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September 14, 2022

VIA EMAIL

Solid Waste Advisory Council (S.W.A.C.)
David K. Dech, Planning Director
Warren County Planning Department
Wayne Dumont, Jr. Administration Building
165 County Route 519 South
Belvidere, New Jersey 07823

**RE: Solid Waste Advisory Council; hearing on October 6, 2022
Opposition to Vivaria Ecologics, LLC / Freedom Group, LLC Application**

Dear Mr. Dech:

As you know, I have been retained to represent the New Jersey Land and Community Preservation Alliance (hereinafter "NJLCPA") with regard to the above-referenced matter. As I promised at the September 1, 2022 hearing, I herewith attach a copy of the Shropshire Associates, LLC Traffic Engineering Assessment, dated September 13, 2022 (which was actually performed in June of 2022). Kindly share this opposing traffic study with the members of the Council. Should you need me to have copies made of the same, please let me know as soon as possible and also please inform me as to how many copies you require. If Vivaria Ecologics, LLC has submitted a traffic study of its own, please forward the same at your convenience. Thank you.

Respectfully submitted,

Daniel G.P. Marchese, Esq.
Attorney ID: 004291998

DGPM/dm

cc: NJLCPA Board Membership
Matthew Moench, Esq. (via email)
Michael Lavery, Esq. (via email)

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September 13, 2022

Mr. Daniel G.P. Marchese
The Marchese Law Firm, LLC
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Newton, New Jersey 07860

(3 copies via UPS and email: dan@marchesefirm.com)

Re: **Traffic Engineering Assessment**
Blau Road Development
Blau Road
Mansfield Township, Warren County, NJ
SA Project No. 22170

Dear Dan:

In response to your request, Shropshire Associates LLC has prepared a Traffic Engineering Assessment to evaluate the potential impact of the traffic to be generated by the proposed Food Scrap Recycling and Soil Enrichment development along northbound Blau Road in Mansfield Township, Warren County, New Jersey. The potential development is located along Blau Road, south of its intersection with Rockport Road in Mansfield Township, Warren County, NJ. The site is currently vacant and being utilized for agricultural use.

Based upon information provided by the project team, the proposal is for the development of a food recycling facility that will have the following characteristics. The facility will accept deliveries of food scrap and waste materials via tractor-trailers and haulers. This will be provided via a new driveway location along northbound Blau Road, south of its intersection with Rockport Road. This product will then be maintained and cultivated on-site until it is ready for redistribution to clients and other companies that will process the material. This processed material will then be distributed out of the site via tractor-trailers and haulers as a final product.

Information obtained for the facility indicates that the anticipated truck/delivery route to/from the facility will be via Route 57, Airport Road, Rockport Road, and Blau Road. Further discussion regarding the potential alternative truck routes is discussed in further detail below.

Existing Conditions

A field reconnaissance was conducted in the vicinity of the site to determine the features of the adjacent roadway network within the study area. A description of the roadways and intersections are provided below.

Roadways

Along the site's frontage and south of Rockport Road, **Blau Road** is a two-lane undivided local roadway that is under the jurisdiction of Mansfield Township. Blau Road currently has an approximate cartway width of 20' to 21' with no on-street pavement markings or established curblines. Blau Road has a posted speed limit of 35 MPH and currently provides access from



Rockport Road to two (2) existing commercial facilities and one (1) church, on the west side of the roadway.

South of the site and north of Watters Road, **Blau Road** is a two-lane undivided local roadway that is under the jurisdiction of Mansfield Township that provides access to existing residential developments and neighborhoods. This portion of Blau Road has a posted speed limit of 30 MPH and an approximate cartway width of 17' to 18' in certain areas. In addition, it was observed that there is an existing S-curve within Blau Road between the proposed development that has restricted geometry and impacts the ability to safely accommodate two-way traffic.

North of the site, **Rockport Road (CR 629)** is a two-lane undivided local roadway that is under the jurisdiction of Warren County and is classified as a Rural Minor Collector. Rockport Road has an approximate cartway width of 30', consisting of a 12' travel lane and a 3' shoulder in both directions. Rockport Road has a posted speed limit of 45 MPH. For the purpose of this study, Rockport Road is assumed to extend in a general east-west direction.

South of the site, **Watters Road** is a two-lane undivided local roadway that is under the jurisdiction of Mansfield Township. Watters Road has an approximate cartway width of 20' and has a posted speed limit of 35 MPH. For the purpose of this study, Watters Road is assumed to extend in a general east-west direction.

East of the site, **Airport Road** is a two-lane undivided local roadway that is under the jurisdiction of Mansfield Township. Airport Road has an approximate cartway width of 24', consisting of a 12' travel lane in each direction and a posted speed limit of 40 MPH. For the purpose of this study, Airport Road is assumed to extend in a general north-south direction.

South of the site, **Route 57** is a two-lane undivided roadway that is under the jurisdiction of the New Jersey Department of Transportation (NJDOT). Route 57 is classified as an Urban Principal Arterial and has an approximate cartway width of 30', consisting of a 12' travel lane and a 3' shoulder in both directions. In the vicinity of its intersection with Airport Road, Route 57 has a posted speed limit of 35 MPH. For the purpose of this study, Route 57 is assumed to extend in a general east-west direction.

Intersections

The T-shaped **Route 57 / Airport Road** intersection is controlled by a two-phase semi-actuated traffic signal operating on a 90-second background cycle length. The eastbound Route 57 approach consists of a shared lane for through and left-turn movements. The westbound Route 57 approach consists of one (1) dedicated through lane and one (1) channelized right-turn lane. The southbound Airport Road approach consists of one (1) dedicated left-turn lane and one (1) dedicated right-turn lane.

The T-shaped **Rockport Road (CR 629) / Airport Road** intersection is stop-controlled along the northbound Airport Road approach. The westbound Rockport Road approach consists of one (1) dedicated left-turn lane and one (1) dedicated through lane. The eastbound Rockport Road approach consists of a shared lane for through and right-turn movements. The northbound Airport Road stop-controlled approach consists of one (1) dedicated left-turn lane and one (1) dedicated right-turn lane.



The T-shaped **Rockport Road (CR 629) / Blau Road** intersection is stop-controlled along the northbound Blau Road approach. All approaches consist of a single shared lane for all permitted movements.

The T-shaped **Watters Road / Blau Road** intersection is stop-controlled along the southbound Blau Road approach. All approaches consist of a single shared lane for all permitted movements.

Traffic Counts – Intersection Counts

Manual turning movement counts (MTMC) were conducted at the study intersections during weekday AM (6:00 AM to 9:00 AM), weekday midday (11:00 AM to 1:00 PM), and weekday PM (3:00 PM to 6:00 PM) peak periods, which represent the combined peaks of the existing roadway network, as well as the proposed development. The counts were conducted on Tuesday, June 7, 2022, with the collected MTMC data attached for your review.

The existing AM, midday, and PM peak hour volumes are illustrated on Figure 1. It should be noted that specific tractor-trailer counts were done at the intersections to determine heavy vehicle percentages for all turning movements during the AM, midday, and PM peak hours.

Traffic Counts – Blau Road Roadway Counts

In addition to the intersection peak period counts, automatic traffic recorders (ATRs) were placed along northbound and southbound Blau Road in the vicinity of the site to collect hourly, daily, and weekly two-way volume, speed, and classification data for a period of one (1) week. The collected ATR data is attached for your review with further discussion provided below.

Existing Intersection and Roadway Volumes

Based upon the collected MTMC and ATR data described above, the following are the existing peak hour and daily roadway volumes for the nearby study locations and Blau Road in the vicinity of the site.

- Route 57 & Airport Road Intersection
 - AM Peak Hour – 1,012 vehicles per hour
 - Midday Peak Hour – 1,036 vehicles per hour
 - PM Peak Hour – 1,379 vehicles per hour

- Rockport Road and Airport Road Intersection
 - AM Peak Hour – 390 vehicles per hour
 - Midday Peak Hour – 350 vehicles per hour
 - PM Peak Hour – 492 vehicles per hour

- Rockport Road and Blau Road Intersection
 - AM Peak Hour – 294 vehicles per hour
 - Midday Peak Hour – 264 vehicles per hour
 - PM Peak Hour – 335 vehicles per hour



- Watters Road and Blau Road Intersection
 - AM Peak Hour – 51 vehicles per hour
 - Midday Peak Hour – 56 vehicles per hour
 - PM Peak Hour – 76 vehicles per hour

- Blau Road
 - Daily Volumes (June 10, 2022)
 - Northbound – 187 vehicles
 - Southbound -219 vehicles
 - Total – 406 vehicles

Future Conditions

Traffic resulting from the proposed food recycling and processing development will not affect the adjacent roadway network until the development is fully built-out and occupied. Based upon our review of the application, the facility is anticipated to be fully operational and at maximum capacity after three (3) years. Therefore, it is estimated that the proposed development will be completed and operational by 2026. It can be expected that the existing traffic volumes on the roadway network will increase as the result of growth. Based on the current *Annual Background Growth Rate Table* prepared by the New Jersey Department of Transportation (NJDOT), an up to 1.25% annual growth rate will occur in the vicinity of the site.

Therefore, in order to determine the future No-Build traffic volumes, the existing volumes were increased based upon the NJDOT annual background growth rates. The future No-Build traffic volumes are indicated in Figure 2.

Trip Generation

The amount of traffic to be generated by the proposed development would typically be estimated by using data published by the Institute of Transportation Engineers (ITE). ITE has compiled data from thousands of studies for various land uses, independent variables, and study periods and published the results in *Trip Generation, 11th Edition*. However, based upon our experience, the proposed development does not adhere to any of the available ITE land use classifications.

Therefore, a site-specific trip generation analysis has been prepared based upon our review of the application documentation submitted with the application of Vivaria Ecologics, LLC for inclusion in the Warren County Solid Waste Management Plan. This application indicates that the Applicant anticipates a maximum of 50,000 tons of food waste and wood chips to be processed through the facility on a yearly basis. This production will ramp up over three (3) years in equal increments. This would result in a total of 13,173 delivery trips per year being added cumulatively over the three (3) years, for a full build-out condition of 39,519 delivery trips per year upon reaching maximum capacity.

Based upon this anticipated yearly capacity, there would be a total of 3,293 delivery trips per month, 760 delivery trips per week, and 152 delivery trips per day. Therefore, a conservative trip generation analysis has been done based upon the following information published in the submitted application documentation and assumptions based upon our experience with regards to the traffic aspects of the proposed facility.



- It is anticipated that there will be approximately 3-5 employees on-site during typical daily conditions associated with deliveries, product drop-off, and on-site work requirements. The facility will have typical operating hours of 7:30 AM to 5:00 PM.
- Based upon public information available, the indication is that the facility will be served by approximately 380 trucks per week. Assuming working Monday through Friday, this would be approximately 76 trucks per day.
- The anticipation is that all employees will arrive during the weekday AM peak hour and depart during the weekday PM peak hour.
- It is anticipated that 20% of the truck movements will occur during each of the weekday AM, weekday midday, and weekday PM peak hours.

Based upon these facts and assumptions, the anticipated peak hour trip generation analysis for the proposed food recycling facility is provided in Table 1. Final confirmation will be required from the operator with regards to this anticipated trip generation analysis and assumptions.

Table 1 Trip Generation									
Trip Type	AM Peak Hour			Midday Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Employees	5	0	5	0	0	0	0	5	5
Trucks	15	15	30	15	15	30	15	15	30
Total	20	15	35	15	15	30	15	20	35

The employee and truck traffic to be generated by the proposed development must then be distributed to the adjacent roadway network in which they can reasonably be expected to travel. The employee peak hour trips shown in Table 1 were assigned to the adjacent roadway network based on the existing flow of traffic along the adjacent roadway (Figure 3). The truck traffic to be generated by the proposed development is assigned to follow the following published truck route to/from the site based upon information provided by the Applicant.

- Arrival to the Site – Route 57 westbound to northbound Airport Road. From Airport Road northbound to westbound Rockport Road. From Rockport Road westbound to southbound Blau Road. From Blau Road to the site driveway location.
- Departing the Site – Exit the site and go north on Blau Road to Rockport Road. From northbound Blau Road to eastbound Rockport Road. From eastbound Rockport Road to southbound Airport Road. From southbound Airport Road to eastbound Route 57.



The truck peak hour trips shown in Table 1 were assigned to the adjacent roadway network based on this travel pattern route. The employee site traffic assignment (Figure 4A) and the truck site traffic assignment (Figure 4B) were then combined to determine the total site traffic assignment (Figure 4C) for the proposed development. The total site traffic (Figure 4C) was then added to the No-Build volumes to project the Build volumes, which are illustrated in Figure 5.

Operational Analysis

In order to measure the quality of the traffic flow for the adjacent roadway, capacity analysis for the study locations were performed based upon the methods outlined in the *Highway Capacity Manual*. Capacity analysis is a procedure used to estimate the ability of the roadway network to carry traffic. Capacity analyses are performed based on a Level of Service methodology. Level of Service (LOS) is a qualitative measure that characterizes the operational conditions of a roadway or intersection based on the perceptions by motorists and passengers. Levels of Service are defined for each type of facility (i.e. freeways, highways, signalized intersections, unsignalized intersections). These Levels of Service range from LOS A to LOS F, with a LOS A representing the best operating conditions and a LOS F representing the worst operating conditions.

The Level of Service for an unsignalized intersection is determined based on the average control delay associated with each minor movement (i.e. yielding left-turn movements from the major roads and stop-controlled movements from the minor approaches). The Levels of Service for signalized intersections are classified in terms of delay, which is based on the extent of driver discomfort and frustration, fuel consumption and lost travel time. The delay experienced by a motorist consists of many factors that relate to control, geometrics, and traffic. Some of these factors include the quality of progression, traffic signal cycle length, the green ratio, and the volume-to-capacity ratio. The Level of Service criteria for unsignalized and signalized intersections is summarized in Table 2.

Table 2 Level of Service Criteria		
Level of Service	Unsignalized Delay (sec)	Signalized Delay (sec)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

The operating conditions at the study intersections and the proposed site accesses were evaluated using the above-described methodology and the latest Synchro software. The Existing, No-Build, and Build Levels of Service are illustrated on Figures 6, 7, and 8; respectively. The detailed capacity analyses worksheets for the intersection analyses are attached to this assessment with a description of the operating conditions summarized below.



Route 57 and Airport Road Intersection

Currently, the Route 57 / Airport Road signalized intersection operates at an overall LOS A during the weekday AM, weekday midday, and weekday PM peak hours. The eastbound and westbound Route 57 individual movements currently operate at a LOS A during all peak hours. The southbound Airport Road left-turn movements currently function at a LOS D during all peak hours, while the southbound Airport Road right-turn movements operate at a LOS B during all peak hours.

In the future No-Build and Build scenarios, the Route 57 / Airport Road signalized intersection will continue to operate at an overall LOS A during the weekday AM, weekday midday, and weekday PM peak hours. In addition, all individual movements will continue to operate at existing levels of service during all peak hours.

Rockport Road (CR 629) and Airport Road Intersection

Currently, the northbound Airport Road stop-controlled left-turn movements operate at a LOS B during the weekday AM, weekday midday, and weekday PM peak hours. The northbound Airport Road stop-controlled right-turn movements currently operate at a LOS A during all peak hours. In addition, the westbound Rockport Road conflicting left-turn movements currently operate at a LOS A during all peak hours.

In the future No-Build and Build scenarios, all stop-controlled and conflicting left-turn movements at the Rockport Road / Airport Road study location will continue to operate at existing levels of service during the weekday AM, weekday midday, and weekday PM peak hours.

Rockport Road (CR 629) and Blau Road Intersection

Currently, the northbound Blau Road stop-controlled movements operate at a LOS A during the weekday AM, weekday midday, and weekday PM peak hours. In addition, the westbound Rockport Road conflicting left-turn movements currently operate at a LOS A during all peak hours.

In the future No-Build and Build scenarios, all stop-controlled and conflicting left-turn movements at the Rockport Road / Blau Road study location will continue to operate at existing levels of service during the weekday AM, weekday midday, and weekday PM peak hours, with the exception of the northbound Blau Road approach. The northbound stop-controlled movements will operate at a LOS B during the weekday AM peak hour under the No-Build and Build conditions.

Watters Road and Blau Road Intersection

Currently, the southbound Blau Road stop-controlled movements operate at a LOS A during the weekday AM, weekday midday, and weekday PM peak hours. In addition, the eastbound Watters Road conflicting left-turn movements currently operate at a LOS A during all peak hours.

In the future No-Build and Build scenarios, all stop-controlled and conflicting left-turn movements at the Watters Road / Blau Road study location will continue to operate at existing levels of service during the weekday AM, weekday midday, and weekday PM peak hours.



Blau Road and Site Driveway Intersection

Access to the Blau Road development is proposed via one (1) new full-movement driveway along northbound Blau Road, south of its intersection with Rockport Road. For the purpose of this analysis, it is assumed that the driveway will be stop-controlled at its intersection with Blau Road and consist of single inbound and outbound lanes providing for all permitted movements.

Based upon this configuration, the outbound stop-controlled site driveway movements and inbound conflicting left-turn movements from southbound Blau Road will operate at a LOS A during the weekday AM, weekday midday, and weekday PM peak hours.

Truck Route Analysis

As indicated above, based upon our review of the preliminary application information, the published truck arrival and departure route for the proposed development on Blau Road will be as follows.

- Westbound Route 57 to northbound Airport Road via the Route 57 / Airport Road signalized intersection.
- Northbound Airport Road to westbound Rockport Road via the Rockport Road / Airport Road stop-controlled intersection.
- Westbound Rockport Road to southbound Blau Road via the Rockport Road / Blau Road stop-controlled intersection.
- Southbound Blau Road to the site driveway location.

When trucks depart the site, they will travel the opposite direction from Blau Road back to eastbound Route 57. This existing route is approximately 3.5 miles and will require the delivery vehicles to make critical turns and movements at some of the study locations. These critical movements are defined as movements that will require the design vehicle to make left-turns on to a major roadway, or left-turns from a major roadway, or movements that may be most impactful to the adjacent roadway network and other vehicles on the roadway.

As noted above, along the majority of this truck route, there are no existing roadway shoulders or sidewalks. However, there are existing residential homes and areas along these roadways and therefore there is a concern for pedestrian, bicyclists, and child safety related to the increase in truck traffic.

When traveling to the site from westbound Route 57, the following critical turning movements will need to be made by the trucks.

- Left-Turn from northbound Airport Road on to westbound Rockport Road
- Left-Turn from westbound Rockport Road on to southbound Blau Road

A field visit to the area was done on June 14, 2022. During this visit, observations were made at the above-referenced study locations, with considerations given to the anticipated trips and traffic to be added at each location for the proposed development. Based upon these observations and our experience with intersection and roadway design, the following concerns are being raised with regards to the critical turning movements of the future truck trips to / from the site.

Rockport Road (CR 629) and Airport Road Intersection

As noted above, the northbound Airport Road stop-controlled approach at its intersection with Rockport Road currently consists of separate left-turn and right-turn lanes, both of which are stop-controlled and located next to each other and shown below.



The concern with the future operations of the northbound Airport Road stop-controlled is that the additional truck trips will have an impact on sight-distance and the ability for vehicles to safely make left and right-turns on to Rockport Road. Specifically, the truck trips associated with the proposed development will all be left turns from Airport Road based upon the truck route proposed for the facility. As such, these trucks will be queued / stacked in the existing Airport Road left-turn lane. If they are queued in the lane, any vehicle in the Airport Road right-turn lane will not be able to see past the queued truck to observe traffic coming eastbound on Rockport Road. The queued truck will be impeding the ability of right-turning vehicles to be able to safely observe traffic on Rockport Road for the purpose of turning on to the roadway.

In addition, when making a left-turn from a minor roadway (Airport Road) on to a major roadway (Rockport Road), there are design considerations with regards to providing adequate sight distance for a vehicle. With trucks and other larger vehicles, the recommended sight distance is extended further along the major roadway as these vehicles will accelerate slower and require more time to safely turn on to the major roadway. During the field visit, it was observed that Rockport Road, west of its intersection with Airport Road, has a horizontal curve approximately 450' from the intersection that impacts the ability of vehicles queued on Airport Road to see vehicles traveling eastbound on Rockport Road prior to the curve.

Per the current NJDOT Roadway Design Manual (Figure 6-A), there are recommendations with regards to the length of clear sight distance provided at intersections to facilitate the safe



movements of passenger vehicles and trucks. As noted above, Rockport Road has a posted speed limit of 45 MPH and therefore a design speed of 50 MPH, as required by NJDOT. With a 50 MPH design speed, the recommended sight distance for a truck to make a left-turn from a minor roadway is 845'. As indicated above, there is an existing horizontal curve on Rockport Road approximately 450' from Airport Road.

It is also recommended that a truck turning analysis be completed for the Rockport Road / Airport Road intersection to ensure that the anticipated truck / delivery vehicles can make the anticipated turns through the intersection without impacting other vehicles queued at the intersection. The concern is that a truck making a right-turn from eastbound Rockport Road to southbound Airport Road would not be able to make the turn without encroaching upon vehicles queued or stacked within the northbound Airport Road left-turn lane.

It should be noted that the review and approval of any modifications or mitigation at the existing Rockport Road / Airport Road intersection will require be required from Warren County as this is an existing County jurisdictional intersection.

Rockport Road (CR 629) and Blau Road Intersection

Based upon field observations at the existing Rockport Road / Blau Road intersection, there are concerns with the introduction of truck traffic to this existing stop-controlled intersection. Again, there is concern about available sight distance for trucks making turns from Blau Road on to Rockport Road. Approximately 550' east of the intersection, there is a horizontal curve in Rockport Road that limits the ability of vehicles exiting Blau Road to be able to see vehicles approaching along westbound Rockport Road. As noted above, the NJDOT Roadway Design Manual (Figure 6-A) recommends a minimum of 845' of sight distance for trucks when making left-turns from a minor road when the major roadway has a 50 MPH design speed.

In addition, when trucks are traveling to the Blau Road development site, they will be required to make a left-turn from Rockport Road westbound. This will require them to decelerate and slowdown, which may impact vehicles traveling westbound on Rockport Road, as there is no existing bypass lane or dedicated left-turn lane at this existing intersection.

It should be noted that the review and approval of any modifications or mitigation at the existing Rockport Road / Blau Road intersection will require be required from Warren County as this is an existing County jurisdictional intersection.

Blau Road

One final observation and concern that should be considered when evaluating the truck trips to / from the proposed Blau Road development is the impact of trucks on Blau Road. As noted above, the trucks entering and exiting the site will be traveling north and south on Blau Road between the site driveway location and its intersection with Rockport Road. This will include traveling approximately 1,800' along Blau Road and traversing and existing railroad crossing. As shown in the photographs below and described above, Blau Road has a minimal 20' cartway width with no centerline or shoulder striping.



It is our opinion that the impact of the increased truck traffic on Blau Road from the proposed development will be significant. Based upon the information review, the proposed development is anticipated to add approximately 39,519 delivery truck trips to Blau Road on a yearly basis. As shown above, the existing roadway has cracking throughout and a substandard cartway width to permit the safe flow and two-way travel of trucks for deliveries. At a minimum, it would be recommended that the roadway be widened to provide a 30' cartway width from the proposed development to the Rockport Road / Blau Road intersection. In addition, it is recommended that samples be taken of the existing roadway paving to determine if the current



cross section is sufficient and meets the current NJDOT recommendations for heavy vehicles and trucks.

It is also recommended that a truck turning analysis be completed for the Rockport Road / Blau Road intersection to ensure that the anticipated truck / delivery vehicles can make the anticipated turns through the intersection without impacting other vehicles queued at the intersection. The concern is that a truck making a right-turn from northbound Blau Road to eastbound Rockport Road would not be able to make the turn without encroaching upon vehicles traveling westbound on Rockport Road. There is limited paving and width at the intersection to accommodate larger vehicle movements. Likewise, the concern is that a truck making a left-turn from westbound Rockport Road to southbound Blau Road would not be able to make the turn without impacting vehicles queued or stacked within the northbound Blau Road approach.

As noted, above, the review and approval of any modifications or mitigation at the existing Rockport Road / Airport Road intersection will require be required from Warren County as this is an existing County jurisdictional intersection.

One final concern that should be noted regarding Blau Road and the potential impacts is the fact that based upon conversations with local residents that live in this area, it has been observed that at times there are roadway blockages of Blau Road by trains making deliveries to the existing Borealis facility. These blockages of Blau Road could force delivery trucks to utilize an alternative path to/from the site that would include Blau Road, south of the site, and Watters Road.

Truck Route Alternative

While the published truck route for the proposed Blau Road development indicates that trucks will utilize Route 57, Airport Road, Rockport Road, and the Blau Road from the north, there is a potential concern that trucks will not adhere to the published information. The most direct route to/from the site with regards to distance and time is for trucks to travel to the site via Route 57, Hazen Road, Watters Road, and Blau Road from the south. If trucks were to utilize this route, there are several significant traffic concerns with trucks utilizing this route for deliveries to/from the site. These include the following.

- Limited cartway widths for Hazen Road, Watters Road, and Blau Road that are at or below 24' for two-way travel.
- Limited sight distance along Hazen Road, Watters Road, and Blau Road as a result of existing vegetation and landscaping adjacent to the roadway as well as curves in the roads and elevation changes.
- Intersection radii that would be difficult to travers by a delivery trucks, specifically at the Watters Road/Blau Road intersection.
- The existing S-curve along Blau Road between Watters Road and the site. This area of Blau Road has significantly reduced cartway widths that would be impassable for two-way truck traffic as well as limited sight distance and turning radii.



Conclusions

Based on the results presented in this traffic engineering assessment, the traffic resulting from the proposed Blau Road development will have the following impacts on the adjacent roadway network.

- The Applicant anticipates a maximum of 50,000 tons of food waste and wood chips to be processed through the facility on a yearly basis. This production will ramp up over three (3) years in equal increments. This would result in a total of 13,173 delivery trips per year being added cumulatively over the three (3) years, for a full build-out condition of 39,519 delivery trips per year upon reaching maximum capacity.
- A trip generation analysis has been done based upon the following information available and assumptions with regards to the traffic aspects of the proposed facility.
 - It is anticipated that there will be approximately 3-5 employees on-site during typical daily conditions associated with deliveries, product drop-off, and on-site work requirements. The facility will have typical operating hours of 7:30 AM to 5:00 PM.
 - Based upon public information available, the indication is that the facility will be served by approximately 380 trucks per week. Assuming working Monday through Friday, this would be approximately 76 trucks per day.
 - The anticipation is that all employees will arrive during the weekday AM peak hour and depart during the weekday PM peak hour.
 - It is anticipated that 20% of the truck movements will occur during each of the weekday AM, weekday midday, and weekday PM peak hours.
- Based upon this analysis, it is estimated that the proposed development will generate approximately 30-35 total trips during the weekday AM, weekday midday, and weekday PM peak hours.
- Truck trips associated with the proposed development will be making left turns from Airport Road to westbound Rockport Road in the future conditions based upon the truck route information provided. As such, these trucks will be queued / stacked in the existing Airport Road left-turn lane. If they are queued in the lane, any vehicle in the Airport Road right-turn lane will not be able to see past the queued truck to observe traffic coming eastbound on Rockport Road. The queued truck will be impeding the ability of right-turning vehicles to be able to safely observe traffic on Rockport Road for the purpose of turning on to the roadway.
- When making a left-turn from a minor roadway (Airport Road) on to a major roadway (Rockport Road), there are design considerations with regards to providing adequate sight distance for a vehicle. With trucks and other larger vehicles, the recommended sight distance is extended further along the major roadway as these vehicles will accelerate slower and require more time to safely turn on to the major roadway. During the field visit, it was observed that Rockport Road, west of its intersection with Airport



Road, has a horizontal curve approximately 450' from the intersection that impacts the ability of vehicles queued on Airport Road to see vehicles traveling eastbound on Rockport Road prior to the curve.

