

TRAFFIC IMPACT STUDY

TAKE-5 AUTOMATIC CAR WASH

2520 BRUNSWICK PIKE

BLOCK 2201 – LOT 20

TOWNSHIPS OF LAWRENCE, NEW JERSEY

Prepared For:

Boing US Holdco, Inc.

440 South Church Street, Suite 700
Charlotte, NC 28202

Submitted By:

Pennoni

515 Grove Street
Suite 1B
Haddon Heights, NJ 08035

Proj. No. DRVBR22047
May 2023



Beth-Ann M. Grasso, P.E.
New Jersey License #24GE04312100



PARTNERS FOR WHAT'S POSSIBLE

pennoni.com

TABLE OF CONTENTS

INTRODUCTION1

STUDY AREA1

STUDY METHODOLOGY1

2023 EXISTING CONDITIONS 3

EXISTING ROADWAY FACILITIES..... 3

EXISTING INTERSECTIONS 3

DATA COLLECTION 4

ANALYSIS OF EXISTING CONDITIONS 4

2025 NO-BUILD CONDITIONS 6

BACKGROUND GROWTH..... 6

ANALYSIS OF NO BUILD CONDITIONS 6

2025 BUILD CONDITIONS 7

DEVELOPMENT DESCRIPTION 7

TRIP GENERATION 8

TRIP DISTRIBUTION..... 8

ANALYSIS OF BUILD CONDITIONS 8

CONCLUSIONS12

LIST OF TABLES

- TABLE 1 – LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS
- TABLE 2 – LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS
- TABLE 3 – 2023 EXISTING CONDITION DELAY AND LOS
- TABLE 4 – 2025 NO-BUILD CONDITION DELAY AND LOS
- TABLE 5 – TRIP GENERATION
- TABLE 6 – 2025 BUILD CONDITION DELAY AND LOS
- TABLE 7 – 2025 BUILD CONDITION WITH MITIGATION DELAY AND LOS

LIST OF FIGURES

- FIGURE 1 – PROJECT AREA
- FIGURE 2 – SITE PLAN
- FIGURE 3 – 2023 EXISTING CONDITION PEAK HOUR TRAFFIC VOLUMES
- FIGURE 4 – 2025 NO-BUILD CONDITION PEAK HOUR TRAFFIC VOLUMES
- FIGURE 5 – TRIP DISTRIBUTION
- FIGURE 6 – SITE GENERATED TRIPS
- FIGURE 7 – 2025 BUILD CONDITION PEAK HOUR TRAFFIC VOLUMES

LIST OF APPENDICES

- APPENDIX A – DATA COLLECTION
- APPENDIX B – 2023 EXISTING SYNCHRO ANALYSIS WORKSHEETS
- APPENDIX C – 2025 NO-BUILD SYNCHRO ANALYSIS WORKSHEETS
- APPENDIX D – TRIP GENERATION
- APPENDIX E – 2025 BUILD SYNCHRO ANALYSIS WORKSHEETS
- APPENDIX F – 2025 BUILD WITH MITIGATION SYNCHRO ANALYSIS WORKSHEETS

Introduction

Pennoni Associates, Inc. has completed a Traffic Impact Study (TIS) associated with the proposed Take-5 automatic car wash in the Township of Lawrence, New Jersey. The development consists of an automated car wash facility complete with one (1) 90' express washing tunnel. The proposed development will include one (1) right-in driveway on northbound Brunswick Pike (US Route 1 Business) and one (1) exit driveway connecting to the adjacent property and out onto northbound Brunswick Pike via a right-out driveway. The entrance driveway will provide access to the proposed automatic car wash wherein patrons can choose to enter the washing tunnel queue or utilize the vacuuming bays, of which 14 are proposed.

The existing site is bounded by Brunswick Pike (US Route 1 Business) to the northwest, Huron Way to the southeast, and Hopatcong Drive to the northwest. The development is anticipated to be completed in 2025.

The project study area is depicted in **Figure 1** and the site plan is shown in **Figure 2**.

Study Area

The study area defined for this TIS includes the following intersections:

- Texas Avenue and Rt. 1 SB Nearside Jughandle
- Brunswick Pike (US Route 1 Business) and Texas Avenue/NB Jughandle
- Brunswick Pike (US Route 1 Business) and Existing Site Driveway
- Brunswick Pike (US Route 1 Business) and Rt. 1 SB Jughandle/Dealership Driveway
- Brunswick Pike (US Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane

The existing rear site driveway currently provides alternative egress from the adjacent urgent care facility to the Rt. 1 NB jughandle at Texas Avenue. As part of the proposed development, this rear site driveway is to be closed and replaced with a landscape buffer. Existing vehicles from the urgent care facility using this alternative egress point will be surcharged onto the roadway network.

The signal timings for the traffic signals at Brunswick Pike (US Route 1 Business) and Texas Avenue, Brunswick Pike (US Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane, and Brunswick Pike (US Route 1 Business) and Rt. 1 SB Jughandle were obtained from the New Jersey Department of Transportation (NJDOT) and can be found in **Appendix A**.

Study Methodology

This traffic impact study was prepared in accordance with guidelines presented in Chapter 47 of the State Highway Access Management Code. As required, two analysis years are being considered: existing baseline traffic conditions and opening or "Build" year analysis. The build year analyses include an assessment of the operational conditions of the study intersections under "No-Build" and "Build" scenarios. The proposed development is anticipated to be completed in 2025.

Specific elements included in the study are:

- An inventory of the roadway facilities within the study area, including the existing physical and traffic operating characteristics.
- Manual turning movement counts performed at the study intersections during weekday morning, weekday afternoon and Saturday midday peak traffic hours.
- Projection of future background traffic volumes.
- Calculation of vehicular trip generation for the proposed development within the study area based on trip generation rates contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition and the NJDOT HAPS trip generation rates where available.
- Distribution of development-generated traffic onto the study area roadways in accordance with current travel patterns.
- Assessment of existing and build year traffic conditions based on capacity and level of service analyses performed for the study intersections.

The performance of the study intersections for each analysis scenario was evaluated through a qualitative measure of operating conditions called Levels of Service (LOS). Six Levels of Service (LOS) are defined with letter designations from 'A' to 'F', with Level of Service 'A' representing delays up to ten seconds and Level of Service 'F' indicating delays exceeding eighty seconds. Level of Service 'C' or better is considered acceptable, with a threshold of Level of Service 'D' in urban areas. Levels of Service are determined through analysis procedures outlined in the *Highway Capacity Manual, Sixth Edition* (Transportation Research Board, Washington, D.C.).

Levels of Service for signalized intersections are based on average delay experienced by motorists passing the intersection. The delay is based on the results of the capacity analysis (rate of demand flow to capacity) and other important variables such as quality of progression, cycle length, and ratio of green time.

Levels of Service for unsignalized intersections are defined in terms of delay to vehicles entering from the side road and turning left from a major road. Delay is a function of the capacity of the approach and degree of saturation. The capacity is based on the distribution of gaps in the major street traffic stream, driver judgment in selecting a gap through which to execute the desired maneuver, and follow-up time required by each driver in a queue.

The Level of Service Criteria for signalized and unsignalized intersections is provided in **Tables 1 and 2**.

Table 1- Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay (Seconds per Vehicle)
A	≤ 10
B	>10-20
C	>20-35
D	>35-55
E	>55-80
F	>80

Table 2- Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay (Seconds per Vehicle)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

The operational analyses of the study intersections under all conditions were performed using the *Synchro* Version 11 software.

2023 Existing Conditions

Existing Roadway Facilities

The existing roadways within the study area are summarized below:

- **Brunswick Pike (US Route 1 Business)** – Brunswick Pike (US Route 1 Business) is a north-south oriented Urban Principal Arterial roadway with a median barrier under both NJDOT jurisdiction. Brunswick Pike (US Route 1 Business) has varying widths and is designated as a two-way. Within the study area, Brunswick Pike (US Route 1 Business) consists of two (2) or more travel lanes in each direction with no parking on either side of the roadway. There is no sidewalk present intermittently on both sides of the roadway. The posted speed limit on Brunswick Pike (US Route 1 Business) is 45 MPH south of Texas Avenue and 55 MPH north of Texas Avenue.
- **Texas Avenue** – Texas Avenue is an east-west oriented Urban Major Collector under Lawrence Township jurisdiction. Texas Avenue is approximately 30' wide and is designated as a two-way. Within the study area, Texas Avenue consists of one (1) travel lane in each direction and no parking on either side of the roadway. There is sidewalk present on both sides of the roadway. The posted speed limit on Texas Avenue is 25 MPH.
- **E. Darrah Lane** – E. Darrah Lane is an east-west oriented local roadway under Lawrence Township jurisdiction. E. Darrah Lane is approximately 36' wide and is designated as a two-way. Within the study area, E. Darrah Lane consists of one (1) travel lane in each direction with no parking on either side of the roadway. There is sidewalk present intermittently on both sides of the roadway. The posted speed limit on E. Darrah Lane is 25 MPH.
- **Existing Site Driveway** – The existing site driveway is an east-west oriented local roadway under Lawrence Township jurisdiction. The existing site driveway is a bifurcated, right-in/right-out driveway and is approximately 30' wide. There is no sidewalk present or parking on either side of the roadway. The speed limit on the existing site driveway is unposted but assumed to be 25 MPH.
- **Brunswick Pike (US Route 1 Business) Jughandles** – Within the study area, there are three (3) jughandles under NJDOT jurisdiction which facilitate all turns from Brunswick Pike (US Route 1 Business). The jughandles are approximately 28' wide and designated as one-way. There is no sidewalk or parking on either side of the jughandles. The speed limit on the jughandles is unposted but assumed to be 25 MPH.

Existing Intersections

The existing intersections within the study area are summarized below:

- **Texas Avenue and Rt. 1 SB Nearside Jughandle** – The intersection of Texas Avenue and SB Rt. 1 Nearside Jughandle is an unsignalized T-intersection. The eastbound approach consists of one (1) dedicated through lane. The westbound approach consists of one (1) dedicated through lane. The southbound approach consists of one (1) dedicated left turn lane and one (1) dedicated right turn lane. The southbound approach of the SB Rt. 1 Nearside Jughandle is stop controlled.
- **Brunswick Pike (US Route 1 Business) and Texas Avenue/NB Jughandle** – The intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/NB Jughandle is a signalized intersection. The eastbound approach consists of one (1) dedicated left turn lane and one (1) dedicated right turn lane. The westbound approach consists of one (1) dedicated left turn lane and one (1) shared through/right turn lane. The northbound approach consists of three (3) dedicated through lanes. The southbound approach consists of one (1) dedicated through lane and one (1) shared through/right turn lane. The traffic signal is a fully actuated, variable background cycle length, 3-phase signal with push buttons for crossing Brunswick Pike (US Route 1 Business).
- **Brunswick Pike (US Route 1 Business) and Existing Site Driveway** – The intersection of Brunswick Pike (US Route 1 Business) and the site driveway is an unsignalized right-in/right-out intersection with separated ingress and egress points. The westbound approach consists of one (1) dedicated right turn lane. The northbound approach has one (1) dedicated through lane and one (1) shared through/right turn lane. The westbound approach of the site driveway is stop controlled.

- **Brunswick Pike (US Route 1 Business) and Rt. 1 SB Jughandle/Dealership Driveway** – The intersection of Brunswick Pike (US Route 1 Business) and SB Jughandle is a signalized intersection. The eastbound approach consists of one (1) shared left turn/through/right turn lane. The westbound approach consists of one (1) dedicated right turn lane. The northbound approach consists of one (1) dedicated through lane and one (1) shared through/right turn lane. The southbound approach consists of two (2) dedicated through lanes. The traffic signal is a semi-actuated, variable background cycle length, 2-phase signal with push buttons for crossing the Dealership driveway.
- **Brunswick Pike (US Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane** – The intersection of Brunswick Pike (US Route 1 Business) and NB Jughandle/E. Darrah Lane is a signalized intersection. The eastbound approach consists of one (1) dedicated left turn lane and one (1) dedicated right turn lane. The westbound approach consists of one (1) dedicated left turn lane and one (1) dedicated through/right turn lane. The northbound approach consists of two (2) dedicated through lanes. The southbound approach consists of two (2) dedicated through lanes and one (1) shared through/right turn lane. The traffic signal is a semi-actuated, variable background cycle length, 2-phase signal with push buttons for crossing Brunswick Pike (US Route 1 Business).

Data Collection

Manual turning movement counts were conducted on Tuesday, April 25th, 2023, during the AM peak period between 7:00 – 9:00 AM and during the PM peak period between 4:00 – 6:00 PM in addition to Saturday, April 22nd, 2023, during the Saturday midday peak period at the intersections of:

- Texas Avenue and Rt. 1 SB Nearside Jughandle
- Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle
- Brunswick Pike (US Route 1 Business) and Existing Site Driveway
- Rear Site Driveway and Parking Aisle
- Brunswick Pike (US Route 1 Business) and Rt. 1 SB Jughandle/Dealership Driveway
- Brunswick Pike (US Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane

The turning movement counts are provided in **Appendix A**. The existing traffic volumes for the intersections within the study area are illustrated on **Figure 3**.

Analysis of Existing Conditions

Capacity Analysis

Under the 2023 Existing Conditions, all study intersections operate at a LOS C or better and all approaches/movements operate at a LOS D or better with the following exceptions:

- The left turn movement of the eastbound approach of Texas Avenue at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM, PM and Saturday peak periods with delays of 72.9, 73.5, and 71.0 seconds, respectively.
- The left turn movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during both the PM and Saturday midday peak periods with delays of 56.2 and 68.5 seconds, respectively.
- The through/right movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM peak period with a delay of 63.0 seconds.
- The westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM and Saturday peak periods with delays of 58.6 and 63.4 seconds, respectively.
- The left turn movement of the eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS F during the AM peak period and LOS E during the PM and Saturday midday peak periods with delays of 95.4, 64.3, and 78.9 seconds, respectively.
- The eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS E during the AM peak period with a delay of 69.6 seconds.

The results of the capacity analysis are summarized in **Table 3. Synchro HCM 6th Edition** and *Lanes, Volumes, and Timings* output summaries for the 2023 Existing Condition can be found in **Appendix B**.

Table 3 – 2023 Existing Condition Delay and LOS

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
Texas Avenue & SB Rt. 1 Nearside Jughandle (unsignalized)	SB Approach	Left	B	10.7	B	9.9	A	9.8
		Right	A	9.7	A	9.3	A	9.1
		Approach	B	10.0	A	9.4	A	9.4
	Overall		A	2.0	A	3.0	A	3.6
Brunswick Pike (US Route 1 Business) & Texas Avenue/Rt. 1 NB Jughandle (signalized)	EB Approach	Left	E	95.4	E	73.5	E	71.0
		Right	A	9.0	A	4.4	A	3.1
		Approach	D	49.6	D	50.6	D	54.8
	WB Approach	Left	D	51.8	E	56.2	E	68.5
		Through/Right	E	63.0	D	43.6	D	54.8
		Approach	E	58.6	D	51.3	E	63.4
	NB Approach	Through	B	18.4	B	13.7	B	17.3
	SB Approach	Through/Right	A	9.5	A	10.1	B	14.9
Overall		C	28.3	C	22.8	C	28.1	
Brunswick Pike (US Route 1 Business) & Existing Site Driveway (unsignalized)	WB Approach	Right	B	11.1	B	10.3	B	10.7
	Overall		A	0.1	A	0.1	A	0.0
Brunswick Pike (US Route 1 Business) & Rt. 1 SB Jughandle/Dealership Driveway (signalized)	EB Approach	Left/Through/Right	C	33.5	C	33.9	D	51.6
	WB Approach	Right	A	0.0	A	0.2	A	0.3
	NB Approach	Through/Right	A	4.8	A	4.3	A	2.6
	SB Approach	Through	A	5.3	A	5.8	A	4.5
	Overall		A	5.9	A	7.0	A	7.3
Brunswick Pike (US Route 1 Business) & Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	EB Approach	Left	F	95.4	E	64.4	E	77.8
		Right	A	8.2	A	6.8	A	10.0
		Approach	D	69.6	D	43.1	D	52.8
	WB Approach	Left	C	33.4	C	31.3	D	46.0
		Through/Right	D	42.9	D	35.6	D	47.5
		Approach	D	41.7	C	34.0	D	46.9
	NB Approach	Through	A	4.0	A	4.5	A	2.9
	SB Approach	Through/Right	A	6.7	A	7.8	A	5.7
Overall		C	20.6	B	15.3	B	14.4	

2025 No-Build Conditions

Background Growth

To account for general traffic growth in the area, an annual background growth rate is applied to existing traffic volumes on the study area roadways. An annual background growth rate of 1.00% has been established by NJDOT for Urban Principal Arterial and Urban Minor Arterial roadways, Urban Collector roadways, and local roadways in Mercer County.

After consultation with Mercer County, it was found that there are no adjacent developments within the immediate area of the proposed development that are anticipated to have an adverse effect on traffic on the adjacent roadway network; therefore, the use of the background growth rate is conservative.

Figure 4 illustrates the projected 2025 No Build traffic volumes.

Analysis of No Build Conditions

Capacity Analysis

Under the 2025 No-Build Conditions, as in the Existing Condition, all study intersections operate at a LOS C or better and all approaches/movements operate at a LOS D or better with the following exceptions.

- The left turn movement of the eastbound approach of Texas Avenue at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM, PM, and Saturday peak periods with delays of 72.7, 74.8, and 70.9 seconds, respectively.
- The left turn movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during both the PM and Saturday midday peak periods with delays of 56.3 and 68.6 seconds, respectively.
- The through/right movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM peak period with a delay of 62.9 seconds.
- The westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM and Saturday peak periods with delays of 58.5 and 63.4 seconds, respectively.
- The left turn movement of the eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS F during the AM peak period and LOS E during the PM and Saturday midday peak periods with delays of 94.9, 64.3, and 78.9 seconds, respectively.
- The eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS E during the AM peak period with a delay of 69.2 seconds.

The results of the capacity analysis are summarized in **Table 4**. *Synchro HCM 6th Edition* and *Lanes, Volumes, and Timings* output summaries for the 2025 No-Build Conditions can be found in **Appendix C**.

Table 4 - 2025 No-Build Condition Delay and LOS

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
Texas Avenue & SB Rt. 1 Nearside Jughandle (unsignalized)	SB Approach	Left	B	10.8	B	10.0	A	9.8
		Right	A	9.7	A	9.3	A	9.1
		Approach	B	10.0	A	9.5	A	9.4
	Overall		A	2.0	A	3.0	A	3.6
Brunswick Pike (US Route 1 Business) & Texas Avenue/Rt. 1 NB Jughandle (signalized)	EB Approach	Left	E	72.7	E	74.8	E	70.9
		Right	A	8.8	A	4.5	A	3.1
		Approach	D	49.4	D	51.6	D	54.7
	WB Approach	Left	D	51.6	E	56.3	E	68.6
		Through/Right	E	62.9	D	43.5	D	54.6
		Approach	E	58.5	D	51.3	E	63.4
	NB Approach	Through	B	18.9	B	13.9	B	17.6
	SB Approach	Through/Right	A	9.7	A	10.2	B	15.2
Overall		C	28.6	C	23.0	C	28.3	
Brunswick Pike (US Route 1 Business) & Existing Site Driveway (unsignalized)	WB Approach	Right	B	11.1	B	10.4	B	10.8
	Overall		A	0.1	A	0.1	A	0.1
Brunswick Pike (US Route 1 Business) & Rt. 1 SB Jughandle/Dealership Driveway (signalized)	EB Approach	Left/Through/Right	C	33.0	C	33.6	D	51.2
	WB Approach	Right	A	0.0	A	0.2	A	0.3
	NB Approach	Through/Right	A	4.9	A	4.4	A	2.6
	SB Approach	Through	A	5.5	A	5.9	A	4.6
	Overall		A	6.0	A	7.1	A	7.4
Brunswick Pike (US Route 1 Business) & Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	EB Approach	Left	F	94.9	E	64.3	E	78.9
		Right	A	7.9	A	6.6	A	9.8
		Approach	E	69.2	D	43.1	D	53.4
	WB Approach	Left	C	32.9	C	30.9	D	45.5
		Through/Right	D	42.3	D	35.2	D	47.2
		Approach	D	41.1	C	34.0	D	46.5
	NB Approach	Through	A	4.3	A	4.6	A	2.9
	SB Approach	Through/Right	A	7.0	A	8.0	A	5.9
Overall		C	20.7	16.9	15.4	B	14.5	

2025 Build Conditions Development Description

The proposed development consists of a Take-5 automatic car wash in the Township of Lawrence, New Jersey. The development consists of an automatic car wash facility complete with one (1) 90' express washing tunnel. The proposed development will include one (1) right-in/right-out driveway along Brunswick Pike (US Route 1 Business). The site driveway will

provide access to the proposed automatic car wash wherein patrons can enter the washing tunnel queue or choose to utilize the vacuuming bays, of which 14 are proposed.

The ground floor site plan is illustrated in **Figure 2**.

Trip Generation

The trips generated by the proposed car wash were estimated in accordance with the methodology outlined in both the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition and the NJDOT HAPS Program. The Trip Generation Manual defines a trip as a “single or one-direction vehicle movement with either the origin or the destination (exiting or entering) inside a study site”. The trip generation was calculated for the Land Use Codes (LUC) 948 – Automated Car Wash.

Table 5 below provides a breakdown of the estimated vehicular trips generated by the site during both the AM and PM peak periods for analysis of the 2025 Build Conditions:

Table 5 - Trip Generation

Land Use Description	Independent Variable	AM Peak			PM Peak			Saturday Peak		
		In	Out	Total	In	Out	Total	In	Out	Total
LUC 948 – Automated Car Wash	1 Tunnel	39	39	78	39	39	78	19	22	41

A “significant increase in traffic” is defined as an increase of 100 or more trips during the peak hour. The proposed automated car wash generates 78, 78, and 41 new trips during the AM, PM, and Saturday peak periods, respectively. Summaries of the trip generation along with the descriptions and data plots of the land uses are provided in **Appendix D**.

Trip Distribution

New trips associated with the proposed car wash is based on the existing roadway network patterns and the location of the proposed driveway. The following is the trip distribution to/from the site:

- To/from the north on Brunswick Pike (Route 1 Business) 40%
- To/from the south on Brunswick Pike (Route 1 Business) 45%
- To/from the west on Texas Avenue 10%
- To/from the west on E. Darrah Lane 5%

The distribution and site trips are provided in **Figure 5** and **Figure 6**.

In addition to the new trips, the existing trips utilizing the rear site access to the northbound jughandle at the intersection of Brunswick Pike (US Route 1 Business) & Rt. 1 NB Jughandle/E. Darrah Lane were redistributed to the Route 1 site driveways.

Figure 7 illustrates the projected 2025 Build traffic volumes.

Analysis of Build Conditions

Capacity Analysis

The impact of the proposed car wash was evaluated for the AM, PM, and Saturday midday roadway peak periods with stop control at the proposed site driveway and no additional mitigation at any of other study intersections. Under the Build Conditions, all study intersections operate at a LOS D or better and all movements/approaches operate at a LOS D or better with the following exceptions:

- The left turn movement of the eastbound approach of Texas Avenue at the intersection of Brunswick Pike (US Route

- 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM, and Saturday peak periods and LOS F during the PM peak period with delays of 76.7, 70.5, and 82.6 seconds, respectively.
- The eastbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the PM and Saturday peak periods with delays of 59.1 and 55.1 seconds, respectively.
 - The left turn movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during both the PM and Saturday midday peak periods with delays of 56.4 and 68.7 seconds, respectively.
 - The through/right movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM and Saturday peak periods with delays of 62.9 and 55.2 seconds, respectively.
 - The westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM and Saturday peak periods with delays of 58.4 and 63.6 seconds, respectively.
 - The left turn movement of the eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS F during the AM and Saturday peak periods and LOS E during the PM peak period with delays of 97.1, 80.1, and 64.5 seconds, respectively.
 - The eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS E during the AM peak period with a delay of 68.8 seconds.

The results of the capacity analysis are summarized in **Table 6**. *Synchro HCM 6th Edition* and *Lanes, Volumes, and Timings* output summaries for the 2025 Build Conditions can be found in **Appendix E**.

Table 6 - 2025 Build Condition Delay and LOS

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
Texas Avenue & SB Rt. 1 Nearside Jughandle (unsignalized)	SB Approach	Left	B	11.0	A	10.1	A	9.9
		Right	A	9.7	A	9.3	A	9.1
		Approach	B	10.2	A	9.6	A	9.4
	Overall		A	2.4	A	3.3	A	3.7
Brunswick Pike (US Route 1 Business) & Texas Avenue/Rt. 1 NB Jughandle (signalized)	EB Approach	Left	E	76.7	F	82.6	E	70.5
		Right	A	8.5	A	4.3	A	3.0
		Approach	D	54.0	E	59.1	E	55.1
	WB Approach	Left	D	50.9	E	56.4	E	68.7
		Through/Right	E	62.9	D	45.1	E	55.2
		Approach	E	58.4	D	51.8	E	63.6
	NB Approach	Through	B	20.2	B	13.8	B	18.1
SB Approach	Through/Right	A	9.6	B	9.8	B	15.2	
Overall		C	29.9	C	23.7	C	28.4	
Brunswick Pike (US Route 1 Business) & Existing Site Driveway (unsignalized)	WB Approach	Right	B	14.1	B	11.8	B	12.0
	Overall		A	1.7	A	1.0	A	0.8
Brunswick Pike (US Route 1 Business) & Rt. 1 SB Jughandle/Dealership Driveway (signalized)	EB Approach	Left/Through/Right	C	32.9	C	33.5	D	50.9
	WB Approach	Right	A	0.0	A	0.2	A	0.3
	NB Approach	Through/Right	A	5.3	A	4.8	A	3.1
	SB Approach	Through	A	6.5	A	6.8	A	5.0
	Overall		A	6.6	A	7.6	A	7.6
Brunswick Pike (US Route 1 Business) & Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	EB Approach	Left	F	97.1	E	64.5	F	80.1
		Right	A	7.7	A	6.6	A	9.8
		Approach	D	68.8	D	42.8	D	54.1
	WB Approach	Left	C	34.7	C	32.9	D	47.1
		Through/Right	D	42.4	D	35.2	D	47.3
		Approach	D	40.6	C	34.3	D	47.2
	NB Approach	Through	A	4.3	A	4.5	A	3.0
SB Approach	Through/Right	A	7.1	A	8.1	A	6.0	
Overall		C	20.9	B	15.7	B	15.1	

The NJ State Highway Access Management Code allows for some deterioration at study locations. At signalized and unsignalized urban intersections, for approaches operating at Level of Service A, B, C, D, or E, under the No-Build condition, a deterioration by 25 percent of the difference between the No Build condition to the bottom of Level of Service E will be allowed. If a traffic movement or a lane group on all approaches operates at LOS F under the No-Build condition, no deterioration will be allowed.

The analysis of Build condition produces very similar results at the study intersections to those reported for the No Build condition; however, the analysis of the Build condition indicates that there will be deterioration of movement delays that exceed the allowable maximums for the following movements:

- The eastbound left turn movement of Texas Avenue at the intersection of Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle during both the AM and PM peak periods.
- The eastbound approach of Texas Avenue at the intersection of Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle during the PM peak period
- The eastbound left turn movement of E. Darrah Lane at the intersection of Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane during the AM and Saturday peak periods.

Table E-1, comparing the results of the No-Build and Build analyses, can be found in **Appendix E**.

The intersections of Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle and Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane will require timing modifications to mitigate increased delay and produce acceptable results. The timing modifications would consist of the reallocation of green time to the affected movements. The details of the identified mitigation measures are listed below.

AM Peak

- At the Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle signal, shift 2 seconds of green time from the westbound Route 1 Jughandle phase to the to the Texas Avenue phase.
- At the Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane signal, optimization of the signal timing splits results in the shifting 11 seconds of green time from the Rt. 1 NB Jughandle/E. Darrah Lane/ phase to the Route 1 mainline phase.

PM Peak

- At the Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle signal, shift 2 seconds of green time from the westbound Route 1 Jughandle phase to the to the Texas Avenue phase.

Saturday Peak

- At the Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane signal, optimization of the signal timing splits results in the shifting 9 seconds of green time from the Route 1 mainline phase to the Rt. 1 NB Jughandle/E. Darrah Lane/ phase.

NJDOT was contacted to obtain the existing signal timings and indicated that there is an open work order to optimize the timings of the signals within the study area.

The results of the capacity analysis with the proposed timing changes are summarized in **Table 7**. *Synchro Lanes, Volumes, and Timings* output summaries for the 2025 Build Conditions with the identified timing modifications and a **Table F-1** summarizing the results can be found in **Appendix F**.

Table 7 – 2025 Build Condition with Mitigation Delay and LOS

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
Brunswick Pike (US Route 1 Business) & Texas Avenue/Rt. 1 NB Jughandle (signalized)	EB Approach	Left	E	72.5	E	73.3	E	70.5
		Right	A	8.2	A	4.1	A	3.0
		Approach	D	51.1	E	52.5	E	55.1
	WB Approach	Left	D	51.0	E	56.4	E	68.7
		Through/Right	E	63.0	D	45.1	E	55.2
		Approach	E	58.5	D	51.8	E	63.6
	NB Approach	Through	B	20.8	B	14.6	B	18.1
	SB Approach	Through/Right	A	9.7	B	10.1	B	15.2
Overall			C	29.6	C	23.7	C	28.4
Brunswick Pike (US Route 1 Business) & Rt. 1 SB Jughandle/Dealership Driveway (signalized)	EB Approach	Left/Through/Right	C	32.8	C	33.5	D	50.7
	WB Approach	Right	A	0.0	A	0.2	A	0.4
	NB Approach	Through/Right	A	5.5	A	4.8	A	3.2
	SB Approach	Through	A	6.6	A	6.8	A	4.9
	Overall			A	6.7	A	7.6	A
Brunswick Pike (US Route 1 Business) & Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	EB Approach	Left	F	94.1	E	64.5	E	79.1
		Right	A	7.7	A	6.6	A	9.7
		Approach	E	66.8	D	42.8	D	53.4
	WB Approach	Left	C	34.6	C	32.9	D	46.9
		Through/Right	D	42.2	D	35.2	D	47.2
		Approach	D	40.4	C	34.3	D	47.0
	NB Approach	Through	A	4.7	A	4.5	A	3.0
	SB Approach	Through/Right	A	7.0	A	8.1	A	6.1
Overall			C	20.7	B	15.7	B	15.0

Conclusions

A summary of the findings of the report is presented below:

- The proposed automated car wash will not result in a significant increase in traffic on the surrounding roadway network or at adjacent intersections.
- Under the Existing and No Build conditions, the study intersections operate at LOS C or better and all study movements/approaches operate at LOS D or better during all peak periods with the following exceptions:
 - The left turn movement of the eastbound approach of Texas Avenue at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM, PM and Saturday peak periods.
 - The left turn movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during both

- the PM and Saturday midday peak periods.
- The through/right movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM peak period.
- The westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM and Saturday peak periods.
- The left turn movement of the eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS F during the AM peak period and LOS E during the PM and Saturday midday peak periods.
- The eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS E during the AM peak period.
- Under the Build condition, the study intersections continue to operate at a LOS D or better and all approaches operate at a LOS D or better with the following exceptions:
 - The left turn movement of the eastbound approach of Texas Avenue at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM, and Saturday peak periods and LOS F during the PM peak period with delays of 76.7, 70.5, and 82.6 seconds, respectively.
 - The eastbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the PM and Saturday peak periods with delays of 59.1 and 55.1 seconds, respectively.
 - The left turn movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during both the PM and Saturday midday peak periods with delays of 56.4 and 68.7 seconds, respectively.
 - The through/right movement of the westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM and Saturday peak periods with delays of 62.9 and 55.2 seconds, respectively.
 - The westbound approach of the Rt. 1 NB Jughandle at the intersection of Brunswick Pike (US Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle operates at LOS E during the AM and Saturday peak periods with delays of 58.4 and 63.6 seconds, respectively.
 - The left turn movement of the eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS F during the AM and Saturday peak periods and LOS E during the PM peak period with delays of 97.1, 80.1, and 64.5 seconds, respectively.
 - The eastbound approach of E. Darrah Lane at the intersection of Brunswick Pike (US Route 1 Business) and E. Darrah Lane/Rt. 1 NB Jughandle operates at LOS E during the AM peak period with a delay of 68.8 seconds.
- The site driveway will operate at a LOS A for all peak periods.
- The site traffic will result in increased delays on two movements which violate NJDOT LOS standards.
 - The eastbound left turn movement of Texas Avenue at the intersection of Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle during both the AM and PM peak periods.
 - The eastbound left turn movement of E. Darrah Lane at the intersection of Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane during the Saturday midday peak period.
- Signal timing adjustments at the intersections of Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle and Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane will mitigate the delay deterioration for the identified movements.

In conclusion, the construction of the proposed automatic car wash facility at 2520 Brunswick Pike will not result in a significant increase in traffic on the adjacent roadway network or significantly impact the overall operation of the adjacent intersections

within study area. The impacts of the proposed site traffic which violate NJDOT LOS standards can be mitigated minor adjustments to the current signal timing. The NJDOT currently has an ongoing work order for the optimization/retiming of the Brunswick Pike (Route 1 Business) signal within the study, which are anticipated to address the poor LOS conditions identified in the Existing and No-Build conditions and mitigate the impacts of the proposed development.

LEGEND:

- ⑤ STUDY INTERSECTION NO.
- ⊕ TRAFFIC SIGNAL



- STUDY INTERSECTIONS**
1. TEXAS AVENUE AND RT. 1 SB JUGHANDLE
 2. BRUNSWICK PIKE (RT. 1 BUSINESS) AND TEXAS AVENUE/NB JUGHANDLE
 3. BRUNSWICK PIKE (RT. 1 BUSINESS) AND SITE DRIVEWAY (RIRO)
 4. REAR SITE DRIVE AISLE AND PARKING AISLE
 5. BRUNSWICK PIKE (RT. 1 BUSINESS) AND DEALERSHIP DRIVEWAY/SB JUGHANDLE
 6. BRUNSWICK PIKE (RT. 1 BUSINESS) AND E. DARRAH LANE/NB JUGHANDLE

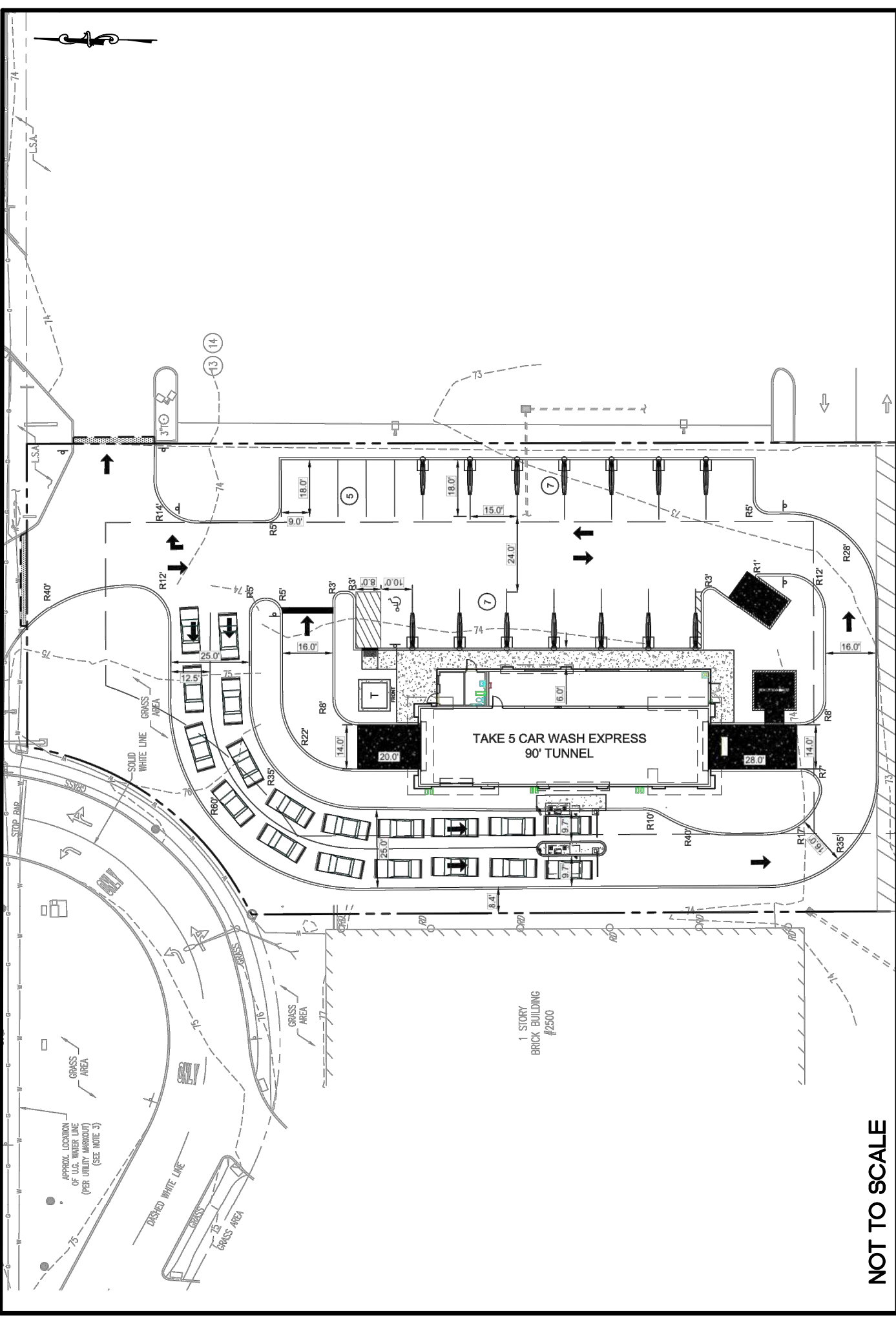
TAKE-5
 Proposed Automatic Car Wash
 Lawrence, New Jersey

PENNONI ASSOCIATES INC.
 CONSULTING ENGINEERS
 515 GROVE STREET
 HADDON HEIGHTS, NJ



FIGURE 1
 Project Area

NOT TO SCALE



NOT TO SCALE

FIGURE 2
Site Plan
Proposed Facility

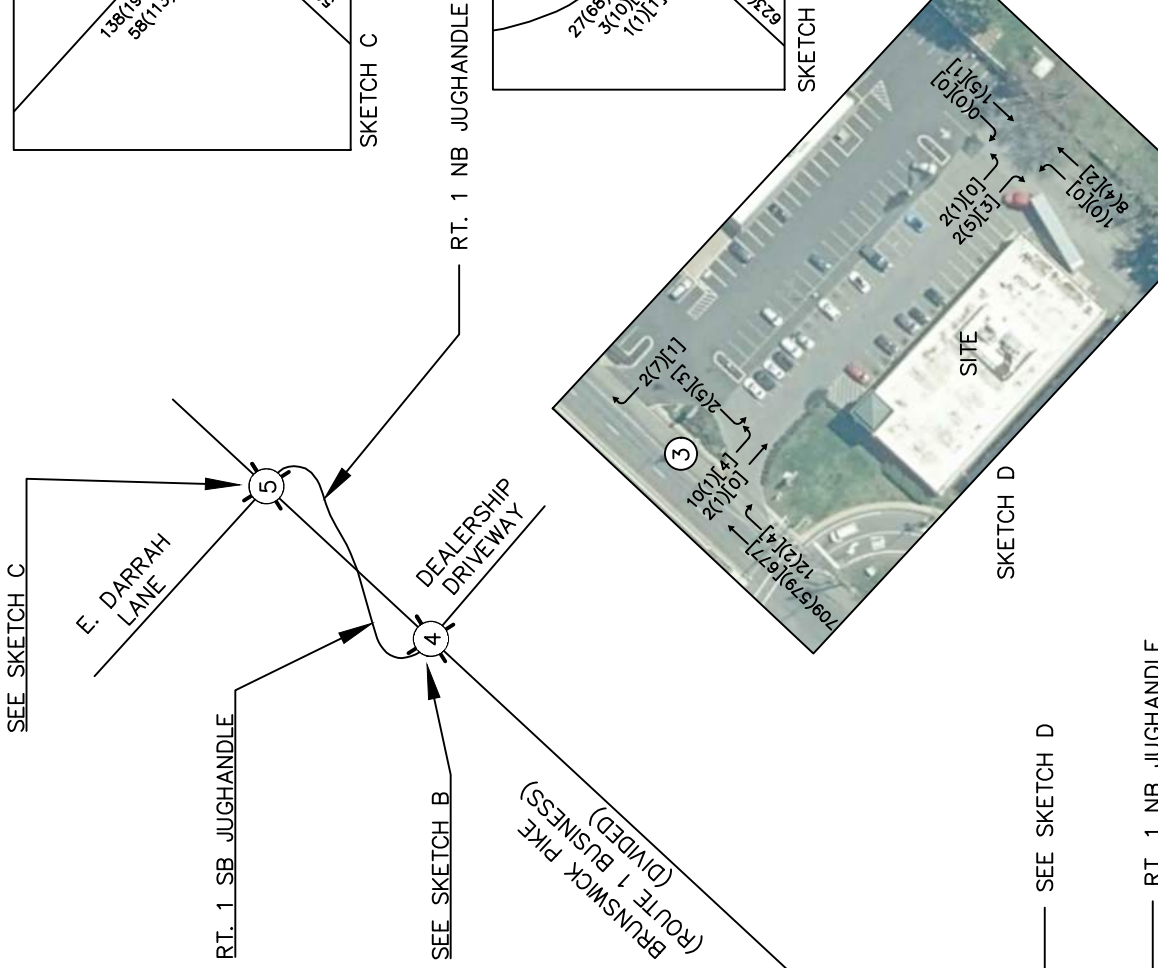
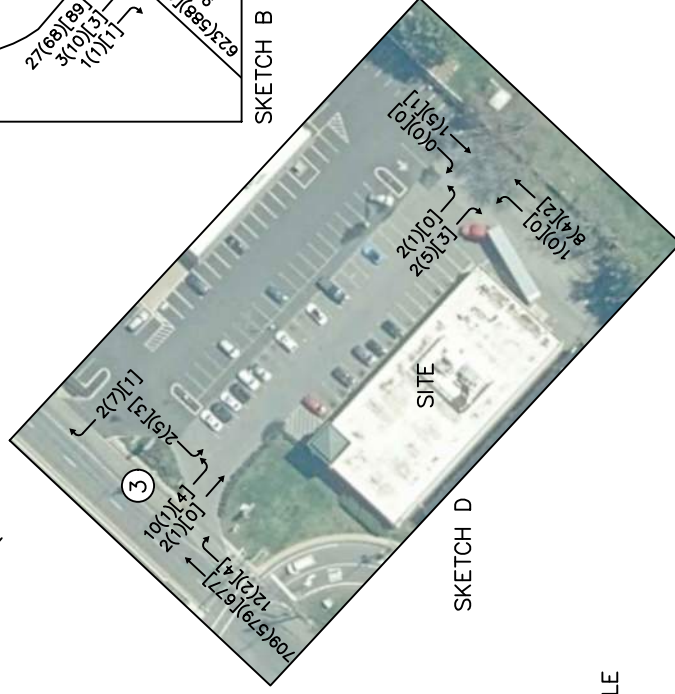
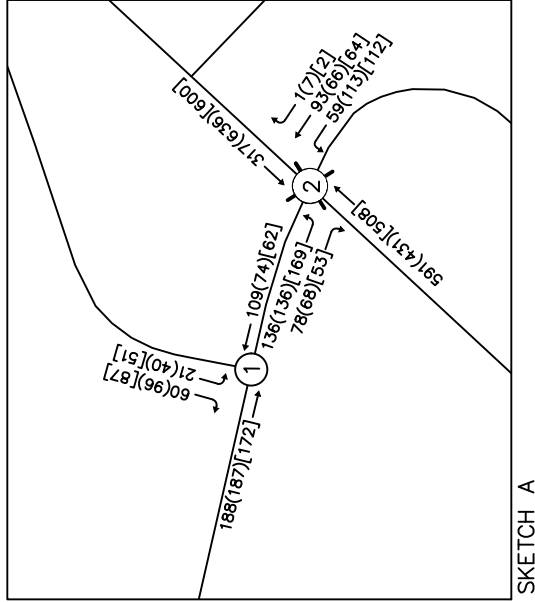
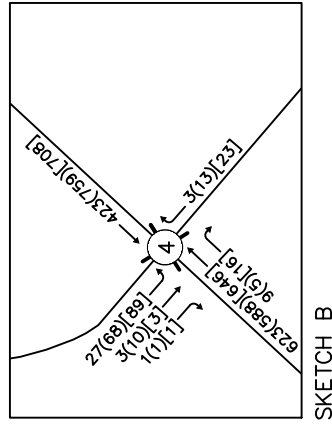
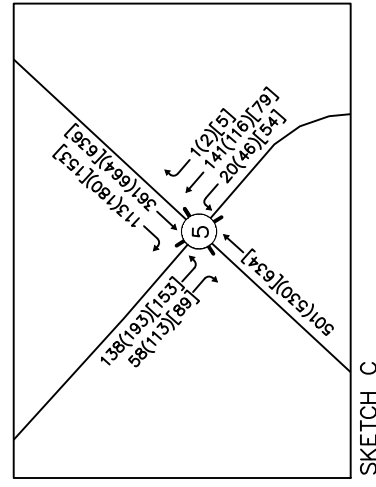
TAKE-5
Proposed Automatic Car Wash
Lawrence, New Jersey

PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS
515 GROVE STREET
HADDON HEIGHTS, NJ



LEGEND:

- ① STUDY INTERSECTION NO.
- ← AM(PM)[SAT] VOLUMES
- ⊙ TRAFFIC SIGNAL



NOT TO SCALE



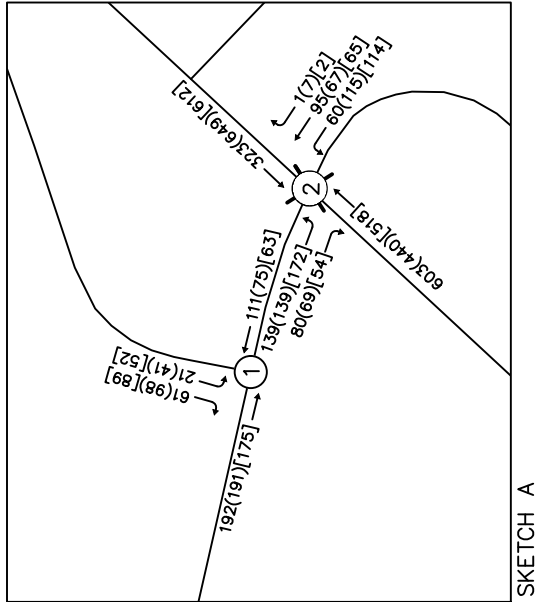
PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS
 515 GROVE STREET
 HADDON HEIGHTS, NJ

TAKE-5
 Proposed Automatic Car Wash
 Lawrence, New Jersey

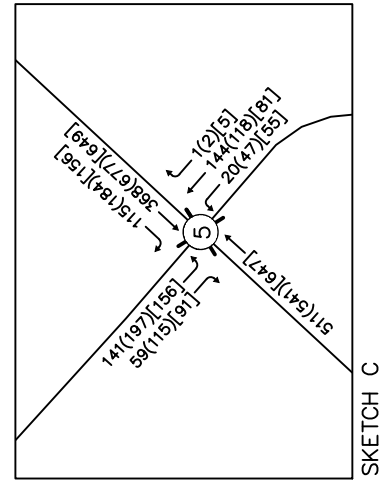
FIGURE 3
 2023 Existing Condition
 Peak Hour Traffic Volumes

LEGEND:

