	8	0	0	67	3	1	0	0	4	137
3:45 PM	3	64	0	0	67	71	10	0	0	81	5	3	0	0	8	156
Hourly Total	6	300	0	0	306	296	30	0	0	326	43	11	0	0	54	686
4:00 PM	3	69	0	0	72	81	6	0	0	87	7	4	0	0	11	170
4:15 PM	3	77	0	0	80	58	12	0	0	70	7	2	0	0	9	159
4:30 PM	2	90	0	0	92	80	10	0	0	90	5	2	0	0	7	189
4:45 PM	3	73	0	0	76	72	14	0	0	86	23	4	0	0	27	189
Hourly Total	11	309	0	0	320	291	42	0	0	333	42	12	0	0	54	707
5:00 PM	4	94	0	0	98	71	10	0	0	81	17	5	0	0	22	201
5:15 PM	2	99	0	0	101	72	8	0	0	80	7	2	0	0	9	190
5:30 PM	7	73	0	0	80	73	14	0	0	87	5	1	0	0	6	173
5:45 PM	3	70	0	0	73	82	11	0	0	93	9	0	0	0	9	175
Hourly Total	16	336	0	0	352	298	43	0	0	341	38	8	0	0	46	739
6:00 PM	2	72	0	0	74	55	7	0	0	62	13	1	0	0	14	150
6:15 PM	6	46	0	0	52	41	7	0	0	48	9	3	0	0	12	112
6:30 PM	2	41	0	0	43	54	2	0	0	56	4	3	0	0	7	106
6:45 PM	1	25	0	0	26	25	5	0	0	30	3	1	0	0	4	60
Hourly Total	11	184	0	0	195	175	21	0	0	196	29	8	0	0	37	428
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	89	1854	0	1	1943	1913	251	0	0	2164	242	81	0	0	323	4430
Approach %	4.6	95.4	0.0	-	-	88.4	11.6	0.0	-	-	74.9	25.1	0.0	-	-	-
Total %	2.0	41.9	0.0	-	43.9	43.2	5.7	0.0	-	48.8	5.5	1.8	0.0	-	7.3	-
Lights	87	1773	0	-	1860	1845	228	0	-	2073	232	79	0	-	311	4244
% Lights	97.8	95.6	-	-	95.7	96.4	90.8	-	-	95.8	95.9	97.5	-	-	96.3	95.8
Buses	0	41	0	-	41	34	21	0	-	55	10	2	0	-	12	108
% Buses	0.0	2.2	-	-	2.1	1.8	8.4	-	-	2.5	4.1	2.5	-	-	3.7	2.4
Trucks	2	40	0	-	42	34	2	0	-	36	0	0	0	-	0	78
% Trucks	2.2	2.2	-	-	2.2	1.8	0.8	-	-	1.7	0.0	0.0	-	-	0.0	1.8
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-

Hopewell, NJ
Washington Crossing & Dublin
Rd
Thursday, October 19, 2023
Location: 40.308299, -
74.802212

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Washington
Crossing Rd & Dublin Rd
Site Code:
Start Date: 10/19/2023
Page No: 2



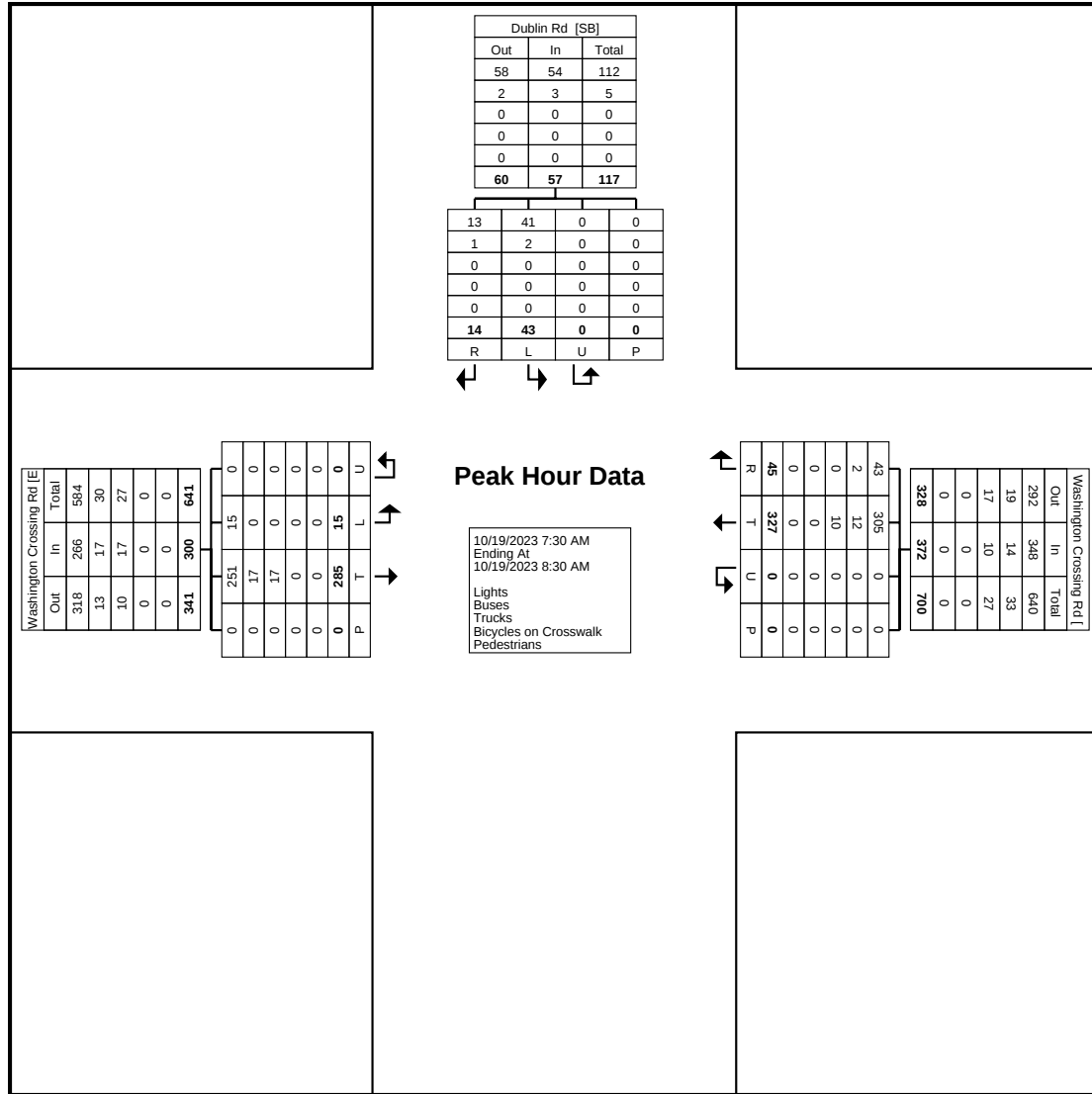
Turning Movement Data Plot



Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Washington
Crossing Rd & Dublin Rd
Site Code:
Start Date: 10/19/2023
Page No: 3

[illegible]



Turning Movement Peak Hour Data Plot (7:30 AM)

Washington Crossing Rd & Dublin Rd - TMC

Thu Oct 19, 2023

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123351, Location: 40.308299, -74.802212



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Washington Crossing Rd Eastbound					Washington Crossing Rd Westbound					Dublin Rd Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2023-10-19 4:15PM	3	77	0	80	0	58	12	0	70	0	7	2	0	9	0	159
4:30PM	2	90	0	92	0	80	10	0	90	0	5	2	0	7	0	189
4:45PM	3	73	0	76	0	72	14	0	86	0	23	4	0	27	0	189
5:00PM	4	94	0	98	0	71	10	0	81	0	17	5	0	22	0	201
Total	12	334	0	346	0	281	46	0	327	0	52	13	0	65	0	738
% Approach	3.5%	96.5%	0%	-	-	85.9%	14.1%	0%	-	-	80.0%	20.0%	0%	-	-	-
% Total	1.6%	45.3%	0%	46.9%	-	38.1%	6.2%	0%	44.3%	-	7.0%	1.8%	0%	8.8%	-	-
PHF	0.750	0.888	-	0.883	-	0.878	0.821	-	0.908	-	0.565	0.650	-	0.602	-	0.918
Lights	12	328	0	340	-	278	46	0	324	-	50	13	0	63	-	727
% Lights	100%	98.2%	0%	98.3%	-	98.9%	100%	0%	99.1%	-	96.2%	100%	0%	96.9%	-	98.5%
Articulated Trucks and Single-Unit Trucks	0	2	0	2	-	2	0	0	2	-	0	0	0	0	-	4
% Articulated Trucks and Single-Unit Trucks	0%	0.6%	0%	0.6%	-	0.7%	0%	0%	0.6%	-	0%	0%	0%	0%	-	0.5%
Buses	0	4	0	4	-	1	0	0	1	-	2	0	0	2	-	7
% Buses	0%	1.2%	0%	1.2%	-	0.4%	0%	0%	0.3%	-	3.8%	0%	0%	3.1%	-	0.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Washington Crossing Rd & Dublin Rd - TMC

Thu Oct 19, 2023

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123351, Location: 40.308299, -74.802212