Per the current NJDOT Roadway Design Manual (Figure 6-A), there are recommendations with regards to the length of clear sight distance provided at intersections to facilitate the safe movements of passenger vehicles and trucks. As noted above, Rockport Road has a posted speed limit of 45 MPH and therefore a design speed of 50 MPH, as required by NJDOT. With a 50 MPH design speed, the recommended sight distance for a truck to make a left-turn from a minor roadway is 845'. As indicated above, there is an existing horizontal curve on Rockport Road approximately 450' from Airport Road.

- It is also recommended that a truck turning analysis be completed for the Rockport Road / Airport Road intersection to ensure that the anticipated truck / delivery vehicles can make the anticipated turns through the intersection without impacting other vehicles queued at the intersection. The concern is that a truck making a right-turn from eastbound Rockport Road to southbound Airport Road would not be able to make the turn without encroaching upon vehicles queued or stacked within the northbound Airport Road left-turn lane.
- Based upon field observations at the existing Rockport Road / Blau Road intersection, there are concerns with the introduction of truck traffic to this existing stop-controlled intersection. Again, there is concern about available sight distance for trucks making turns from Blau Road on to Rockport Road. Approximately 550' east of the intersection, there is a horizontal curve in Rockport Road that limits the ability of vehicles exiting Blau Road to be able to see vehicles approaching along westbound Rockport Road. As noted above, the NJDOT Roadway Design Manual (Figure 6-A) recommends a minimum of 845' of sight distance for trucks when making left-turns from a minor road when the major roadway has a 50 MPH design speed.
- It is our opinion that the impact of the increased truck traffic on Blau Road from the proposed development will be significant. As shown above, the existing roadway has cracking throughout and a substandard cartway width to permit the safe flow and two-way travel of trucks for deliveries. At a minimum, it would be recommended that the roadway be widened to provide a 30' cartway width from the proposed development to the Rockport Road / Blau Road intersection. In addition, it is recommended that samples be taken of the existing roadway paving to determine if the current cross section is sufficient and meets the current NJDOT recommendations for heavy vehicles and trucks.
- A truck turning analysis should be completed for the Rockport Road / Blau Road intersection to ensure that the anticipated truck / delivery vehicles can make the anticipated turns through the intersection without impacting other vehicles queued at the intersection. The concern is that a truck making a right-turn from northbound Blau Road to eastbound Rockport Road would not be able to make the turn without encroaching upon vehicles traveling westbound on Rockport Road. There is limited paving and width at the intersection to accommodate larger vehicle movements. Likewise, the concern is that a truck making a left-turn from westbound Rockport Road

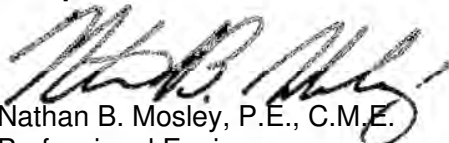


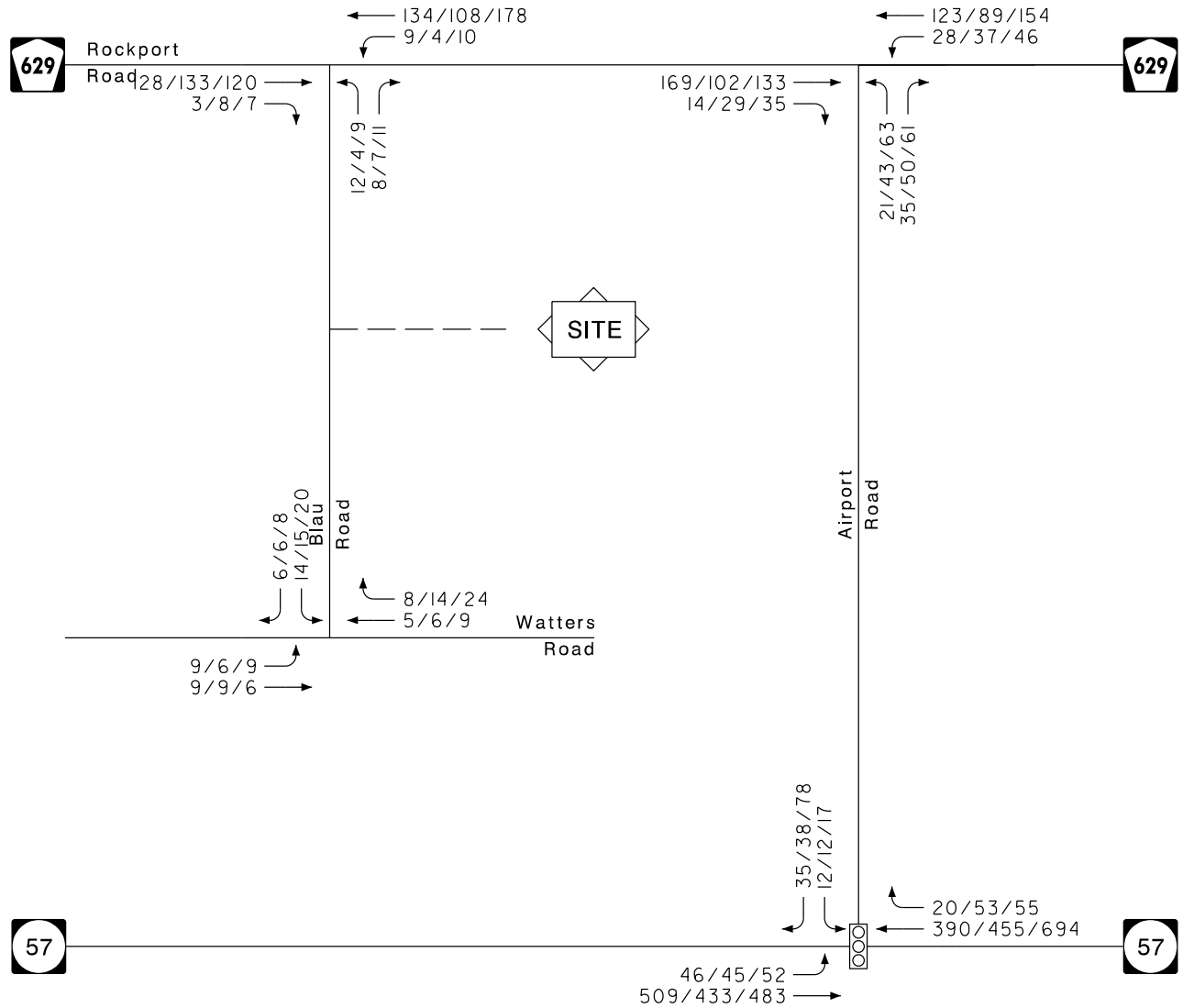
to southbound Blau Road would not be able to make the turn without impacting vehicles queued or stacked within the northbound Blau Road approach.

- The most direct route to/from the site with regards to distance and time is for trucks to travel to the site via Route 57, Hazen Road, Watters Road, and Blau Road from the south. If trucks were to utilize this route, there are several significant traffic concerns with trucks utilizing this route for deliveries to/from the site. These include the following.
 - Limited cartway widths for Hazen Road, Watters Road, and Blau Road that are at or below 24' for two-way travel.
 - Limited sight distance along Hazen Road, Watters Road, and Blau Road as a result of existing vegetation and landscaping adjacent to the roadway as well as curves in the roads and elevation changes.
 - Intersection radii that would be difficult to traverse by a delivery trucks, specifically at the Watters Road/Blau Road intersection.
 - The existing S-curve along Blau Road between Watters Road and the site. This area of Blau Road has significantly reduced cartway widths that would be impassable for two-way truck traffic as well as limited sight distance and turning radii.
- Along the majority of the published truck route from the Applicant (Route 57, Airport Road, Rockport Road, Blau Road), there are no existing roadway shoulders or sidewalks. However, there are existing residential homes and areas along these roadways and therefore there is a concern for pedestrian, bicyclists, and child safety related to the increase in truck traffic.

Should you have any questions or require additional information, please feel free to contact us.


Sincerely,
Shropshire Associates LLC

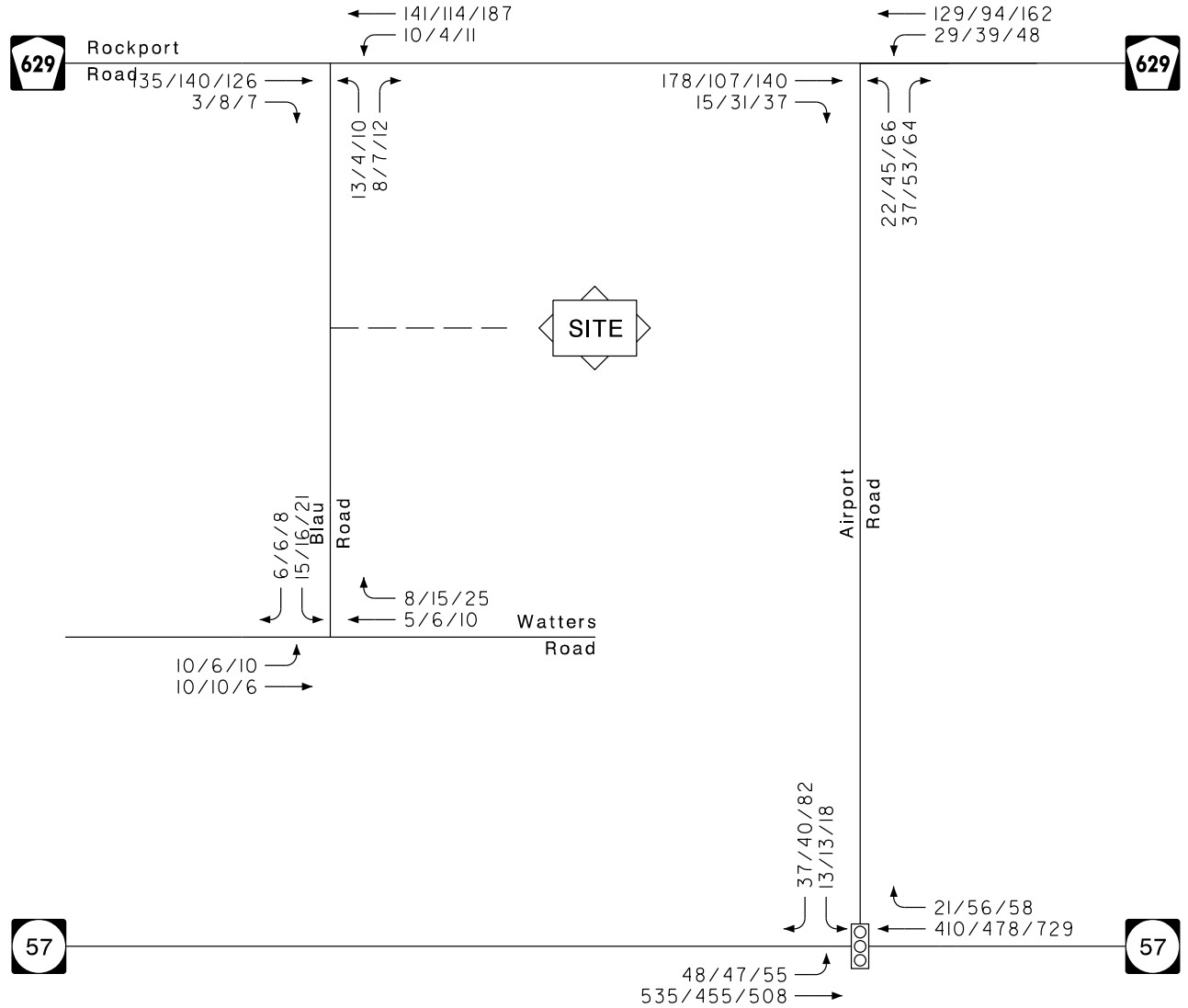
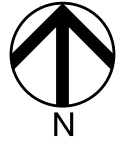

Nathan B. Mosley, P.E., C.M.E.
Professional Engineer
N.J. License No. #48698
NBM/jab
Attachments




Blau Road Development

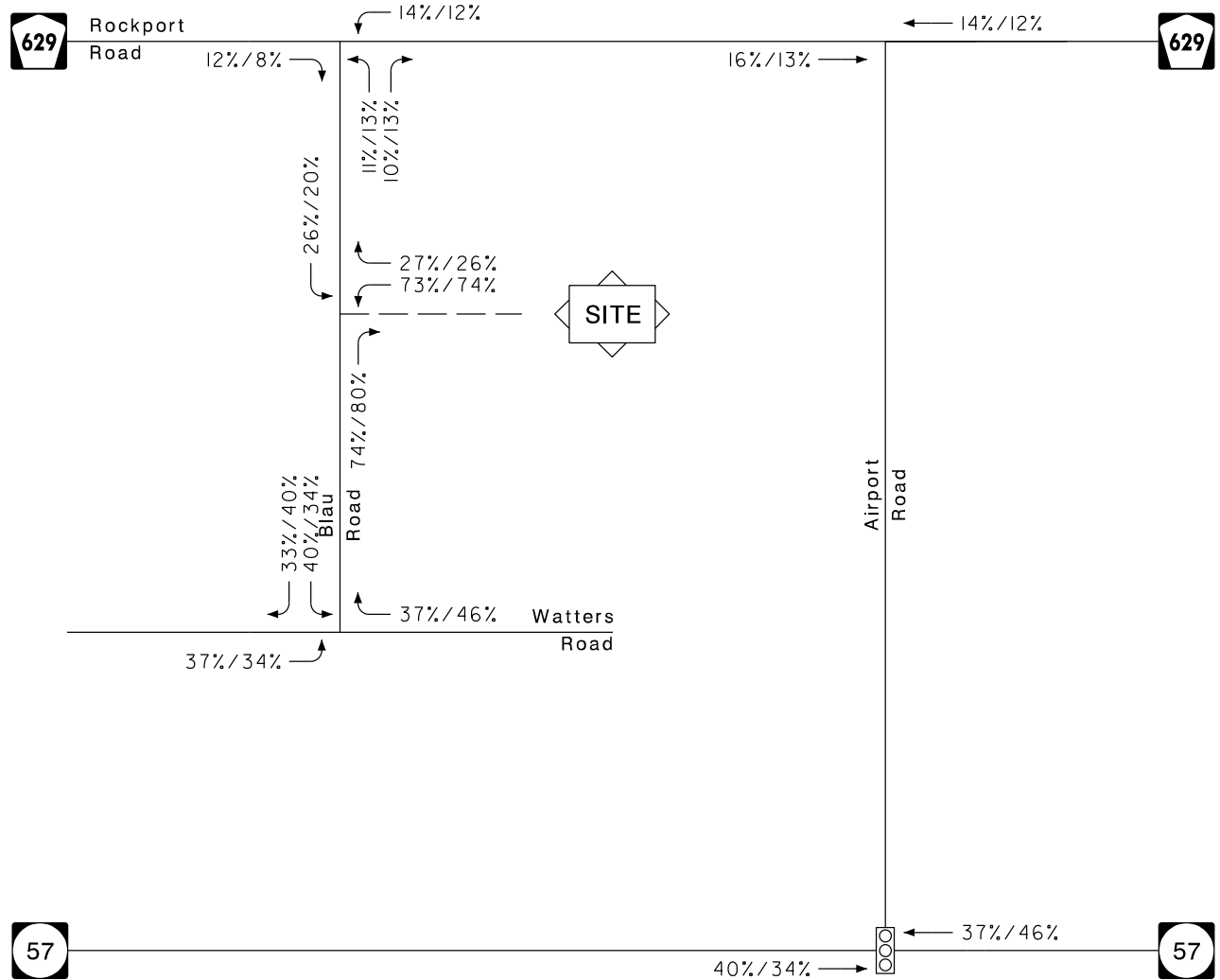
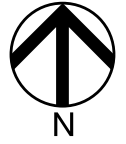
Mansfield Township, Warren County, NJ
 September 2022

 TRAFFIC SIGNAL
 AM/MID/PM PEAK HOUR




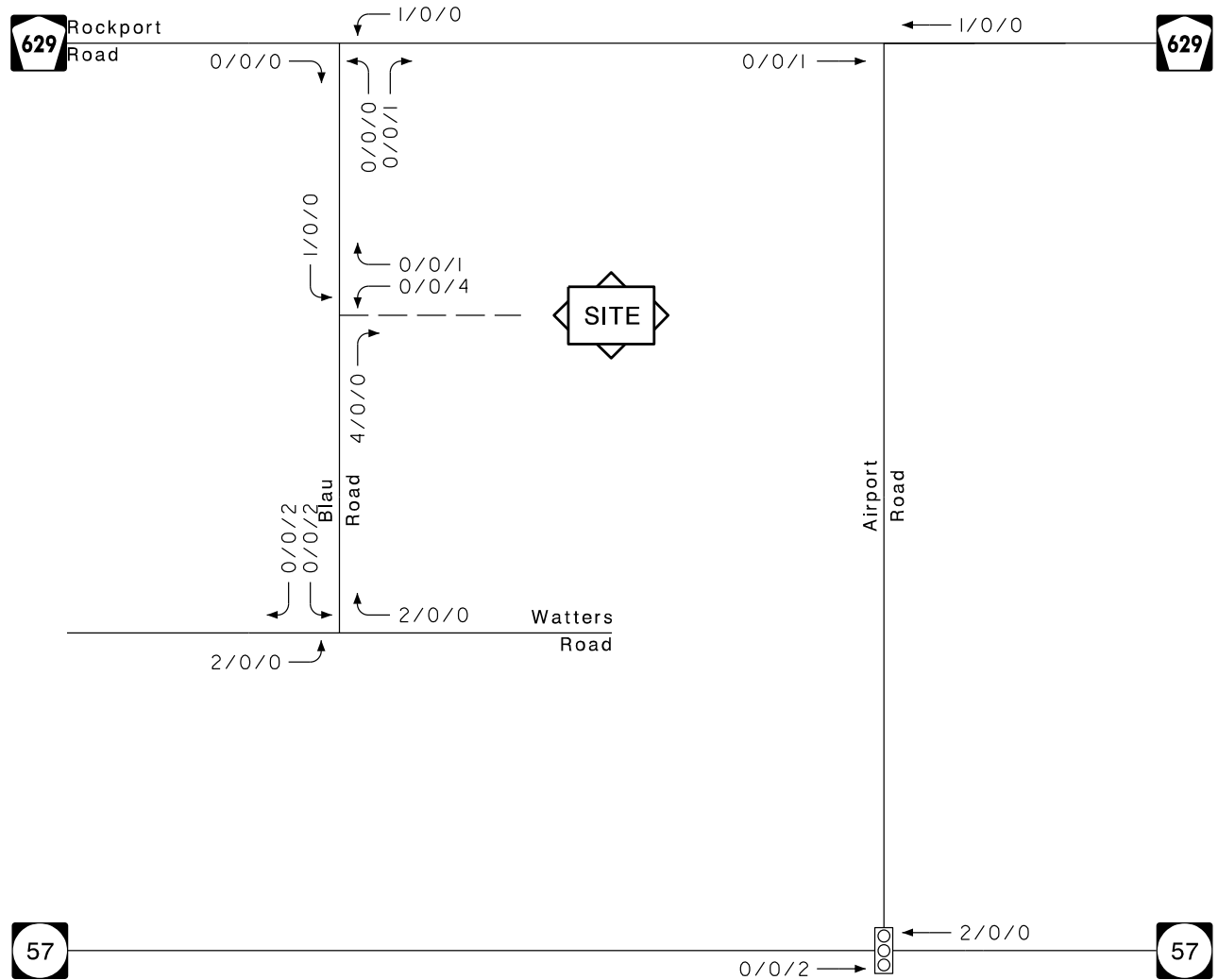
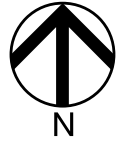
Blau Road Development
 Mansfield Township, Warren County, NJ
 September 2022

 TRAFFIC SIGNAL
 AM/MID/PM PEAK HOUR




Blau Road Development Mansfield Township, Warren County, NJ September 2022

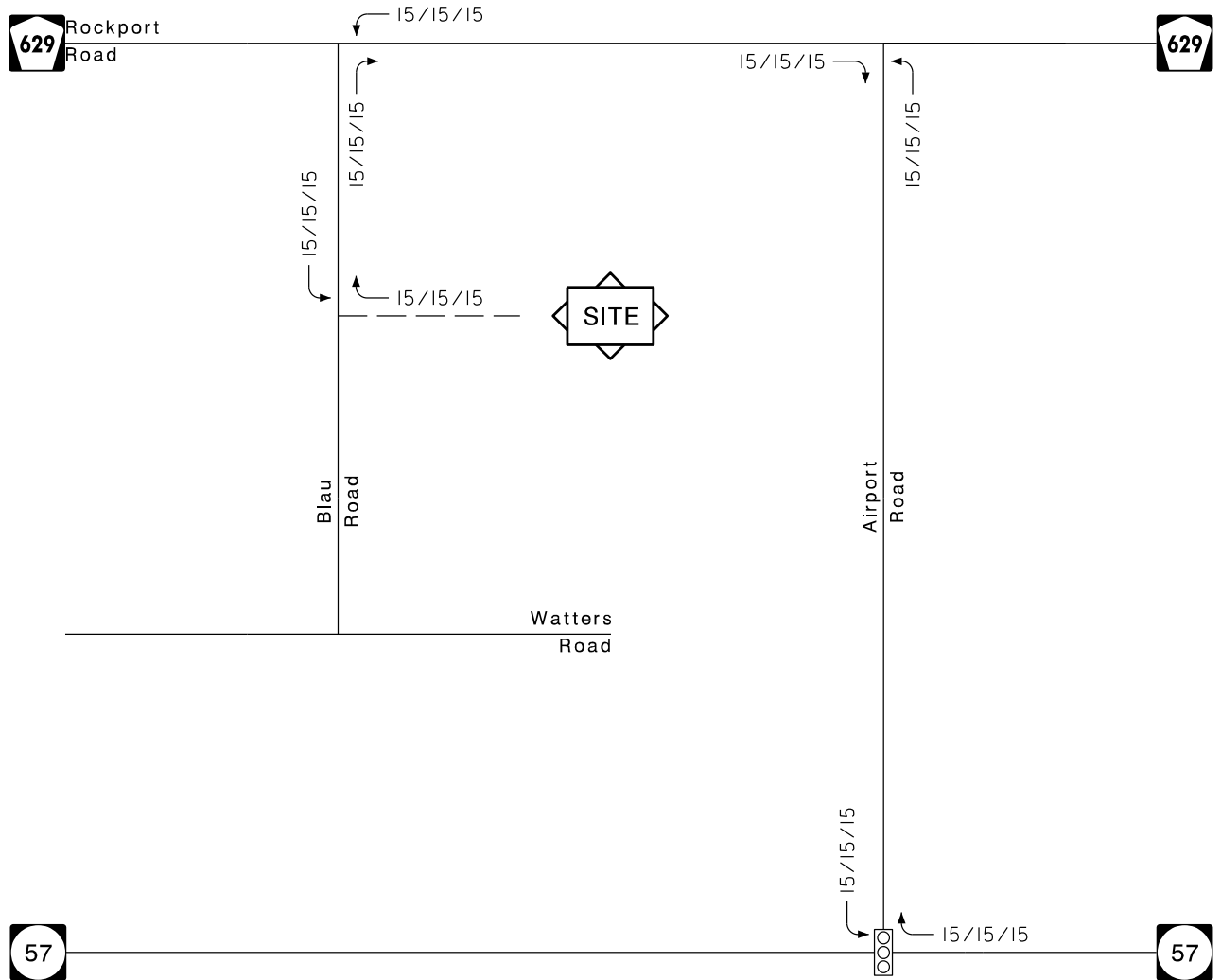
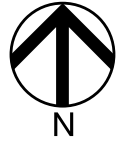
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 AM/PM PEAK HOUR



Blau Road Development


Mansfield Township, Warren County, NJ
 September 2022

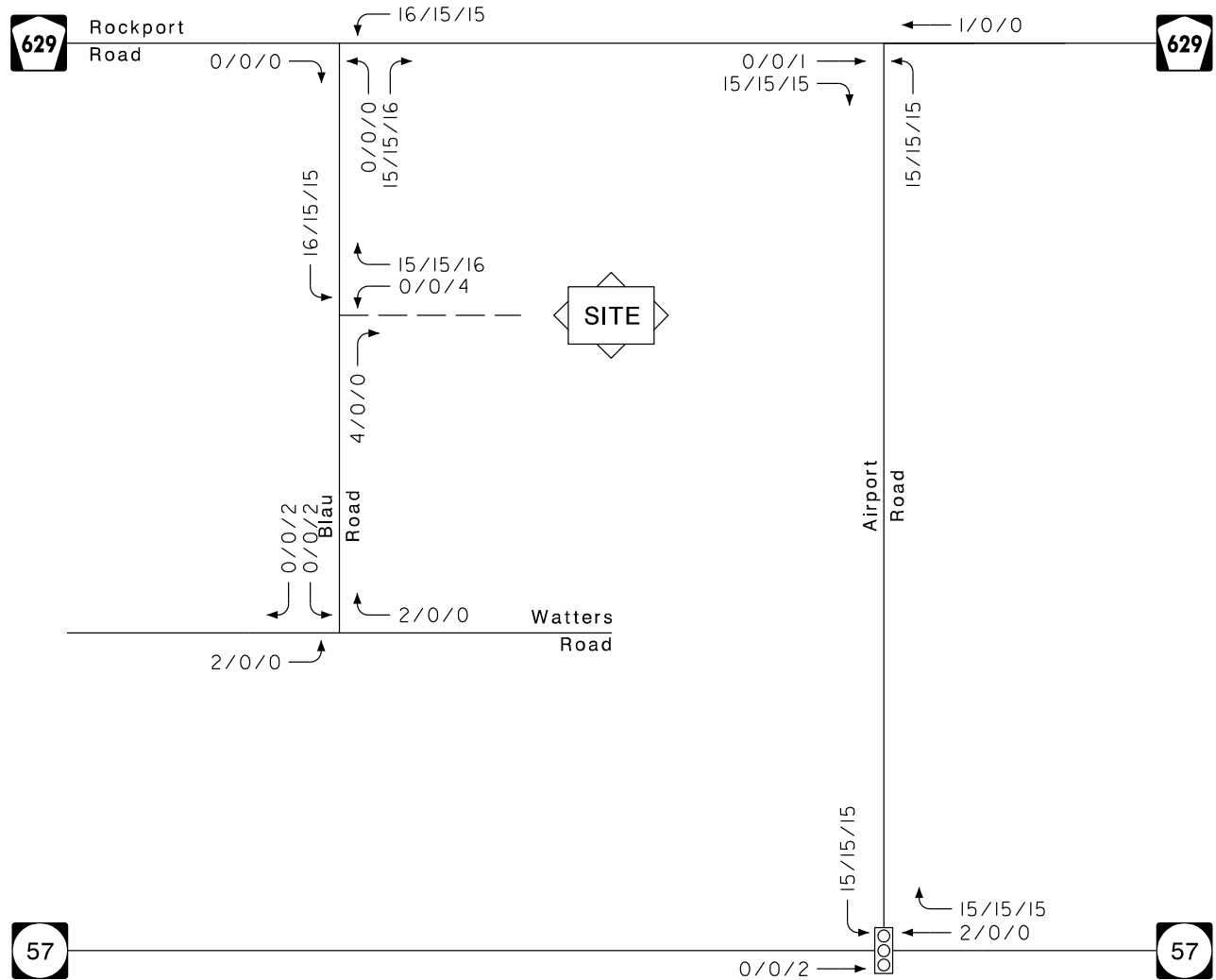
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 AM/MID/PM PEAK HOUR