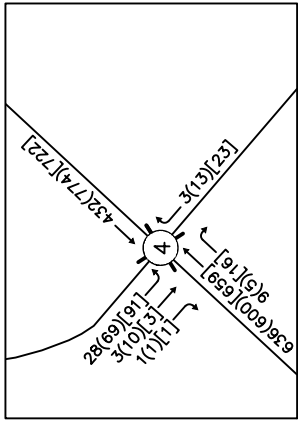
- # STUDY INTERSECTION NO.
- AM(PM)[SAT]VOLUMES
- ⊙ TRAFFIC SIGNAL



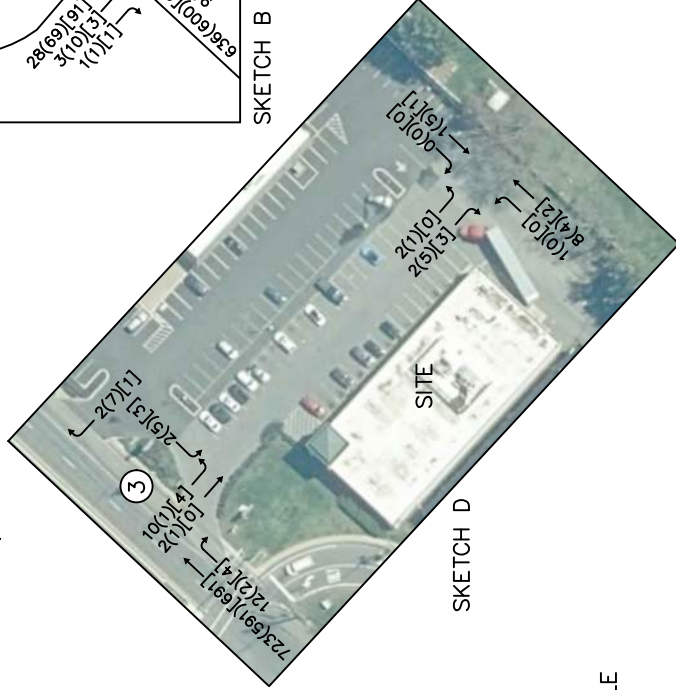
SKETCH A



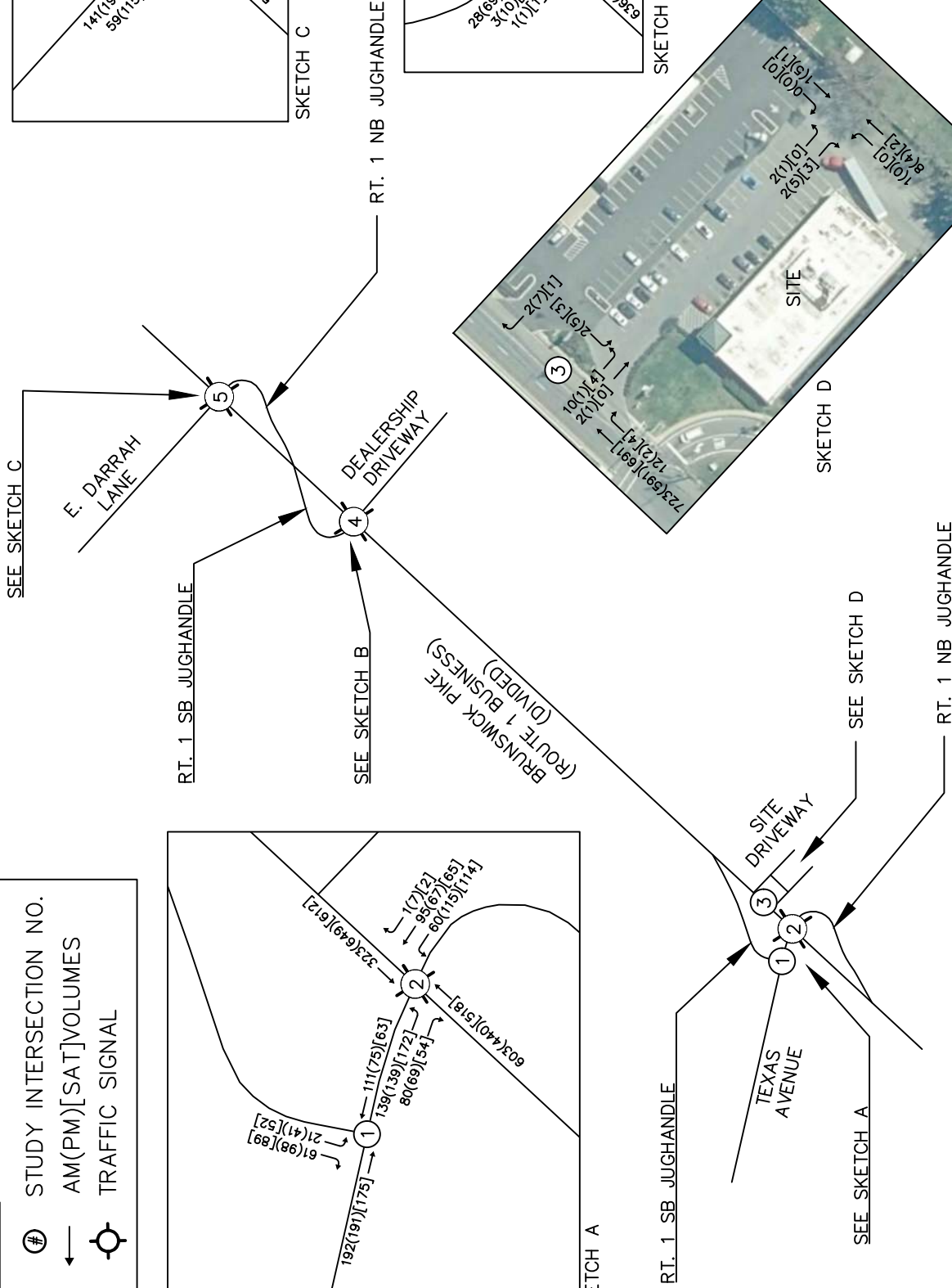
SKETCH C



SKETCH B



SKETCH D



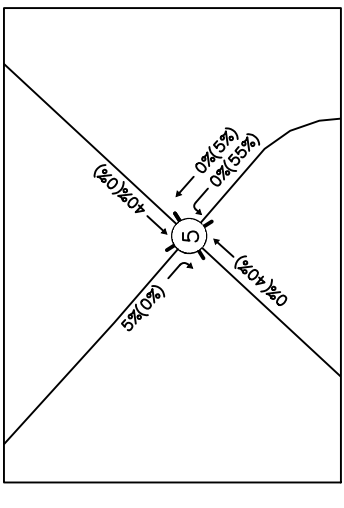
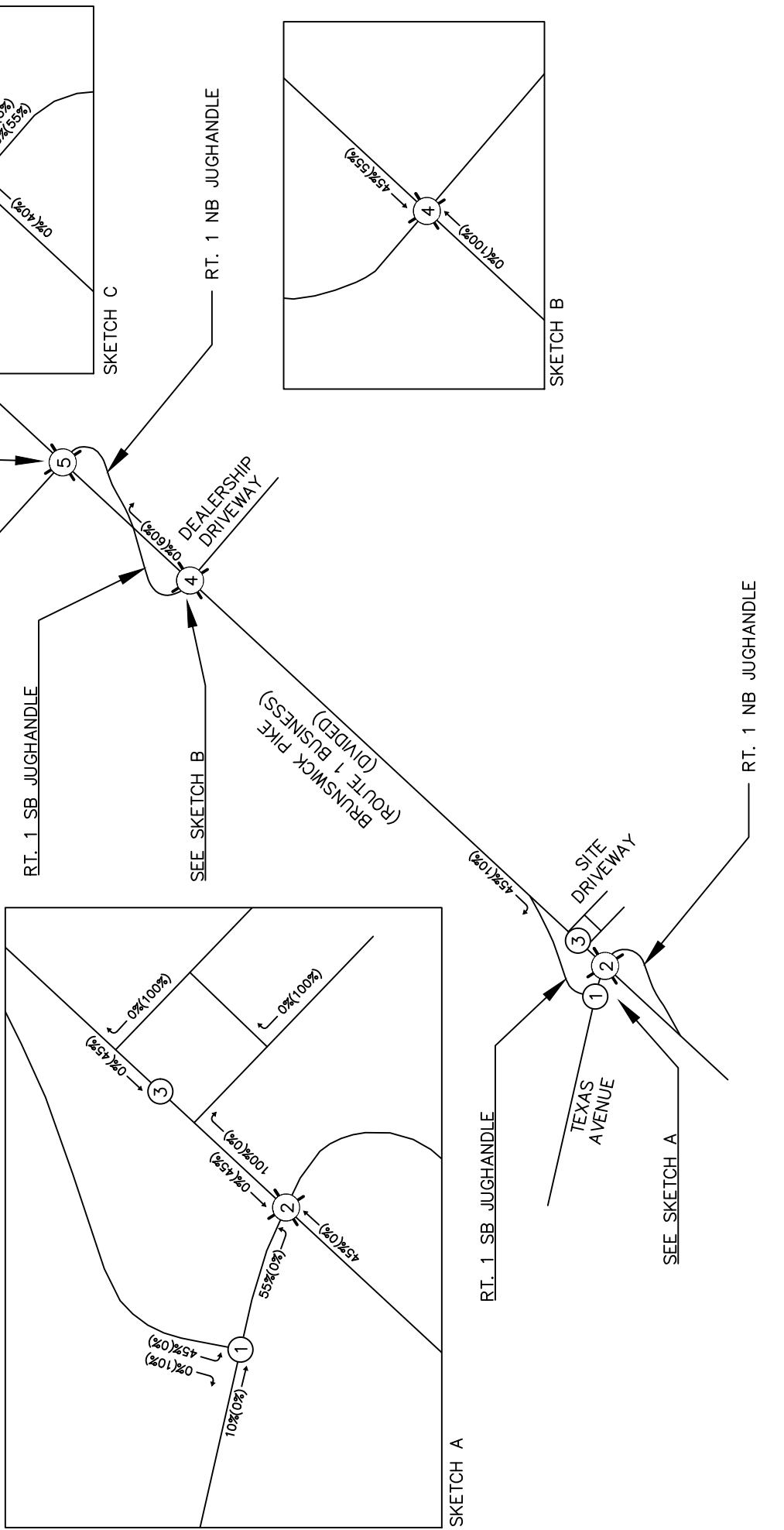
NOT TO SCALE

FIGURE 4
2023 No Build Condition
Peak Hour Traffic Volumes

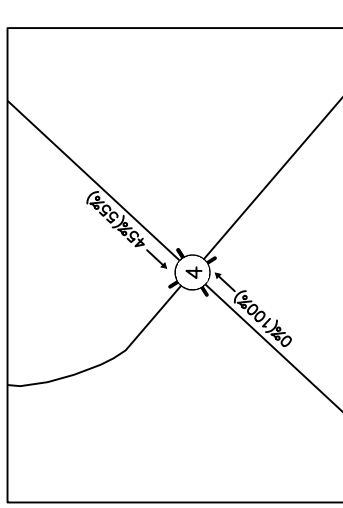
TAKE-5
Proposed Automatic Car Wash
Lawrence, New Jersey

LEGEND:

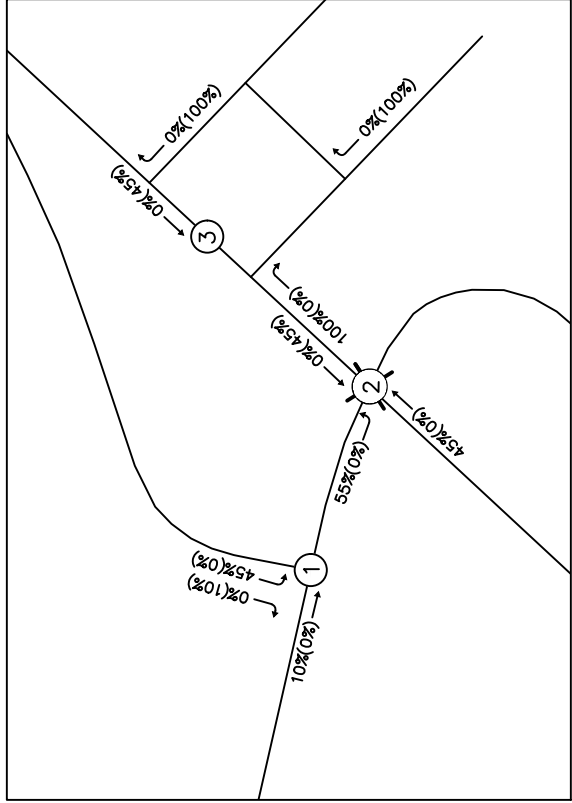
- ① STUDY INTERSECTION NO.
- IN(OUT)DISTRIBUTION
- ⊕ TRAFFIC SIGNAL



SKETCH C



SKETCH B



SKETCH A

NOT TO SCALE

FIGURE 5
Trip Distribution

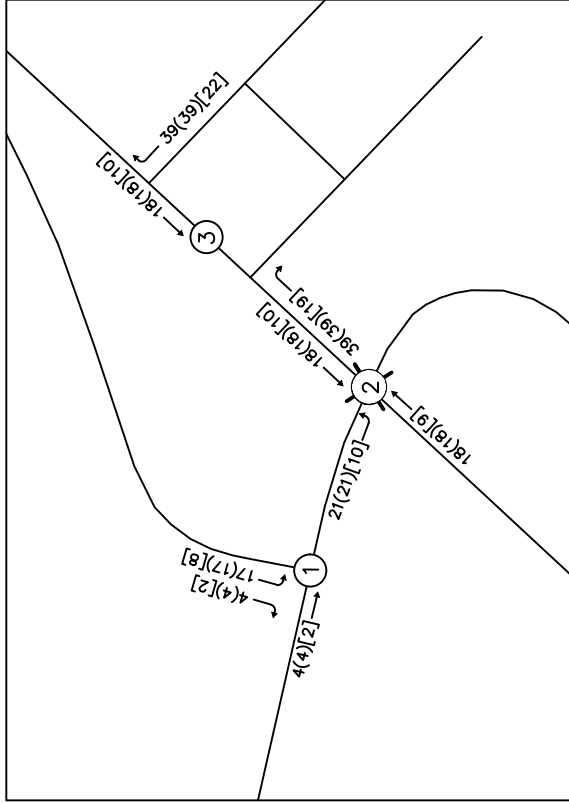
TAKE-5
Proposed Automatic Car Wash
Lawrence, New Jersey

PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS
515 GROVE STREET
HADDON HEIGHTS, NJ

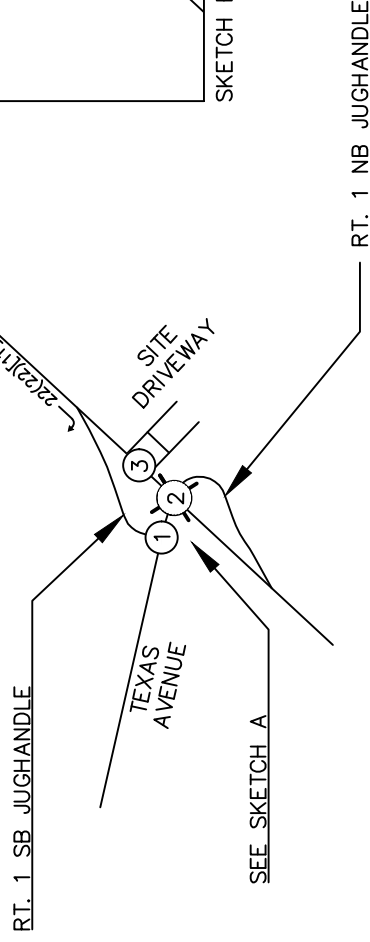


LEGEND:

- ⊕ STUDY INTERSECTION NO.
- AM(PM)[SAT] VOLUMES
- ⊙ TRAFFIC SIGNAL



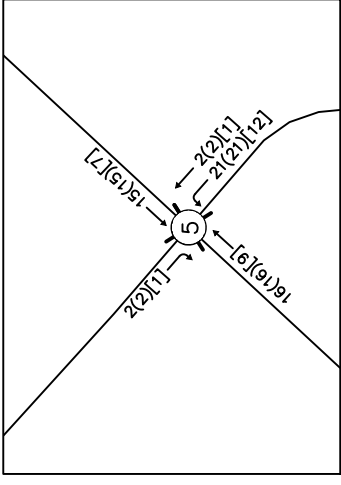
SKETCH A



RT. 1 SB JUGHANDLE

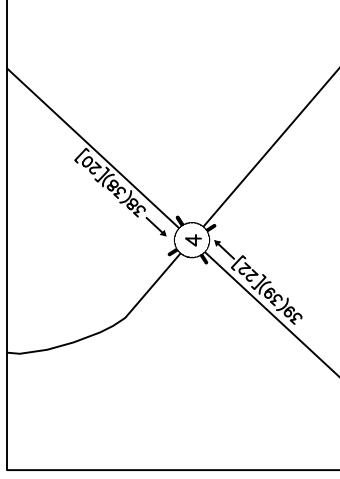
SEE SKETCH A

RT. 1 NB JUGHANDLE



SKETCH C

RT. 1 NB JUGHANDLE



SKETCH B

NOT TO SCALE

PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS
515 GROVE STREET
HADDON HEIGHTS, NJ

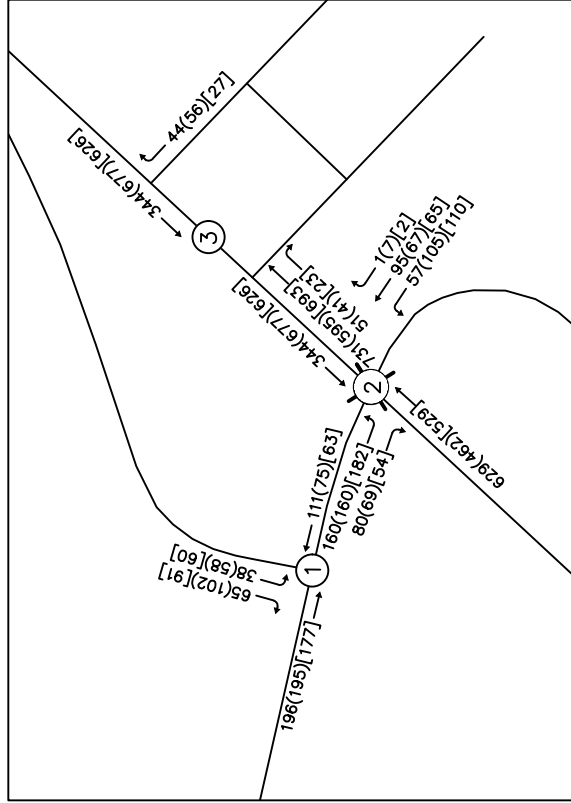


TAKE-5
Proposed Automatic Car Wash
Lawrence, New Jersey

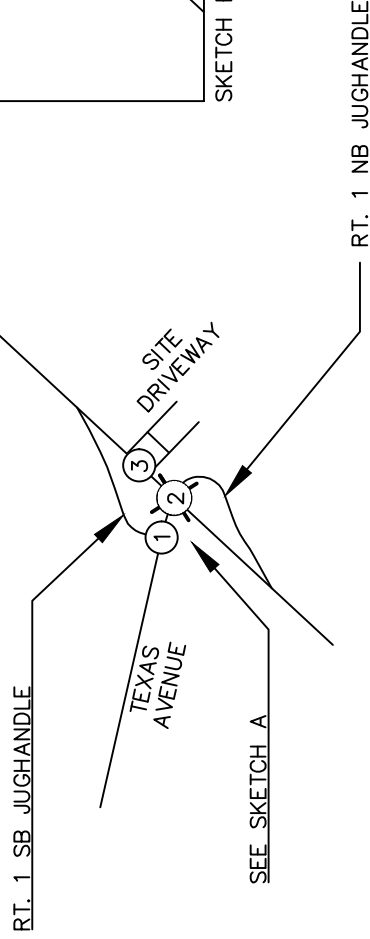
FIGURE 6
Peak Hour Site Trips

LEGEND:

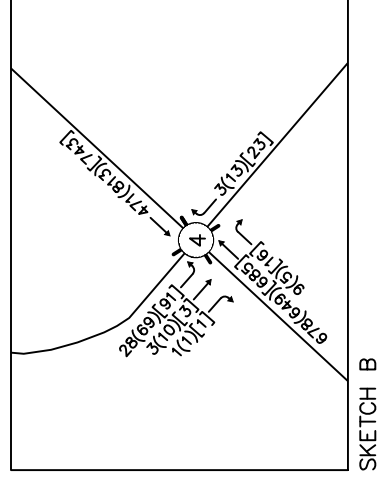
- ⊕ STUDY INTERSECTION NO.
- ← AM(PM)[SAT] VOLUMES
- ⊙ TRAFFIC SIGNAL



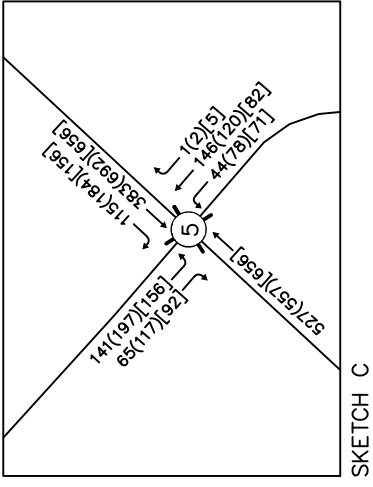
SKETCH A



SKETCH B



SKETCH C



SKETCH D

NOT TO SCALE



PENNONI ASSOCIATES INC.
 CONSULTING ENGINEERS
 515 GROVE STREET
 HADDON HEIGHTS, NJ

TAKE-5
 Proposed Automatic Car Wash
 Lawrence, New Jersey

FIGURE 7
 2025 Build Condition
 Peak Hour Traffic Volumes

**TAKE-5 AUTOMATIC CAR WASH
2520 BRUNSWICK PIKE
BLOCK 2201 – LOT 20**

APPENDIX A
Data Collection



www.TSTData.com
184 Baker Rd

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

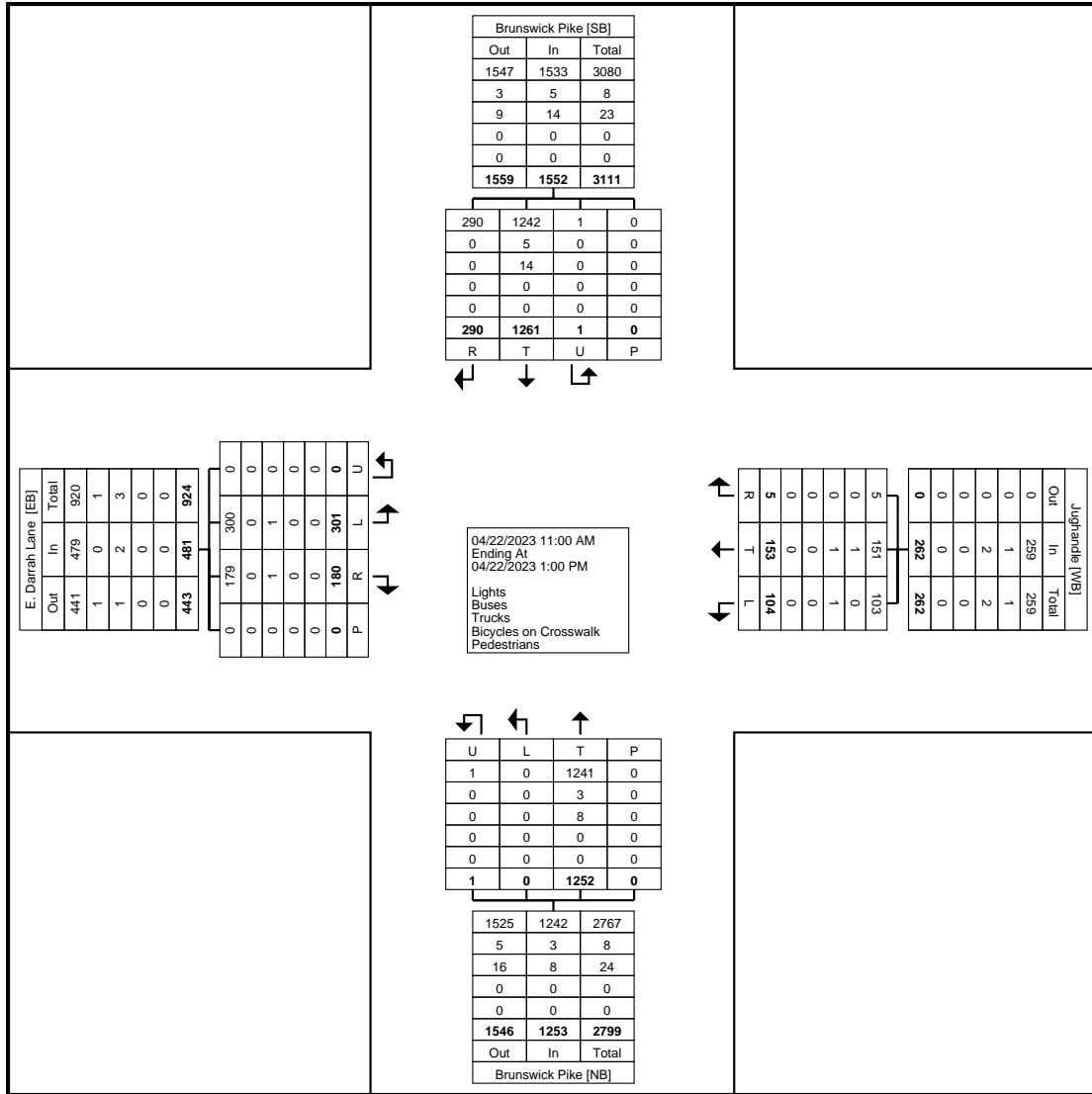
Count Name: Brunswick Pike &
NB Jughandle/E. Darrah Lane
(4/22)
Site Code:
Start Date: 04/22/2023
Page No: 1

Lawrence, NJ
Brunswick Pike & NB
Jughandle/E Darrah Lane
Saturday, April 23, 2022
Location: 40.265093, -74.71826

Turning Movement Data

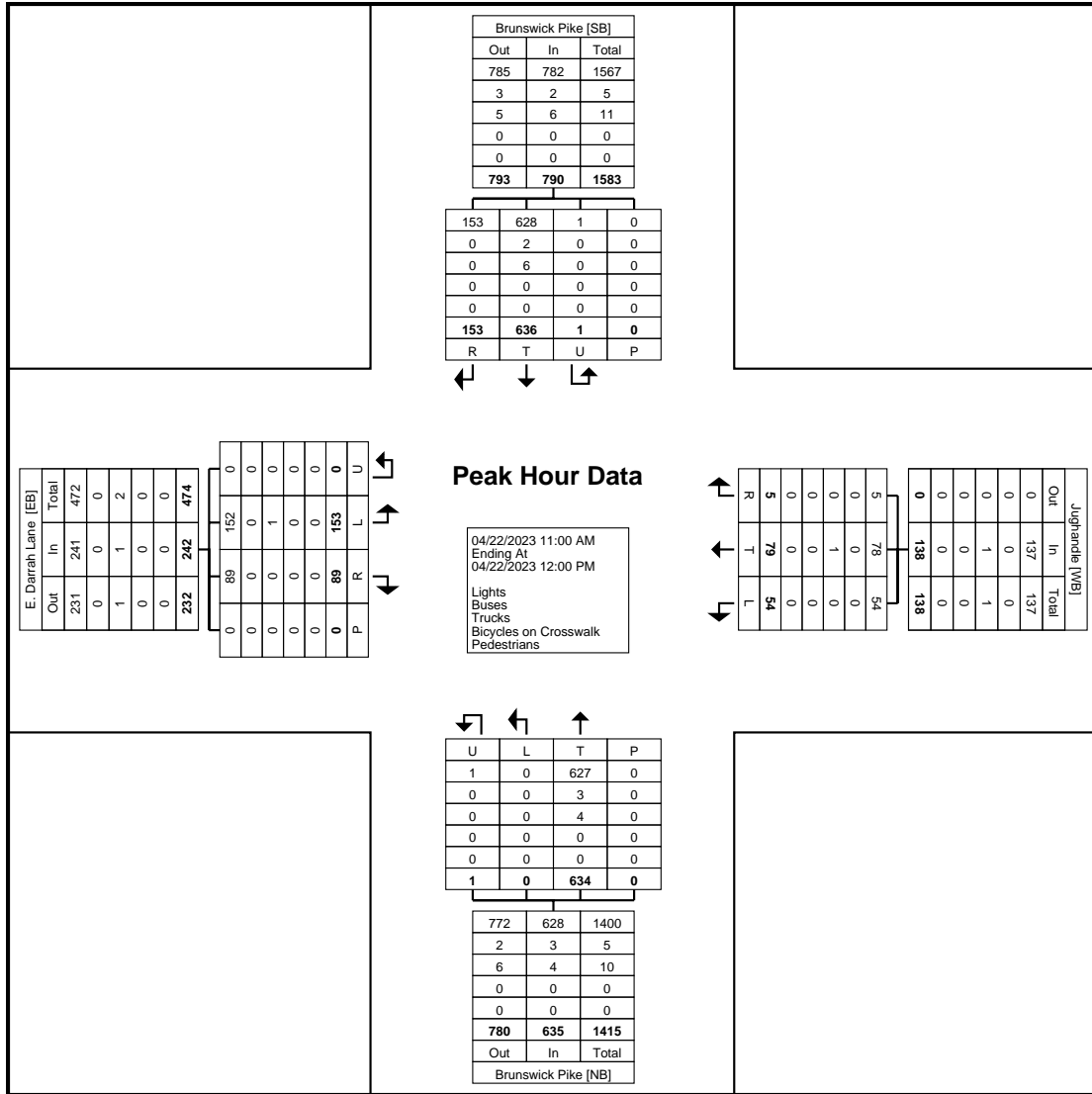
Start Time	E. Darrah Lane Eastbound						Jughandle Westbound					Brunswick Pike Northbound					Brunswick Pike Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:00 AM	40	12	11	0	0	63	9	19	2	0	30	0	142	1	0	143	156	27	13	0	0	196	432
11:15 AM	34	8	15	0	0	57	13	21	1	0	35	0	166	0	0	166	151	35	2	0	0	188	446
11:30 AM	42	6	13	0	0	61	20	24	2	0	46	0	166	0	0	166	138	27	8	0	0	173	446
11:45 AM	37	10	14	0	0	61	12	15	0	0	27	0	160	0	0	160	191	35	6	1	0	233	481
Hourly Total	153	36	53	0	0	242	54	79	5	0	138	0	634	1	0	635	636	124	29	1	0	790	1805
12:00 PM	31	10	17	0	0	58	17	21	0	0	38	0	146	0	0	146	148	30	5	0	0	183	425
12:15 PM	33	10	10	0	0	53	7	16	0	0	23	0	161	0	0	161	161	37	5	0	0	203	440
12:30 PM	35	11	14	0	0	60	11	18	0	0	29	0	166	0	0	166	145	21	5	0	0	171	426
12:45 PM	49	5	14	0	0	68	15	19	0	0	34	0	145	0	0	145	171	29	5	0	0	205	452
Hourly Total	148	36	55	0	0	239	50	74	0	0	124	0	618	0	0	618	625	117	20	0	0	762	1743
Grand Total	301	72	108	0	0	481	104	153	5	0	262	0	1252	1	0	1253	1261	241	49	1	0	1552	3548
Approach %	62.6	15.0	22.5	0.0	-	-	39.7	58.4	1.9	0.0	-	0.0	99.9	0.1	-	-	81.3	15.5	3.2	0.1	-	-	-
Total %	8.5	2.0	3.0	0.0	-	13.6	2.9	4.3	0.1	0.0	7.4	0.0	35.3	0.0	-	35.3	35.5	6.8	1.4	0.0	-	43.7	-
Lights	300	72	107	0	-	479	103	151	5	0	259	0	1241	1	-	1242	1242	241	49	1	-	1533	3513
% Lights	99.7	100.0	99.1	-	-	99.6	99.0	98.7	100.0	-	98.9	-	99.1	100.0	-	99.1	98.5	100.0	100.0	100.0	-	98.8	99.0
Buses	0	0	0	0	-	0	0	1	0	0	1	0	3	0	-	3	5	0	0	0	-	5	9
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.7	0.0	-	0.4	-	0.2	0.0	-	0.2	0.4	0.0	0.0	0.0	-	0.3	0.3
Trucks	1	0	1	0	-	2	1	1	0	0	2	0	8	0	-	8	14	0	0	0	-	14	26
% Trucks	0.3	0.0	0.9	-	-	0.4	1.0	0.7	0.0	-	0.8	-	0.6	0.0	-	0.6	1.1	0.0	0.0	0.0	-	0.9	0.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lawrence, NJ
Brunswick Pike & NB
Jughandle/E Darrah Lane
Saturday, April 23, 2022
Location: 40.265093, -74.71826



Turning Movement Data Plot

Lawrence, NJ
Brunswick Pike & NB
Jughandle/E Darrah Lane
Saturday, April 23, 2022
Location: 40.265093, -74.71826



Turning Movement Peak Hour Data Plot (11:00 AM)



www.TSTData.com
184 Baker Rd

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

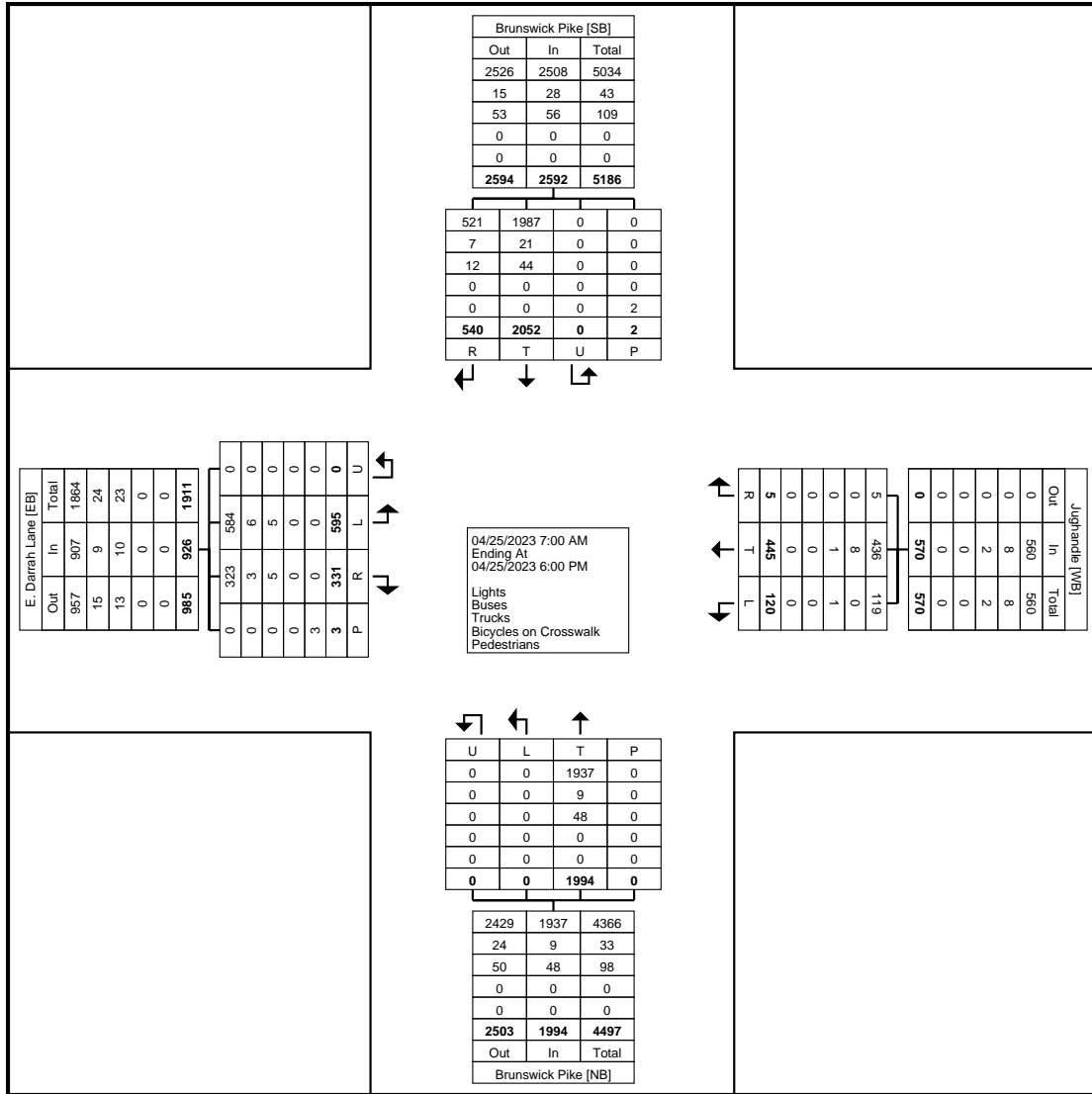
Count Name: Brunswick Pike &
NB Jughandle/E. Darrah Lane
(4/25)
Site Code:
Start Date: 04/25/2023
Page No: 1

Lawrence, NJ
Brunswick Pike & NB
Jughandle/E Darrah Lane
Tuesday, April 25, 2023
Location: 40.265093, -74.71826

Turning Movement Data

Start Time	E. Darrah Lane Eastbound						Jughandle Westbound					Brunswick Pike Northbound					Brunswick Pike Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	20	3	5	0	0	28	2	19	0	0	21	0	96	0	0	96	57	14	2	0	0	73	218
7:15 AM	30	5	7	0	0	42	1	27	0	0	28	0	119	0	0	119	86	27	11	0	0	124	313
7:30 AM	50	6	9	0	0	65	7	47	0	0	54	0	124	0	0	124	101	23	13	0	1	137	380
7:45 AM	32	4	9	0	0	45	5	34	0	0	39	0	148	0	0	148	84	20	0	0	0	104	336
Hourly Total	132	18	30	0	0	180	15	127	0	0	142	0	487	0	0	487	328	84	26	0	1	438	1247
8:00 AM	26	6	12	0	2	44	7	33	0	0	40	0	110	0	0	110	90	17	2	0	0	109	303
8:15 AM	25	6	7	0	0	38	6	30	0	0	36	0	109	0	0	109	100	16	4	0	0	120	303
8:30 AM	39	10	7	0	1	56	7	18	0	0	25	0	140	0	0	140	89	18	4	0	1	111	332
8:45 AM	35	6	9	0	0	50	2	31	0	0	33	0	128	0	0	128	110	22	5	0	0	137	348
Hourly Total	125	28	35	0	3	188	22	112	0	0	134	0	487	0	0	487	389	73	15	0	1	477	1286
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
*** 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
4:00 PM	32	10	21	0	0	63	10	19	1	0	30	0	129	0	0	129	179	30	7	0	0	216	438
4:15 PM	33	11	12	0	0	56	10	28	1	0	39	0	131	0	0	131	172	37	10	0	0	219	445
4:30 PM	51	13	20	0	0	84	13	30	0	0	43	0	145	0	0	145	154	42	9	0	0	205	477
4:45 PM	54	17	13	0	0	84	12	26	0	0	38	0	117	0	0	117	152	33	13	0	0	198	437
Hourly Total	170	51	66	0	0	287	45	103	2	0	150	0	522	0	0	522	657	142	39	0	0	838	1797
5:00 PM	41	8	20	0	0	69	14	35	2	0	51	0	120	0	0	120	174	33	6	0	0	213	453
5:15 PM	47	9	13	0	0	69	7	25	0	0	32	0	148	0	0	148	184	34	10	0	0	228	477
5:30 PM	40	12	8	0	0	60	9	28	0	1	38	0	132	0	0	132	172	39	0	0	0	211	441
5:45 PM	40	10	23	0	0	73	8	15	0	0	23	0	98	0	0	98	148	39	0	0	0	187	381
Hourly Total	168	39	64	0	0	271	38	103	2	1	144	0	498	0	0	498	678	145	16	0	0	839	1752
Grand Total	595	136	195	0	3	926	120	445	4	1	570	0	1994	0	0	1994	2052	444	96	0	2	2592	6082
Approach %	64.3	14.7	21.1	0.0	-	-	21.1	78.1	0.7	0.2	-	0.0	100.0	0.0	-	-	79.2	17.1	3.7	0.0	-	-	-
Total %	9.8	2.2	3.2	0.0	-	15.2	2.0	7.3	0.1	0.0	9.4	0.0	32.8	0.0	-	32.8	33.7	7.3	1.6	0.0	-	42.6	-
Lights	584	132	191	0	-	907	119	436	4	1	560	0	1937	0	-	1937	1987	427	94	0	-	2508	5912
% Lights	98.2	97.1	97.9	-	-	97.9	99.2	98.0	100.0	100.0	98.2	-	97.1	-	-	97.1	96.8	96.2	97.9	-	-	96.8	97.2
Buses	6	2	1	0	-	9	0	8	0	0	8	0	9	0	-	9	21	7	0	0	-	28	54
% Buses	1.0	1.5	0.5	-	-	1.0	0.0	1.8	0.0	0.0	1.4	-	0.5	-	-	0.5	1.0	1.6	0.0	-	-	1.1	0.9
Trucks	5	2	3	0	-	10	1	1	0	0	2	0	48	0	-	48	44	10	2	0	-	56	116
% Trucks	0.8	1.5	1.5	-	-	1.1	0.8	0.2	0.0	0.0	0.4	-	2.4	-	-	2.4	2.1	2.3	2.1	-	-	2.2	1.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Lawrence, NJ
Brunswick Pike & NB
Jughandle/E Darrah Lane
Tuesday, April 25, 2023
Location: 40.265093, -74.71826



Turning Movement Data Plot



www.TSTData.com
184 Baker Rd

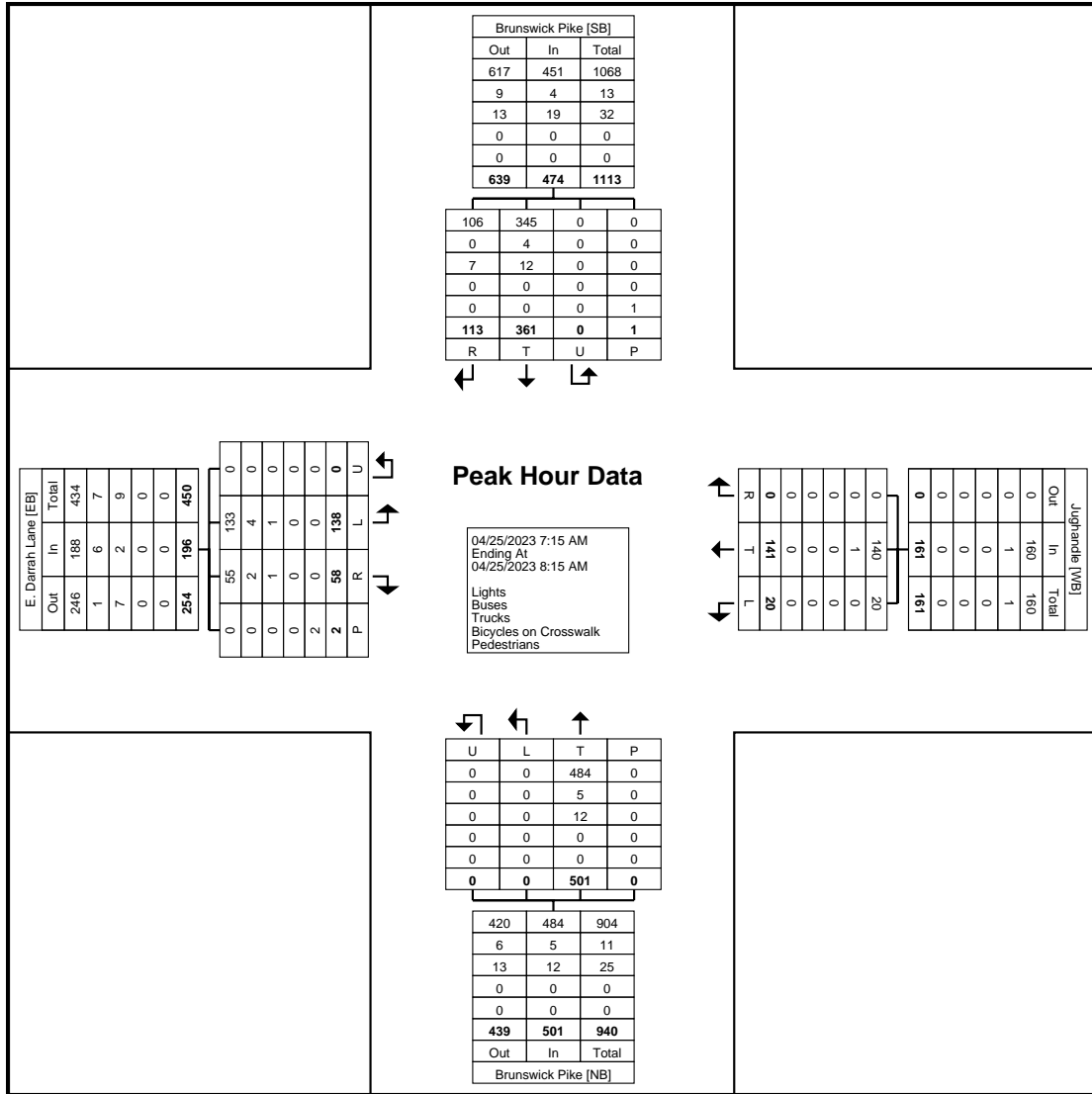
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Brunswick Pike &
NB Jughandle/E. Darrah Lane
(4/25)
Site Code:
Start Date: 04/25/2023
Page No: 3

Lawrence, NJ
Brunswick Pike & NB
Jughandle/E Darrah Lane
Tuesday, April 25, 2023
Location: 40.265093, -74.71826

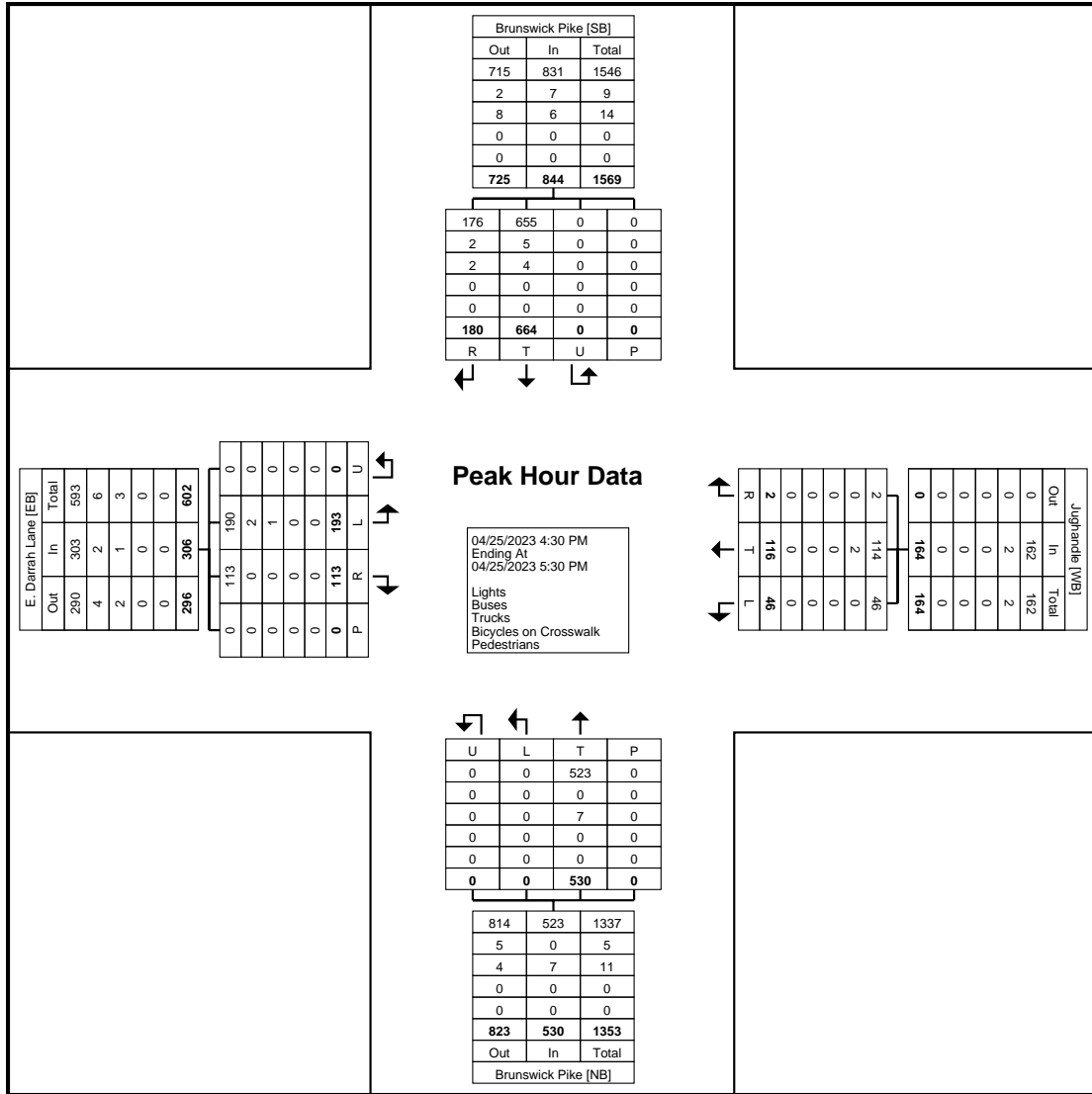
Turning Movement Peak Hour Data (7:15 AM)

Start Time	E. Darrah Lane Eastbound						Jughandle Westbound					Brunswick Pike Northbound					Brunswick Pike Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:15 AM	30	5	7	0	0	42	1	27	0	0	28	0	119	0	0	119	86	27	11	0	0	124	313
7:30 AM	50	6	9	0	0	65	7	47	0	0	54	0	124	0	0	124	101	23	13	0	1	137	380
7:45 AM	32	4	9	0	0	45	5	34	0	0	39	0	148	0	0	148	84	20	0	0	0	104	336
8:00 AM	26	6	12	0	2	44	7	33	0	0	40	0	110	0	0	110	90	17	2	0	0	109	303
Total	138	21	37	0	2	196	20	141	0	0	161	0	501	0	0	501	361	87	26	0	1	474	1332
Approach %	70.4	10.7	18.9	0.0	-	-	12.4	87.6	0.0	0.0	-	0.0	100.0	0.0	-	-	76.2	18.4	5.5	0.0	-	-	-
Total %	10.4	1.6	2.8	0.0	-	14.7	1.5	10.6	0.0	0.0	12.1	0.0	37.6	0.0	-	37.6	27.1	6.5	2.0	0.0	-	35.6	-
PHF	0.690	0.875	0.771	0.000	-	0.754	0.714	0.750	0.000	0.000	0.745	0.000	0.846	0.000	-	0.846	0.894	0.806	0.500	0.000	-	0.865	0.876
Lights	133	19	36	0	-	188	20	140	0	0	160	0	484	0	-	484	345	81	25	0	-	451	1283
% Lights	96.4	90.5	97.3	-	-	95.9	100.0	99.3	-	-	99.4	-	96.6	-	-	96.6	95.6	93.1	96.2	-	-	95.1	96.3
Buses	4	1	1	0	-	6	0	1	0	0	1	0	5	0	-	5	4	0	0	0	-	4	16
% Buses	2.9	4.8	2.7	-	-	3.1	0.0	0.7	-	-	0.6	-	1.0	-	-	1.0	1.1	0.0	0.0	-	-	0.8	1.2
Trucks	1	1	0	0	-	2	0	0	0	0	0	0	12	0	-	12	12	6	1	0	-	19	33
% Trucks	0.7	4.8	0.0	-	-	1.0	0.0	0.0	-	-	0.0	-	2.4	-	-	2.4	3.3	6.9	3.8	-	-	4.0	2.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (7:15 AM)

Lawrence, NJ
Brunswick Pike & NB
Jughandle/E Darrah Lane
Tuesday, April 25, 2023
Location: 40.265093, -74.71826