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Dublin Rd

Total: 123

In: 65 Out: 58

13 52

[W] Washington Crossing Rd

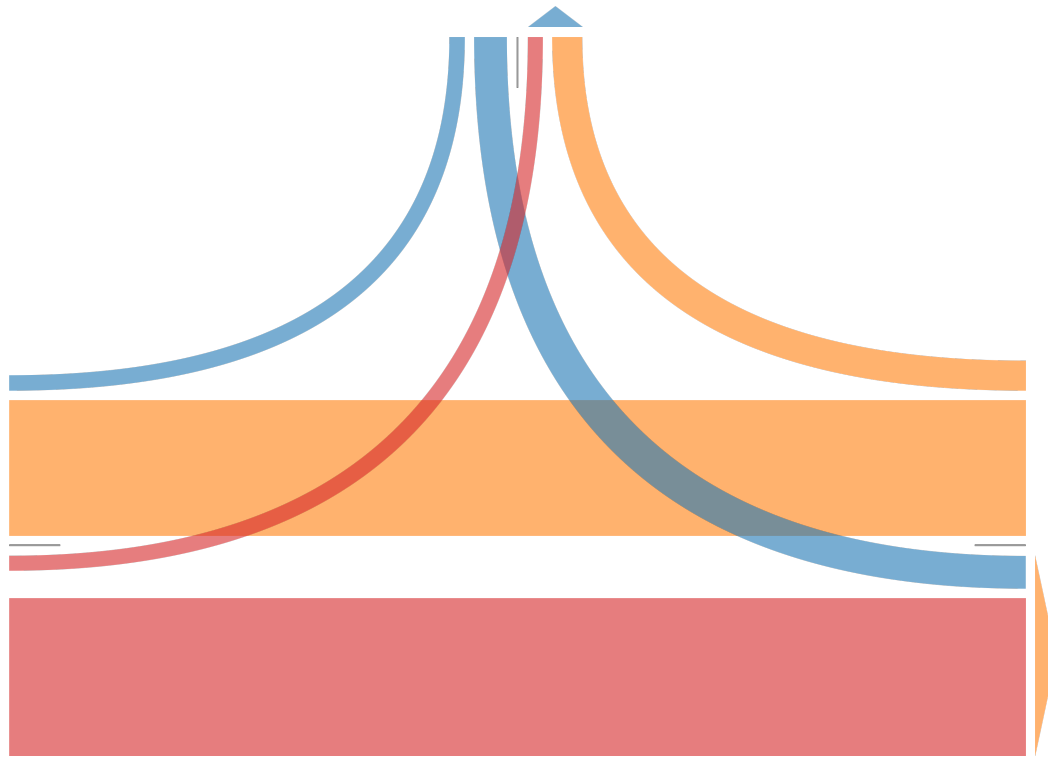
Total: 640

In: 346

Out: 294

12 334

46 281



Out: 386 In: 327

Total: 713

[E] Washington Crossing Rd

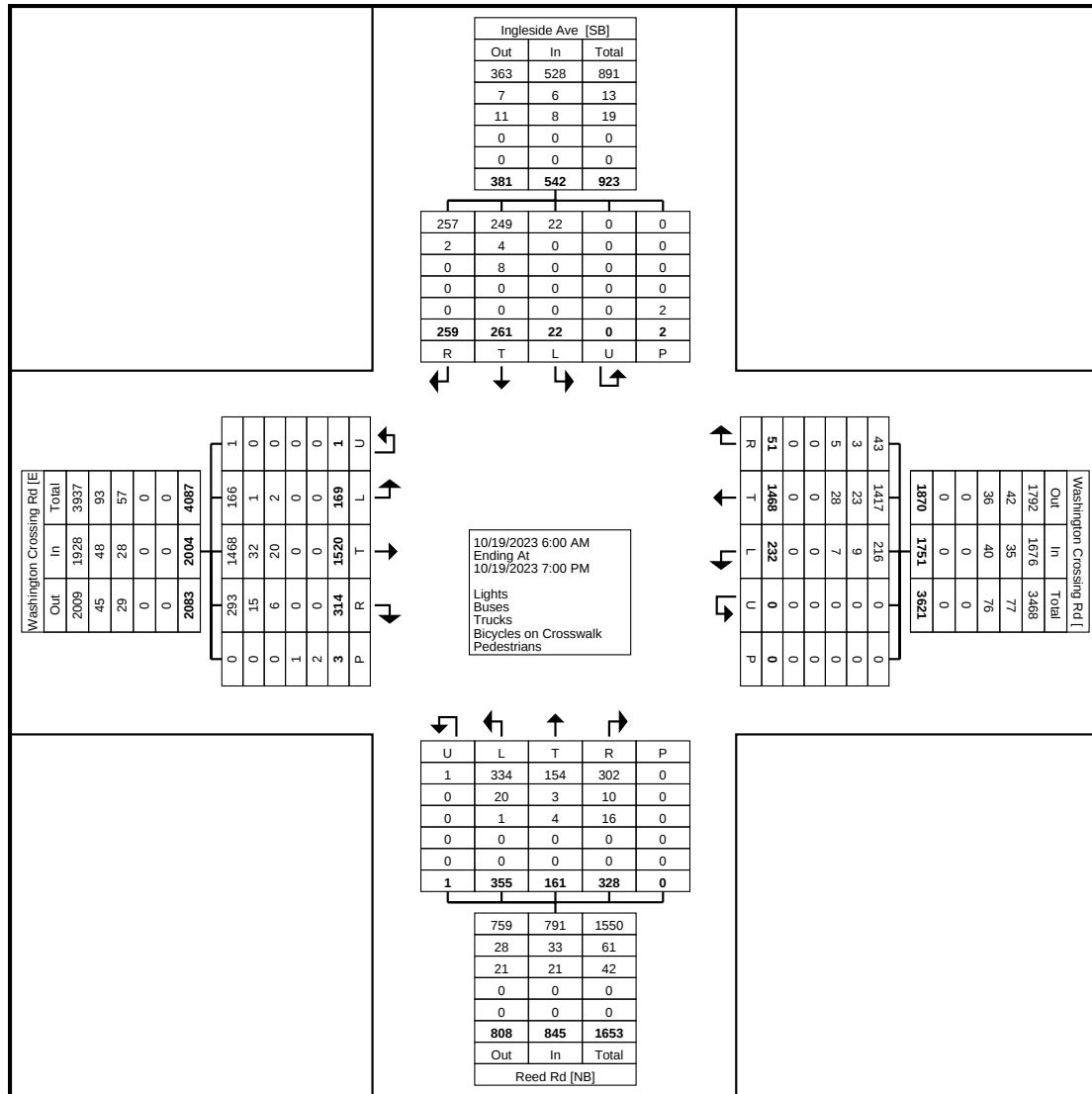
Turning Movement Data

Start Time	Washington Crossing Rd Eastbound						Washington Crossing Rd Westbound						Reed Rd Northbound						Ingleside Ave Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	1	3	2	0	0	6	0	6	0	0	0	6	0	2	4	0	0	6	0	1	2	0	0	3	21
6:15 AM	1	7	4	0	0	12	1	7	0	0	0	8	6	8	5	0	0	19	0	4	6	0	0	10	49
6:30 AM	1	16	4	0	0	21	3	10	1	0	0	14	9	3	6	0	0	18	0	5	7	0	0	12	65
6:45 AM	4	22	5	0	0	31	6	9	1	0	0	16	8	3	8	0	0	19	1	6	5	0	0	12	78
Hourly Total	7	48	15	0	0	70	10	32	2	0	0	44	23	16	23	0	0	62	1	16	20	0	0	37	213
7:00 AM	1	19	3	0	0	23	2	14	1	0	0	17	5	8	5	0	0	18	1	5	9	0	0	15	73
7:15 AM	1	27	9	0	0	37	7	61	3	0	0	71	9	5	7	0	0	21	0	5	6	0	0	11	140
7:30 AM	3	69	10	0	1	82	11	56	1	0	0	68	17	3	17	0	0	37	1	6	13	0	0	20	207
7:45 AM	1	54	15	0	0	70	10	57	0	0	0	67	16	4	20	0	0	40	0	11	25	0	0	36	213
Hourly Total	6	169	37	0	1	212	30	188	5	0	0	223	47	20	49	0	0	116	2	27	53	0	0	82	633
8:00 AM	3	64	11	0	0	78	4	54	0	0	0	58	16	3	16	0	0	35	2	5	20	0	0	27	198
8:15 AM	1	59	13	0	0	73	7	48	1	0	0	56	8	6	14	0	0	28	2	10	29	0	0	41	198
8:30 AM	1	54	12	0	0	67	13	50	1	0	0	64	8	4	11	0	0	23	1	11	25	0	0	37	191
8:45 AM	2	34	15	0	0	51	6	50	1	0	0	57	11	2	17	0	0	30	2	9	24	0	1	35	173
Hourly Total	7	211	51	0	0	269	30	202	3	0	0	235	43	15	58	0	0	116	7	35	98	0	1	140	760
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly 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	0
2:00 PM	9	47	14	0	2	70	1	40	1	0	0	42	10	6	12	0	0	28	1	8	7	0	1	16	156
2:15 PM	3	41	5	0	0	49	7	42	0	0	0	49	20	6	5	0	0	31	0	7	9	0	0	16	145
2:30 PM	6	34	7	0	0	47	9	40	5	0	0	54	10	6	5	0	0	21	1	6	4	0	0	11	133
2:45 PM	6	38	10	0	0	54	5	55	1	0	0	61	3	6	9	0	0	18	1	3	6	0	0	10	143
Hourly Total	24	160	36	0	2	220	22	177	7	0	0	206	43	24	31	0	0	98	3	24	26	0	1	53	577
3:00 PM	11	98	9	0	0	118	9	71	6	0	0	86	15	3	8	0	0	26	1	4	4	0	0	9	239
3:15 PM	6	55	14	0	0	75	8	62	1	0	0	71	15	4	8	0	0	27	3	7	4	0	0	14	187
3:30 PM	7	49	9	0	0	65	11	51	3	0	0	65	8	9	6	1	0	24	0	7	1	0	0	8	162
3:45 PM	5	45	11	0	0	61	15	69	2	0	0	86	5	8	13	0	0	26	0	13	3	0	0	16	189
Hourly Total	29	247	43	0	0	319	43	253	12	0	0	308	43	24	35	1	0	103	4	31	12	0	0	47	777
4:00 PM	8	60	4	0	0	72	5	57	4	0	0	66	22	4	12	0	0	38	1	13	1	0	0	15	191
4:15 PM	5	62	15	0	0	82	6	56	3	0	0	65	7	12	15	0	0	34	0	18	0	0	0	18	199
4:30 PM	8	63	19	0	0	90	8	65	3	0	0	76	11	9	18	0	0	38	1	7	1	0	0	9	213
4:45 PM	9	77	9	0	0	95	4	58	5	0	0	67	27	4	8	0	0	39	0	16	0	0	0	16	217
Hourly Total	30	262	47	0	0	339	23	236	15	0	0	274	67	29	53	0	0	149	2	54	2	0	0	58	820
5:00 PM	19	72	16	0	0	107	10	54	2	0	0	66	16	4	19	0	0	39	1	13	6	0	0	20	232
5:15 PM	11	78	13	0	0	102	12	57	1	0	0	70	13	5	13	0	0	31	2	15	8	0	0	25	228
5:30 PM	10	57	11	0	0	78	17	64	0	0	0	81	15	6	11	0	0	32	0	9	5	0	0	14	205
5:45 PM	5	60	10	0	0	75	9	67	0	0	0	76	11	7	8	0	0	26	0	13	10	0	0	23	200
Hourly Total	45	267	50	0	0	362	48	242	3	0	0	293	55	22	51	0	0	128	3	50	29	0	0	82	865
6:00 PM	10	55	17	0	0	82	10	43	1	0	0	54	7	3	2	0	0	12	0	8	8	0	0	16	164
6:15 PM	5	40	6	0	0	51	6	33	0	0	0	39	15	2	11	0	0	28	0	3	4	0	0	7	125
6:30 PM	3	34	8	0	0	45	7	43	1	0	0	51	7	4	9	0	0	20	0	4	4	0	0	8	124
6:45 PM	3	27	4	1	0	35	3	19	2	0	0	24	5	2	6	0	0	13	0	9	3	0	0	12	84
Hourly Total	21	156	35	1	0	213	26	138	4	0	0	168	34	11	28	0	0	73	0	24	19	0	0	43	497
Grand Total	169	1520	314	1	3	2004	232	1468	51	0	0	1751	355	161	328	1	0	845	22	261	259	0	2	542	5142
Approach %	8.4	75.8	15.7	0.0	-	-	13.2	83.8	2.9	0.0	-	-	42.0	19.1	38.8	0.1	-	-	4.1	48.2	47.8	0.0	-	-	-
Total %	3.3	29.6	6.1	0.0	-	39.0	4.5	28.5	1.0	0.0	-	34.1	6.9	3.1	6.4	0.0	-	16.4	0.4	5.1	5.0	0.0	-	10.5	-
Lights	166	1468	293	1	-	1928	216	1417	43	0	-	1676	334	154	302	1	-	791	22	249	257	0	-	528	4923
% Lights	98.2	96.6	93.3	100.0	-	96.2	93.1	96.5	84.3	-	-	95.7	94.1	95.7	92.1	100.0	-	93.6	100.0	95.4	99.2	-	-	97.4	95.7
Buses	1	32	15	0	-	48	9	23	3	0	-	35	20	3	10	0	-	33	0	4	2	0	-	6	122
% Buses	0.6	2.1	4.8	0.0	-	2.4	3.9	1.6	5.9	-	-	2.0	5.6	1.9	3.0	0.0	-	3.9	0.0	1.5	0.8	-	-	1.1	2.4
Trucks	2	20	6	0	-	28	7	28	5	0	-	40	1	4	16	0	-	21	0	8	0	0	-	8	97
% Trucks	1.2	1.3	1.9	0.0	-	1.4	3.0	1.9	9.8	-	-	2.3	0.3	2.5	4.9	0.0	-	2.5	0.0	3.1	0.0	-	-	1.5	1.9
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Hopewell, NJ
Washington Crossing & Reed
Rd
Thursday, October 19, 2023
Location: 40.30775, -74.796361

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Washington
Crossing Rd & Reed Rd
Site Code:
Start Date: 10/19/2023
Page No: 2



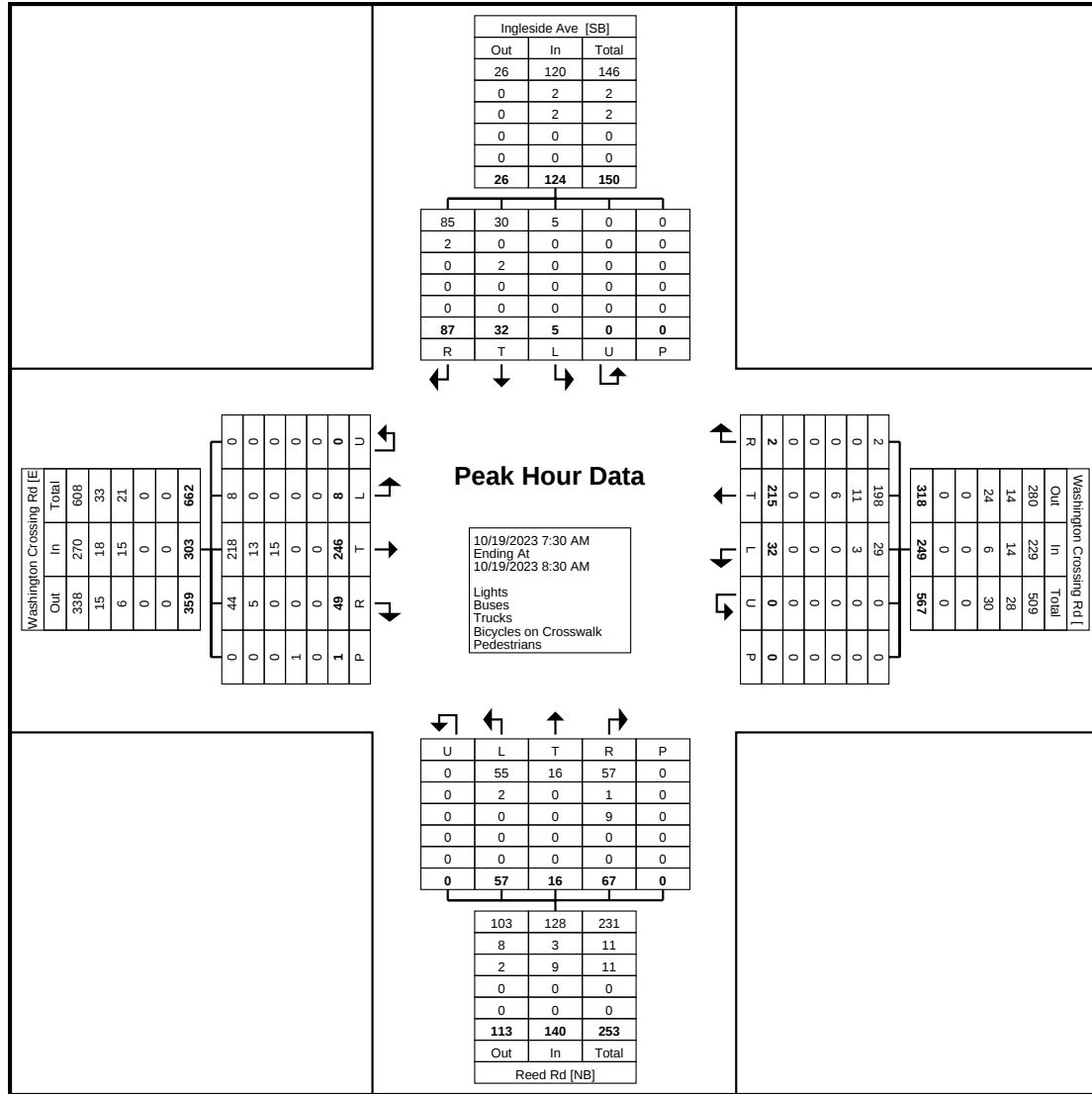
Turning Movement Data Plot



Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Washington
Crossing Rd & Reed Rd
Site Code:
Start Date: 10/19/2023
Page No: 3

[illegible]



Turning Movement Peak Hour Data Plot (7:30 AM)

Washington Crossing Rd & Reed Rd - TMC

Thu Oct 19, 2023

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123352, Location: 40.30775, -74.796361



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,

Coatesville, PA, 19320, US

Leg Direction	Washington Crossing Rd Eastbound						Washington Crossing Rd Westbound						Reed Rd Northbound						Ingleside Ave Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2023-10-19 4:15PM	5	62	15	0	82	0	6	56	3	0	65	0	7	12	15	0	34	0	0	18	0	0	18	0	199
4:30PM	8	63	19	0	90	0	8	65	3	0	76	0	11	9	18	0	38	0	1	7	1	0	9	0	213
4:45PM	9	77	9	0	95	0	4	58	5	0	67	0	27	4	8	0	39	0	0	16	0	0	16	0	217
5:00PM	19	72	16	0	107	0	10	54	2	0	66	0	16	4	19	0	39	0	1	13	6	0	20	0	232
Total	41	274	59	0	374	0	28	233	13	0	274	0	61	29	60	0	150	0	2	54	7	0	63	0	861
% Approach	11.0%	73.3%	15.8%	0%	-	-	10.2%	85.0%	4.7%	0%	-	-	40.7%	19.3%	40.0%	0%	-	-	3.2%	85.7%	11.1%	0%	-	-	-
% Total	4.8%	31.8%	6.9%	0%	43.4%	-	3.3%	27.1%	1.5%	0%	31.8%	-	7.1%	3.4%	7.0%	0%	17.4%	-	0.2%	6.3%	0.8%	0%	7.3%	-	-
PHF	0.539	0.890	0.776	-	0.874	-	0.700	0.896	0.650	-	0.901	-	0.565	0.604	0.789	-	0.962	-	0.500	0.750	0.292	-	0.788	-	0.928
Lights	41	273	53	0	367	-	27	229	11	0	267	-	61	27	59	0	147	-	2	51	7	0	60	-	841
% Lights	100%	99.6%	89.8%	0%	98.1%	-	96.4%	98.3%	84.6%	0%	97.4%	-	100%	93.1%	98.3%	0%	98.0%	-	100%	94.4%	100%	0%	95.2%	-	97.7%
Articulated Trucks and Single-Unit Trucks	0	0	1	0	1	-	0	3	1	0	4	-	0	2	0	0	2	-	0	1	0	0	1	-	8
% Articulated Trucks and Single-Unit Trucks	0%	0%	1.7%	0%	0.3%	-	0%	1.3%	7.7%	0%	1.5%	-	0%	6.9%	0%	0%	1.3%	-	0%	1.9%	0%	0%	1.6%	-	0.9%
Buses	0	1	5	0	6	-	1	1	1	0	3	-	0	0	1	0	1	-	0	2	0	0	2	-	12
% Buses	0%	0.4%	8.5%	0%	1.6%	-	3.6%	0.4%	7.7%	0%	1.1%	-	0%	0%	1.7%	0%	0.7%	-	0%	3.7%	0%	0%	3.2%	-	1.4%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Washington Crossing Rd & Reed Rd - TMC

Thu Oct 19, 2023

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123352, Location: 40.30775, -74.796361