Blau Road Development


Mansfield Township, Warren County, NJ
 September 2022

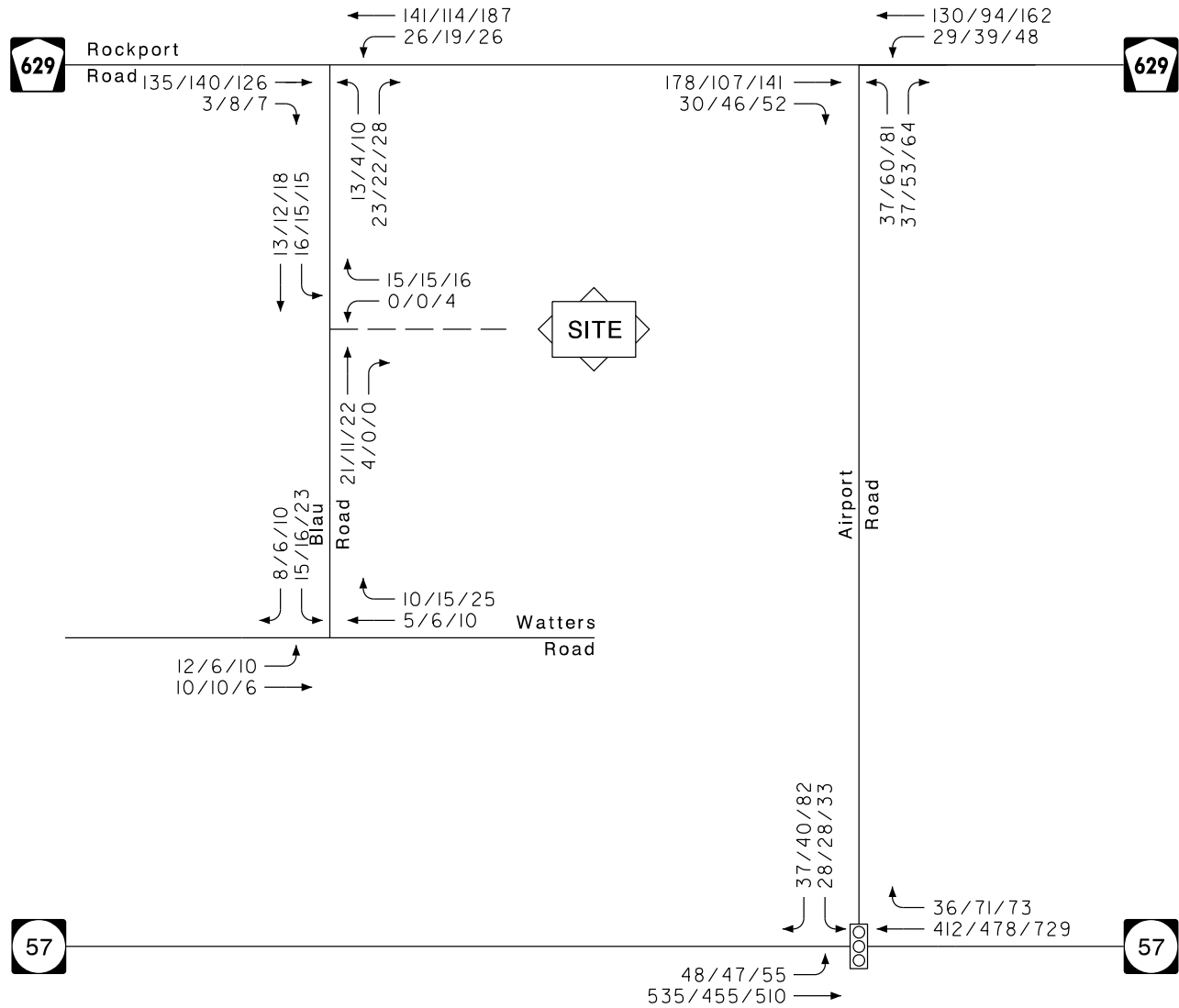
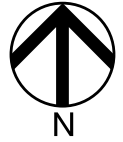
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 AM/MID/PM PEAK HOUR



Blau Road Development


Mansfield Township, Warren County, NJ
 September 2022

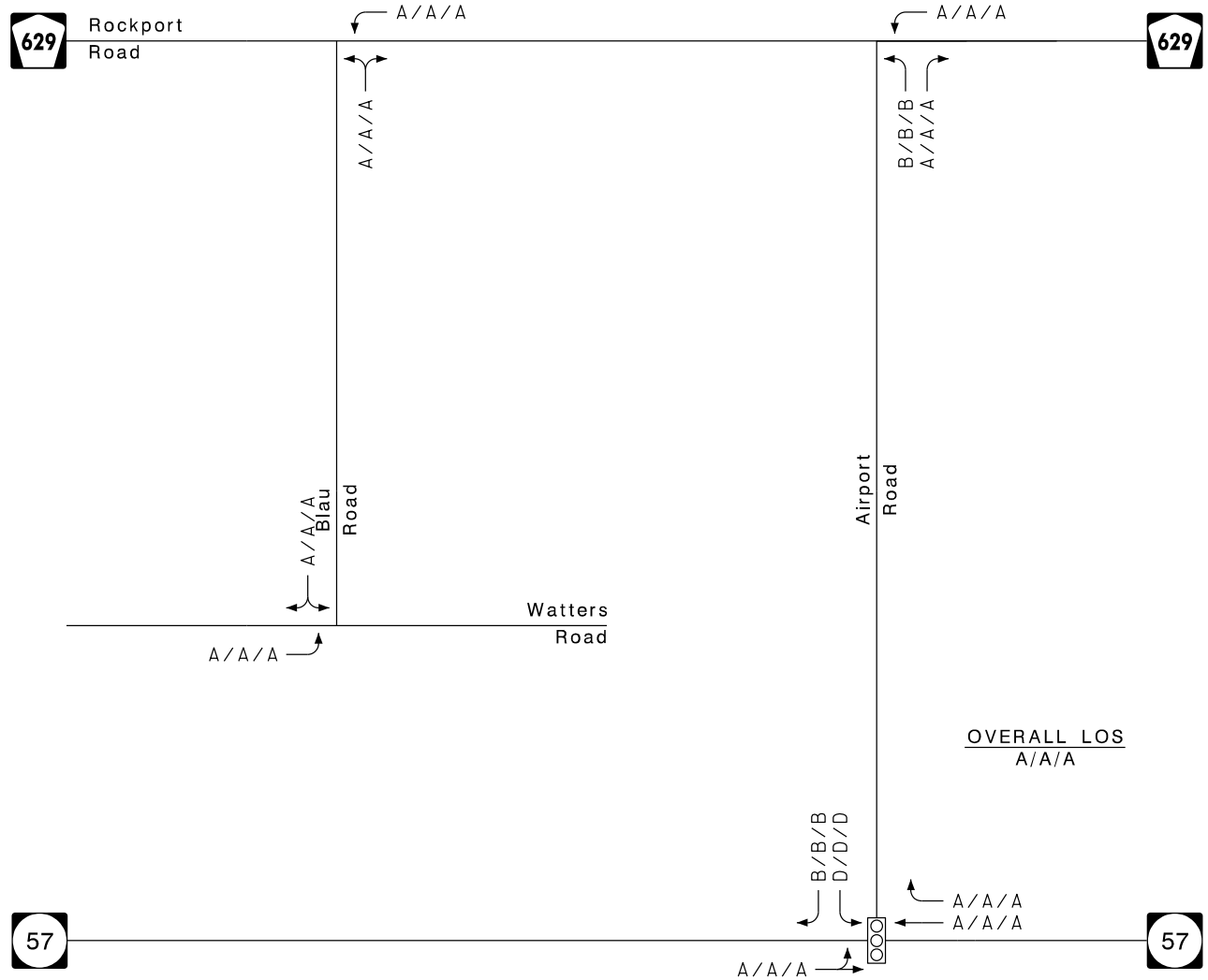
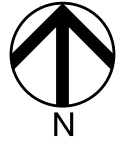
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Blau Road Development

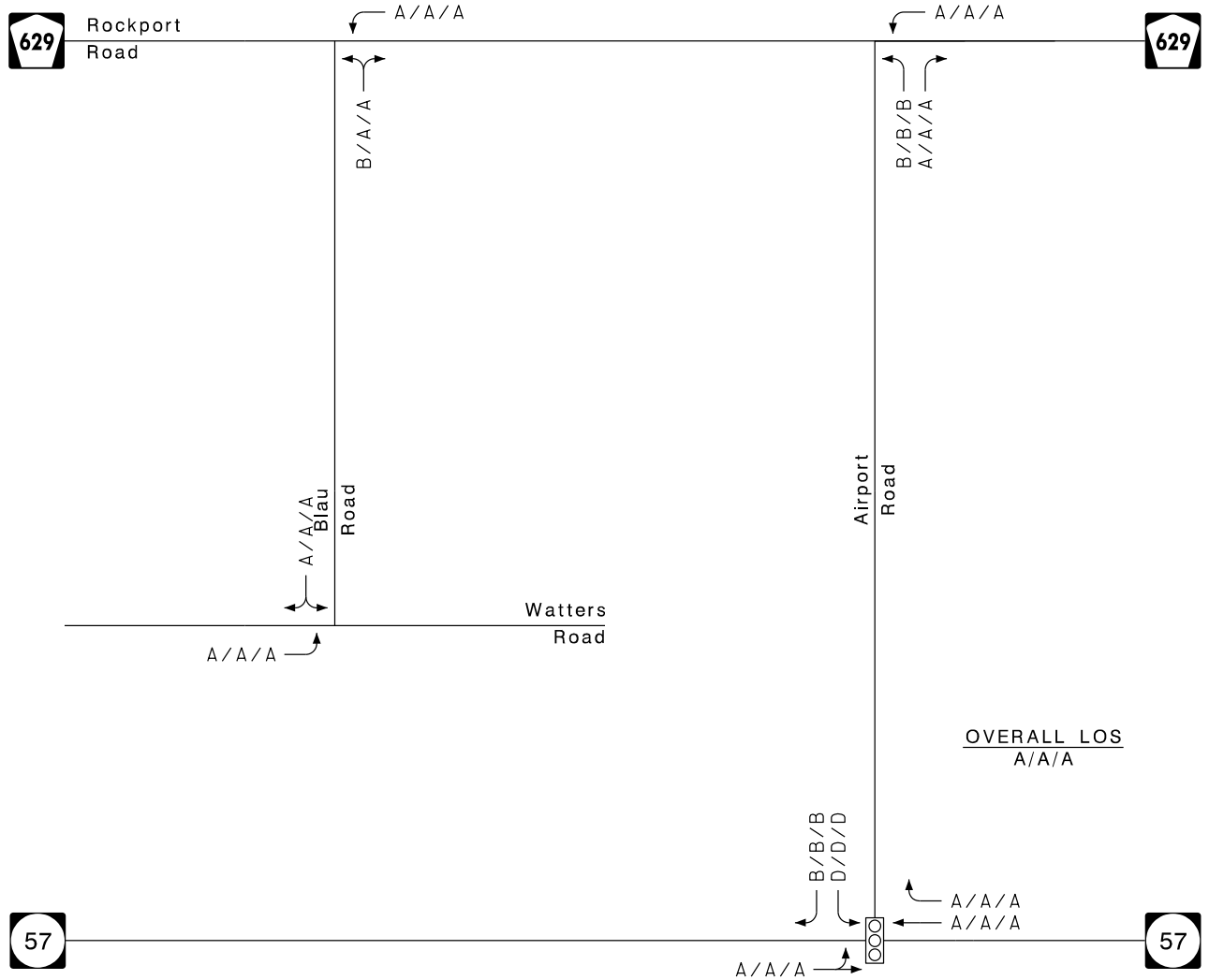
Mansfield Township, Warren County, NJ
 September 2022

 TRAFFIC SIGNAL
 AM/MID/PM PEAK HOUR




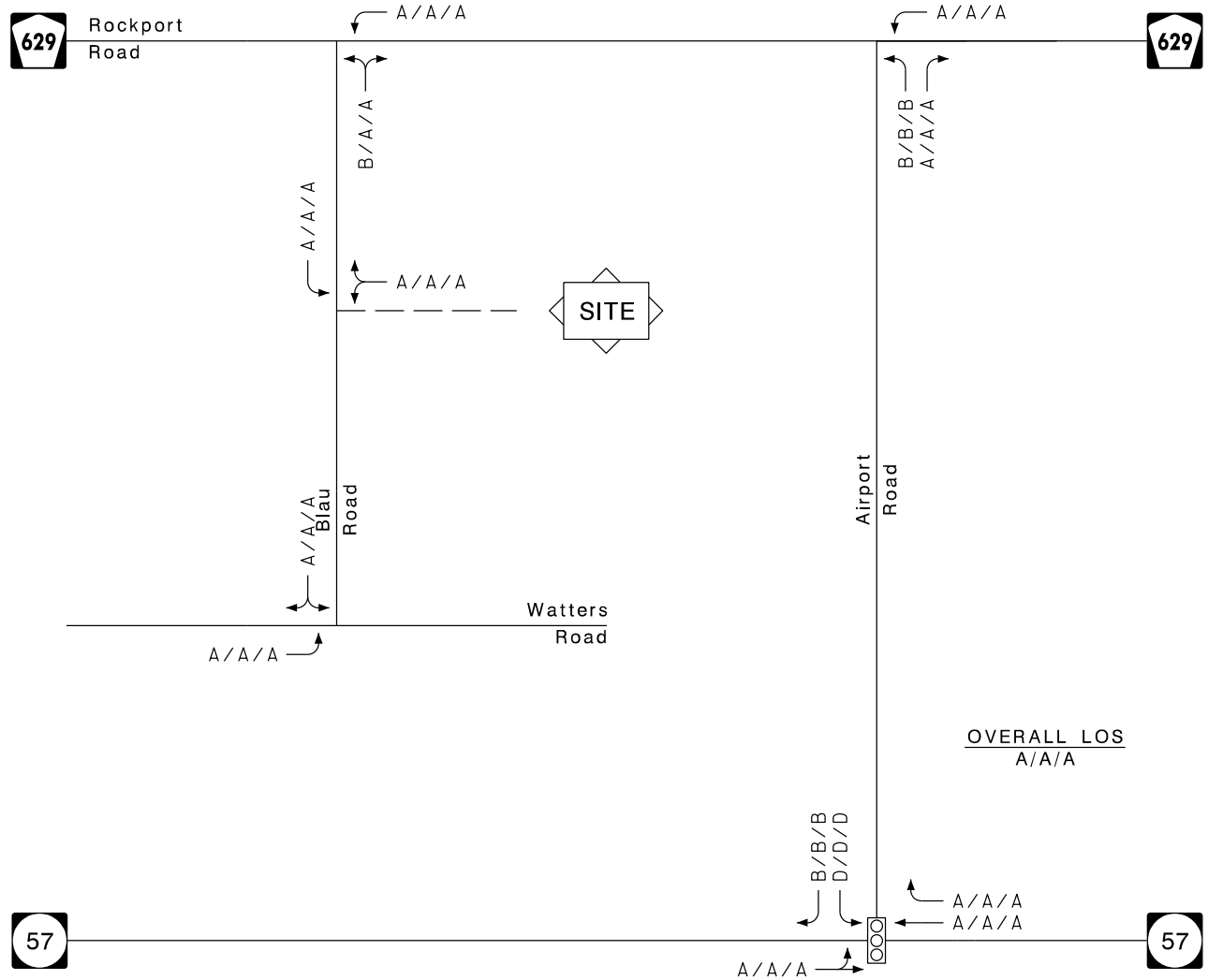
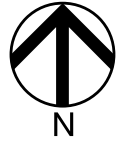
Blau Road Development Mansfield Township, Warren County, NJ September 2022

 TRAFFIC SIGNAL
 AM/MID/PM PEAK HOUR




Blau Road Development Mansfield Township, Warren County, NJ September 2022

 TRAFFIC SIGNAL
 AM/MID/PM PEAK HOUR



Blau Road Development

Mansfield Township, Warren County, NJ
 September 2022

 TRAFFIC SIGNAL
 AM/MID/PM PEAK HOUR

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: NJ-57
Mansfield Township/Warren County/NJ
Tuesday/Overcast/SP/D4-2584

File Name : 22170001
Site Code : 22170001
Start Date : 6/7/2022
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

Start Time	Airport Rd. Southbound				NJ-57 Westbound			NJ-57 Eastbound			Int. Total
	Right	Left	Right on Red	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
06:00 AM	2	2	1	5	3	29	32	72	2	74	111
06:15 AM	0	3	4	7	0	51	51	112	7	119	177
06:30 AM	0	1	8	9	3	61	64	106	6	112	185
06:45 AM	6	3	4	13	6	52	58	142	6	148	219
Total	8	9	17	34	12	193	205	432	21	453	692
07:00 AM	2	2	11	15	5	69	74	141	5	146	235
07:15 AM	1	1	11	13	4	78	82	130	7	137	232
07:30 AM	3	2	3	8	5	73	78	134	17	151	237
07:45 AM	0	2	10	12	6	83	89	128	6	134	235
Total	6	7	35	48	20	303	323	533	35	568	939
08:00 AM	2	1	5	8	5	90	95	137	7	144	247
08:15 AM	1	6	10	17	6	103	109	115	10	125	251
08:30 AM	0	3	5	8	5	111	116	131	10	141	265
08:45 AM	0	2	12	14	4	86	90	126	19	145	249
Total	3	12	32	47	20	390	410	509	46	555	1012
*** BREAK ***											
11:00 AM	1	2	9	12	10	84	94	84	10	94	200
11:15 AM	0	5	8	13	9	95	104	97	10	107	224
11:30 AM	1	9	9	19	8	108	116	88	9	97	232
11:45 AM	0	9	8	17	8	81	89	95	15	110	216
Total	2	25	34	61	35	368	403	364	44	408	872
12:00 PM	1	2	3	6	10	128	138	105	15	120	264
12:15 PM	1	4	8	13	11	118	129	107	13	120	262
12:30 PM	2	5	11	18	15	89	104	103	11	114	236
12:45 PM	2	1	10	13	17	120	137	118	6	124	274
Total	6	12	32	50	53	455	508	433	45	478	1036
01:00 PM	2	8	8	18	14	105	119	96	13	109	246
*** BREAK ***											
Total	2	8	8	18	14	105	119	96	13	109	246
*** BREAK ***											
03:00 PM	0	3	7	10	11	142	153	102	8	110	273
03:15 PM	4	7	10	21	5	119	124	98	15	113	258
03:30 PM	4	6	7	17	10	140	150	122	17	139	306
03:45 PM	8	3	15	26	10	147	157	140	19	159	342
Total	16	19	39	74	36	548	584	462	59	521	1179
04:00 PM	3	7	9	19	8	163	171	106	13	119	309
04:15 PM	4	3	11	18	20	160	180	115	14	129	327
04:30 PM	0	3	6	9	15	128	143	92	19	111	263
04:45 PM	3	5	11	19	14	173	187	119	12	131	337
Total	10	18	37	65	57	624	681	432	58	490	1236
05:00 PM	2	3	18	23	15	172	187	121	10	131	341
05:15 PM	11	6	11	28	17	162	179	133	18	151	358

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: NJ-57
Mansfield Township/Warren County/NJ
Tuesday/Overcast/SP/D4-2584

File Name : 22170001
Site Code : 22170001
Start Date : 6/7/2022
Page No : 2

Groups Printed- Unshifted - Tractor Trailers

Start Time	Airport Rd. Southbound				NJ-57 Westbound			NJ-57 Eastbound			Int. Total
	Right	Left	Right on Red	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
05:30 PM	3	3	19	25	9	187	196	110	12	122	343
05:45 PM	1	2	10	13	16	150	166	98	14	112	291
Total	17	14	58	89	57	671	728	462	54	516	1333
Grand Total	70	124	292	486	304	3657	3961	3723	375	4098	8545
Apprch %	14.4	25.5	60.1		7.7	92.3		90.8	9.2		
Total %	0.8	1.5	3.4	5.7	3.6	42.8	46.4	43.6	4.4	48	
Unshifted	69	118	292	479	298	3620	3918	3688	371	4059	8456
% Unshifted	98.6	95.2	100	98.6	98	99	98.9	99.1	98.9	99	99
Tractor Trailers	1	6	0	7	6	37	43	35	4	39	89
% Tractor Trailers	1.4	4.8	0	1.4	2	1	1.1	0.9	1.1	1	1

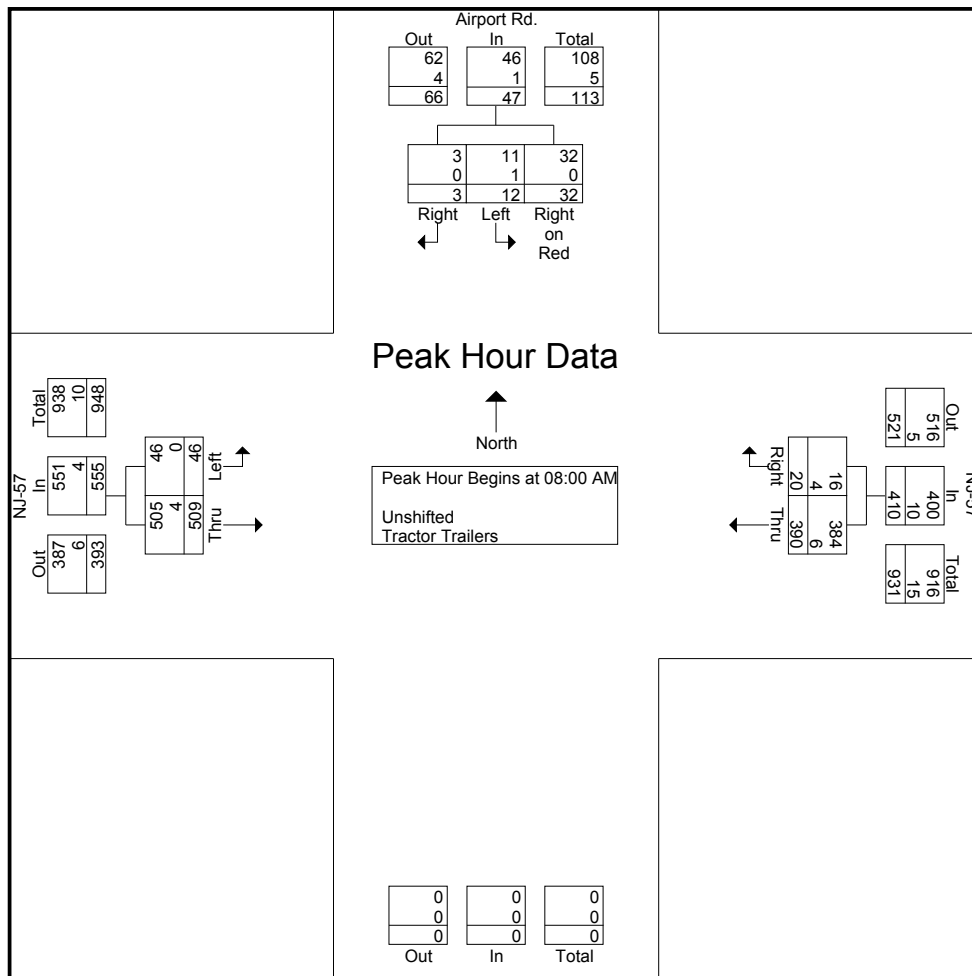
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: NJ-57
Mansfield Township/Warren County/NJ
Tuesday/Overcast/SP/D4-2584

File Name : 22170001
Site Code : 22170001
Start Date : 6/7/2022
Page No : 3

Start Time	Airport Rd. Southbound				NJ-57 Westbound			NJ-57 Eastbound			Int. Total
	Right	Left	Right on Red	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 08:00 AM											
08:00 AM	2	1	5	8	5	90	95	137	7	144	247
08:15 AM	1	6	10	17	6	103	109	115	10	125	251
08:30 AM	0	3	5	8	5	111	116	131	10	141	265
08:45 AM	0	2	12	14	4	86	90	126	19	145	249
Total Volume	3	12	32	47	20	390	410	509	46	555	1012
% App. Total	6.4	25.5	68.1		4.9	95.1		91.7	8.3		
PHF	.375	.500	.667	.691	.833	.878	.884	.929	.605	.957	.955
Unshifted	3	11	32	46	16	384	400	505	46	551	997
% Unshifted	100	91.7	100	97.9	80.0	98.5	97.6	99.2	100	99.3	98.5
Tractor Trailers	0	1	0	1	4	6	10	4	0	4	15
% Tractor Trailers	0	8.3	0	2.1	20.0	1.5	2.4	0.8	0	0.7	1.5



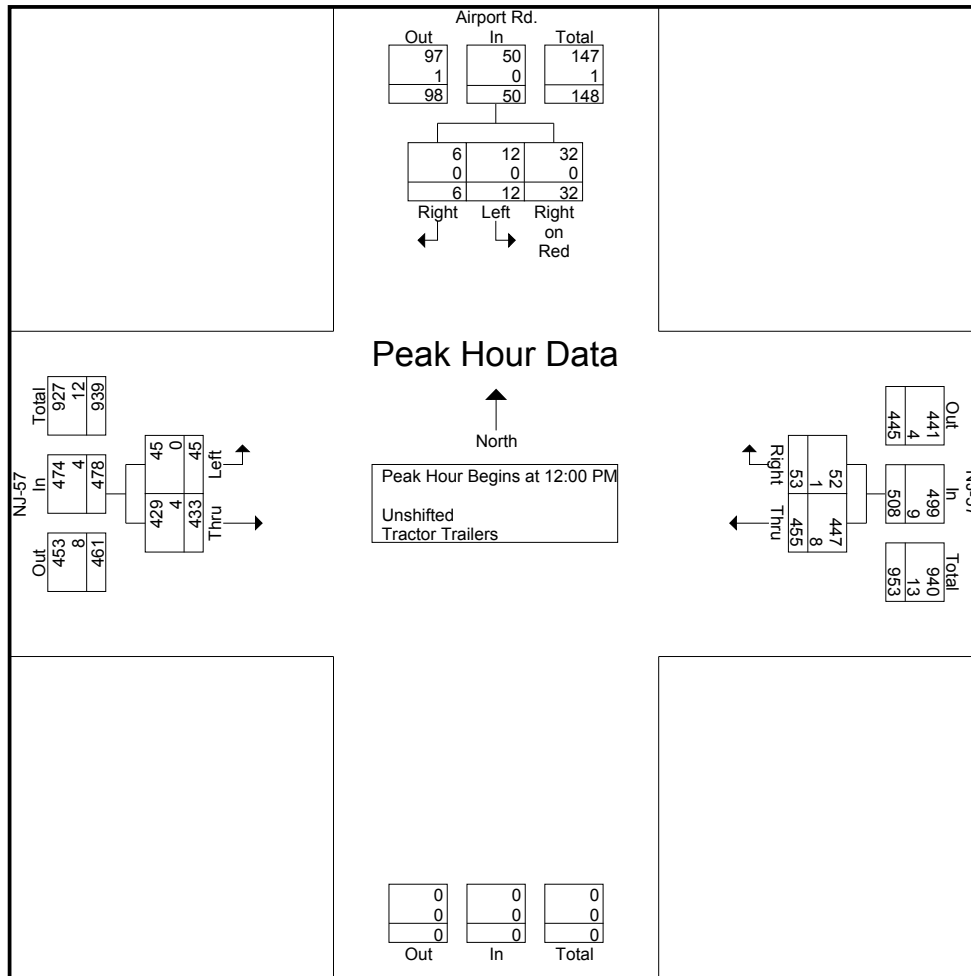
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: NJ-57
Mansfield Township/Warren County/NJ
Tuesday/Overcast/SP/D4-2584

File Name : 22170001
Site Code : 22170001
Start Date : 6/7/2022
Page No : 4

Start Time	Airport Rd. Southbound				NJ-57 Westbound			NJ-57 Eastbound			Int. Total
	Right	Left	Right on Red	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 12:00 PM											
12:00 PM	1	2	3	6	10	128	138	105	15	120	264
12:15 PM	1	4	8	13	11	118	129	107	13	120	262
12:30 PM	2	5	11	18	15	89	104	103	11	114	236
12:45 PM	2	1	10	13	17	120	137	118	6	124	274
Total Volume	6	12	32	50	53	455	508	433	45	478	1036
% App. Total	12	24	64		10.4	89.6		90.6	9.4		
PHF	.750	.600	.727	.694	.779	.889	.920	.917	.750	.964	.945
Unshifted	6	12	32	50	52	447	499	429	45	474	1023
% Unshifted	100	100	100	100	98.1	98.2	98.2	99.1	100	99.2	98.7
Tractor Trailers	0	0	0	0	1	8	9	4	0	4	13
% Tractor Trailers	0	0	0	0	1.9	1.8	1.8	0.9	0	0.8	1.3