Turning Movement Peak Hour Data Plot (4:30 PM)



www.TSTData.com
184 Baker Rd

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

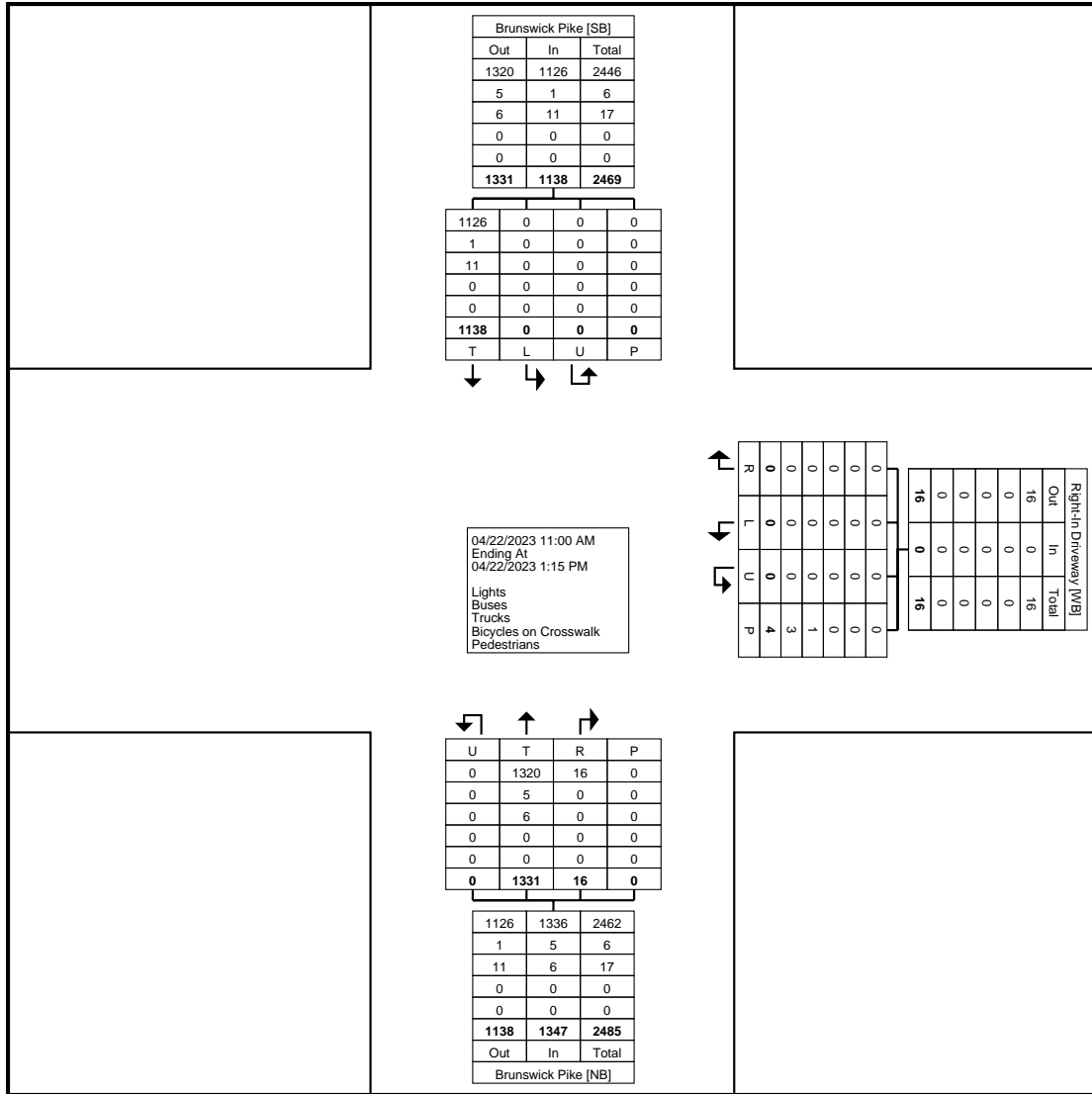
Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
South
Saturday, April 22, 2023
Location: 40.259946, -
74.724419

Count Name: Brunswick Pike &
Right-In Driveway South (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 1

Turning Movement Data

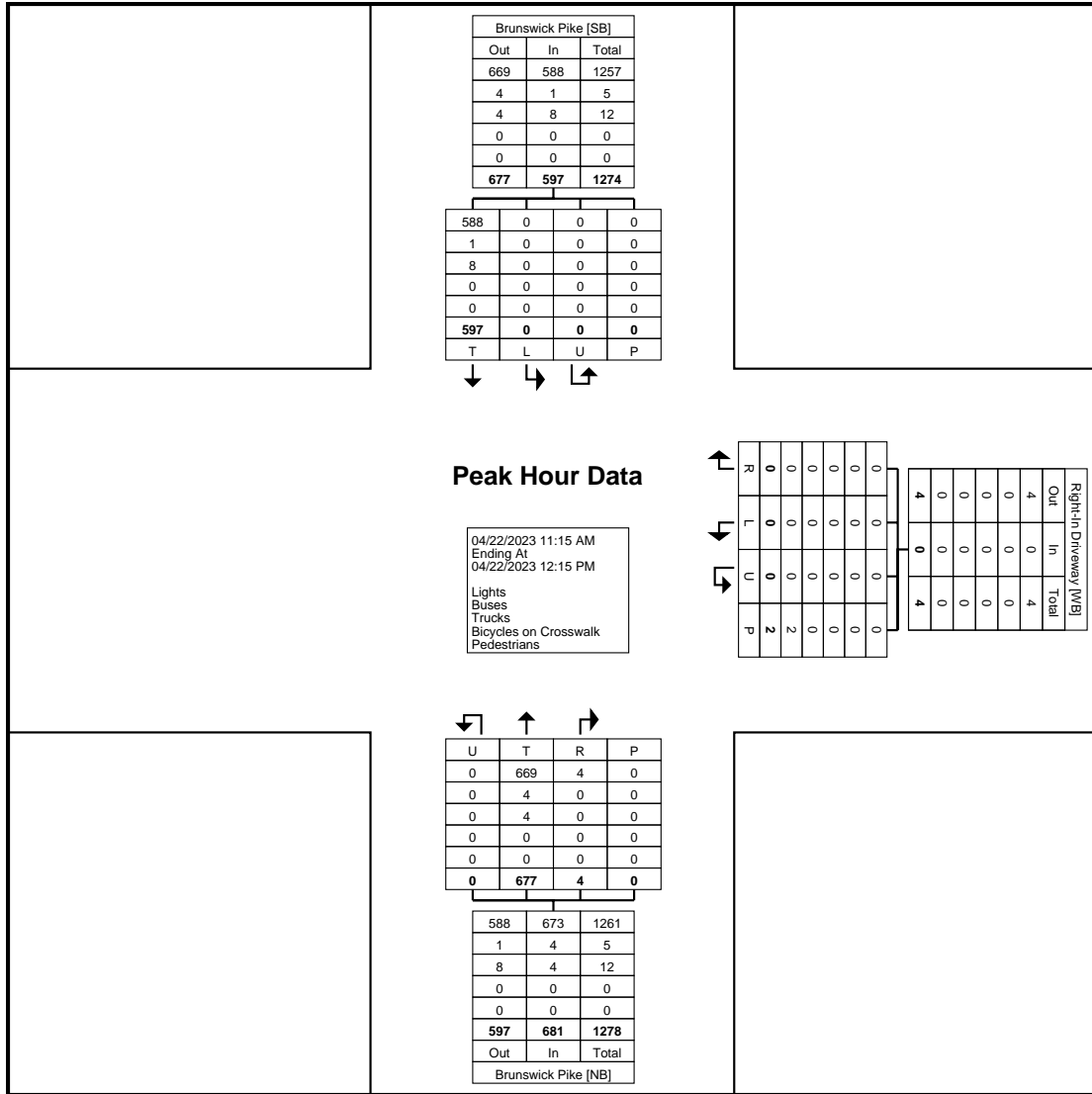
Start Time	Right-In Driveway Westbound					Brunswick Pike Northbound					Brunswick Pike Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
11:00 AM	0	0	0	0	0	153	1	0	0	154	0	131	0	0	131	285
11:15 AM	0	0	0	0	0	174	0	0	0	174	0	127	0	0	127	301
11:30 AM	0	0	0	0	0	181	2	0	0	183	0	145	0	0	145	328
11:45 AM	0	0	0	2	0	162	2	0	0	164	0	162	0	0	162	326
Hourly Total	0	0	0	2	0	670	5	0	0	675	0	565	0	0	565	1240
12:00 PM	0	0	0	0	0	160	0	0	0	160	0	163	0	0	163	323
12:15 PM	0	0	0	1	0	141	2	0	0	143	0	133	0	0	133	276
12:30 PM	0	0	0	1	0	189	5	0	0	194	0	142	0	0	142	336
12:45 PM	0	0	0	0	0	169	4	0	0	173	0	134	0	0	134	307
Hourly Total	0	0	0	2	0	659	11	0	0	670	0	572	0	0	572	1242
1:00 PM	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	3
Grand Total	0	0	0	4	0	1331	16	0	0	1347	0	1138	0	0	1138	2485
Approach %	0.0	0.0	0.0	-	-	98.8	1.2	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	0.0	0.0	-	0.0	53.6	0.6	0.0	-	54.2	0.0	45.8	0.0	-	45.8	-
Lights	0	0	0	-	0	1320	16	0	-	1336	0	1126	0	-	1126	2462
% Lights	-	-	-	-	-	99.2	100.0	-	-	99.2	-	98.9	-	-	98.9	99.1
Buses	0	0	0	-	0	5	0	0	-	5	0	1	0	-	1	6
% Buses	-	-	-	-	-	0.4	0.0	-	-	0.4	-	0.1	-	-	0.1	0.2
Trucks	0	0	0	-	0	6	0	0	-	6	0	11	0	-	11	17
% Trucks	-	-	-	-	-	0.5	0.0	-	-	0.4	-	1.0	-	-	1.0	0.7
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	-	-

Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
South
Saturday, April 22, 2023
Location: 40.259946, -
74.724419



Turning Movement Data Plot

Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
South
Saturday, April 22, 2023
Location: 40.259946, -
74.724419



Turning Movement Peak Hour Data Plot (11:15 AM)



www.TSTData.com
184 Baker Rd

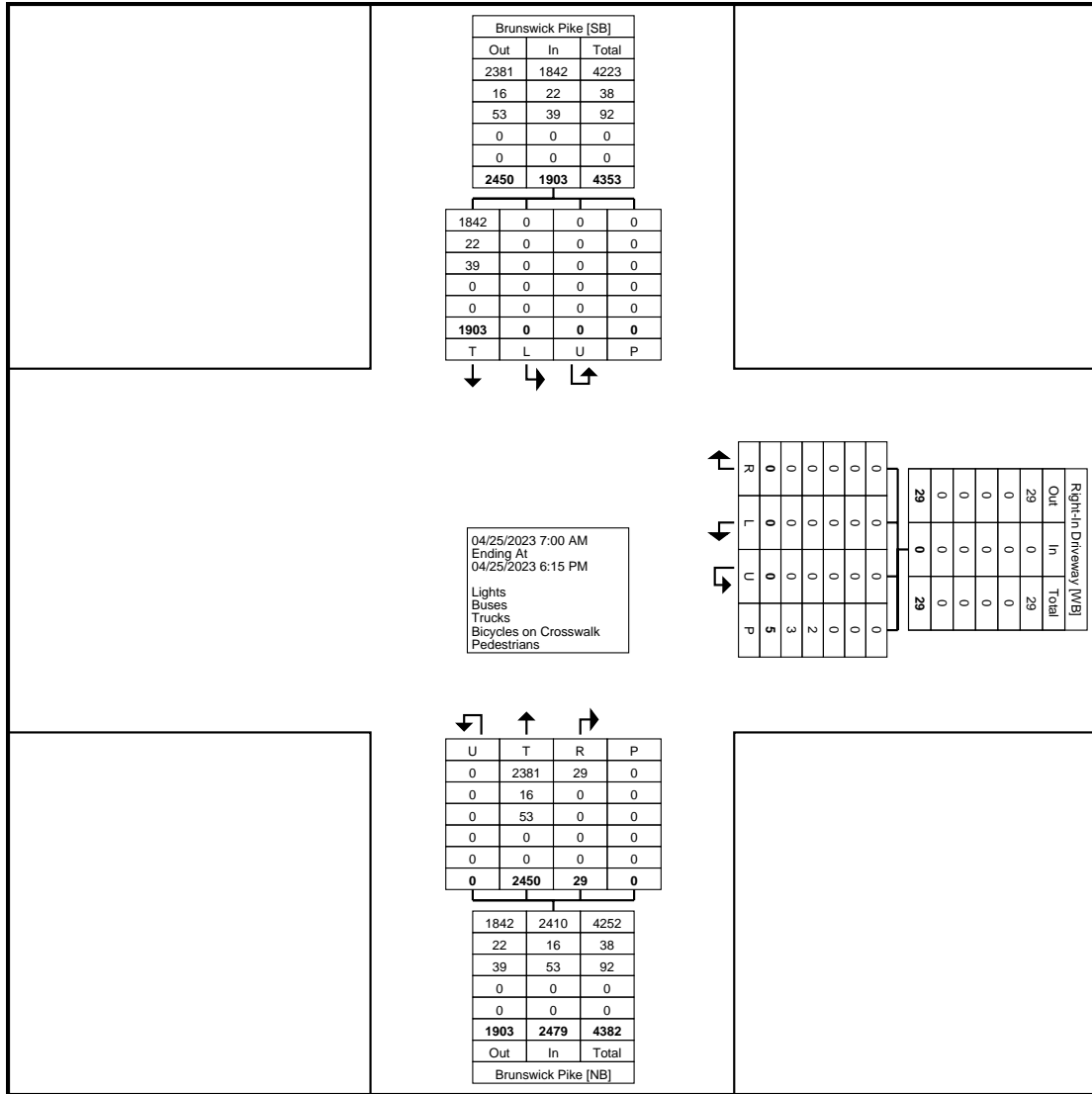
Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
South
Tuesday, April 25, 2023
Location: 40.259946, -
74.724419

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

Count Name: Brunswick Pike &
Right-In Driveway South (4/25)
Site Code:
Start Date: 04/25/2023
Page No: 1

Turning Movement Data

Start Time	Right-In Driveway Westbound					Brunswick Pike Northbound					Brunswick Pike Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
7:00 AM	0	0	0	0	0	118	1	0	0	119	0	50	0	0	50	169
7:15 AM	0	0	0	0	0	155	1	0	0	156	0	64	0	0	64	220
7:30 AM	0	0	0	1	0	201	1	0	0	202	0	89	0	0	89	291
7:45 AM	0	0	0	0	0	198	3	0	0	201	0	81	0	0	81	282
Hourly Total	0	0	0	1	0	672	6	0	0	678	0	284	0	0	284	962
8:00 AM	0	0	0	0	0	163	8	0	0	171	0	81	0	0	81	252
8:15 AM	0	0	0	1	0	147	0	0	0	147	0	91	0	0	91	238
8:30 AM	0	0	0	1	0	164	5	0	0	169	0	88	0	0	88	257
8:45 AM	0	0	0	0	0	172	1	0	0	173	0	102	0	0	102	275
Hourly Total	0	0	0	2	0	646	14	0	0	660	0	362	0	0	362	1022
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
4:00 PM	0	0	0	0	0	126	0	0	0	126	0	166	0	0	166	292
4:15 PM	0	0	0	0	0	160	1	0	0	161	0	155	0	0	155	316
4:30 PM	0	0	0	0	0	148	4	0	0	152	0	145	0	0	145	297
4:45 PM	0	0	0	1	0	136	0	0	0	136	0	160	0	0	160	296
Hourly Total	0	0	0	1	0	570	5	0	0	575	0	626	0	0	626	1201
5:00 PM	0	0	0	0	0	141	1	0	0	142	0	164	0	0	164	306
5:15 PM	0	0	0	0	0	146	1	0	0	147	0	169	0	0	169	316
5:30 PM	0	0	0	1	0	156	0	0	0	156	0	158	0	0	158	314
5:45 PM	0	0	0	0	0	119	2	0	0	121	0	140	0	0	140	261
Hourly Total	0	0	0	1	0	562	4	0	0	566	0	631	0	0	631	1197
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	5	0	2450	29	0	0	2479	0	1903	0	0	1903	4382
Approach %	0.0	0.0	0.0	-	-	98.8	1.2	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	0.0	0.0	0.0	-	0.0	55.9	0.7	0.0	-	56.6	0.0	43.4	0.0	-	43.4	-
Lights	0	0	0	-	0	2381	29	0	-	2410	0	1842	0	-	1842	4252
% Lights	-	-	-	-	-	97.2	100.0	-	-	97.2	-	96.8	-	-	96.8	97.0
Buses	0	0	0	-	0	16	0	0	-	16	0	22	0	-	22	38
% Buses	-	-	-	-	-	0.7	0.0	-	-	0.6	-	1.2	-	-	1.2	0.9
Trucks	0	0	0	-	0	53	0	0	-	53	0	39	0	-	39	92
% Trucks	-	-	-	-	-	2.2	0.0	-	-	2.1	-	2.0	-	-	2.0	2.1
Bicycles on Crosswalk	-	-	-	2	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	40.0	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	3	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	60.0	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Data Plot

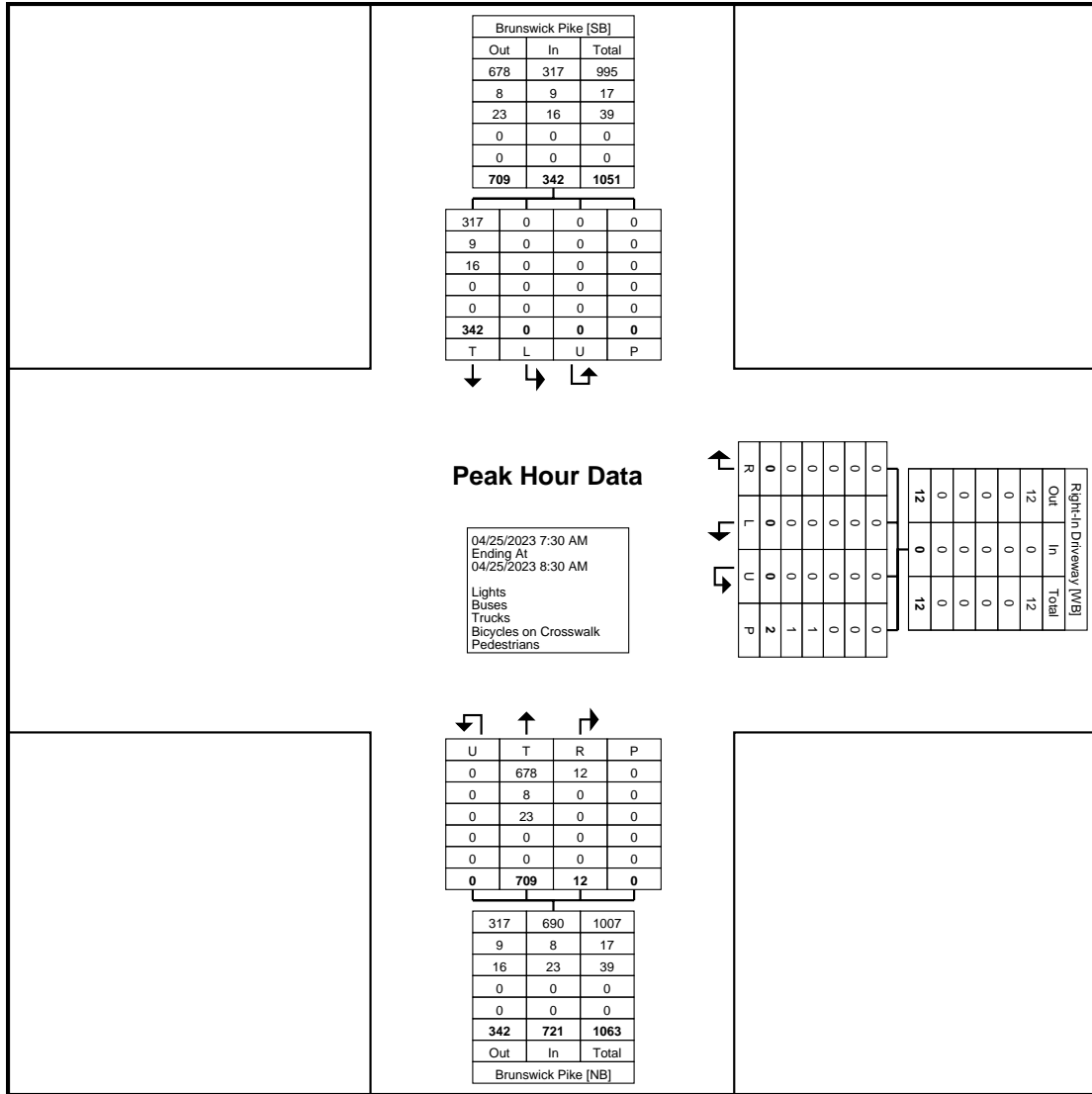


www.TSTData.com
184 Baker Rd

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

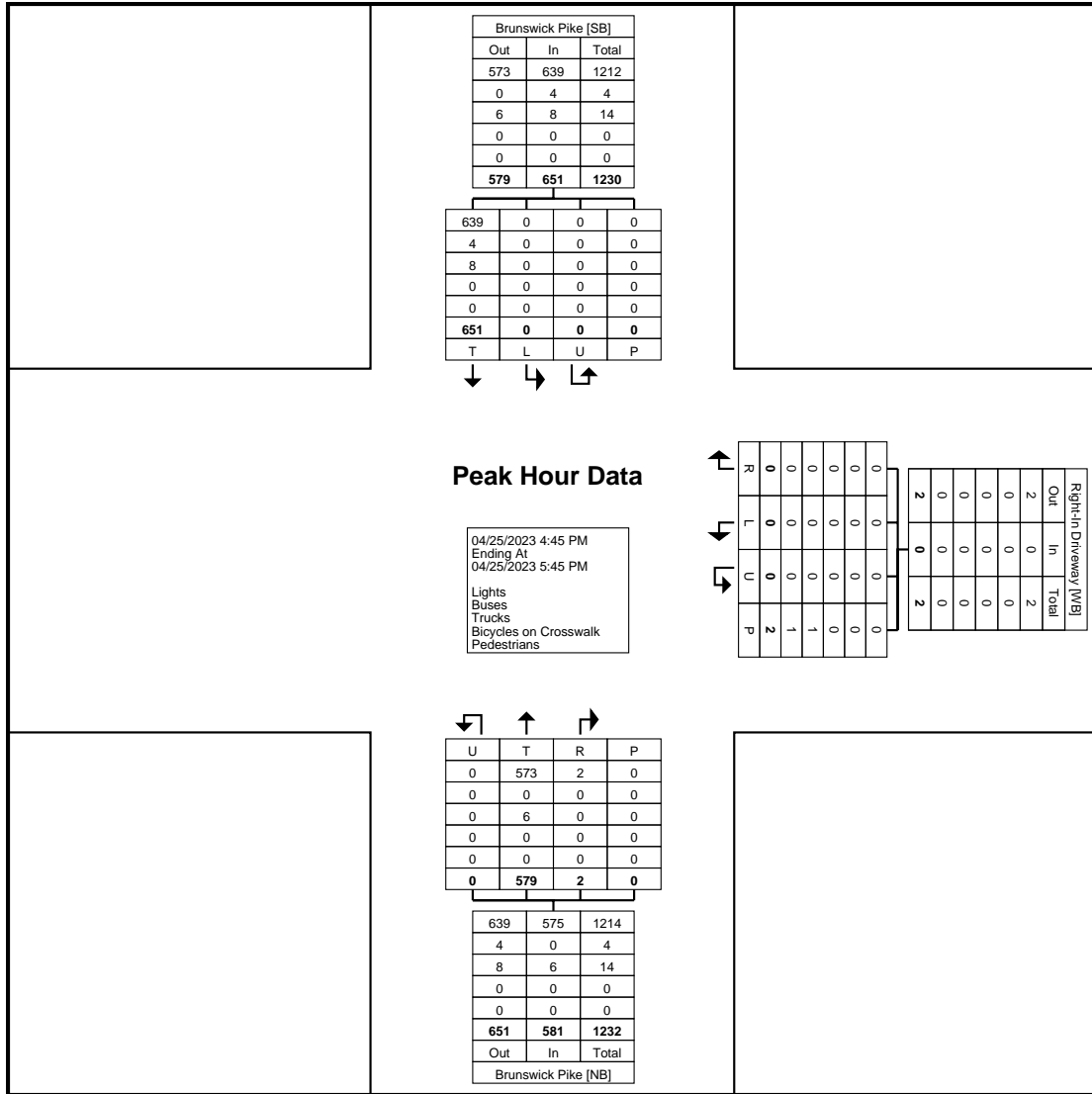
Count Name: Brunswick Pike &
Right-In Driveway South (4/25)
Site Code:
Start Date: 04/25/2023
Page No: 4

Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
South
Tuesday, April 25, 2023
Location: 40.259946, -
74.724419



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

Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
South
Tuesday, April 25, 2023
Location: 40.259946, -
74.724419



Turning Movement Peak Hour Data Plot (4:45 PM)



www.TSTData.com
184 Baker Rd

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

Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
North
Saturday, April 22, 2023
Location: 40.260184, -
74.724139

Count Name: Brunswick Pike &
Right-Out Driveway (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 1

Turning Movement Data

Start Time	Eastbound Approach Eastbound		Right Out Driveway Westbound				Brunswick Pike Northbound				Brunswick Pike Southbound				Int. Total
	Peds	App. Total	Right	U-Turn	Peds	App. Total	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
11:00 AM	0	0	1	0	0	1	160	0	1	160	135	38	0	173	334
11:15 AM	0	0	0	0	0	0	182	0	0	182	124	37	0	161	343
11:30 AM	0	0	0	0	0	0	171	0	0	171	141	27	0	168	339
11:45 AM	0	0	0	0	1	0	165	0	0	165	173	29	0	202	367
Hourly Total	0	0	1	0	1	1	678	0	1	678	573	131	0	704	1383
12:00 PM	0	0	0	0	1	0	152	0	0	152	156	22	0	178	330
12:15 PM	0	0	2	0	0	2	154	0	0	154	139	30	0	169	325
12:30 PM	0	0	0	0	1	0	196	0	0	196	141	22	0	163	359
12:45 PM	0	0	0	0	0	0	173	0	0	173	128	39	0	167	340
Hourly Total	0	0	2	0	2	2	675	0	0	675	564	113	0	677	1354
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	3	0	3	3	1353	0	1	1353	1137	244	0	1381	2737
Approach %	-	-	100.0	0.0	-	-	100.0	0.0	-	-	82.3	17.7	-	-	-
Total %	-	0.0	0.1	0.0	-	0.1	49.4	0.0	-	49.4	41.5	8.9	-	50.5	-
Lights	-	0	3	0	-	3	1345	0	-	1345	1120	242	-	1362	2710
% Lights	-	-	100.0	-	-	100.0	99.4	-	-	99.4	98.5	99.2	-	98.6	99.0
Buses	-	0	0	0	-	0	3	0	-	3	2	1	-	3	6
% Buses	-	-	0.0	-	-	0.0	0.2	-	-	0.2	0.2	0.4	-	0.2	0.2
Trucks	-	0	0	0	-	0	5	0	-	5	15	1	-	16	21
% Trucks	-	-	0.0	-	-	0.0	0.4	-	-	0.4	1.3	0.4	-	1.2	0.8
Bicycles on Crosswalk	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	0.0	-	-	-	-	-	-
Pedestrians	0	-	-	-	3	-	-	-	1	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	100.0	-	-	-	-	-	-

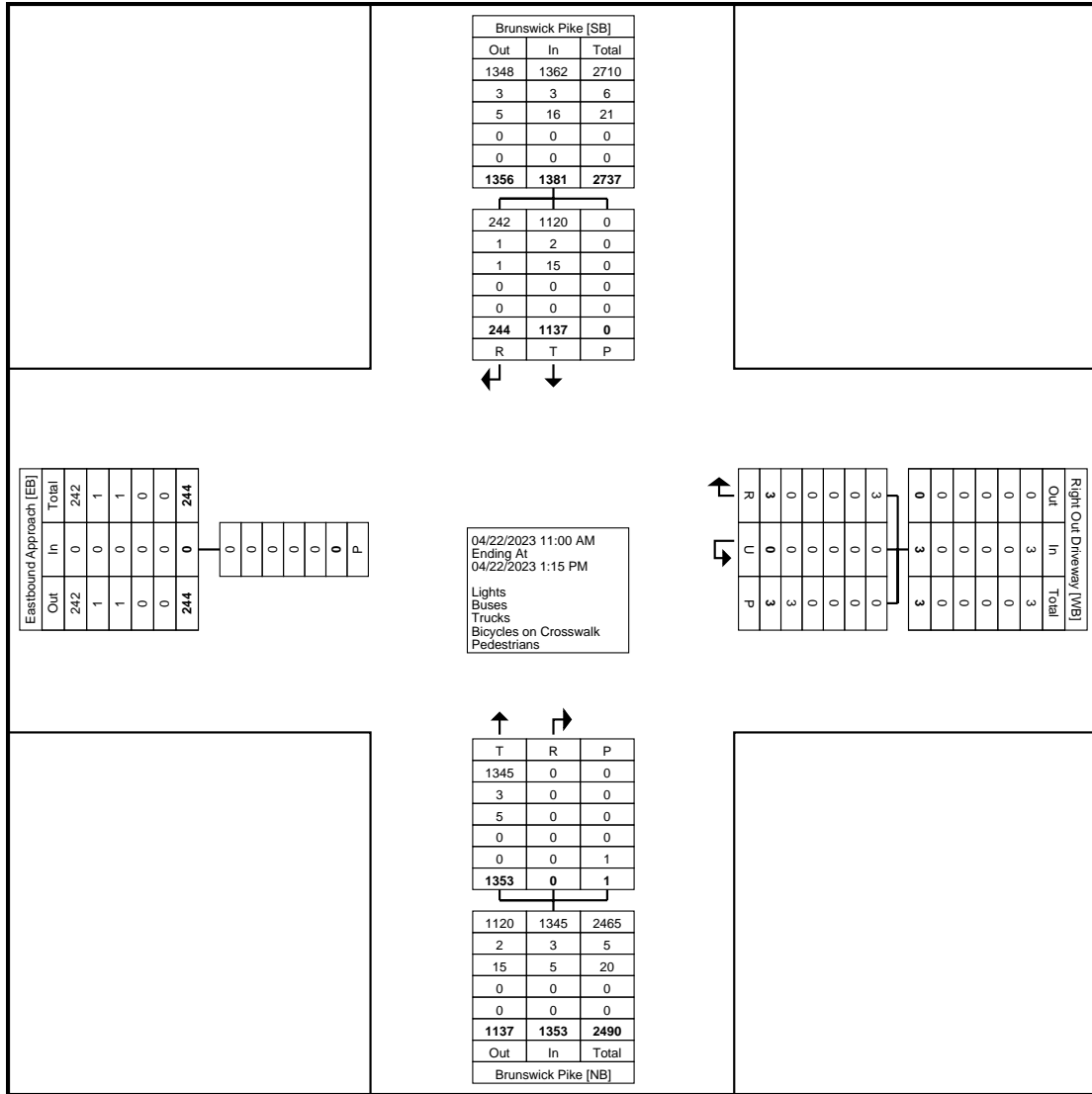


www.TSTData.com
184 Baker Rd

Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
North
Saturday, April 22, 2023
Location: 40.260184, -
74.724139

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

Count Name: Brunswick Pike &
Right-Out Driveway (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 2



Turning Movement Data Plot



www.TSTData.com
184 Baker Rd

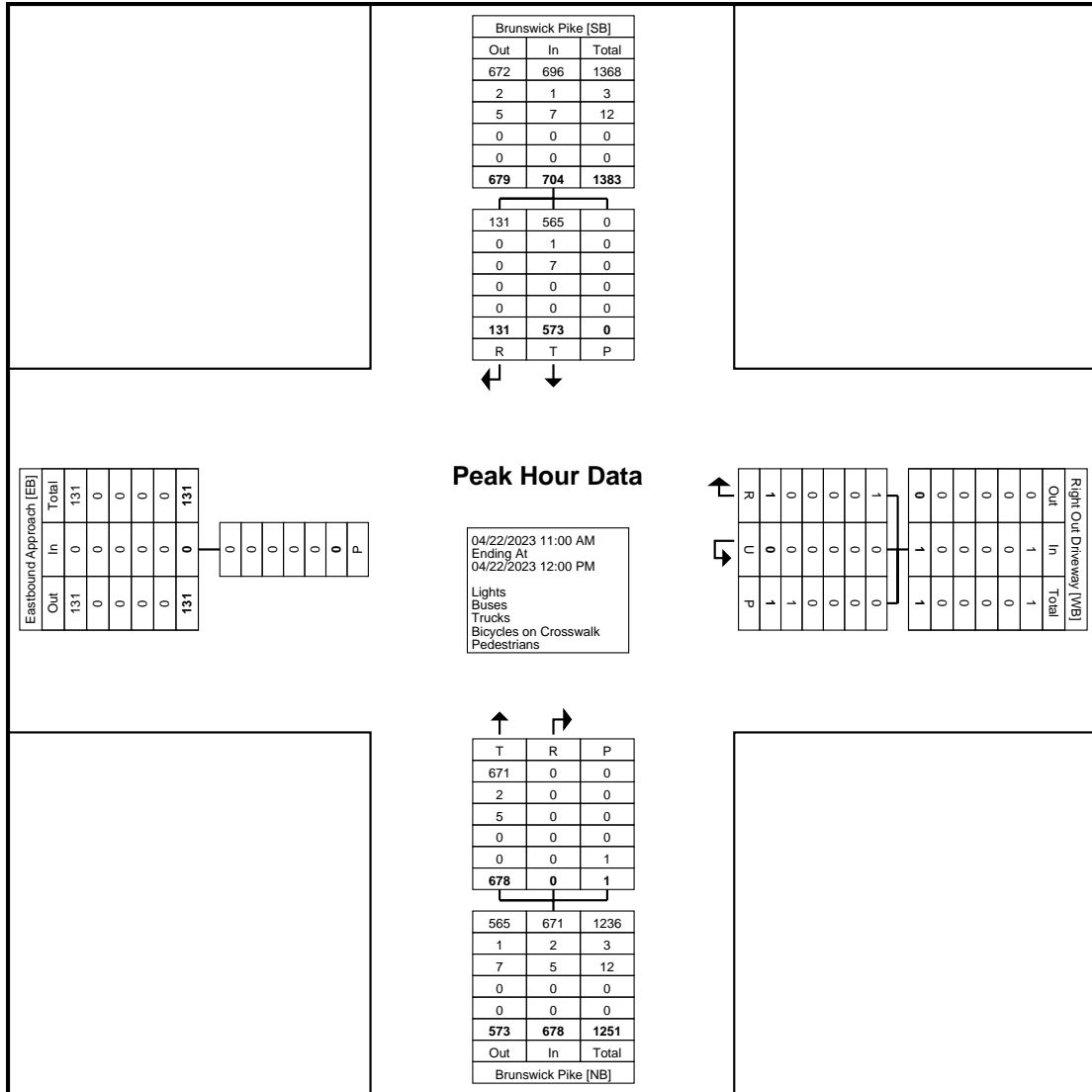
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Lawrence, NJ
Brunswick Pike & Rt In/Rd Out
North
Saturday, April 22, 2023
Location: 40.260184, -
74.724139

Count Name: Brunswick Pike &
Right-Out Driveway (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 3

Turning Movement Peak Hour Data (11:00 AM)

Start Time	Eastbound Approach Eastbound		Right Out Driveway Westbound				Brunswick Pike Northbound				Brunswick Pike Southbound				Int. Total
	Peds	App. Total	Right	U-Turn	Peds	App. Total	Thru	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
11:00 AM	0	0	1	0	0	1	160	0	1	160	135	38	0	173	334
11:15 AM	0	0	0	0	0	0	182	0	0	182	124	37	0	161	343
11:30 AM	0	0	0	0	0	0	171	0	0	171	141	27	0	168	339
11:45 AM	0	0	0	0	1	0	165	0	0	165	173	29	0	202	367
Total	0	0	1	0	1	1	678	0	1	678	573	131	0	704	1383
Approach %	-	-	100.0	0.0	-	-	100.0	0.0	-	-	81.4	18.6	-	-	-
Total %	-	0.0	0.1	0.0	-	0.1	49.0	0.0	-	49.0	41.4	9.5	-	50.9	-
PHF	-	0.000	0.250	0.000	-	0.250	0.931	0.000	-	0.931	0.828	0.862	-	0.871	0.942
Lights	-	0	1	0	-	1	671	0	-	671	565	131	-	696	1368
% Lights	-	-	100.0	-	-	100.0	99.0	-	-	99.0	98.6	100.0	-	98.9	98.9
Buses	-	0	0	0	-	0	2	0	-	2	1	0	-	1	3
% Buses	-	-	0.0	-	-	0.0	0.3	-	-	0.3	0.2	0.0	-	0.1	0.2
Trucks	-	0	0	0	-	0	5	0	-	5	7	0	-	7	12
% Trucks	-	-	0.0	-	-	0.0	0.7	-	-	0.7	1.2	0.0	-	1.0	0.9
Bicycles on Crosswalk	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	0.0	-	-	-	-	-	-
Pedestrians	0	-	-	-	1	-	-	-	1	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	100.0	-	-	-	-	-	-



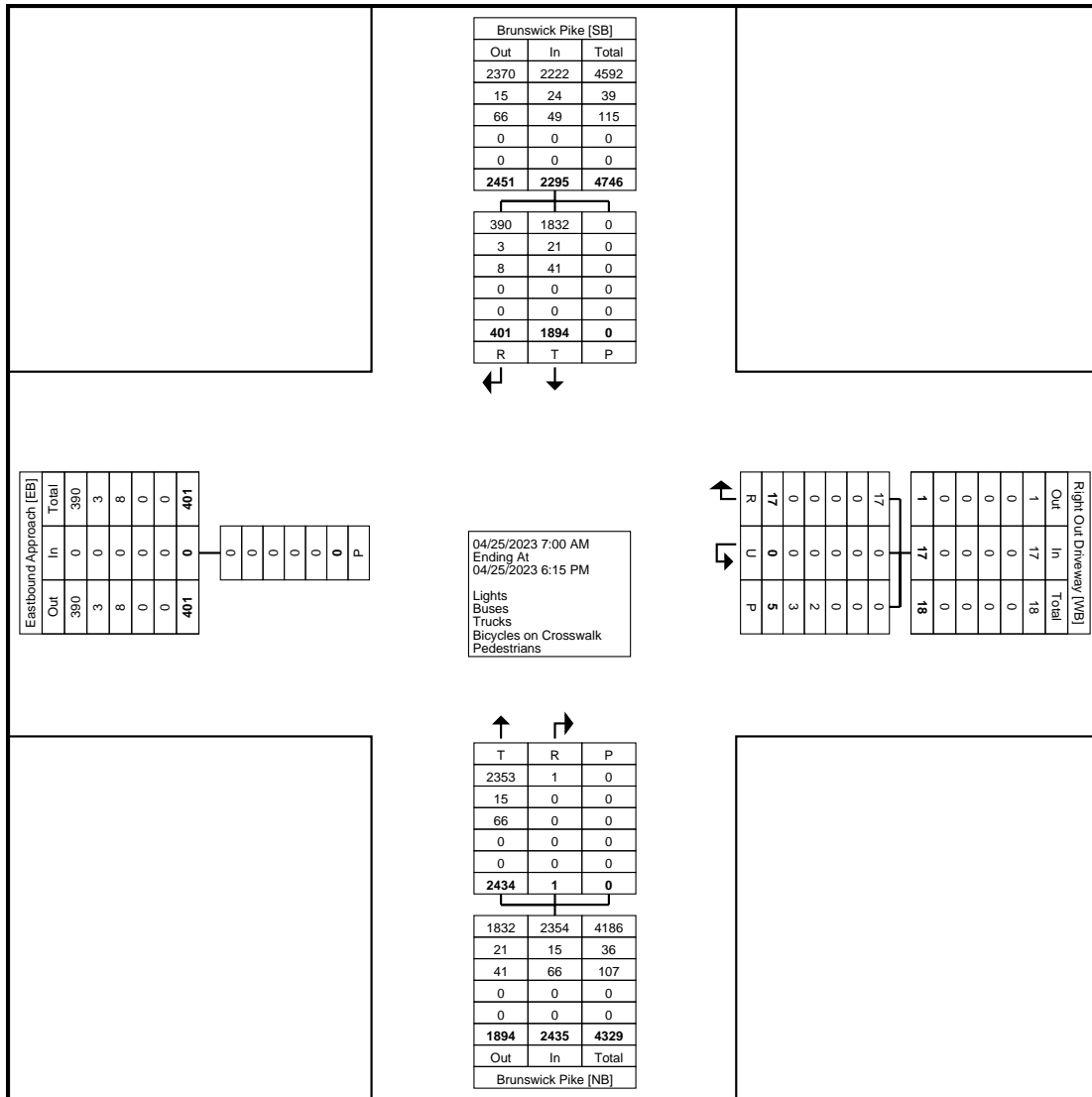
Turning Movement Peak Hour Data Plot (11:00 AM)

Lawrence, NJ
 Brunswick Pike & Rt In/Rd Out
 North
 Tuesday, April 25, 2023
 Location: 40.260184, -
 74.724139

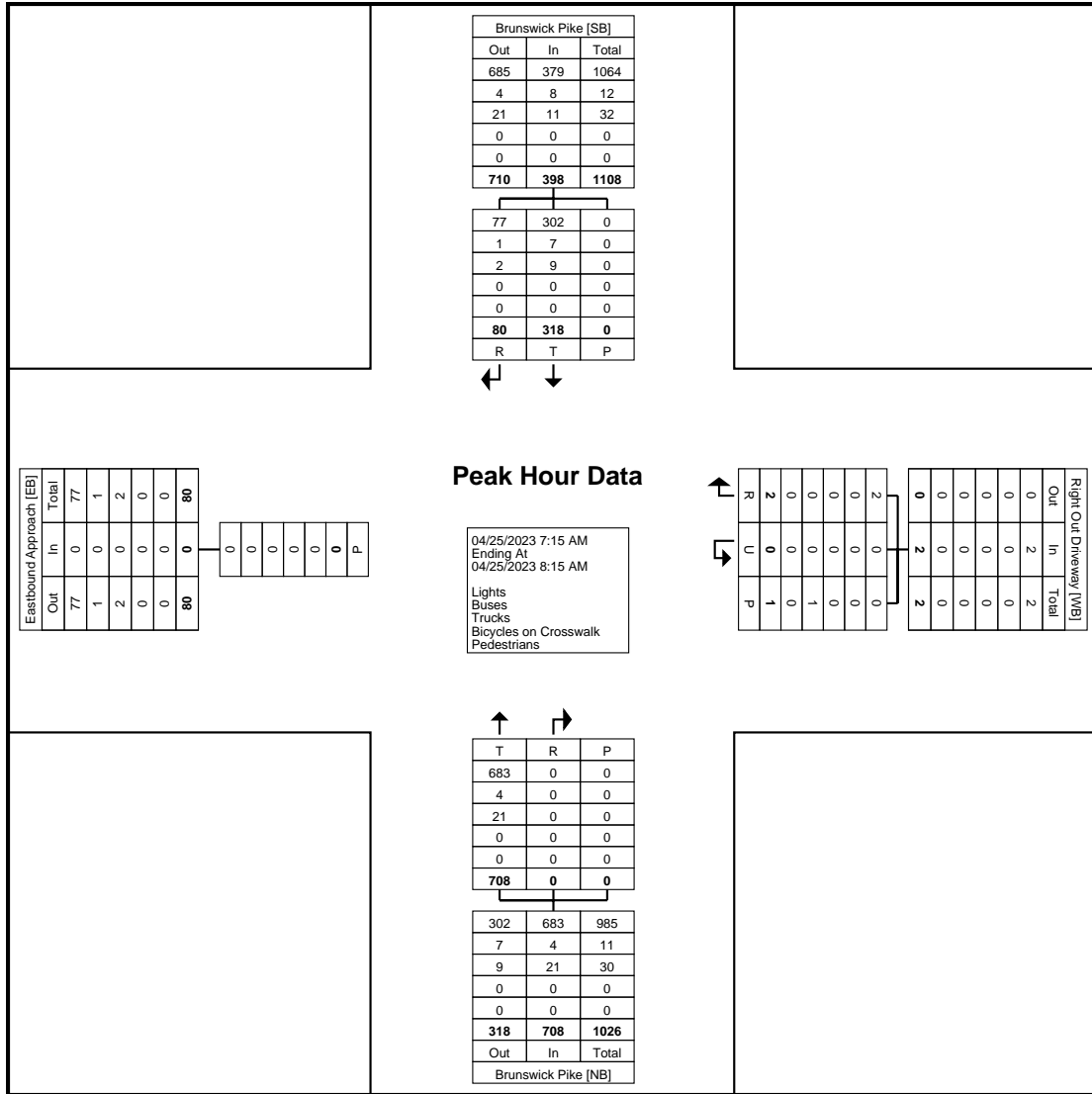
www.TSTData.com
 184 Baker Rd

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

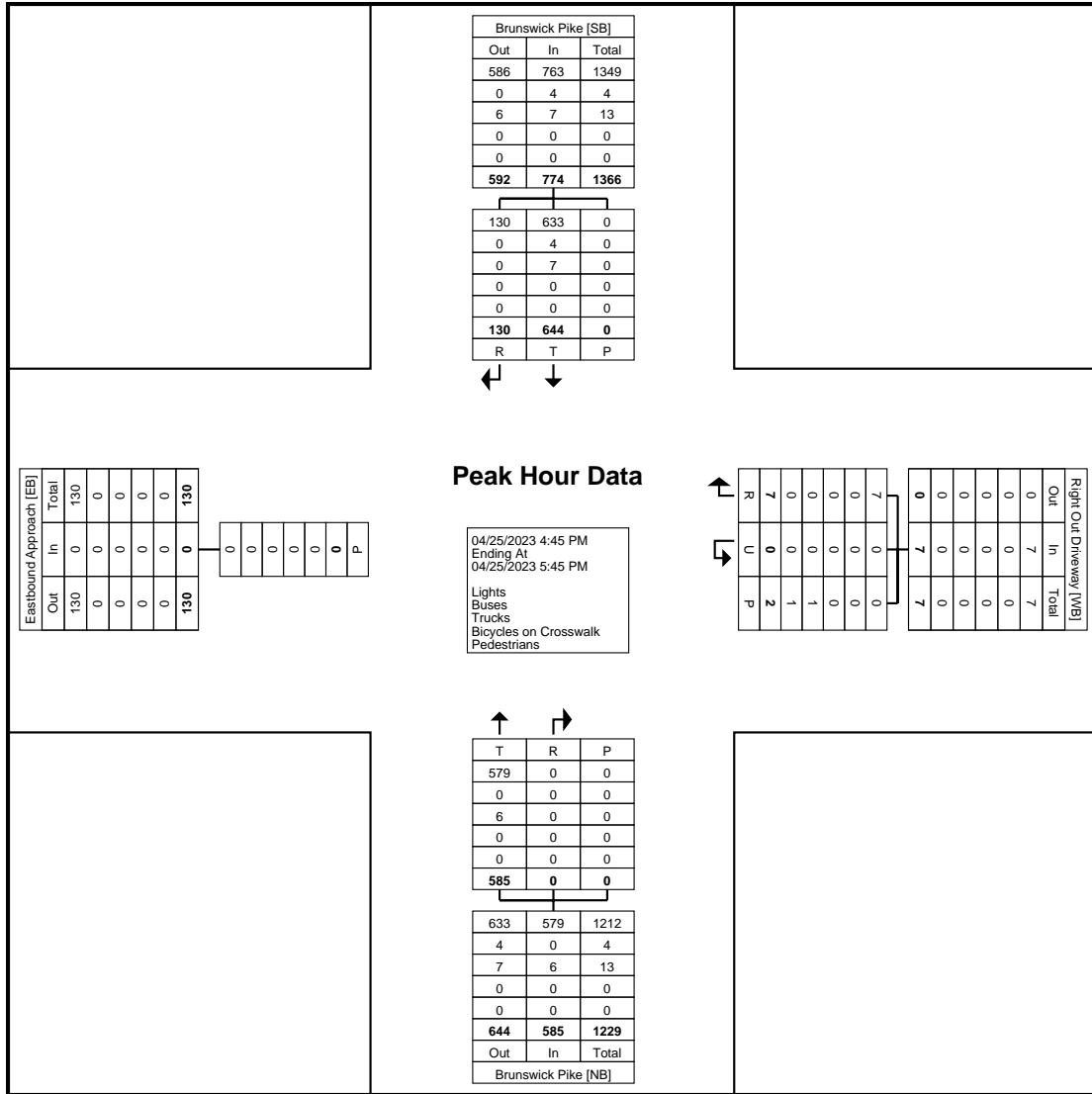
Count Name: Brunswick Pike &
 Right-Out Driveway (4/25)
 Site Code:
 Start Date: 04/25/2023
 Page No: 2



Turning Movement Data Plot



Turning Movement Peak Hour Data Plot (7:15 AM)



Turning Movement Peak Hour Data Plot (4:45 PM)



www.TSTData.com
184 Baker Rd

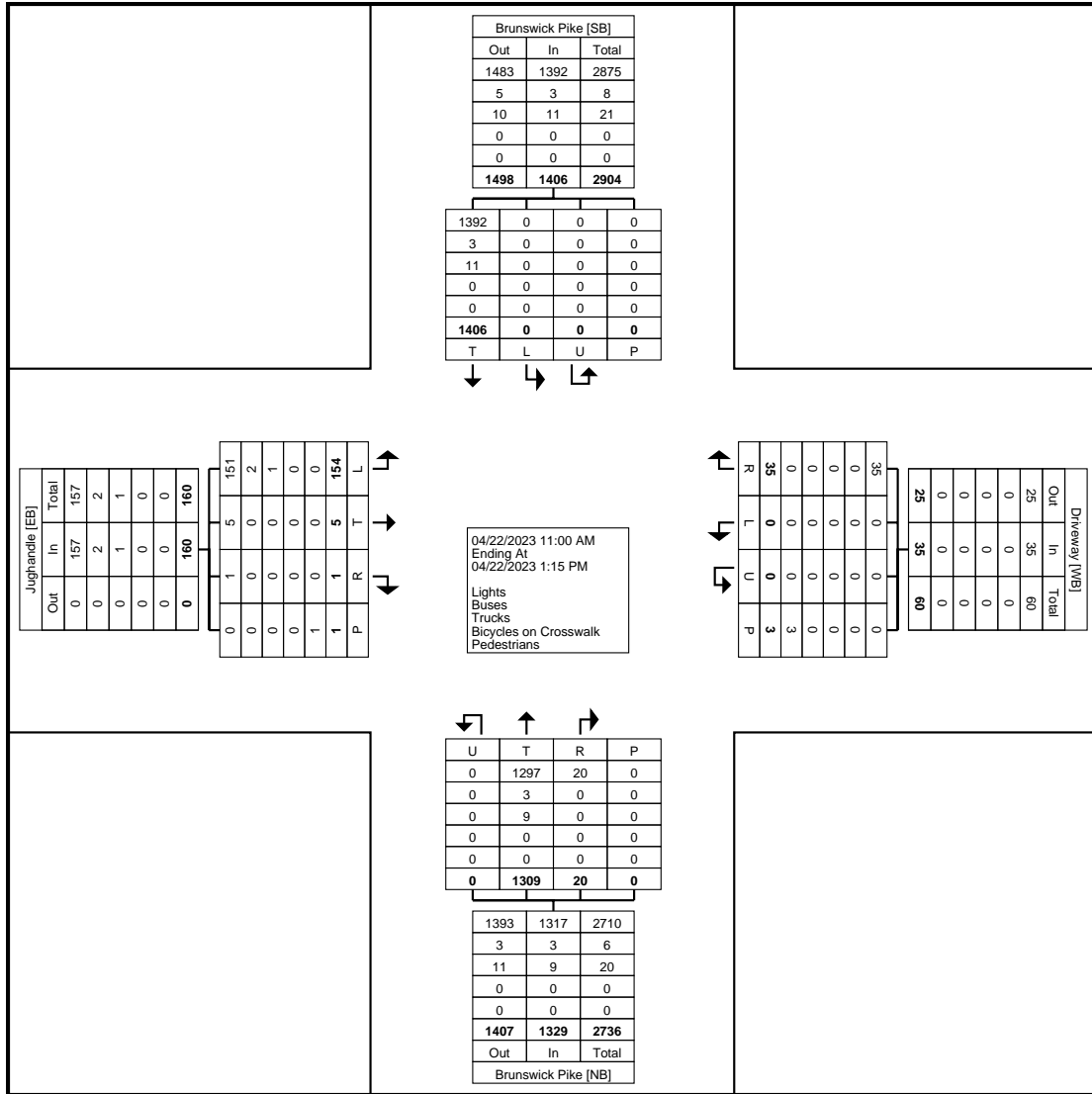
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Lawrence, NJ
Brunswick Pike & SB Jughandle
Saturday, April 22, 2023
Location: 40.263832, -
74.719766