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Ingleside Ave

Total: 146

In: 63 Out: 83

7 54 2

[W] Washington Crossing Rd

Total: 675
In: 374 Out: 301

41
274
59

13
233
28

Out: 336 In: 274
Total: 610

[E] Washington Crossing Rd

Out: 141 In: 150
Total: 291

[S] Reed Rd

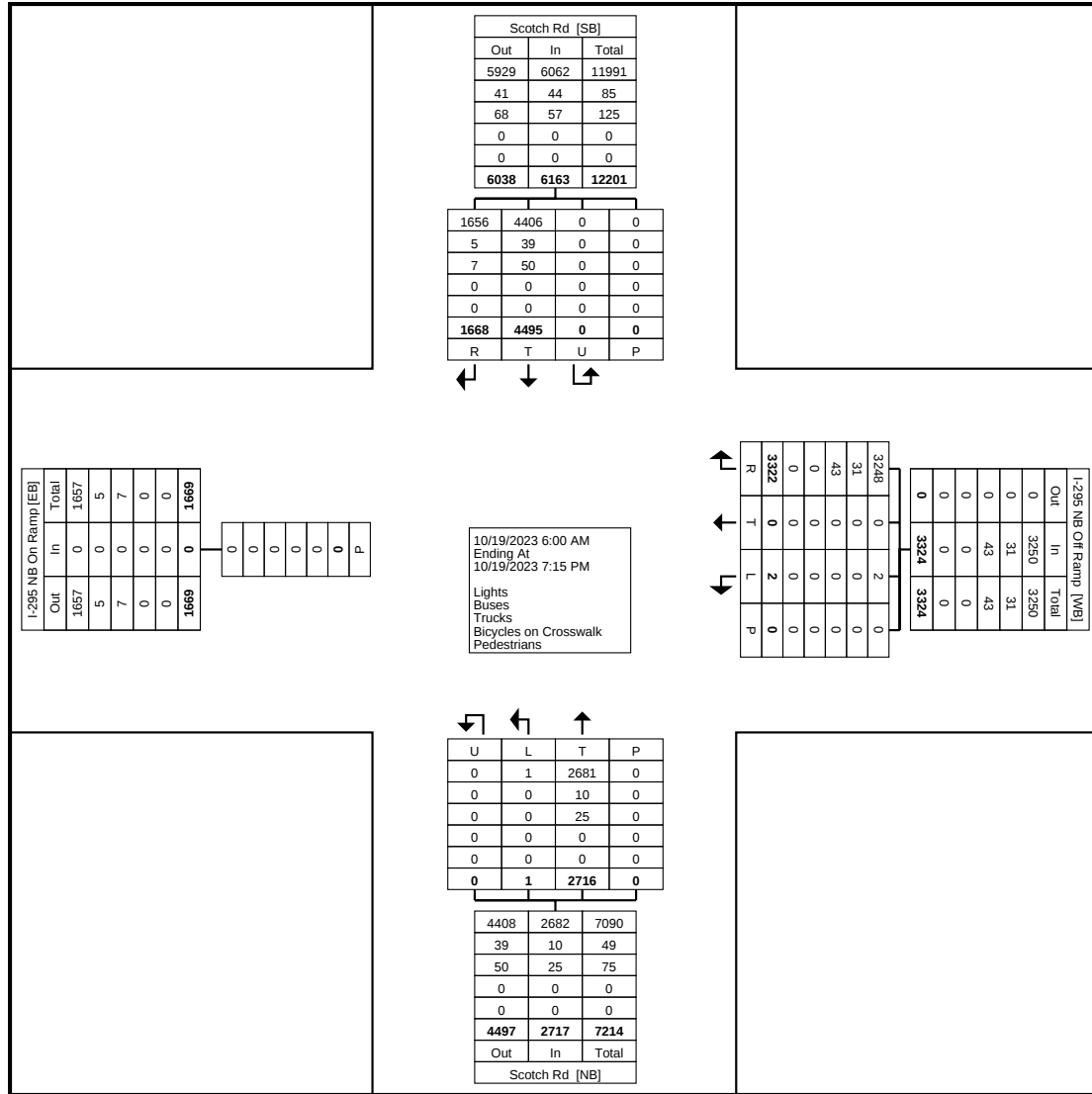
61 29 60



Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Turning Movement Data

Start Time	I-295 NB On Ramp		I-295 NB Off Ramp					Scotch Rd					Scotch Rd					Int. Total
	Eastbound		Westbound					Northbound					Southbound					
	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	0	0	0	0	38	0	38	0	45	0	0	45	24	7	0	0	31	114
6:15 AM	0	0	0	0	75	0	75	0	60	0	0	60	26	3	0	0	29	164
6:30 AM	0	0	0	0	112	0	112	0	112	0	0	112	48	5	0	0	53	277
6:45 AM	0	0	0	0	151	0	151	0	180	0	0	180	44	12	0	0	56	387
Hourly Total	0	0	0	0	376	0	376	0	397	0	0	397	142	27	0	0	169	942
7:00 AM	0	0	0	0	107	0	107	0	117	0	0	117	58	15	0	0	73	297
7:15 AM	0	0	0	0	167	0	167	0	129	0	0	129	90	26	0	0	116	412
7:30 AM	0	0	0	0	176	0	176	0	167	0	0	167	112	42	0	0	154	497
7:45 AM	0	0	0	0	257	0	257	0	180	0	0	180	100	17	0	0	117	554
Hourly Total	0	0	0	0	707	0	707	0	593	0	0	593	360	100	0	0	460	1760
8:00 AM	0	0	0	0	280	0	280	0	136	0	0	136	92	30	0	0	122	538
8:15 AM	0	0	0	0	282	0	282	0	154	0	0	154	83	25	0	0	108	544
8:30 AM	0	0	0	0	240	0	240	0	143	0	0	143	110	27	0	0	137	520
8:45 AM	0	0	0	0	259	0	259	0	148	0	0	148	92	31	0	0	123	530
Hourly Total	0	0	0	0	1061	0	1061	0	581	0	0	581	377	113	0	0	490	2132
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
2:00 PM	0	0	0	0	57	0	57	0	71	0	0	71	141	44	0	0	185	313
2:15 PM	0	0	0	0	81	0	81	0	69	0	0	69	111	38	0	0	149	299
2:30 PM	0	0	0	0	65	0	65	0	70	0	0	70	123	42	0	0	165	300
2:45 PM	0	0	0	0	55	0	55	0	69	0	0	69	116	54	0	0	170	294
Hourly Total	0	0	0	0	258	0	258	0	279	0	0	279	491	178	0	0	669	1206
3:00 PM	0	0	0	0	59	0	59	0	54	0	0	54	178	94	0	0	272	385
3:15 PM	0	0	0	0	63	0	63	0	72	0	0	72	181	72	0	0	253	388
3:30 PM	0	0	0	0	60	0	60	1	53	0	0	54	218	83	0	0	301	415
3:45 PM	0	0	0	0	59	0	59	0	65	0	0	65	187	88	0	0	275	399
Hourly Total	0	0	0	0	241	0	241	1	244	0	0	245	764	337	0	0	1101	1587
4:00 PM	0	0	1	0	67	0	68	0	53	0	0	53	253	95	0	0	348	469
4:15 PM	0	0	0	0	82	0	82	0	56	0	0	56	225	96	0	0	321	459
4:30 PM	0	0	0	0	57	0	57	0	58	0	0	58	316	128	0	0	444	559
4:45 PM	0	0	0	0	51	0	51	0	56	0	0	56	258	106	0	0	364	471
Hourly Total	0	0	1	0	257	0	258	0	223	0	0	223	1052	425	0	0	1477	1958
5:00 PM	0	0	0	0	58	0	58	0	57	0	0	57	285	128	0	0	413	528
5:15 PM	0	0	0	0	46	0	46	0	59	0	0	59	210	75	0	0	285	390
5:30 PM	0	0	0	0	52	0	52	0	53	0	0	53	206	84	0	0	290	395
5:45 PM	0	0	0	0	59	0	59	0	42	0	0	42	163	65	0	0	228	329
Hourly Total	0	0	0	0	215	0	215	0	211	0	0	211	864	352	0	0	1216	1642
6:00 PM	0	0	0	0	56	0	56	0	45	0	0	45	156	52	0	0	208	309
6:15 PM	0	0	0	0	43	0	43	0	44	0	0	44	103	31	0	0	134	221
6:30 PM	0	0	1	0	59	0	60	0	51	0	0	51	101	28	0	0	129	240
6:45 PM	0	0	0	0	49	0	49	0	48	0	0	48	85	24	0	0	109	206
Hourly Total	0	0	1	0	207	0	208	0	188	0	0	188	445	135	0	0	580	976
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	2	0	3322	0	3324	1	2716	0	0	2717	4495	1668	0	0	6163	12204
Approach %	-	-	0.1	0.0	99.9	-	-	0.0	100.0	0.0	-	-	72.9	27.1	0.0	-	-	-
Total %	-	0.0	0.0	0.0	27.2	-	27.2	0.0	22.3	0.0	-	22.3	36.8	13.7	0.0	-	50.5	-
Lights	-	0	2	0	3248	-	3250	1	2681	0	-	2682	4406	1656	0	-	6062	11994
% Lights	-	-	100.0	-	97.8	-	97.8	100.0	98.7	-	-	98.7	98.0	99.3	-	-	98.4	98.3
Buses	-	0	0	0	31	-	31	0	10	0	-	10	39	5	0	-	44	85
% Buses	-	-	0.0	-	0.9	-	0.9	0.0	0.4	-	-	0.4	0.9	0.3	-	-	0.7	0.7
Trucks	-	0	0	0	43	-	43	0	25	0	-	25	50	7	0	-	57	125
% Trucks	-	-	0.0	-	1.3	-	1.3	0.0	0.9	-	-	0.9	1.1	0.4	-	-	0.9	1.0
Bicycles on Crosswalk	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Data Plot

Scotch Rd & I-295 NB Ramps - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123343, Location: 40.292224, -74.811108



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	I-295 NB On Ramp Eastbound		I-295 NB Off Ramp Westbound					Scotch Rd Northbound					Scotch Rd Southbound					
Time	App	Ped*	L	T	R	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2023-10-19 7:30AM	0	0	0	0	176	176	0	0	167	0	167	0	112	42	0	154	0	497
7:45AM	0	0	0	0	257	257	0	0	180	0	180	0	100	17	0	117	0	554
8:00AM	0	0	0	0	280	280	0	0	136	0	136	0	92	30	0	122	0	538
8:15AM	0	0	0	0	282	282	0	0	154	0	154	0	83	25	0	108	0	544
Total	0	0	0	0	995	995	0	0	637	0	637	0	387	114	0	501	0	2133
% Approach	-	-	0%	0%	100%	-	-	0%	100%	0%	-	-	77.2%	22.8%	0%	-	-	-
% Total	0%	-	0%	0%	46.6%	46.6%	-	0%	29.9%	0%	29.9%	-	18.1%	5.3%	0%	23.5%	-	-
PHF	-	-	-	-	0.882	0.882	-	-	0.885	-	0.885	-	0.864	0.679	-	0.813	-	0.963
Lights	0	-	0	0	975	975	-	0	627	0	627	-	366	110	0	476	-	2078
% Lights	-	-	0%	0%	98.0%	98.0%	-	0%	98.4%	0%	98.4%	-	94.6%	96.5%	0%	95.0%	-	97.4%
Articulated Trucks and Single-Unit Trucks	0	-	0	0	12	12	-	0	4	0	4	-	11	1	0	12	-	28
% Articulated Trucks and Single-Unit Trucks	-	-	0%	0%	1.2%	1.2%	-	0%	0.6%	0%	0.6%	-	2.8%	0.9%	0%	2.4%	-	1.3%
Buses	0	-	0	0	8	8	-	0	6	0	6	-	10	3	0	13	-	27
% Buses	-	-	0%	0%	0.8%	0.8%	-	0%	0.9%	0%	0.9%	-	2.6%	2.6%	0%	2.6%	-	1.3%
Pedestrians	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Scotch Rd & I-295 NB Ramps - TMC

Thu Oct 19, 2023

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1123343, Location: 40.292224, -74.811108



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Scotch Rd

Total: 2133

In: 501 Out: 1632

114
387



995

Out: 0 In: 995
Total: 995

[E] I-295 NB Off Ramp

Out: 387 In: 637
Total: 1024

[S] Scotch Rd

637

[W] I-295 NB On Ramp

Total: 114
In: 0 Out: 114



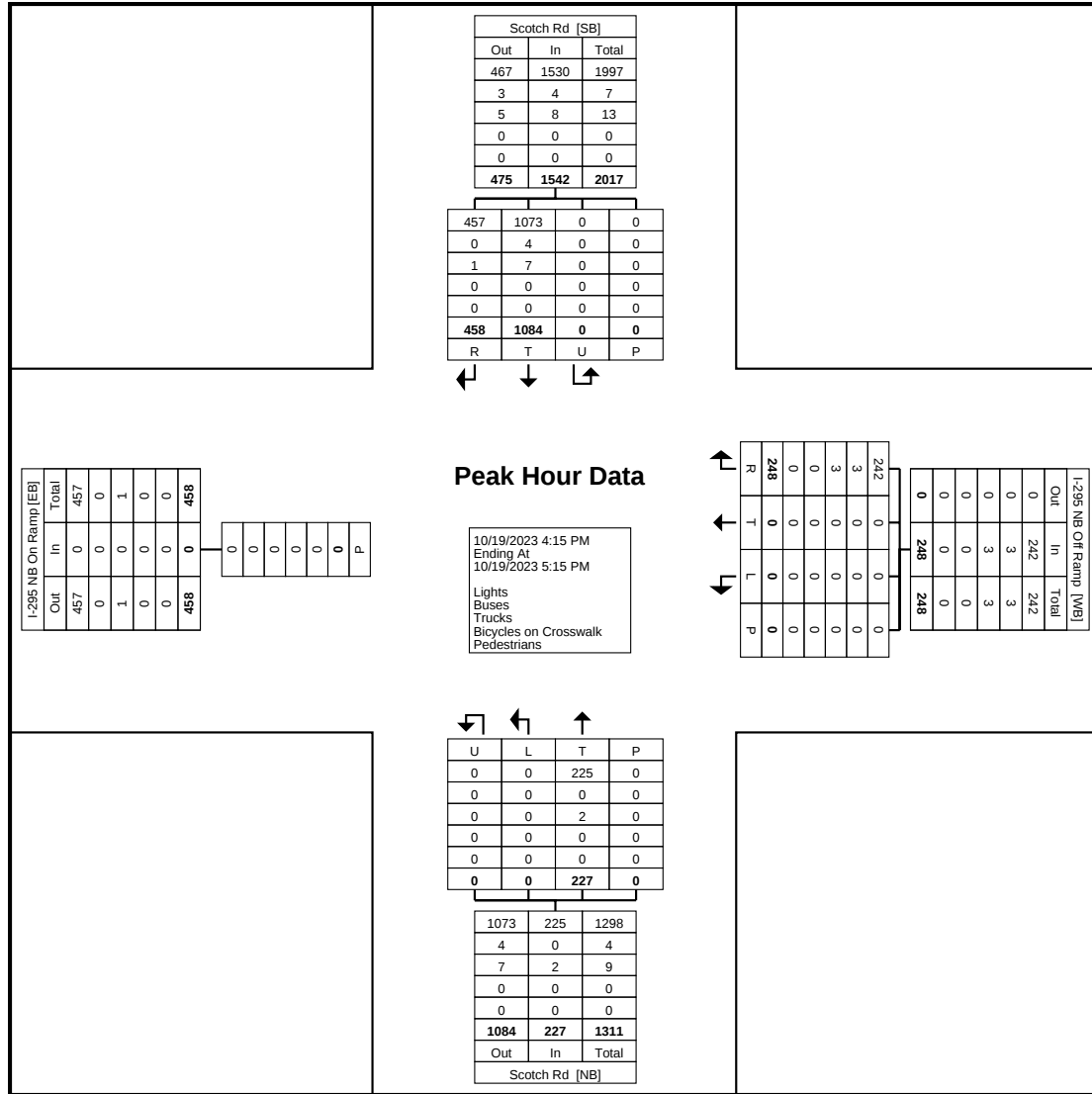


Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Turning Movement Peak Hour Data (4:15 PM)

[illegible]

Hopewill, NJ
Scotch Rd & I295 NB Ramps
Thursday, October 19, 2023
Location: 40.292224, -
74.811108



Turning Movement Peak Hour Data Plot (4:15 PM)

Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way

Manual Turning Movement Counts
Weekday AM and PM Peak Hours
Thursday, 1 August 2019

File Name : Scotch and Nursery AMPM
Site Code : 00000000
Start Date : 8/1/2019
Page No : 1