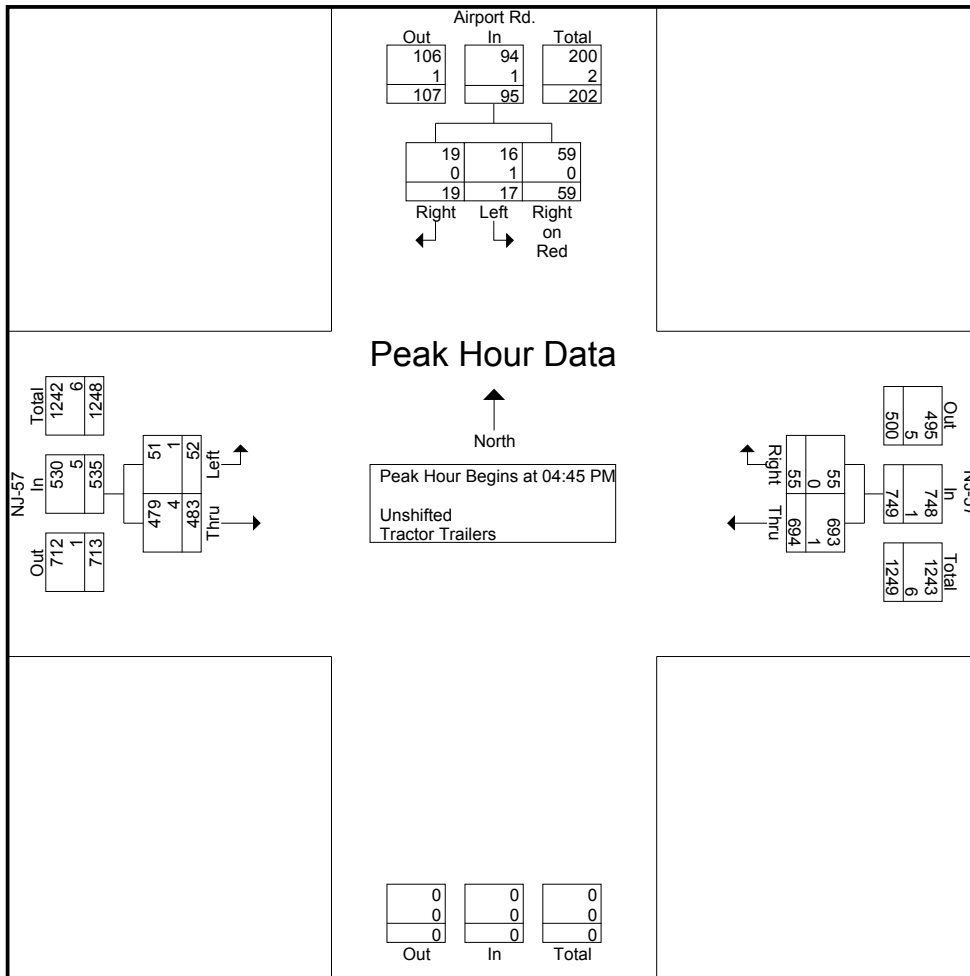
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: NJ-57
Mansfield Township/Warren County/NJ
Tuesday/Overcast/SP/D4-2584

File Name : 22170001
Site Code : 22170001
Start Date : 6/7/2022
Page No : 5

Start Time	Airport Rd. Southbound				NJ-57 Westbound			NJ-57 Eastbound			Int. Total
	Right	Left	Right on Red	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM											
04:45 PM	3	5	11	19	14	173	187	119	12	131	337
05:00 PM	2	3	18	23	15	172	187	121	10	131	341
05:15 PM	11	6	11	28	17	162	179	133	18	151	358
05:30 PM	3	3	19	25	9	187	196	110	12	122	343
Total Volume	19	17	59	95	55	694	749	483	52	535	1379
% App. Total	20	17.9	62.1		7.3	92.7		90.3	9.7		
PHF	.432	.708	.776	.848	.809	.928	.955	.908	.722	.886	.963
Unshifted	19	16	59	94	55	693	748	479	51	530	1372
% Unshifted	100	94.1	100	98.9	100	99.9	99.9	99.2	98.1	99.1	99.5
Tractor Trailers	0	1	0	1	0	1	1	4	1	5	7
% Tractor Trailers	0	5.9	0	1.1	0	0.1	0.1	0.8	1.9	0.9	0.5



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/JH/D4-2585

File Name : 22170002
Site Code : 22170002
Start Date : 6/7/2022
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

Start Time	Rockport Rd. Westbound			Airport Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
06:00 AM	7	1	8	1	1	2	0	21	21	31
06:15 AM	13	6	19	4	2	6	1	12	13	38
06:30 AM	23	4	27	4	2	6	7	33	40	73
06:45 AM	22	4	26	6	1	7	3	40	43	76
Total	65	15	80	15	6	21	11	106	117	218
07:00 AM	32	4	36	2	7	9	2	26	28	73
07:15 AM	28	6	34	9	4	13	4	44	48	95
07:30 AM	35	5	40	11	7	18	3	42	45	103
07:45 AM	32	11	43	7	6	13	2	51	53	109
Total	127	26	153	29	24	53	11	163	174	380
08:00 AM	28	6	34	8	4	12	5	32	37	83
08:15 AM	26	10	36	6	1	7	4	40	44	87
08:30 AM	20	9	29	4	3	7	6	23	29	65
08:45 AM	24	5	29	11	2	13	7	41	48	90
Total	98	30	128	29	10	39	22	136	158	325
*** BREAK ***										
11:00 AM	18	10	28	11	7	18	8	14	22	68
11:15 AM	21	8	29	11	11	22	9	27	36	87
11:30 AM	20	7	27	7	10	17	8	21	29	73
11:45 AM	18	7	25	11	12	23	4	34	38	86
Total	77	32	109	40	40	80	29	96	125	314
12:00 PM	16	8	24	11	7	18	5	26	31	73
12:15 PM	24	8	32	7	12	19	10	31	41	92
12:30 PM	18	7	25	19	14	33	8	26	34	92
12:45 PM	31	14	45	13	10	23	6	19	25	93
Total	89	37	126	50	43	93	29	102	131	350
*** BREAK ***										
03:00 PM	31	11	42	13	12	25	8	18	26	93
03:15 PM	32	19	51	14	4	18	6	27	33	102
03:30 PM	32	8	40	14	13	27	6	42	48	115
03:45 PM	41	7	48	18	14	32	10	30	40	120
Total	136	45	181	59	43	102	30	117	147	430
04:00 PM	45	21	66	17	15	32	10	29	39	137
04:15 PM	36	10	46	12	21	33	9	32	41	120
04:30 PM	29	16	45	16	13	29	2	32	34	108
04:45 PM	33	18	51	7	11	18	5	30	35	104
Total	143	65	208	52	60	112	26	123	149	469
05:00 PM	35	11	46	18	17	35	12	32	44	125
05:15 PM	40	7	47	20	18	38	5	26	31	116
05:30 PM	35	11	46	9	18	27	5	33	38	111
05:45 PM	48	6	54	13	12	25	4	27	31	110
Total	158	35	193	60	65	125	26	118	144	462
Grand Total	893	285	1178	334	291	625	184	961	1145	2948
Apprch %	75.8	24.2		53.4	46.6		16.1	83.9		
Total %	30.3	9.7	40	11.3	9.9	21.2	6.2	32.6	38.8	

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/JH/D4-2585

File Name : 22170002
Site Code : 22170002
Start Date : 6/7/2022
Page No : 2

Groups Printed- Unshifted - Tractor Trailers

	Rockport Rd. Westbound			Airport Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Unshifted	882	285	1167	334	289	623	184	953	1137	2927
% Unshifted	98.8	100	99.1	100	99.3	99.7	100	99.2	99.3	99.3
Tractor Trailers	11	0	11	0	2	2	0	8	8	21
% Tractor Trailers	1.2	0	0.9	0	0.7	0.3	0	0.8	0.7	0.7

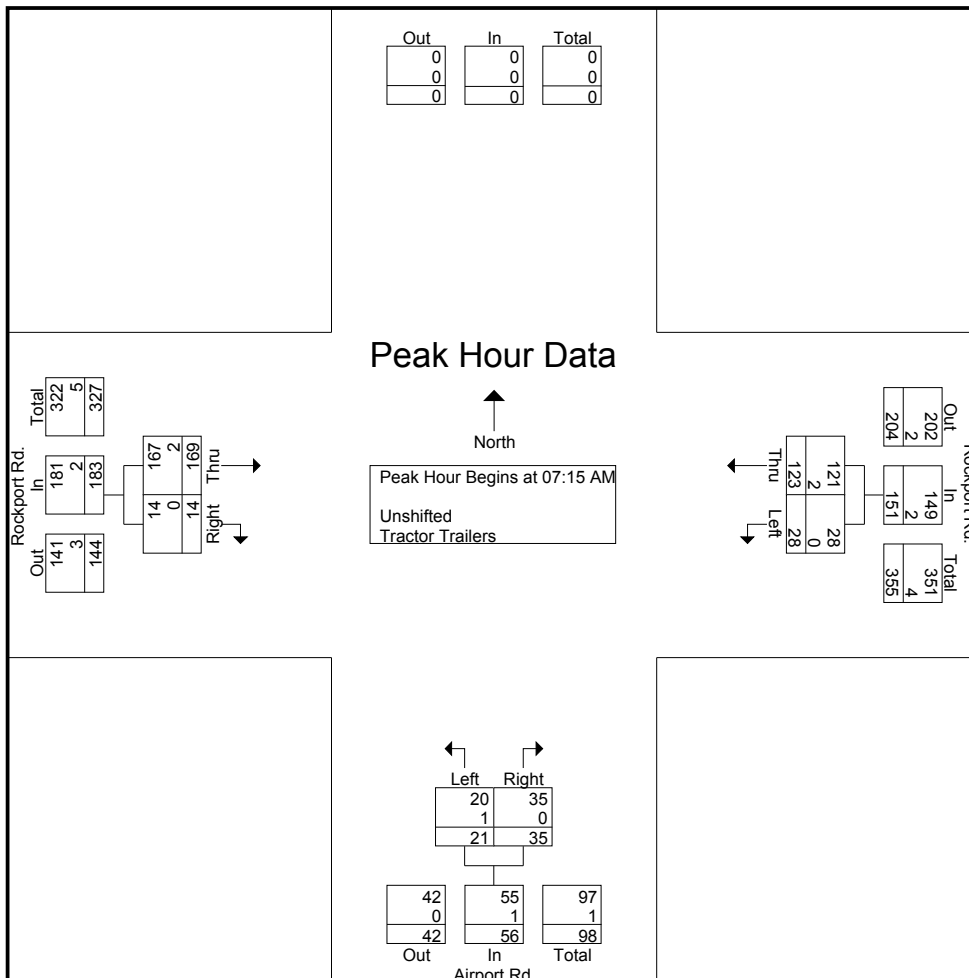
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/JH/D4-2585

File Name : 22170002
Site Code : 22170002
Start Date : 6/7/2022
Page No : 3

Start Time	Rockport Rd. Westbound			Airport Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	28	6	34	9	4	13	4	44	48	95
07:30 AM	35	5	40	11	7	18	3	42	45	103
07:45 AM	32	11	43	7	6	13	2	51	53	109
08:00 AM	28	6	34	8	4	12	5	32	37	83
Total Volume	123	28	151	35	21	56	14	169	183	390
% App. Total	81.5	18.5		62.5	37.5		7.7	92.3		
PHF	.879	.636	.878	.795	.750	.778	.700	.828	.863	.894
Unshifted	121	28	149	35	20	55	14	167	181	385
% Unshifted	98.4	100	98.7	100	95.2	98.2	100	98.8	98.9	98.7
Tractor Trailers	2	0	2	0	1	1	0	2	2	5
% Tractor Trailers	1.6	0	1.3	0	4.8	1.8	0	1.2	1.1	1.3



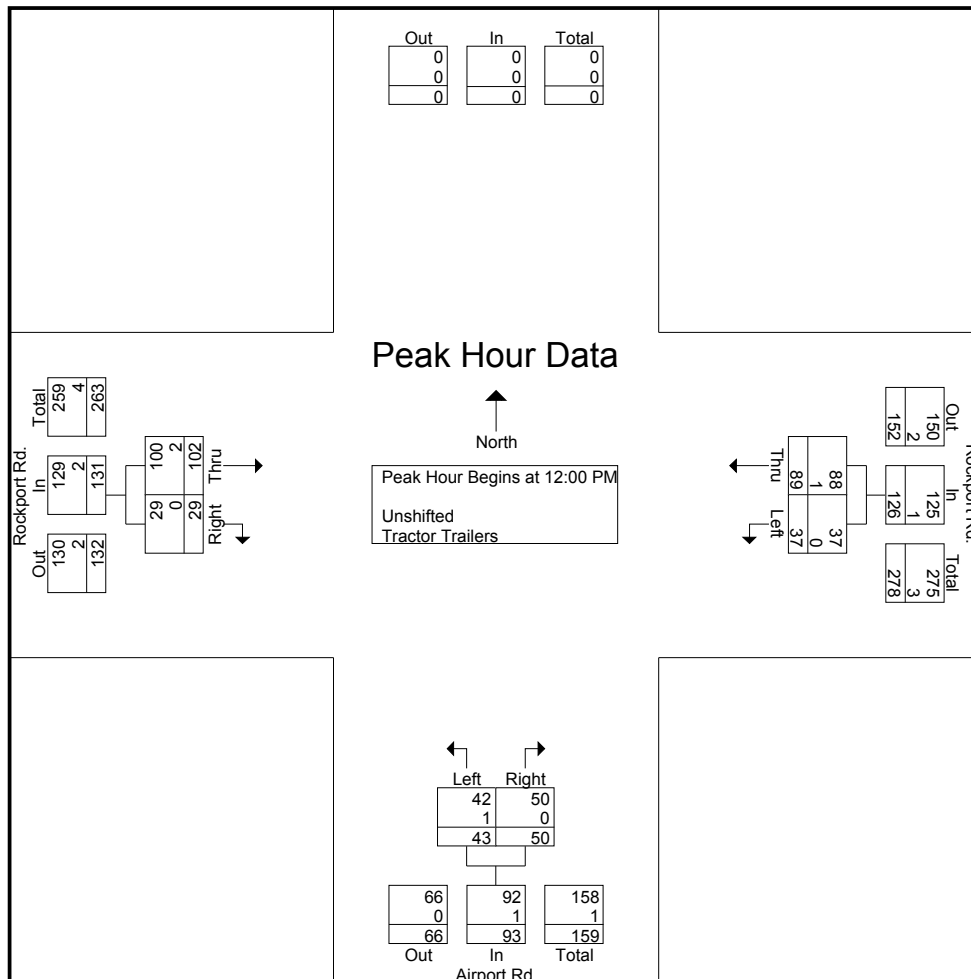
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/JH/D4-2585

File Name : 22170002
Site Code : 22170002
Start Date : 6/7/2022
Page No : 4

Start Time	Rockport Rd. Westbound			Airport Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	16	8	24	11	7	18	5	26	31	73
12:15 PM	24	8	32	7	12	19	10	31	41	92
12:30 PM	18	7	25	19	14	33	8	26	34	92
12:45 PM	31	14	45	13	10	23	6	19	25	93
Total Volume	89	37	126	50	43	93	29	102	131	350
% App. Total	70.6	29.4		53.8	46.2		22.1	77.9		
PHF	.718	.661	.700	.658	.768	.705	.725	.823	.799	.941
Unshifted	88	37	125	50	42	92	29	100	129	346
% Unshifted	98.9	100	99.2	100	97.7	98.9	100	98.0	98.5	98.9
Tractor Trailers	1	0	1	0	1	1	0	2	2	4
% Tractor Trailers	1.1	0	0.8	0	2.3	1.1	0	2.0	1.5	1.1



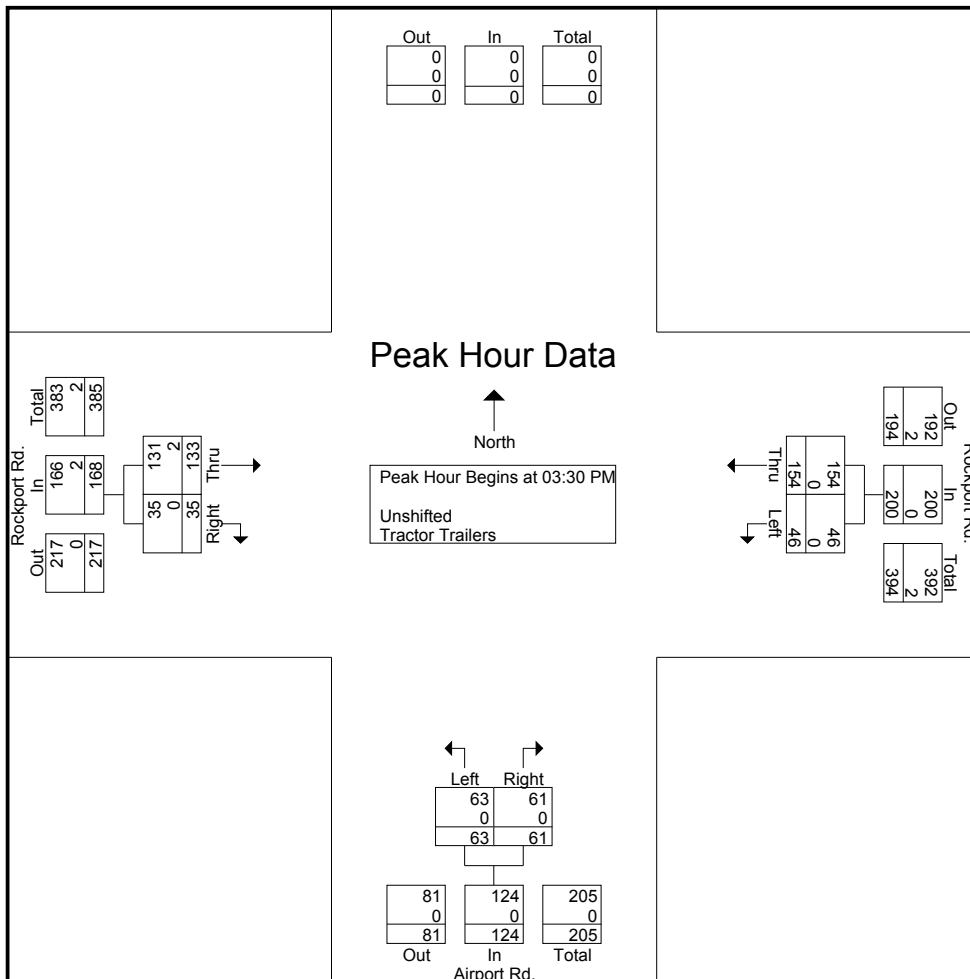
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Atco, NJ 08004

N/S Route: Airport Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/JH/D4-2585

File Name : 22170002
Site Code : 22170002
Start Date : 6/7/2022
Page No : 5

Start Time	Rockport Rd. Westbound			Airport Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	32	8	40	14	13	27	6	42	48	115
03:45 PM	41	7	48	18	14	32	10	30	40	120
04:00 PM	45	21	66	17	15	32	10	29	39	137
04:15 PM	36	10	46	12	21	33	9	32	41	120
Total Volume	154	46	200	61	63	124	35	133	168	492
% App. Total	77	23		49.2	50.8		20.8	79.2		
PHF	.856	.548	.758	.847	.750	.939	.875	.792	.875	.898
Unshifted	154	46	200	61	63	124	35	131	166	490
% Unshifted	100	100	100	100	100	100	100	98.5	98.8	99.6
Tractor Trailers	0	0	0	0	0	0	0	2	2	2
% Tractor Trailers	0	0	0	0	0	0	0	1.5	1.2	0.4



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N/S Route: Blau Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/HA/D4-3730

File Name : 22170003
Site Code : 22170003
Start Date : 6/7/2022
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

Start Time	Rockport Rd. Westbound			Blau Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
06:00 AM	4	0	4	1	0	1	2	17	19	24
06:15 AM	18	2	20	1	1	2	0	12	12	34
06:30 AM	21	2	23	2	0	2	2	33	35	60
06:45 AM	19	1	20	2	1	3	3	33	36	59
Total	62	5	67	6	2	8	7	95	102	177
07:00 AM	32	4	36	2	8	10	1	25	26	72
07:15 AM	38	1	39	3	2	5	1	29	30	74
07:30 AM	33	4	37	1	1	2	1	40	41	80
07:45 AM	31	0	31	2	1	3	0	34	34	68
Total	134	9	143	8	12	20	3	128	131	294
08:00 AM	26	3	29	3	1	4	1	35	36	69
08:15 AM	26	3	29	0	1	1	1	36	37	67
08:30 AM	19	1	20	1	2	3	1	40	41	64
08:45 AM	23	0	23	3	0	3	1	25	26	52
Total	94	7	101	7	4	11	4	136	140	252
*** BREAK ***										
11:00 AM	20	0	20	1	1	2	2	22	24	46
11:15 AM	29	1	30	1	2	3	1	31	32	65
11:30 AM	28	1	29	0	0	0	0	27	27	56
11:45 AM	25	0	25	0	1	1	2	29	31	57
Total	102	2	104	2	4	6	5	109	114	224
12:00 PM	23	0	23	3	0	3	3	28	31	57
12:15 PM	29	3	32	1	1	2	3	41	44	78
12:30 PM	24	1	25	0	2	2	2	29	31	58
12:45 PM	32	0	32	3	1	4	0	35	35	71
Total	108	4	112	7	4	11	8	133	141	264
*** BREAK ***										
03:00 PM	37	3	40	2	0	2	2	23	25	67
03:15 PM	27	2	29	2	0	2	4	38	42	73
03:30 PM	40	0	40	1	1	2	0	30	30	72
03:45 PM	36	5	41	4	3	7	3	31	34	82
Total	140	10	150	9	4	13	9	122	131	294
04:00 PM	43	3	46	0	1	1	0	25	25	72
04:15 PM	45	2	47	4	3	7	3	35	38	92
04:30 PM	54	0	54	3	2	5	1	29	30	89
04:45 PM	24	2	26	2	3	5	2	23	25	56
Total	166	7	173	9	9	18	6	112	118	309
05:00 PM	38	4	42	1	2	3	1	38	39	84
05:15 PM	40	2	42	1	1	2	0	29	29	73
05:30 PM	56	5	61	3	7	10	2	29	31	102
05:45 PM	50	1	51	1	2	3	2	17	19	73
Total	184	12	196	6	12	18	5	113	118	332
Grand Total	990	56	1046	54	51	105	47	948	995	2146
Apprch %	94.6	5.4		51.4	48.6		4.7	95.3		
Total %	46.1	2.6	48.7	2.5	2.4	4.9	2.2	44.2	46.4	

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/HA/D4-3730

File Name : 22170003
Site Code : 22170003
Start Date : 6/7/2022
Page No : 2

Groups Printed- Unshifted - Tractor Trailers

	Rockport Rd. Westbound			Blau Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Unshifted	977	55	1032	53	50	103	46	940	986	2121
% Unshifted	98.7	98.2	98.7	98.1	98	98.1	97.9	99.2	99.1	98.8
Tractor Trailers	13	1	14	1	1	2	1	8	9	25
% Tractor Trailers	1.3	1.8	1.3	1.9	2	1.9	2.1	0.8	0.9	1.2

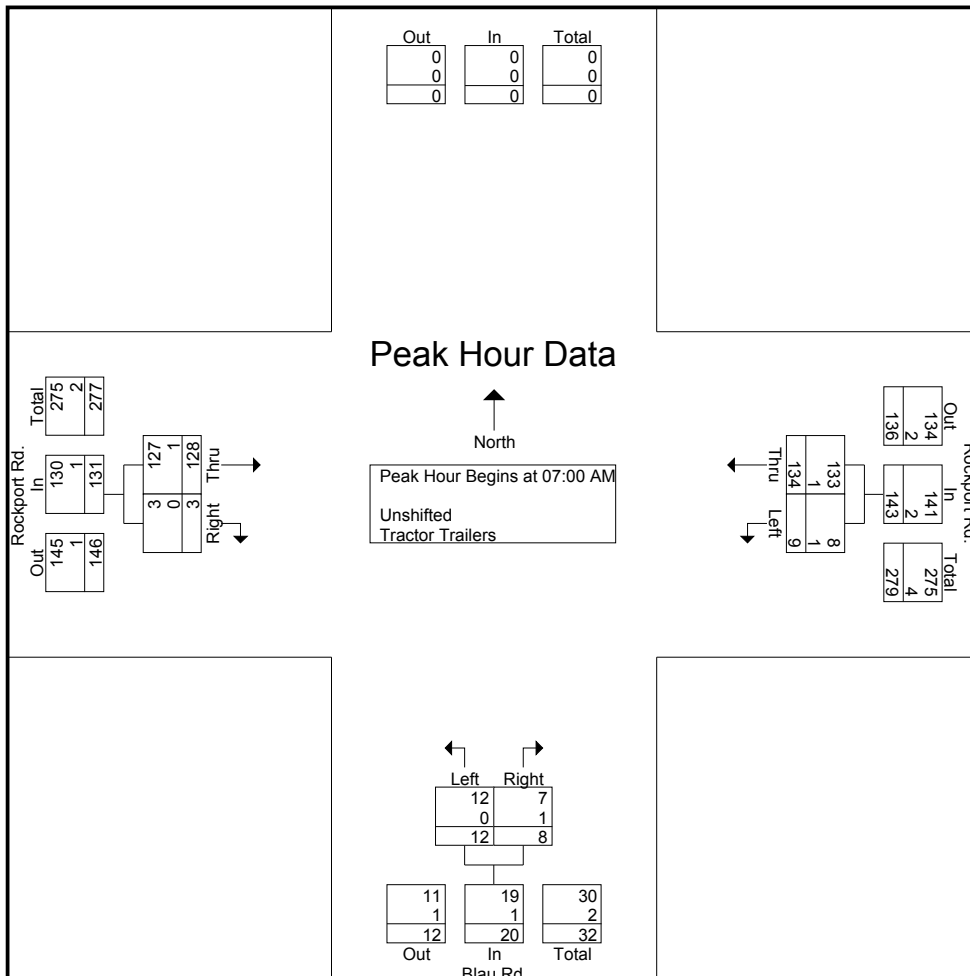
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277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/HA/D4-3730

File Name : 22170003
Site Code : 22170003
Start Date : 6/7/2022
Page No : 3

Start Time	Rockport Rd. Westbound			Blau Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	32	4	36	2	8	10	1	25	26	72
07:15 AM	38	1	39	3	2	5	1	29	30	74
07:30 AM	33	4	37	1	1	2	1	40	41	80
07:45 AM	31	0	31	2	1	3	0	34	34	68
Total Volume	134	9	143	8	12	20	3	128	131	294
% App. Total	93.7	6.3		40	60		2.3	97.7		
PHF	.882	.563	.917	.667	.375	.500	.750	.800	.799	.919
Unshifted	133	8	141	7	12	19	3	127	130	290
% Unshifted	99.3	88.9	98.6	87.5	100	95.0	100	99.2	99.2	98.6
Tractor Trailers	1	1	2	1	0	1	0	1	1	4
% Tractor Trailers	0.7	11.1	1.4	12.5	0	5.0	0	0.8	0.8	1.4