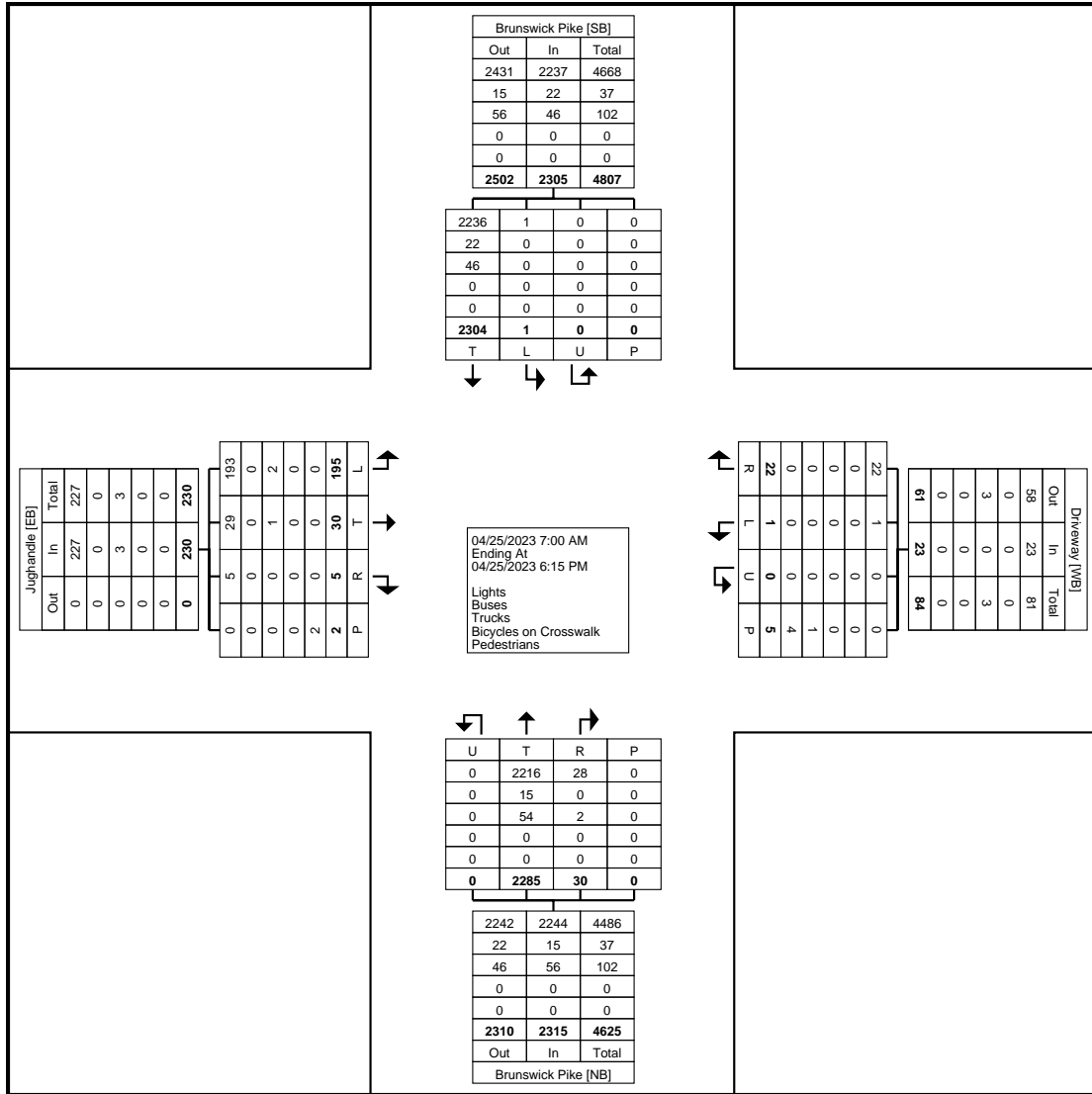
Count Name: Brunswick Pike &
SB Jughandle (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 1

Turning Movement Data

Start Time	Jughandle Eastbound						Driveway Westbound						Brunswick Pike Northbound						Brunswick Pike Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total		
11:00 AM	19	1	0	0	0	20	0	2	2	0	0	4	155	3	0	0	0	158	0	178	0	0	178	360	
11:15 AM	18	0	0	0	0	18	0	1	8	0	0	9	160	7	0	0	0	167	0	170	0	0	170	364	
11:30 AM	19	1	0	0	0	20	0	2	1	0	0	3	182	2	0	0	0	184	0	162	0	0	162	369	
11:45 AM	33	1	0	0	0	34	0	1	6	0	2	7	149	4	0	0	0	153	0	198	0	0	198	392	
Hourly Total	89	3	0	0	0	92	0	6	17	0	2	23	646	16	0	0	0	662	0	708	0	0	708	1485	
12:00 PM	17	0	1	0	1	18	0	6	2	0	0	8	149	3	0	0	0	152	0	181	0	0	181	359	
12:15 PM	17	1	0	0	0	18	0	1	2	0	1	3	165	0	0	0	0	165	0	168	0	0	168	354	
12:30 PM	13	1	0	0	0	14	0	0	0	0	0	0	182	0	0	0	0	182	0	165	0	0	165	361	
12:45 PM	18	0	0	0	0	18	0	0	1	0	0	1	167	1	0	0	0	168	0	184	0	0	184	371	
Hourly Total	65	2	1	0	1	68	0	7	5	0	1	12	663	4	0	0	0	667	0	698	0	0	698	1445	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	154	5	1	0	1	160	0	13	22	0	3	35	1309	20	0	0	0	1329	0	1406	0	0	1406	2930	
Approach %	96.3	3.1	0.6	0.0	-	-	0.0	37.1	62.9	0.0	-	-	98.5	1.5	0.0	0.0	-	-	0.0	100.0	0.0	-	-	-	
Total %	5.3	0.2	0.0	0.0	-	5.5	0.0	0.4	0.8	0.0	-	1.2	44.7	0.7	0.0	0.0	-	45.4	0.0	48.0	0.0	-	48.0	-	
Lights	151	5	1	0	-	157	0	13	22	0	-	35	1297	20	0	0	-	1317	0	1392	0	-	1392	2901	
% Lights	98.1	100.0	100.0	-	-	98.1	-	100.0	100.0	-	-	100.0	99.1	100.0	-	-	-	99.1	-	99.0	-	-	99.0	99.0	
Buses	2	0	0	0	-	2	0	0	0	0	-	0	3	0	0	0	-	3	0	3	0	-	3	8	
% Buses	1.3	0.0	0.0	-	-	1.3	-	0.0	0.0	-	-	0.0	0.2	0.0	-	-	-	0.2	-	0.2	-	-	0.2	0.3	
Trucks	1	0	0	0	-	1	0	0	0	0	-	0	9	0	0	0	-	9	0	11	0	-	11	21	
% Trucks	0.6	0.0	0.0	-	-	0.6	-	0.0	0.0	-	-	0.0	0.7	0.0	-	-	-	0.7	-	0.8	-	-	0.8	0.7	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pedestrians	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	



Turning Movement Data Plot



Turning Movement Data Plot



www.TSTData.com
184 Baker Rd

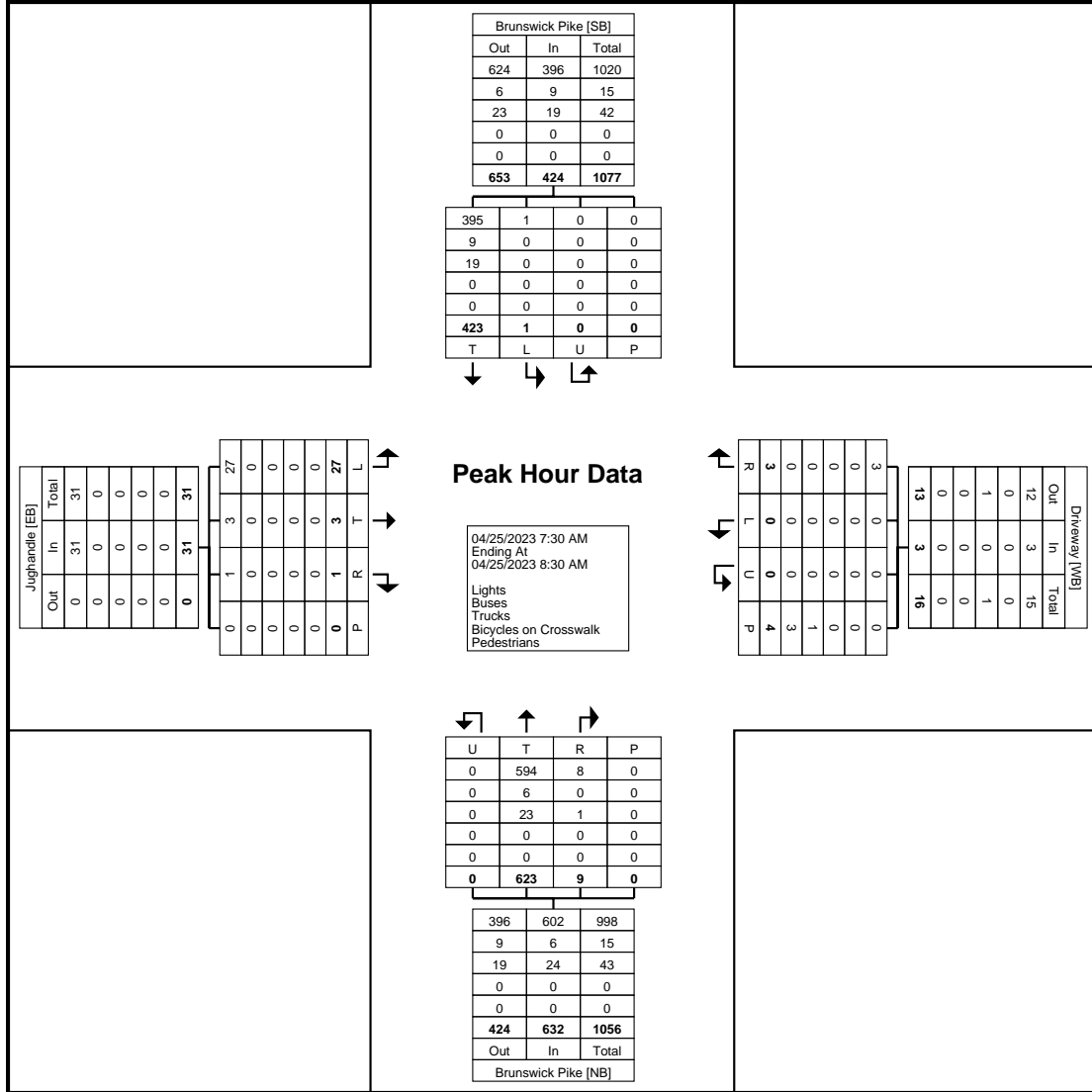
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Lawrence, NJ
Brunswick Pike & SB Jughandle
Tuesday, April 25, 2023
Location: 40.263832, -
74.719766

Count Name: Brunswick Pike &
SB Jughandle (4/25)
Site Code:
Start Date: 04/25/2023
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

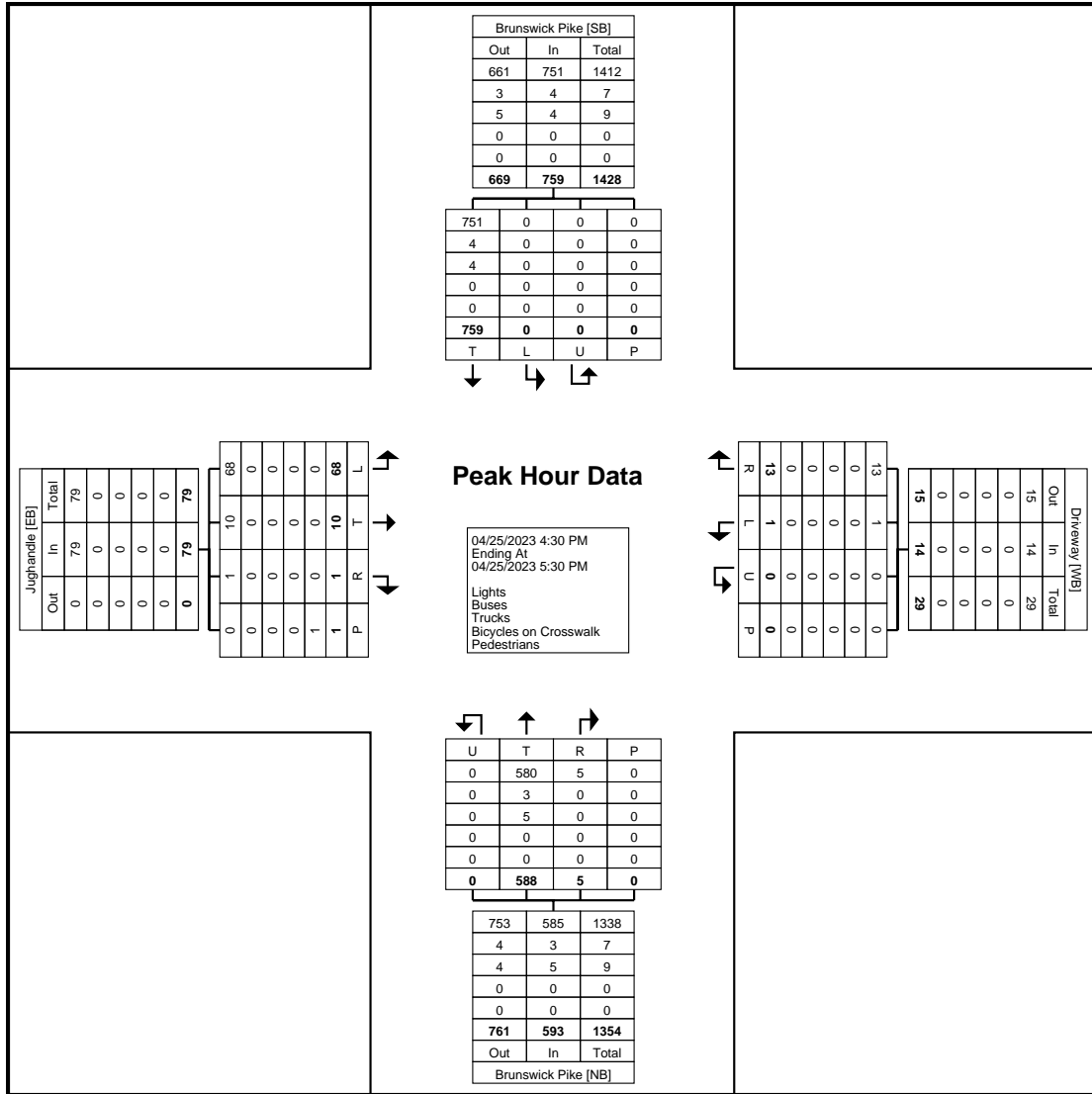
Start Time	Jughandle Eastbound						Driveway Westbound						Brunswick Pike Northbound						Brunswick Pike Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total		
7:30 AM	6	1	0	0	0	7	0	0	0	0	2	0	178	1	0	0	0	179	0	113	0	0	113	299	
7:45 AM	8	0	0	0	0	8	0	0	0	0	0	0	171	2	0	0	0	173	0	93	0	0	93	274	
8:00 AM	8	1	1	0	0	10	0	0	1	0	0	1	133	3	0	0	0	136	1	104	0	0	105	252	
8:15 AM	5	1	0	0	0	6	0	2	0	0	2	2	141	3	0	0	0	144	0	113	0	0	113	265	
Total	27	3	1	0	0	31	0	2	1	0	4	3	623	9	0	0	0	632	1	423	0	0	424	1090	
Approach %	87.1	9.7	3.2	0.0	-	-	0.0	66.7	33.3	0.0	-	-	98.6	1.4	0.0	0.0	-	-	0.2	99.8	0.0	-	-	-	
Total %	2.5	0.3	0.1	0.0	-	2.8	0.0	0.2	0.1	0.0	-	0.3	57.2	0.8	0.0	0.0	-	58.0	0.1	38.8	0.0	-	38.9	-	
PHF	0.844	0.750	0.250	0.000	-	0.775	0.000	0.250	0.250	0.000	-	0.375	0.875	0.750	0.000	0.000	-	0.883	0.250	0.936	0.000	-	0.938	0.911	
Lights	27	3	1	0	-	31	0	2	1	0	-	3	594	8	0	0	-	602	1	395	0	-	396	1032	
% Lights	100.0	100.0	100.0	-	-	100.0	-	100.0	100.0	-	-	100.0	95.3	88.9	-	-	-	95.3	100.0	93.4	-	-	93.4	94.7	
Buses	0	0	0	0	-	0	0	0	0	0	-	0	6	0	0	0	-	6	0	9	0	-	9	15	
% Buses	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	1.0	0.0	-	-	-	0.9	0.0	2.1	-	-	2.1	1.4	
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	23	1	0	0	-	24	0	19	0	-	19	43	
% Trucks	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	3.7	11.1	-	-	-	3.8	0.0	4.5	-	-	4.5	3.9	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	-	-	-	



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

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Jughandle Eastbound						Driveway Westbound						Brunswick Pike Northbound						Brunswick Pike Southbound						Int. Total
	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total		
4:30 PM	25	2	0	0	0	27	0	2	0	0	0	2	160	3	0	0	0	163	0	175	0	0	175	367	
4:45 PM	11	4	0	0	1	15	0	4	1	0	0	5	132	0	0	0	0	132	0	182	0	0	182	334	
5:00 PM	13	2	0	0	0	15	0	0	4	0	0	4	146	0	0	0	0	146	0	208	0	0	208	373	
5:15 PM	19	2	1	0	0	22	1	1	1	0	0	3	150	1	1	0	0	152	0	194	0	0	194	371	
Total	68	10	1	0	1	79	1	7	6	0	0	14	588	4	1	0	0	593	0	759	0	0	759	1445	
Approach %	86.1	12.7	1.3	0.0	-	-	7.1	50.0	42.9	0.0	-	-	99.2	0.7	0.2	0.0	-	-	0.0	100.0	0.0	-	-	-	
Total %	4.7	0.7	0.1	0.0	-	5.5	0.1	0.5	0.4	0.0	-	1.0	40.7	0.3	0.1	0.0	-	41.0	0.0	52.5	0.0	-	52.5	-	
PHF	0.680	0.625	0.250	0.000	-	0.731	0.250	0.438	0.375	0.000	-	0.700	0.919	0.333	0.250	0.000	-	0.910	0.000	0.912	0.000	-	0.912	0.968	
Lights	68	10	1	0	-	79	1	7	6	0	-	14	580	4	1	0	-	585	0	751	0	-	751	1429	
% Lights	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	98.6	100.0	100.0	-	-	98.7	-	98.9	-	-	98.9	98.9	
Buses	0	0	0	0	-	0	0	0	0	0	-	0	3	0	0	0	-	3	0	4	0	-	4	7	
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.5	0.0	0.0	-	-	0.5	-	0.5	-	-	0.5	0.5	
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	5	0	0	0	-	5	0	4	0	-	4	9	
% Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.9	0.0	0.0	-	-	0.8	-	0.5	-	-	0.5	0.6	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pedestrians	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-		
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Turning Movement Peak Hour Data Plot (4:30 PM)



www.TSTData.com
184 Baker Rd

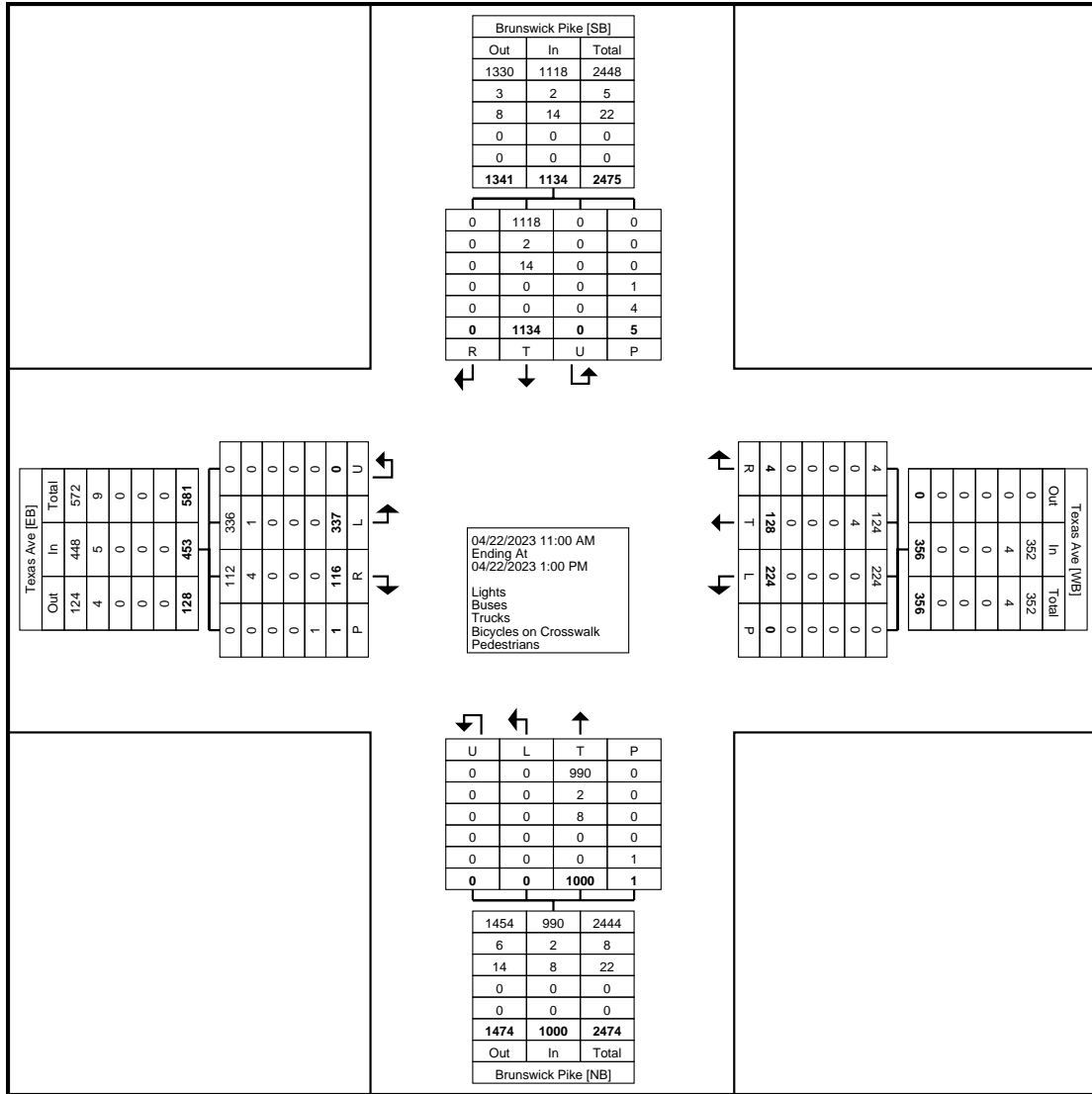
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Lawrence, NJ
Brunswick Pike & Texas Ave
Saturday, April 22, 2023
Location: 40.259806, -
74.724597

Count Name: Brunswick Pike &
Texas Ave (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 1

Turning Movement Data

Start Time	Texas Ave Eastbound						Texas Ave Westbound						Brunswick Pike Northbound					Brunswick Pike Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:00 AM	38	2	11	0	0	51	23	14	0	1	0	38	0	119	0	0	119	130	0	0	0	0	130	338
11:15 AM	49	3	10	0	0	62	38	20	0	0	0	58	0	125	0	0	125	124	0	0	0	0	124	369
11:30 AM	38	5	7	0	0	50	33	14	1	0	0	48	0	144	0	0	144	153	0	0	0	0	153	395
11:45 AM	44	3	10	0	0	57	20	15	1	0	0	36	0	119	0	1	119	161	0	0	0	3	161	373
Hourly Total	169	13	38	0	0	220	114	63	2	1	0	180	0	507	0	1	507	568	0	0	0	3	568	1475
12:00 PM	38	5	10	0	0	53	21	15	0	0	0	36	0	120	0	0	120	162	0	0	0	0	162	371
12:15 PM	44	4	15	0	1	63	30	18	0	0	0	48	0	103	0	0	103	139	0	0	0	2	139	353
12:30 PM	41	2	9	0	0	52	29	16	1	0	0	46	0	146	0	0	146	139	0	0	0	0	139	383
12:45 PM	45	7	13	0	0	65	30	16	0	0	0	46	0	124	0	0	124	126	0	0	0	0	126	361
Hourly Total	168	18	47	0	1	233	110	65	1	0	0	176	0	493	0	0	493	566	0	0	0	2	566	1468
Grand Total	337	31	85	0	1	453	224	128	3	1	0	356	0	1000	0	1	1000	1134	0	0	0	5	1134	2943
Approach %	74.4	6.8	18.8	0.0	-	-	62.9	36.0	0.8	0.3	-	-	0.0	100.0	0.0	-	-	100.0	0.0	0.0	0.0	-	-	-
Total %	11.5	1.1	2.9	0.0	-	15.4	7.6	4.3	0.1	0.0	-	12.1	0.0	34.0	0.0	-	34.0	38.5	0.0	0.0	0.0	-	38.5	-
Lights	336	28	84	0	-	448	224	124	3	1	-	352	0	990	0	-	990	1118	0	0	0	-	1118	2908
% Lights	99.7	90.3	98.8	-	-	98.9	100.0	96.9	100.0	100.0	-	98.9	-	99.0	-	-	99.0	98.6	-	-	-	-	98.6	98.8
Buses	1	3	1	0	-	5	0	4	0	0	-	4	0	2	0	-	2	2	0	0	0	-	2	13
% Buses	0.3	9.7	1.2	-	-	1.1	0.0	3.1	0.0	0.0	-	1.1	-	0.2	-	-	0.2	0.2	-	-	-	-	0.2	0.4
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	8	0	-	8	14	0	0	0	-	14	22
% Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.8	-	-	0.8	1.2	-	-	-	-	1.2	0.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	20.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	80.0	-	-



Turning Movement Data Plot



www.TSTData.com
184 Baker Rd

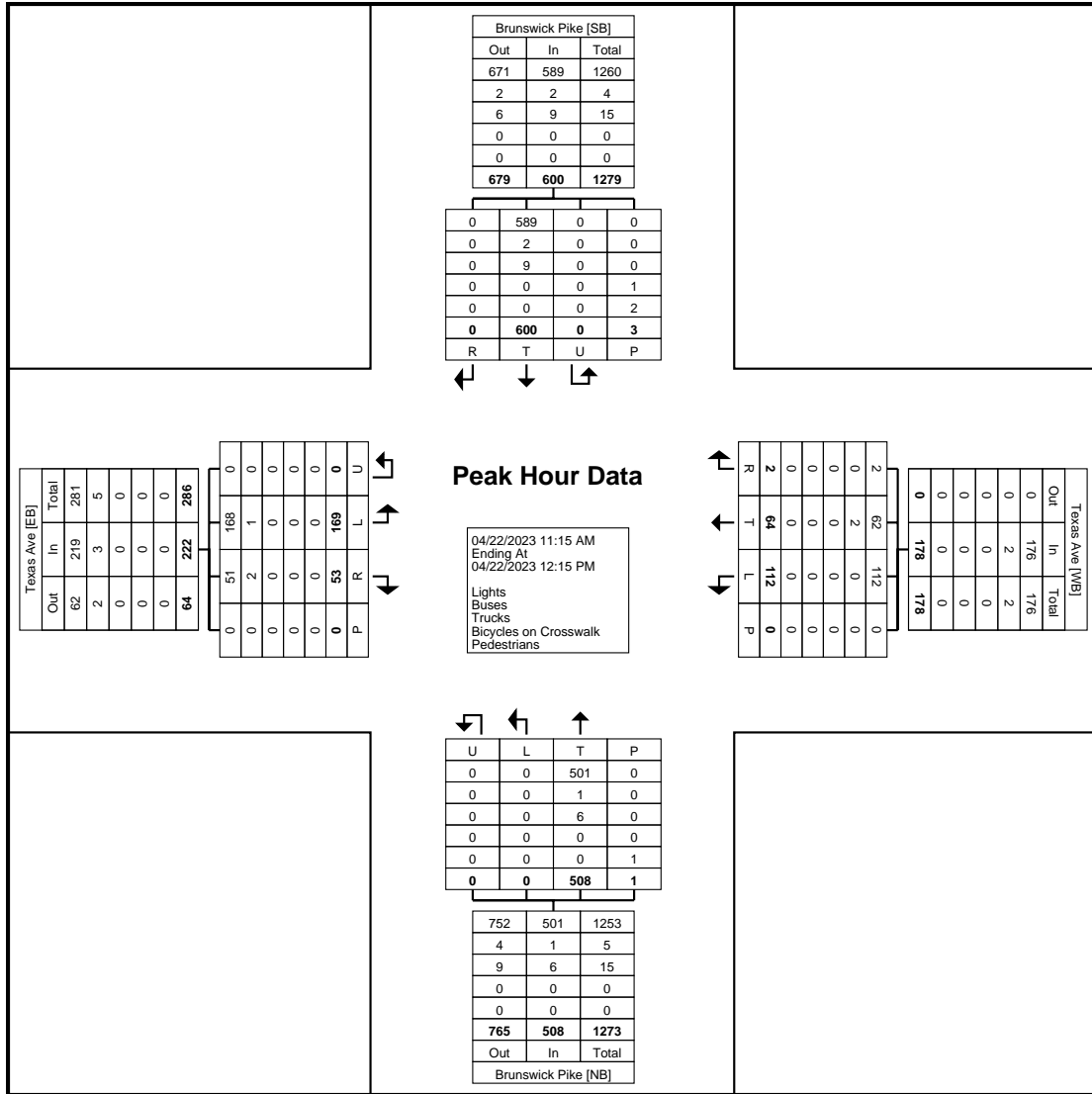
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Lawrence, NJ
Brunswick Pike & Texas Ave
Saturday, April 22, 2023
Location: 40.259806, -
74.724597

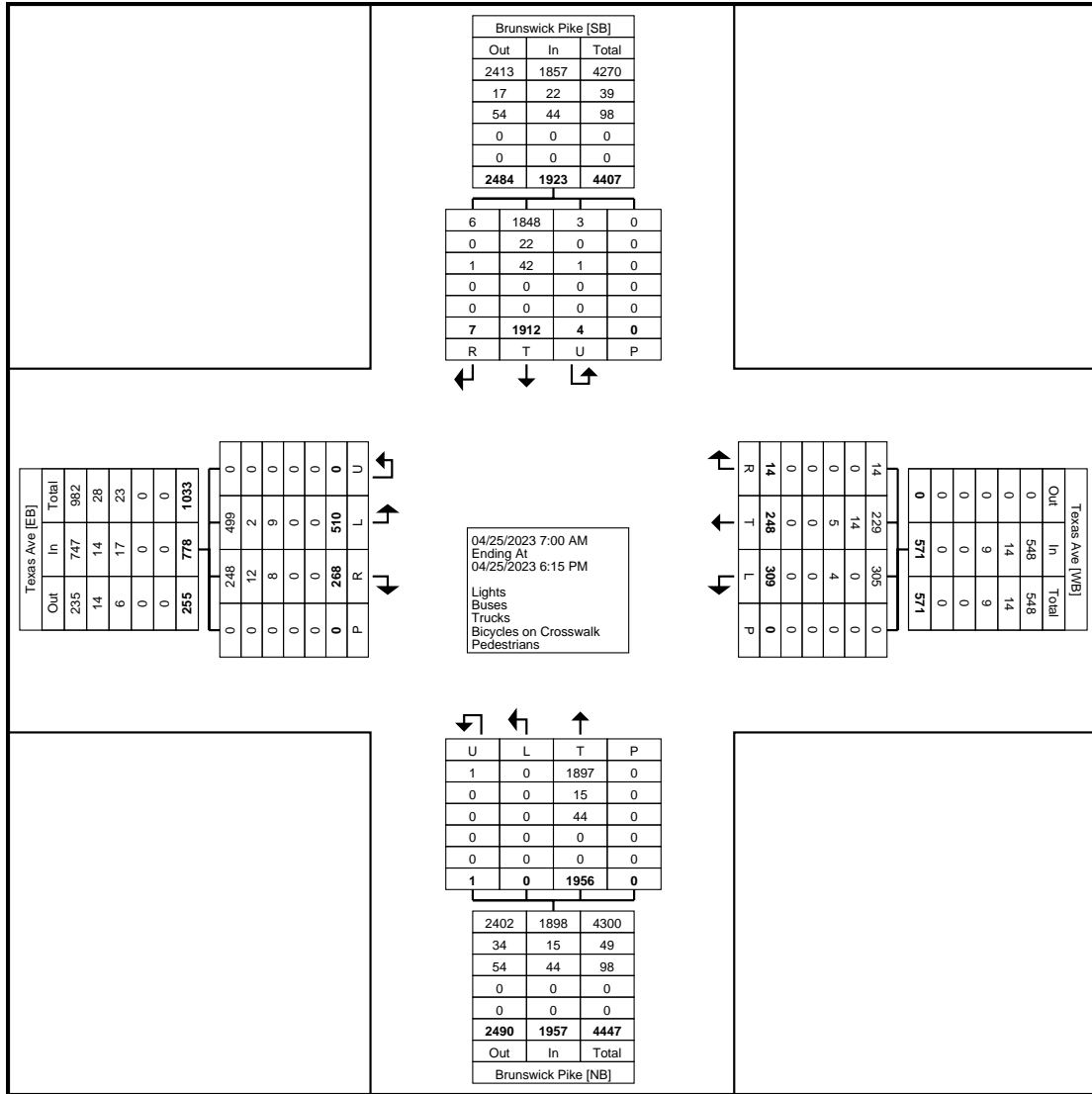
Count Name: Brunswick Pike &
Texas Ave (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 3

Turning Movement Peak Hour Data (11:15 AM)

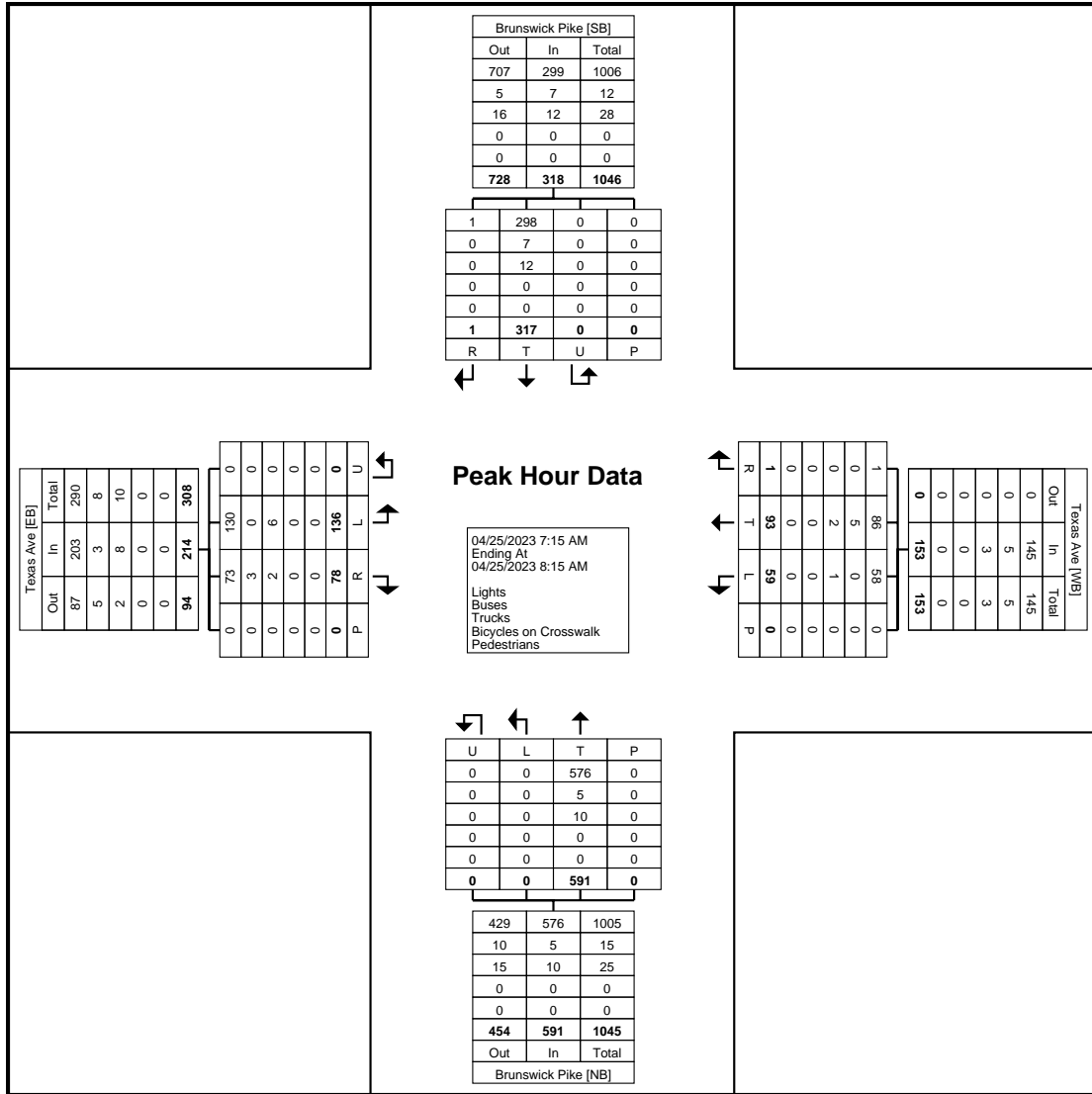
Start Time	Texas Ave Eastbound						Texas Ave Westbound						Brunswick Pike Northbound					Brunswick Pike Southbound						Int. Total
	Left	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:15 AM	49	3	10	0	0	62	38	20	0	0	0	58	0	125	0	0	125	124	0	0	0	0	124	369
11:30 AM	38	5	7	0	0	50	33	14	1	0	0	48	0	144	0	0	144	153	0	0	0	0	153	395
11:45 AM	44	3	10	0	0	57	20	15	1	0	0	36	0	119	0	1	119	161	0	0	0	3	161	373
12:00 PM	38	5	10	0	0	53	21	15	0	0	0	36	0	120	0	0	120	162	0	0	0	0	162	371
Total	169	16	37	0	0	222	112	64	2	0	0	178	0	508	0	1	508	600	0	0	0	3	600	1508
Approach %	76.1	7.2	16.7	0.0	-	-	62.9	36.0	1.1	0.0	-	-	0.0	100.0	0.0	-	-	100.0	0.0	0.0	0.0	-	-	-
Total %	11.2	1.1	2.5	0.0	-	14.7	7.4	4.2	0.1	0.0	-	11.8	0.0	33.7	0.0	-	33.7	39.8	0.0	0.0	0.0	-	39.8	-
PHF	0.862	0.800	0.925	0.000	-	0.895	0.737	0.800	0.500	0.000	-	0.767	0.000	0.882	0.000	-	0.882	0.926	0.000	0.000	0.000	-	0.926	0.954
Lights	168	14	37	0	-	219	112	62	2	0	-	176	0	501	0	-	501	589	0	0	0	-	589	1485
% Lights	99.4	87.5	100.0	-	-	98.6	100.0	96.9	100.0	-	-	98.9	-	98.6	-	-	98.6	98.2	-	-	-	-	98.2	98.5
Buses	1	2	0	0	-	3	0	2	0	0	-	2	0	1	0	-	1	2	0	0	0	-	2	8
% Buses	0.6	12.5	0.0	-	-	1.4	0.0	3.1	0.0	-	-	1.1	-	0.2	-	-	0.2	0.3	-	-	-	-	0.3	0.5
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	6	0	-	6	9	0	0	0	-	9	15
% Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	1.2	-	-	1.2	1.5	-	-	-	-	1.5	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	33.3	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	66.7	-	-



Turning Movement Peak Hour Data Plot (11:15 AM)

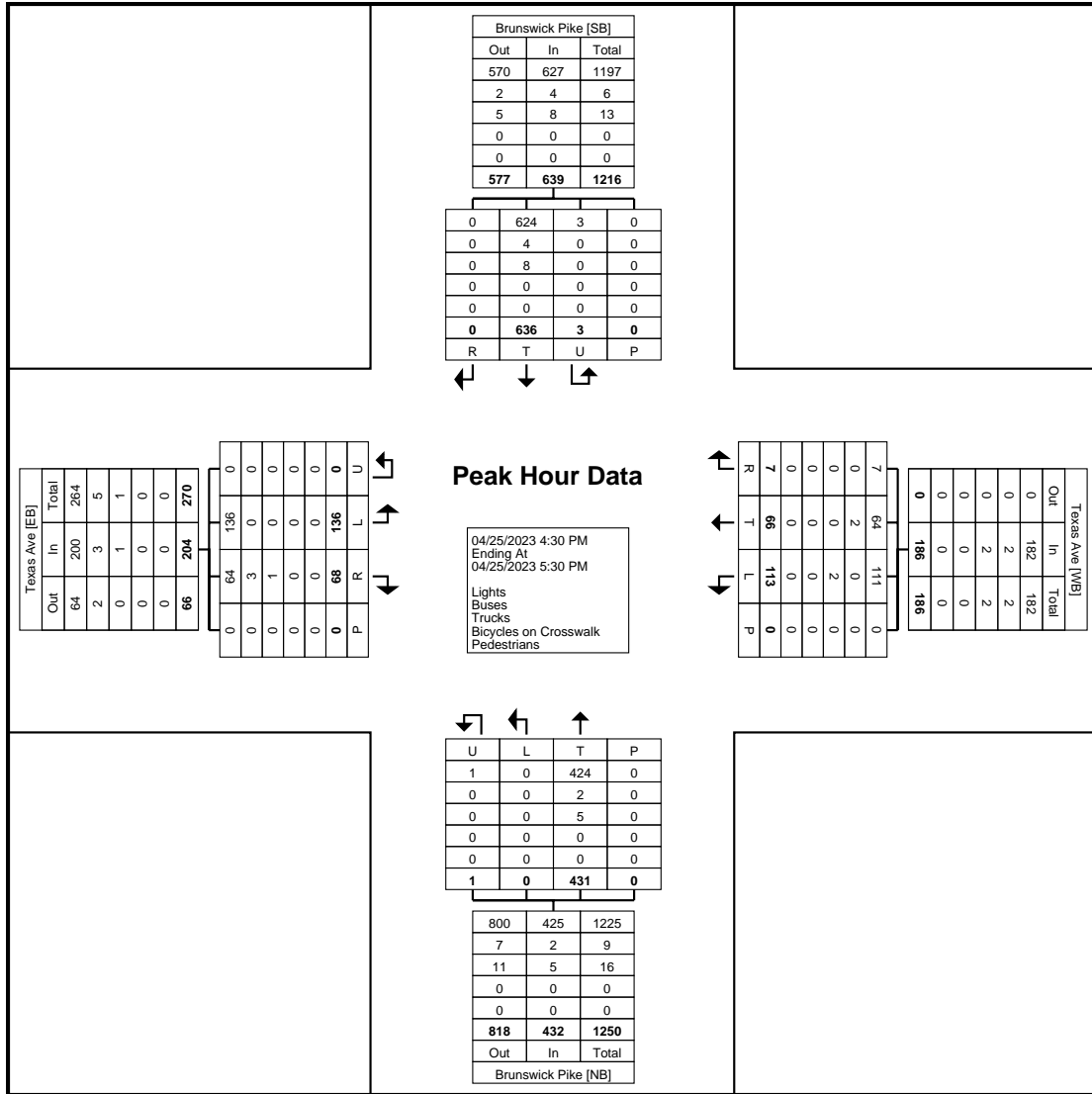


Turning Movement Data Plot



Turning Movement Peak Hour Data Plot (7:15 AM)

Lawrence, NJ
Brunswick Pike & Texas Ave
Tuesday, April 25, 2023
Location: 40.259806, -
74.724597



Turning Movement Peak Hour Data Plot (4:30 PM)



Lawrence, NJ
 Rear Connection Between
 Existing Site & Adjacent Site
 Saturday, April 22, 2023
 Location: 40.259437, -
 74.723584

www.TSTData.com
 184 Baker Rd

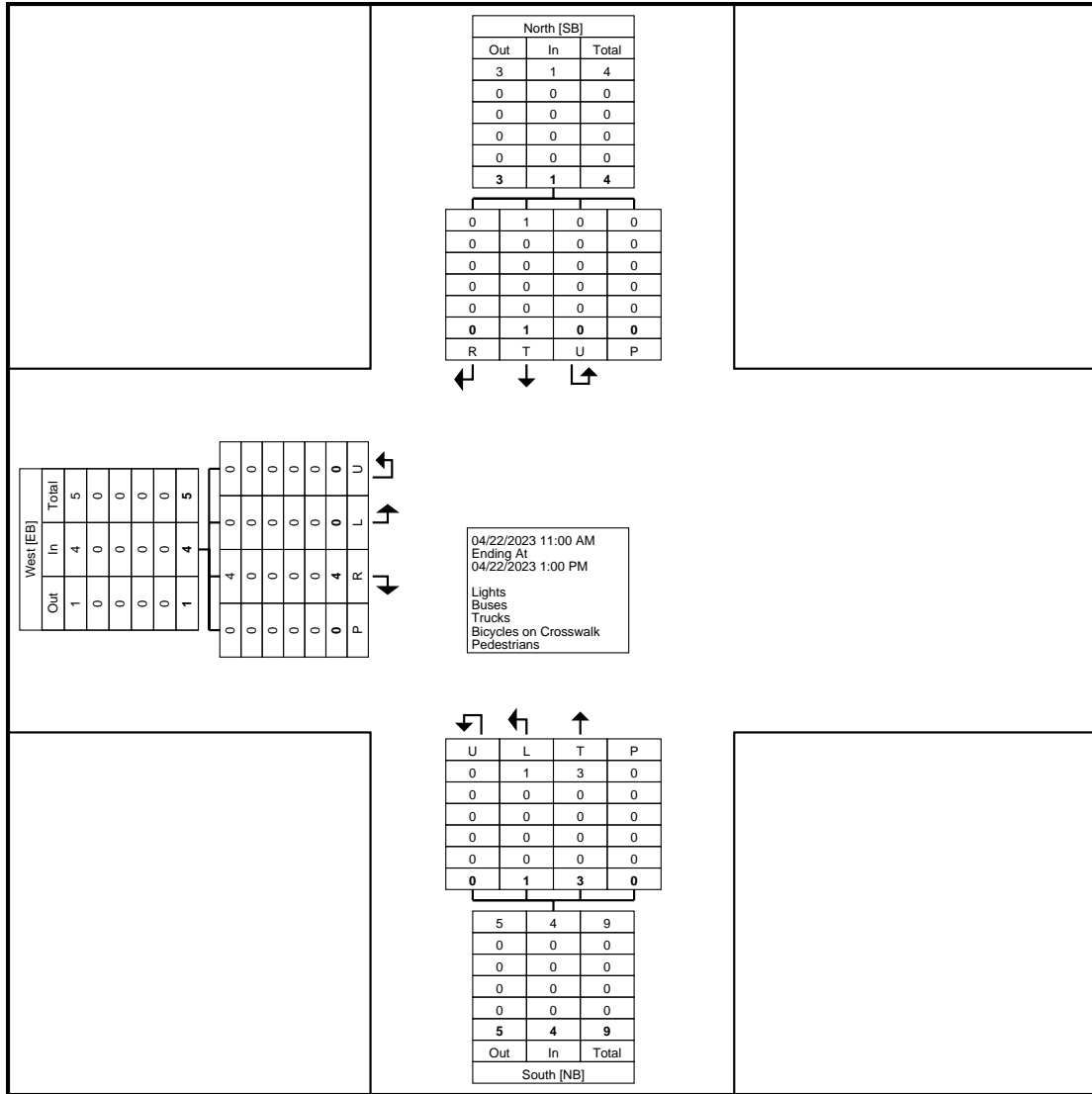
Coatesville, Pennsylvania, United States 19320
 610-466-1469
 Serving Transportation Professionals Since 1995

Count Name: Rear Connection
 Between Existing Site and
 Adjacent Site (4/22)
 Site Code:
 Start Date: 04/22/2023
 Page No: 1