Groups Printed- Lights - Buses - Trucks

	Scotch Road (CR 611) Southbound					Capital Way Westbound					Scotch Road (CR 611) Northbound					Nursery Road (CR 647) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total			
06:00 AM	5	35	0	40	9	0	2	11	1	31	37	69	0	0	2	2	122			
06:15 AM	3	46	0	49	9	0	2	11	0	53	68	121	0	2	0	2	183			
06:30 AM	14	67	0	81	11	0	0	11	1	62	125	188	1	0	1	2	282			
06:45 AM	17	85	0	102	10	0	0	10	0	116	209	325	1	4	4	9	446			
Total	39	233	0	272	39	0	4	43	2	262	439	703	2	6	7	15	1033			
07:00 AM	7	58	1	66	20	0	4	24	1	139	106	246	2	0	2	4	340			
07:15 AM	17	115	1	133	23	0	2	25	2	208	110	320	1	1	4	6	484			
07:30 AM	12	100	3	115	55	1	4	60	3	295	112	410	4	2	6	12	597			
07:45 AM	6	136	1	143	37	5	4	46	0	364	136	500	5	2	3	10	699			
Total	42	409	6	457	135	6	14	155	6	1006	464	1476	12	5	15	32	2120			
08:00 AM	9	135	0	144	34	1	3	38	5	427	96	528	3	3	5	11	721			
08:15 AM	5	143	2	150	23	0	5	28	3	478	79	560	2	3	10	15	753			
08:30 AM	6	129	2	137	28	0	2	30	11	480	79	570	5	1	7	13	750			
08:45 AM	10	131	3	144	30	2	4	36	4	537	80	621	9	0	7	16	817			
Total	30	538	7	575	115	3	14	132	23	1922	334	2279	19	7	29	55	3041			
09:00 AM	9	117	0	126	32	2	3	37	6	455	57	518	7	0	8	15	696			
09:15 AM	13	103	6	122	30	1	5	36	6	386	60	452	2	0	2	4	614			
09:30 AM	9	98	2	109	41	0	3	44	2	257	59	318	3	1	8	12	483			
09:45 AM	11	62	1	74	32	0	4	36	3	205	63	271	6	0	1	7	388			
Total	42	380	9	431	135	3	15	153	17	1303	239	1559	18	1	19	38	2181			

BREAK

02:00 PM	6	109	4	119	61	1	9	71	3	66	47	116	4	4	3	11	4	4	3	11	317
02:15 PM	3	82	4	89	55	2	6	63	5	83	38	126	0	0	3	3	0	0	3	3	281
02:30 PM	1	89	7	97	81	2	5	88	1	65	48	114	4	0	4	8	4	0	4	8	307
02:45 PM	13	88	1	102	45	3	9	57	4	73	62	139	2	2	3	7	2	2	3	7	305
Total	23	368	16	407	242	8	29	279	13	287	195	495	10	6	13	29	10	6	13	29	1210
03:00 PM	3	131	4	138	80	0	10	90	6	68	37	111	1	3	3	7	1	3	3	7	346
03:15 PM	5	111	3	119	99	3	9	111	8	75	27	110	1	1	5	7	1	1	5	7	347
03:30 PM	1	142	7	150	153	4	10	167	9	106	38	153	5	1	1	7	5	1	1	7	477

Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way

Manual Turning Movement Counts
Weekday AM and PM Peak Hours
Thursday, 1 August 2019

File Name : Scotch and Nursery AMPM
Site Code : 00000000
Start Date : 8/1/2019
Page No : 2

Groups Printed- Lights - Buses - Trucks																				
Scotch Road (CR 611)					Capital Way					Scotch Road (CR 611)					Nursery Road (CR 647)					
Southbound					Westbound					Northbound					Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total			
03:45 PM	6	166	9	181	88	1	12	101	13	81	34	128	0	2	6	8	418			
Total	15	550	23	588	420	8	41	469	36	330	136	502	7	7	15	29	1588			
04:00 PM	6	342	9	357	119	4	20	143	11	97	24	132	3	0	2	5	637			
04:15 PM	4	308	7	319	93	2	12	107	13	87	23	123	3	3	2	8	557			
04:30 PM	3	429	13	445	144	4	14	162	11	116	19	146	1	1	1	3	756			
04:45 PM	0	400	7	407	76	3	17	96	9	98	25	132	2	2	3	7	642			
Total	13	1479	36	1528	432	13	63	508	44	398	91	533	9	6	8	23	2592			
05:00 PM	2	499	13	514	78	4	5	87	13	133	16	162	3	1	2	6	769			
05:15 PM	2	429	15	446	65	2	6	73	15	140	21	176	1	1	6	8	703			
05:30 PM	5	379	13	397	52	0	6	58	7	115	19	141	0	1	1	2	598			
05:45 PM	3	281	7	291	39	0	4	43	5	96	21	122	3	1	3	7	463			
Total	12	1588	48	1648	234	6	21	261	40	484	77	601	7	4	12	23	2533			
Grand Total	216	5545	145	5906	1752	47	201	2000	181	5992	1975	8148	84	42	118	244	16298			
Approch %	3.7	93.9	2.5		87.6	2.3	10.1		2.2	73.5	24.2		34.4	17.2	48.4					
Total %	1.3	34	0.9	36.2	10.7	0.3	1.2	12.3	1.1	36.8	12.1	50	0.5	0.3	0.7	1.5				
Lights	211	5486	143	5840	1728	47	194	1969	175	5925	1948	8048	84	40	116	240	16097			
% Lights	97.7	98.9	98.6	98.9	98.6	100	96.5	98.4	96.7	98.9	98.6	98.8	100	95.2	98.3	98.4	98.8			
Buses	0	18	0	18	14	0	0	14	5	19	11	35	0	1	2	3	70			
% Buses	0	0.3	0	0.3	0.8	0	0	0.7	2.8	0.3	0.6	0.4	0	2.4	1.7	1.2	0.4			
Trucks	5	41	2	48	10	0	7	17	1	48	16	65	0	1	0	1	131			
% Trucks	2.3	0.7	1.4	0.8	0.6	0	3.5	0.9	0.6	0.8	0.8	0.8	0	2.4	0	0.4	0.8			

Coatesville, Pennsylvania, United States 19320
610-466-1469
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Scotch Road (CR 611) and Nursery Road (CR 647)/Capital Way

Manual Turning Movement Counts

Weekday AM and PM Peak Hours

Thursday, 1 August 2019

File Name : Scotch and Nursery AMPM
Site Code : 00000000
Start Date : 8/1/2019
Page No : 3

Scotch Road (CR 611) Southbound				Capital Way Westbound				Scotch Road (CR 611) Northbound				Nursery Road (CR 647) Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis	From 08:00 AM to 08:45 AM - Peak 1 of 1															
Peak Hour for Entire Intersection	Begins at 08:00 AM															
08:00 AM	9	135	0	144	34	1	3	38	5	427	96	528	3	3	5	11
08:15 AM	5	143	2	150	23	0	5	28	3	478	79	560	2	3	10	15
08:30 AM	6	129	2	137	28	0	2	30	11	480	79	570	5	1	7	13
08:45 AM	10	131	3	144	30	2	4	36	4	537	80	621	9	0	7	16
Total Volume	30	538	7	575	115	3	14	132	23	1922	334	2279	19	7	29	55
% App. Total	5.2	93.6	1.2		87.1	2.3	10.6		1	84.3	14.7		34.5	12.7	52.7	
PHF	.750	.941	.583	.958	.846	.375	.700	.868	.523	.895	.870	.917	.528	.583	.725	.859
Lights	29	531	7	567	109	3	14	126	21	1909	326	2256	19	6	28	53
% Lights	96.7	98.7	100	98.6	94.8	100	100	95.5	91.3	99.3	97.6	99.0	100	85.7	96.6	96.4
Buses	0	3	0	3	2	0	0	2	1	3	2	6	0	1	1	2
% Buses	0	0.6	0	0.5	1.7	0	0	1.5	4.3	0.2	0.6	0.3	0	14.3	3.4	3.6
Trucks	1	4	0	5	4	0	0	4	1	10	6	17	0	0	0	0
% Trucks	3.3	0.7	0	0.9	3.5	0	0	3.0	4.3	0.5	1.8	0.7	0	0	0	0
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																
Peak Hour for Entire Intersection	Begins at 04:30 PM															
04:30 PM	3	429	13	445	144	4	14	162	11	116	19	146	1	1	1	3
04:45 PM	0	400	7	407	76	3	17	96	9	98	25	132	2	2	3	7
05:00 PM	2	499	13	514	78	4	5	87	13	133	16	162	3	1	2	6
05:15 PM	2	429	15	446	65	2	6	73	15	140	21	176	1	1	6	8
Total Volume	7	1757	48	1812	363	13	42	418	48	487	81	616	7	5	12	24
% App. Total	0.4	97	2.6		86.8	3.1	10		7.8	79.1	13.1		29.2	20.8	50	
PHF	.583	.880	.800	.881	.630	.813	.618	.645	.800	.870	.810	.875	.583	.625	.500	.750
Lights	7	1752	48	1807	361	13	40	414	47	482	80	609	7	4	12	23
% Lights	100	99.7	100	99.7	99.4	100	95.2	99.0	97.9	99.0	98.8	98.9	100	80.0	100	95.8
Buses	0	3	0	3	1	0	0	1	1	3	1	5	0	0	0	0
% Buses	0	0.2	0	0.2	0.3	0	0	0.2	2.1	0.6	1.2	0.8	0	0	0	0
Trucks	0	2	0	2	1	0	2	3	0	2	0	2	0	1	0	1
% Trucks	0	0.1	0	0.1	0.3	0	4.8	0.7	0	0.4	0	0.3	0	20.0	0	4.2

Scotch Road (CR 611) and Washington Crossing-Pennington Road (CR 546)

File Name : Scotch and Washington Crossing AMPM
Manual Turning Movement Counts
Weekday AM and PM Peak Hours
Thursday, 1 August 2019
Site Code : 00000000
Start Date : 8/1/2019
Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Scotch Road (CR 611) Southbound					Washington Crossing Pennington Rd (CR 546) Westbound					Scotch Road (CR 611) Northbound					Washington Crossing Pennington Rd (CR 546) Eastbound				
	Left	Thru	Right	App.	Total	Left	Thru	Right	App.	Total	Left	Thru	Right	App.	Total	Left	Thru	Right	App.	Total
06:00 AM	1	13	0		14	1	2	2		5	9	6	4		19	2	13	20		35
06:15 AM	1	15	1		17	3	6	1		10	8	8	3		19	3	13	34		50
06:30 AM	3	12	3		18	3	18	0		21	17	10	7		34	3	40	66		109
06:45 AM	6	27	3		36	9	12	1		22	14	11	5		30	6	34	65		105
Total	11	67	7		85	16	38	4		58	48	35	19		102	14	100	185		299
07:00 AM	3	17	6		26	11	17	1		29	20	13	6		39	9	43	52		104
07:15 AM	8	30	2		40	6	15	4		25	26	19	17		62	4	69	92		165
07:30 AM	8	30	3		41	11	35	1		47	32	28	18		78	13	82	88		183
07:45 AM	17	37	15		69	9	37	5		51	41	26	10		77	13	95	109		217
Total	36	114	26		176	37	104	11		152	119	86	51		256	39	289	341		669
08:00 AM	18	43	6		67	8	40	8		56	48	27	11		86	11	89	120		220
08:15 AM	20	47	15		82	7	41	3		51	45	33	9		87	11	105	103		219
08:30 AM	25	55	11		91	19	50	7		76	34	27	7		68	15	102	95		212
08:45 AM	25	43	2		70	8	26	4		38	21	31	8		60	15	128	103		246
Total	88	188	34		310	42	157	22		221	148	118	35		301	52	424	421		897
09:00 AM	22	42	9		73	9	36	6		51	24	30	10		64	11	103	92		206
09:15 AM	9	46	4		59	16	33	4		53	27	17	16		60	13	65	82		160
09:30 AM	4	29	9		42	6	33	5		44	13	8	15		36	15	56	60		131
09:45 AM	10	25	6		41	9	38	12		59	21	24	17		62	5	51	40		96
Total	45	142	28		215	40	140	27		207	85	79	58		222	44	275	274		593

BREAK

02:00 PM	1	25	7		33	11	44	6		61	32	15	10		57	7	37	19		63
02:15 PM	10	19	5		34	9	35	5		49	35	19	10		64	10	37	29		76
02:30 PM	6	14	7		27	16	42	6		64	33	18	11		62	10	43	31		84
02:45 PM	4	22	7		33	16	42	7		65	39	21	12		72	8	35	25		68
Total	21	80	26		127	52	163	24		239	139	73	43		255	35	152	104		291
03:00 PM	7	28	10		45	11	42	7		60	41	20	15		76	5	43	27		75
03:15 PM	4	18	10		32	11	66	7		84	44	30	10		84	11	32	29		72

Scotch Road (CR 611) and Washington Crossing-Pennington Road (CR 546) File Name : Scotch and Washington Crossing AMPM
Manual Turning Movement Counts Site Code : 00000000
Weekday AM and PM Peak Hours Start Date : 8/1/2019
Thursday, 1 August 2019 Page No : 2

Groups Printed- Lights - Buses - Trucks

	Scotch Road (CR 611) Southbound						Washington Crossing Pennington Rd (CR 546) Westbound						Scotch Road (CR 611) Northbound						Washington Crossing Pennington Rd (CR 546) Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total							
03:30 PM	4	27	17	48	6	58	10	74	65	41	12	118	13	32	36	81	321							
03:45 PM	6	15	6	27	16	62	4	82	50	27	9	86	8	42	36	86	281							
Total	21	88	43	152	44	228	28	300	200	118	46	364	37	149	128	314	1130							
04:00 PM	7	39	12	58	16	83	16	115	80	45	13	138	11	39	30	80	391							
04:15 PM	6	36	16	58	12	88	18	118	65	38	14	117	15	40	31	86	379							
04:30 PM	7	38	25	70	10	90	30	130	86	46	16	148	5	25	25	55	403							
04:45 PM	6	29	17	52	9	96	16	121	88	43	11	142	7	52	18	77	392							
Total	26	142	70	238	47	357	80	484	319	172	54	545	38	156	104	298	1565							
05:00 PM	6	28	12	46	13	115	22	150	75	70	19	164	4	36	23	63	423							
05:15 PM	1	27	13	41	16	90	18	124	95	59	25	179	10	42	32	84	428							
05:30 PM	1	28	16	45	17	84	18	119	88	52	11	151	10	41	23	74	389							
05:45 PM	4	25	14	43	16	77	16	109	65	51	6	122	13	31	25	69	343							
Total	12	108	55	175	62	366	74	502	323	232	61	616	37	150	103	290	1583							
Grand Total	260	929	289	1478	340	1553	270	2163	1381	913	367	2661	296	1695	1660	3651	9953							
Approach %	17.6	62.9	19.6		15.7	71.8	12.5		51.9	34.3	13.8		8.1	46.4	45.5									
Total %	2.6	9.3	2.9	14.8	3.4	15.6	2.7	21.7	13.9	9.2	3.7	26.7	3	17	16.7	36.7								
Lights	253	922	283	1458	328	1504	267	2099	1343	898	365	2606	293	1650	1633	3576	9739							
% Lights	97.3	99.2	97.9	98.6	96.5	96.8	98.9	97	97.2	98.4	99.5	97.9	99	97.3	98.4	97.9	97.8							
Buses	2	1	5	8	2	14	2	18	4	1	0	5	1	13	4	18	49							
% Buses	0.8	0.1	1.7	0.5	0.6	0.9	0.7	0.8	0.3	0.1	0	0.2	0.3	0.8	0.2	0.5	0.5							
Trucks	5	6	1	12	10	35	1	46	34	14	2	50	2	32	23	57	165							
% Trucks	1.9	0.6	0.3	0.8	2.9	2.3	0.4	2.1	2.5	1.5	0.5	1.9	0.7	1.9	1.4	1.6	1.7							

Scotch Road (CR 611) and Washington Crossing-Pennington Road (CR 546)

Manual Turning Movement Counts
Weekday AM and PM Peak Hours
Thursday, 1 August 2019

File Name : Scotch and Washington Crossing AMPM
Site Code : 00000000
Start Date : 8/1/2019
Page No : 3