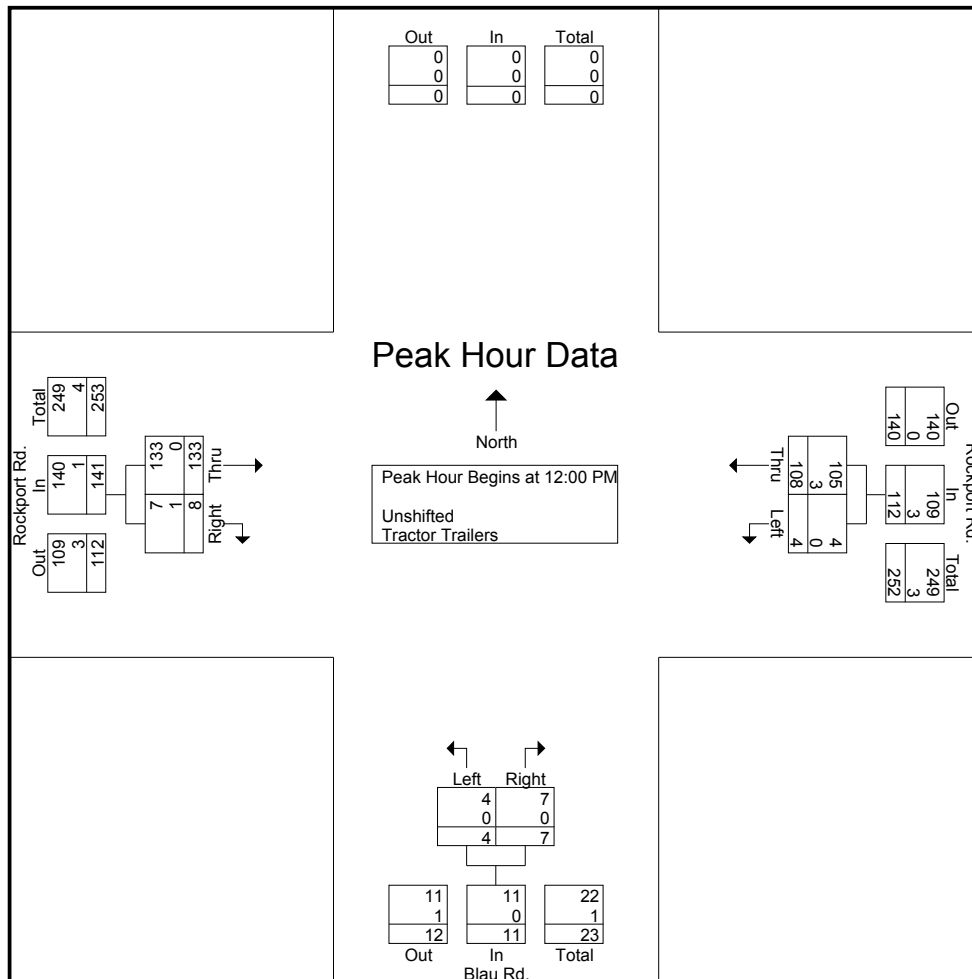
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277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/HA/D4-3730

File Name : 22170003
Site Code : 22170003
Start Date : 6/7/2022
Page No : 4

Start Time	Rockport Rd. Westbound			Blau Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	23	0	23	3	0	3	3	28	31	57
12:15 PM	29	3	32	1	1	2	3	41	44	78
12:30 PM	24	1	25	0	2	2	2	29	31	58
12:45 PM	32	0	32	3	1	4	0	35	35	71
Total Volume	108	4	112	7	4	11	8	133	141	264
% App. Total	96.4	3.6		63.6	36.4		5.7	94.3		
PHF	.844	.333	.875	.583	.500	.688	.667	.811	.801	.846
Unshifted	105	4	109	7	4	11	7	133	140	260
% Unshifted	97.2	100	97.3	100	100	100	87.5	100	99.3	98.5
Tractor Trailers	3	0	3	0	0	0	1	0	1	4
% Tractor Trailers	2.8	0	2.7	0	0	0	12.5	0	0.7	1.5



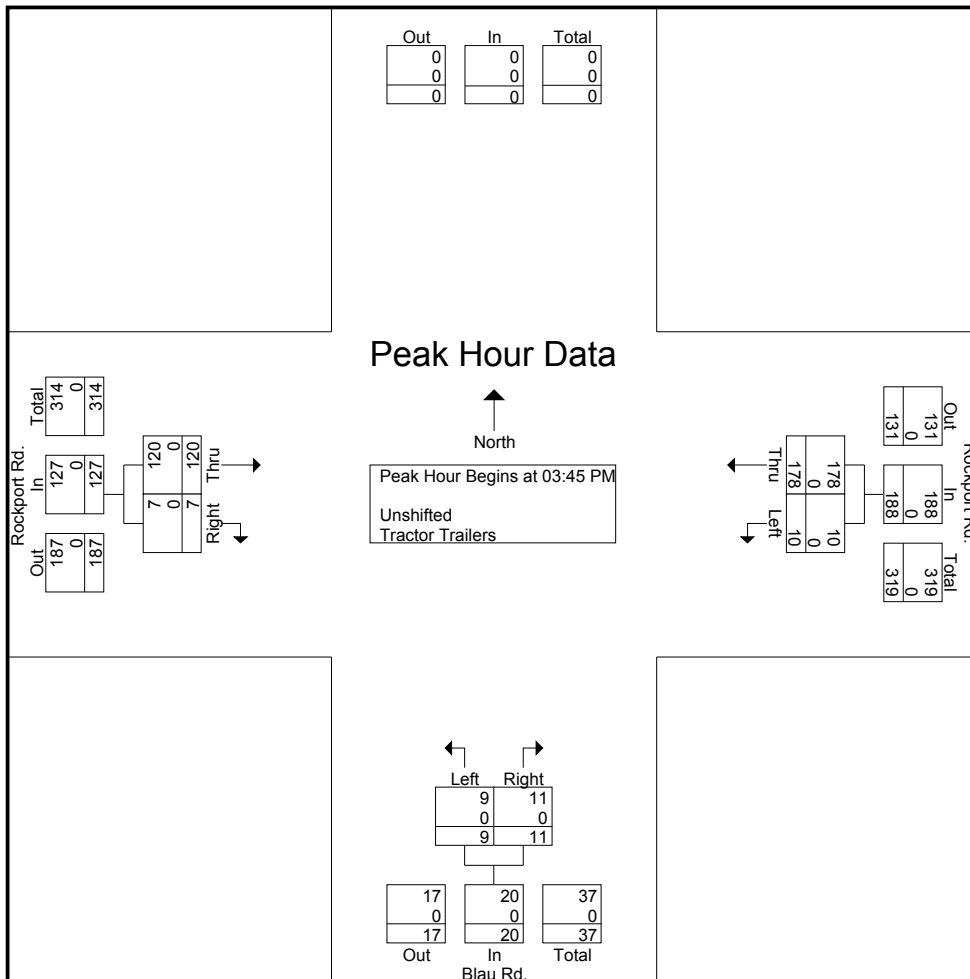
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277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Rockport Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/HA/D4-3730

File Name : 22170003
Site Code : 22170003
Start Date : 6/7/2022
Page No : 5

Start Time	Rockport Rd. Westbound			Blau Rd. Northbound			Rockport Rd. Eastbound			Int. Total
	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:45 PM										
03:45 PM	36	5	41	4	3	7	3	31	34	82
04:00 PM	43	3	46	0	1	1	0	25	25	72
04:15 PM	45	2	47	4	3	7	3	35	38	92
04:30 PM	54	0	54	3	2	5	1	29	30	89
Total Volume	178	10	188	11	9	20	7	120	127	335
% App. Total	94.7	5.3		55	45		5.5	94.5		
PHF	.824	.500	.870	.688	.750	.714	.583	.857	.836	.910
Unshifted	178	10	188	11	9	20	7	120	127	335
% Unshifted	100	100	100	100	100	100	100	100	100	100
Tractor Trailers	0	0	0	0	0	0	0	0	0	0
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0



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277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Watters Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/EM/TU-3228

File Name : 22170004
Site Code : 22170004
Start Date : 6/7/2022
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

Start Time	Blau Rd. Southbound			Watters Rd. Westbound			Watters Rd. Eastbound			Int. Total
	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
06:00 AM	1	6	7	2	0	2	0	0	0	9
06:15 AM	0	1	1	2	0	2	0	1	1	4
06:30 AM	1	3	4	2	1	3	1	0	1	8
06:45 AM	2	5	7	6	2	8	1	7	8	23
Total	4	15	19	12	3	15	2	8	10	44
07:00 AM	3	4	7	0	1	1	3	1	4	12
07:15 AM	0	2	2	0	1	1	4	1	5	8
07:30 AM	0	5	5	2	1	3	0	0	0	8
07:45 AM	0	1	1	2	0	2	0	0	0	3
Total	3	12	15	4	3	7	7	2	9	31
08:00 AM	1	2	3	0	1	1	2	1	3	7
08:15 AM	7	5	12	1	1	2	0	0	0	14
08:30 AM	1	7	8	2	0	2	0	1	1	11
08:45 AM	0	4	4	4	2	6	1	1	2	12
Total	9	18	27	7	4	11	3	3	6	44
*** BREAK ***										
11:00 AM	1	1	2	4	1	5	1	2	3	10
11:15 AM	0	4	4	4	1	5	3	0	3	12
11:30 AM	0	2	2	5	1	6	1	0	1	9
11:45 AM	0	8	8	2	0	2	0	0	0	10
Total	1	15	16	15	3	18	5	2	7	41
12:00 PM	2	7	9	2	4	6	2	1	3	18
12:15 PM	0	4	4	4	1	5	2	1	3	12
12:30 PM	3	1	4	5	0	5	2	2	4	13
12:45 PM	1	3	4	3	1	4	3	2	5	13
Total	6	15	21	14	6	20	9	6	15	56
*** BREAK ***										
03:00 PM	2	2	4	7	3	10	2	0	2	16
03:15 PM	1	5	6	5	0	5	2	3	5	16
03:30 PM	1	5	6	3	2	5	1	3	4	15
03:45 PM	0	6	6	5	2	7	2	1	3	16
Total	4	18	22	20	7	27	7	7	14	63
04:00 PM	1	4	5	0	3	3	0	0	0	8
04:15 PM	1	5	6	5	2	7	2	3	5	18
04:30 PM	1	3	4	4	5	9	5	1	6	19
04:45 PM	2	7	9	3	1	4	2	3	5	18
Total	5	19	24	12	11	23	9	7	16	63
05:00 PM	2	5	7	6	2	8	2	3	5	20
05:15 PM	1	1	2	7	4	11	1	2	3	16
05:30 PM	3	7	10	8	2	10	1	1	2	22
05:45 PM	3	2	5	5	0	5	0	0	0	10
Total	9	15	24	26	8	34	4	6	10	68
Grand Total	41	127	168	110	45	155	46	41	87	410
Apprch %	24.4	75.6		71	29		52.9	47.1		
Total %	10	31	41	26.8	11	37.8	11.2	10	21.2	

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Watters Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/EM/TU-3228

File Name : 22170004
Site Code : 22170004
Start Date : 6/7/2022
Page No : 2

Groups Printed- Unshifted - Tractor Trailers

	Blau Rd. Southbound			Watters Rd. Westbound			Watters Rd. Eastbound			Int. Total
	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
Unshifted	41	126	167	109	45	154	46	41	87	408
% Unshifted	100	99.2	99.4	99.1	100	99.4	100	100	100	99.5
Tractor Trailers	0	1	1	1	0	1	0	0	0	2
% Tractor Trailers	0	0.8	0.6	0.9	0	0.6	0	0	0	0.5

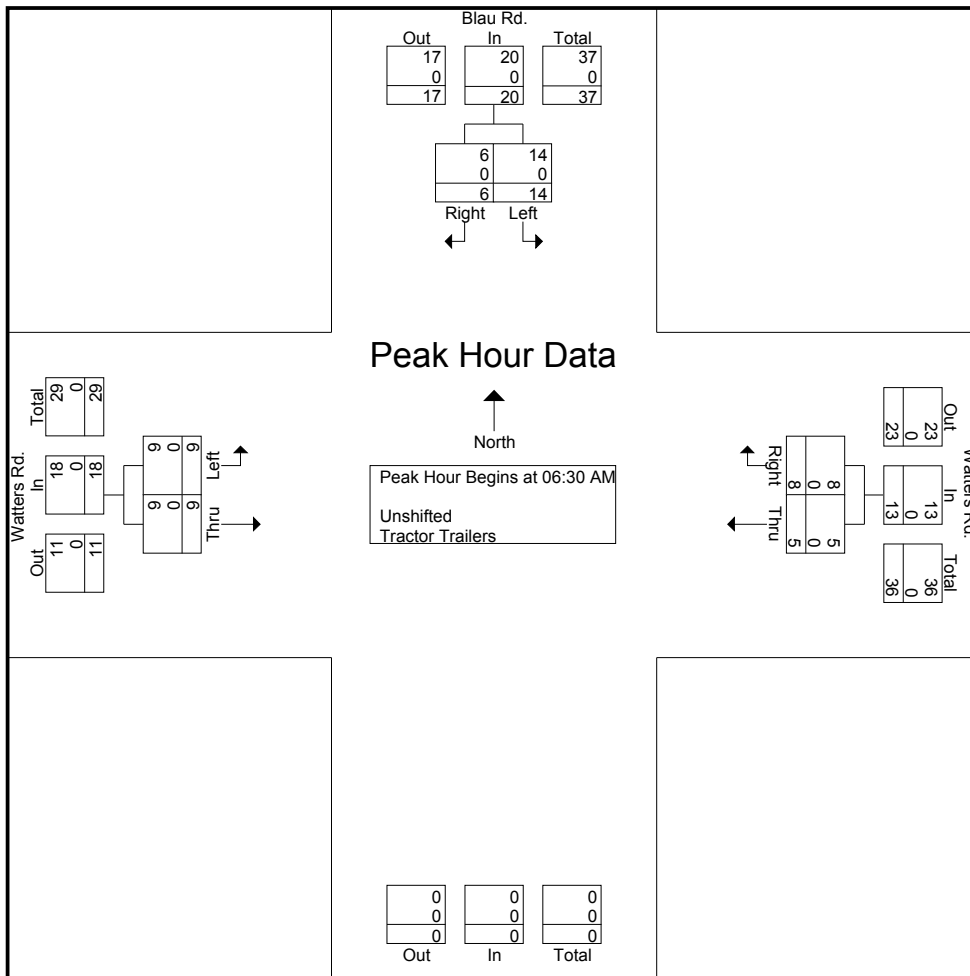
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Watters Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/EM/TU-3228

File Name : 22170004
Site Code : 22170004
Start Date : 6/7/2022
Page No : 3

Start Time	Blau Rd. Southbound			Watters Rd. Westbound			Watters Rd. Eastbound			Int. Total
	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 06:30 AM										
06:30 AM	1	3	4	2	1	3	1	0	1	8
06:45 AM	2	5	7	6	2	8	1	7	8	23
07:00 AM	3	4	7	0	1	1	3	1	4	12
07:15 AM	0	2	2	0	1	1	4	1	5	8
Total Volume	6	14	20	8	5	13	9	9	18	51
% App. Total	30	70		61.5	38.5		50	50		
PHF	.500	.700	.714	.333	.625	.406	.563	.321	.563	.554
Unshifted	6	14	20	8	5	13	9	9	18	51
% Unshifted	100	100	100	100	100	100	100	100	100	100
Tractor Trailers	0	0	0	0	0	0	0	0	0	0
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0



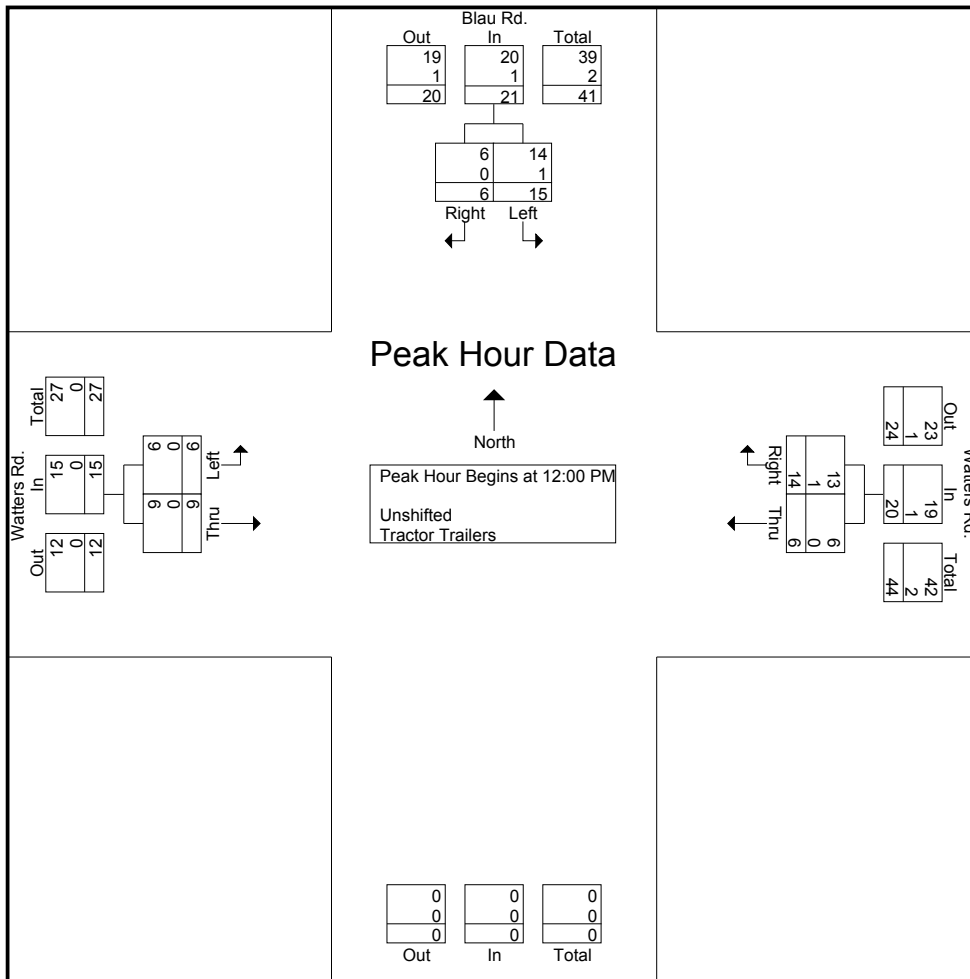
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Watters Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/EM/TU-3228

File Name : 22170004
Site Code : 22170004
Start Date : 6/7/2022
Page No : 4

Start Time	Blau Rd. Southbound			Watters Rd. Westbound			Watters Rd. Eastbound			Int. Total
	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	2	7	9	2	4	6	2	1	3	18
12:15 PM	0	4	4	4	1	5	2	1	3	12
12:30 PM	3	1	4	5	0	5	2	2	4	13
12:45 PM	1	3	4	3	1	4	3	2	5	13
Total Volume	6	15	21	14	6	20	9	6	15	56
% App. Total	28.6	71.4		70	30		60	40		
PHF	.500	.536	.583	.700	.375	.833	.750	.750	.750	.778
Unshifted	6	14	20	13	6	19	9	6	15	54
% Unshifted	100	93.3	95.2	92.9	100	95.0	100	100	100	96.4
Tractor Trailers	0	1	1	1	0	1	0	0	0	2
% Tractor Trailers	0	6.7	4.8	7.1	0	5.0	0	0	0	3.6



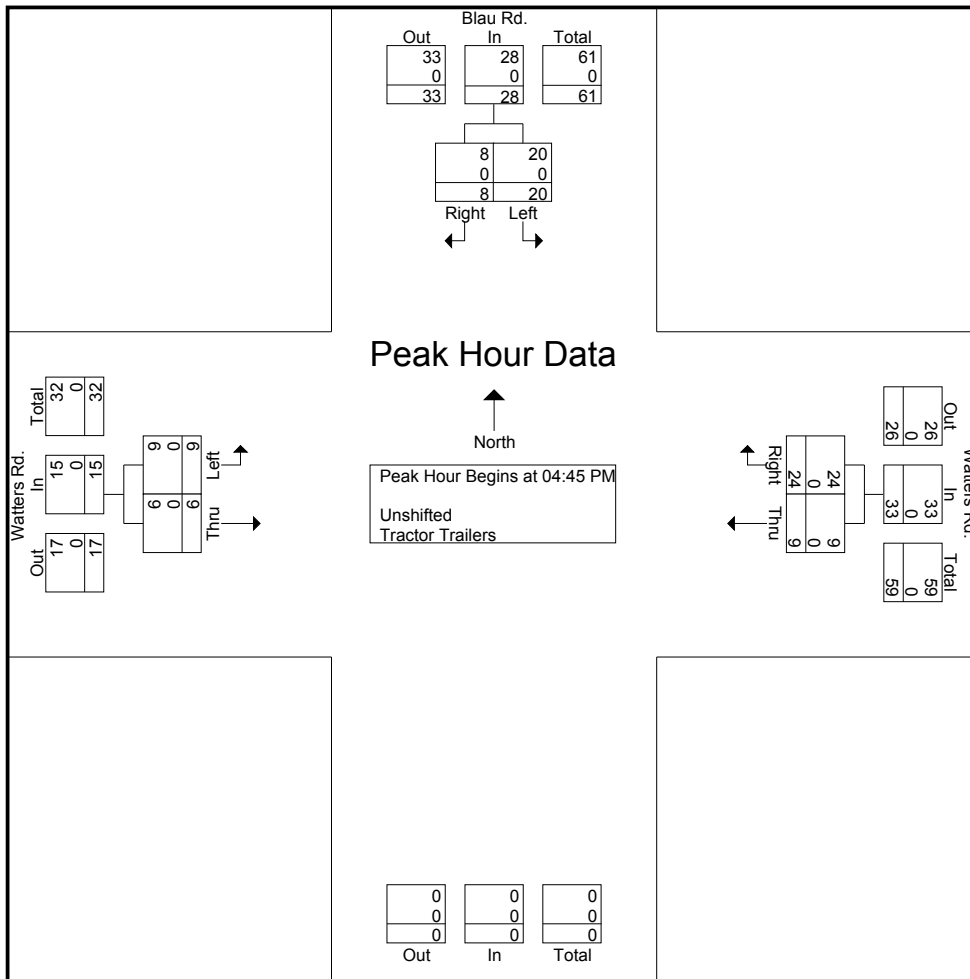
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Blau Rd.
E/W Route: Watters Rd.
Mansfield Township/Warren County/NJ
Tuesday/Overcast/EM/TU-3228

File Name : 22170004
Site Code : 22170004
Start Date : 6/7/2022
Page No : 5

Start Time	Blau Rd. Southbound			Watters Rd. Westbound			Watters Rd. Eastbound			Int. Total
	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	2	7	9	3	1	4	2	3	5	18
05:00 PM	2	5	7	6	2	8	2	3	5	20
05:15 PM	1	1	2	7	4	11	1	2	3	16
05:30 PM	3	7	10	8	2	10	1	1	2	22
Total Volume	8	20	28	24	9	33	6	9	15	76
% App. Total	28.6	71.4		72.7	27.3		40	60		
PHF	.667	.714	.700	.750	.563	.750	.750	.750	.750	.864
Unshifted	8	20	28	24	9	33	6	9	15	76
% Unshifted	100	100	100	100	100	100	100	100	100	100
Tractor Trailers	0	0	0	0	0	0	0	0	0	0
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0



Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/7/2022 Time	Northwest, Lane 1	Southeast, Lane 2	Total
12:00 AM	*	*	0
1:00	*	*	0
2:00	*	*	0
3:00	*	*	0
4:00	*	*	0
5:00	6	5	11
6:00	12	10	22
7:00	13	21	34
8:00	12	11	23
9:00	14	18	32
10:00	4	4	8
11:00	8	7	15
12:00 PM	13	11	24
1:00	19	10	29
2:00	10	10	20
3:00	20	13	33
4:00	15	20	35
5:00	17	19	36
6:00	4	12	16
7:00	12	7	19
8:00	5	6	11
9:00	7	3	10
10:00	3	1	4
11:00	0	2	2
Total	194	190	384
Percent	50.5%	49.5%	
AM Peak	9:00	7:00	7:00
Volume	14	21	34
PM Peak	3:00	4:00	5:00
Volume	20	20	36

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/8/2022 Time	Northwest, Lane 1	Southeast, Lane 2	Total
12:00 AM	1	2	3
1:00	0	1	1
2:00	0	0	0
3:00	0	2	2
4:00	0	2	2
5:00	3	2	5
6:00	14	12	26
7:00	11	25	36
8:00	9	14	23
9:00	9	13	22
10:00	8	5	13
11:00	8	9	17
12:00 PM	13	11	24
1:00	6	13	19
2:00	13	14	27
3:00	15	10	25
4:00	13	12	25
5:00	13	24	37
6:00	7	13	20
7:00	8	9	17
8:00	12	7	19
9:00	5	4	9
10:00	1	0	1
11:00	0	0	0
Total	169	204	373
Percent	45.3%	54.7%	
AM Peak	6:00	7:00	7:00
Volume	14	25	36
PM Peak	3:00	5:00	5:00
Volume	15	24	37

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/9/2022 Time	Northwest, Lane 1	Southeast, Lane 2	Total
12:00 AM	1	0	1
1:00	0	0	0
2:00	1	0	1
3:00	0	1	1
4:00	0	2	2
5:00	0	1	1
6:00	14	6	20
7:00	12	29	41
8:00	8	6	14
9:00	8	4	12
10:00	5	5	10
11:00	9	11	20
12:00 PM	12	10	22
1:00	11	11	22
2:00	11	13	24
3:00	15	7	22
4:00	5	10	15
5:00	5	25	30
6:00	5	7	12
7:00	12	11	23
8:00	9	7	16
9:00	6	2	8
10:00	3	3	6
11:00	4	2	6
Total	156	173	329
Percent	47.4%	52.6%	
AM Peak	6:00	7:00	7:00
Volume	14	29	41
PM Peak	3:00	5:00	5:00
Volume	15	25	30

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/10/2022 Time	Northwest, Lane 1	Southeast, Lane 2	Total
12:00 AM	0	0	0
1:00	0	0	0
2:00	0	0	0
3:00	0	1	1
4:00	1	2	3
5:00	1	1	2
6:00	7	8	15
7:00	7	14	21
8:00	18	15	33
9:00	12	11	23
10:00	10	16	26
11:00	17	17	34
12:00 PM	20	15	35
1:00	10	12	22
2:00	12	14	26
3:00	14	21	35
4:00	13	15	28
5:00	6	21	27
6:00	6	10	16
7:00	8	6	14
8:00	10	5	15
9:00	3	5	8
10:00	9	5	14
11:00	3	5	8
Total	187	219	406
Percent	46.1%	53.9%	
AM Peak	8:00	11:00	11:00
Volume	18	17	34
PM Peak	12:00 PM	3:00	12:00 PM
Volume	20	21	35

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/11/2022 Time	Northwest, Lane 1	Southeast, Lane 2	Total
12:00 AM	3	2	5
1:00	0	0	0
2:00	1	0	1
3:00	0	0	0
4:00	0	4	4
5:00	3	3	6
6:00	5	5	10
7:00	2	5	7
8:00	8	17	25
9:00	13	15	28
10:00	13	15	28
11:00	12	12	24
12:00 PM	12	18	30
1:00	11	7	18
2:00	12	10	22
3:00	4	10	14
4:00	3	9	12
5:00	7	6	13
6:00	3	6	9
7:00	8	8	16
8:00	6	3	9
9:00	6	6	12
10:00	9	3	12
11:00	4	3	7
Total	145	167	312
Percent	46.5%	53.5%	
AM Peak	9:00	8:00	9:00
Volume	13	17	28
PM Peak	12:00 PM	12:00 PM	12:00 PM
Volume	12	18	30

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/12/2022 Time	Northwest, Lane 1	Southeast, Lane 2	Total
12:00 AM	3	0	3
1:00	0	0	0
2:00	0	1	1
3:00	0	0	0
4:00	0	0	0
5:00	1	2	3
6:00	0	1	1
7:00	2	5	7
8:00	3	5	8
9:00	22	10	32
10:00	13	8	21
11:00	7	7	14
12:00 PM	9	30	39
1:00	12	13	25
2:00	3	9	12
3:00	3	6	9
4:00	6	5	11
5:00	17	6	23
6:00	9	6	15
7:00	2	10	12
8:00	4	5	9
9:00	3	1	4
10:00	4	4	8
11:00	6	3	9
Total	129	137	266
Percent	48.5%	51.5%	
AM Peak	9:00	9:00	9:00
Volume	22	10	32
PM Peak	5:00	12:00 PM	12:00 PM
Volume	17	30	39