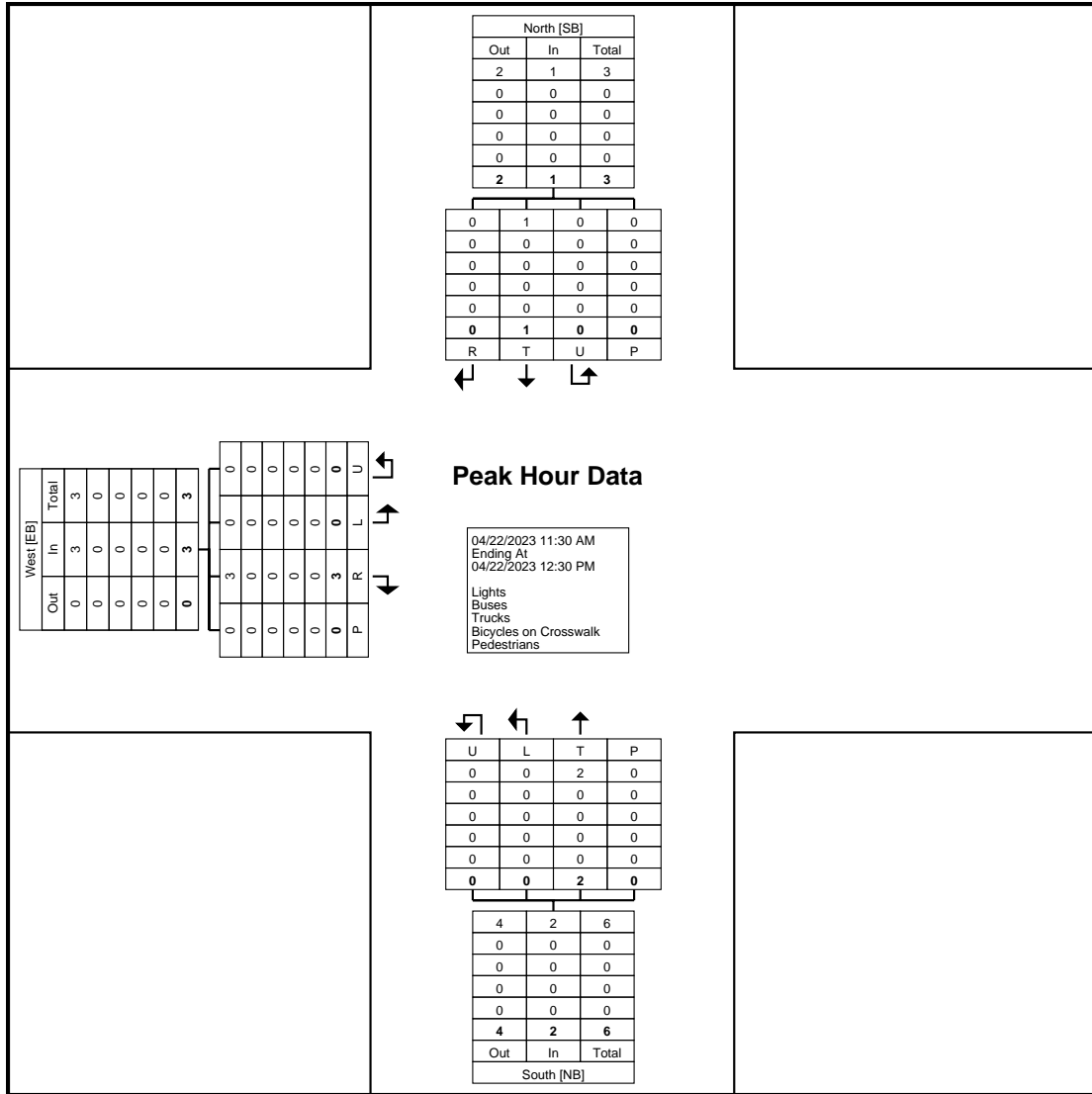
Turning Movement Data

Start Time	West Eastbound					South Northbound					North Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
Hourly Total	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	3
12:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
12:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	1	1	1	0	0	2	0	0	0	0	0	3
Hourly Total	0	3	0	0	3	1	2	0	0	3	0	0	0	0	0	6
Grand Total	0	4	0	0	4	1	3	0	0	4	1	0	0	0	1	9
Approach %	0.0	100.0	0.0	-	-	25.0	75.0	0.0	-	-	100.0	0.0	0.0	-	-	-
Total %	0.0	44.4	0.0	-	44.4	11.1	33.3	0.0	-	44.4	11.1	0.0	0.0	-	11.1	-
Lights	0	4	0	-	4	1	3	0	-	4	1	0	0	-	1	9
% Lights	-	100.0	-	-	100.0	100.0	100.0	-	-	100.0	100.0	-	-	-	100.0	100.0
Buses	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
Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Trucks	-	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lawrence, NJ
Rear Connection Between
Existing Site & Adjacent Site
Saturday, April 22, 2023
Location: 40.259437, -
74.723584



Turning Movement Data Plot



Turning Movement Peak Hour Data Plot (11:30 AM)



Lawrence, NJ
 Rear Connection Between
 Existing Site and Adjacent Site
 Tuesday, April 25, 2023
 Location: 40.259437, -
 74.723584

www.TSTData.com
 184 Baker Rd

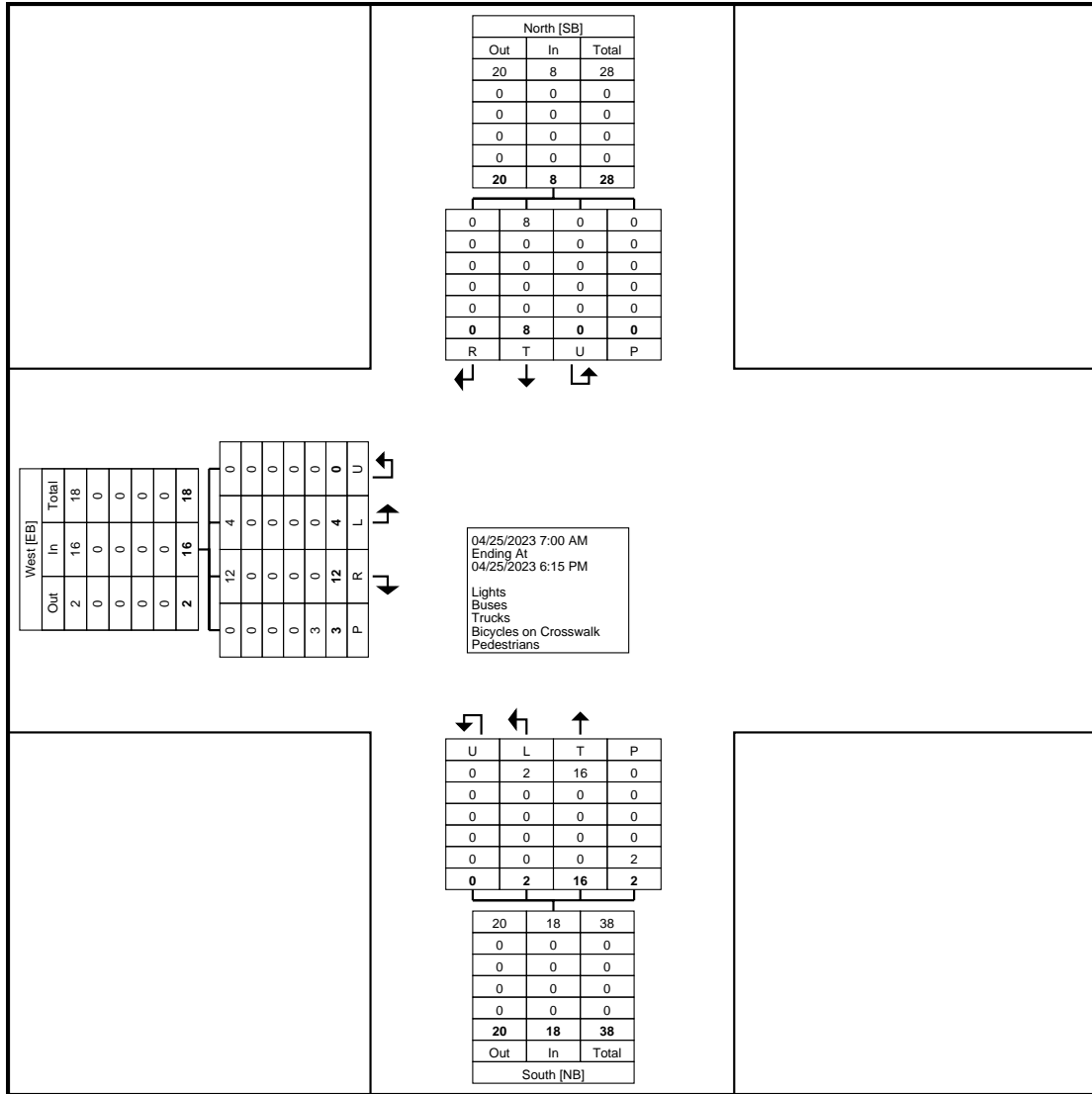
Coatesville, Pennsylvania, United States 19320
 610-466-1469
 Serving Transportation Professionals Since 1995

Count Name: Rear Connection
 Between Existing Site and
 Adjacent Site (4/25)
 Site Code:
 Start Date: 04/25/2023
 Page No: 1

Turning Movement Data

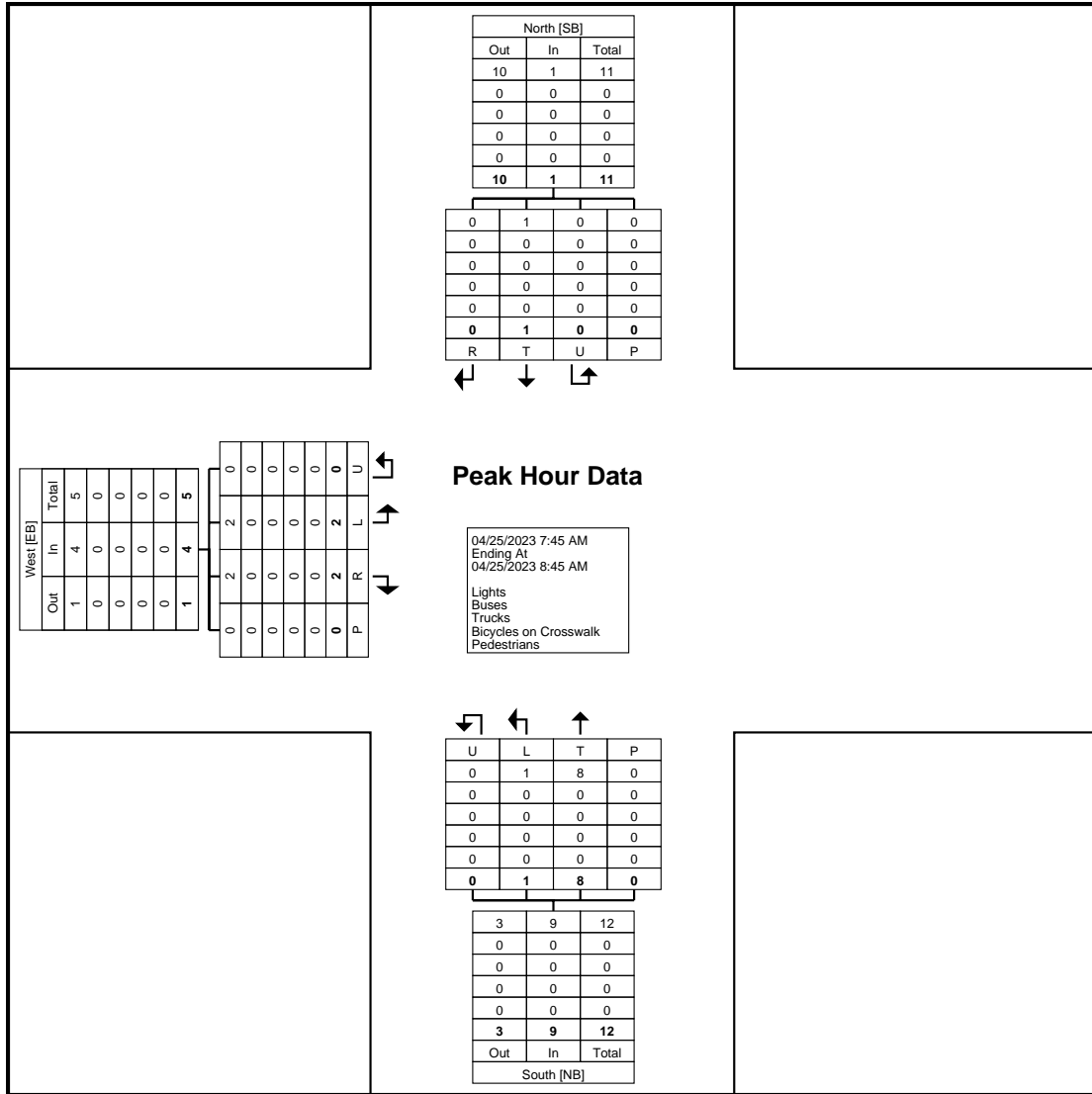
Start Time	West Eastbound					South Northbound					North Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	4
Hourly Total	0	2	0	0	2	1	4	0	0	5	0	0	0	0	0	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	5
8:30 AM	0	2	0	0	2	0	2	0	0	2	1	0	0	0	1	5
8:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	3	2	0	0	5	0	5	0	0	5	1	0	0	0	1	11
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
4:00 PM	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	1	2	0	0	3	1	0	0	0	1	4
4:30 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Hourly Total	0	3	0	2	3	1	3	0	1	4	2	0	0	0	2	9
5:00 PM	0	2	0	0	2	0	1	0	0	1	1	0	0	0	1	4
5:15 PM	0	2	0	1	2	0	1	0	1	1	2	0	0	0	2	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	1	0	0	2	0	2	0	0	2	2	0	0	0	2	6
Hourly Total	1	5	0	1	6	0	4	0	1	4	5	0	0	0	5	15
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	4	12	0	3	16	2	16	0	2	18	8	0	0	0	8	42
Approach %	25.0	75.0	0.0	-	-	11.1	88.9	0.0	-	-	100.0	0.0	0.0	-	-	-
Total %	9.5	28.6	0.0	-	38.1	4.8	38.1	0.0	-	42.9	19.0	0.0	0.0	-	19.0	-
Lights	4	12	0	-	16	2	16	0	-	18	8	0	0	-	8	42
% Lights	100.0	100.0	-	-	100.0	100.0	100.0	-	-	100.0	100.0	-	-	-	100.0	100.0
Buses	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	0.0
Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	3	-	-	-	-	2	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-

Lawrence, NJ
Rear Connection Between
Existing Site and Adjacent Site
Tuesday, April 25, 2023
Location: 40.259437, -
74.723584



Turning Movement Data Plot

Lawrence, NJ
Rear Connection Between
Existing Site and Adjacent Site
Tuesday, April 25, 2023
Location: 40.259437, -
74.723584



Turning Movement Peak Hour Data Plot (7:45 AM)



Lawrence, NJ
 Rear Connection Between
 Existing Site and Adjacent Site
 Tuesday, April 25, 2023
 Location: 40.259437, -
 74.723584

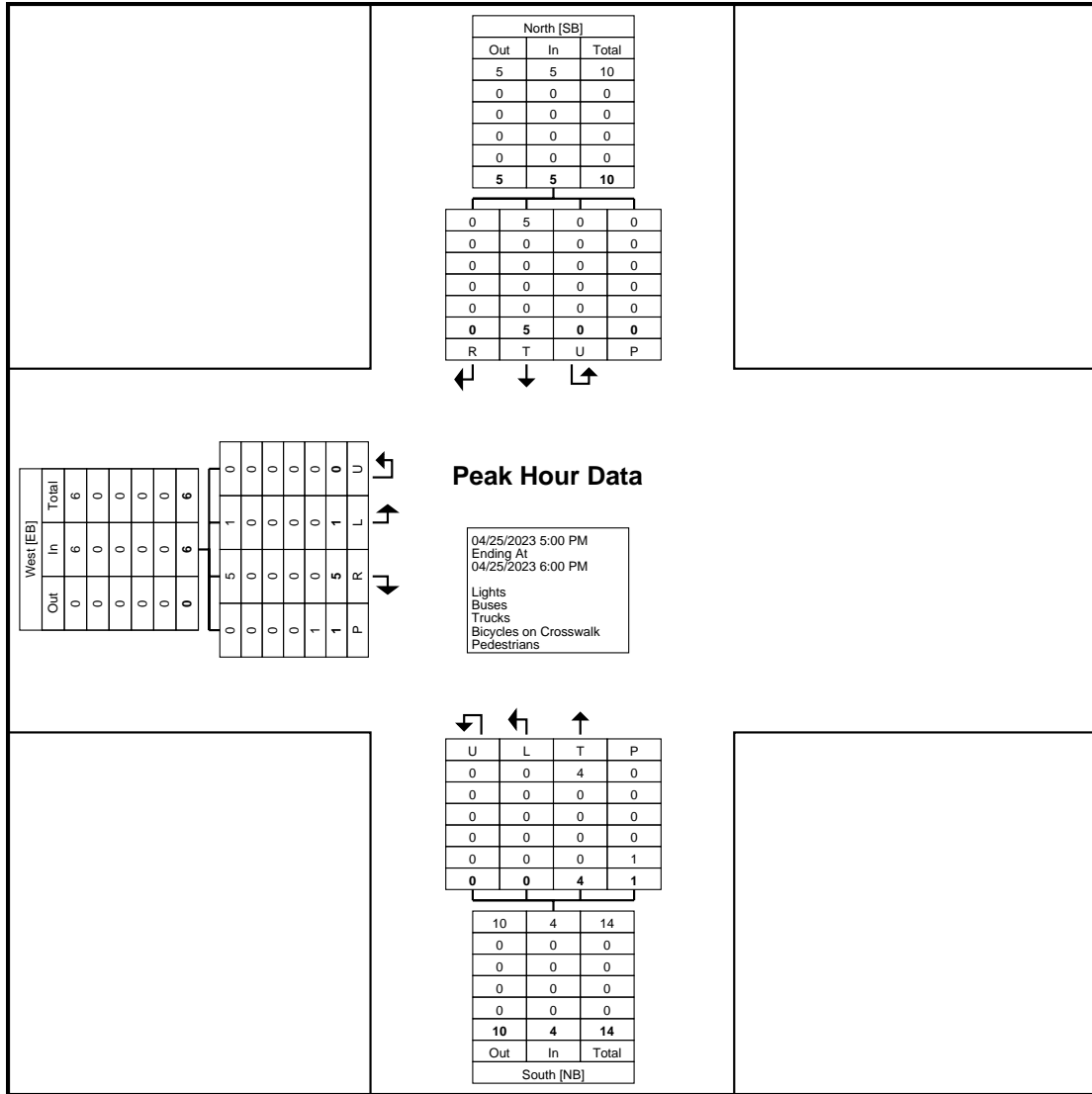
www.TSTData.com
 184 Baker Rd

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

Count Name: Rear Connection
 Between Existing Site and
 Adjacent Site (4/25)
 Site Code:
 Start Date: 04/25/2023
 Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	West Eastbound					South Northbound					North Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
5:00 PM	0	2	0	0	2	0	1	0	0	1	1	0	0	0	1	4
5:15 PM	0	2	0	1	2	0	1	0	1	1	2	0	0	0	2	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	1	0	0	2	0	2	0	0	2	2	0	0	0	2	6
Total	1	5	0	1	6	0	4	0	1	4	5	0	0	0	5	15
Approach %	16.7	83.3	0.0	-	-	0.0	100.0	0.0	-	-	100.0	0.0	0.0	-	-	-
Total %	6.7	33.3	0.0	-	40.0	0.0	26.7	0.0	-	26.7	33.3	0.0	0.0	-	33.3	-
PHF	0.250	0.625	0.000	-	0.750	0.000	0.500	0.000	-	0.500	0.625	0.000	0.000	-	0.625	0.625
Lights	1	5	0	-	6	0	4	0	-	4	5	0	0	-	5	15
% Lights	100.0	100.0	-	-	100.0	-	100.0	-	-	100.0	100.0	-	-	-	100.0	100.0
Buses	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
Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Trucks	0.0	0.0	-	-	0.0	-	0.0	-	-	0.0	0.0	-	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	0.0	-	-	-	-	0.0	-	-	-	-	-	-	-
Pedestrians	-	-	-	1	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (5:00 PM)



www.TSTData.com
184 Baker Rd

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

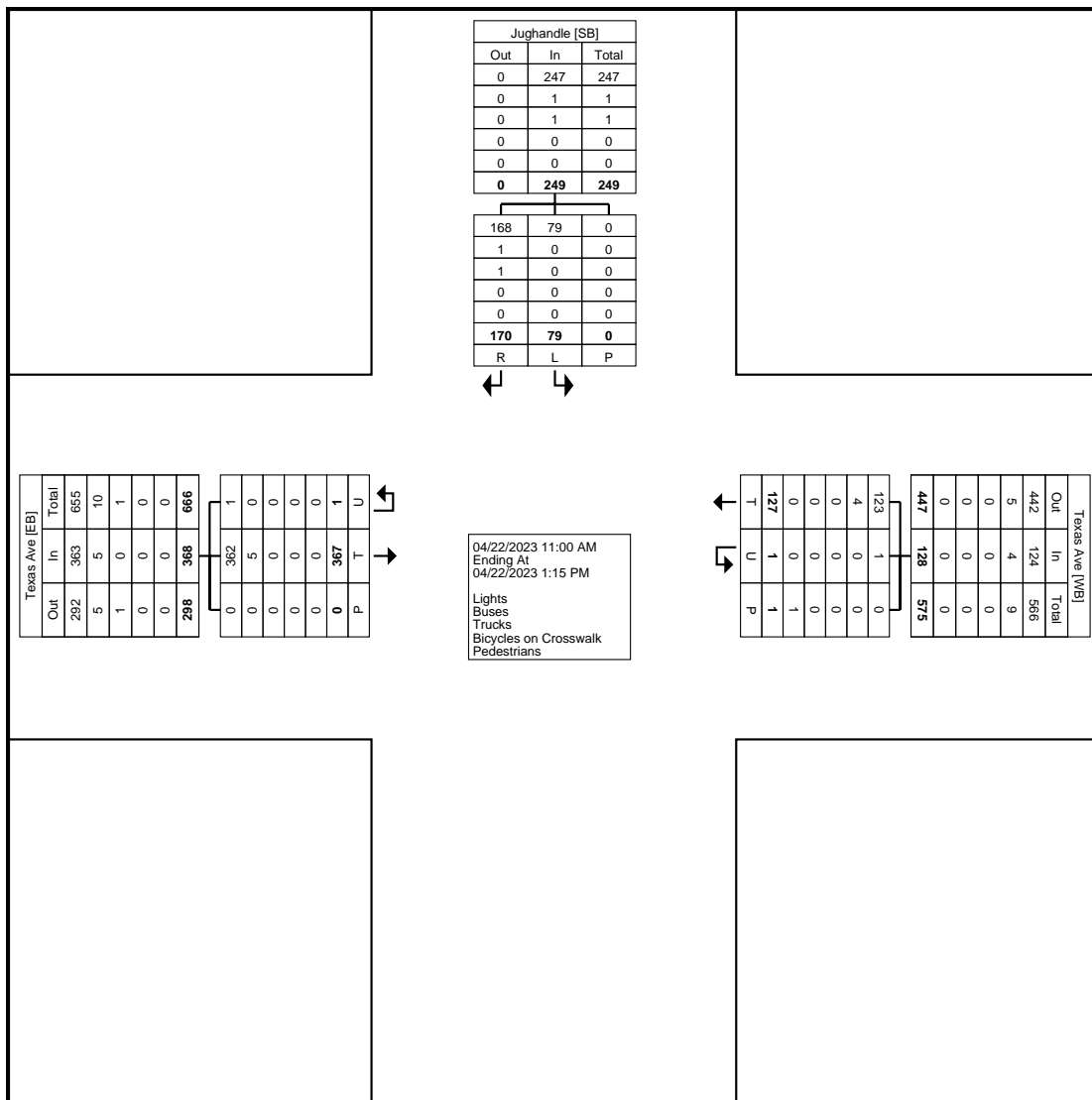
Count Name: Texas Ave &
Jughandle (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 1

Lawrence, NJ
Texas Ave & Jughandle
Saturday, April 22, 2023
Location: 40.259903, -
74.725013

Turning Movement Data

Start Time	Texas Ave Eastbound				Texas Ave Westbound				Jughandle Southbound				Int. Total
	Thru	U-Turn	Peds	App. Total	Thru	U-Turn	Peds	App. Total	Left	Right	Peds	App. Total	
11:00 AM	39	0	0	39	14	1	0	15	17	24	0	41	95
11:15 AM	43	0	0	43	19	0	1	19	14	25	0	39	101
11:30 AM	42	0	0	42	14	0	0	14	10	20	0	30	86
11:45 AM	48	0	0	48	15	0	0	15	10	18	0	28	91
Hourly Total	172	0	0	172	62	1	1	63	51	87	0	138	373
12:00 PM	48	0	0	48	17	0	0	17	4	20	0	24	89
12:15 PM	58	0	0	58	17	0	0	17	7	23	0	30	105
12:30 PM	39	0	0	39	14	0	0	14	6	15	0	21	74
12:45 PM	50	1	0	51	17	0	0	17	11	25	0	36	104
Hourly Total	195	1	0	196	65	0	0	65	28	83	0	111	372
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	367	1	0	368	127	1	1	128	79	170	0	249	745
Approach %	99.7	0.3	-	-	99.2	0.8	-	-	31.7	68.3	-	-	-
Total %	49.3	0.1	-	49.4	17.0	0.1	-	17.2	10.6	22.8	-	33.4	-
Lights	362	1	-	363	123	1	-	124	79	168	-	247	734
% Lights	98.6	100.0	-	98.6	96.9	100.0	-	96.9	100.0	98.8	-	99.2	98.5
Buses	5	0	-	5	4	0	-	4	0	1	-	1	10
% Buses	1.4	0.0	-	1.4	3.1	0.0	-	3.1	0.0	0.6	-	0.4	1.3
Trucks	0	0	-	0	0	0	-	0	0	1	-	1	1
% Trucks	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.6	-	0.4	0.1
Bicycles on Crosswalk	-	-	0	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	0.0	-	-	-	-	-	-
Pedestrians	-	-	0	-	-	-	1	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	100.0	-	-	-	-	-	-

Lawrence, NJ
Texas Ave & Jughandle
Saturday, April 22, 2023
Location: 40.259903, -
74.725013



Turning Movement Data Plot



www.TSTData.com
184 Baker Rd

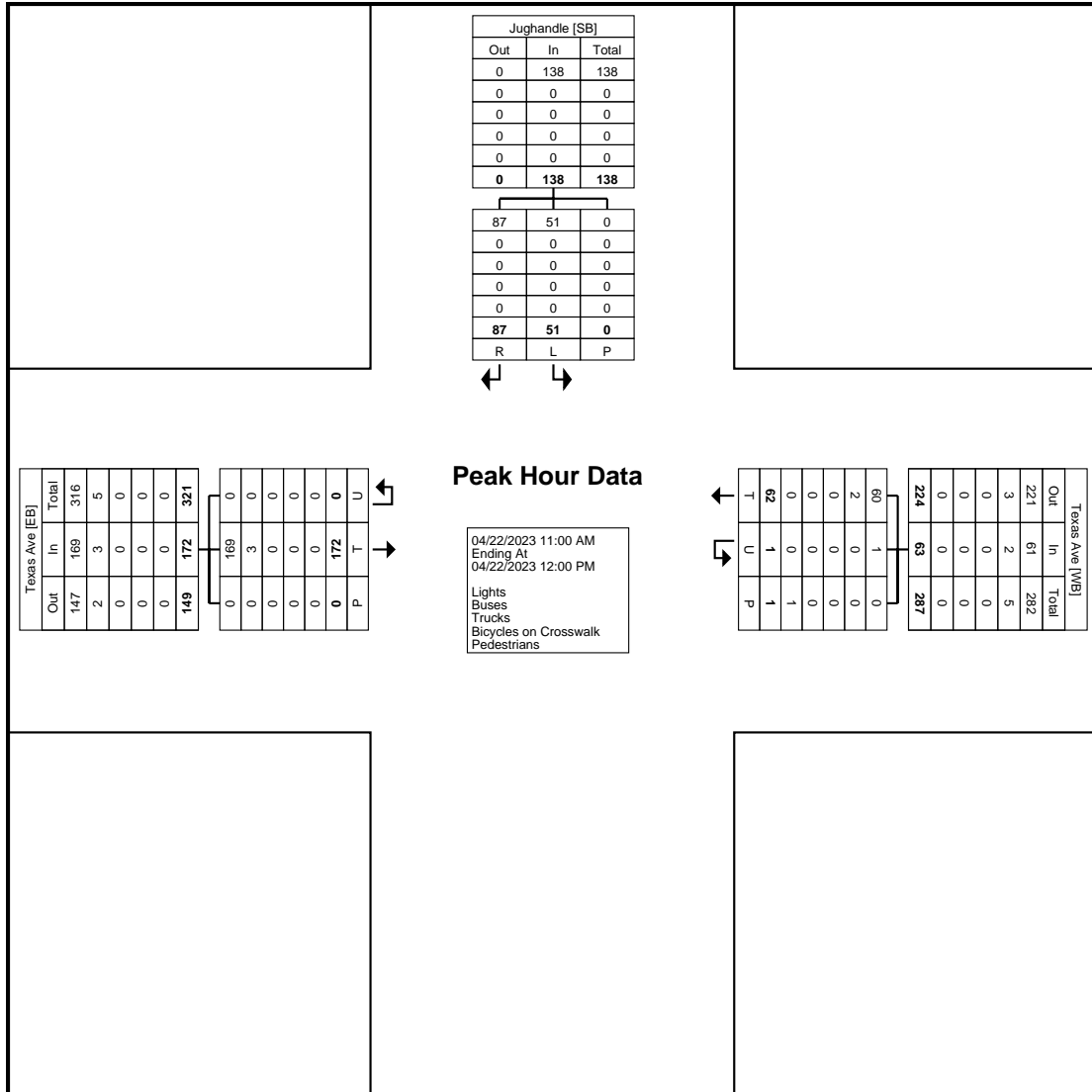
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Texas Ave &
Jughandle (4/22)
Site Code:
Start Date: 04/22/2023
Page No: 3

Lawrence, NJ
Texas Ave & Jughandle
Saturday, April 22, 2023
Location: 40.259903, -
74.725013

Turning Movement Peak Hour Data (11:00 AM)

Start Time	Texas Ave Eastbound				Texas Ave Westbound				Jughandle Southbound				Int. Total
	Thru	U-Turn	Peds	App. Total	Thru	U-Turn	Peds	App. Total	Left	Right	Peds	App. Total	
11:00 AM	39	0	0	39	14	1	0	15	17	24	0	41	95
11:15 AM	43	0	0	43	19	0	1	19	14	25	0	39	101
11:30 AM	42	0	0	42	14	0	0	14	10	20	0	30	86
11:45 AM	48	0	0	48	15	0	0	15	10	18	0	28	91
Total	172	0	0	172	62	1	1	63	51	87	0	138	373
Approach %	100.0	0.0	-	-	98.4	1.6	-	-	37.0	63.0	-	-	-
Total %	46.1	0.0	-	46.1	16.6	0.3	-	16.9	13.7	23.3	-	37.0	-
PHF	0.896	0.000	-	0.896	0.816	0.250	-	0.829	0.750	0.870	-	0.841	0.923
Lights	169	0	-	169	60	1	-	61	51	87	-	138	368
% Lights	98.3	-	-	98.3	96.8	100.0	-	96.8	100.0	100.0	-	100.0	98.7
Buses	3	0	-	3	2	0	-	2	0	0	-	0	5
% Buses	1.7	-	-	1.7	3.2	0.0	-	3.2	0.0	0.0	-	0.0	1.3
Trucks	0	0	-	0	0	0	-	0	0	0	-	0	0
% Trucks	0.0	-	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	0	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	0.0	-	-	-	-	-	-
Pedestrians	-	-	0	-	-	-	1	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	100.0	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (11:00 AM)



www.TSTData.com
184 Baker Rd

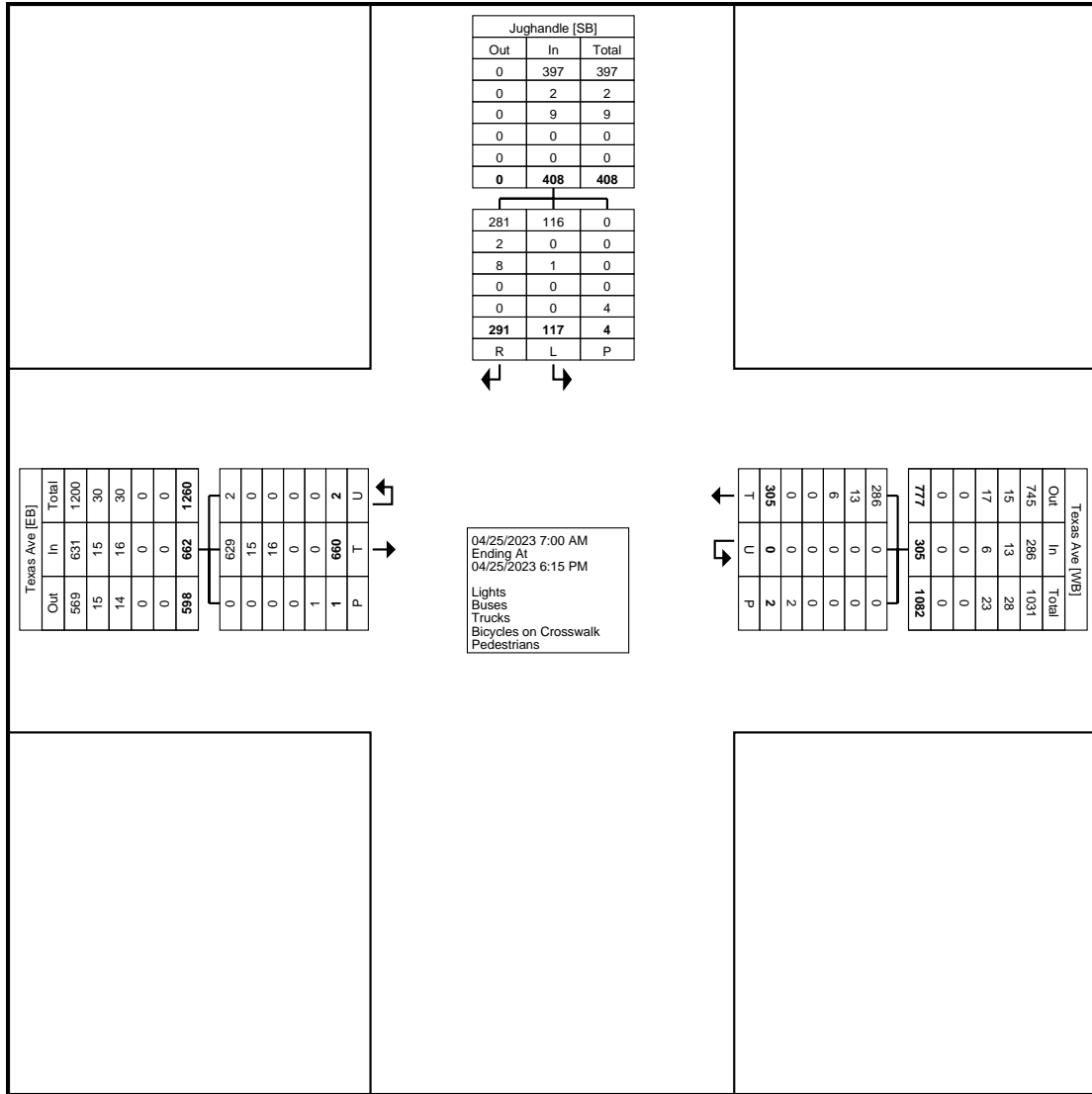
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Texas Ave &
Jughandle (4/25)
Site Code:
Start Date: 04/25/2023
Page No: 1

Lawrence, NJ
Texas Ave & Jughandle
Tuesday, April 25, 2023
Location: 40.259903, -
74.725013

Turning Movement Data

Start Time	Texas Ave Eastbound				Texas Ave Westbound				Jughandle Southbound				Int. Total
	Thru	U-Turn	Peds	App. Total	Thru	U-Turn	Peds	App. Total	Left	Right	Peds	App. Total	
7:00 AM	23	0	0	23	11	0	0	11	3	14	0	17	51
7:15 AM	45	0	0	45	48	0	0	48	2	22	0	24	117
7:30 AM	61	1	1	62	27	0	0	27	3	24	1	27	116
7:45 AM	47	0	0	47	19	0	0	19	4	8	0	12	78
Hourly Total	176	1	1	177	105	0	0	105	12	68	1	80	362
8:00 AM	35	0	0	35	15	0	0	15	12	6	0	18	68
8:15 AM	39	0	0	39	15	0	0	15	5	13	1	18	72
8:30 AM	32	0	0	32	13	0	0	13	9	8	0	17	62
8:45 AM	36	0	0	36	17	0	1	17	6	8	0	14	67
Hourly Total	142	0	0	142	60	0	1	60	32	35	1	67	269
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	40	0	0	40	15	0	0	15	5	18	0	23	78
4:15 PM	30	0	0	30	16	0	1	16	11	30	0	41	87
4:30 PM	47	0	0	47	18	0	0	18	7	27	0	34	99
4:45 PM	38	0	0	38	17	0	0	17	10	17	1	27	82
Hourly Total	155	0	0	155	66	0	1	66	33	92	1	125	346
5:00 PM	43	1	0	44	27	0	0	27	5	25	1	30	101
5:15 PM	49	0	0	49	20	0	0	20	10	27	0	37	106
5:30 PM	43	0	0	43	11	0	0	11	12	25	0	37	91
5:45 PM	52	0	0	52	16	0	0	16	13	19	0	32	100
Hourly Total	187	1	0	188	74	0	0	74	40	96	1	136	398
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	660	2	1	662	305	0	2	305	117	291	4	408	1375
Approach %	99.7	0.3	-	-	100.0	0.0	-	-	28.7	71.3	-	-	-
Total %	48.0	0.1	-	48.1	22.2	0.0	-	22.2	8.5	21.2	-	29.7	-
Lights	629	2	-	631	286	0	-	286	116	281	-	397	1314
% Lights	95.3	100.0	-	95.3	93.8	-	-	93.8	99.1	96.6	-	97.3	95.6
Buses	15	0	-	15	13	0	-	13	0	2	-	2	30
% Buses	2.3	0.0	-	2.3	4.3	-	-	4.3	0.0	0.7	-	0.5	2.2
Trucks	16	0	-	16	6	0	-	6	1	8	-	9	31
% Trucks	2.4	0.0	-	2.4	2.0	-	-	2.0	0.9	2.7	-	2.2	2.3
Bicycles on Crosswalk	-	-	0	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	0.0	-	-	-	0.0	-	-	-	0.0	-	-
Pedestrians	-	-	1	-	-	-	2	-	-	-	4	-	-
% Pedestrians	-	-	100.0	-	-	-	100.0	-	-	-	100.0	-	-



Turning Movement Data Plot



www.TSTData.com
184 Baker Rd

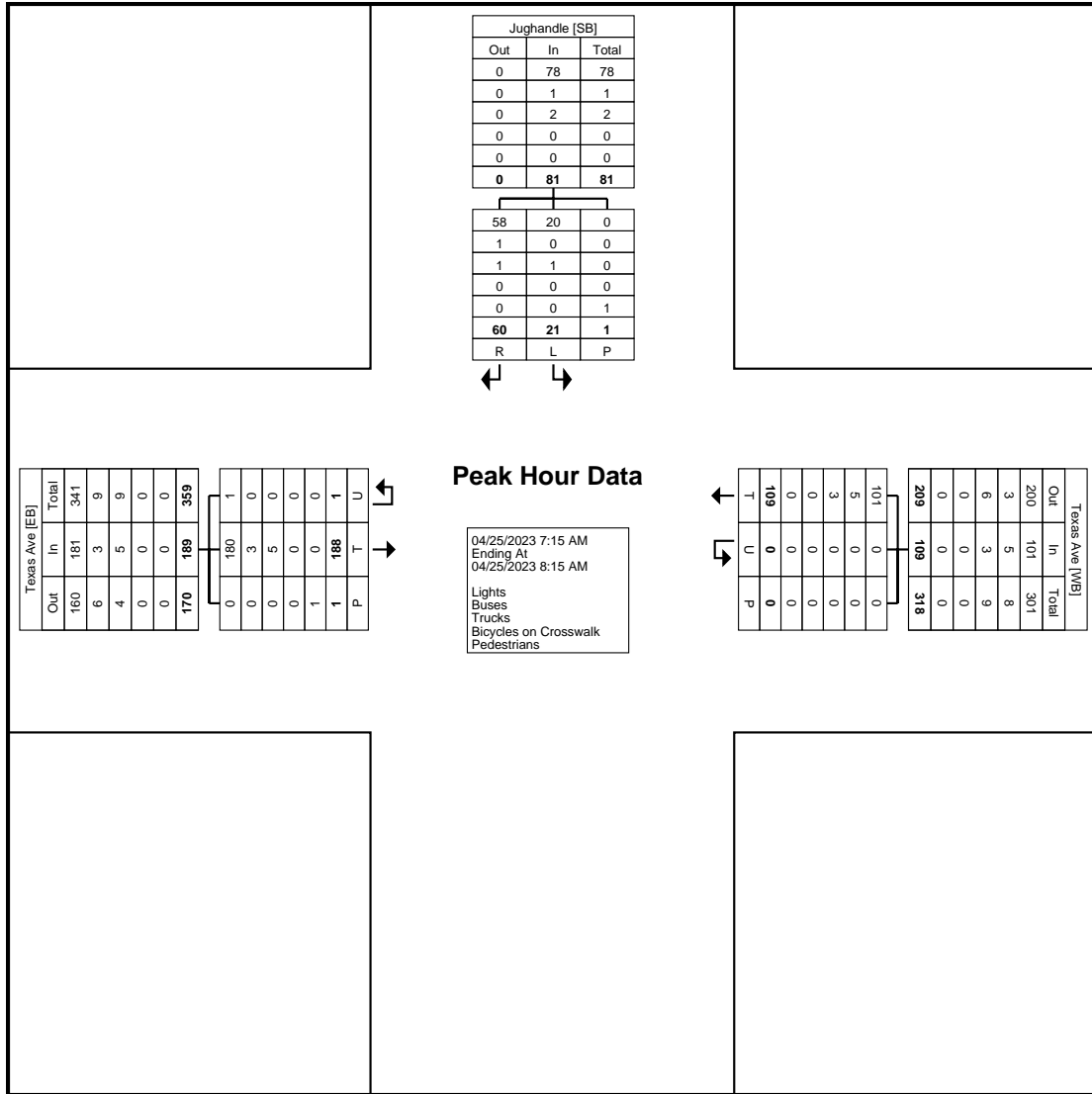
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Texas Ave &
Jughandle (4/25)
Site Code:
Start Date: 04/25/2023
Page No: 3

Lawrence, NJ
Texas Ave & Jughandle
Tuesday, April 25, 2023
Location: 40.259903, -
74.725013

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Texas Ave Eastbound				Texas Ave Westbound				Jughandle Southbound				Int. Total
	Thru	U-Turn	Peds	App. Total	Thru	U-Turn	Peds	App. Total	Left	Right	Peds	App. Total	
7:15 AM	45	0	0	45	48	0	0	48	2	22	0	24	117
7:30 AM	61	1	1	62	27	0	0	27	3	24	1	27	116
7:45 AM	47	0	0	47	19	0	0	19	4	8	0	12	78
8:00 AM	35	0	0	35	15	0	0	15	12	6	0	18	68
Total	188	1	1	189	109	0	0	109	21	60	1	81	379
Approach %	99.5	0.5	-	-	100.0	0.0	-	-	25.9	74.1	-	-	-
Total %	49.6	0.3	-	49.9	28.8	0.0	-	28.8	5.5	15.8	-	21.4	-
PHF	0.770	0.250	-	0.762	0.568	0.000	-	0.568	0.438	0.625	-	0.750	0.810
Lights	180	1	-	181	101	0	-	101	20	58	-	78	360
% Lights	95.7	100.0	-	95.8	92.7	-	-	92.7	95.2	96.7	-	96.3	95.0
Buses	3	0	-	3	5	0	-	5	0	1	-	1	9
% Buses	1.6	0.0	-	1.6	4.6	-	-	4.6	0.0	1.7	-	1.2	2.4
Trucks	5	0	-	5	3	0	-	3	1	1	-	2	10
% Trucks	2.7	0.0	-	2.6	2.8	-	-	2.8	4.8	1.7	-	2.5	2.6
Bicycles on Crosswalk	-	-	0	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	0.0	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	1	-	-	-	0	-	-	-	1	-	-
% Pedestrians	-	-	100.0	-	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (7:15 AM)



www.TSTData.com
184 Baker Rd

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

Count Name: Texas Ave &
Jughandle (4/25)
Site Code:
Start Date: 04/25/2023
Page No: 5

Lawrence, NJ
Texas Ave & Jughandle
Tuesday, April 25, 2023
Location: 40.259903, -
74.725013

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Texas Ave Eastbound				Texas Ave Westbound				Jughandle Southbound				Int. Total
	Thru	U-Turn	Peds	App. Total	Thru	U-Turn	Peds	App. Total	Left	Right	Peds	App. Total	
5:00 PM	43	1	0	44	27	0	0	27	5	25	1	30	101
5:15 PM	49	0	0	49	20	0	0	20	10	27	0	37	106
5:30 PM	43	0	0	43	11	0	0	11	12	25	0	37	91
5:45 PM	52	0	0	52	16	0	0	16	13	19	0	32	100
Total	187	1	0	188	74	0	0	74	40	96	1	136	398
Approach %	99.5	0.5	-	-	100.0	0.0	-	-	29.4	70.6	-	-	-
Total %	47.0	0.3	-	47.2	18.6	0.0	-	18.6	10.1	24.1	-	34.2	-
PHF	0.899	0.250	-	0.904	0.685	0.000	-	0.685	0.769	0.889	-	0.919	0.939
Lights	183	1	-	184	71	0	-	71	40	96	-	136	391
% Lights	97.9	100.0	-	97.9	95.9	-	-	95.9	100.0	100.0	-	100.0	98.2
Buses	4	0	-	4	3	0	-	3	0	0	-	0	7
% Buses	2.1	0.0	-	2.1	4.1	-	-	4.1	0.0	0.0	-	0.0	1.8
Trucks	0	0	-	0	0	0	-	0	0	0	-	0	0
% Trucks	0.0	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	0	-	-	-	0	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	0	-	-	-	0	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-

1103102

Directive No. 19-10
Route US 1B & Darrah Lane,
Township of Lawrence, Mercer County

PHASE	SIGNAL INDICATIONS		TIME IN SECONDS				
	<u>1-4, 9-12, 15-18</u>	<u>5-8, 13, 14</u>	Plan I	Plan II	Plan III	Plan IV	Plan V
Cycle Length			115 sec	105 sec	125 sec	65-115 sec	115 sec
A) Route US 1B ROW			94-44	84-56	104-73	44	94-57
Change	G	R	6*	6*	6*	6	6*
Clearance	R	R	2	2	2	2	2
B) Darrah Lane ROW			7-57	7-35	7-38	7-57	7-44
Change	R	G	3	3	3	3	3
Clearance	R	Y	3	3	3	3	3
Emergency Flashing Operation	Y	R	-	-	-	-	-
* Offsets	-	-	5	24	52	-	16

NOTES:

The controller shall rest in Phase A green, and shall have the capacity to skip unactuated phases.

The manual control cord is to be removed.

The vehicular memory is to be off.

The vehicle extension is to be 2.0 seconds for Phase B.

Pedestrian actuation is to provide a minimum of 21 seconds of green time to Phase B.

*Offsets are to be measured from the beginning of yellow to Route US 1B traffic at Route US 1B and Slack Avenue - Cherry Tree Lane to the beginning of yellow to Route US 1B traffic at this intersection.

Hours of Operation

Plan I - 7:00 am - 9:00 am, Monday - Friday

Plan II - 3:00 pm - 7:30 pm, Monday - Friday

Plan III - 9:00 am - 9:00 pm, Saturday, Sunday

Plan IV - 10:00 pm - 6:00 am, Daily

Plan V - All other times

1103101d

Directive Number: 20-10

Effective: 4/20/2010

Route US 1B and Texas Avenue
Lawrence Township, Mercer County

Phase (Cycle Length)	Signal Indications				Time (In Seconds)				
	2-7	9, 10	11, 12	14, 15	Plan I (115 Sec.)	Plan II (105 Sec.)	Plan III (125 Sec.)	Plan IV (67-125 Sec.)	Plan V (115 Sec.)
NORMAL OPERATION									
A) Route US 1B ROW	G	R	R	DW	81 – 39	71 – 33	91 – 39	33	81 – 39
Change	Y	R	R	DW	5*	5*	5*	5	5*
Clearance	R	R	R	DW	2	2	2	2	2
B) Jughandle ROW	R	G	R	DW	7 – 29	7 – 36	7 – 30	7 – 36	7 – 28
Change	R	Y	R	DW	3	3	3	3	3
Clearance	R	R	R	DW	4	4	4	4	4
C) Texas Avenue ROW	R	R	G	DW	7 – 27	7 – 16	7 – 36	7 – 36	7 – 28
Change	R	R	Y	DW	3	3	3	3	3
Clearance	R	R	R	DW	3	3	3	3	3
WITH PEDESTRIAN ACTUATION									
A) Route US 1B ROW	G	R	R	DW	64 – 39	54 – 33	74 – 39	33	64 – 39
Change	Y	R	R	DW	5*	5*	5*	5	5*
Clearance	R	R	R	DW	2	2	2	2	2
B) Jughandle ROW	R	G	R	W	7	7	7	7	7
Pedestrian Clearance	R	G	R	FDW	17	17	17	17	17
Vehicle Extension	R	G	R	DW	0 – 5	0 – 12	0 – 6	0 – 12	0 – 4
Change	R	Y	R	DW	3	3	3	3	3
Clearance	R	R	R	DW	4	4	4	4	4
C) Texas Avenue ROW	R	R	G	DW	7 – 27	7 – 16	7 – 36	7 – 36	7 – 28
Change	R	R	Y	DW	3	3	3	3	3
Clearance	R	R	R	DW	3	3	3	3	3
Emergency Flashing Operation	Y	R	R	DARK	-	-	-	-	-
*Offsets	-	-	-	-	5	18	16	-	6

NOTES:

Traffic signal fixture Nos. 1, 8 and 13 are not being used on this timing directive and are not shown on the current traffic plan.

The controller shall rest in Phase A green and shall have the capacity to skip unactuated phases.

The manual control cord is to be removed.

The vehicular memory is to be off.

The vehicle extension is to be 2.0 seconds for Phases B and C.

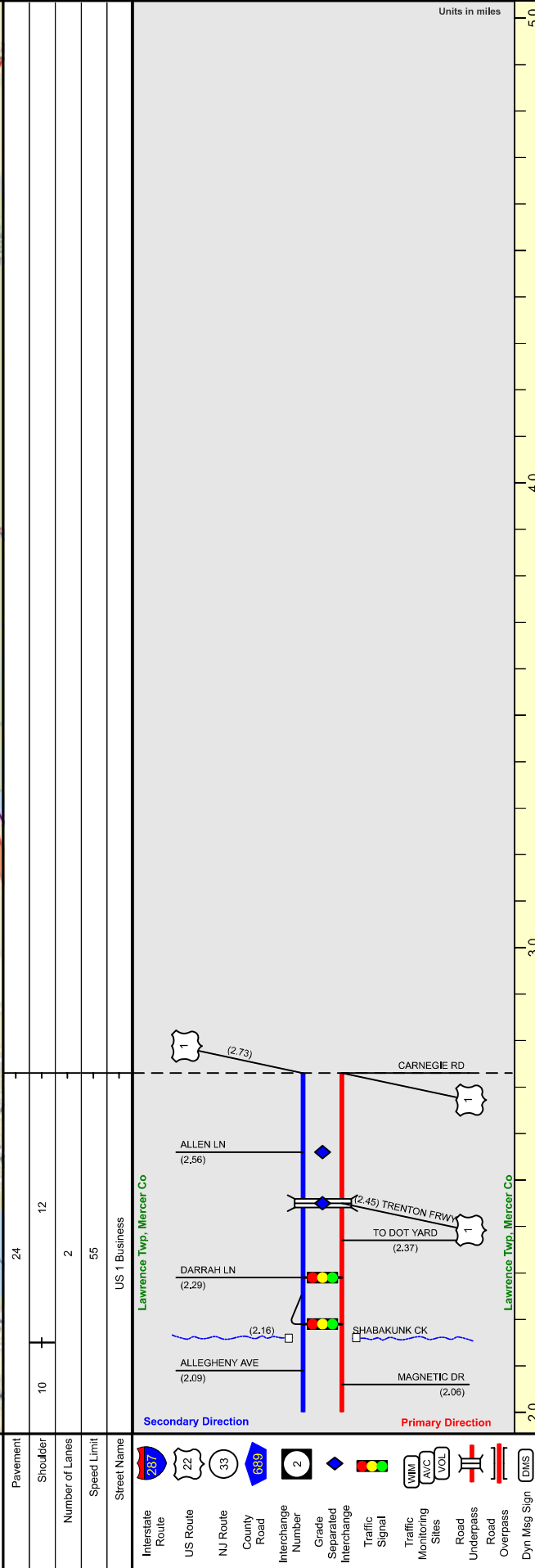
*Offsets are to be measured from the beginning of yellow to Route US 1B traffic at Route US 1B and Slack Avenue / Cherry Tree Lane to the beginning of yellow to Route US 1B traffic at this intersection.