Start Time	Scotch Road (CR 611) Southbound					Washington Crossing Pennington Rd (CR 546) Westbound					Scotch Road (CR 611) Northbound					Washington Crossing Pennington Rd (CR 546) Eastbound				
	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 08:00 AM to 08:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 08:00 AM																				
08:00 AM	18	43	6	67		8	40	8	56		48	27	11	86		11	89	120	220	429
08:15 AM	20	47	15	82		7	41	3	51		45	33	9	87		11	105	103	219	439
08:30 AM	25	55	11	91		19	50	7	76		34	27	7	68		15	102	95	212	447
08:45 AM	25	43	2	70		8	26	4	38		21	31	8	60		15	128	103	246	414
Total Volume	88	188	34	310		42	157	22	221		148	118	35	301		52	424	421	897	1729
% App. Total	28.4	60.6	11			19	71	10			49.2	39.2	11.6			5.8	47.3	46.9		
PHF	.880	.855	.567	.852		.553	.785	.688	.727		.771	.894	.795	.865		.867	.828	.877	.912	.967
Lights	88	186	33	307		40	141	21	202		142	113	35	290		52	417	416	885	1684
% Lights	100	98.9	97.1	99.0		95.2	89.8	95.5	91.4		95.9	95.8	100	96.3		100	98.3	98.8	98.7	97.4
Buses	0	1	1	2		1	7	0	8		0	1	0	1		0	4	1	5	16
% Buses	0	0.5	2.9	0.6		2.4	4.5	0	3.6		0	0.8	0	0.3		0	0.9	0.2	0.6	0.9
Trucks	0	1	0	1		1	9	1	11		6	4	0	10		0	3	4	7	29
% Trucks	0	0.5	0	0.3		2.4	5.7	4.5	5.0		4.1	3.4	0	3.3		0	0.7	1.0	0.8	1.7
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:30 PM																				
04:30 PM	7	38	25	70		10	90	30	130		86	46	16	148		5	25	25	55	403
04:45 PM	6	29	17	52		9	96	16	121		88	43	11	142		7	52	18	77	392
05:00 PM	6	28	12	46		13	115	22	150		75	70	19	164		4	36	23	63	423
05:15 PM	1	27	13	41		16	90	18	124		95	59	25	179		10	42	32	84	428
Total Volume	20	122	67	209		48	391	86	525		344	218	71	633		26	155	98	279	1646
% App. Total	9.6	58.4	32.1			9.1	74.5	16.4			54.3	34.4	11.2			9.3	55.6	35.1		
PHF	.714	.803	.670	.746		.750	.850	.717	.875		.905	.779	.710	.884		.650	.745	.766	.830	.961
Lights	20	122	67	209		46	388	86	520		341	218	71	630		26	154	97	277	1636
% Lights	100	100	100	100		95.8	99.2	100	99.0		99.1	100	100	99.5		100	99.4	99.0	99.3	99.4
Buses	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
% Buses	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
Trucks	0	0	0	0		2	3	0	5		3	0	0	3		0	1	1	2	10
% Trucks	0	0	0	0		4.2	0.8	0	1.0		0.9	0	0	0.5		0	0.6	1.0	0.7	0.6

APPENDIX C
SIGNAL TIMING DIRECTIVES

TRAFFIC SIGNAL TIMINGS

SCOTCH ROAD (C.R. 611), NURSERY ROAD (C.R. 647) AND SOUTHFIELDS DR Township of Hopewell, Mercer County, New Jersey

VARIABLE CYCLE LENGTH

PHASE	1,2	3-6	7,8	SIGNAL FACES			16,17	18-20	21	PROG.1 TIME (SEC.)	PROG.2 TIME (SEC.)	PROG.3 TIME (SEC.)
				9-12	13-15					5-10	5-10	5-10
A. Scotch Rd NB/SB Adv Left Change Clearance	<-G <-Y <-R	R R R	<-G <-Y <-R	R R R	R R R		R R R	R R R	R R R	5 5 3	5 5 3	5 5 3
B. Scotch Rd ROW Change Clearance	<-R <-R <-R	G Y R	<-R <-R <-R	G Y R	R R R		R R R	R R R	R R R	75-55 5 3	75-45 5 3	45-13 5 3
C. Nursery Rd EB ROW Change Clearance	<-R <-R <-R	R R R	<-R <-R <-R	R R R	R R R		R R R	G/<-G Y R	G Y R	5-10 3 4	5-10 3 4	5-15 3 4
D. Southfields Dr WB ROW Change Clearance	<-R <-R <-R	R R R	<-R <-R <-R	R R R	G/<-G Y R		G Y R	R R R	R R R	5-15 3 4	5-25 3 4	5-22 3 4
Emergency Flash	<-R	Y	<-R	Y	R		R	R	R	0	0	0

NOTES

Program 1 (150-second cycle) to be in operation between 7:00 a.m. and 9:00 a.m.
 Program 2 (120-second cycle) to be in operation between 2:30 p.m. and 4:00 p.m.
 Program 3 (90 second cycle) to be in operation all other times.

Offsets measured to the start of Phase B yellow. Master controller to be located at this intersection

Manual control is to be disconnected.

Vehicle extension shall be (3) seconds.

Phases A, C, and D may be skipped. Phase A must be followed by Phase B.

If no actuation occurs, signal shall rest in Phase B, Scotch Rd ROW

The left turn phases on northbound and southbound Scotch Rd (Phase A) shall be capable of extending or terminating independently, thus reverting any unused green time to the non-conflicting through phase.



Washington Crossing & Scotch

File # HO05

Pole # 60841HW

Controller: ASC/3 (A26021)

Monitor: EDI SSM-12LE (120809059)

Command: COORD. PLAN

Ring Sequence: 241 / 678

TIMING

FLASH	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
WALK				6				6
PED CLEAR				14				14
MIN. GREEN	4.0	10		14		10	5	14
EXTENSION	2.0			2.0			2.0	2.0
MAX GREEN	10	18		20		18	22	20
MAX II								
MAX STEP								
MAX LIMIT								
AMBER	3.0	5.0		5.0		5.0	3.0	5.0
RED CLEAR		2.0		2.0		2.0		2.0

Ø (1 & 6) Washington Crossing Rd. (W.B.)

Ø 2 Washington Crossing Rd. (E.B.)

Ø (4 & 7) Scotch Rd. (N.B.)

Ø 8 Scotch Rd. (S.B.)

RECALLS

	Ø 1	Ø 2	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8
MIN RECALL	OFF	OFF		OFF		OFF	OFF	OFF
PED RECALL	OFF	OFF		OFF		OFF	OFF	OFF
MAX RECALL	OFF	ON		OFF		ON	OFF	OFF
MEMORY	OFF	OFF		OFF		OFF	OFF	OFF

Ø 1 Anti-Backup

DETECTORS (Video detection)

	1	2	3	4	5	6	7	8
DELAY								
INHIBIT DELAY	Ø	Ø	Ø	Ø	Ø	Ø	Ø	Ø
ASSOCIATION	Ø1	Ø 2	Ø3	Ø4	Ø 5	Ø 6	Ø4	Ø 8



Washington Crossing & Scotch

COORDINATION CONSTANTS

TO REFERENCE	00:00	DET. ACCUM. INTERVAL	CYCLE
OFFSET REFERENCE	T0	CYCLES OF DET. ACCUM.	001
EXT. COORD. TYPE	NONE	MINUTES OF DET. ACCUM.	001
CYCLES OF NO SYNC	000	COORD. DUAL ENTRY	4 & 8

COORDINATION PLAN 1

PERM STRATEGY	T0	OMIT STRATEGY	MAX
TO LOCATION	END OF STEP 1	3% WINDOW	NO
STRETCH 3% BY	000	GBP OMTS	NO
EARLY RETURN	YES	ONCE AROUND	YES
CYCLE LENGTH	090	MIN. CYCLE LENGTH	090
MAX CYCLE LENGTH	150	OFFSET	000
EXT. SYNC	NO	ACTIVE S.F.C.	
DET. PLAN	001	PROT. ONLT ENABLE	
CALC. WALK		REST IN WALK	
NO SKIP			

RING 1: 241

STEP	1	2	3	4	5	6	7	8	9	10
ST PRM	000	000	000	000	000	000	000	000	000	000
AC SPLIT	028	085	100	000	000	000	000	000	000	000
OPTION	MAX	NO	NO	NO	NO	NO	NO	NO	NO	NO
SPLIT	GBP	REL	REL	REL	REL	REL	REL	REL	REL	REL
RESERV	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
PED?	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO

RING 2: 678

STEP	1	2	3	4	5	6	7	8	9	10
ST PRM	000	000	000	000	000	000	000	000	000	000
AC SPLIT	028	055	100	000	000	000	000	000	000	000
OPTION	MAX	NO	NO	NO	NO	NO	NO	NO	NO	NO
SPLIT	GBP	REL	REL	REL	REL	REL	REL	REL	REL	REL
RESERV	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
PED?	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO

APPENDIX D

CAPACITY ANALYSIS

2026 AM NO-BUILD

Lanes, Volumes, Timings

2026 No-Build

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	8	14	213	4	23	18	2110	620	55	954	14
Future Volume (vph)	11	8	14	213	4	23	18	2110	620	55	954	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		160	195		310	170		345
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	25			25			175			275		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.902			0.871				0.850		0.998	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1714	0	3433	1600	0	1543	5085	1599	1805	5061	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	1714	0	3433	1600	0	1543	5085	1599	1805	5061	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			24				323		2	
Link Speed (mph)		40			25			45			45	
Link Distance (ft)		378			595			486			653	
Travel Time (s)		6.4			16.2			7.4			9.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	2%	0%	4%	17%	2%	1%	0%	2%	21%
Adj. Flow (vph)	11	8	15	222	4	24	19	2198	646	57	994	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	23	0	222	28	0	19	2198	646	57	1009	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		50			36			32			30	
Link Offset(ft)		5			0			5			0	
Crosswalk Width(ft)		30			25			50			45	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	Free											
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	55.0		5.0	55.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	63.0		13.0	63.0	
Total Split (s)	17.0	17.0		22.0	22.0		18.0	63.0		18.0	63.0	
Total Split (%)	14.2%	14.2%		18.3%	18.3%		15.0%	52.5%		15.0%	52.5%	
Maximum Green (s)	10.0	10.0		15.0	15.0		10.0	55.0		10.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-3.0	-3.0		-3.0	-3.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	8.5	8.5		15.0	15.0		10.1	72.6	120.0	11.6	79.9	
Actuated g/C Ratio	0.07	0.07		0.13	0.13		0.08	0.61	1.00	0.10	0.67	
v/c Ratio	0.09	0.17		0.52	0.13		0.15	0.71	0.40	0.33	0.30	
Control Delay (s/veh)	52.9	32.3		53.1	20.3		52.9	21.5	0.8	55.1	11.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	52.9	32.3		53.1	20.3		52.9	21.5	0.8	55.1	11.3	
LOS	D	C		D	C		D	C	A	E	B	
Approach Delay (s/veh)	38.9			49.4			17.0			13.6		
Approach LOS	D			D			B			B		
90th %ile Green (s)	8.3	8.3		16.6	16.6		9.2	55.0		10.1	55.9	
90th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Max	Coord	
70th %ile Green (s)	7.0	7.0		14.5	14.5		7.9	57.9		10.6	60.6	
70th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Gap	Coord	
50th %ile Green (s)	6.2	6.2		13.0	13.0		0.0	61.7		9.1	78.8	
50th %ile Term Code	Gap	Gap		Gap	Gap		Skip	Coord		Gap	Coord	
30th %ile Green (s)	0.0	0.0		11.6	11.6		0.0	77.7		7.7	93.4	
30th %ile Term Code	Skip	Skip		Gap	Gap		Skip	Coord		Gap	Coord	
10th %ile Green (s)	0.0	0.0		9.4	9.4		0.0	95.6		0.0	95.6	
10th %ile Term Code	Skip	Skip		Gap	Gap		Skip	Coord		Skip	Coord	
Stops (vph)	12	12		193	11		18	1452	0	49	408	
Fuel Used(gal)	0	1		4	0		1	38	3	3	40	
CO Emissions (g/hr)	25	35		288	20		36	2680	234	215	2794	
NOx Emissions (g/hr)	5	7		56	4		7	522	45	42	544	
VOC Emissions (g/hr)	6	8		67	5		8	621	54	50	648	
Dilemma Vehicles (#)	0	1		0	0		0	87	0	0	40	
Queue Length 50th (ft)	8	6		84	3		14	486	0	42	102	
Queue Length 95th (ft)	27	33		120	30		38	626	0	85	212	
Internal Link Dist (ft)	298			515			406			573		
Turn Bay Length (ft)							195		310	170		
Base Capacity (vph)	180	184		495	251		167	3075	1599	197	3368	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	

Lanes, Volumes, Timings

2026 No-Build

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.06	0.13		0.45	0.11		0.11	0.71	0.40	0.29	0.30	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay (s/veh): 18.3

Intersection LOS: B

Intersection Capacity Utilization 66.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

	Ø1		Ø2 (R)		Ø4		Ø8
18 s		63 s		17 s		22 s	
	Ø5		Ø6 (R)				
18 s		63 s					

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	443	439	106	138	13	152	169	186	43	171	48
Future Volume (vph)	60	443	439	106	138	13	152	169	186	43	171	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	690		690	155		0	605		0	125		85
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	115			65			105			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt			0.850		0.987				0.850		0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1810	1583	1719	1797	0	1671	1863	1538	1719	3318	0
Flt Permitted	0.655			0.189			0.501			0.644		
Satd. Flow (perm)	1244	1810	1583	342	1797	0	881	1863	1538	1165	3318	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			467		6				198		38	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		881			454			798			644	
Travel Time (s)		13.3			6.9			12.1			9.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	2%	5%	4%	8%	8%	2%	5%	5%	5%	6%
Adj. Flow (vph)	64	471	467	113	147	14	162	180	198	46	182	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	471	467	113	161	0	162	180	198	46	233	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			18			18	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		30			40			50			55	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases		4		3	8		5	2			6	

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2		2	6		
Detector Phase	4	4	4	3	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	4.0	17.0		5.0	22.0	22.0	14.0	14.0	
Minimum Split (s)	17.0	17.0	17.0	7.0	24.0		8.0	29.0	29.0	21.0	21.0	
Total Split (s)	25.0	25.0	25.0	13.0	38.0		25.0	52.0	52.0	27.0	27.0	
Total Split (%)	27.8%	27.8%	27.8%	14.4%	42.2%		27.8%	57.8%	57.8%	30.0%	30.0%	
Maximum Green (s)	18.0	18.0	18.0	10.0	31.0		22.0	45.0	45.0	20.0	20.0	
Yellow Time (s)	5.0	5.0	5.0	3.0	5.0		3.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0		0.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0	5.0	5.0	3.0	5.0		3.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	20.2	20.2	20.2	31.0	29.0		31.5	29.5	29.5	16.2	16.2	
Actuated g/C Ratio	0.29	0.29	0.29	0.45	0.42		0.46	0.43	0.43	0.24	0.24	
v/c Ratio	0.17	0.88	0.59	0.36	0.21		0.31	0.23	0.26	0.17	0.29	
Control Delay (s/veh)	22.2	46.4	6.0	14.7	13.2		13.8	14.1	3.2	25.5	20.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	22.2	46.4	6.0	14.7	13.2		13.8	14.1	3.2	25.5	20.6	
LOS	C	D	A	B	B		B	B	A	C	C	
Approach Delay (s/veh)		26.0			13.8			10.0			21.4	
Approach LOS		C			B			B			C	
90th %ile Green (s)	18.0	18.0	18.0	10.0	31.0		14.7	31.7	31.7	14.0	14.0	
90th %ile Term Code	Max	Max	Max	Max	Hold		Gap	Hold	Hold	Min	Min	
70th %ile Green (s)	18.0	18.0	18.0	9.0	30.0		11.9	28.9	28.9	14.0	14.0	
70th %ile Term Code	Max	Max	Max	Gap	Hold		Gap	Hold	Hold	Min	Min	
50th %ile Green (s)	18.0	18.0	18.0	8.0	29.0		10.2	27.2	27.2	14.0	14.0	
50th %ile Term Code	Max	Max	Max	Gap	Hold		Gap	Hold	Hold	Min	Min	
30th %ile Green (s)	18.0	18.0	18.0	7.1	28.1		8.7	25.7	25.7	14.0	14.0	
30th %ile Term Code	Max	Max	Max	Gap	Hold		Gap	Hold	Hold	Min	Min	
10th %ile Green (s)	18.0	18.0	18.0	0.0	18.0		6.5	23.5	23.5	14.0	14.0	
10th %ile Term Code	Max	Max	Max	Skip	Hold		Gap	Hold	Hold	Min	Min	
Stops (vph)	45	353	51	55	84		85	100	20	36	142	
Fuel Used(gal)	1	13	5	3	4		7	7	7	1	4	
CO Emissions (g/hr)	96	881	360	213	305		462	519	464	59	252	
NOx Emissions (g/hr)	19	171	70	41	59		90	101	90	12	49	
VOC Emissions (g/hr)	22	204	83	49	71		107	120	108	14	58	
Dilemma Vehicles (#)	0	29	0	0	10		0	12	0	0	16	
Queue Length 50th (ft)	21	195	0	26	39		41	48	0	16	36	
Queue Length 95th (ft)	55	#412	70	59	82		80	91	34	46	72	
Internal Link Dist (ft)		801			374			718			564	
Turn Bay Length (ft)	690		690	155			605			125		
Base Capacity (vph)	367	533	796	357	877		660	1291	1127	378	1102	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.17	0.88	0.59	0.32	0.18		0.25	0.14	0.18	0.12	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 68.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay (s/veh): 19.7