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/13/2022 Time	Northwest, Lane 1	Southeast, Lane 2	Total
12:00 AM	0	1	1
1:00	0	0	0
2:00	0	0	0
3:00	0	1	1
4:00	1	1	2
5:00	2	1	3
6:00	13	6	19
7:00	9	14	23
8:00	11	7	18
9:00	4	12	16
10:00	5	6	11
11:00	8	10	18
12:00 PM	9	6	15
1:00	10	12	22
2:00	7	8	15
3:00	10	14	24
4:00	9	15	24
5:00	10	24	34
6:00	8	4	12
7:00	15	10	25
8:00	7	6	13
9:00	4	1	5
10:00	3	3	6
11:00	1	1	2
Total	146	163	309
Percent	47.2%	52.8%	
AM Peak	6:00	7:00	7:00
Volume	13	14	23
PM Peak	7:00	5:00	5:00
Volume	15	24	34
Grand Total	1126	1253	2379
Percent	47.3%	52.7%	
ADT		ADT: 341	AADT: 341

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/8/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	1	0	0	0	2	0	0	0	0	0	0	0	0	3
6:00	0	0	1	4	3	3	3	0	0	0	0	0	0	14
7:00	0	0	0	2	4	4	0	0	0	0	1	0	0	11
8:00	0	0	0	3	3	1	2	0	0	0	0	0	0	9
9:00	0	0	1	4	3	1	0	0	0	0	0	0	0	9
10:00	0	0	0	3	5	0	0	0	0	0	0	0	0	8
11:00	0	0	0	1	2	4	1	0	0	0	0	0	0	8
12:00 PM	0	0	1	3	4	1	3	1	0	0	0	0	0	13
1:00	0	0	0	0	3	2	1	0	0	0	0	0	0	6
2:00	0	0	4	6	3	0	0	0	0	0	0	0	0	13
3:00	0	0	2	4	7	2	0	0	0	0	0	0	0	15
4:00	0	0	1	6	4	2	0	0	0	0	0	0	0	13
5:00	1	0	0	1	3	8	0	0	0	0	0	0	0	13
6:00	1	0	2	2	2	0	0	0	0	0	0	0	0	7
7:00	1	0	1	2	3	0	1	0	0	0	0	0	0	8
8:00	0	0	0	1	9	2	0	0	0	0	0	0	0	12
9:00	0	0	0	3	1	1	0	0	0	0	0	0	0	5
10:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	0	13	45	62	32	11	1	0	0	1	0	0	169

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/9/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	3	6	3	2	0	0	0	0	0	0	14
7:00	0	0	2	4	5	0	0	1	0	0	0	0	0	12
8:00	0	0	0	2	3	2	1	0	0	0	0	0	0	8
9:00	0	0	2	3	2	0	0	1	0	0	0	0	0	8
10:00	0	0	2	0	2	1	0	0	0	0	0	0	0	5
11:00	1	0	1	3	1	1	1	0	0	1	0	0	0	9
12:00 PM	0	0	1	3	1	4	2	0	1	0	0	0	0	12
1:00	0	0	0	3	5	3	0	0	0	0	0	0	0	11
2:00	0	0	3	3	3	2	0	0	0	0	0	0	0	11
3:00	1	0	3	2	6	2	1	0	0	0	0	0	0	15
4:00	0	0	0	2	2	1	0	0	0	0	0	0	0	5
5:00	0	0	0	0	4	0	1	0	0	0	0	0	0	5
6:00	0	0	0	2	2	1	0	0	0	0	0	0	0	5
7:00	1	0	1	3	5	1	1	0	0	0	0	0	0	12
8:00	0	0	2	3	2	1	1	0	0	0	0	0	0	9
9:00	0	0	0	0	4	2	0	0	0	0	0	0	0	6
10:00	0	0	0	0	2	1	0	0	0	0	0	0	0	3
11:00	0	0	0	3	0	1	0	0	0	0	0	0	0	4
Total	3	0	17	39	57	26	10	2	1	1	0	0	0	156

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/10/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00	0	0	1	3	2	0	1	0	0	0	0	0	0	7
7:00	1	1	1	3	0	1	0	0	0	0	0	0	0	7
8:00	1	1	1	5	7	1	1	1	0	0	0	0	0	18
9:00	1	0	0	2	8	1	0	0	0	0	0	0	0	12
10:00	0	0	4	5	0	0	1	0	0	0	0	0	0	10
11:00	0	0	5	6	5	0	0	1	0	0	0	0	0	17
12:00 PM	0	0	4	7	5	3	0	0	1	0	0	0	0	20
1:00	0	0	1	5	2	2	0	0	0	0	0	0	0	10
2:00	0	0	2	5	4	0	1	0	0	0	0	0	0	12
3:00	0	0	2	6	5	1	0	0	0	0	0	0	0	14
4:00	1	1	1	5	4	0	0	1	0	0	0	0	0	13
5:00	0	0	1	1	2	1	1	0	0	0	0	0	0	6
6:00	0	0	1	2	2	1	0	0	0	0	0	0	0	6
7:00	0	0	1	3	4	0	0	0	0	0	0	0	0	8
8:00	0	0	1	4	3	2	0	0	0	0	0	0	0	10
9:00	0	0	0	1	1	1	0	0	0	0	0	0	0	3
10:00	0	0	0	1	5	1	2	0	0	0	0	0	0	9
11:00	0	0	0	2	1	0	0	0	0	0	0	0	0	3
Total	6	3	26	66	60	15	7	3	1	0	0	0	0	187

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/7/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	0	0	0	1	1	3	0	0	0	0	0	0	0	5
6:00	0	0	3	3	3	0	1	0	0	0	0	0	0	10
7:00	0	1	1	3	6	5	2	2	0	0	1	0	0	21
8:00	0	1	0	4	4	1	1	0	0	0	0	0	0	11
9:00	0	0	2	9	4	1	2	0	0	0	0	0	0	18
10:00	0	0	0	4	0	0	0	0	0	0	0	0	0	4
11:00	0	0	0	3	1	3	0	0	0	0	0	0	0	7
12:00 PM	0	0	2	0	7	1	1	0	0	0	0	0	0	11
1:00	0	0	1	4	2	2	1	0	0	0	0	0	0	10
2:00	0	0	4	3	1	2	0	0	0	0	0	0	0	10
3:00	0	0	3	4	3	2	1	0	0	0	0	0	0	13
4:00	1	0	1	6	6	5	0	1	0	0	0	0	0	20
5:00	0	0	0	5	7	3	3	0	1	0	0	0	0	19
6:00	0	0	0	1	6	2	3	0	0	0	0	0	0	12
7:00	0	0	1	1	3	1	1	0	0	0	0	0	0	7
8:00	0	0	1	0	3	1	1	0	0	0	0	0	0	6
9:00	0	0	0	2	1	0	0	0	0	0	0	0	0	3
10:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Total	1	2	19	54	60	32	17	3	1	0	1	0	0	190

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/8/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	2
1:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2
4:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
5:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2
6:00	0	2	0	6	3	1	0	0	0	0	0	0	0	12
7:00	0	1	8	3	5	3	2	2	0	1	0	0	0	25
8:00	0	1	3	3	3	2	1	1	0	0	0	0	0	14
9:00	0	0	2	3	6	1	1	0	0	0	0	0	0	13
10:00	0	0	2	0	2	1	0	0	0	0	0	0	0	5
11:00	0	0	0	3	4	1	1	0	0	0	0	0	0	9
12:00 PM	0	1	1	1	5	2	1	0	0	0	0	0	0	11
1:00	0	0	2	4	5	2	0	0	0	0	0	0	0	13
2:00	0	2	3	2	2	4	1	0	0	0	0	0	0	14
3:00	0	0	3	2	2	3	0	0	0	0	0	0	0	10
4:00	0	0	0	5	6	0	1	0	0	0	0	0	0	12
5:00	0	0	0	1	14	7	1	1	0	0	0	0	0	24
6:00	0	1	1	2	4	3	2	0	0	0	0	0	0	13
7:00	0	0	0	5	0	3	1	0	0	0	0	0	0	9
8:00	0	0	2	2	2	0	1	0	0	0	0	0	0	7
9:00	0	0	1	1	0	1	1	0	0	0	0	0	0	4
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	9	30	45	65	36	14	4	0	1	0	0	0	204

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/9/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
5:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00	0	0	2	3	0	0	1	0	0	0	0	0	0	6
7:00	0	2	2	6	9	5	5	0	0	0	0	0	0	29
8:00	0	0	1	2	1	2	0	0	0	0	0	0	0	6
9:00	1	0	0	0	2	1	0	0	0	0	0	0	0	4
10:00	0	0	1	1	1	1	1	0	0	0	0	0	0	5
11:00	0	0	1	4	2	4	0	0	0	0	0	0	0	11
12:00 PM	0	0	2	1	4	2	0	0	1	0	0	0	0	10
1:00	0	0	2	3	3	2	1	0	0	0	0	0	0	11
2:00	0	0	3	4	3	3	0	0	0	0	0	0	0	13
3:00	1	0	1	1	2	1	1	0	0	0	0	0	0	7
4:00	0	0	0	6	3	1	0	0	0	0	0	0	0	10
5:00	0	0	2	9	7	4	2	1	0	0	0	0	0	25
6:00	0	0	0	1	3	3	0	0	0	0	0	0	0	7
7:00	0	0	3	4	1	3	0	0	0	0	0	0	0	11
8:00	0	1	2	0	4	0	0	0	0	0	0	0	0	7
9:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
10:00	0	0	0	2	1	0	0	0	0	0	0	0	0	3
11:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Total	2	3	22	51	48	34	11	1	1	0	0	0	0	173

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/10/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:00	0	0	0	0	2	0	0	0	0	0	0	0	0	2
5:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00	0	1	0	3	3	1	0	0	0	0	0	0	0	8
7:00	0	1	1	3	5	4	0	0	0	0	0	0	0	14
8:00	0	0	2	3	4	5	1	0	0	0	0	0	0	15
9:00	0	0	2	3	4	2	0	0	0	0	0	0	0	11
10:00	2	0	4	3	4	2	0	1	0	0	0	0	0	16
11:00	0	0	3	9	3	1	1	0	0	0	0	0	0	17
12:00 PM	1	1	6	5	2	0	0	0	0	0	0	0	0	15
1:00	0	1	2	6	3	0	0	0	0	0	0	0	0	12
2:00	0	3	4	5	2	0	0	0	0	0	0	0	0	14
3:00	1	2	4	6	5	3	0	0	0	0	0	0	0	21
4:00	0	0	2	5	7	1	0	0	0	0	0	0	0	15
5:00	1	0	2	6	4	5	3	0	0	0	0	0	0	21
6:00	0	0	1	4	3	1	0	0	1	0	0	0	0	10
7:00	0	0	2	0	2	2	0	0	0	0	0	0	0	6
8:00	0	0	1	1	2	1	0	0	0	0	0	0	0	5
9:00	0	0	0	2	1	0	2	0	0	0	0	0	0	5
10:00	0	0	1	2	2	0	0	0	0	0	0	0	0	5
11:00	0	0	0	0	3	1	0	1	0	0	0	0	0	5
Total	5	9	37	66	61	31	7	2	1	0	0	0	0	219

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/7/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	2	0	0	2	2	4	1	0	0	0	0	0	0	11
6:00	0	0	5	6	7	2	2	0	0	0	0	0	0	22
7:00	0	1	2	6	10	8	4	2	0	0	1	0	0	34
8:00	0	2	0	10	8	2	1	0	0	0	0	0	0	23
9:00	0	0	3	13	8	5	2	1	0	0	0	0	0	32
10:00	0	0	0	6	1	0	0	1	0	0	0	0	0	8
11:00	0	0	0	9	1	5	0	0	0	0	0	0	0	15
12:00 PM	2	0	3	1	10	5	3	0	0	0	0	0	0	24
1:00	0	0	4	14	5	1	0	0	0	0	0	0	0	29
2:00	0	0	4	4	4	7	1	0	0	0	0	0	0	20
3:00	0	0	9	8	10	3	2	1	0	0	0	0	0	33
4:00	1	0	3	9	11	10	0	1	0	0	0	0	0	35
5:00	0	0	2	10	15	5	3	0	1	0	0	0	0	36
6:00	0	0	0	2	7	4	3	0	0	0	0	0	0	16
7:00	0	0	4	2	9	3	1	0	0	0	0	0	0	19
8:00	0	0	1	2	5	2	1	0	0	0	0	0	0	11
9:00	0	0	0	5	5	0	0	0	0	0	0	0	0	10
10:00	0	0	0	0	4	0	0	0	0	0	0	0	0	4
11:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Total	5	3	40	110	123	70	25	6	1	0	1	0	0	384

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/8/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	1	1	0	0	1	0	0	0	0	0	0	0	3
1:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2
4:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
5:00	1	0	0	0	3	1	0	0	0	0	0	0	0	5
6:00	0	2	1	10	6	4	3	0	0	0	0	0	0	26
7:00	0	1	8	5	9	7	2	2	0	1	1	0	0	36
8:00	0	1	3	6	6	3	3	1	0	0	0	0	0	23
9:00	0	0	3	7	9	2	1	0	0	0	0	0	0	22
10:00	0	0	2	3	7	1	0	0	0	0	0	0	0	13
11:00	0	0	0	4	6	5	2	0	0	0	0	0	0	17
12:00 PM	0	1	2	4	9	3	4	1	0	0	0	0	0	24
1:00	0	0	2	4	8	4	1	0	0	0	0	0	0	19
2:00	0	2	7	8	5	4	1	0	0	0	0	0	0	27
3:00	0	0	5	6	9	5	0	0	0	0	0	0	0	25
4:00	0	0	1	11	10	2	1	0	0	0	0	0	0	25
5:00	1	0	0	2	17	15	1	1	0	0	0	0	0	37
6:00	1	1	3	4	6	3	2	0	0	0	0	0	0	20
7:00	1	0	1	7	3	3	2	0	0	0	0	0	0	17
8:00	0	0	2	3	11	2	1	0	0	0	0	0	0	19
9:00	0	0	1	4	1	2	1	0	0	0	0	0	0	9
10:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	9	43	90	127	68	25	5	0	1	1	0	0	373

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/9/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
5:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00	0	0	2	6	6	3	3	0	0	0	0	0	0	20
7:00	0	2	4	10	14	5	5	1	0	0	0	0	0	41
8:00	0	0	1	4	4	4	1	0	0	0	0	0	0	14
9:00	1	0	2	3	4	1	0	1	0	0	0	0	0	12
10:00	0	0	3	1	3	2	1	0	0	0	0	0	0	10
11:00	1	0	2	7	3	5	1	0	0	1	0	0	0	20
12:00 PM	0	0	3	4	5	6	2	0	2	0	0	0	0	22
1:00	0	0	2	6	8	5	1	0	0	0	0	0	0	22
2:00	0	0	6	7	6	5	0	0	0	0	0	0	0	24
3:00	2	0	4	3	8	3	2	0	0	0	0	0	0	22
4:00	0	0	0	8	5	2	0	0	0	0	0	0	0	15
5:00	0	0	2	9	11	4	3	1	0	0	0	0	0	30
6:00	0	0	0	3	5	4	0	0	0	0	0	0	0	12
7:00	1	0	4	7	6	4	1	0	0	0	0	0	0	23
8:00	0	1	4	3	6	1	1	0	0	0	0	0	0	16
9:00	0	0	0	2	4	2	0	0	0	0	0	0	0	8
10:00	0	0	0	2	3	1	0	0	0	0	0	0	0	6
11:00	0	0	0	4	1	1	0	0	0	0	0	0	0	6
Total	5	3	39	90	105	60	21	3	2	1	0	0	0	329

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/10/2022	0 - 15	> 15 -	> 20 -	> 25 -	> 30 -	> 35 -	> 40 -	> 45 -	> 50 -	> 55 -	> 60 -	> 65 -	> 70	Total
Time	MPH	20 MPH	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	MPH	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:00	1	0	0	0	2	0	0	0	0	0	0	0	0	3
5:00	1	0	0	0	0	1	0	0	0	0	0	0	0	2
6:00	0	1	1	6	5	1	1	0	0	0	0	0	0	15
7:00	1	2	2	6	5	5	0	0	0	0	0	0	0	21
8:00	1	1	3	8	11	6	2	1	0	0	0	0	0	33
9:00	1	0	2	5	12	3	0	0	0	0	0	0	0	23
10:00	2	0	8	8	4	2	1	1	0	0	0	0	0	26
11:00	0	0	8	15	8	1	1	1	0	0	0	0	0	34
12:00 PM	1	1	10	12	7	3	0	0	1	0	0	0	0	35
1:00	0	1	3	11	5	2	0	0	0	0	0	0	0	22
2:00	0	3	6	10	6	0	1	0	0	0	0	0	0	26
3:00	1	2	6	12	10	4	0	0	0	0	0	0	0	35
4:00	1	1	3	10	11	1	0	1	0	0	0	0	0	28
5:00	1	0	3	7	6	6	4	0	0	0	0	0	0	27
6:00	0	0	2	6	5	2	0	0	1	0	0	0	0	16
7:00	0	0	3	3	6	2	0	0	0	0	0	0	0	14
8:00	0	0	2	5	5	3	0	0	0	0	0	0	0	15
9:00	0	0	0	3	2	1	2	0	0	0	0	0	0	8
10:00	0	0	1	3	7	1	2	0	0	0	0	0	0	14
11:00	0	0	0	2	4	1	0	1	0	0	0	0	0	8
Total	11	12	63	132	121	46	14	5	2	0	0	0	0	406

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/7/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	0	0	1	5	0	0	0	0	0	0	0	0	6
6:00	0	0	0	9	2	1	0	0	0	0	0	0	12
7:00	0	0	0	10	2	0	1	0	0	0	0	0	13
8:00	0	0	0	4	8	0	0	0	0	0	0	0	12
9:00	0	1	2	8	2	1	0	0	0	0	0	0	14
10:00	0	0	1	1	1	1	0	0	0	0	0	0	4
11:00	0	0	0	6	2	0	0	0	0	0	0	0	8
12:00 PM	0	1	1	10	1	0	0	0	0	0	0	0	13
1:00	0	1	1	14	1	1	0	1	0	0	0	0	19
2:00	0	1	1	7	1	0	0	0	0	0	0	0	10
3:00	0	0	3	13	2	1	1	0	0	0	0	0	20
4:00	0	0	0	11	3	1	0	0	0	0	0	0	15
5:00	0	0	5	12	0	0	0	0	0	0	0	0	17
6:00	0	0	2	2	0	0	0	0	0	0	0	0	4
7:00	0	0	0	9	3	0	0	0	0	0	0	0	12
8:00	0	0	1	4	0	0	0	0	0	0	0	0	5
9:00	0	0	2	5	0	0	0	0	0	0	0	0	7
10:00	0	0	0	2	1	0	0	0	0	0	0	0	3
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	20	132	29	6	2	1	0	0	0	0	194

Percentile	15th
Speed	25
Mean Speed (Average)	31.3
10 MPH Pace Speed	27-36
Number in Pace	123
Percent in Pace	63.4%
Number > 45 MPH	3
Percent > 45 MPH	1.5%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/8/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -		Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	
12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	1	1	1	0	0	0	0	0	0	0	3
6:00	0	1	5	5	3	0	0	0	0	0	0	0	14
7:00	0	0	4	3	3	0	1	0	0	0	0	0	11
8:00	0	1	2	3	3	0	0	0	0	0	0	0	9
9:00	0	0	0	8	0	0	1	0	0	0	0	0	9
10:00	0	0	1	3	3	1	0	0	0	0	0	0	8
11:00	0	0	1	6	1	0	0	0	0	0	0	0	8
12:00 PM	0	0	4	6	2	0	1	0	0	0	0	0	13
1:00	0	0	0	6	0	0	0	0	0	0	0	0	6
2:00	0	0	2	7	0	2	1	0	0	0	1	0	13
3:00	0	0	1	9	3	0	2	0	0	0	0	0	15
4:00	0	1	4	5	2	1	0	0	0	0	0	0	13
5:00	1	0	2	9	1	0	0	0	0	0	0	0	13
6:00	0	0	0	5	0	1	0	0	0	1	0	0	7
7:00	0	1	0	6	1	0	0	0	0	0	0	0	8
8:00	0	0	3	8	1	0	0	0	0	0	0	0	12
9:00	0	0	1	4	0	0	0	0	0	0	0	0	5
10:00	0	0	0	1	0	0	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	4	32	95	24	5	6	0	0	1	1	0	169

Percentile	15th
Speed	26
Mean Speed (Average)	31.7
10 MPH Pace Speed	26-35
Number in Pace	110
Percent in Pace	65.1%
Number > 45 MPH	2
Percent > 45 MPH	1.2%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/9/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	1	10	3	0	0	0	0	0	0	0	14
7:00	0	0	3	5	4	0	0	0	0	0	0	0	12
8:00	0	0	2	3	3	0	0	0	0	0	0	0	8
9:00	0	0	1	5	0	0	2	0	0	0	0	0	8
10:00	0	0	1	3	0	0	1	0	0	0	0	0	5
11:00	0	0	0	5	3	1	0	0	0	0	0	0	9
12:00 PM	0	0	1	10	0	0	1	0	0	0	0	0	12
1:00	0	0	1	7	2	0	1	0	0	0	0	0	11
2:00	0	0	0	8	1	0	2	0	0	0	0	0	11
3:00	0	1	2	7	4	0	1	0	0	0	0	0	15
4:00	0	0	1	2	1	0	1	0	0	0	0	0	5
5:00	0	0	3	2	0	0	0	0	0	0	0	0	5
6:00	0	0	0	4	1	0	0	0	0	0	0	0	5
7:00	0	0	3	7	2	0	0	0	0	0	0	0	12
8:00	0	0	3	4	1	0	1	0	0	0	0	0	9
9:00	0	0	0	6	0	0	0	0	0	0	0	0	6
10:00	0	0	1	1	1	0	0	0	0	0	0	0	3
11:00	0	0	1	3	0	0	0	0	0	0	0	0	4
Total	0	1	24	94	26	1	10	0	0	0	0	0	156

Percentile	15th
Speed	26
Mean Speed (Average)	31.8
10 MPH Pace Speed	26-35
Number in Pace	103
Percent in Pace	66.0%
Number > 45 MPH	4
Percent > 45 MPH	2.6%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/10/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00	0	0	0	1	0	0	0	0	0	0	0	0	1
6:00	0	0	1	4	2	0	0	0	0	0	0	0	7
7:00	0	0	0	2	2	2	0	0	0	1	0	0	7
8:00	0	1	3	6	6	0	1	1	0	0	0	0	18
9:00	0	0	3	7	1	0	1	0	0	0	0	0	12
10:00	0	0	2	4	3	0	1	0	0	0	0	0	10
11:00	0	0	2	11	1	1	2	0	0	0	0	0	17
12:00 PM	0	0	4	13	2	0	1	0	0	0	0	0	20
1:00	0	0	0	7	3	0	0	0	0	0	0	0	10
2:00	0	1	2	5	3	0	1	0	0	0	0	0	12
3:00	0	0	1	11	2	0	0	0	0	0	0	0	14
4:00	1	0	3	4	5	0	0	0	0	0	0	0	13
5:00	0	0	3	2	1	0	0	0	0	0	0	0	6
6:00	0	0	1	3	2	0	0	0	0	0	0	0	6
7:00	0	0	1	6	1	0	0	0	0	0	0	0	8
8:00	0	0	2	6	2	0	0	0	0	0	0	0	10
9:00	0	0	1	2	0	0	0	0	0	0	0	0	3
10:00	0	0	1	8	0	0	0	0	0	0	0	0	9
11:00	0	0	1	1	1	0	0	0	0	0	0	0	3
Total	1	2	31	104	37	3	7	1	0	1	0	0	187

Percentile	15th
Speed	24
Mean Speed (Average)	29.6
10 MPH Pace Speed	25-34
Number in Pace	126
Percent in Pace	67.4%
Number > 45 MPH	4
Percent > 45 MPH	2.1%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/11/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	3
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	3	0	0	0	0	0	0	0	0	3
6:00	0	0	1	3	1	0	0	0	0	0	0	0	5
7:00	0	0	0	1	1	0	0	0	0	0	0	0	2
8:00	0	0	3	4	1	0	0	0	0	0	0	0	8
9:00	0	0	3	7	3	0	0	0	0	0	0	0	13
10:00	0	0	1	10	2	0	0	0	0	0	0	0	13
11:00	0	0	0	10	0	1	0	1	0	0	0	0	12
12:00 PM	0	0	3	7	2	0	0	0	0	0	0	0	12
1:00	0	0	1	8	2	0	0	0	0	0	0	0	11
2:00	0	0	0	10	1	1	0	0	0	0	0	0	12
3:00	0	1	0	2	0	0	1	0	0	0	0	0	4
4:00	0	0	2	0	1	0	0	0	0	0	0	0	3
5:00	0	0	2	3	1	0	1	0	0	0	0	0	7
6:00	0	0	0	3	0	0	0	0	0	0	0	0	3
7:00	0	1	4	3	0	0	0	0	0	0	0	0	8
8:00	0	1	2	0	3	0	0	0	0	0	0	0	6
9:00	0	0	2	3	1	0	0	0	0	0	0	0	6
10:00	0	0	0	7	2	0	0	0	0	0	0	0	9
11:00	0	0	0	4	0	0	0	0	0	0	0	0	4
Total	0	3	25	91	21	2	2	1	0	0	0	0	145

Percentile	15th
Speed	25
Mean Speed (Average)	30.8
10 MPH Pace Speed	26-35
Number in Pace	93
Percent in Pace	64.1%
Number > 45 MPH	3
Percent > 45 MPH	2.1%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Northwest, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/12/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	2	1	0	0	0	0	0	0	0	0	3
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	1	0	0	0	0	0	0	0	0	1
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	2	0	0	0	0	0	0	0	0	2
8:00	0	0	1	1	1	0	0	0	0	0	0	0	3
9:00	0	0	1	21	0	0	0	0	0	0	0	0	22
10:00	0	0	1	10	2	0	0	0	0	0	0	0	13
11:00	0	0	0	3	3	0	1	0	0	0	0	0	7
12:00 PM	0	0	1	8	0	0	0	0	0	0	0	0	9
1:00	0	0	2	10	0	0	0	0	0	0	0	0	12
2:00	0	0	1	2	0	0	0	0	0	0	0	0	3
3:00	0	0	0	2	1	0	0	0	0	0	0	0	3
4:00	0	0	1	3	1	1	0	0	0	0	0	0	6
5:00	0	1	2	14	0	0	0	0	0	0	0	0	17
6:00	0	0	0	7	0	1	1	0	0	0	0	0	9
7:00	0	0	1	1	0	0	0	0	0	0	0	0	2
8:00	0	0	1	3	0	0	0	0	0	0	0	0	4
9:00	0	0	1	2	0	0	0	0	0	0	0	0	3
10:00	0	0	1	3	0	0	0	0	0	0	0	0	4
11:00	1	0	1	3	1	0	0	0	0	0	0	0	6
Total	1	1	17	97	9	2	2	0	0	0	0	0	129