HOURS OF OPERATION:

- Plan I: 7:00 A.M. – 9:00 A.M., Monday – Friday
- Plan II: 3:00 P.M. – 7:30 P.M., Monday – Friday
- Plan III: 9:00 A.M. – 9:00 P.M., Saturday and Sunday
- Plan IV: 10:00 P.M. – 6:00 A.M., Daily
- Plan V: All Other Times

Mile Posts: 2.000 - 2.730

US 1 BUSINESS (South to North)



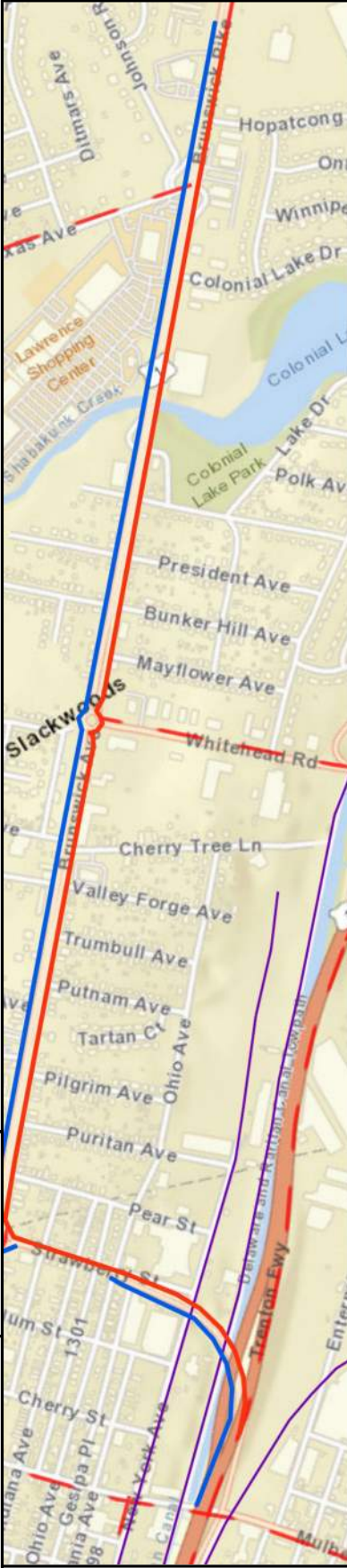
Pavement	24
Shoulder	10
Number of Lanes	12
Speed Limit	55
Street Name	US 1 Business
Interstate Route	287
US Route	22
NJ Route	33
County Road	689
Interchange Number	2
Grade Separated Interchange	1
Traffic Signal	1
Traffic Monitoring Sites	WIM, AV/C, VOL
Road Underpass	1
Road Overpass	1
Dyn Msg Sign	DMS
Street Name	US 1 Business
Jurisdiction	N.J.I.D.O.T.
Functional Class	Urban Principal Arterial
Federal Aid - NHS Sy	NHS
Control Section	1141
Speed Limit	55
Number of Lanes	2
Med. Type	Positive
Med. Width	VAR
Pavement	24
Shoulder	10
Traffic Volume	12
Traffic Sta. ID	1141150
Structure No.	1129154
Enlarged Views	

Date last inventoried: May 2020

SRI = 00000001B

Mile Posts: 0.000 - 2.000

US 1 BUSINESS (South to North)



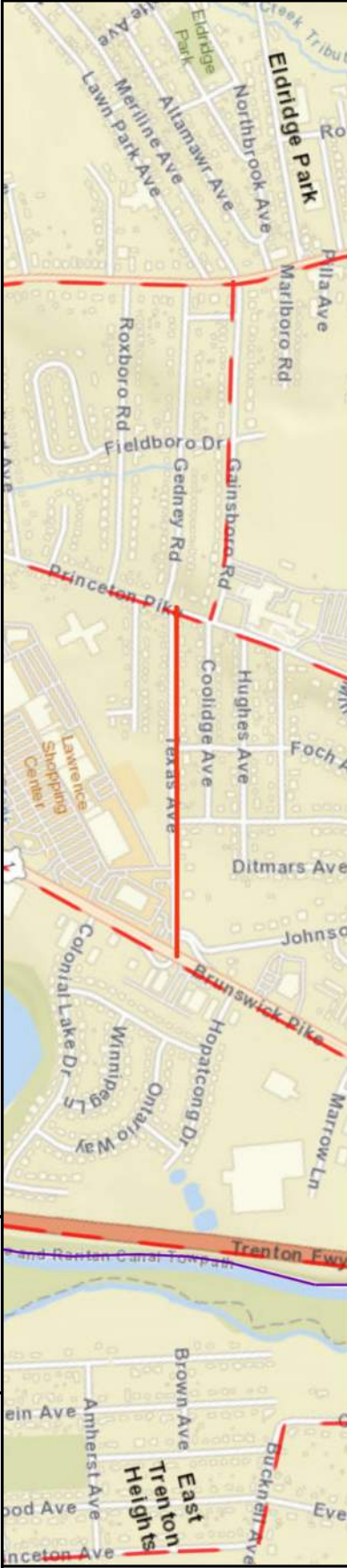
Street Name	Distance (Miles)	Direction	Notes
US 1 Business	0.00	Primary	Begin US 1 Business MP=0.00
US 1 Business	0.09	Primary	1 SB
US 1 Business	0.10	Primary	1 SB
US 1 Business	0.17	Primary	NEW YORK AVENUE
US 1 Business	0.25	Primary	OHIO AVENUE
US 1 Business	0.28	Primary	ALLEY
US 1 Business	0.31	Primary	INDIANA AVENUE
US 1 Business	0.36	Primary	MICHIGAN AVENUE
US 1 Business	0.41	Primary	BRUNSWICK AVENUE
US 1 Business	0.42	Primary	ALLEY
US 1 Business	0.52	Primary	MAPLEWOOD AVENUE
US 1 Business	0.64	Primary	HOPE ST
US 1 Business	0.71	Primary	HAVESON AVENUE
US 1 Business	0.74	Primary	PUTNAM AVENUE
US 1 Business	0.80	Primary	TRUMBULL AVENUE
US 1 Business	0.87	Primary	VALLEY FORGE AVENUE
US 1 Business	0.92	Primary	CHERRY TREE LN
US 1 Business	0.93	Primary	SLACK AVENUE
US 1 Business	1.09	Primary	WHITEHEAD RD
US 1 Business	1.17	Primary	MAYFLOWER AVENUE
US 1 Business	1.24	Primary	BUNKER HILL AVENUE
US 1 Business	1.31	Primary	PRESIDENT AVENUE
US 1 Business	1.38	Primary	LAKE DRIVE
US 1 Business	1.45	Primary	SHABAKUNK CK TO LAKE DR
US 1 Business	1.59	Primary	LAWRENCE RD
US 1 Business	1.67	Primary	COLONIAL LAKE DR
US 1 Business	1.80	Primary	TEXAS AVE
US 1 Business	1.89	Primary	HOPATCONG DR
US 1 Business	2.00	Primary	End of Project

Date last inventoried: May 2020

SRI = 00000001B

Mile Posts: 0.000 - 0.440

TEXAS AVE (East to West)



Legend	
	Secondary Direction
	Primary Direction
Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	
	Interstate Route
	US Route
	NJ Route
	County Road
	Interchange Number
	Grade Separated Interchange
	Traffic Signal
	Traffic Monitoring Sites
	AVC
	VOL
	Road
	Underpass
	Road
	Overpass
	Dyn Msg Sign
Units in miles	
-1.0 0.0 1.0 2.0	
Street Name	Texas Avenue
Jurisdiction	Municipal
Functional Class	Urban Major Collector
Federal Aid - NHS Sy	STP
Control Section	
Speed Limit	25
Number of Lanes	2
Med. Type	None
Mec. Width	28
Pavement	
Shoulder	
Traffic Volume	
Traffic Sta. ID	
Structure No.	
Enlarged Views	
Begin Texas Ave MP=0	
End Texas Ave MF=0.44	
Lawrence Twp, Mercer Co	
Lawrence Twp, Mercer Co	
PRINCETON (0.44)	
PIKE	
(0.27) FOCH AVE	
(0.17) GLENN AVE	
(0.10) STREAM	
(0.03) JOHNSON RD	
(0.00)	
1B	
1B	
Secondary Direction	
Primary Direction	

Date last inventoried: June 2014

SRI = 11071395

NJDOT ACCESS PERMIT

ANNUAL BACKGROUND GROWTH RATE TABLE

Valid for NJDOT Access Permits submitted April 2019 - April 2021

COUNTY	Functional Classification											
	RURAL						URBAN					
	Interstate	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local	Interstate	Freeway	Principal Arterial	Minor Arterial	Collector	Local
ATLANTIC	N/A	1.00%	1.50%	1.00%	1.00%	2.75%	N/A	1.00%	2.00%	1.00%	1.75%	1.00%
BERGEN	N/A	N/A	N/A	N/A	N/A	N/A	2.50%	1.00%	2.50%	1.00%	1.00%	1.00%
BURLINGTON	1.50%	1.75%	1.00%	1.25%	1.00%	1.25%	2.00%	1.00%	1.50%	1.50%	1.50%	1.00%
CAMDEN	1.50%	1.25%	1.00%	1.25%	1.00%	1.00%	2.25%	1.00%	1.00%	2.25%	1.00%	1.00%
CAPE MAY	N/A	1.50%	2.25%	1.00%	2.25%	1.25%	N/A	1.00%	1.00%	1.00%	1.00%	1.00%
CUMBERLAND	N/A	1.00%	1.00%	1.00%	1.00%	2.00%	N/A	1.00%	1.00%	1.25%	1.00%	1.00%
ESSEX	N/A	N/A	N/A	N/A	N/A	N/A	2.00%	1.00%	1.00%	2.00%	1.00%	1.50%
GLOUCESTER	1.50%	1.25%	1.00%	1.25%	1.75%	1.00%	2.50%	1.00%	1.00%	1.00%	2.25%	1.50%
HUDSON	N/A	N/A	N/A	N/A	N/A	N/A	1.00%	1.00%	1.00%	1.00%	1.00%	1.50%
HUNTERDON	1.00%	1.00%	1.00%	2.00%	1.00%	1.00%	2.25%	2.00%	1.25%	1.00%	2.50%	1.00%
MERCER	1.50%	1.00%	1.75%	1.50%	1.00%	1.00%	1.50%	2.50%	1.00%	1.00%	1.00%	1.00%
MIDDLESEX	1.00%	1.00%	1.75%	1.25%	1.00%	1.00%	1.50%	2.00%	1.00%	1.00%	1.00%	1.00%
MONMOUTH	1.50%	2.25%	1.00%	1.00%	1.00%	1.75%	1.00%	1.75%	1.25%	1.00%	2.50%	1.00%
MORRIS	1.25%	3.00%	1.00%	1.25%	2.50%	1.25%	1.50%	1.00%	1.00%	1.50%	1.00%	1.00%
OCEAN	1.00%	1.00%	1.00%	1.75%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.50%
PASSAIC	N/A	N/A	N/A	N/A	N/A	N/A	1.00%	1.00%	1.00%	1.00%	2.00%	1.00%
SALEM	1.50%	1.00%	1.00%	1.00%	1.50%	3.00%	2.00%	1.50%	1.25%	1.00%	1.00%	2.00%
SOMERSET	2.00%	1.00%	1.75%	1.00%	1.50%	1.00%	1.75%	2.25%	1.25%	1.00%	1.75%	1.00%
SUSSEX	1.00%	1.00%	1.75%	1.50%	1.50%	1.25%	1.00%	1.00%	1.00%	1.50%	1.50%	1.75%
UNION	N/A	N/A	N/A	N/A	N/A	N/A	1.25%	1.50%	1.00%	1.00%	1.00%	1.00%
WARREN	1.00%	1.00%	1.00%	1.00%	1.00%	1.25%	2.25%	1.00%	1.00%	1.00%	1.00%	1.00%

NOTE: For use in short term (within 1-3 years) background growth ONLY.

Example: Assume existing condition is 1,500 peak hour trips and the applicable growth rate is 2%. The multiplication factor for 2% compounded for 3 years is 1.0612. The three-year peak hour forecast is 1,591.8, or 1,592 peak hour trips. $[1592 = 1500(1 + 0.02)^3 = 1500(1.0612)]$

Future Growth (compounded) = Present Growth * (1+Growth Rate)^{# of years}

**TAKE-5 AUTOMATIC CAR WASH
2520 BRUNSWICK PIKE
BLOCK 2201 – LOT 20**

APPENDIX B
2023 Existing Condition Synchro Analysis Worksheets



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Volume (vph)	0	188	109	0	21	60
Future Volume (vph)	0	188	109	0	21	60
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3562	1822	0	1764	1625
Flt Permitted					0.950	
Satd. Flow (perm)	0	3562	1822	0	1764	1625
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.76	0.76	0.57	0.57	0.75	0.75
Heavy Vehicles (%)	0%	4%	7%	0%	5%	2%
Adj. Flow (vph)	0	247	191	0	28	80
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	247	191	0	28	80
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	15.9%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	188	109	0	21	60
Future Vol, veh/h	0	188	109	0	21	60
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	76	76	57	57	75	75
Heavy Vehicles, %	0	4	7	0	5	2
Mvmt Flow	0	247	191	0	28	80

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	315 191
Stage 1	-	-	-	-	191 -
Stage 2	-	-	-	-	124 -
Critical Hdwy	-	-	-	-	6.675 6.23
Critical Hdwy Stg 1	-	-	-	-	5.475 -
Critical Hdwy Stg 2	-	-	-	-	5.875 -
Follow-up Hdwy	-	-	-	-	3.5475 3.319
Pot Cap-1 Maneuver	0	-	-	0	658 850
Stage 1	0	-	-	0	833 -
Stage 2	0	-	-	0	881 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	658 850
Mov Cap-2 Maneuver	-	-	-	-	658 -
Stage 1	-	-	-	-	833 -
Stage 2	-	-	-	-	881 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	658	850
HCM Lane V/C Ratio	-	-	0.043	0.094
HCM Control Delay (s)	-	-	10.7	9.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3

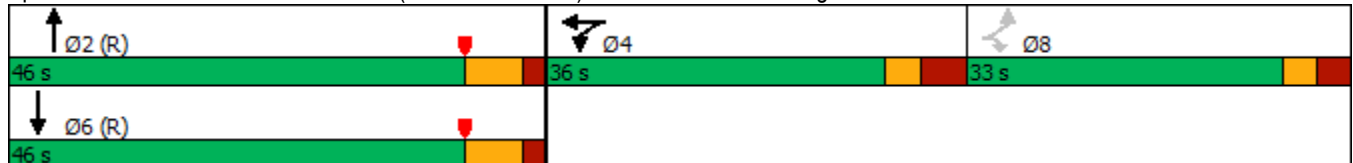
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	0	78	59	93	1	0	591	0	0	317	0
Future Volume (vph)	136	0	78	59	93	1	0	591	0	0	317	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.999							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1467	1816	1805	0	0	3597	0	0	3495	0
Fl _t Permitted	0.668			0.950								
Satd. Flow (perm)	1252	0	1467	1816	1805	0	0	3597	0	0	3495	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111									
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.70	0.70	0.70	0.67	0.67	0.67	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	4%	0%	13%	2%	8%	0%	0%	3%	0%	0%	6%	0%
Adj. Flow (vph)	194	0	111	88	139	1	0	672	0	0	356	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	194	0	111	88	140	0	0	672	0	0	356	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	33.0		33.0	36.0	36.0			46.0				46.0
Total Split (%)	28.7%		28.7%	31.3%	31.3%			40.0%				40.0%
Maximum Green (s)	27.0		27.0	29.0	29.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	21.4		21.4	13.5	13.5			60.1				60.1
Actuated g/C Ratio	0.19		0.19	0.12	0.12			0.52				0.52
v/c Ratio	0.84		0.31	0.41	0.66			0.36				0.19
Control Delay	72.9		9.0	51.8	63.0			18.4				9.5
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	72.9		9.0	51.8	63.0			18.4				9.5
LOS	E		A	D	E			B				A
Approach Delay		49.6			58.6			18.4				9.5
Approach LOS		D			E			B				A
Queue Length 50th (ft)	138		0	61	101			150				32
Queue Length 95th (ft)	156		20	78	115			226				40



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	293		429	457	455			1879			1826	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.66		0.26	0.19	0.31			0.36			0.19	

Intersection Summary	
Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	28.3
Intersection LOS:	C
Intersection Capacity Utilization	60.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	2	709	12	0	317
Future Volume (vph)	0	2	709	12	0	317
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1687	3558	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3558	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	331		140			1836
Travel Time (s)	9.0		1.7			22.8
Peak Hour Factor	0.25	0.25	0.89	0.89	0.92	0.92
Heavy Vehicles (%)	0%	0%	4%	0%	0%	0%
Adj. Flow (vph)	0	8	797	13	0	345
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	810	0	0	345
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.5%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	2	709	12	0	317
Future Vol, veh/h	0	2	709	12	0	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	89	89	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	0	8	797	13	0	345

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	405	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	601	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	601	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	601
HCM Lane V/C Ratio	-	-	0.013
HCM Control Delay (s)	-	-	11.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

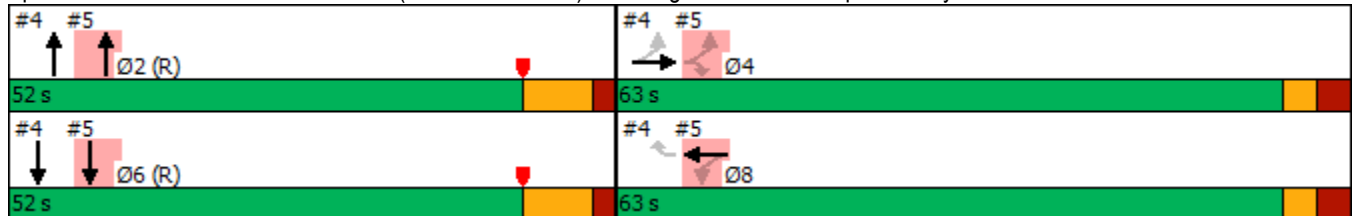
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	3	1	0	0	3	0	623	9	0	423	0
Future Volume (vph)	27	3	1	0	0	3	0	623	9	0	423	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.997				0.865		0.998				
Fl _t Protected		0.958										
Satd. Flow (prot)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Fl _t Permitted		0.958										
Satd. Flow (perm)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				94		2				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.78	0.78	0.78	0.38	0.38	0.38	0.88	0.88	0.88	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	11%	0%	7%	0%
Adj. Flow (vph)	35	4	1	0	0	8	0	708	10	0	450	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	0	8	0	718	0	0	450	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		44.0			44.0	
Minimum Split (s)	13.0	13.0				13.0		52.0			52.0	
Total Split (s)	63.0	63.0				63.0		52.0			52.0	
Total Split (%)	54.8%	54.8%				54.8%		45.2%			45.2%	
Maximum Green (s)	57.0	57.0				57.0		44.0			44.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		23.5				23.5		77.5			77.5	
Actuated g/C Ratio		0.20				0.20		0.67			0.67	
v/c Ratio		0.10				0.02		0.21			0.19	
Control Delay		33.5				0.0		4.8			5.3	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		33.5				0.0		4.8			5.3	
LOS		C				A		A			A	
Approach Delay		33.5						4.8			5.3	
Approach LOS		C						A			A	
Queue Length 50th (ft)		24				0		34			33	
Queue Length 95th (ft)		41				0		41			56	



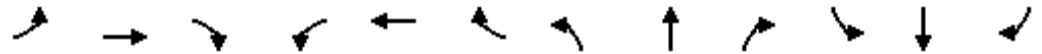
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		923				883		3440			2333	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.04				0.01		0.21			0.19	

Intersection Summary	
Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	5.9
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	0	58	20	141	1	0	501	0	0	361	113
Future Volume (vph)	138	0	58	20	141	1	0	501	0	0	361	113
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.999						0.964	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1658	1852	1929	0	0	3597	0	0	4912	0
Flt Permitted	0.510			0.950								
Satd. Flow (perm)	956	0	1658	1852	1929	0	0	3597	0	0	4912	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77								79	
Link Speed (mph)		25			25			55				55
Link Distance (ft)		455			232			626				341
Travel Time (s)		12.4			6.3			7.8				4.2
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles (%)	4%	5%	0%	0%	1%	0%	0%	3%	0%	0%	4%	6%
Adj. Flow (vph)	184	0	77	27	188	1	0	589	0	0	415	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	0	77	27	189	0	0	589	0	0	545	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	NA
Protected Phases					8			2				6
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			44.0				44.0
Minimum Split (s)	13.0		13.0	13.0	13.0			52.0				52.0
Total Split (s)	63.0		63.0	63.0	63.0			52.0				52.0
Total Split (%)	54.8%		54.8%	54.8%	54.8%			45.2%				45.2%
Maximum Green (s)	57.0		57.0	57.0	57.0			44.0				44.0
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0				6.0
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0				8.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	23.5		23.5	23.5	23.5			77.5				77.5
Actuated g/C Ratio	0.20		0.20	0.20	0.20			0.67				0.67
v/c Ratio	0.94		0.19	0.07	0.48			0.24				0.16
Control Delay	95.4		8.2	33.4	42.9			4.0				6.7
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	95.4		8.2	33.4	42.9			4.0				6.7
LOS	F		A	C	D			A				A
Approach Delay		69.6				41.7		4.0				6.7

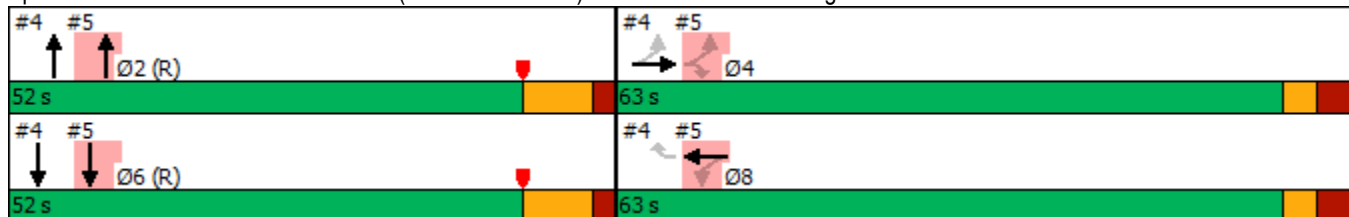


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E						D			A		
Queue Length 50th (ft)	136		0	16	125			24			41	
Queue Length 95th (ft)	160		22	30	141			51			70	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	473		860	917	956			2424			3335	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.39		0.09	0.03	0.20			0.24			0.16	

Intersection Summary

Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	20.6
Intersection LOS:	C
Intersection Capacity Utilization:	66.4%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2	2	1	8	8	0
Future Volume (vph)	2	2	1	8	8	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932					
Flt Protected	0.976			0.995		
Satd. Flow (prot)	1739			1902	1912	0
Flt Permitted	0.976			0.995		
Satd. Flow (perm)	1739			1902	1912	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	331			233	185	
Travel Time (s)	9.0			6.4	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	2	1	9	9	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	10	9	0
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Volume (vph)	0	187	74	0	40	96
Future Volume (vph)	0	187	74	0	40	96
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3632	1875	0	1852	1658
Flt Permitted					0.950	
Satd. Flow (perm)	0	3632	1875	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.69	0.69	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	0%	0%	0%
Adj. Flow (vph)	0	208	107	0	43	104
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	208	107	0	43	104
Sign Control		Free	Free		Stop	

Intersection Summary




















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	187	74	0	40	96
Future Vol, veh/h	0	187	74	0	40	96
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	69	69	92	92
Heavy Vehicles, %	0	2	4	0	0	0
Mvmt Flow	0	208	107	0	43	104

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	211 107
Stage 1	-	-	-	-	107 -
Stage 2	-	-	-	-	104 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	773 953
Stage 1	0	-	-	0	922 -
Stage 2	0	-	-	0	915 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	773 953
Mov Cap-2 Maneuver	-	-	-	-	773 -
Stage 1	-	-	-	-	922 -
Stage 2	-	-	-	-	915 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	773	953
HCM Lane V/C Ratio	-	-	0.056	0.109
HCM Control Delay (s)	-	-	9.9	9.2
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.4

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	0	68	113	66	7	0	431	0	0	636	0
Future Volume (vph)	136	0	68	113	66	7	0	431	0	0	636	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.986							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1852	0	1417	1816	1872	0	0	3632	0	0	3632	0
Fl _t Permitted	0.695			0.950								
Satd. Flow (perm)	1355	0	1417	1816	1872	0	0	3632	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114		5							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.94	0.94	0.94	0.76	0.76	0.76	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	17%	2%	3%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	145	0	72	149	87	9	0	474	0	0	684	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	0	72	149	96	0	0	474	0	0	684	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			33.0				33.0
Minimum Split (s)	13.0		13.0	14.0	14.0			40.0				40.0
Total Split (s)	22.0		22.0	43.0	43.0			40.0				40.0
Total Split (%)	21.0%		21.0%	41.0%	41.0%			38.1%				38.1%
Maximum Green (s)	16.0		16.0	36.0	36.0			33.0				33.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	14.2		14.2	13.3	13.3			57.6				57.6
Actuated g/C Ratio	0.14		0.14	0.13	0.13			0.55				0.55
v/c Ratio	0.80		0.25	0.65	0.40			0.24				0.34
Control Delay	73.5		4.4	56.2	43.6			13.7				10.1
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	73.5		4.4	56.2	43.6			13.7				10.1
LOS	E		A	E	D			B				B
Approach Delay		50.6			51.3			13.7				10.1
Approach LOS		D			D			B				B
Queue Length 50th (ft)	94		0	97	57			86				72
Queue Length 95th (ft)	#185		15	128	84			132				83

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	206		312	622	645			1990			1990	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.70		0.23	0.24	0.15			0.24			0.34	

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 18 (17%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 22.8

Intersection LOS: C

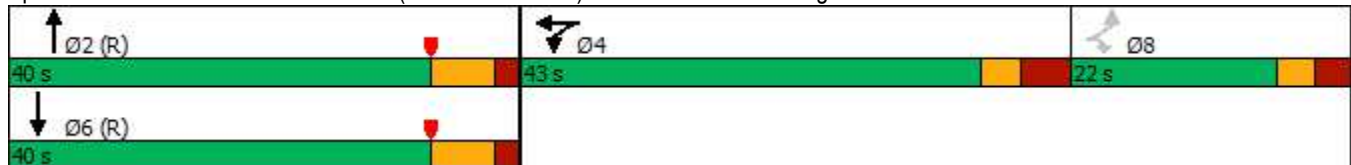
Intersection Capacity Utilization 56.1%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	7	579	2	0	636
Future Volume (vph)	0	7	579	2	0	636
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1687	3668	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3668	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	331		140			1836
Travel Time (s)	9.0		1.7			22.8
Peak Hour Factor	0.44	0.44	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	16	623	2	0	691
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	625	0	0	691
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.7%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	7	579	2	0	636
Future Vol, veh/h	0	7	579	2	0	636
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	93	93	92	92
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	16	623	2	0	691

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	313	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	689	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	689	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	689
HCM Lane V/C Ratio	-	-	0.023
HCM Control Delay (s)	-	-	10.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

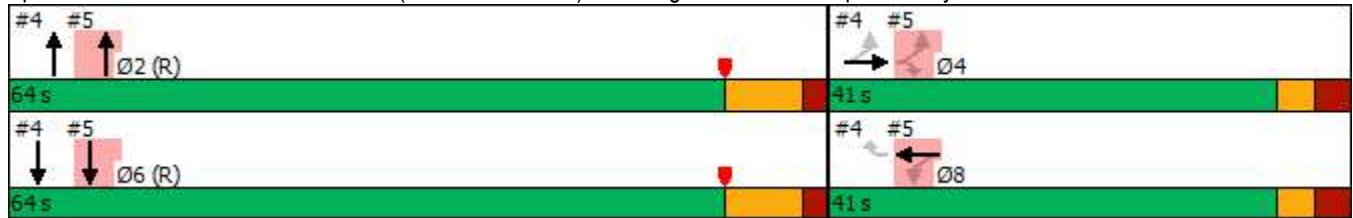
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	10	1	0	0	13	0	588	5	0	759	0
Future Volume (vph)	68	10	1	0	0	13	0	588	5	0	759	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.999				0.865		0.999				
Fl _t Protected		0.959										
Satd. Flow (prot)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Fl _t Permitted		0.959										
Satd. Flow (perm)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						224		2				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.73	0.73	0.73	0.70	0.70	0.70	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	93	14	1	0	0	19	0	646	5	0	834	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	0	19	0	651	0	0	834	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		56.0			56.0	
Minimum Split (s)	13.0	13.0				13.0		64.0			64.0	
Total Split (s)	41.0	41.0				41.0		64.0			64.0	
Total Split (%)	39.0%	39.0%				39.0%		61.0%			61.0%	
Maximum Green (s)	35.0	35.0				35.0		56.0			56.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		22.5				22.5		68.5			68.5	
Actuated g/C Ratio		0.21				0.21		0.65			0.65	
v/c Ratio		0.27				0.04		0.19			0.35	
Control Delay		33.9				0.2		4.3			5.8	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		33.9				0.2		4.3			5.8	
LOS		C				A		A			A	
Approach Delay		33.9			0.2			4.3			5.8	
Approach LOS		C			A			A			A	
Queue Length 50th (ft)		61				0		26			61	
Queue Length 95th (ft)		77				0		34			93	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		622				711		3434			2391	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.17				0.03		0.19			0.35	

Intersection Summary	
Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	7.0
Intersection LOS:	A
Intersection Capacity Utilization	75.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	0	113	46	116	2	0	530	0	0	664	180
Future Volume (vph)	193	0	113	46	116	2	0	530	0	0	664	180
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.997						0.968	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1816	0	1658	1852	1907	0	0	3668	0	0	5081	0
Flt Permitted	0.622			0.950								
Satd. Flow (perm)	1189	0	1658	1852	1907	0	0	3668	0	0	5081	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124		1						100	
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		455			232			626			341	
Travel Time (s)		12.4			6.3			7.8			4.2	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	0%	2%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	212	0	124	58	145	3	0	589	0	0	714	194
Shared Lane Traffic (%)												
Lane Group Flow (vph)	212	0	124	58	148	0	0	589	0	0	908	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			56.0			56.0	
Minimum Split (s)	13.0		13.0	13.0	13.0			64.0			64.0	
Total Split (s)	41.0		41.0	41.0	41.0			64.0			64.0	
Total Split (%)	39.0%		39.0%	39.0%	39.0%			61.0%			61.0%	
Maximum Green (s)	35.0		35.0	35.0	35.0			56.0			56.0	
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0			6.0	
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0			2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0			2.0	
Recall Mode	None		None	None	None			C-Max			C-Max	
Act Effct Green (s)	22.5		22.5	22.5	22.5			68.5			68.5	
Actuated g/C Ratio	0.21		0.21	0.21	0.21			0.65			0.65	
v/c Ratio	0.83		0.27	0.15	0.36			0.25			0.27	
Control Delay	64.4		6.8	31.3	35.6			4.5			7.8	
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	
Total Delay	64.4		6.8	31.3	35.6			4.5			7.8	
LOS	E		A	C	D			A			A	
Approach Delay		43.1			34.4			4.5			7.8	

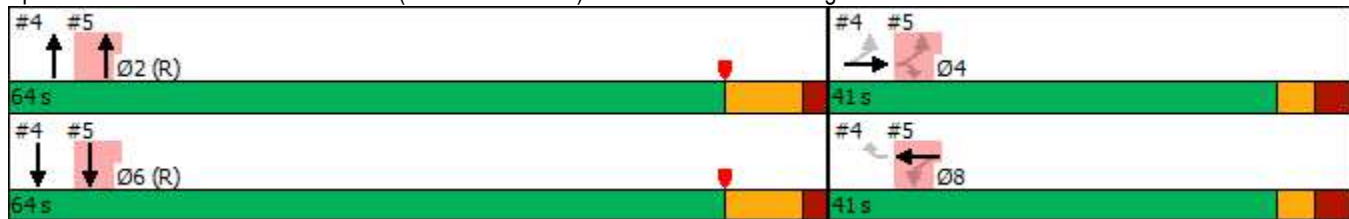


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						C			A		
Queue Length 50th (ft)	137		0	32	85			40			74	
Queue Length 95th (ft)	201		41	52	110			51			124	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	396		635	617	636			2391			3347	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.54		0.20	0.09	0.23			0.25			0.27	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	15.3
Intersection LOS:	B
Intersection Capacity Utilization	76.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	5	1	4	5	0
Future Volume (vph)	1	5	1	4	5	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887					
Flt Protected	0.992			0.990		
Satd. Flow (prot)	1682	0	0	1893	1912	0
Flt Permitted	0.992			0.990		
Satd. Flow (perm)	1682	0	0	1893	1912	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	331			233	185	
Travel Time (s)	9.0			6.4	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	5	1	4	5	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	5	5	0
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Volume (vph)	0	172	62	0	51	87
Future Volume (vph)	0	172	62	0	51	87
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Fr _t						0.850
Fl _t Protected					0.950	
Satd. Flow (prot)	0	3632	1893	0	1852	1658
Fl _t Permitted					0.950	
Satd. Flow (perm)	0	3632	1893	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.83	0.83	0.84	0.84
Heavy Vehicles (%)	0%	2%	3%	0%	0%	0%
Adj. Flow (vph)	0	191	75	0	61	104
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	191	75	0	61	104
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	15.2%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	172	62	0	51	87
Future Vol, veh/h	0	172	62	0	51	87
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	83	83	84	84
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	191	75	0	61	104

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	171 75
Stage 1	-	-	-	-	75 -
Stage 2	-	-	-	-	96 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	816 992
Stage 1	0	-	-	0	953 -
Stage 2	0	-	-	0	923 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	816 992
Mov Cap-2 Maneuver	-	-	-	-	816 -
Stage 1	-	-	-	-	953 -
Stage 2	-	-	-	-	923 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	816	992
HCM Lane V/C Ratio	-	-	0.074	0.104
HCM Control Delay (s)	-	-	9.8	9.1
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	0	53	112	64	2	0	508	0	0	600	0
Future Volume (vph)	169	0	53	112	64	2	0	508	0	0	600	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.995							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1467	1852	1886	0	0	3668	0	0	3632	0
Fl _t Permitted	0.701			0.950								
Satd. Flow (perm)	1353	0	1467	1852	1886	0	0	3668	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			96		1							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.88	0.88	0.88	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	13%	0%	3%	0%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	188	0	59	145	83	3	0	577	0	0	645	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	0	59	145	86	0	0	577	0	0	645	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	42.0		42.0	37.0	37.0			46.0				46.0
Total Split (%)	33.6%		33.6%	29.6%	29.6%			36.8%				36.8%
Maximum Green (s)	36.0		36.0	30.0	30.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	22.0		22.0	14.4	14.4			68.6				68.6
Actuated g/C Ratio	0.18		0.18	0.12	0.12			0.55				0.55
v/c Ratio	0.79		0.18	0.68	0.39			0.29				0.32
Control Delay	71.0		3.1	68.5	54.8			17.3				14.9
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	71.0		3.1	68.5	54.8			17.3				14.9
LOS	E		A	E	D			B				B
Approach Delay		54.8			63.4			17.3				14.9
Approach LOS		D			E			B				B
Queue Length 50th (ft)	147		0	114	65			126				132
Queue Length 95th (ft)	215		11	148	95			202				152

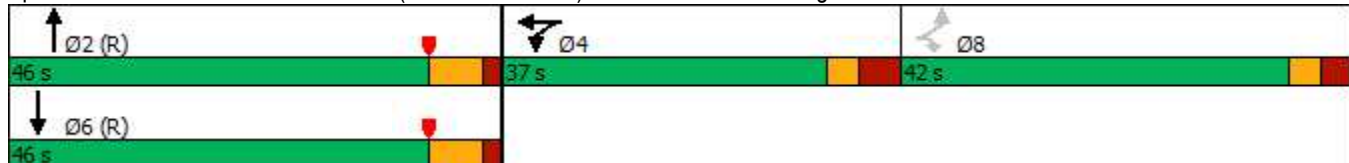


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	389		490	444	453			2011			1991	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.48		0.12	0.33	0.19			0.29			0.32	

Intersection Summary

Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	16 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	28.1
Intersection LOS:	C
Intersection Capacity Utilization	61.0%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	1	677	4	0	600
Future Volume (vph)	0	1	677	4	0	600
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1687	3665	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3665	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	331		140			1836
Travel Time (s)	9.0		1.7			22.8
Peak Hour Factor	0.25	0.25	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	4	728	4	0	645
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	732	0	0	645
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.4%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	1	677	4	0	600
Future Vol, veh/h	0	1	677	4	0	600
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	4	728	4	0	645

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	366	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	637	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	637	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	637
HCM Lane V/C Ratio	-	-	0.006
HCM Control Delay (s)	-	-	10.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

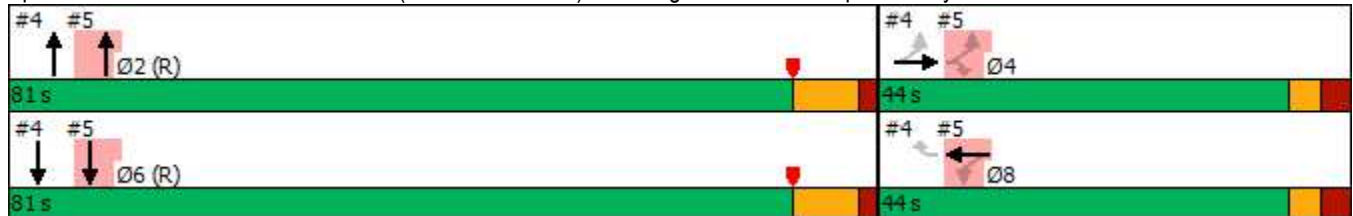
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	3	1	0	0	23	0	646	16	0	708	0
Future Volume (vph)	89	3	1	0	0	23	0	646	16	0	708	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Frt		0.999				0.865		0.996				
Flt Protected		0.954										
Satd. Flow (prot)	0	1858	0	0	0	1687	0	5251	0	0	3668	0
Flt Permitted		0.954										
Satd. Flow (perm)	0	1858	0	0	0	1687	0	5251	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						219		5				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.68	0.68	0.68	0.64	0.64	0.64	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	131	4	1	0	0	36	0	718	18	0	796	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	136	0	0	0	36	0	736	0	0	796	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		73.0			73.0	
Minimum Split (s)	13.0	13.0				13.0		81.0			81.0	
Total Split (s)	44.0	44.0				44.0		81.0			81.0	
Total Split (%)	35.2%	35.2%				35.2%		64.8%			64.8%	
Maximum Green (s)	38.0	38.0				38.0		73.0			73.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		19.7				19.7		91.3			91.3	
Actuated g/C Ratio		0.16				0.16		0.73			0.73	
v/c Ratio		0.46				0.08		0.19			0.30	
Control Delay		51.6				0.3		2.6			4.5	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		51.6				0.3		2.6			4.5	
LOS		D				A		A			A	
Approach Delay		51.6			0.3			2.6			4.5	
Approach LOS		D			A			A			A	
Queue Length 50th (ft)		101				0		47			61	
Queue Length 95th (ft)		113				0		44			87	






















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		564				665		3835			2677	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.24				0.05		0.19			0.30	

Intersection Summary	
Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	7.3
Intersection LOS:	A
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	0	89	54	79	5	0	634	0	0	636	153
Future Volume (vph)	153	0	89	54	79	5	0	634	0	0	636	153
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.991						0.971	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1658	1852	1915	0	0	3668	0	0	5098	0
Flt Permitted	0.651			0.950								
Satd. Flow (perm)	1257	0	1658	1852	1915	0	0	3668	0	0	5098	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93		3							78
Link Speed (mph)		25			25			55				55
Link Distance (ft)		455			232			626				341
Travel Time (s)		12.4			6.3			7.8				4.2
Peak Hour Factor	0.96	0.96	0.96	0.75	0.75	0.75	0.96	0.96	0.96	0.85	0.85	0.85
Heavy Vehicles (%)	1%	0%	0%	0%	1%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	159	0	93	72	105	7	0	660	0	0	748	180
Shared Lane Traffic (%)												
Lane Group Flow (vph)	159	0	93	72	112	0	0	660	0	0	928	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	NA
Protected Phases					8			2				6
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			73.0				73.0
Minimum Split (s)	13.0		13.0	13.0	13.0			81.0				81.0
Total Split (s)	44.0		44.0	44.0	44.0			81.0				81.0
Total Split (%)	35.2%		35.2%	35.2%	35.2%			64.8%				64.8%
Maximum Green (s)	38.0		38.0	38.0	38.0			73.0				73.0
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0				6.0
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0				8.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	19.7		19.7	19.7	19.7			91.3				91.3
Actuated g/C Ratio	0.16		0.16	0.16	0.16			0.73				0.73
v/c Ratio	0.80		0.27	0.25	0.37			0.25				0.25
Control Delay	77.8		10.0	46.0	47.5			2.8				5.7
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	77.8		10.0	46.0	47.5			2.8				5.7
LOS	E		B	D	D			A				A
Approach Delay		52.8			46.9			2.8				5.7

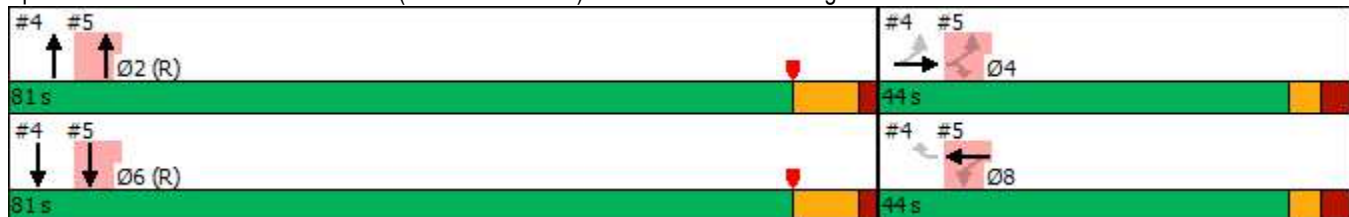


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			D			A			A		
Queue Length 50th (ft)	125		0	52	80			46			72	
Queue Length 95th (ft)	190		44	74	104			57			105	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	382		568	563	584			2677			3743	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.42		0.16	0.13	0.19			0.25			0.25	

Intersection Summary

Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	14.4
Intersection LOS:	B
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	3	1	2	1	0
Future Volume (vph)	1	3	1	2	1	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899					
Flt Protected	0.988			0.984		
Satd. Flow (prot)	1698	0	0	1881	1912	0
Flt Permitted	0.988			0.984		
Satd. Flow (perm)	1698	0	0	1881	1912	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	331			233	185	
Travel Time (s)	9.0			6.4	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	3	1	2	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	3	1	0
Sign Control	Free			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 13.3% ICU Level of Service A

Analysis Period (min) 15

**TAKE-5 AUTOMATIC CAR WASH
2520 BRUNSWICK PIKE
BLOCK 2201 – LOT 20**

APPENDIX C
2025 No-Build Condition Synchro Analysis Worksheets



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Volume (vph)	0	192	111	0	21	61
Future Volume (vph)	0	192	111	0	21	61
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3562	1822	0	1764	1625
Flt Permitted					0.950	
Satd. Flow (perm)	0	3562	1822	0	1764	1625
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.76	0.76	0.57	0.57	0.75	0.75
Heavy Vehicles (%)	0%	4%	7%	0%	5%	2%
Adj. Flow (vph)	0	253	195	0	28	81
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	253	195	0	28	81
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.0%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	192	111	0	21	61
Future Vol, veh/h	0	192	111	0	21	61
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	76	76	57	57	75	75
Heavy Vehicles, %	0	4	7	0	5	2
Mvmt Flow	0	253	195	0	28	81

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	322 195
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	127 -
Critical Hdwy	-	-	-	-	6.675 6.23
Critical Hdwy Stg 1	-	-	-	-	5.475 -
Critical Hdwy Stg 2	-	-	-	-	5.875 -
Follow-up Hdwy	-	-	-	-	3.5475 3.319
Pot Cap-1 Maneuver	0	-	-	0	652 846
Stage 1	0	-	-	0	829 -
Stage 2	0	-	-	0	878 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	652 846
Mov Cap-2 Maneuver	-	-	-	-	652 -
Stage 1	-	-	-	-	829 -
Stage 2	-	-	-	-	878 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	652	846
HCM Lane V/C Ratio	-	-	0.043	0.096
HCM Control Delay (s)	-	-	10.8	9.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	0	80	60	95	1	0	603	0	0	323	0
Future Volume (vph)	139	0	80	60	95	1	0	603	0	0	323	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.999							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1467	1816	1805	0	0	3597	0	0	3495	0
Fl _t Permitted	0.666			0.950								
Satd. Flow (perm)	1249	0	1467	1816	1805	0	0	3597	0	0	3495	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114									
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.70	0.70	0.70	0.67	0.67	0.67	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	4%	0%	13%	2%	8%	0%	0%	3%	0%	0%	6%	0%
Adj. Flow (vph)	199	0	114	90	142	1	0	685	0	0	363	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	199	0	114	90	143	0	0	685	0	0	363	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	33.0		33.0	36.0	36.0			46.0				46.0
Total Split (%)	28.7%		28.7%	31.3%	31.3%			40.0%				40.0%
Maximum Green (s)	27.0		27.0	29.0	29.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	21.9		21.9	13.7	13.7			59.4				59.4
Actuated g/C Ratio	0.19		0.19	0.12	0.12			0.52				0.52
v/c Ratio	0.84		0.31	0.42	0.67			0.37				0.20
Control Delay	72.7		8.8	51.6	62.9			18.9				9.7
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	72.7		8.8	51.6	62.9			18.9				9.7
LOS	E		A	D	E			B				A
Approach Delay		49.4			58.5			18.9				9.7
Approach LOS		D			E			B				A
Queue Length 50th (ft)	142		0	63	103			156				32
Queue Length 95th (ft)	161		20	79	117			232				40

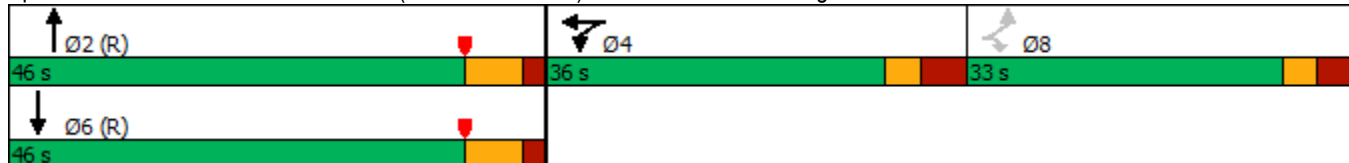


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	293		431	457	455			1858			1805	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.68		0.26	0.20	0.31			0.37			0.20	

Intersection Summary

Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	28.6
Intersection LOS:	C
Intersection Capacity Utilization	60.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	2	723	12	0	323
Future Volume (vph)	0	2	723	12	0	323
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.998			
Flt Protected						
Satd. Flow (prot)	0	1687	3558	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3558	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	331		140			1836
Travel Time (s)	9.0		1.7			22.8
Peak Hour Factor	0.25	0.25	0.89	0.89	0.92	0.92
Heavy Vehicles (%)	0%	0%	4%	0%	0%	0%
Adj. Flow (vph)	0	8	812	13	0	351
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	8	825	0	0	351
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.8%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	2	723	12	0	323
Future Vol, veh/h	0	2	723	12	0	323
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	89	89	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	0	8	812	13	0	351

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	413	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	594	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	594	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	594
HCM Lane V/C Ratio	-	-	0.013
HCM Control Delay (s)	-	-	11.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

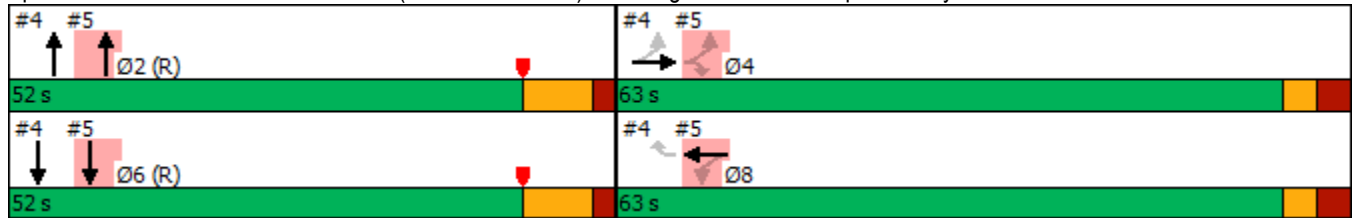
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	3	1	0	0	3	0	636	9	0	432	0
Future Volume (vph)	28	3	1	0	0	3	0	636	9	0	432	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.997				0.865		0.998				
Fl _t Protected		0.958										
Satd. Flow (prot)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Fl _t Permitted		0.958										
Satd. Flow (perm)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				89		2				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.78	0.78	0.78	0.38	0.38	0.38	0.88	0.88	0.88	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	11%	0%	7%	0%
Adj. Flow (vph)	36	4	1	0	0	8	0	723	10	0	460	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	0	8	0	733	0	0	460	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		44.0			44.0	
Minimum Split (s)	13.0	13.0				13.0		52.0			52.0	
Total Split (s)	63.0	63.0				63.0		52.0			52.0	
Total Split (%)	54.8%	54.8%				54.8%		45.2%			45.2%	
Maximum Green (s)	57.0	57.0				57.0		44.0			44.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		24.1				24.1		76.9			76.9	
Actuated g/C Ratio		0.21				0.21		0.67			0.67	
v/c Ratio		0.10				0.02		0.21			0.20	
Control Delay		33.0				0.0		4.9			5.5	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		33.0				0.0		4.9			5.5	
LOS		C				A		A			A	
Approach Delay		33.0						4.9			5.5	
Approach LOS		C						A			A	
Queue Length 50th (ft)		24				0		35			34	
Queue Length 95th (ft)		41				0		42			57	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		923				881		3413			2315	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.04				0.01		0.21			0.20	