Intersection LOS: B

Intersection Capacity Utilization 75.0%

ICU Level of Service D

Analysis Period (min) 15

90th %ile Actuated Cycle: 76.7

70th %ile Actuated Cycle: 72.9

50th %ile Actuated Cycle: 70.2

30th %ile Actuated Cycle: 67.8

10th %ile Actuated Cycle: 55.5

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

 Ø2	 Ø3	 Ø4
52 s	13 s	25 s
 Ø5	 Ø6	 Ø8
25 s	27 s	38 s

Intersection

Int Delay, s/veh 1.4

Movement EBL EBT WBT WBR SBL SBRLane Configurations 

Traffic Vol, veh/h 12 437 323 47 54 13

Future Vol, veh/h 12 437 323 47 54 13

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 98 98 98 98 98 98

Heavy Vehicles, % 0 1 1 0 4 0

Mvmt Flow 12 446 330 48 55 13

Major/Minor Major1 Major2 Minor2

Conflicting Flow All 378 0 - 0 824 354

Stage 1 - - - - 354 -

Stage 2 - - - - 470 -

Critical Hdwy 4.1 - - - 6.44 6.2

Critical Hdwy Stg 1 - - - - 5.44 -

Critical Hdwy Stg 2 - - - - 5.44 -

Follow-up Hdwy 2.2 - - - 3.536 3.3

Pot Cap-1 Maneuver 1192 - - - 340 695

Stage 1 - - - - 706 -

Stage 2 - - - - 625 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1192 - - - 335 695

Mov Cap-2 Maneuver - - - - 335 -

Stage 1 - - - - 697 -

Stage 2 - - - - 625 -

Approach EB WB SB

HCM Control Delay, s/v 0.22 0 16.81

HCM LOS C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h) 48 - - - 373

HCM Lane V/C Ratio 0.01 - - - 0.183

HCM Control Delay (s/veh) 8.1 0 - - 16.8

HCM Lane LOS A A - - C

HCM 95th %tile Q(veh) 0 - - - 0.7

4: Reed Road/Ingleside Avenue (CR 631) & Washington-Crossing Pennington Road (CR 546)

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	346	50	33	255	2	59	16	69	5	33	90
Future Vol, veh/h	8	346	50	33	255	2	59	16	69	5	33	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	8	10	9	7	0	3	0	14	0	6	2
Mvmt Flow	8	360	52	34	266	2	61	17	72	5	34	94

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	268	0	0	413	0	0	755	740	386	721	765	267
Stage 1	-	-	-	-	-	-	403	403	-	335	335	-
Stage 2	-	-	-	-	-	-	352	336	-	385	429	-
Critical Hdwy	4.1	-	-	4.19	-	-	7.13	6.5	6.34	7.1	6.56	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.5	-	6.1	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.5	-	6.1	5.56	-
Follow-up Hdwy	2.2	-	-	2.281	-	-	3.527	4	3.426	3.5	4.054	3.318
Pot Cap-1 Maneuver	1308	-	-	1110	-	-	324	347	636	345	329	772
Stage 1	-	-	-	-	-	-	622	603	-	683	635	-
Stage 2	-	-	-	-	-	-	663	645	-	642	577	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1308	-	-	1110	-	-	243	332	636	279	314	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	243	332	-	279	314	-
Stage 1	-	-	-	-	-	-	617	598	-	658	612	-
Stage 2	-	-	-	-	-	-	530	622	-	549	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.15			0.95			15.86			13.96		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	35	-	-	205	-	-	534
HCM Lane V/C Ratio	0.312	0.006	-	-	0.031	-	-	0.25
HCM Control Delay (s/veh)	15.9	7.8	0	-	8.3	0	-	14
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.3	0	-	-	0.1	-	-	1

2026 PM NO-BUILD

Lanes, Volumes, Timings

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

2026 No-Build

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	5	16	561	6	47	31	877	164	9	2037	15
Future Volume (vph)	8	5	16	561	6	47	31	877	164	9	2037	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		160	195		310	170		345
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	25			25			175			275		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.887			0.868				0.850		0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1469	0	3467	1649	0	1805	5136	1568	1805	5182	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	1469	0	3467	1649	0	1805	5136	1568	1805	5182	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			52				327		1	
Link Speed (mph)		40			25			45			45	
Link Distance (ft)		378			595			486			653	
Travel Time (s)		6.4			16.2			7.4			9.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	20%	13%	1%	0%	0%	0%	1%	3%	0%	0%	0%
Adj. Flow (vph)	9	6	18	623	7	52	34	974	182	10	2263	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	24	0	623	59	0	34	974	182	10	2280	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		50			36			32			30	
Link Offset(ft)		5			0			5			0	
Crosswalk Width(ft)		30			25			50			45	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	

Lanes, Volumes, Timings

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

2026 No-Build

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	Free											
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	13.0		5.0	13.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	21.0		13.0	21.0	
Total Split (s)	22.0	22.0		29.0	29.0		18.0	21.0		18.0	21.0	
Total Split (%)	24.4%	24.4%		32.2%	32.2%		20.0%	23.3%		20.0%	23.3%	
Maximum Green (s)	15.0	15.0		22.0	22.0		10.0	13.0		10.0	13.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0		7.0	7.0		8.0	8.0		8.0	8.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	6.4	6.4		22.6	22.6		7.2	41.0	90.0	6.1	34.4	
Actuated g/C Ratio	0.07	0.07		0.25	0.25		0.08	0.46	1.00	0.07	0.38	
v/c Ratio	0.07	0.20		0.72	0.13		0.23	0.42	0.12	0.08	1.15	
Control Delay (s/veh)	39.5	24.7		35.3	8.8		42.1	21.9	0.2	40.3	105.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	39.5	24.7		35.3	8.8		42.1	21.9	0.2	40.3	105.4	
LOS	D	C		D	A		D	C	A	D	F	
Approach Delay (s/veh)	28.8			33.0			19.1			105.1		
Approach LOS	C			C			B			F		
90th %ile Green (s)	8.2	8.2		28.8	28.8		9.4	15.8		7.2	13.6	
90th %ile Term Code	Gap	Gap		Max	Max		Gap	Coord		Gap	Coord	
70th %ile Green (s)	6.8	6.8		25.3	25.3		8.0	35.9		0.0	19.9	
70th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Skip	Coord	
50th %ile Green (s)	5.9	5.9		22.7	22.7		7.1	39.4		0.0	24.3	
50th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Skip	Coord	
30th %ile Green (s)	0.0	0.0		19.9	19.9		0.0	55.1		0.0	55.1	
30th %ile Term Code	Skip	Skip		Gap	Gap		Skip	Coord		Skip	Coord	
10th %ile Green (s)	0.0	0.0		16.1	16.1		0.0	58.9		0.0	58.9	
10th %ile Term Code	Skip	Skip		Gap	Gap		Skip	Coord		Skip	Coord	
Stops (vph)	10	12		490	13		31	524	0	12	1055	
Fuel Used(gal)	0	0		9	0		1	15	1	1	126	
CO Emissions (g/hr)	18	33		612	29		57	1049	60	37	8829	
NOx Emissions (g/hr)	3	6		119	6		11	204	12	7	1718	
VOC Emissions (g/hr)	4	8		142	7		13	243	14	9	2046	
Dilemma Vehicles (#)	0	1		0	0		0	45	0	0	74	
Queue Length 50th (ft)	5	3		166	3		19	136	0	6	~700	
Queue Length 95th (ft)	19	27		204	29		47	#314	0	21	#939	
Internal Link Dist (ft)	298			515			406			573		
Turn Bay Length (ft)							195		310	170		
Base Capacity (vph)	300	259		930	480		200	2340	1568	200	1978	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.03	0.09		0.67	0.12		0.17	0.42	0.12	0.05	1.15	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay (s/veh): 68.4

Intersection LOS: E

Intersection Capacity Utilization 74.9%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

 Ø1	 Ø2 (R) 	 Ø4	 Ø8
18 s	21 s	22 s	29 s
 Ø5	 Ø6 (R) 		
18 s	21 s		

Lanes, Volumes, Timings

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

2026 No-Build

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	142	92	154	411	42	354	194	115	22	217	64
Future Volume (vph)	57	142	92	154	411	42	354	194	115	22	217	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	690		690	155		0	605		0	125		85
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	115			65			105			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt			0.850		0.986				0.850		0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1845	1583	1787	1840	0	1805	1863	1615	1805	3487	0
Flt Permitted	0.481			0.538			0.468			0.625		
Satd. Flow (perm)	914	1845	1583	1012	1840	0	889	1863	1615	1188	3487	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121		6				126		39	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		881			454			798			644	
Travel Time (s)		13.3			6.9			12.1			9.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	3%	2%	1%	2%	0%	0%	2%	0%	0%	0%	0%
Adj. Flow (vph)	63	156	101	169	452	46	389	213	126	24	238	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	156	101	169	498	0	389	213	126	24	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			18			18	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		30			40			50			55	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases		4		3	8		5	2			6	

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2		2	6		
Detector Phase	4	4	4	3	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	4.0	17.0		5.0	22.0	22.0	14.0	14.0	
Minimum Split (s)	17.0	17.0	17.0	7.0	24.0		8.0	29.0	29.0	21.0	21.0	
Total Split (s)	25.0	25.0	25.0	13.0	38.0		25.0	52.0	52.0	27.0	27.0	
Total Split (%)	27.8%	27.8%	27.8%	14.4%	42.2%		27.8%	57.8%	57.8%	30.0%	30.0%	
Maximum Green (s)	18.0	18.0	18.0	10.0	31.0		22.0	45.0	45.0	20.0	20.0	
Yellow Time (s)	5.0	5.0	5.0	3.0	5.0		3.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0	3.0	7.0		3.0	7.0	7.0	7.0	7.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	13.5	13.5	13.5	29.4	25.3		39.1	35.0	35.0	14.5	14.5	
Actuated g/C Ratio	0.18	0.18	0.18	0.39	0.34		0.52	0.47	0.47	0.19	0.19	
v/c Ratio	0.38	0.47	0.26	0.34	0.79		0.57	0.24	0.15	0.10	0.44	
Control Delay (s/veh)	35.6	33.3	6.1	18.0	33.0		15.1	13.3	3.1	29.9	26.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	35.6	33.3	6.1	18.0	33.0		15.1	13.3	3.1	29.9	26.9	
LOS	D	C	A	B	C		B	B	A	C	C	
Approach Delay (s/veh)		25.2			29.2			12.5			27.2	
Approach LOS		C			C			B			C	
90th %ile Green (s)	18.0	18.0	18.0	10.0	31.0		22.0	40.3	40.3	15.3	15.3	
90th %ile Term Code	Hold	Hold	Hold	Max	Max		Max	Hold	Hold	Gap	Gap	
70th %ile Green (s)	17.7	17.7	17.7	10.0	30.7		22.0	39.0	39.0	14.0	14.0	
70th %ile Term Code	Hold	Hold	Hold	Max	Gap		Max	Hold	Hold	Min	Min	
50th %ile Green (s)	13.0	13.0	13.0	8.6	24.6		19.3	36.3	36.3	14.0	14.0	
50th %ile Term Code	Hold	Hold	Hold	Gap	Gap		Gap	Hold	Hold	Min	Min	
30th %ile Green (s)	10.0	10.0	10.0	8.3	21.3		15.0	32.0	32.0	14.0	14.0	
30th %ile Term Code	Min	Min	Min	Gap	Hold		Gap	Hold	Hold	Min	Min	
10th %ile Green (s)	10.0	10.0	10.0	6.9	19.9		10.7	27.7	27.7	14.0	14.0	
10th %ile Term Code	Min	Min	Min	Gap	Hold		Gap	Hold	Hold	Min	Min	
Stops (vph)	50	119	11	96	382		200	107	13	21	205	
Fuel Used(gal)	2	4	1	5	17		16	8	4	0	5	
CO Emissions (g/hr)	108	261	76	330	1155		1084	587	287	34	367	
NOx Emissions (g/hr)	21	51	15	64	225		211	114	56	7	71	
VOC Emissions (g/hr)	25	60	18	77	268		251	136	67	8	85	
Dilemma Vehicles (#)	0	7	0	0	25		0	10	0	0	14	
Queue Length 50th (ft)	26	66	0	52	207		99	54	0	9	58	
Queue Length 95th (ft)	66	129	29	101	344		188	109	27	32	107	
Internal Link Dist (ft)		801			374			718			564	
Turn Bay Length (ft)	690		690	155			605			125		
Base Capacity (vph)	224	452	479	504	780		740	1141	1038	323	978	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.28	0.35	0.21	0.34	0.64		0.53	0.19	0.12	0.07	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 74.6

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay (s/veh): 22.3

Intersection LOS: C

Intersection Capacity Utilization 85.8%

ICU Level of Service E

Analysis Period (min) 15

90th %ile Actuated Cycle: 85.3

70th %ile Actuated Cycle: 83.7

50th %ile Actuated Cycle: 74.9

30th %ile Actuated Cycle: 67.3

10th %ile Actuated Cycle: 61.6

Splits and Phases: 2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

 Ø2	 Ø3	 Ø4
52 s	13 s	25 s
 Ø5	 Ø6	 Ø8
25 s	27 s	38 s

Intersection

Int Delay, s/veh 1.3

Movement EBL EBT WBT WBR SBL SBRLane Configurations 

Traffic Vol, veh/h 15 353 429 46 44 14

Future Vol, veh/h 15 353 429 46 44 14

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # - 0 0 - 0 -

Grade, % - 0 0 - 0 -

Peak Hour Factor 92 92 92 92 92 92

Heavy Vehicles, % 0 10 5 4 5 0

Mvmt Flow 16 384 466 50 48 15

Major/Minor Major1 Major2 Minor2

Conflicting Flow All 516 0 - 0 908 491

Stage 1 - - - - 491 -

Stage 2 - - - - 416 -

Critical Hdwy 4.1 - - - 6.45 6.2

Critical Hdwy Stg 1 - - - - 5.45 -

Critical Hdwy Stg 2 - - - - 5.45 -

Follow-up Hdwy 2.2 - - - 3.545 3.3

Pot Cap-1 Maneuver 1060 - - - 302 581

Stage 1 - - - - 609 -

Stage 2 - - - - 659 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1060 - - - 296 581

Mov Cap-2 Maneuver - - - - 296 -

Stage 1 - - - - 597 -

Stage 2 - - - - 659 -

Approach EB WB SB

HCM Control Delay, s/v 0.34 0 18.17

HCM LOS C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h) 73 - - - 336

HCM Lane V/C Ratio 0.015 - - - 0.188

HCM Control Delay (s/veh) 8.4 0 - - 18.2

HCM Lane LOS A A - - C

HCM 95th %tile Q(veh) 0 - - - 0.7

4: Reed Road/Ingleside Avenue (CR 631) & Washington-Crossing Pennington Road (CR 546)