Percentile	15th
Speed	26
Mean Speed (Average)	30.1
10 MPH Pace Speed	28-37
Number in Pace	97
Percent in Pace	75.2%
Number > 45 MPH	2
Percent > 45 MPH	1.6%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/7/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	0	0	1	4	0	0	0	0	0	0	0	0	5
6:00	0	0	0	5	3	1	1	0	0	0	0	0	10
7:00	0	0	1	17	1	1	0	1	0	0	0	0	21
8:00	0	0	0	10	0	0	0	0	0	0	1	0	11
9:00	0	0	0	13	3	1	0	0	0	0	1	0	18
10:00	0	0	0	4	0	0	0	0	0	0	0	0	4
11:00	0	0	0	6	1	0	0	0	0	0	0	0	7
12:00 PM	0	1	3	3	4	0	0	0	0	0	0	0	11
1:00	0	1	0	8	0	0	0	1	0	0	0	0	10
2:00	0	0	1	8	0	0	1	0	0	0	0	0	10
3:00	0	0	2	11	0	0	0	0	0	0	0	0	13
4:00	0	1	3	15	1	0	0	0	0	0	0	0	20
5:00	1	0	1	16	1	0	0	0	0	0	0	0	19
6:00	0	0	2	8	2	0	0	0	0	0	0	0	12
7:00	0	0	0	7	0	0	0	0	0	0	0	0	7
8:00	0	0	1	5	0	0	0	0	0	0	0	0	6
9:00	0	0	0	3	0	0	0	0	0	0	0	0	3
10:00	0	0	0	1	0	0	0	0	0	0	0	0	1
11:00	0	0	0	2	0	0	0	0	0	0	0	0	2
Total	1	3	15	146	16	3	2	2	0	0	2	0	190

Percentile 15th
 Speed 25
 Mean Speed (Average) 32.0
 10 MPH Pace Speed 28-37
 Number in Pace 113
 Percent in Pace 59.5%
 Number > 45 MPH 5
 Percent > 45 MPH 2.6%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/8/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	2
1:00	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	1	1	0	0	0	0	0	0	0	0	0	2
4:00	0	0	0	2	0	0	0	0	0	0	0	0	2
5:00	0	0	0	2	0	0	0	0	0	0	0	0	2
6:00	0	0	2	5	4	0	0	0	0	0	1	0	12
7:00	0	2	1	20	0	0	1	0	0	1	0	0	25
8:00	0	0	1	9	4	0	0	0	0	0	0	0	14
9:00	0	0	0	12	1	0	0	0	0	0	0	0	13
10:00	0	1	0	3	1	0	0	0	0	0	0	0	5
11:00	0	0	0	6	2	0	1	0	0	0	0	0	9
12:00 PM	0	0	3	6	2	0	0	0	0	0	0	0	11
1:00	0	0	3	8	1	1	0	0	0	0	0	0	13
2:00	0	1	0	8	5	0	0	0	0	0	0	0	14
3:00	0	1	1	7	0	0	1	0	0	0	0	0	10
4:00	0	1	1	9	1	0	0	0	0	0	0	0	12
5:00	1	1	2	16	4	0	0	0	0	0	0	0	24
6:00	0	1	2	10	0	0	0	0	0	0	0	0	13
7:00	0	0	3	5	1	0	0	0	0	0	0	0	9
8:00	0	0	1	4	1	0	0	0	0	0	1	0	7
9:00	0	0	0	4	0	0	0	0	0	0	0	0	4
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	9	23	136	27	1	3	0	0	1	3	0	204

Percentile	15th
Speed	25
Mean Speed (Average)	31.3
10 MPH Pace Speed	27-36
Number in Pace	119
Percent in Pace	58.3%
Number > 45 MPH	5
Percent > 45 MPH	2.5%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/9/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	1	0	0	0	0	0	0	0	0	1
4:00	0	0	1	1	0	0	0	0	0	0	0	0	2
5:00	0	0	0	1	0	0	0	0	0	0	0	0	1
6:00	0	0	0	2	3	1	0	0	0	0	0	0	6
7:00	0	1	3	19	4	1	1	0	0	0	0	0	29
8:00	0	0	0	4	0	1	1	0	0	0	0	0	6
9:00	0	0	0	3	1	0	0	0	0	0	0	0	4
10:00	0	0	1	3	0	0	1	0	0	0	0	0	5
11:00	0	0	0	9	1	0	1	0	0	0	0	0	11
12:00 PM	0	0	1	7	2	0	0	0	0	0	0	0	10
1:00	0	0	0	10	1	0	0	0	0	0	0	0	11
2:00	1	0	0	9	3	0	0	0	0	0	0	0	13
3:00	0	0	0	7	0	0	0	0	0	0	0	0	7
4:00	0	0	0	9	0	0	0	1	0	0	0	0	10
5:00	0	2	1	17	4	0	0	1	0	0	0	0	25
6:00	0	0	0	6	1	0	0	0	0	0	0	0	7
7:00	0	1	1	9	0	0	0	0	0	0	0	0	11
8:00	0	0	1	4	2	0	0	0	0	0	0	0	7
9:00	0	0	0	2	0	0	0	0	0	0	0	0	2
10:00	0	0	1	2	0	0	0	0	0	0	0	0	3
11:00	0	0	0	1	1	0	0	0	0	0	0	0	2
Total	1	4	10	126	23	3	4	2	0	0	0	0	173

Percentile	15th
Speed	25
Mean Speed (Average)	31.3
10 MPH Pace Speed	28-37
Number in Pace	105
Percent in Pace	60.7%
Number > 45 MPH	2
Percent > 45 MPH	1.2%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/10/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	2	0	0	0	0	0	0	0	0	2
5:00	0	0	0	1	0	0	0	0	0	0	0	0	1
6:00	0	0	1	3	2	0	1	1	0	0	0	0	8
7:00	0	0	2	11	0	0	1	0	0	0	0	0	14
8:00	0	0	1	9	5	0	0	0	0	0	0	0	15
9:00	0	0	1	8	1	0	1	0	0	0	0	0	11
10:00	0	1	0	13	1	0	0	0	0	0	1	0	16
11:00	0	1	0	11	4	0	1	0	0	0	0	0	17
12:00 PM	0	0	1	10	1	2	1	0	0	0	0	0	15
1:00	0	0	1	8	2	0	0	0	1	0	0	0	12
2:00	0	0	0	12	1	0	1	0	0	0	0	0	14
3:00	0	1	4	13	2	0	1	0	0	0	0	0	21
4:00	0	1	1	12	1	0	0	0	0	0	0	0	15
5:00	0	0	1	15	4	0	0	0	1	0	0	0	21
6:00	0	0	1	7	1	0	1	0	0	0	0	0	10
7:00	0	0	0	5	1	0	0	0	0	0	0	0	6
8:00	0	0	1	4	0	0	0	0	0	0	0	0	5
9:00	0	0	0	5	0	0	0	0	0	0	0	0	5
10:00	0	0	0	4	1	0	0	0	0	0	0	0	5
11:00	0	1	0	4	0	0	0	0	0	0	0	0	5
Total	1	5	15	157	27	2	8	1	0	2	1	0	219

Percentile	15th
Speed	23
Mean Speed (Average)	29.6
10 MPH Pace Speed	25-34
Number in Pace	136
Percent in Pace	62.1%
Number > 45 MPH	3
Percent > 45 MPH	1.4%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/11/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	1	0	3	0	0	0	0	0	0	0	0	4
5:00	0	0	1	1	1	0	0	0	0	0	0	0	3
6:00	0	0	1	3	1	0	0	0	0	0	0	0	5
7:00	0	0	1	2	0	0	1	0	1	0	0	0	5
8:00	0	1	0	13	2	0	1	0	0	0	0	0	17
9:00	0	0	0	11	4	0	0	0	0	0	0	0	15
10:00	2	1	0	10	2	0	0	0	0	0	0	0	15
11:00	0	0	1	8	3	0	0	0	0	0	0	0	12
12:00 PM	0	2	2	11	3	0	0	0	0	0	0	0	18
1:00	0	0	0	5	2	0	0	0	0	0	0	0	7
2:00	1	0	0	9	0	0	0	0	0	0	0	0	10
3:00	0	0	1	8	0	0	0	0	0	0	1	0	10
4:00	0	0	0	7	2	0	0	0	0	0	0	0	9
5:00	0	0	0	6	0	0	0	0	0	0	0	0	6
6:00	0	0	1	5	0	0	0	0	0	0	0	0	6
7:00	0	0	2	6	0	0	0	0	0	0	0	0	8
8:00	0	0	1	1	1	0	0	0	0	0	0	0	3
9:00	0	0	0	6	0	0	0	0	0	0	0	0	6
10:00	0	0	0	3	0	0	0	0	0	0	0	0	3
11:00	0	1	1	1	0	0	0	0	0	0	0	0	3
Total	3	6	13	120	21	0	2	0	1	0	1	0	167

Percentile	15th
Speed	25
Mean Speed (Average)	30.4
10 MPH Pace Speed	25-34
Number in Pace	107
Percent in Pace	64.1%
Number > 45 MPH	1
Percent > 45 MPH	0.6%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Southeast, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/12/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	1	0	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	1	1	0	0	0	0	0	0	0	2
6:00	0	0	0	0	1	0	0	0	0	0	0	0	1
7:00	0	0	0	3	2	0	0	0	0	0	0	0	5
8:00	0	0	0	5	0	0	0	0	0	0	0	0	5
9:00	0	0	2	8	0	0	0	0	0	0	0	0	10
10:00	0	1	0	7	0	0	0	0	0	0	0	0	8
11:00	0	0	0	7	0	0	0	0	0	0	0	0	7
12:00 PM	0	1	0	28	1	0	0	0	0	0	0	0	30
1:00	0	0	1	12	0	0	0	0	0	0	0	0	13
2:00	0	0	1	7	1	0	0	0	0	0	0	0	9
3:00	0	0	0	6	0	0	0	0	0	0	0	0	6
4:00	0	0	0	3	2	0	0	0	0	0	0	0	5
5:00	0	0	0	5	1	0	0	0	0	0	0	0	6
6:00	0	0	0	6	0	0	0	0	0	0	0	0	6
7:00	0	0	1	9	0	0	0	0	0	0	0	0	10
8:00	0	0	0	4	1	0	0	0	0	0	0	0	5
9:00	0	0	0	1	0	0	0	0	0	0	0	0	1
10:00	0	0	2	2	0	0	0	0	0	0	0	0	4
11:00	0	0	0	3	0	0	0	0	0	0	0	0	3
Total	0	2	8	117	10	0	0	0	0	0	0	0	137

Percentile	15th
Speed	25
Mean Speed (Average)	30.1
10 MPH Pace Speed	25-34
Number in Pace	85
Percent in Pace	62.0%
Number > 45 MPH	0
Percent > 45 MPH	0.0%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/7/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total	
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	0	0	2	9	0	0	0	0	0	0	0	0	11
6:00	0	0	0	14	5	2	1	0	0	0	0	0	22
7:00	0	0	1	27	3	1	1	1	0	0	0	0	34
8:00	0	0	0	14	8	0	0	0	0	0	1	0	23
9:00	0	1	2	21	5	2	0	0	0	0	1	0	32
10:00	0	0	1	5	1	1	0	0	0	0	0	0	8
11:00	0	0	0	12	3	0	0	0	0	0	0	0	15
12:00 PM	0	2	4	13	5	0	0	0	0	0	0	0	24
1:00	0	2	1	22	1	1	0	2	0	0	0	0	29
2:00	0	1	2	15	1	0	1	0	0	0	0	0	20
3:00	0	0	5	24	2	1	1	0	0	0	0	0	33
4:00	0	1	3	26	4	1	0	0	0	0	0	0	35
5:00	1	0	6	28	1	0	0	0	0	0	0	0	36
6:00	0	0	4	10	2	0	0	0	0	0	0	0	16
7:00	0	0	0	16	3	0	0	0	0	0	0	0	19
8:00	0	0	2	9	0	0	0	0	0	0	0	0	11
9:00	0	0	2	8	0	0	0	0	0	0	0	0	10
10:00	0	0	0	3	1	0	0	0	0	0	0	0	4
11:00	0	0	0	2	0	0	0	0	0	0	0	0	2
Total	1	7	35	278	45	9	4	3	0	0	2	0	384

Percentile 15th
 Speed 25
 Mean Speed (Average) 31.7
 10 MPH Pace Speed 27-36
 Number in Pace 234
 Percent in Pace 60.9%
 Number > 45 MPH 8
 Percent > 45 MPH 2.1%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/8/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	2	0	0	0	0	0	0	0	1	0	3
1:00	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	1	1	0	0	0	0	0	0	0	0	0	2
4:00	0	0	0	2	0	0	0	0	0	0	0	0	2
5:00	0	0	1	3	1	0	0	0	0	0	0	0	5
6:00	0	1	7	10	7	0	0	0	0	0	1	0	26
7:00	0	2	5	23	3	0	2	0	0	1	0	0	36
8:00	0	1	3	12	7	0	0	0	0	0	0	0	23
9:00	0	0	0	20	1	0	1	0	0	0	0	0	22
10:00	0	1	1	6	4	1	0	0	0	0	0	0	13
11:00	0	0	1	12	3	0	1	0	0	0	0	0	17
12:00 PM	0	0	7	12	4	0	1	0	0	0	0	0	24
1:00	0	0	3	14	1	1	0	0	0	0	0	0	19
2:00	0	1	2	15	5	2	1	0	0	0	1	0	27
3:00	0	1	2	16	3	0	3	0	0	0	0	0	25
4:00	0	2	5	14	3	1	0	0	0	0	0	0	25
5:00	2	1	4	25	5	0	0	0	0	0	0	0	37
6:00	0	1	2	15	0	1	0	0	0	1	0	0	20
7:00	0	1	3	11	2	0	0	0	0	0	0	0	17
8:00	0	0	4	12	2	0	0	0	0	0	1	0	19
9:00	0	0	1	8	0	0	0	0	0	0	0	0	9
10:00	0	0	0	1	0	0	0	0	0	0	0	0	1
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	13	55	231	51	6	9	0	0	2	4	0	373

Percentile	15th
Speed	25
Mean Speed (Average)	31.5
10 MPH Pace Speed	27-36
Number in Pace	228
Percent in Pace	61.1%
Number > 45 MPH	7
Percent > 45 MPH	1.9%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/9/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	1	0	0	0	0	0	0	0	0	1
4:00	0	0	1	1	0	0	0	0	0	0	0	0	2
5:00	0	0	0	1	0	0	0	0	0	0	0	0	1
6:00	0	0	1	12	6	1	0	0	0	0	0	0	20
7:00	0	1	6	24	8	1	1	0	0	0	0	0	41
8:00	0	0	2	7	3	1	1	0	0	0	0	0	14
9:00	0	0	1	8	1	0	2	0	0	0	0	0	12
10:00	0	0	2	6	0	0	2	0	0	0	0	0	10
11:00	0	0	0	14	4	1	1	0	0	0	0	0	20
12:00 PM	0	0	2	17	2	0	1	0	0	0	0	0	22
1:00	0	0	1	17	3	0	1	0	0	0	0	0	22
2:00	1	0	0	17	4	0	2	0	0	0	0	0	24
3:00	0	1	2	14	4	0	1	0	0	0	0	0	22
4:00	0	0	1	11	1	0	1	1	0	0	0	0	15
5:00	0	2	4	19	4	0	0	1	0	0	0	0	30
6:00	0	0	0	10	2	0	0	0	0	0	0	0	12
7:00	0	1	4	16	2	0	0	0	0	0	0	0	23
8:00	0	0	4	8	3	0	1	0	0	0	0	0	16
9:00	0	0	0	8	0	0	0	0	0	0	0	0	8
10:00	0	0	2	3	1	0	0	0	0	0	0	0	6
11:00	0	0	1	4	1	0	0	0	0	0	0	0	6
Total	1	5	34	220	49	4	14	2	0	0	0	0	329

Percentile 15th
 Speed 25
 Mean Speed (Average) 31.5
 10 MPH Pace Speed 28-37
 Number in Pace 207
 Percent in Pace 62.9%
 Number > 45 MPH 6
 Percent > 45 MPH 1.8%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/10/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	3	0	0	0	0	0	0	0	0	3
5:00	0	0	0	2	0	0	0	0	0	0	0	0	2
6:00	0	0	2	7	4	0	1	1	0	0	0	0	15
7:00	0	0	2	13	2	2	1	0	0	1	0	0	21
8:00	0	1	4	15	11	0	1	1	0	0	0	0	33
9:00	0	0	4	15	2	0	2	0	0	0	0	0	23
10:00	0	1	2	17	4	0	1	0	0	0	1	0	26
11:00	0	1	2	22	5	1	3	0	0	0	0	0	34
12:00 PM	0	0	5	23	3	2	2	0	0	0	0	0	35
1:00	0	0	1	15	5	0	0	0	1	0	0	0	22
2:00	0	1	2	17	4	0	2	0	0	0	0	0	26
3:00	0	1	5	24	4	0	1	0	0	0	0	0	35
4:00	1	1	4	16	6	0	0	0	0	0	0	0	28
5:00	0	0	4	17	5	0	0	0	0	1	0	0	27
6:00	0	0	2	10	3	0	1	0	0	0	0	0	16
7:00	0	0	1	11	2	0	0	0	0	0	0	0	14
8:00	0	0	3	10	2	0	0	0	0	0	0	0	15
9:00	0	0	1	7	0	0	0	0	0	0	0	0	8
10:00	0	0	1	12	1	0	0	0	0	0	0	0	14
11:00	0	1	1	5	1	0	0	0	0	0	0	0	8
Total	2	7	46	261	64	5	15	2	0	3	1	0	406

Percentile	15th
Speed	24
Mean Speed (Average)	29.6
10 MPH Pace Speed	25-34
Number in Pace	262
Percent in Pace	64.5%
Number > 45 MPH	7
Percent > 45 MPH	1.7%

Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/11/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	2	3	0	0	0	0	0	0	0	0	5
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	1	0	3	0	0	0	0	0	0	0	0	4
5:00	0	0	1	4	1	0	0	0	0	0	0	0	6
6:00	0	0	2	6	2	0	0	0	0	0	0	0	10
7:00	0	0	1	3	1	0	1	0	1	0	0	0	7
8:00	0	1	3	17	3	0	1	0	0	0	0	0	25
9:00	0	0	3	18	7	0	0	0	0	0	0	0	28
10:00	2	1	1	20	4	0	0	0	0	0	0	0	28
11:00	0	0	1	18	3	1	0	1	0	0	0	0	24
12:00 PM	0	2	5	18	5	0	0	0	0	0	0	0	30
1:00	0	0	1	13	4	0	0	0	0	0	0	0	18
2:00	1	0	0	19	1	1	0	0	0	0	0	0	22
3:00	0	1	1	10	0	0	1	0	0	0	1	0	14
4:00	0	0	2	7	3	0	0	0	0	0	0	0	12
5:00	0	0	2	9	1	0	1	0	0	0	0	0	13
6:00	0	0	1	8	0	0	0	0	0	0	0	0	9
7:00	0	1	6	9	0	0	0	0	0	0	0	0	16
8:00	0	1	3	1	4	0	0	0	0	0	0	0	9
9:00	0	0	2	9	1	0	0	0	0	0	0	0	12
10:00	0	0	0	10	2	0	0	0	0	0	0	0	12
11:00	0	1	1	5	0	0	0	0	0	0	0	0	7
Total	3	9	38	211	42	2	4	1	1	0	1	0	312

Percentile	15th
Speed	25
Mean Speed (Average)	30.6
10 MPH Pace Speed	26-35
Number in Pace	198
Percent in Pace	63.5%
Number > 45 MPH	4
Percent > 45 MPH	1.3%

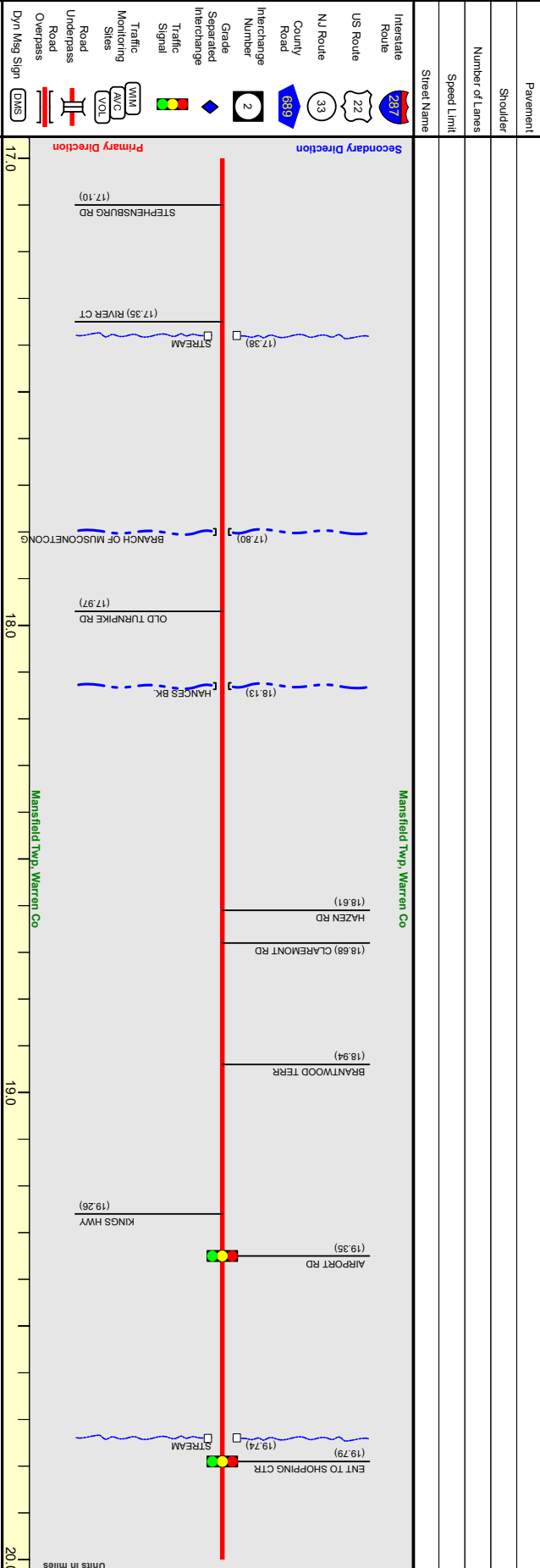
Blau Rd. Development
 Blau Rd.
 Mansfield Township/Warren County/NJ
 Site Code: 21170-1
 Station ID: 21170
 Location 1: Blau Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22170 - Blau Rd.
 Date Printed: 6/15/2022
 Start Date: 6/7/2022
 End Date: 6/13/2022
 GPS Accuracy: 0 ft
 Location Verified: No

6/12/2022	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	2	1	0	0	0	0	0	0	0	0	3
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	1	0	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	2	1	0	0	0	0	0	0	0	3
6:00	0	0	0	0	1	0	0	0	0	0	0	0	1
7:00	0	0	0	5	2	0	0	0	0	0	0	0	7
8:00	0	0	1	6	1	0	0	0	0	0	0	0	8
9:00	0	0	3	29	0	0	0	0	0	0	0	0	32
10:00	0	1	1	17	2	0	0	0	0	0	0	0	21
11:00	0	0	0	10	3	0	1	0	0	0	0	0	14
12:00 PM	0	1	1	36	1	0	0	0	0	0	0	0	39
1:00	0	0	3	22	0	0	0	0	0	0	0	0	25
2:00	0	0	2	9	1	0	0	0	0	0	0	0	12
3:00	0	0	0	8	1	0	0	0	0	0	0	0	9
4:00	0	0	1	6	3	1	0	0	0	0	0	0	11
5:00	0	1	2	19	1	0	0	0	0	0	0	0	23
6:00	0	0	0	13	0	1	1	0	0	0	0	0	15
7:00	0	0	2	10	0	0	0	0	0	0	0	0	12
8:00	0	0	1	7	1	0	0	0	0	0	0	0	9
9:00	0	0	1	3	0	0	0	0	0	0	0	0	4
10:00	0	0	3	5	0	0	0	0	0	0	0	0	8
11:00	1	0	1	6	1	0	0	0	0	0	0	0	9
Total	1	3	25	214	19	2	2	0	0	0	0	0	266

Percentile	15th
Speed	25
Mean Speed (Average)	30.1
10 MPH Pace Speed	28-37
Number in Pace	176
Percent in Pace	66.2%
Number > 45 MPH	2
Percent > 45 MPH	0.8%



Interstate Route	237
US Route	22
NJ Route	33
County Road	888
Interchange Number	2
Grade Separated Interchange	2
Traffic Signal	17.35, 19.35
Traffic Monitoring Sites	17.80 (TMS, AVC, VOT)
Road	17.10, 17.35, 17.80, 18.10, 18.61, 18.81, 18.94, 19.26, 19.35, 19.74, 19.79
Overpass	17.80
Underpass	17.80
Road	17.10, 17.35, 17.80, 18.10, 18.61, 18.81, 18.94, 19.26, 19.35, 19.74, 19.79
Dyn Weg Sign	17.0
Street Name	Admiral John D Bulkeley Memorial Highway
Jurisdiction	N.J.D.O.T.
Functional Class	Urban Principal Arterial
Federal Aid - NHS Sy	NHS
Control Section	2106
Speed Limit	50
Number of Lanes	2
Med Type	None
Med Width	24
Pavement	6
Shoulder	3
Traffic Volume	8
Traffic Sta. ID	2106133
Structure No.	2106164
Enlarged Views	

WARREN COUNTY 629 (South to North)

Mile Posts: 2.000 - 5.000



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 Road Underpass Road Overpass	Mansfield Twp, Warren Co 287 22 33 689 2 (2.66) (3.74) (3.81) (3.53) (3.85) (3.81) (4.07) (4.83) 652 652 652
Street Name	Rockport Road
Jurisdiction	County
Functional Class	Rural Minor Collector
Federal Aid - NHS Sy	Non-Federal Aid
Control Section	
Speed Limit	40
Number of Lanes	2
Med. Type	None
Med. Width	0
Pavement	22
Shoulder	1
Traffic Volume	2,134 (2014)
Traffic Sta. ID	112109
Structure No.	
Enlarged Views	

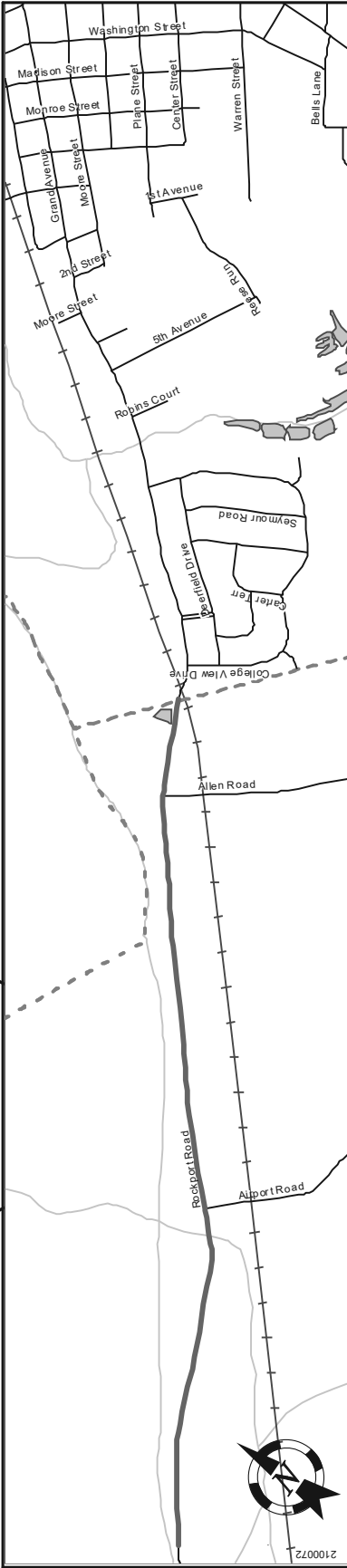
Street Name	Rockport Road
Jurisdiction	County
Functional Class	Rural Minor Collector
Federal Aid - NHS Sy	Non-Federal Aid
Control Section	
Speed Limit	40
Number of Lanes	2
Med. Type	None
Med. Width	0
Pavement	22
Shoulder	1
Traffic Volume	2,134 (2014)
Traffic Sta. ID	112109
Structure No.	
Enlarged Views	

SRI = 21000629

Date last inventoried: April 2012

WARREN COUNTY 629 (South to North)

Mile Posts: 5.000 - 6.660



Pavement			
Shoulder			
Number of Lanes			
Speed Limit			
Street Name			
Interstate Route	287	Mansfield Twp, Warren Co	
US Route	22	End at Town Line	
NJ Route	33	Mansfield Twp, Warren Co	
County Road	689	Rockport Road	
Interchange Number	2	County	
Grade		Urban Minor Collector	
Separated Interchange		STP	
Traffic Signal		Control Section	
Traffic Monitoring Sites		Speed Limit	
Road Underpass		Number of Lanes	
Road Overpass		Med. Type	
		Med. Width	
		Pavement	
		Shoulder	
		Traffic Volume	
		Traffic Sta. ID	
		Structure No.	
		Enlarged Views	

Street Name	Rockport Road	5.0	6.0	7.0	8.0
Jurisdiction	County				
Functional Class	Urban Minor Collector				
Federal Aid - NHS Sy	STP				
Control Section					
Speed Limit	45			40	
Number of Lanes	2				
Med. Type	None				
Med. Width	0				
Pavement	22				
Shoulder	1			2	
Traffic Volume					
Traffic Sta. ID					
Structure No.					
Enlarged Views					

Date last inventoried: April 2012

SRI = 21000629

End Warren County 629 MP=6.66

Directive #383-99 (1 of 1)

Route 57 & Airport Road
Mansfield Township
Warren County

90 second Background Cycle

<u>Phase</u>	<u>Signal Indications</u>			<u>Time (secs.)</u>
	1-4	5,6	7,8	
A. RI. 57 ROW	G	G	R	90 SEC.
Change	Y	Y	R	4
Clearance	R	R	R	2
B. Airport Rd. ROW	R	R	G	5-14
Change	R	R	Y	4
Clearance	R	R	R	1
FLASH	Y	Y	R	

Pedestrian Actuation to guarantee 14 seconds of green time to Phase B

Vehicle interval to be 2 seconds.