Intersection Summary	
Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	6.0
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	0	59	20	144	1	0	511	0	0	368	115
Future Volume (vph)	141	0	59	20	144	1	0	511	0	0	368	115
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.999						0.964	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1658	1852	1929	0	0	3597	0	0	4912	0
Flt Permitted	0.506			0.950								
Satd. Flow (perm)	949	0	1658	1852	1929	0	0	3597	0	0	4912	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79								80	
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		455			232			626			341	
Travel Time (s)		12.4			6.3			7.8			4.2	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles (%)	4%	5%	0%	0%	1%	0%	0%	3%	0%	0%	4%	6%
Adj. Flow (vph)	188	0	79	27	192	1	0	601	0	0	423	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	0	79	27	193	0	0	601	0	0	555	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			44.0			44.0	
Minimum Split (s)	13.0		13.0	13.0	13.0			52.0			52.0	
Total Split (s)	63.0		63.0	63.0	63.0			52.0			52.0	
Total Split (%)	54.8%		54.8%	54.8%	54.8%			45.2%			45.2%	
Maximum Green (s)	57.0		57.0	57.0	57.0			44.0			44.0	
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0			6.0	
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0			2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0			2.0	
Recall Mode	None		None	None	None			C-Max			C-Max	
Act Effct Green (s)	24.1		24.1	24.1	24.1			76.9			76.9	
Actuated g/C Ratio	0.21		0.21	0.21	0.21			0.67			0.67	
v/c Ratio	0.94		0.19	0.07	0.48			0.25			0.17	
Control Delay	94.9		7.9	32.9	42.3			4.3			7.0	
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	
Total Delay	94.9		7.9	32.9	42.3			4.3			7.0	
LOS	F		A	C	D			A			A	
Approach Delay		69.2			41.1			4.3			7.0	

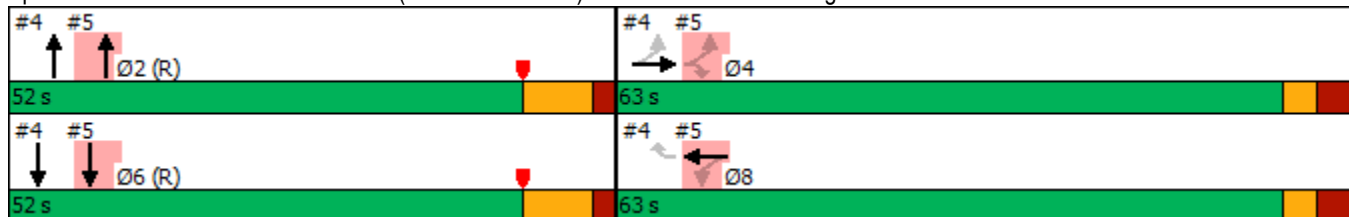


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E						D			A		
Queue Length 50th (ft)	138		0	16	127			24			42	
Queue Length 95th (ft)	162		22	30	142			56			73	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	470		861	917	956			2405			3311	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.40		0.09	0.03	0.20			0.25			0.17	

Intersection Summary

Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	20.7
Intersection LOS:	C
Intersection Capacity Utilization	66.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2	2	1	8	8	0
Future Volume (vph)	2	2	1	8	8	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932					
Flt Protected	0.976			0.995		
Satd. Flow (prot)	1739	0	0	1902	1912	0
Flt Permitted	0.976			0.995		
Satd. Flow (perm)	1739	0	0	1902	1912	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	331			233	185	
Travel Time (s)	9.0			6.4	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	2	1	9	9	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	10	9	0
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Volume (vph)	0	191	75	0	41	98
Future Volume (vph)	0	191	75	0	41	98
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3632	1875	0	1852	1658
Flt Permitted					0.950	
Satd. Flow (perm)	0	3632	1875	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.69	0.69	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	0%	0%	0%
Adj. Flow (vph)	0	212	109	0	45	107
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	212	109	0	45	107
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.4%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	191	75	0	41	98
Future Vol, veh/h	0	191	75	0	41	98
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	69	69	92	92
Heavy Vehicles, %	0	2	4	0	0	0
Mvmt Flow	0	212	109	0	45	107

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	215 109
Stage 1	-	-	-	-	109 -
Stage 2	-	-	-	-	106 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	769 950
Stage 1	0	-	-	0	921 -
Stage 2	0	-	-	0	913 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	769 950
Mov Cap-2 Maneuver	-	-	-	-	769 -
Stage 1	-	-	-	-	921 -
Stage 2	-	-	-	-	913 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	769	950
HCM Lane V/C Ratio	-	-	0.058	0.112
HCM Control Delay (s)	-	-	10	9.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	0	69	115	67	7	0	440	0	0	649	0
Future Volume (vph)	139	0	69	115	67	7	0	440	0	0	649	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.986							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1852	0	1417	1816	1872	0	0	3632	0	0	3632	0
Fl _t Permitted	0.694			0.950								
Satd. Flow (perm)	1353	0	1417	1816	1872	0	0	3632	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114		5							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.94	0.94	0.94	0.76	0.76	0.76	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	17%	2%	3%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	148	0	73	151	88	9	0	484	0	0	698	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	148	0	73	151	97	0	0	484	0	0	698	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			33.0				33.0
Minimum Split (s)	13.0		13.0	14.0	14.0			40.0				40.0
Total Split (s)	22.0		22.0	43.0	43.0			40.0				40.0
Total Split (%)	21.0%		21.0%	41.0%	41.0%			38.1%				38.1%
Maximum Green (s)	16.0		16.0	36.0	36.0			33.0				33.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	14.3		14.3	13.4	13.4			57.3				57.3
Actuated g/C Ratio	0.14		0.14	0.13	0.13			0.55				0.55
v/c Ratio	0.81		0.25	0.65	0.40			0.24				0.35
Control Delay	74.8		4.5	56.3	43.5			13.9				10.2
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	74.8		4.5	56.3	43.5			13.9				10.2
LOS	E		A	E	D			B				B
Approach Delay		51.6			51.3			13.9				10.2
Approach LOS		D			D			B				B
Queue Length 50th (ft)	96		0	98	58			88				73
Queue Length 95th (ft)	#191		15	128	85			135				84

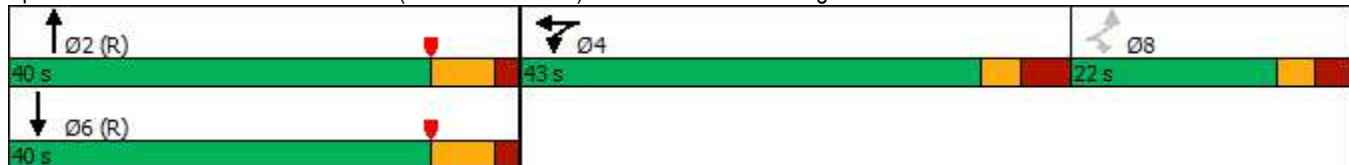


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	206		312	622	645			1983			1983	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.72		0.23	0.24	0.15			0.24			0.35	

Intersection Summary

Area Type: Other
 Cycle Length: 105
 Actuated Cycle Length: 105
 Offset: 18 (17%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 23.0 Intersection LOS: C
 Intersection Capacity Utilization 56.2% ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↖	↕	↗	↖	↕
Traffic Volume (vph)	0	7	591	2	0	649
Future Volume (vph)	0	7	591	2	0	649
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865				
Flt Protected						
Satd. Flow (prot)	0	1687	3668	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3668	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	331		140			1836
Travel Time (s)	9.0		1.7			22.8
Peak Hour Factor	0.44	0.44	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	16	635	2	0	705
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	637	0	0	705
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.0%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	7	591	2	0	649
Future Vol, veh/h	0	7	591	2	0	649
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	93	93	92	92
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	16	635	2	0	705

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	319	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	683	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	683	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	683
HCM Lane V/C Ratio	-	-	0.023
HCM Control Delay (s)	-	-	10.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

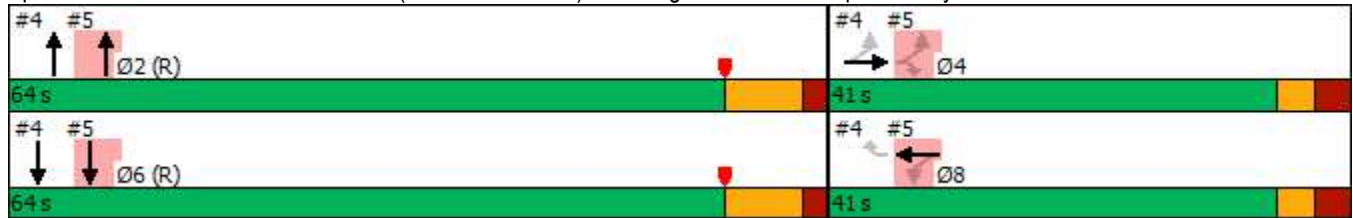
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	10	1	0	0	13	0	600	5	0	774	0
Future Volume (vph)	69	10	1	0	0	13	0	600	5	0	774	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.999				0.865		0.999				
Fl _t Protected		0.959										
Satd. Flow (prot)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Fl _t Permitted		0.959										
Satd. Flow (perm)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						217		2				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.73	0.73	0.73	0.70	0.70	0.70	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	95	14	1	0	0	19	0	659	5	0	851	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	0	19	0	664	0	0	851	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		56.0			56.0	
Minimum Split (s)	13.0	13.0				13.0		64.0			64.0	
Total Split (s)	41.0	41.0				41.0		64.0			64.0	
Total Split (%)	39.0%	39.0%				39.0%		61.0%			61.0%	
Maximum Green (s)	35.0	35.0				35.0		56.0			56.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		23.0				23.0		68.0			68.0	
Actuated g/C Ratio		0.22				0.22		0.65			0.65	
v/c Ratio		0.27				0.04		0.19			0.36	
Control Delay		33.6				0.2		4.4			5.9	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		33.6				0.2		4.4			5.9	
LOS		C				A		A			A	
Approach Delay		33.6			0.2			4.4			5.9	
Approach LOS		C			A			A			A	
Queue Length 50th (ft)		62				0		27			62	
Queue Length 95th (ft)		78				0		34			94	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		622				707		3410			2374	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.18				0.03		0.19			0.36	

Intersection Summary	
Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	7.1
Intersection LOS:	A
Intersection Capacity Utilization	75.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	0	115	47	118	2	0	541	0	0	677	184
Future Volume (vph)	197	0	115	47	118	2	0	541	0	0	677	184
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.997						0.968	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1816	0	1658	1852	1907	0	0	3668	0	0	5081	0
Flt Permitted	0.618			0.950								
Satd. Flow (perm)	1181	0	1658	1852	1907	0	0	3668	0	0	5081	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			126		1						100	
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		455			232			626			341	
Travel Time (s)		12.4			6.3			7.8			4.2	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	0%	2%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	216	0	126	59	148	3	0	601	0	0	728	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	0	126	59	151	0	0	601	0	0	926	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			56.0			56.0	
Minimum Split (s)	13.0		13.0	13.0	13.0			64.0			64.0	
Total Split (s)	41.0		41.0	41.0	41.0			64.0			64.0	
Total Split (%)	39.0%		39.0%	39.0%	39.0%			61.0%			61.0%	
Maximum Green (s)	35.0		35.0	35.0	35.0			56.0			56.0	
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0			6.0	
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0			2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0			2.0	
Recall Mode	None		None	None	None			C-Max			C-Max	
Act Effct Green (s)	23.0		23.0	23.0	23.0			68.0			68.0	
Actuated g/C Ratio	0.22		0.22	0.22	0.22			0.65			0.65	
v/c Ratio	0.84		0.27	0.15	0.36			0.25			0.28	
Control Delay	64.3		6.6	30.9	35.2			4.6			8.0	
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	
Total Delay	64.3		6.6	30.9	35.2			4.6			8.0	
LOS	E		A	C	D			A			A	
Approach Delay		43.1			34.0			4.6			8.0	

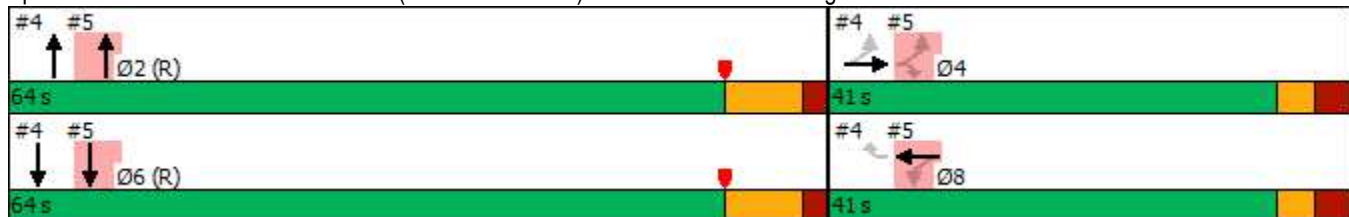


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						C			A		
Queue Length 50th (ft)	140		0	32	86			40			78	
Queue Length 95th (ft)	204		41	52	111			51			129	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	393		636	617	636			2374			3324	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.55		0.20	0.10	0.24			0.25			0.28	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	15.4
Intersection LOS:	B
Intersection Capacity Utilization	76.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	5	1	4	5	0
Future Volume (vph)	1	5	1	4	5	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887					
Flt Protected	0.992			0.990		
Satd. Flow (prot)	1682	0	0	1893	1912	0
Flt Permitted	0.992			0.990		
Satd. Flow (perm)	1682	0	0	1893	1912	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	331			233	185	
Travel Time (s)	9.0			6.4	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	5	1	4	5	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	5	5	0
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↘	↘
Traffic Volume (vph)	0	175	63	0	52	89
Future Volume (vph)	0	175	63	0	52	89
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3632	1893	0	1852	1658
Flt Permitted					0.950	
Satd. Flow (perm)	0	3632	1893	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.83	0.83	0.84	0.84
Heavy Vehicles (%)	0%	2%	3%	0%	0%	0%
Adj. Flow (vph)	0	194	76	0	62	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	194	76	0	62	106
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	15.4%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	175	63	0	52	89
Future Vol, veh/h	0	175	63	0	52	89
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	83	83	84	84
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	194	76	0	62	106

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	173 76
Stage 1	-	-	-	-	76 -
Stage 2	-	-	-	-	97 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	814 991
Stage 1	0	-	-	0	952 -
Stage 2	0	-	-	0	922 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	814 991
Mov Cap-2 Maneuver	-	-	-	-	814 -
Stage 1	-	-	-	-	952 -
Stage 2	-	-	-	-	922 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	814	991
HCM Lane V/C Ratio	-	-	0.076	0.107
HCM Control Delay (s)	-	-	9.8	9.1
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.4

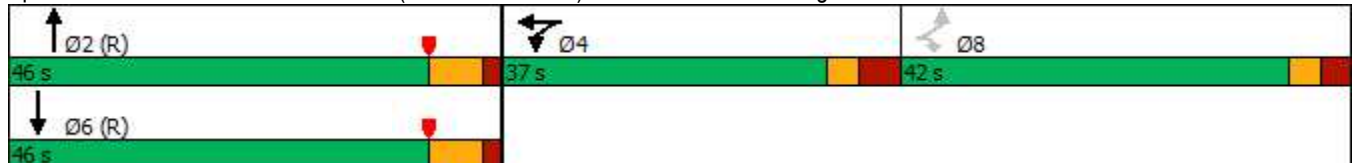
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	0	54	114	65	2	0	518	0	0	612	0
Future Volume (vph)	172	0	54	114	65	2	0	518	0	0	612	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.995							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1467	1852	1886	0	0	3668	0	0	3632	0
Fl _t Permitted	0.701			0.950								
Satd. Flow (perm)	1353	0	1467	1852	1886	0	0	3668	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			96		1							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.88	0.88	0.88	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	13%	0%	3%	0%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	191	0	60	148	84	3	0	589	0	0	658	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	191	0	60	148	87	0	0	589	0	0	658	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	42.0		42.0	37.0	37.0			46.0				46.0
Total Split (%)	33.6%		33.6%	29.6%	29.6%			36.8%				36.8%
Maximum Green (s)	36.0		36.0	30.0	30.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	22.3		22.3	14.6	14.6			68.1				68.1
Actuated g/C Ratio	0.18		0.18	0.12	0.12			0.54				0.54
v/c Ratio	0.79		0.18	0.69	0.40			0.29				0.33
Control Delay	70.9		3.1	68.6	54.6			17.6				15.2
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	70.9		3.1	68.6	54.6			17.6				15.2
LOS	E		A	E	D			B				B
Approach Delay		54.7			63.4			17.6				15.2
Approach LOS		D			E			B				B
Queue Length 50th (ft)	149		0	117	65			131				134
Queue Length 95th (ft)	218		12	150	95			208				155



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	389		490	444	453			1998			1978	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.49		0.12	0.33	0.19			0.29			0.33	

Intersection Summary	
Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	16 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	28.3
Intersection LOS:	C
Intersection Capacity Utilization	61.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	1	691	4	0	612
Future Volume (vph)	0	1	691	4	0	612
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.999			
Flt Protected						
Satd. Flow (prot)	0	1687	3665	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3665	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	331		140			1836
Travel Time (s)	9.0		1.7			22.8
Peak Hour Factor	0.25	0.25	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	4	743	4	0	658
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	4	747	0	0	658
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.7%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	1	691	4	0	612
Future Vol, veh/h	0	1	691	4	0	612
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	4	743	4	0	658

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	374	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	629	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	629	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	629
HCM Lane V/C Ratio	-	-	0.006
HCM Control Delay (s)	-	-	10.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

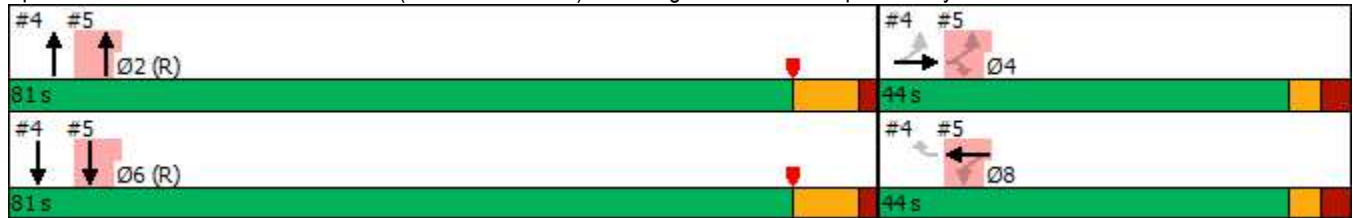
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	3	1	0	0	23	0	659	16	0	722	0
Future Volume (vph)	91	3	1	0	0	23	0	659	16	0	722	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Frt		0.999				0.865		0.996				
Flt Protected		0.954										
Satd. Flow (prot)	0	1858	0	0	0	1687	0	5251	0	0	3668	0
Flt Permitted		0.954										
Satd. Flow (perm)	0	1858	0	0	0	1687	0	5251	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						212		5				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.68	0.68	0.68	0.64	0.64	0.64	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	134	4	1	0	0	36	0	732	18	0	811	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	0	36	0	750	0	0	811	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		73.0			73.0	
Minimum Split (s)	13.0	13.0				13.0		81.0			81.0	
Total Split (s)	44.0	44.0				44.0		81.0			81.0	
Total Split (%)	35.2%	35.2%				35.2%		64.8%			64.8%	
Maximum Green (s)	38.0	38.0				38.0		73.0			73.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		20.2				20.2		90.8			90.8	
Actuated g/C Ratio		0.16				0.16		0.73			0.73	
v/c Ratio		0.46				0.08		0.20			0.30	
Control Delay		51.2				0.3		2.6			4.6	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		51.2				0.3		2.6			4.6	
LOS		D				A		A			A	
Approach Delay		51.2			0.3			2.6			4.6	
Approach LOS		D			A			A			A	
Queue Length 50th (ft)		103				0		48			62	
Queue Length 95th (ft)		114				0		45			89	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		564				660		3817			2665	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.25				0.05		0.20			0.30	

Intersection Summary	
Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	91	55	81	5	0	647	0	0	649	156
Future Volume (vph)	156	0	91	55	81	5	0	647	0	0	649	156
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.991						0.971	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1658	1852	1914	0	0	3668	0	0	5098	0
Flt Permitted	0.644			0.950								
Satd. Flow (perm)	1243	0	1658	1852	1914	0	0	3668	0	0	5098	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			95		3						78	
Link Speed (mph)		25		25				55			55	
Link Distance (ft)		455		232				626			341	
Travel Time (s)		12.4		6.3				7.8			4.2	
Peak Hour Factor	0.96	0.96	0.96	0.75	0.75	0.75	0.96	0.96	0.96	0.85	0.85	0.85
Heavy Vehicles (%)	1%	0%	0%	0%	1%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	163	0	95	73	108	7	0	674	0	0	764	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	0	95	73	115	0	0	674	0	0	948	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			73.0			73.0	
Minimum Split (s)	13.0		13.0	13.0	13.0			81.0			81.0	
Total Split (s)	44.0		44.0	44.0	44.0			81.0			81.0	
Total Split (%)	35.2%		35.2%	35.2%	35.2%			64.8%			64.8%	
Maximum Green (s)	38.0		38.0	38.0	38.0			73.0			73.0	
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0			6.0	
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0			2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0			2.0	
Recall Mode	None		None	None	None			C-Max			C-Max	
Act Effct Green (s)	20.2		20.2	20.2	20.2			90.8			90.8	
Actuated g/C Ratio	0.16		0.16	0.16	0.16			0.73			0.73	
v/c Ratio	0.81		0.27	0.24	0.37			0.25			0.25	
Control Delay	78.9		9.8	45.5	47.2			2.9			5.9	
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	
Total Delay	78.9		9.8	45.5	47.2			2.9			5.9	
LOS	E		A	D	D			A			A	
Approach Delay		53.4			46.5			2.9			5.9	

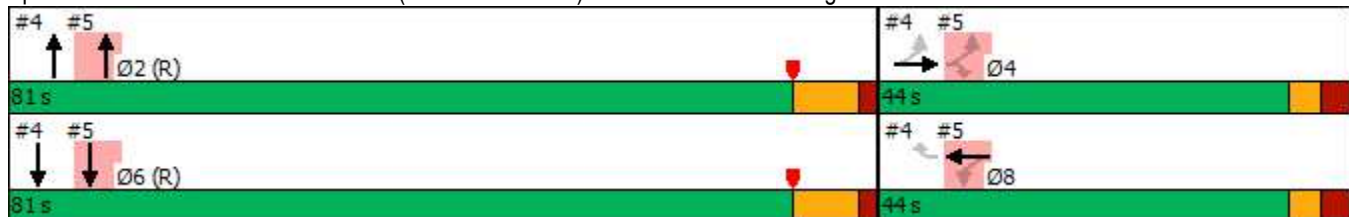


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			D			A			A		
Queue Length 50th (ft)	129		0	52	82			48			75	
Queue Length 95th (ft)	195		45	74	106			59			110	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	377		570	563	583			2665			3726	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.43		0.17	0.13	0.20			0.25			0.25	

Intersection Summary

Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	14.5
Intersection LOS:	B
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	3	1	2	1	0
Future Volume (vph)	1	3	1	2	1	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.899					
Flt Protected	0.988			0.984		
Satd. Flow (prot)	1698	0	0	1881	1912	0
Flt Permitted	0.988			0.984		
Satd. Flow (perm)	1698	0	0	1881	1912	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	331			233	185	
Travel Time (s)	9.0			6.4	5.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	3	1	2	1	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	3	1	0
Sign Control	Free			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3% ICU Level of Service A
Analysis Period (min)	15

**TAKE-5 AUTOMATIC CAR WASH
2520 BRUNSWICK PIKE
BLOCK 2201 – LOT 20**

APPENDIX D
Trip Generation

Land Use: 948

Automated Car Wash

Description

An automated car wash is a facility that allows for the mechanical cleaning of the exterior of vehicles. Manual cleaning service may also be available at the facility. Self-service car wash (Land Use 947) and car wash and detail center (Land Use 949) are related uses.

Additional Data

The sites were surveyed in the 1990s and the 2000s in New Jersey, New York, and Washington.

Source Numbers

552, 555, 585, 599, 954



NJDOT HAPS Trip Generation Table

Land Use Code	948			Trips
Land Use Description	Automated Car Wash			
Independent Variable	CAR WASH TUNNEL			
Value	1			
AM Peak Hour Rate	Y*77.50	1*77.50		78
PM Peak Hour Rate	Y*77.50	1*77.50		78
Weekday Daily Rate	Y*775.00	1*775.00		775
Weekend Peak Hour Rate	Y*41	1*41		41
Weekend Daily Rate	Y*410.00	1*410.00		410
Distribution	AM	PM		SAT
IN %	50%	50%		46%
OUT %	50%	50%		54%
ENTERING TRIPS	39	39		19
EXITING TRIPS	39	39		22

**TAKE-5 AUTOMATIC CAR WASH
2520 BRUNSWICK PIKE
BLOCK 2201 – LOT 20**

APPENDIX E
2025 Build Condition Synchro Analysis Worksheets



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Volume (vph)	0	196	111	0	38	65
Future Volume (vph)	0	196	111	0	38	65
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3562	1822	0	1764	1625
Flt Permitted					0.950	
Satd. Flow (perm)	0	3562	1822	0	1764	1625
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.76	0.76	0.57	0.57	0.75	0.75
Heavy Vehicles (%)	0%	4%	7%	0%	5%	2%
Adj. Flow (vph)	0	258	195	0	51	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	258	195	0	51	87
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Vol, veh/h	0	196	111	0	38	65
Future Vol, veh/h	0	196	111	0	38	65
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	76	76	57	57	75	75
Heavy Vehicles, %	0	4	7	0	5	2
Mvmt Flow	0	258	195	0	51	87

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	324 195
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	129 -
Critical Hdwy	-	-	-	-	6.675 6.23
Critical Hdwy Stg 1	-	-	-	-	5.475 -
Critical Hdwy Stg 2	-	-	-	-	5.875 -
Follow-up Hdwy	-	-	-	-	3.5475 3.319
Pot Cap-1 Maneuver	0	-	-	0	650 846
Stage 1	0	-	-	0	829 -
Stage 2	0	-	-	0	876 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	650 846
Mov Cap-2 Maneuver	-	-	-	-	650 -
Stage 1	-	-	-	-	829 -
Stage 2	-	-	-	-	876 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	650	846
HCM Lane V/C Ratio	-	-	0.078	0.102
HCM Control Delay (s)	-	-	11	9.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	0	80	57	95	1	0	629	0	0	344	0
Future Volume (vph)	160	0	80	57	95	1	0	629	0	0	344	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.999							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1467	1816	1805	0	0	3597	0	0	3495	0
Fl _t Permitted	0.666			0.950								
Satd. Flow (perm)	1249	0	1467	1816	1805	0	0	3597	0	0	3495	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114									
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.70	0.70	0.70	0.67	0.67	0.67	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	4%	0%	13%	2%	8%	0%	0%	3%	0%	0%	6%	0%
Adj. Flow (vph)	229	0	114	85	142	1	0	715	0	0	387	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	229	0	114	85	143	0	0	715	0	0	387	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	33.0		33.0	36.0	36.0			46.0				46.0
Total Split (%)	28.7%		28.7%	31.3%	31.3%			40.0%				40.0%
Maximum Green (s)	27.0		27.0	29.0	29.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	23.9		23.9	13.7	13.7			57.4				57.4
Actuated g/C Ratio	0.21		0.21	0.12	0.12			0.50				0.50
v/c Ratio	0.88		0.29	0.39	0.67			0.40				0.22
Control Delay	76.7		8.5	50.9	62.9			20.2				9.6
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	76.7		8.5	50.9	62.9			20.2				9.6
LOS	E		A	D	E			C				A
Approach Delay		54.0			58.4			20.2				9.6
Approach LOS		D			E			C				A
Queue Length 50th (ft)	161		0	59	103			176				33
Queue Length 95th (ft)	185		20	76	117			243				41

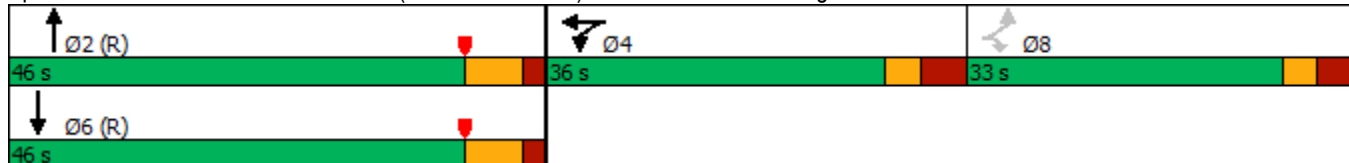


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	293		431	457	455			1795			1744	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.78		0.26	0.19	0.31			0.40			0.22	

Intersection Summary

Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.88
Intersection Signal Delay:	29.9
Intersection LOS:	C
Intersection Capacity Utilization	60.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↖	↕	↗	↖	↕
Traffic Volume (vph)	0	44	731	51	0	344
Future Volume (vph)	0	44	731	51	0	344
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.990			
Flt Protected						
Satd. Flow (prot)	0	1687	3536	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3536	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	166		140			1836
Travel Time (s)	4.5		1.7			22.8
Peak Hour Factor	0.25	0.25	0.89	0.89	0.92	0.92
Heavy Vehicles (%)	0%	0%	4%	0%	0%	0%
Adj. Flow (vph)	0	176	821	57	0	374
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	878	0	0	374
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	44	731	51	0	344
Future Vol, veh/h	0	44	731	51	0	344
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	89	89	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	0	176	821	57	0	374

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	439	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	571	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	-	571	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	571
HCM Lane V/C Ratio	-	-	0.308
HCM Control Delay (s)	-	-	14.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.3

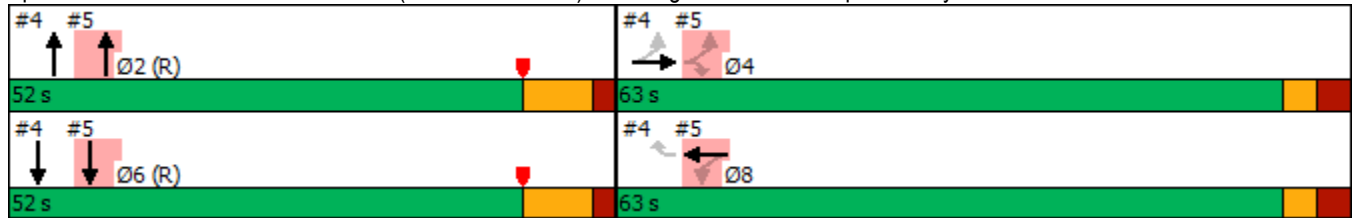
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	3	1	0	0	3	0	678	9	0	471	0
Future Volume (vph)	28	3	1	0	0	3	0	678	9	0	471	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.997				0.865		0.998				
Fl _t Protected		0.958										
Satd. Flow (prot)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Fl _t Permitted		0.958										
Satd. Flow (perm)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				75		2				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.78	0.78	0.78	0.38	0.38	0.38	0.88	0.88	0.88	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	11%	0%	7%	0%
Adj. Flow (vph)	36	4	1	0	0	8	0	770	10	0	501	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	0	8	0	780	0	0	501	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		44.0			44.0	
Minimum Split (s)	13.0	13.0				13.0		52.0			52.0	
Total Split (s)	63.0	63.0				63.0		52.0			52.0	
Total Split (%)	54.8%	54.8%				54.8%		45.2%			45.2%	
Maximum Green (s)	57.0	57.0				57.0		44.0			44.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		24.2				24.2		76.8			76.8	
Actuated g/C Ratio		0.21				0.21		0.67			0.67	
v/c Ratio		0.10				0.02		0.23			0.22	
Control Delay		32.9				0.0		5.3			6.5	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		32.9				0.0		5.3			6.5	
LOS		C				A		A			A	
Approach Delay		32.9						5.3			6.5	
Approach LOS		C						A			A	
Queue Length 50th (ft)		24				0		42			46	
Queue Length 95th (ft)		41				0		54			74	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		923				873		3409			2312	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.04				0.01		0.23			0.22	

Intersection Summary	
Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.95
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	0	65	44	146	1	0	527	0	0	383	115
Future Volume (vph)	141	0	65	44	146	1	0	527	0	0	383	115
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.999						0.965	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1658	1852	1929	0	0	3597	0	0	4918	0
Flt Permitted	0.501			0.950								
Satd. Flow (perm)	939	0	1658	1852	1929	0	0	3597	0	0	4918	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87								76	
Link Speed (mph)		25			25			55				55
Link Distance (ft)		455			232			626				341
Travel Time (s)		12.4			6.3			7.8				4.2
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles (%)	4%	5%	0%	0%	1%	0%	0%	3%	0%	0%	4%	6%
Adj. Flow (vph)	188	0	87	59	195	1	0	620	0	0	440	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	0	87	59	196	0	0	620	0	0	572	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	NA
Protected Phases					8			2				6
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			44.0				44.0
Minimum Split (s)	13.0		13.0	13.0	13.0			52.0				52.0
Total Split (s)	63.0		63.0	63.0	63.0			52.0				52.0
Total Split (%)	54.8%		54.8%	54.8%	54.8%			45.2%				45.2%
Maximum Green (s)	57.0		57.0	57.0	57.0			44.0				44.0
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0				6.0
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0				8.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	24.2		24.2	24.2	24.2			76.8				76.8
Actuated g/C Ratio	0.21		0.21	0.21	0.21			0.67				0.67
v/c Ratio	0.95		0.21	0.15	0.48			0.26				0.17
Control Delay	97.1		7.7	34.7	42.4			4.3				7.1
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	97.1		7.7	34.7	42.4			4.3				7.1
LOS	F		A	C	D			A				A
Approach Delay		68.8			40.6			4.3				7.1

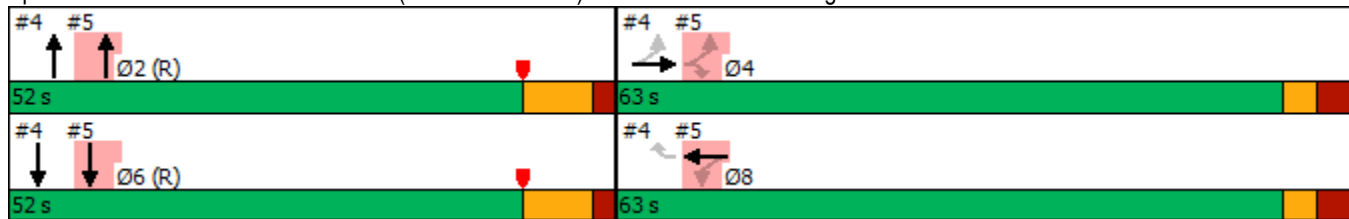


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E						D			A		
Queue Length 50th (ft)	139		0	36	129			25			45	
Queue Length 95th (ft)	162		23	53	144			56			76	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	465		865	917	956			2402			3309	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.40		0.10	0.06	0.21			0.26			0.17	

Intersection Summary

Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.95
Intersection Signal Delay:	20.9
Intersection LOS:	C
Intersection Capacity Utilization:	66.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↘	↘
Traffic Volume (vph)	0	195	75	0	58	102
Future Volume (vph)	0	195	75	0	58	102
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3632	1875	0	1852	1658
Flt Permitted					0.950	
Satd. Flow (perm)	0	3632	1875	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.69	0.69	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	0%	0%	0%
Adj. Flow (vph)	0	217	109	0	63	111
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	217	109	0	63	111
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.7%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	195	75	0	58	102
Future Vol, veh/h	0	195	75	0	58	102
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	69	69	92	92
Heavy Vehicles, %	0	2	4	0	0	0
Mvmt Flow	0	217	109	0	63	111

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	218 109
Stage 1	-	-	-	-	109 -
Stage 2	-	-	-	-	109 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	765 950
Stage 1	0	-	-	0	921 -
Stage 2	0	-	-	0	909 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	765 950
Mov Cap-2 Maneuver	-	-	-	-	765 -
Stage 1	-	-	-	-	921 -
Stage 2	-	-	-	-	909 -

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt

	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	765	950
HCM Lane V/C Ratio	-	-	0.082	0.117
HCM Control Delay (s)	-	-	10.1	9.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	0	69	105	67	7	0	462	0	0	677	0
Future Volume (vph)	160	0	69	105	67	7	0	462	0	0	677	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr't			0.850		0.986							
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1852	0	1417	1816	1872	0	0	3632	0	0	3632	0
Flt Permitted	0.694			0.950								
Satd. Flow (perm)	1353	0	1417	1816	1872	0	0	3632	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114		5							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.94	0.94	0.94	0.76	0.76	0.76	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	17%	2%	3%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	170	0	73	138	88	9	0	508	0	0	728	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	0	73	138	97	0	0	508	0	0	728	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			33.0				33.0
Minimum Split (s)	13.0		13.0	14.0	14.0			40.0				40.0
Total Split (s)	22.0		22.0	43.0	43.0			40.0				40.0
Total Split (%)	21.0%		21.0%	41.0%	41.0%			38.1%				38.1%
Maximum Green (s)	16.0		16.0	36.0	36.0			33.0				33.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	15.2		15.2	12.6	12.6			57.2				57.2
Actuated g/C Ratio	0.14		0.14	0.12	0.12			0.54				0.54
v/c Ratio	0.87		0.24	0.63	0.42			0.26				0.37
Control Delay	82.6		4.3	56.4	45.1			13.8				9.8
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	82.6		4.3	56.4	45.1			13.8				9.8
LOS	F		A	E	D			B				A
Approach Delay		59.1				51.8			13.8			9.8
Approach LOS		E				D			B			A
Queue Length 50th (ft)	112		0	90	58			92				73
Queue Length 95th (ft)	#229		15	120	86			138				84

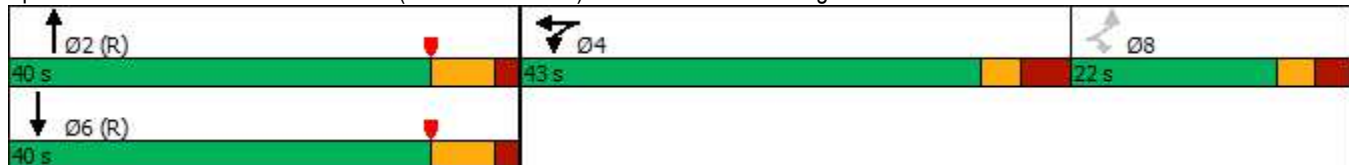


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	206		312	622	645			1979			1979	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.83		0.23	0.22	0.15			0.26			0.37	

Intersection Summary

Area Type: Other
 Cycle Length: 105
 Actuated Cycle Length: 105
 Offset: 18 (17%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 23.7
 Intersection LOS: C
 Intersection Capacity Utilization 55.8%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	56	595	41	0	677
Future Volume (vph)	0	56	595	41	0	677
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.990			
Flt Protected						
Satd. Flow (prot)	0	1687	3634	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3634	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	166		140			1836
Travel Time (s)	4.5		1.7			22.8
Peak Hour Factor	0.44	0.44	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	127	640	44	0	736
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	127	684	0	0	736
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	27.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	56	595	41	0	677
Future Vol, veh/h	0	56	595	41	0	677
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	93	93	92	92
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	127	640	44	0	736

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	342	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	660	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	660	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	660
HCM Lane V/C Ratio	-	-	0.193
HCM Control Delay (s)	-	-	11.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.7

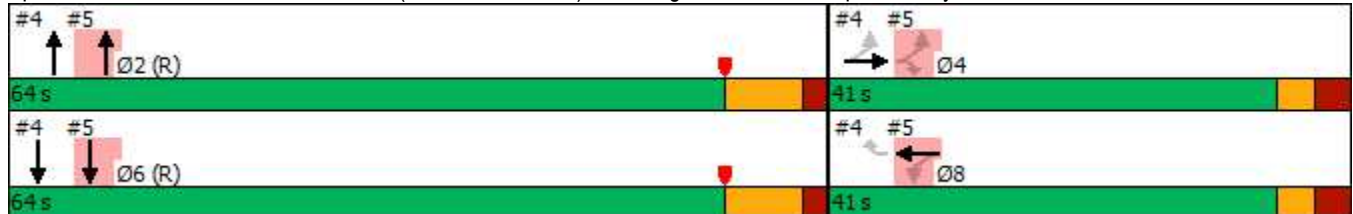
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	10	1	0	0	13	0	649	5	0	813	0
Future Volume (vph)	69	10	1	0	0	13	0	649	5	0	813	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Frt		0.999				0.865		0.999				
Flt Protected		0.959										
Satd. Flow (prot)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Flt Permitted		0.959										
Satd. Flow (perm)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						189		1				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.73	0.73	0.73	0.70	0.70	0.70	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	95	14	1	0	0	19	0	713	5	0	893	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	0	19	0	718	0	0	893	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		56.0			56.0	
Minimum Split (s)	13.0	13.0				13.0		64.0			64.0	
Total Split (s)	41.0	41.0				41.0		64.0			64.0	
Total Split (%)	39.0%	39.0%				39.0%		61.0%			61.0%	
Maximum Green (s)	35.0	35.0				35.0		56.0			56.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		23.1				23.1		67.9			67.9	
Actuated g/C Ratio		0.22				0.22		0.65			0.65	
v/c Ratio		0.27				0.04		0.21			0.38	
Control Delay		33.5				0.2		4.8			6.8	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		33.5				0.2		4.8			6.8	
LOS		C				A		A			A	
Approach Delay		33.5			0.2			4.8			6.8	
Approach LOS		C			A			A			A	
Queue Length 50th (ft)		62				0		32			77	
Queue Length 95th (ft)		77				0		m43			111	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		622				688		3405			2371	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.18				0.03		0.21			0.38	

Intersection Summary	
Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	75.0%
ICU Level of Service	D
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	0	117	78	120	2	0	557	0	0	692	184
Future Volume (vph)	197	0	117	78	120	2	0	557	0	0	692	184
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.997						0.968	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1816	0	1658	1852	1907	0	0	3668	0	0	5081	0
Flt Permitted	0.614			0.950								
Satd. Flow (perm)	1174	0	1658	1852	1907	0	0	3668	0	0	5081	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			129		1						98	
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		455			232			626			341	
Travel Time (s)		12.4			6.3			7.8			4.2	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	0%	2%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	216	0	129	98	150	3	0	619	0	0	744	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	0	129	98	153	0	0	619	0	0	942	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			56.0			56.0	
Minimum Split (s)	13.0		13.0	13.0	13.0			64.0			64.0	
Total Split (s)	41.0		41.0	41.0	41.0			64.0			64.0	
Total Split (%)	39.0%		39.0%	39.0%	39.0%			61.0%			61.0%	
Maximum Green (s)	35.0		35.0	35.0	35.0			56.0			56.0	
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0			6.0	
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0			2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0			2.0	
Recall Mode	None		None	None	None			C-Max			C-Max	
Act Effct Green (s)	23.1		23.1	23.1	23.1			67.9			67.9	
Actuated g/C Ratio	0.22		0.22	0.22	0.22			0.65			0.65	
v/c Ratio	0.84		0.28	0.24	0.36			0.26			0.28	
Control Delay	64.5		6.6	32.9	35.2			4.5			8.1	
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	
Total Delay	64.5		6.6	32.9	35.2			4.5			8.1	
LOS	E		A	C	D			A			A	
Approach Delay		42.8			34.3			4.5			8.1	

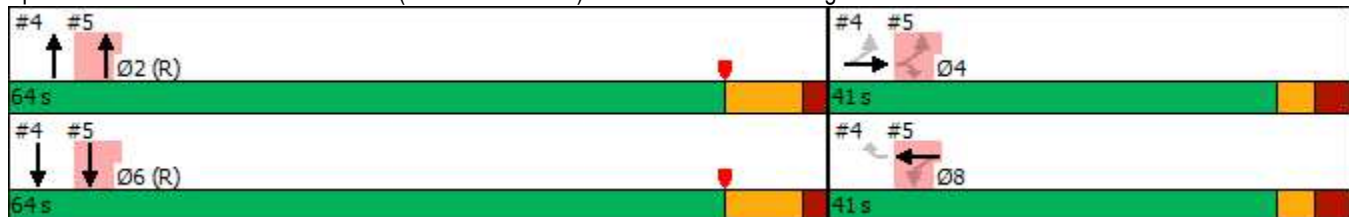


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D						C			A		
Queue Length 50th (ft)	140		0	55	87			40			80	
Queue Length 95th (ft)	204		41	77	113			51			132	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	391		638	617	636			2371			3320	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.55		0.20	0.16	0.24			0.26			0.28	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization	78.6%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↘	↘
Traffic Volume (vph)	0	177	63	0	60	91
Future Volume (vph)	0	177	63	0	60	91
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3632	1893	0	1852	1658
Flt Permitted					0.950	
Satd. Flow (perm)	0	3632	1893	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.83	0.83	0.84	0.84
Heavy Vehicles (%)	0%	2%	3%	0%	0%	0%
Adj. Flow (vph)	0	197	76	0	71	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	197	76	0	71	108
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	15.5%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	177	63	0	60	91
Future Vol, veh/h	0	177	63	0	60	91
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	83	83	84	84
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	197	76	0	71	108

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	175 76
Stage 1	-	-	-	-	76 -
Stage 2	-	-	-	-	99 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	812 991
Stage 1	0	-	-	0	952 -
Stage 2	0	-	-	0	920 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	812 991
Mov Cap-2 Maneuver	-	-	-	-	812 -
Stage 1	-	-	-	-	952 -
Stage 2	-	-	-	-	920 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	812	991
HCM Lane V/C Ratio	-	-	0.088	0.109
HCM Control Delay (s)	-	-	9.9	9.1
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	0	54	110	65	2	0	529	0	0	626	0
Future Volume (vph)	182	0	54	110	65	2	0	529	0	0	626	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.995							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1467	1852	1886	0	0	3668	0	0	3632	0
Fl _t Permitted	0.701			0.950								
Satd. Flow (perm)	1353	0	1467	1852	1886	0	0	3668	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			96		1							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.88	0.88	0.88	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	13%	0%	3%	0%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	202	0	60	143	84	3	0	601	0	0	673	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	0	60	143	87	0	0	601	0	0	673	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	42.0		42.0	37.0	37.0			46.0				46.0
Total Split (%)	33.6%		33.6%	29.6%	29.6%			36.8%				36.8%
Maximum Green (s)	36.0		36.0	30.0	30.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	23.3		23.3	14.2	14.2			67.4				67.4
Actuated g/C Ratio	0.19		0.19	0.11	0.11			0.54				0.54
v/c Ratio	0.80		0.17	0.68	0.40			0.30				0.34
Control Delay	70.5		3.0	68.7	55.2			18.1				15.2
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	70.5		3.0	68.7	55.2			18.1				15.2
LOS	E		A	E	E			B				B
Approach Delay		55.1				63.6		18.1				15.2
Approach LOS		E				E		B				B
Queue Length 50th (ft)	158		0	113	66			135				134
Queue Length 95th (ft)	227		12	148	95			215				154

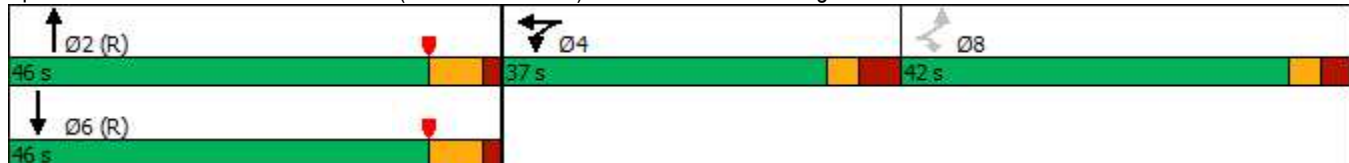


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	389		490	444	453			1978			1959	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.52		0.12	0.32	0.19			0.30			0.34	

Intersection Summary

Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	16 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	28.4
Intersection LOS:	C
Intersection Capacity Utilization	60.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	27	693	23	0	626
Future Volume (vph)	0	27	693	23	0	626
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1687	3651	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3651	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	166		140			1836
Travel Time (s)	4.5		1.7			22.8
Peak Hour Factor	0.25	0.25	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	108	745	25	0	673
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	108	770	0	0	673
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.4%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	27	693	23	0	626
Future Vol, veh/h	0	27	693	23	0	626
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	108	745	25	0	673

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	385	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	619	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	619	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	619
HCM Lane V/C Ratio	-	-	0.174
HCM Control Delay (s)	-	-	12
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.6

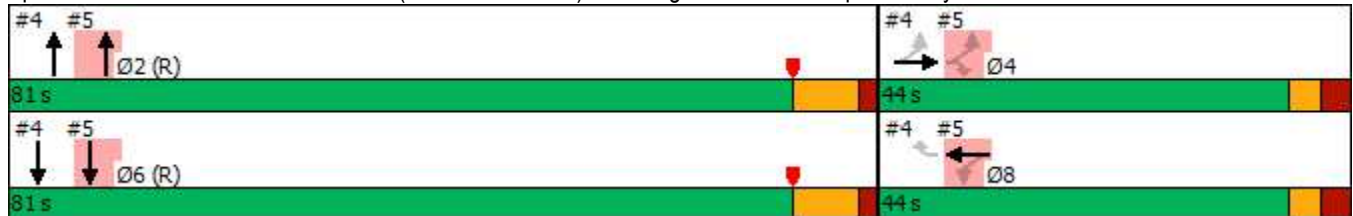
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	3	1	0	0	23	0	685	16	0	743	0
Future Volume (vph)	91	3	1	0	0	23	0	685	16	0	743	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.999				0.865		0.997				
Fl _t Protected		0.954										
Satd. Flow (prot)	0	1858	0	0	0	1687	0	5256	0	0	3668	0
Fl _t Permitted		0.954										
Satd. Flow (perm)	0	1858	0	0	0	1687	0	5256	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						198		5				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.68	0.68	0.68	0.64	0.64	0.64	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	134	4	1	0	0	36	0	761	18	0	835	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	0	36	0	779	0	0	835	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		73.0			73.0	
Minimum Split (s)	13.0	13.0				13.0		81.0			81.0	
Total Split (s)	44.0	44.0				44.0		81.0			81.0	
Total Split (%)	35.2%	35.2%				35.2%		64.8%			64.8%	
Maximum Green (s)	38.0	38.0				38.0		73.0			73.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		20.3				20.3		90.7			90.7	
Actuated g/C Ratio		0.16				0.16		0.73			0.73	
v/c Ratio		0.46				0.08		0.20			0.31	
Control Delay		50.9				0.3		3.1			5.0	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		50.9				0.3		3.1			5.0	
LOS		D				A		A			A	
Approach Delay		50.9			0.3			3.1			5.0	
Approach LOS		D			A			A			A	
Queue Length 50th (ft)		103				0		53			71	
Queue Length 95th (ft)		113				0		55			100	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		564				650		3815			2661	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.25				0.06		0.20			0.31	