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	341	61	29	332	13	63	30	62	2	56	7
Future Vol, veh/h	42	341	61	29	332	13	63	30	62	2	56	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	10	3	1	15	0	7	2	0	5	0
Mvmt Flow	45	367	66	31	357	14	68	32	67	2	60	8
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	371	0	0	432	0	0	939	923	399	899	949	364
Stage 1	-	-	-	-	-	-	490	490	-	426	426	-
Stage 2	-	-	-	-	-	-	449	433	-	473	523	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.1	6.57	6.22	7.1	6.55	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.57	-	6.1	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.57	-	6.1	5.55	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.5	4.063	3.318	3.5	4.045	3.3
Pot Cap-1 Maneuver	1199	-	-	1122	-	-	246	265	650	262	257	685
Stage 1	-	-	-	-	-	-	564	541	-	610	581	-
Stage 2	-	-	-	-	-	-	593	573	-	576	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1199	-	-	1122	-	-	170	243	650	189	236	685
Mov Cap-2 Maneuver	-	-	-	-	-	-	170	243	-	189	236	-
Stage 1	-	-	-	-	-	-	536	514	-	589	560	-
Stage 2	-	-	-	-	-	-	505	553	-	460	499	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.77			0.64			29.12			24.7		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	311	165	-	-	139	-	-	252				
HCM Lane V/C Ratio	0.535	0.038	-	-	0.028	-	-	0.278				
HCM Control Delay (s/veh)	29.1	8.1	0	-	8.3	0	-	24.7				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	3	0.1	-	-	0.1	-	-	1.1				

2026 AM BUILD

Lanes, Volumes, Timings

2026 Build

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	8	85	213	4	23	51	2110	620	55	954	29
Future Volume (vph)	42	8	85	213	4	23	51	2110	620	55	954	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		160	195		310	170		345
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	25			25			175			275		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.862			0.871				0.850		0.996	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1638	0	3433	1600	0	1703	5085	1599	1805	5050	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	1638	0	3433	1600	0	1703	5085	1599	1805	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		89			24				323		5	
Link Speed (mph)		40			25			45			45	
Link Distance (ft)		284			595			486			653	
Travel Time (s)		4.8			16.2			7.4			9.9	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	2%	0%	4%	6%	2%	1%	0%	2%	12%
Adj. Flow (vph)	44	8	89	222	4	24	53	2198	646	57	994	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	97	0	222	28	0	53	2198	646	57	1024	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		50			36			32			30	
Link Offset(ft)		5			0			5			0	
Crosswalk Width(ft)		30			25			50			45	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	

Lanes, Volumes, Timings

2026 Build

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	Free											
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	55.0		5.0	55.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	63.0		13.0	63.0	
Total Split (s)	17.0	17.0		22.0	22.0		18.0	63.0		18.0	63.0	
Total Split (%)	14.2%	14.2%		18.3%	18.3%		15.0%	52.5%		15.0%	52.5%	
Maximum Green (s)	10.0	10.0		15.0	15.0		10.0	55.0		10.0	55.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-3.0	-3.0		-3.0	-3.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	10.1	10.1		14.7	14.7		11.6	66.3	120.0	11.6	66.4	
Actuated g/C Ratio	0.08	0.08		0.12	0.12		0.10	0.55	1.00	0.10	0.55	
v/c Ratio	0.29	0.44		0.53	0.13		0.32	0.78	0.40	0.33	0.37	
Control Delay (s/veh)	56.0	19.1		53.8	20.7		55.4	25.6	0.8	55.2	16.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	56.0	19.1		53.8	20.7		55.4	25.6	0.8	55.2	16.9	
LOS	E	B		D	C		E	C	A	E	B	
Approach Delay (s/veh)	30.6			50.1			20.6			18.9		
Approach LOS	C			D			C			B		
90th %ile Green (s)	10.0	10.0		15.0	15.0		10.0	55.0		10.0	55.0	
90th %ile Term Code	Max	Max		Max	Max		Max	Coord		Max	Coord	
70th %ile Green (s)	9.5	9.5		14.5	14.5		10.5	55.4		10.6	55.5	
70th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Gap	Coord	
50th %ile Green (s)	8.3	8.3		13.0	13.0		9.1	59.6		9.1	59.6	
50th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Gap	Coord	
30th %ile Green (s)	7.1	7.1		11.6	11.6		7.7	63.6		7.7	63.6	
30th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Gap	Coord	
10th %ile Green (s)	5.5	5.5		9.4	9.4		0.0	83.1		0.0	83.1	
10th %ile Term Code	Gap	Gap		Gap	Gap		Skip	Coord		Skip	Coord	
Stops (vph)	39	22		194	11		46	1621	0	49	540	
Fuel Used(gal)	1	1		4	0		1	42	3	3	43	
CO Emissions (g/hr)	72	66		291	20		99	2951	234	215	3022	
NOx Emissions (g/hr)	14	13		57	4		19	574	45	42	588	
VOC Emissions (g/hr)	17	15		67	5		23	684	54	50	700	
Dilemma Vehicles (#)	0	4		0	0		0	87	0	0	41	
Queue Length 50th (ft)	33	6		84	3		39	506	0	42	167	
Queue Length 95th (ft)	70	58		122	30		80	626	0	85	218	
Internal Link Dist (ft)	204			515			406			573		
Turn Bay Length (ft)							195		310	170		
Base Capacity (vph)	180	243		486	247		185	2811	1599	197	2794	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	

Lanes, Volumes, Timings

2026 Build

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.24	0.40		0.46	0.11		0.29	0.78	0.40	0.29	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay (s/veh): 22.2

Intersection LOS: C

Intersection Capacity Utilization 66.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

	Ø1		Ø2 (R)		Ø4		Ø8
18 s		63 s		17 s		22 s	
	Ø5		Ø6 (R)				
18 s		63 s					

Lanes, Volumes, Timings

2026 Build

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	443	439	111	138	13	152	192	194	43	181	48
Future Volume (vph)	60	443	439	111	138	13	152	192	194	43	181	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	690		690	155		0	605		0	125		85
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	115			65			105			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt			0.850		0.987				0.850		0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1810	1583	1719	1797	0	1671	1759	1583	1719	3325	0
Flt Permitted	0.655			0.189			0.496			0.630		
Satd. Flow (perm)	1244	1810	1583	342	1797	0	873	1759	1583	1140	3325	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			467		6				206		35	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		881			454			798			644	
Travel Time (s)		13.3			6.9			12.1			9.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	2%	5%	4%	8%	8%	8%	2%	5%	5%	6%
Adj. Flow (vph)	64	471	467	118	147	14	162	204	206	46	193	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	471	467	118	161	0	162	204	206	46	244	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			18			18	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		30			40			50			55	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases		4		3	8		5	2			6	

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2		2	6		
Detector Phase	4	4	4	3	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	4.0	17.0		5.0	22.0	22.0	14.0	14.0	
Minimum Split (s)	17.0	17.0	17.0	7.0	24.0		8.0	29.0	29.0	21.0	21.0	
Total Split (s)	25.0	25.0	25.0	13.0	38.0		25.0	52.0	52.0	27.0	27.0	
Total Split (%)	27.8%	27.8%	27.8%	14.4%	42.2%		27.8%	57.8%	57.8%	30.0%	30.0%	
Maximum Green (s)	18.0	18.0	18.0	10.0	31.0		22.0	45.0	45.0	20.0	20.0	
Yellow Time (s)	5.0	5.0	5.0	3.0	5.0		3.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0		0.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0	5.0	5.0	3.0	5.0		3.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	20.3	20.3	20.3	31.1	29.1		31.5	29.5	29.5	16.2	16.2	
Actuated g/C Ratio	0.30	0.30	0.30	0.45	0.42		0.46	0.43	0.43	0.24	0.24	
v/c Ratio	0.17	0.88	0.59	0.37	0.21		0.31	0.27	0.26	0.17	0.30	
Control Delay (s/veh)	22.2	46.6	6.0	14.9	13.1		13.8	14.6	3.1	25.7	21.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	22.2	46.6	6.0	14.9	13.1		13.8	14.6	3.1	25.7	21.2	
LOS	C	D	A	B	B		B	B	A	C	C	
Approach Delay (s/veh)		26.1			13.9			10.3			21.9	
Approach LOS		C			B			B			C	
90th %ile Green (s)	18.0	18.0	18.0	10.0	31.0		14.7	31.7	31.7	14.0	14.0	
90th %ile Term Code	Max	Max	Max	Max	Hold		Gap	Hold	Hold	Min	Min	
70th %ile Green (s)	18.0	18.0	18.0	9.1	30.1		11.9	28.9	28.9	14.0	14.0	
70th %ile Term Code	Max	Max	Max	Gap	Hold		Gap	Hold	Hold	Min	Min	
50th %ile Green (s)	18.0	18.0	18.0	8.1	29.1		10.2	27.2	27.2	14.0	14.0	
50th %ile Term Code	Max	Max	Max	Gap	Hold		Gap	Hold	Hold	Min	Min	
30th %ile Green (s)	18.0	18.0	18.0	7.2	28.2		8.7	25.7	25.7	14.0	14.0	
30th %ile Term Code	Max	Max	Max	Gap	Hold		Gap	Hold	Hold	Min	Min	
10th %ile Green (s)	18.0	18.0	18.0	0.0	18.0		6.5	23.5	23.5	14.0	14.0	
10th %ile Term Code	Max	Max	Max	Skip	Hold		Gap	Hold	Hold	Min	Min	
Stops (vph)	45	353	51	59	84		85	116	20	36	154	
Fuel Used(gal)	1	13	5	3	4		7	8	7	1	4	
CO Emissions (g/hr)	96	881	360	224	305		462	593	483	60	270	
NOx Emissions (g/hr)	19	171	70	44	59		90	115	94	12	53	
VOC Emissions (g/hr)	22	204	83	52	71		107	138	112	14	63	
Dilemma Vehicles (#)	0	28	0	0	10		0	13	0	0	16	
Queue Length 50th (ft)	21	196	0	28	39		41	56	0	16	39	
Queue Length 95th (ft)	55	#412	70	61	82		80	104	35	46	76	
Internal Link Dist (ft)		801			374			718			564	
Turn Bay Length (ft)	690		690	155			605			125		
Base Capacity (vph)	366	533	796	357	877		659	1218	1160	369	1101	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.17	0.88	0.59	0.33	0.18		0.25	0.17	0.18	0.12	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 68.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay (s/veh): 19.7

Intersection LOS: B

Intersection Capacity Utilization 75.3%

ICU Level of Service D

Analysis Period (min) 15

90th %ile Actuated Cycle: 76.7

70th %ile Actuated Cycle: 73

50th %ile Actuated Cycle: 70.3

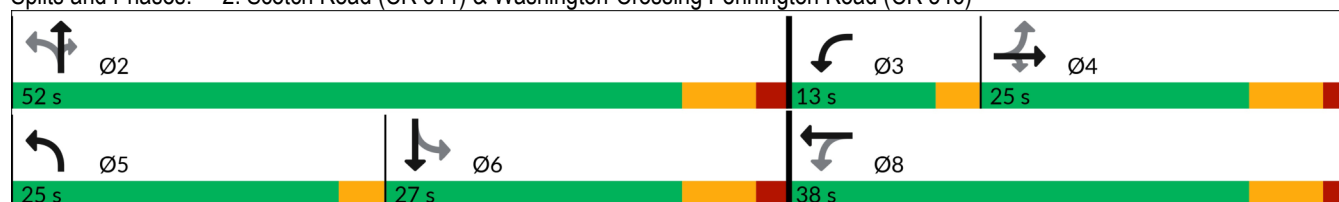
30th %ile Actuated Cycle: 67.9

10th %ile Actuated Cycle: 55.5

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)



HCM 7th TWSC
3: Washington-Crossing Pennington Road (CR 546) & Dublin Road

2026 Build
AM Peak Hour

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	445	328	47	54	13
Future Vol, veh/h	12	445	328	47	54	13
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	98	98	98	98	98	98
Heavy Vehicles, %	0	1	1	0	4	0
Mvmt Flow	12	454	335	48	55	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	383	0	-	0	837	359
Stage 1	-	-	-	-	359	-
Stage 2	-	-	-	-	479	-
Critical Hdwy	4.1	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.2	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	1187	-	-	-	334	690
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1187	-	-	-	329	690
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	619	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0.21	0		17.06		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	47	-	-	-	367	
HCM Lane V/C Ratio	0.01	-	-	-	0.187	
HCM Control Delay (s/veh)	8.1	0	-	-	17.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.7	

4: Reed Road/Ingleside Avenue (CR 631) & Washington-Crossing Pennington Road (CR 546)

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	348	50	33	257	2	59	16	69	5	33	93
Future Vol, veh/h	14	348	50	33	257	2	59	16	69	5	33	93
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	8	10	9	7	0	3	0	14	0	6	2
Mvmt Flow	15	363	52	34	268	2	61	17	72	5	34	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	270	0	0	415	0	0	771	756	389	738	781	269
Stage 1	-	-	-	-	-	-	418	418	-	338	338	-
Stage 2	-	-	-	-	-	-	354	339	-	400	444	-
Critical Hdwy	4.1	-	-	4.19	-	-	7.13	6.5	6.34	7.1	6.56	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.5	-	6.1	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.5	-	6.1	5.56	-
Follow-up Hdwy	2.2	-	-	2.281	-	-	3.527	4	3.426	3.5	4.054	3.318
Pot Cap-1 Maneuver	1305	-	-	1108	-	-	316	340	634	336	322	770
Stage 1	-	-	-	-	-	-	611	594	-	681	634	-
Stage 2	-	-	-	-	-	-	661	644	-	630	569	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1305	-	-	1108	-	-	234	322	634	269	305	770
Mov Cap-2 Maneuver	-	-	-	-	-	-	234	322	-	269	305	-
Stage 1	-	-	-	-	-	-	602	586	-	656	611	-
Stage 2	-	-	-	-	-	-	526	620	-	535	560	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.26			0.94			16.43			14.15		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	464	60	-	-	203	-	-	529				
HCM Lane V/C Ratio	0.324	0.011	-	-	0.031	-	-	0.258				
HCM Control Delay (s/veh)	16.4	7.8	0	-	8.4	0	-	14.1				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	1				

HCM 7th Roundabout
6: Nursery Road (CR 647) & Site Driveway 1

2026 Build
AM Peak Hour

Intersection			
Intersection Delay, s/veh	3.3		
Intersection LOS	A		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	80	92	75
Demand Flow Rate, veh/h	80	99	75
Vehicles Circulating, veh/h	68	3	66
Vehicles Exiting, veh/h	73	145	36
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.4	3.3
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	80	99	75
Cap Entry Lane, veh/h	1287	1376	1290
Entry HV Adj Factor	1.000	0.929	1.000
Flow Entry, veh/h	80	92	75
Cap Entry, veh/h	1287	1277	1290
V/C Ratio	0.062	0.072	0.058
Control Delay, s/veh	3.3	3.4	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

HCM 7th TWSC
8: Nursery Road (CR 647) & Site Driveway 2

2026 Build
AM Peak Hour

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	37	43	16	34	10
Future Vol, veh/h	5	37	43	16	34	10
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, %	0	0	14	0	0	0
Mvmt Flow	5	40	47	17	37	11
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	64	0	-	0	107	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	51	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
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	1551	-	-	-	896	1017
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	977	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1551	-	-	-	893	1017
Mov Cap-2 Maneuver	-	-	-	-	893	-
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	977	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0.87	0		9.14		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	214	-	-	-	918	
HCM Lane V/C Ratio	0.004	-	-	-	0.052	
HCM Control Delay (s/veh)	7.3	0	-	-	9.1	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 7th TWSC
7: Nursery Road (CR 647) & Site Driveway 3

2026 Build
AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	70	58	2	4	1
Future Vol, veh/h	1	70	58	2	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	11	0	0	0
Mvmt Flow	1	76	63	2	4	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	65	0	-	0	142	64
Stage 1	-	-	-	-	64	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
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	1550	-	-	-	855	1006
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1550	-	-	-	854	1006
Mov Cap-2 Maneuver	-	-	-	-	854	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	950	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0.1	0		9.11		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	25	-	-	-	-	881
HCM Lane V/C Ratio	0.001	-	-	-	-	0.006
HCM Control Delay (s/veh)	7.3	0	-	-	-	9.1
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0

2026 PM BUILD

Lanes, Volumes, Timings

2026 Build

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	5	66	561	6	47	105	877	164	9	2037	46
Future Volume (vph)	29	5	66	561	6	47	105	877	164	9	2037	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		160	195		310	170		345
Storage Lanes	1		0	2		1	1		1	1		1
Taper Length (ft)	25			25			175			275		
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00	1.00	1.00	0.91	1.00	1.00	0.91	0.91
Frt		0.861			0.868				0.850		0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1569	0	3467	1649	0	1805	5136	1568	1805	5171	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	1569	0	3467	1649	0	1805	5136	1568	1805	5171	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		73			52				327		4	
Link Speed (mph)		40			25			45			45	
Link Distance (ft)		284			595			486			653	
Travel Time (s)		4.8			16.2			7.4			9.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	20%	3%	1%	0%	0%	0%	1%	3%	0%	0%	0%
Adj. Flow (vph)	32	6	73	623	7	52	117	974	182	10	2263	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	79	0	623	59	0	117	974	182	10	2314	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		50			36			32			30	
Link Offset(ft)		5			0			5			0	
Crosswalk Width(ft)		30			25			50			45	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Prot	NA	Free	Prot	NA	
Protected Phases	4	4		8	8		5	2		1	6	

Scenario 2 2026 Build 10:16 am 11/21/2023 PM Peak Hour

Synchro 12 Report

EJV

Page 1

Lanes, Volumes, Timings

2026 Build

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	Free											
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	32.0		5.0	32.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		13.0	40.0		13.0	40.0	
Total Split (s)	12.0	12.0		23.0	23.0		15.0	40.0		15.0	40.0	
Total Split (%)	13.3%	13.3%		25.6%	25.6%		16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	5.0	5.0		16.0	16.0		7.0	32.0		7.0	32.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0		-3.0	-3.0		-3.0	-3.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	7.0	7.0		18.2	18.2		10.0	49.2	90.0	9.1	37.2	
Actuated g/C Ratio	0.08	0.08		0.20	0.20		0.11	0.55	1.00	0.10	0.41	
v/c Ratio	0.23	0.42		0.89	0.16		0.59	0.35	0.12	0.06	1.08	
Control Delay (s/veh)	43.3	18.8		51.5	11.8		50.9	13.3	0.2	37.0	73.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	43.3	18.8		51.5	11.8		50.9	13.3	0.2	37.0	73.8	
LOS	D	B		D	B		D	B	A	D	E	
Approach Delay (s/veh)	25.8				48.0		14.9				73.7	
Approach LOS	C				D		B				E	
90th %ile Green (s)	5.0	5.0		16.0	16.0		7.0	32.0		7.0	32.0	
90th %ile Term Code	Max	Max		Max	Max		Max	Coord		Max	Coord	
70th %ile Green (s)	5.0	5.0		16.0	16.0		7.0	47.0		0.0	32.0	
70th %ile Term Code	Max	Max		Max	Max		Max	Coord		Skip	Coord	
50th %ile Green (s)	5.0	5.0		16.0	16.0		7.0	47.0		0.0	32.0	
50th %ile Term Code	Max	Max		Max	Max		Max	Coord		Skip	Coord	
30th %ile Green (s)	5.0	5.0		16.0	16.0		7.0	47.0		0.0	32.0	
30th %ile Term Code	Max	Max		Max	Max		Max	Coord		Skip	Coord	
10th %ile Green (s)	0.0	0.0		17.2	17.2		6.9	57.8		0.0	42.9	
10th %ile Term Code	Skip	Skip		Gap	Gap		Gap	Coord		Skip	Coord	
Stops (vph)	29	21		502	15		99	480	0	10	1673	
Fuel Used(gal)	1	1		11	0		3	13	1	0	122	
CO Emissions (g/hr)	46	53		744	32		201	904	60	35	8551	
NOx Emissions (g/hr)	9	10		145	6		39	176	12	7	1664	
VOC Emissions (g/hr)	11	12		172	7		46	210	14	8	1982	
Dilemma Vehicles (#)	0	4		0	0		0	49	0	0	100	
Queue Length 50th (ft)	17	3		179	3		64	104	0	5	~574	
Queue Length 95th (ft)	46	46		#276	35		#128	188	0	21	#672	
Internal Link Dist (ft)	204				515		406				573	
Turn Bay Length (ft)							195		310	170		
Base Capacity (vph)	140	189		702	375		200	2805	1568	200	2138	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	

1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.23	0.42		0.89	0.16		0.59	0.35	0.12	0.05	1.08	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay (s/veh): 51.4

Intersection LOS: D

Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Scotch Road (CR 611) & Nursery Road (CR 647)/Capital Way

 Ø1	 Ø2 (R)	 Ø4	 Ø8
15 s	40 s	12 s	23 s
 Ø5	 Ø6 (R)		
15 s	40 s		

Lanes, Volumes, Timings

2026 Build

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	142	92	162	411	42	354	209	121	22	240	64
Future Volume (vph)	57	142	92	162	411	42	354	209	121	22	240	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	690		690	155		0	605		0	125		85
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	115			65			105			40		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt			0.850		0.986				0.850		0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1845	1583	1787	1840	0	1805	1900	1615	1805	3498	0
Flt Permitted	0.446			0.512			0.418			0.615		
Satd. Flow (perm)	847	1845	1583	963	1840	0	794	1900	1615	1168	3498	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121		6				133		35	
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		881			454			798			644	
Travel Time (s)		13.3			6.9			12.1			9.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	3%	2%	1%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	63	156	101	178	452	46	389	230	133	24	264	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	156	101	178	498	0	389	230	133	24	334	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			18			18	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		30			40			50			55	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	
Protected Phases		4		3	8		5	2			6	

Scenario 2 2026 Build 10:16 am 11/21/2023 PM Peak Hour

EJV

Synchro 12 Report

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Lanes, Volumes, Timings

2026 Build

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2		2	6		
Detector Phase	4	4	4	3	8		5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	4.0	17.0		5.0	22.0	22.0	14.0	14.0	
Minimum Split (s)	17.0	17.0	17.0	7.0	24.0		8.0	29.0	29.0	21.0	21.0	
Total Split (s)	25.0	25.0	25.0	13.0	38.0		25.0	52.0	52.0	27.0	27.0	
Total Split (%)	27.8%	27.8%	27.8%	14.4%	42.2%		27.8%	57.8%	57.8%	30.0%	30.0%	
Maximum Green (s)	18.0	18.0	18.0	10.0	31.0		22.0	45.0	45.0	20.0	20.0	
Yellow Time (s)	5.0	5.0	5.0	3.0	5.0		3.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	0.0	2.0		0.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0		0.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	5.0	5.0	5.0	3.0	5.0		3.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lag	Lag	Lag	Lead			Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None		None	None	None	None	None	
Act Effect Green (s)	15.2	15.2	15.2	29.2	27.2		39.2	37.2	37.2	16.6	16.6	
Actuated g/C Ratio	0.20	0.20	0.20	0.39	0.37		0.53	0.50	0.50	0.22	0.22	
v/c Ratio	0.37	0.41	0.24	0.37	0.74		0.59	0.24	0.15	0.09	0.41	
Control Delay (s/veh)	33.9	30.6	5.6	18.5	28.6		15.4	12.0	2.8	27.7	25.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	33.9	30.6	5.6	18.5	28.6		15.4	12.0	2.8	27.7	25.5	
LOS	C	C	A	B	C		B	B	A	C	C	
Approach Delay (s/veh)		23.4			25.9			12.1			25.6	
Approach LOS		C			C			B			C	
90th %ile Green (s)	18.0	18.0	18.0	10.0	31.0		22.0	41.2	41.2	16.2	16.2	
90th %ile Term Code	Max	Max	Max	Max	Max		Max	Hold	Hold	Gap	Gap	
70th %ile Green (s)	17.0	17.0	17.0	10.0	30.0		22.0	39.0	39.0	14.0	14.0	
70th %ile Term Code	Hold	Hold	Hold	Max	Gap		Max	Hold	Hold	Min	Min	
50th %ile Green (s)	11.8	11.8	11.8	9.1	23.9		19.1	36.1	36.1	14.0	14.0	
50th %ile Term Code	Hold	Hold	Hold	Gap	Gap		Gap	Hold	Hold	Min	Min	
30th %ile Green (s)	10.0	10.0	10.0	8.6	21.6		14.9	31.9	31.9	14.0	14.0	
30th %ile Term Code	Min	Min	Min	Gap	Hold		Gap	Hold	Hold	Min	Min	
10th %ile Green (s)	10.0	10.0	10.0	7.0	20.0		10.7	27.7	27.7	14.0	14.0	
10th %ile Term Code	Min	Min	Min	Gap	Hold		Gap	Hold	Hold	Min	Min	
Stops (vph)	48	115	11	101	370		199	109	13	20	221	
Fuel Used(gal)	2	4	1	5	16		16	9	4	0	6	
CO Emissions (g/hr)	105	252	75	349	1116		1085	623	301	32	391	
NOx Emissions (g/hr)	20	49	15	68	217		211	121	59	6	76	
VOC Emissions (g/hr)	24	58	17	81	259		251	144	70	8	91	
Dilemma Vehicles (#)	0	9	0	0	30		0	14	0	0	20	
Queue Length 50th (ft)	26	64	0	55	197		96	54	0	9	62	
Queue Length 95th (ft)	65	127	29	108	336		187	111	27	31	114	
Internal Link Dist (ft)		801			374			718			564	
Turn Bay Length (ft)	690		690	155			605			125		
Base Capacity (vph)	230	503	519	490	831		720	1217	1082	350	1073	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	

Lanes, Volumes, Timings

2026 Build

2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.27	0.31	0.19	0.36	0.60		0.54	0.19	0.12	0.07	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 74.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay (s/veh): 20.6

Intersection LOS: C

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

90th %ile Actuated Cycle: 86.2

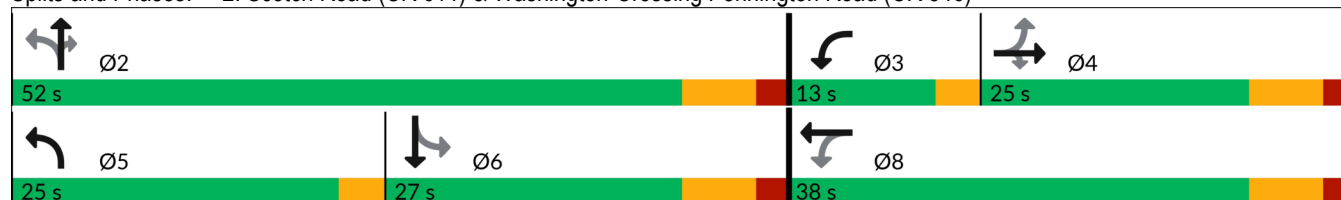
70th %ile Actuated Cycle: 83

50th %ile Actuated Cycle: 74

30th %ile Actuated Cycle: 67.5

10th %ile Actuated Cycle: 61.7

Splits and Phases: 2: Scotch Road (CR 611) & Washington-Crossing Pennington Road (CR 546)



HCM 7th TWSC
3: Washington-Crossing Pennington Road (CR 546) & Dublin Road

2026 Build
PM Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	359	437	46	44	14
Future Vol, veh/h	15	359	437	46	44	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	9	5	4	5	0
Mvmt Flow	16	390	475	50	48	15
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	525	0	-	0	923	500
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	423	-
Critical Hdwy	4.1	-	-	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.2	-	-	-	3.545	3.3
Pot Cap-1 Maneuver	1052	-	-	-	296	575
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1052	-	-	-	290	575
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	655	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0.34	0		18.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	72	-	-	-	-	329
HCM Lane V/C Ratio	0.015	-	-	-	-	0.191
HCM Control Delay (s/veh)	8.5	0	-	-	-	18.5
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	-	0.7

4: Reed Road/Ingleside Avenue (CR 631) & Washington-Crossing Pennington Road (CR 646)

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	46	343	61	29	334	13	63	30	62	2	56	13
Future Vol, veh/h	46	343	61	29	334	13	63	30	62	2	56	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	10	3	1	15	0	7	2	0	5	0
Mvmt Flow	49	369	66	31	359	14	68	32	67	2	60	14
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	373	0	0	434	0	0	952	936	402	912	962	366
Stage 1	-	-	-	-	-	-	501	501	-	428	428	-
Stage 2	-	-	-	-	-	-	452	435	-	484	533	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.1	6.57	6.22	7.1	6.55	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.57	-	6.1	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.57	-	6.1	5.55	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.5	4.063	3.318	3.5	4.045	3.3
Pot Cap-1 Maneuver	1196	-	-	1120	-	-	241	260	649	257	253	684
Stage 1	-	-	-	-	-	-	556	535	-	608	579	-
Stage 2	-	-	-	-	-	-	591	572	-	568	520	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1196	-	-	1120	-	-	163	237	649	184	231	684
Mov Cap-2 Maneuver	-	-	-	-	-	-	163	237	-	184	231	-
Stage 1	-	-	-	-	-	-	526	505	-	587	559	-
Stage 2	-	-	-	-	-	-	499	552	-	451	491	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.83			0.64			30.96			24.46		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	300	179	-	-	138	-	-	260				
HCM Lane V/C Ratio	0.555	0.041	-	-	0.028	-	-	0.293				
HCM Control Delay (s/veh)	31	8.1	0	-	8.3	0	-	24.5				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	3.1	0.1	-	-	0.1	-	-	1.2				

HCM 7th Roundabout
6: Nursery Road (CR 647) & Site Driveway 1

2026 Build
PM Peak Hour

Intersection			
Intersection Delay, s/veh	3.5		
Intersection LOS	A		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	67	171	54
Demand Flow Rate, veh/h	71	171	54
Vehicles Circulating, veh/h	50	8	98
Vehicles Exiting, veh/h	102	113	81
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.6	3.2
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	71	171	54
Cap Entry Lane, veh/h	1311	1369	1249
Entry HV Adj Factor	0.950	1.000	1.000
Flow Entry, veh/h	67	171	54
Cap Entry, veh/h	1245	1369	1249
V/C Ratio	0.054	0.125	0.043
Control Delay, s/veh	3.3	3.6	3.2
LOS	A	A	A
95th %tile Queue, veh	0	0	0

HCM 7th TWSC
8: Nursery Road (CR 647) & Site Driveway 2

2026 Build
PM Peak Hour

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	37	57	34	23	6
Future Vol, veh/h	11	37	57	34	23	6
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, %	0	8	0	0	0	0
Mvmt Flow	12	40	62	37	25	7
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	99	0	-	0	145	80
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	64	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
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	1507	-	-	-	853	985
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	964	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1507	-	-	-	846	985
Mov Cap-2 Maneuver	-	-	-	-	846	-
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	964	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	1.7	0		9.29		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	412	-	-	-	871	
HCM Lane V/C Ratio	0.008	-	-	-	0.036	
HCM Control Delay (s/veh)	7.4	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

HCM 7th TWSC
7: Nursery Road (CR 647) & Site Driveway 3

2026 Build
PM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	59	90	4	2	1
Future Vol, veh/h	1	59	90	4	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	5	0	0	0	0
Mvmt Flow	1	64	98	4	2	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	102	0	0 166 100
Stage 1	-	-	- 100 -
Stage 2	-	-	- 66 -
Critical Hdwy	4.1	-	- 6.4 6.2
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	1503	-	- 829 961
Stage 1	-	-	- 929 -
Stage 2	-	-	- 962 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1503	-	- 828 961
Mov Cap-2 Maneuver	-	-	- 828 -
Stage 1	-	-	- 928 -
Stage 2	-	-	- 962 -

Approach	EB	WB	SB
HCM Control Delay, s/v	0.12	0	9.16
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	30	-	-	-	868
HCM Lane V/C Ratio	0.001	-	-	-	0.004
HCM Control Delay (s/veh)	7.4	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0