Intersection Summary	
Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	92	71	84	5	0	656	0	0	656	156
Future Volume (vph)	156	0	92	71	84	5	0	656	0	0	656	156
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.991						0.971	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1658	1852	1914	0	0	3668	0	0	5099	0
Flt Permitted	0.633			0.950								
Satd. Flow (perm)	1222	0	1658	1852	1914	0	0	3668	0	0	5099	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			96		3							77
Link Speed (mph)		25			25			55				55
Link Distance (ft)		455			232			626				341
Travel Time (s)		12.4			6.3			7.8				4.2
Peak Hour Factor	0.96	0.96	0.96	0.75	0.75	0.75	0.96	0.96	0.96	0.85	0.85	0.85
Heavy Vehicles (%)	1%	0%	0%	0%	1%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	163	0	96	95	112	7	0	683	0	0	772	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	0	96	95	119	0	0	683	0	0	956	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2				6
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			73.0				73.0
Minimum Split (s)	13.0		13.0	13.0	13.0			81.0				81.0
Total Split (s)	44.0		44.0	44.0	44.0			81.0				81.0
Total Split (%)	35.2%		35.2%	35.2%	35.2%			64.8%				64.8%
Maximum Green (s)	38.0		38.0	38.0	38.0			73.0				73.0
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0				6.0
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0				8.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	20.3		20.3	20.3	20.3			90.7				90.7
Actuated g/C Ratio	0.16		0.16	0.16	0.16			0.73				0.73
v/c Ratio	0.82		0.28	0.32	0.38			0.26				0.26
Control Delay	80.1		9.8	47.1	47.3			3.0				6.0
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	80.1		9.8	47.1	47.3			3.0				6.0
LOS	F		A	D	D			A				A
Approach Delay		54.1			47.2			3.0				6.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			D			A			A		
Queue Length 50th (ft)	129		0	69	85			48			76	
Queue Length 95th (ft)	195		44	92	108			60			112	
Internal Link Dist (ft)	375			152			546			261		
Turn Bay Length (ft)	125											
Base Capacity (vph)	371		570	563	583			2661			3720	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.44		0.17	0.17	0.20			0.26			0.26	

Intersection Summary

Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle

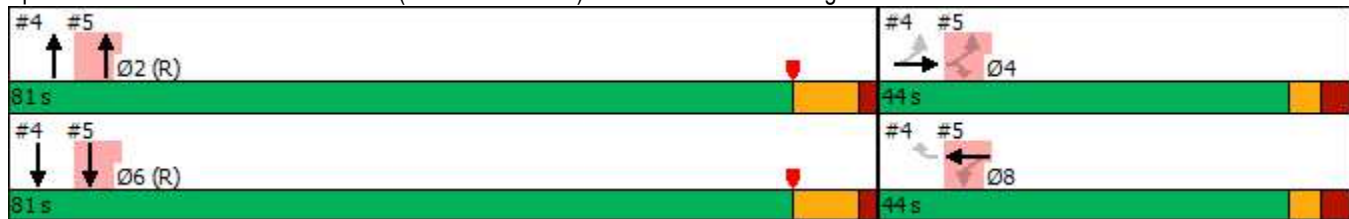


Table E-1: LOS Comparison Table

2025 No Build Condition

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour		
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	
Texas Avenue and Rt. 1 SB Jughandle (unsignalized)	Southbound	Left	B	10.8	B	10.0	A	9.8	
		Right	A	9.7	A	9.3	A	9.1	
		Approach	B	10.0	A	9.5	A	9.4	
	Overall			2.0	A	3.0	A	3.6	
	Eastbound	Left	E	72.7	E	74.8	E	70.9	
		Right	A	8.8	A	4.5	A	3.1	
		Approach	D	49.4	D	51.6	D	54.7	
		Left	D	51.6	E	56.3	E	68.6	
	Westbound	Through/Right	E	62.9	D	43.5	D	54.6	
		Approach	E	58.5	D	51.3	E	63.4	
	Northbound	Through	B	18.9	B	13.9	B	17.6	
Southbound		A	9.7	A	10.2	B	15.2		
Overall			28.6	C	23.0	C	28.3		
Brunswick Pike (Route 1 Business) and Site Driveway (unsignalized)	Westbound	Right	B	11.1	B	10.4	B	10.8	
		Left/Through/Right	A	0.1	A	0.1	A	0.1	
		Through/Right	C	33.0	C	33.6	D	51.2	
	Eastbound	Right	A	0.0	A	0.2	A	0.3	
		Through/Right	A	4.9	A	4.4	A	2.6	
	Northbound	Through	A	5.5	A	5.9	A	4.6	
		Southbound	A	6.0	A	7.1	A	7.4	
	Overall			94.9	E	64.3	E	78.9	
	Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	Eastbound	Left	F	7.9	A	6.6	A	9.8
			Right	E	69.2	D	43.1	D	53.4
			Approach	C	32.9	C	30.9	D	45.5
Westbound		Through/Right	D	42.3	D	35.2	D	47.2	
		Approach	D	41.1	C	34.0	D	46.5	
Northbound		Through	A	4.3	A	4.6	A	2.9	
	Southbound	A	7.0	A	8.0	A	5.9		
Overall			20.7	B	15.4	B	14.5		

2025 Build without Mitigation Condition

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour		
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	
Texas Avenue and Rt. 1 SB Jughandle (unsignalized)	Southbound	Left	B	11.0	A	10.1	A	9.9	
		Right	A	9.7	A	9.3	A	9.1	
		Approach	B	10.2	A	9.6	A	9.4	
	Overall			2.4	A	3.3	A	3.7	
	Eastbound	Left	E	76.7	F	82.6	E	70.5	
		Right	A	8.5	A	4.3	A	3.0	
		Approach	D	54.0	E	59.1	E	55.1	
		Left	D	50.9	E	56.4	E	68.7	
	Westbound	Through/Right	E	62.9	D	45.1	E	55.2	
		Approach	E	58.4	D	51.8	E	63.6	
	Northbound	Through	B	20.2	B	13.8	B	18.1	
Southbound		A	9.6	B	9.8	B	15.2		
Overall			29.9	C	23.7	C	28.4		
Brunswick Pike (Route 1 Business) and Site Driveway (unsignalized)	Westbound	Right	B	14.1	B	11.8	B	12.0	
		Left/Through/Right	A	1.7	A	1.0	A	0.8	
		Through/Right	C	32.9	C	33.5	D	50.9	
	Eastbound	Right	A	0.0	A	0.2	A	0.3	
		Through/Right	A	5.3	A	4.8	A	3.1	
	Northbound	Through	A	6.5	A	6.8	A	5.0	
		Southbound	A	6.6	A	7.6	A	7.6	
	Overall			97.1	E	64.5	F	80.1	
	Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	Eastbound	Left	F	7.7	A	6.6	A	9.8
			Right	E	68.8	D	42.8	D	54.1
			Approach	C	34.7	C	32.9	D	47.1
Westbound		Through/Right	D	42.4	D	35.2	D	47.3	
		Approach	D	40.6	C	34.3	D	47.2	
Northbound		Through	A	4.3	A	4.5	A	3.0	
	Southbound	A	7.1	A	8.1	A	6.0		
Overall			20.9	B	15.7	B	15.1		

Comparison

Intersection	AM Peak Hour				PM Peak Hour				Saturday Peak Hour			
	Change	Allowable	Acceptable?	Change	Allowable	Acceptable?	Change	Allowable	Acceptable?	Change	Allowable	Acceptable?
Texas Avenue and Rt. 1 SB Jughandle (unsignalized)	0.2	17.3	Yes	0.1	17.5	Yes	0.1	17.6	Yes	0.1	17.6	Yes
	0.0	17.6	Yes	0.0	17.7	Yes	0.0	17.7	Yes	0.0	17.7	Yes
	0.2	17.5	Yes	0.1	17.6	Yes	0.0	17.7	Yes	0.0	17.7	Yes
	4.0	1.8	No	7.8	1.3	No	-0.4	2.3	Yes	-0.4	2.3	Yes
	-0.3	17.8	Yes	-0.2	18.9	Yes	-0.1	19.2	Yes	-0.1	19.2	Yes
	4.6	7.7	Yes	7.5	7.1	No	0.4	6.3	Yes	0.4	6.3	Yes
	-0.7	7.1	Yes	0.1	5.9	Yes	0.1	2.9	Yes	0.1	2.9	Yes
	0.0	4.3	Yes	1.6	9.1	Yes	0.6	6.4	Yes	0.6	6.4	Yes
	-0.1	5.4	Yes	0.5	7.2	Yes	0.2	4.2	Yes	0.2	4.2	Yes
	1.3	15.3	Yes	-0.1	16.5	Yes	0.5	15.6	Yes	0.5	15.6	Yes
	-0.1	17.6	Yes	-0.4	17.5	Yes	0.0	16.2	Yes	0.0	16.2	Yes
Overall			3.0	17.2	Yes	1.4	17.4	Yes	1.2	17.3	Yes	
Brunswick Pike (Route 1 Business) and Site Driveway (unsignalized)	-0.1	11.8	Yes	-0.1	11.6	Yes	-0.3	7.2	Yes	-0.3	7.2	Yes
	0.0	20.0	Yes	0.0	20.0	Yes	0.0	19.9	Yes	0.0	19.9	Yes
	0.4	18.8	Yes	0.4	18.9	Yes	0.5	19.4	Yes	0.5	19.4	Yes
	1.0	18.6	Yes	0.9	18.5	Yes	0.4	18.9	Yes	0.4	18.9	Yes
	2.2	0.0	No	0.2	3.9	Yes	1.2	0.3	No	1.2	0.3	No
	-0.2	18.0	Yes	0.0	18.4	Yes	0.0	17.6	Yes	0.0	17.6	Yes
	-0.4	2.7	Yes	-0.3	9.2	Yes	0.7	6.7	Yes	0.7	6.7	Yes
	1.8	11.8	Yes	2.0	12.3	Yes	1.6	8.6	Yes	1.6	8.6	Yes
	0.1	9.4	Yes	0.0	11.2	Yes	0.1	8.2	Yes	0.1	8.2	Yes
	-	-	-	-	-	-	-	-	-	-	-	-
	0.1	18.3	Yes	0.1	18.0	Yes	0.1	18.5	Yes	0.1	18.5	Yes
Overall			2.2	18.9	Yes	-0.1	19.3	Yes	0.1	19.3	Yes	

**TAKE-5 AUTOMATIC CAR WASH
2520 BRUNSWICK PIKE
BLOCK 2201 – LOT 20**

APPENDIX F
2025 Build with Mitigation Condition Synchro Analysis Worksheets



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Volume (vph)	0	196	111	0	38	65
Future Volume (vph)	0	196	111	0	38	65
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3562	1822	0	1764	1625
Flt Permitted					0.950	
Satd. Flow (perm)	0	3562	1822	0	1764	1625
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.76	0.76	0.57	0.57	0.75	0.75
Heavy Vehicles (%)	0%	4%	7%	0%	5%	2%
Adj. Flow (vph)	0	258	195	0	51	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	258	195	0	51	87
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↓	↓
Traffic Vol, veh/h	0	196	111	0	38	65
Future Vol, veh/h	0	196	111	0	38	65
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	76	76	57	57	75	75
Heavy Vehicles, %	0	4	7	0	5	2
Mvmt Flow	0	258	195	0	51	87

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	324 195
Stage 1	-	-	-	-	195 -
Stage 2	-	-	-	-	129 -
Critical Hdwy	-	-	-	-	6.675 6.23
Critical Hdwy Stg 1	-	-	-	-	5.475 -
Critical Hdwy Stg 2	-	-	-	-	5.875 -
Follow-up Hdwy	-	-	-	-	3.5475 3.319
Pot Cap-1 Maneuver	0	-	-	0	650 846
Stage 1	0	-	-	0	829 -
Stage 2	0	-	-	0	876 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	650 846
Mov Cap-2 Maneuver	-	-	-	-	650 -
Stage 1	-	-	-	-	829 -
Stage 2	-	-	-	-	876 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	650	846
HCM Lane V/C Ratio	-	-	0.078	0.102
HCM Control Delay (s)	-	-	11	9.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.3

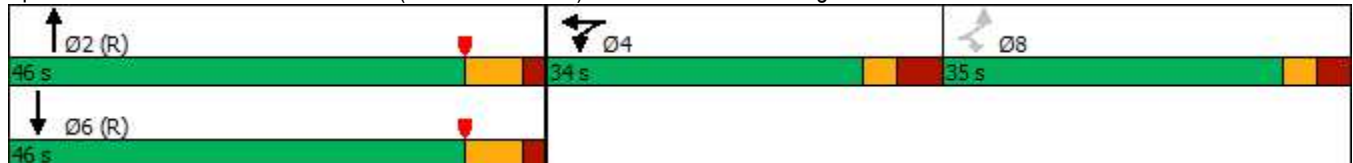
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	0	80	57	95	1	0	629	0	0	344	0
Future Volume (vph)	160	0	80	57	95	1	0	629	0	0	344	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.999							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1467	1816	1805	0	0	3597	0	0	3495	0
Fl _t Permitted	0.666			0.950								
Satd. Flow (perm)	1249	0	1467	1816	1805	0	0	3597	0	0	3495	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114									
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.70	0.70	0.70	0.67	0.67	0.67	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	4%	0%	13%	2%	8%	0%	0%	3%	0%	0%	6%	0%
Adj. Flow (vph)	229	0	114	85	142	1	0	715	0	0	387	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	229	0	114	85	143	0	0	715	0	0	387	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	35.0		35.0	34.0	34.0			46.0				46.0
Total Split (%)	30.4%		30.4%	29.6%	29.6%			40.0%				40.0%
Maximum Green (s)	29.0		29.0	27.0	27.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	24.5		24.5	13.7	13.7			56.9				56.9
Actuated g/C Ratio	0.21		0.21	0.12	0.12			0.49				0.49
v/c Ratio	0.86		0.28	0.39	0.67			0.40				0.22
Control Delay	72.5		8.2	51.0	63.0			20.8				9.7
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	72.5		8.2	51.0	63.0			20.8				9.7
LOS	E		A	D	E			C				A
Approach Delay		51.1			58.5			20.8				9.7
Approach LOS		D			E			C				A
Queue Length 50th (ft)	162		0	59	103			175				33
Queue Length 95th (ft)	181		19	76	117			251				41



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	314		455	426	423			1778			1728	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.73		0.25	0.20	0.34			0.40			0.22	

Intersection Summary	
Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	29.6
Intersection LOS:	C
Intersection Capacity Utilization	60.8%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	44	731	51	0	344
Future Volume (vph)	0	44	731	51	0	344
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.990			
Flt Protected						
Satd. Flow (prot)	0	1687	3536	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3536	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	166		140			1836
Travel Time (s)	4.5		1.7			22.8
Peak Hour Factor	0.25	0.25	0.89	0.89	0.92	0.92
Heavy Vehicles (%)	0%	0%	4%	0%	0%	0%
Adj. Flow (vph)	0	176	821	57	0	374
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	176	878	0	0	374
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	44	731	51	0	344
Future Vol, veh/h	0	44	731	51	0	344
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	89	89	92	92
Heavy Vehicles, %	0	0	4	0	0	0
Mvmt Flow	0	176	821	57	0	374

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	439	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	571	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	571	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	571
HCM Lane V/C Ratio	-	-	0.308
HCM Control Delay (s)	-	-	14.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.3

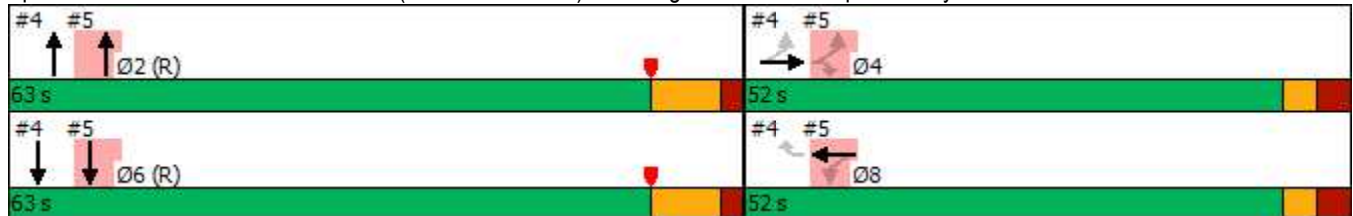
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	3	1	0	0	3	0	678	9	0	471	0
Future Volume (vph)	28	3	1	0	0	3	0	678	9	0	471	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.997				0.865		0.998				
Fl _t Protected		0.958										
Satd. Flow (prot)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Fl _t Permitted		0.958										
Satd. Flow (perm)	0	1862	0	0	0	1687	0	5104	0	0	3463	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				130		2				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.78	0.78	0.78	0.38	0.38	0.38	0.88	0.88	0.88	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	11%	0%	7%	0%
Adj. Flow (vph)	36	4	1	0	0	8	0	770	10	0	501	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	0	8	0	780	0	0	501	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		44.0			44.0	
Minimum Split (s)	13.0	13.0				13.0		52.0			52.0	
Total Split (s)	52.0	52.0				52.0		63.0			63.0	
Total Split (%)	45.2%	45.2%				45.2%		54.8%			54.8%	
Maximum Green (s)	46.0	46.0				46.0		55.0			55.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		24.4				24.4		76.6			76.6	
Actuated g/C Ratio		0.21				0.21		0.67			0.67	
v/c Ratio		0.10				0.02		0.23			0.22	
Control Delay		32.8				0.0		5.5			6.6	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		32.8				0.0		5.5			6.6	
LOS		C				A		A			A	
Approach Delay		32.8						5.5			6.6	
Approach LOS		C						A			A	
Queue Length 50th (ft)		24				0		42			47	
Queue Length 95th (ft)		41				0		56			75	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		745				752		3402			2307	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.06				0.01		0.23			0.22	

Intersection Summary	
Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	6.7
Intersection LOS:	A
Intersection Capacity Utilization	65.0%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	0	65	44	146	1	0	527	0	0	383	115
Future Volume (vph)	141	0	65	44	146	1	0	527	0	0	383	115
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.999						0.965	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1781	0	1658	1852	1929	0	0	3597	0	0	4918	0
Flt Permitted	0.503			0.950								
Satd. Flow (perm)	943	0	1658	1852	1929	0	0	3597	0	0	4918	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87								90	
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		455			232			626			341	
Travel Time (s)		12.4			6.3			7.8			4.2	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.85	0.85	0.85	0.87	0.87	0.87
Heavy Vehicles (%)	4%	5%	0%	0%	1%	0%	0%	3%	0%	0%	4%	6%
Adj. Flow (vph)	188	0	87	59	195	1	0	620	0	0	440	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	0	87	59	196	0	0	620	0	0	572	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			44.0			44.0	
Minimum Split (s)	13.0		13.0	13.0	13.0			52.0			52.0	
Total Split (s)	52.0		52.0	52.0	52.0			63.0			63.0	
Total Split (%)	45.2%		45.2%	45.2%	45.2%			54.8%			54.8%	
Maximum Green (s)	46.0		46.0	46.0	46.0			55.0			55.0	
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0			6.0	
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0			2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0			2.0	
Recall Mode	None		None	None	None			C-Max			C-Max	
Act Effct Green (s)	24.4		24.4	24.4	24.4			76.6			76.6	
Actuated g/C Ratio	0.21		0.21	0.21	0.21			0.67			0.67	
v/c Ratio	0.94		0.21	0.15	0.48			0.26			0.17	
Control Delay	94.1		7.7	34.6	42.2			4.7			7.0	
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	
Total Delay	94.1		7.7	34.6	42.2			4.7			7.0	
LOS	F		A	C	D			A			A	
Approach Delay		66.8			40.4			4.7			7.0	

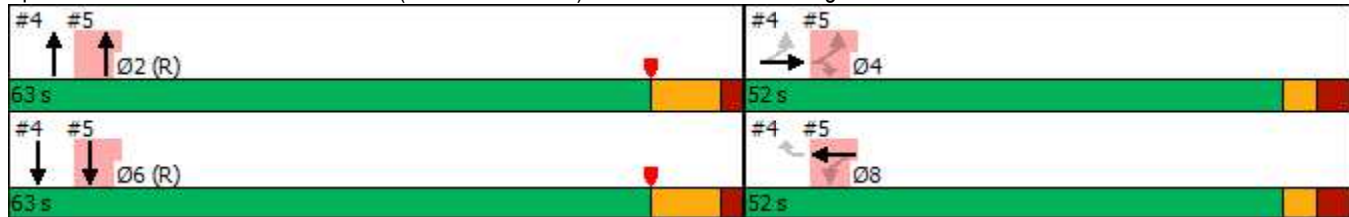


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	E						D			A		
Queue Length 50th (ft)	138		0	36	128			25			43	
Queue Length 95th (ft)	163		23	53	144			66			73	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	377		715	740	771			2397			3307	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.50		0.12	0.08	0.25			0.26			0.17	

Intersection Summary

Area Type:	Other
Cycle Length:	115
Actuated Cycle Length:	115
Offset:	5 (4%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	20.7
Intersection LOS:	C
Intersection Capacity Utilization:	66.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↘	↘
Traffic Volume (vph)	0	195	75	0	58	102
Future Volume (vph)	0	195	75	0	58	102
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Fr _t						0.850
Fl _t Protected					0.950	
Satd. Flow (prot)	0	3632	1875	0	1852	1658
Fl _t Permitted					0.950	
Satd. Flow (perm)	0	3632	1875	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.69	0.69	0.92	0.92
Heavy Vehicles (%)	0%	2%	4%	0%	0%	0%
Adj. Flow (vph)	0	217	109	0	63	111
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	217	109	0	63	111
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.7%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	195	75	0	58	102
Future Vol, veh/h	0	195	75	0	58	102
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	69	69	92	92
Heavy Vehicles, %	0	2	4	0	0	0
Mvmt Flow	0	217	109	0	63	111

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	218 109
Stage 1	-	-	-	-	109 -
Stage 2	-	-	-	-	109 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	765 950
Stage 1	0	-	-	0	921 -
Stage 2	0	-	-	0	909 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	765 950
Mov Cap-2 Maneuver	-	-	-	-	765 -
Stage 1	-	-	-	-	921 -
Stage 2	-	-	-	-	909 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	765	950
HCM Lane V/C Ratio	-	-	0.082	0.117
HCM Control Delay (s)	-	-	10.1	9.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	0	69	105	67	7	0	462	0	0	677	0
Future Volume (vph)	160	0	69	105	67	7	0	462	0	0	677	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr't			0.850		0.986							
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1852	0	1417	1816	1872	0	0	3632	0	0	3632	0
Flt Permitted	0.694			0.950								
Satd. Flow (perm)	1353	0	1417	1816	1872	0	0	3632	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114		5							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.94	0.94	0.94	0.76	0.76	0.76	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	17%	2%	3%	0%	0%	2%	0%	0%	2%	0%
Adj. Flow (vph)	170	0	73	138	88	9	0	508	0	0	728	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	0	73	138	97	0	0	508	0	0	728	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			33.0				33.0
Minimum Split (s)	13.0		13.0	14.0	14.0			40.0				40.0
Total Split (s)	24.0		24.0	41.0	41.0			40.0				40.0
Total Split (%)	22.9%		22.9%	39.0%	39.0%			38.1%				38.1%
Maximum Green (s)	18.0		18.0	34.0	34.0			33.0				33.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	16.0		16.0	12.6	12.6			56.3				56.3
Actuated g/C Ratio	0.15		0.15	0.12	0.12			0.54				0.54
v/c Ratio	0.83		0.23	0.63	0.42			0.26				0.37
Control Delay	73.3		4.1	56.4	45.1			14.6				10.1
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	73.3		4.1	56.4	45.1			14.6				10.1
LOS	E		A	E	D			B				B
Approach Delay		52.5			51.8			14.6				10.1
Approach LOS		D			D			B				B
Queue Length 50th (ft)	110		0	90	58			96				73
Queue Length 95th (ft)	#211		15	120	86			145				84

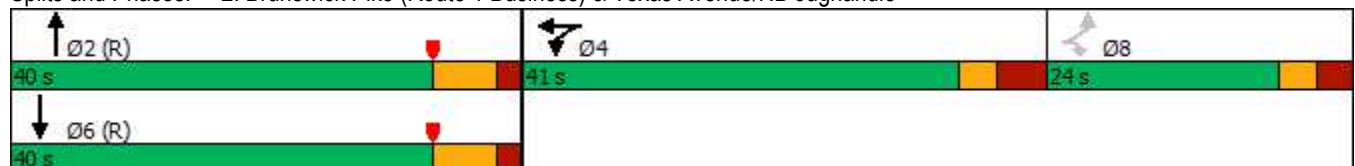


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	231		337	588	609			1948			1948	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.74		0.22	0.23	0.16			0.26			0.37	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	18 (17%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	23.1
Intersection LOS:	C
Intersection Capacity Utilization	55.8%
ICU Level of Service	B
Analysis Period (min)	15
#	95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	56	595	41	0	677
Future Volume (vph)	0	56	595	41	0	677
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.990			
Flt Protected						
Satd. Flow (prot)	0	1687	3634	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3634	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	166		140			1836
Travel Time (s)	4.5		1.7			22.8
Peak Hour Factor	0.44	0.44	0.93	0.93	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	127	640	44	0	736
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	127	684	0	0	736
Sign Control	Stop		Free			Free

Intersection Summary

















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	27.3%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	56	595	41	0	677
Future Vol, veh/h	0	56	595	41	0	677
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	93	93	92	92
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	127	640	44	0	736

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	342	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	660	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	660	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	660
HCM Lane V/C Ratio	-	-	0.193
HCM Control Delay (s)	-	-	11.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.7

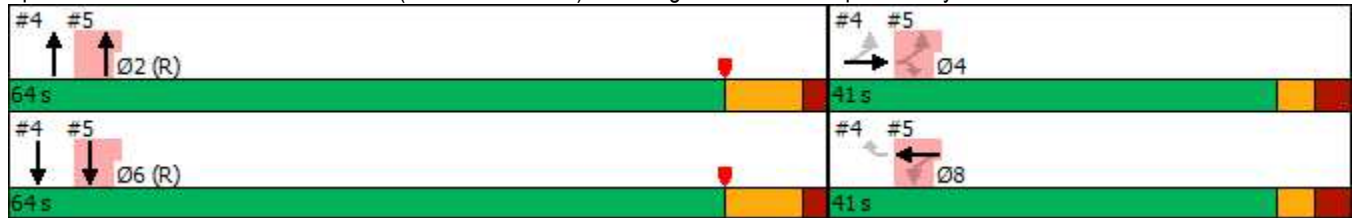
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	10	1	0	0	13	0	649	5	0	813	0
Future Volume (vph)	69	10	1	0	0	13	0	649	5	0	813	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.999				0.865		0.999				
Fl _t Protected		0.959										
Satd. Flow (prot)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Fl _t Permitted		0.959										
Satd. Flow (perm)	0	1868	0	0	0	1687	0	5266	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						189		1				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.73	0.73	0.73	0.70	0.70	0.70	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	95	14	1	0	0	19	0	713	5	0	893	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	0	19	0	718	0	0	893	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		56.0			56.0	
Minimum Split (s)	13.0	13.0				13.0		64.0			64.0	
Total Split (s)	41.0	41.0				41.0		64.0			64.0	
Total Split (%)	39.0%	39.0%				39.0%		61.0%			61.0%	
Maximum Green (s)	35.0	35.0				35.0		56.0			56.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		23.1				23.1		67.9			67.9	
Actuated g/C Ratio		0.22				0.22		0.65			0.65	
v/c Ratio		0.27				0.04		0.21			0.38	
Control Delay		33.5				0.2		4.8			6.8	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		33.5				0.2		4.8			6.8	
LOS		C				A		A			A	
Approach Delay		33.5			0.2			4.8			6.8	
Approach LOS		C			A			A			A	
Queue Length 50th (ft)		62				0		32			77	
Queue Length 95th (ft)		77				0		44			111	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		622				688		3405			2371	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.18				0.03		0.21			0.38	

Intersection Summary	
Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	75.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	0	117	78	120	2	0	557	0	0	692	184
Future Volume (vph)	197	0	117	78	120	2	0	557	0	0	692	184
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.997						0.968	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1816	0	1658	1852	1907	0	0	3668	0	0	5081	0
Flt Permitted	0.614			0.950								
Satd. Flow (perm)	1174	0	1658	1852	1907	0	0	3668	0	0	5081	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			129		1						98	
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		455			232			626			341	
Travel Time (s)		12.4			6.3			7.8			4.2	
Peak Hour Factor	0.91	0.91	0.91	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Heavy Vehicles (%)	2%	0%	0%	0%	2%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	216	0	129	98	150	3	0	619	0	0	744	198
Shared Lane Traffic (%)												
Lane Group Flow (vph)	216	0	129	98	153	0	0	619	0	0	942	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2			6	
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			56.0			56.0	
Minimum Split (s)	13.0		13.0	13.0	13.0			64.0			64.0	
Total Split (s)	41.0		41.0	41.0	41.0			64.0			64.0	
Total Split (%)	39.0%		39.0%	39.0%	39.0%			61.0%			61.0%	
Maximum Green (s)	35.0		35.0	35.0	35.0			56.0			56.0	
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0			6.0	
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0			2.0	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0			0.0	
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0			2.0	
Recall Mode	None		None	None	None			C-Max			C-Max	
Act Effct Green (s)	23.1		23.1	23.1	23.1			67.9			67.9	
Actuated g/C Ratio	0.22		0.22	0.22	0.22			0.65			0.65	
v/c Ratio	0.84		0.28	0.24	0.36			0.26			0.28	
Control Delay	64.5		6.6	32.9	35.2			4.5			8.1	
Queue Delay	0.0		0.0	0.0	0.0			0.0			0.0	
Total Delay	64.5		6.6	32.9	35.2			4.5			8.1	
LOS	E		A	C	D			A			A	
Approach Delay		42.8			34.3			4.5			8.1	

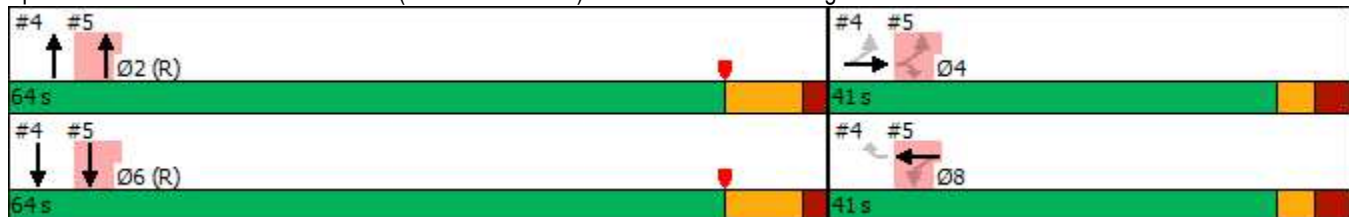


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			C			A			A		
Queue Length 50th (ft)	140		0	55	87			40			80	
Queue Length 95th (ft)	204		41	77	113			51			132	
Internal Link Dist (ft)		375			152			546			261	
Turn Bay Length (ft)			125									
Base Capacity (vph)	391		638	617	636			2371			3320	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.55		0.20	0.16	0.24			0.26			0.28	

Intersection Summary

Area Type:	Other
Cycle Length:	105
Actuated Cycle Length:	105
Offset:	24 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization	78.6%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↘	↘
Traffic Volume (vph)	0	177	63	0	60	91
Future Volume (vph)	0	177	63	0	60	91
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Frt						0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	3632	1893	0	1852	1658
Flt Permitted					0.950	
Satd. Flow (perm)	0	3632	1893	0	1852	1658
Link Speed (mph)		25	25		25	
Link Distance (ft)		805	131		245	
Travel Time (s)		22.0	3.6		6.7	
Peak Hour Factor	0.90	0.90	0.83	0.83	0.84	0.84
Heavy Vehicles (%)	0%	2%	3%	0%	0%	0%
Adj. Flow (vph)	0	197	76	0	71	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	197	76	0	71	108
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	15.5%
ICU Level of Service	A
Analysis Period (min)	15

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑		↑	↑
Traffic Vol, veh/h	0	177	63	0	60	91
Future Vol, veh/h	0	177	63	0	60	91
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	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	83	83	84	84
Heavy Vehicles, %	0	2	3	0	0	0
Mvmt Flow	0	197	76	0	71	108

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	175 76
Stage 1	-	-	-	-	76 -
Stage 2	-	-	-	-	99 -
Critical Hdwy	-	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	-	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	0	-	-	0	812 991
Stage 1	0	-	-	0	952 -
Stage 2	0	-	-	0	920 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	812 991
Mov Cap-2 Maneuver	-	-	-	-	812 -
Stage 1	-	-	-	-	952 -
Stage 2	-	-	-	-	920 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	812	991
HCM Lane V/C Ratio	-	-	0.088	0.109
HCM Control Delay (s)	-	-	9.9	9.1
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.4

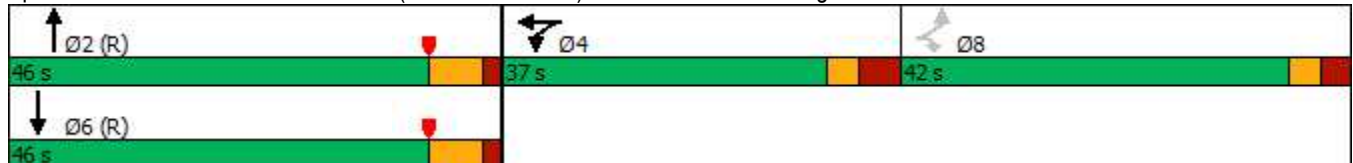
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	0	54	110	65	2	0	529	0	0	626	0
Future Volume (vph)	182	0	54	110	65	2	0	529	0	0	626	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t			0.850		0.995							
Fl _t Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1467	1852	1886	0	0	3668	0	0	3632	0
Fl _t Permitted	0.701			0.950								
Satd. Flow (perm)	1353	0	1467	1852	1886	0	0	3668	0	0	3632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			96		1							
Link Speed (mph)		25			25			55				55
Link Distance (ft)		131			249			624				140
Travel Time (s)		3.6			6.8			7.7				1.7
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.88	0.88	0.88	0.93	0.93	0.93
Heavy Vehicles (%)	1%	0%	13%	0%	3%	0%	0%	1%	0%	0%	2%	0%
Adj. Flow (vph)	202	0	60	143	84	3	0	601	0	0	673	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	0	60	143	87	0	0	601	0	0	673	0
Turn Type	Perm		Perm	Split	NA			NA			NA	
Protected Phases				4	4			2				6
Permitted Phases	8		8									
Detector Phase	8		8	4	4			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			39.0				39.0
Minimum Split (s)	13.0		13.0	14.0	14.0			46.0				46.0
Total Split (s)	42.0		42.0	37.0	37.0			46.0				46.0
Total Split (%)	33.6%		33.6%	29.6%	29.6%			36.8%				36.8%
Maximum Green (s)	36.0		36.0	30.0	30.0			39.0				39.0
Yellow Time (s)	3.0		3.0	3.0	3.0			5.0				5.0
All-Red Time (s)	3.0		3.0	4.0	4.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	7.0	7.0			7.0				7.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	23.3		23.3	14.2	14.2			67.4				67.4
Actuated g/C Ratio	0.19		0.19	0.11	0.11			0.54				0.54
v/c Ratio	0.80		0.17	0.68	0.40			0.30				0.34
Control Delay	70.5		3.0	68.7	55.2			18.1				15.2
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	70.5		3.0	68.7	55.2			18.1				15.2
LOS	E		A	E	E			B				B
Approach Delay		55.1				63.6		18.1				15.2
Approach LOS		E				E		B				B
Queue Length 50th (ft)	158		0	113	66			135				134
Queue Length 95th (ft)	227		12	148	95			215				154



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		51			169			544			60	
Turn Bay Length (ft)												
Base Capacity (vph)	389		490	444	453			1978			1959	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.52		0.12	0.32	0.19			0.30			0.34	

Intersection Summary	
Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	16 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	28.4
Intersection LOS:	C
Intersection Capacity Utilization	60.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 2: Brunswick Pike (Route 1 Business) & Texas Avenue/NB Jughandle





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕↗			↕↖
Traffic Volume (vph)	0	27	693	23	0	626
Future Volume (vph)	0	27	693	23	0	626
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.865	0.995			
Flt Protected						
Satd. Flow (prot)	0	1687	3651	0	0	3705
Flt Permitted						
Satd. Flow (perm)	0	1687	3651	0	0	3705
Link Speed (mph)	25		55			55
Link Distance (ft)	166		140			1836
Travel Time (s)	4.5		1.7			22.8
Peak Hour Factor	0.25	0.25	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	0	108	745	25	0	673
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	108	770	0	0	673
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.4%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	27	693	23	0	626
Future Vol, veh/h	0	27	693	23	0	626
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	93	93	93	93
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	0	108	745	25	0	673

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	385	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	619	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	619	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	619
HCM Lane V/C Ratio	-	-	0.174
HCM Control Delay (s)	-	-	12
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.6

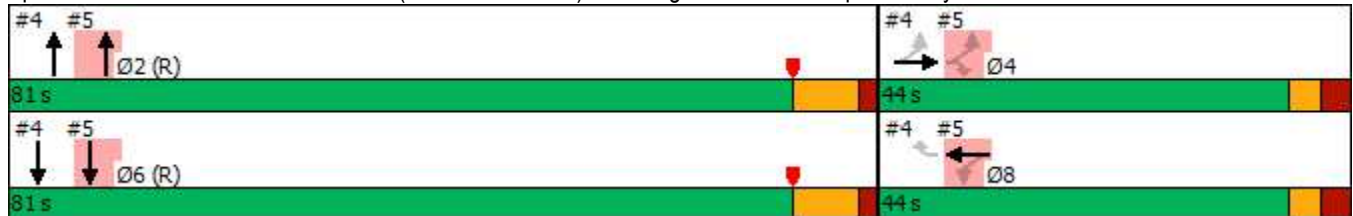
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	3	1	0	0	23	0	685	16	0	743	0
Future Volume (vph)	91	3	1	0	0	23	0	685	16	0	743	0
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	1.00	0.95	1.00
Fr _t		0.999				0.865		0.997				
Fl _t Protected		0.954										
Satd. Flow (prot)	0	1858	0	0	0	1687	0	5256	0	0	3668	0
Fl _t Permitted		0.954										
Satd. Flow (perm)	0	1858	0	0	0	1687	0	5256	0	0	3668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						198		5				
Link Speed (mph)		25			25			55			55	
Link Distance (ft)		300			249			1836			626	
Travel Time (s)		8.2			6.8			22.8			7.8	
Peak Hour Factor	0.68	0.68	0.68	0.64	0.64	0.64	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	134	4	1	0	0	36	0	761	18	0	835	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	0	0	0	36	0	779	0	0	835	0
Turn Type	Perm	NA				Perm		NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4					8						
Detector Phase	4	4				8		2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0				7.0		73.0			73.0	
Minimum Split (s)	13.0	13.0				13.0		81.0			81.0	
Total Split (s)	44.0	44.0				44.0		81.0			81.0	
Total Split (%)	35.2%	35.2%				35.2%		64.8%			64.8%	
Maximum Green (s)	38.0	38.0				38.0		73.0			73.0	
Yellow Time (s)	3.0	3.0				3.0		6.0			6.0	
All-Red Time (s)	3.0	3.0				3.0		2.0			2.0	
Lost Time Adjust (s)		0.0				0.0		0.0			0.0	
Total Lost Time (s)		6.0				6.0		8.0			8.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0				2.0		2.0			2.0	
Recall Mode	None	None				None		C-Max			C-Max	
Act Effct Green (s)		20.3				20.3		90.7			90.7	
Actuated g/C Ratio		0.16				0.16		0.73			0.73	
v/c Ratio		0.46				0.08		0.20			0.31	
Control Delay		50.9				0.3		3.1			5.0	
Queue Delay		0.0				0.0		0.0			0.0	
Total Delay		50.9				0.3		3.1			5.0	
LOS		D				A		A			A	
Approach Delay		50.9			0.3			3.1			5.0	
Approach LOS		D			A			A			A	
Queue Length 50th (ft)		103				0		53			71	
Queue Length 95th (ft)		113				0		55			100	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		220			169			1756			546	
Turn Bay Length (ft)												
Base Capacity (vph)		564				650		3815			2661	
Starvation Cap Reductn		0				0		0			0	
Spillback Cap Reductn		0				0		0			0	
Storage Cap Reductn		0				0		0			0	
Reduced v/c Ratio		0.25				0.06		0.20			0.31	

Intersection Summary	
Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	7.6
Intersection LOS:	A
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 4: Brunswick Pike (Route 1 Business) & SB Jughandle/Dealership Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	92	71	84	5	0	656	0	0	656	156
Future Volume (vph)	156	0	92	71	84	5	0	656	0	0	656	156
Ideal Flow (vphpl)	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950	1950
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.91	0.91
Frt			0.850		0.991						0.971	
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1834	0	1658	1852	1914	0	0	3668	0	0	5099	0
Flt Permitted	0.633			0.950								
Satd. Flow (perm)	1222	0	1658	1852	1914	0	0	3668	0	0	5099	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			96		3							77
Link Speed (mph)		25			25			55				55
Link Distance (ft)		455			232			626				341
Travel Time (s)		12.4			6.3			7.8				4.2
Peak Hour Factor	0.96	0.96	0.96	0.75	0.75	0.75	0.96	0.96	0.96	0.85	0.85	0.85
Heavy Vehicles (%)	1%	0%	0%	0%	1%	0%	0%	1%	0%	0%	1%	3%
Adj. Flow (vph)	163	0	96	95	112	7	0	683	0	0	772	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	0	96	95	119	0	0	683	0	0	956	0
Turn Type	Perm		Perm	Perm	NA			NA			NA	
Protected Phases					8			2				6
Permitted Phases	4		4	8								
Detector Phase	4		4	8	8			2				6
Switch Phase												
Minimum Initial (s)	7.0		7.0	7.0	7.0			73.0				73.0
Minimum Split (s)	13.0		13.0	13.0	13.0			81.0				81.0
Total Split (s)	44.0		44.0	44.0	44.0			81.0				81.0
Total Split (%)	35.2%		35.2%	35.2%	35.2%			64.8%				64.8%
Maximum Green (s)	38.0		38.0	38.0	38.0			73.0				73.0
Yellow Time (s)	3.0		3.0	3.0	3.0			6.0				6.0
All-Red Time (s)	3.0		3.0	3.0	3.0			2.0				2.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			0.0				0.0
Total Lost Time (s)	6.0		6.0	6.0	6.0			8.0				8.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0	2.0			2.0				2.0
Recall Mode	None		None	None	None			C-Max				C-Max
Act Effct Green (s)	20.3		20.3	20.3	20.3			90.7				90.7
Actuated g/C Ratio	0.16		0.16	0.16	0.16			0.73				0.73
v/c Ratio	0.82		0.28	0.32	0.38			0.26				0.26
Control Delay	80.1		9.8	47.1	47.3			3.0				6.0
Queue Delay	0.0		0.0	0.0	0.0			0.0				0.0
Total Delay	80.1		9.8	47.1	47.3			3.0				6.0
LOS	F		A	D	D			A				A
Approach Delay		54.1			47.2			3.0				6.0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			D			A			A		
Queue Length 50th (ft)	129		0	69	85			48			76	
Queue Length 95th (ft)	195		44	92	108			60			112	
Internal Link Dist (ft)	375			152			546			261		
Turn Bay Length (ft)	125											
Base Capacity (vph)	371		570	563	583			2661			3720	
Starvation Cap Reductn	0		0	0	0			0			0	
Spillback Cap Reductn	0		0	0	0			0			0	
Storage Cap Reductn	0		0	0	0			0			0	
Reduced v/c Ratio	0.44		0.17	0.17	0.20			0.26			0.26	

Intersection Summary

Area Type:	Other
Cycle Length:	125
Actuated Cycle Length:	125
Offset:	52 (42%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle:	95
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization	89.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 5: Brunswick Pike (Route 1 Business) & E. Darrah Lane/NB Jughandle

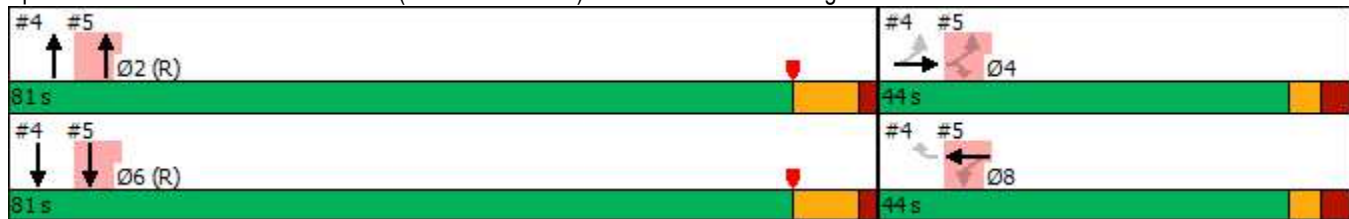


Table F-1: LOS Comparison Table With Mitigation

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
			2025 No Build Condition		2025 Build with Mitigation Condition		2025 Build with Mitigation Condition	
Texas Avenue and Rt. 1 SB Jughandle (unsignalized)	Southbound	Left	B	10.8	B	10.0	A	9.8
		Right	A	9.7	A	9.3	A	9.1
		Approach	B	10.0	A	9.5	A	9.4
	Overall		A	2.0	A	3.0	A	3.6
	Eastbound	Left	E	72.7	E	74.8	E	70.9
		Right	A	8.8	A	4.5	A	3.1
		Approach	D	49.4	D	51.6	D	54.7
	Westbound	Left	D	51.6	E	56.3	E	68.6
		Through/Right	E	62.9	D	43.5	D	54.6
		Approach	F	58.5	D	51.3	E	63.4
Northbound	Through	B	18.9	B	13.9	B	17.6	
	Approach	A	9.7	A	10.2	B	15.2	
	Southbound	C	28.6	C	23.0	C	28.3	
Brunswick Pike (Route 1 Business) and Texas Avenue/Rt. 1 NB Jughandle (signalized)	Westbound	Right	B	11.1	B	10.4	B	10.8
		Approach	A	0.1	A	0.1	A	0.1
		Overall	A	0.1	A	0.1	A	0.1
	Eastbound	Left/Through/Right	C	33.0	C	33.6	D	51.2
		Right	A	0.0	A	0.2	A	0.3
		Approach	A	4.9	A	4.4	A	2.6
	Northbound	Through/Right	A	5.5	A	5.9	A	4.6
		Through	A	6.0	A	7.1	A	7.4
		Southbound	F	94.9	E	64.3	E	78.9
	Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	Eastbound	Left	A	7.9	A	6.6	A
Right			E	69.2	D	43.1	D	53.4
Approach			C	32.9	C	30.9	D	45.5
Westbound		Left	D	42.3	D	35.2	D	47.2
		Through/Right	D	41.1	C	34.0	D	46.5
		Approach	A	4.3	A	4.6	A	2.9
Northbound		Through	A	7.0	A	8.0	A	5.9
		Through/Right	A	20.7	B	15.4	B	14.5
		Southbound	C	20.7	B	15.4	B	14.5
Overall		C	20.7	B	15.4	B	14.5	

Intersection	Approach	Movement	AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
			LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
			2025 No Build Condition		2025 Build with Mitigation Condition		2025 Build with Mitigation Condition	
Texas Avenue and Rt. 1 SB Jughandle (unsignalized)	Southbound	Left	B	11.0	A	10.1	A	9.9
		Right	A	9.7	A	9.3	A	9.1
		Approach	B	10.2	A	9.6	A	9.4
	Overall		A	2.4	A	3.3	A	3.7
	Eastbound	Left	E	72.5	E	73.3	E	70.5
		Right	A	8.2	A	4.1	A	3.0
		Approach	D	51.1	E	52.5	E	55.1
	Westbound	Left	D	51.0	E	56.4	E	68.7
		Through/Right	E	63.0	D	45.1	E	55.2
		Approach	F	58.5	D	51.8	E	63.6
Northbound	Through	B	20.8	B	14.6	B	18.1	
	Approach	A	9.7	B	10.1	B	15.2	
	Southbound	C	29.6	C	23.7	C	28.4	
Brunswick Pike (Route 1 Business) and Site Driveway (unsignalized)	Westbound	Right	B	14.1	B	11.8	B	12.0
		Approach	A	1.7	A	1.0	A	0.8
		Overall	A	1.7	A	1.0	A	0.8
	Eastbound	Left/Through/Right	C	32.8	C	33.5	D	50.7
		Right	A	0.0	A	0.2	A	0.4
		Approach	A	5.5	A	4.8	A	3.2
	Northbound	Through/Right	A	6.6	A	6.8	A	4.9
		Through	A	6.7	A	7.6	A	7.6
		Southbound	F	94.1	E	64.5	E	79.1
	Brunswick Pike (Route 1 Business) and Rt. 1 NB Jughandle/E. Darrah Lane (signalized)	Eastbound	Left	A	7.7	A	6.6	A
Right			E	66.8	D	42.8	D	53.4
Approach			C	34.6	C	32.9	D	46.9
Westbound		Left	D	42.2	D	35.2	D	47.2
		Through/Right	D	40.4	C	34.3	D	47.0
		Approach	A	4.7	A	4.5	A	3.0
Northbound		Through	A	7.0	A	8.1	A	6.1
		Through/Right	A	20.7	B	15.7	B	15.0
		Southbound	C	20.7	B	15.7	B	15.0
Overall		C	20.7	B	15.7	B	15.0	

AM Peak Hour		PM Peak Hour		Saturday Peak Hour	
Change	Allowable	Acceptable?	Change	Allowable	Acceptable?
0.2	17.3	Yes	0.1	17.5	Yes
0.0	17.6	Yes	0.0	17.7	Yes
0.2	17.5	Yes	0.1	17.6	Yes
-0.2	1.8	Yes	-1.5	1.3	Yes
-0.6	17.8	Yes	-0.4	18.9	Yes
1.7	7.7	Yes	0.9	7.1	Yes
-0.6	7.1	Yes	0.1	5.9	Yes
0.1	4.3	Yes	1.6	9.1	Yes
0.0	5.4	Yes	0.5	7.2	Yes
1.9	15.3	Yes	0.7	16.5	Yes
0.0	17.6	Yes	-0.1	17.5	Yes
3.0	17.2	Yes	1.4	17.4	Yes
-0.2	11.8	Yes	-0.1	11.6	Yes
0.0	20.0	Yes	0.0	20.0	Yes
0.6	18.8	Yes	0.4	18.9	Yes
1.1	18.6	Yes	0.9	18.5	Yes
-0.8	0.0	Yes	0.2	3.9	Yes
-0.2	18.0	Yes	0.0	18.4	Yes
-2.4	2.7	Yes	-0.3	9.2	Yes
1.7	11.8	Yes	2.0	12.3	Yes
-0.1	9.4	Yes	0.0	11.2	Yes
-	-	-	-	-	-
0.4	18.9	Yes	-0.1	18.9	Yes
0.0	18.3	Yes	0.1	18.0	Yes
0.0	18.3	Yes	0.1	18.5	Yes