Recall switch for Phase B to be OFF

Manual control is to be disconnected

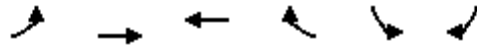
Controller to rest at end of Phase A

All unused timings from other phases will be use during Phase A

The offset is to be 16.0 seconds measured from the beginning of yellow to Route 57 at Allen Road - Newburg Road to the beginning of yellow at this intersection.

Lanes, Volumes, Timings
3: Route 57 & Airport Road

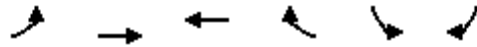
Existing AM
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Volume (vph)	46	509	390	20	12	35
Future Volume (vph)	46	509	390	20	12	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Flt Protected		0.996			0.950	
Satd. Flow (prot)	0	1875	1863	1346	1671	1615
Flt Permitted		0.942			0.950	
Satd. Flow (perm)	0	1774	1863	1346	1671	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				21		36
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	2%	20%	8%	0%
Adj. Flow (vph)	48	530	406	21	13	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	578	406	21	13	36
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Existing AM
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		79.8	79.8	79.8	5.6	5.6
Actuated g/C Ratio		0.89	0.89	0.89	0.06	0.06
v/c Ratio		0.37	0.25	0.02	0.12	0.27
Control Delay		2.5	2.0	0.8	42.0	19.0
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		2.5	2.0	0.8	42.0	19.0
LOS		A	A	A	D	B
Approach Delay		2.5	1.9		25.1	
Approach LOS		A	A		C	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
Natural Cycle:	85
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.37
Intersection Signal Delay:	3.3
Intersection LOS:	A
Intersection Capacity Utilization:	118.3%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

Existing AM
09/13/2022

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	↷
Traffic Vol, veh/h	169	14	28	123	21	35
Future Vol, veh/h	169	14	28	123	21	35
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	0	0	2	5	0
Mvmt Flow	190	16	31	138	24	39

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	206	0	398 198
Stage 1	-	-	-	-	198 -
Stage 2	-	-	-	-	200 -
Critical Hdwy	-	-	4.1	-	6.45 6.2
Critical Hdwy Stg 1	-	-	-	-	5.45 -
Critical Hdwy Stg 2	-	-	-	-	5.45 -
Follow-up Hdwy	-	-	2.2	-	3.545 3.3
Pot Cap-1 Maneuver	-	-	1377	-	602 848
Stage 1	-	-	-	-	828 -
Stage 2	-	-	-	-	827 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1377	-	588 848
Mov Cap-2 Maneuver	-	-	-	-	588 -
Stage 1	-	-	-	-	828 -
Stage 2	-	-	-	-	808 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	588	848	-	-	1377	-
HCM Lane V/C Ratio	0.04	0.046	-	-	0.023	-
HCM Control Delay (s)	11.4	9.5	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.1	-

HCM 2010 TWSC
7: Blau Road & Rockport Road

Existing AM
09/13/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	128	3	9	134	12	8
Future Vol, veh/h	128	3	9	134	12	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	11	1	0	13
Mvmt Flow	139	3	10	146	13	9

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	142	307
Stage 1	-	-	-	141
Stage 2	-	-	-	166
Critical Hdwy	-	-	4.21	6.4
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.299	3.5
Pot Cap-1 Maneuver	-	-	1387	689
Stage 1	-	-	-	891
Stage 2	-	-	-	868
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1387	683
Mov Cap-2 Maneuver	-	-	-	683
Stage 1	-	-	-	891
Stage 2	-	-	-	861

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	750	-	-	1387	-
HCM Lane V/C Ratio	0.029	-	-	0.007	-
HCM Control Delay (s)	9.9	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 2010 TWSC
8: Watters Road & Blau Road

Existing AM
09/13/2022

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	9	9	5	8	14	6
Future Vol, veh/h	9	9	5	8	14	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	16	9	15	25	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	24	0	-	0	65 17
Stage 1	-	-	-	-	17 -
Stage 2	-	-	-	-	48 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1604	-	-	-	946 1068
Stage 1	-	-	-	-	1011 -
Stage 2	-	-	-	-	980 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1604	-	-	-	937 1068
Mov Cap-2 Maneuver	-	-	-	-	937 -
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	980 -

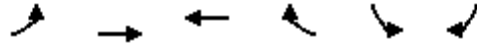
Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	973
HCM Lane V/C Ratio	0.01	-	-	-	0.037
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Existing Midday

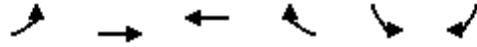
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↗	↖	↗
Traffic Volume (vph)	45	433	455	53	12	38
Future Volume (vph)	45	433	455	53	12	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected		0.995			0.950	
Satd. Flow (prot)	0	1874	1863	1583	1805	1615
Fl _t Permitted		0.927			0.950	
Satd. Flow (perm)	0	1745	1863	1583	1805	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				56		40
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	2%	2%	0%	0%
Adj. Flow (vph)	47	456	479	56	13	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	503	479	56	13	40
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Existing Midday
 09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		79.8	79.8	79.8	5.6	5.6
Actuated g/C Ratio		0.89	0.89	0.89	0.06	0.06
v/c Ratio		0.33	0.29	0.04	0.12	0.29
Control Delay		2.3	2.1	0.6	41.5	18.7
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		2.3	2.1	0.6	41.5	18.7
LOS		A	A	A	D	B
Approach Delay		2.3	2.0		24.3	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 3.2
 Intersection Capacity Utilization 118.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service H

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

Existing Midday
09/13/2022

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↓	↑	↓	↓
Traffic Vol, veh/h	102	29	37	89	43	50
Future Vol, veh/h	102	29	37	89	43	50
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	0	0	1	2	0
Mvmt Flow	109	31	39	95	46	53

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	140	0	298	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	173	-
Critical Hdwy	-	-	4.1	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1456	-	693	931
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	857	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1456	-	674	931
Mov Cap-2 Maneuver	-	-	-	-	674	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	834	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	674	931	-	-	1456	-
HCM Lane V/C Ratio	0.068	0.057	-	-	0.027	-
HCM Control Delay (s)	10.7	9.1	-	-	7.5	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-

HCM 2010 TWSC
7: Blau Road & Rockport Road

Existing Midday
09/13/2022

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	133	8	4	108	4	7
Future Vol, veh/h	133	8	4	108	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	13	0	3	0	0
Mvmt Flow	156	9	5	127	5	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	165	0	298
Stage 1	-	-	-	-	161
Stage 2	-	-	-	-	137
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1426	-	698
Stage 1	-	-	-	-	873
Stage 2	-	-	-	-	895
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1426	-	695
Mov Cap-2 Maneuver	-	-	-	-	695
Stage 1	-	-	-	-	873
Stage 2	-	-	-	-	891

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	807	-	-	1426	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 2010 TWSC
8: Watters Road & Blau Road

Existing Midday
09/13/2022

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	6	9	6	14	15	6
Future Vol, veh/h	6	9	6	14	15	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	7	7	0
Mvmt Flow	8	12	8	18	19	8

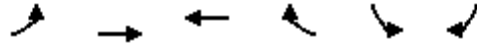
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	26	0	-	0	45 17
Stage 1	-	-	-	-	17 -
Stage 2	-	-	-	-	28 -
Critical Hdwy	4.1	-	-	-	6.47 6.2
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.2	-	-	-	3.563 3.3
Pot Cap-1 Maneuver	1601	-	-	-	953 1068
Stage 1	-	-	-	-	993 -
Stage 2	-	-	-	-	982 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1601	-	-	-	948 1068
Mov Cap-2 Maneuver	-	-	-	-	948 -
Stage 1	-	-	-	-	988 -
Stage 2	-	-	-	-	982 -

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1601	-	-	-	979
HCM Lane V/C Ratio	0.005	-	-	-	0.028
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
3: Route 57 & Airport Road

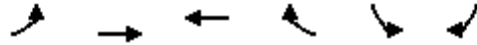
Existing PM
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Volume (vph)	52	483	694	55	17	78
Future Volume (vph)	52	483	694	55	17	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected		0.995			0.950	
Satd. Flow (prot)	0	1870	1900	1615	1703	1615
Fl _t Permitted		0.889			0.950	
Satd. Flow (perm)	0	1671	1900	1615	1703	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				57		81
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	1%	0%	0%	6%	0%
Adj. Flow (vph)	54	503	723	57	18	81
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	557	723	57	18	81
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Existing PM
 09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		76.1	76.1	76.1	6.1	6.1
Actuated g/C Ratio		0.85	0.85	0.85	0.07	0.07
v/c Ratio		0.39	0.45	0.04	0.16	0.44
Control Delay		3.3	3.5	0.7	41.8	17.4
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		3.3	3.5	0.7	41.8	17.4
LOS		A	A	A	D	B
Approach Delay		3.3	3.3		21.8	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.45
 Intersection Signal Delay: 4.6
 Intersection Capacity Utilization 118.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service H

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

Existing PM
09/13/2022

Intersection						
Int Delay, s/veh	3.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↖	↘	↖
Traffic Vol, veh/h	133	35	46	154	63	61
Future Vol, veh/h	133	35	46	154	63	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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	148	39	51	171	70	68

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	187	0	441	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	273	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1399	-	577	881
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1399	-	556	881
Mov Cap-2 Maneuver	-	-	-	-	556	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	750	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	556	881	-	-	1399	-
HCM Lane V/C Ratio	0.126	0.077	-	-	0.037	-
HCM Control Delay (s)	12.4	9.4	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0.1	-

HCM 2010 TWSC
7: Blau Road & Rockport Road

Existing PM
09/13/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	120	7	10	178	9	11
Future Vol, veh/h	120	7	10	178	9	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	132	8	11	196	10	12

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	140	354
Stage 1	-	-	-	136
Stage 2	-	-	-	218
Critical Hdwy	-	-	4.1	6.4
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	3.5
Pot Cap-1 Maneuver	-	-	1456	648
Stage 1	-	-	-	895
Stage 2	-	-	-	823
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1456	643
Mov Cap-2 Maneuver	-	-	-	643
Stage 1	-	-	-	895
Stage 2	-	-	-	816

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	770	-	-	1456	-
HCM Lane V/C Ratio	0.029	-	-	0.008	-
HCM Control Delay (s)	9.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 2010 TWSC
8: Watters Road & Blau Road

Existing PM
09/13/2022

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	9	6	9	24	20	8
Future Vol, veh/h	9	6	9	24	20	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	7	10	28	23	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	38	0	-	0	51 24
Stage 1	-	-	-	-	24 -
Stage 2	-	-	-	-	27 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1585	-	-	-	963 1058
Stage 1	-	-	-	-	1004 -
Stage 2	-	-	-	-	1001 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1585	-	-	-	957 1058
Mov Cap-2 Maneuver	-	-	-	-	957 -
Stage 1	-	-	-	-	998 -
Stage 2	-	-	-	-	1001 -

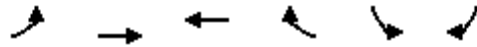
Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1585	-	-	-	984
HCM Lane V/C Ratio	0.007	-	-	-	0.033
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
3: Route 57 & Airport Road

No-Build AM

09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Volume (vph)	48	535	410	21	13	37
Future Volume (vph)	48	535	410	21	13	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Flt Protected		0.996			0.950	
Satd. Flow (prot)	0	1875	1863	1346	1671	1615
Flt Permitted		0.939			0.950	
Satd. Flow (perm)	0	1768	1863	1346	1671	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				22		39
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	2%	20%	8%	0%
Adj. Flow (vph)	50	557	427	22	14	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	607	427	22	14	39
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

No-Build AM
09/13/2022

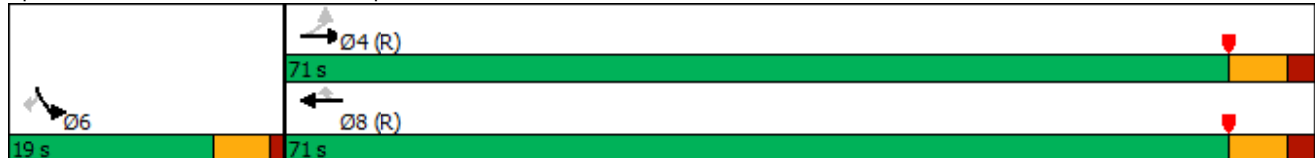


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effect Green (s)		79.7	79.7	79.7	5.7	5.7
Actuated g/C Ratio		0.89	0.89	0.89	0.06	0.06
v/c Ratio		0.39	0.26	0.02	0.13	0.28
Control Delay		2.7	2.0	0.8	42.2	18.8
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		2.7	2.0	0.8	42.2	18.8
LOS		A	A	A	D	B
Approach Delay		2.7	2.0		25.0	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.39
 Intersection Signal Delay: 3.4
 Intersection Capacity Utilization 118.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service H

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

No-Build AM
09/13/2022

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↑	↑	↑	↑
Traffic Vol, veh/h	178	15	29	129	22	37
Future Vol, veh/h	178	15	29	129	22	37
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	0	0	2	5	0
Mvmt Flow	200	17	33	145	25	42

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	217	0	420
Stage 1	-	-	-	-	209
Stage 2	-	-	-	-	211
Critical Hdwy	-	-	4.1	-	6.45
Critical Hdwy Stg 1	-	-	-	-	5.45
Critical Hdwy Stg 2	-	-	-	-	5.45
Follow-up Hdwy	-	-	2.2	-	3.545
Pot Cap-1 Maneuver	-	-	1365	-	584
Stage 1	-	-	-	-	819
Stage 2	-	-	-	-	817
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1365	-	570
Mov Cap-2 Maneuver	-	-	-	-	570
Stage 1	-	-	-	-	819
Stage 2	-	-	-	-	797

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	570	836	-	-	1365	-
HCM Lane V/C Ratio	0.043	0.05	-	-	0.024	-
HCM Control Delay (s)	11.6	9.5	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0.1	-

HCM 2010 TWSC
7: Blau Road & Rockport Road

No-Build AM
09/13/2022

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	135	3	10	141	13	8
Future Vol, veh/h	135	3	10	141	13	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	11	1	0	13
Mvmt Flow	147	3	11	153	14	9

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	150	324
Stage 1	-	-	-	149
Stage 2	-	-	-	175
Critical Hdwy	-	-	4.21	6.4
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.299	3.5
Pot Cap-1 Maneuver	-	-	1378	674
Stage 1	-	-	-	884
Stage 2	-	-	-	860
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1378	668
Mov Cap-2 Maneuver	-	-	-	668
Stage 1	-	-	-	884
Stage 2	-	-	-	852

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	733	-	-	1378	-
HCM Lane V/C Ratio	0.031	-	-	0.008	-
HCM Control Delay (s)	10.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	↙
Traffic Vol, veh/h	10	10	5	8	15	6
Future Vol, veh/h	10	10	5	8	15	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	18	9	15	27	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	24	0	-	0	71 17
Stage 1	-	-	-	-	17 -
Stage 2	-	-	-	-	54 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1604	-	-	-	938 1068
Stage 1	-	-	-	-	1011 -
Stage 2	-	-	-	-	974 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1604	-	-	-	928 1068
Mov Cap-2 Maneuver	-	-	-	-	928 -
Stage 1	-	-	-	-	1000 -
Stage 2	-	-	-	-	974 -

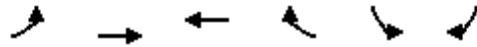
Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	964
HCM Lane V/C Ratio	0.011	-	-	-	0.04
HCM Control Delay (s)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
3: Route 57 & Airport Road

No-Build Midday

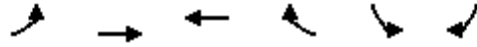
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Volume (vph)	47	455	478	56	13	40
Future Volume (vph)	47	455	478	56	13	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Flt Protected		0.995			0.950	
Satd. Flow (prot)	0	1874	1863	1583	1805	1615
Flt Permitted		0.924			0.950	
Satd. Flow (perm)	0	1740	1863	1583	1805	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				59		42
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	2%	2%	0%	0%
Adj. Flow (vph)	49	479	503	59	14	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	528	503	59	14	42
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

No-Build Midday
 09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		79.8	79.8	79.8	5.6	5.6
Actuated g/C Ratio		0.89	0.89	0.89	0.06	0.06
v/c Ratio		0.34	0.30	0.04	0.12	0.30
Control Delay		2.4	2.2	0.6	41.7	18.8
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		2.4	2.2	0.6	41.7	18.8
LOS		A	A	A	D	B
Approach Delay		2.4	2.0		24.5	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.34
 Intersection Signal Delay: 3.3
 Intersection Capacity Utilization 118.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service H

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

No-Build Midday
09/13/2022

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↓	↑	↓	↓
Traffic Vol, veh/h	107	31	39	94	45	53
Future Vol, veh/h	107	31	39	94	45	53
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	0	0	1	2	0
Mvmt Flow	114	33	41	100	48	56

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	147	0	313	131
Stage 1	-	-	-	-	131	-
Stage 2	-	-	-	-	182	-
Critical Hdwy	-	-	4.1	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1447	-	680	924
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	849	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1447	-	661	924
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	661	924	-	-	1447	-
HCM Lane V/C Ratio	0.072	0.061	-	-	0.029	-
HCM Control Delay (s)	10.9	9.1	-	-	7.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	140	8	4	114	4	7
Future Vol, veh/h	140	8	4	114	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	13	0	3	0	0
Mvmt Flow	165	9	5	134	5	8

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	174	0	314
Stage 1	-	-	-	-	170
Stage 2	-	-	-	-	144
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1415	-	683
Stage 1	-	-	-	-	865
Stage 2	-	-	-	-	888
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1415	-	680
Mov Cap-2 Maneuver	-	-	-	-	680
Stage 1	-	-	-	-	865
Stage 2	-	-	-	-	884

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	794	-	-	1415	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	9.6	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	6	10	6	15	16	6
Future Vol, veh/h	6	10	6	15	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	7	7	0
Mvmt Flow	8	13	8	19	21	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	27	0	-	0	47 18
Stage 1	-	-	-	-	18 -
Stage 2	-	-	-	-	29 -
Critical Hdwy	4.1	-	-	-	6.47 6.2
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.2	-	-	-	3.563 3.3
Pot Cap-1 Maneuver	1600	-	-	-	950 1066
Stage 1	-	-	-	-	992 -
Stage 2	-	-	-	-	981 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1600	-	-	-	945 1066
Mov Cap-2 Maneuver	-	-	-	-	945 -
Stage 1	-	-	-	-	987 -
Stage 2	-	-	-	-	981 -

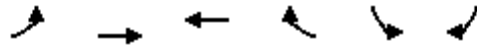
Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	975
HCM Lane V/C Ratio	0.005	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
3: Route 57 & Airport Road

No-Build PM

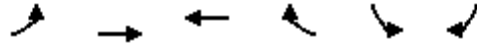
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Volume (vph)	55	508	729	58	18	82
Future Volume (vph)	55	508	729	58	18	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected		0.995			0.950	
Satd. Flow (prot)	0	1870	1900	1615	1703	1615
Fl _t Permitted		0.881			0.950	
Satd. Flow (perm)	0	1656	1900	1615	1703	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				60		85
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	1%	0%	0%	6%	0%
Adj. Flow (vph)	57	529	759	60	19	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	586	759	60	19	85
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

No-Build PM
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		76.1	76.1	76.1	6.1	6.1
Actuated g/C Ratio		0.85	0.85	0.85	0.07	0.07
v/c Ratio		0.42	0.47	0.04	0.17	0.45
Control Delay		3.5	3.7	0.7	42.0	17.4
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		3.5	3.7	0.7	42.0	17.4
LOS		A	A	A	D	B
Approach Delay		3.5	3.5		21.9	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 4.7
 Intersection Capacity Utilization 118.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service H

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

No-Build PM
09/13/2022

Intersection						
Int Delay, s/veh	3.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	↷
Traffic Vol, veh/h	140	37	48	162	66	64
Future Vol, veh/h	140	37	48	162	66	64
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	156	41	53	180	73	71

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	197	0	463	177
Stage 1	-	-	-	-	177	-
Stage 2	-	-	-	-	286	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1388	-	561	871
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1388	-	540	871
Mov Cap-2 Maneuver	-	-	-	-	540	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	738	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	540	871	-	-	1388	-
HCM Lane V/C Ratio	0.136	0.082	-	-	0.038	-
HCM Control Delay (s)	12.7	9.5	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.5	0.3	-	-	0.1	-

HCM 2010 TWSC
7: Blau Road & Rockport Road

No-Build PM
09/13/2022

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	126	7	11	187	10	12
Future Vol, veh/h	126	7	11	187	10	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	138	8	12	205	11	13

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	146	0	371	142
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	229	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1448	-	634	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1448	-	628	911
Mov Cap-2 Maneuver	-	-	-	-	628	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	807	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	756	-	-	1448	-
HCM Lane V/C Ratio	0.032	-	-	0.008	-
HCM Control Delay (s)	9.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 2010 TWSC
8: Watters Road & Blau Road

No-Build PM
 09/13/2022

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	10	6	10	25	21	8
Future Vol, veh/h	10	6	10	25	21	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	7	12	29	24	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	41	0	-	0	58 27
Stage 1	-	-	-	-	27 -
Stage 2	-	-	-	-	31 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1581	-	-	-	954 1054
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	997 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1581	-	-	-	946 1054
Mov Cap-2 Maneuver	-	-	-	-	946 -
Stage 1	-	-	-	-	993 -
Stage 2	-	-	-	-	997 -

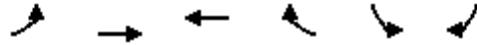
Approach	EB	WB	SB
HCM Control Delay, s	4.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1581	-	-	-	974
HCM Lane V/C Ratio	0.007	-	-	-	0.035
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Build AM

09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↗	↖	↗
Traffic Volume (vph)	48	535	412	36	28	37
Future Volume (vph)	48	535	412	36	28	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frts				0.850		0.850
Flt Protected		0.996			0.950	
Satd. Flow (prot)	0	1875	1863	1346	1671	1615
Flt Permitted		0.939			0.950	
Satd. Flow (perm)	0	1768	1863	1346	1671	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				38		39
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	2%	20%	8%	0%
Adj. Flow (vph)	50	557	429	38	29	39
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	607	429	38	29	39
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Build AM
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		79.2	79.2	79.2	6.2	6.2
Actuated g/C Ratio		0.88	0.88	0.88	0.07	0.07
v/c Ratio		0.39	0.26	0.03	0.25	0.26
Control Delay		2.9	2.2	0.8	44.4	17.7
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		2.9	2.2	0.8	44.4	17.7
LOS		A	A	A	D	B
Approach Delay		2.9	2.1		29.1	
Approach LOS		A	A		C	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
Natural Cycle:	85
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	4.1
Intersection LOS:	A
Intersection Capacity Utilization:	118.3%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

Build AM
09/13/2022

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↖	↘	↖
Traffic Vol, veh/h	178	30	29	130	37	37
Future Vol, veh/h	178	30	29	130	37	37
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	0	0	2	5	0
Mvmt Flow	200	34	33	146	42	42

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	234	0	429 217
Stage 1	-	-	-	-	217 -
Stage 2	-	-	-	-	212 -
Critical Hdwy	-	-	4.1	-	6.45 6.2
Critical Hdwy Stg 1	-	-	-	-	5.45 -
Critical Hdwy Stg 2	-	-	-	-	5.45 -
Follow-up Hdwy	-	-	2.2	-	3.545 3.3
Pot Cap-1 Maneuver	-	-	1345	-	577 828
Stage 1	-	-	-	-	812 -
Stage 2	-	-	-	-	816 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1345	-	563 828
Mov Cap-2 Maneuver	-	-	-	-	563 -
Stage 1	-	-	-	-	812 -
Stage 2	-	-	-	-	796 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	563	828	-	-	1345	-
HCM Lane V/C Ratio	0.074	0.05	-	-	0.024	-
HCM Control Delay (s)	11.9	9.6	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-

HCM 2010 TWSC
7: Blau Road & Rockport Road

Build AM
09/13/2022

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	↑
Traffic Vol, veh/h	135	3	26	141	13	23
Future Vol, veh/h	135	3	26	141	13	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	11	1	0	13
Mvmt Flow	147	3	28	153	14	25

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	150	0	358 149
Stage 1	-	-	-	-	149 -
Stage 2	-	-	-	-	209 -
Critical Hdwy	-	-	4.21	-	6.4 6.33
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.299	-	3.5 3.417
Pot Cap-1 Maneuver	-	-	1378	-	644 869
Stage 1	-	-	-	-	884 -
Stage 2	-	-	-	-	831 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1378	-	630 869
Mov Cap-2 Maneuver	-	-	-	-	630 -
Stage 1	-	-	-	-	884 -
Stage 2	-	-	-	-	813 -

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	764	-	-	1378	-
HCM Lane V/C Ratio	0.051	-	-	0.021	-
HCM Control Delay (s)	10	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 2010 TWSC
8: Watters Road & Blau Road

Build AM
 09/13/2022

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	12	10	5	10	15	8
Future Vol, veh/h	12	10	5	10	15	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	55	55	55	55	55	55
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	18	9	18	27	15

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	27	0	-	0	18
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	62
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1600	-	-	-	927
Stage 1	-	-	-	-	1010
Stage 2	-	-	-	-	966
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1600	-	-	-	914
Mov Cap-2 Maneuver	-	-	-	-	914
Stage 1	-	-	-	-	996
Stage 2	-	-	-	-	966

Approach	EB	WB	SB
HCM Control Delay, s	4	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	962
HCM Lane V/C Ratio	0.014	-	-	-	0.043
HCM Control Delay (s)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	15	21	4	16	13
Future Vol, veh/h	0	15	21	4	16	13
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	92	92	92	92	92	92
Heavy Vehicles, %	0	50	0	0	50	0
Mvmt Flow	0	16	23	4	17	14

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	73	25	0	0	27
Stage 1	25	-	-	-	-
Stage 2	48	-	-	-	-
Critical Hdwy	6.4	6.7	-	-	4.6
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.75	-	-	2.65
Pot Cap-1 Maneuver	936	928	-	-	1326
Stage 1	1003	-	-	-	-
Stage 2	980	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	924	928	-	-	1326
Mov Cap-2 Maneuver	924	-	-	-	-
Stage 1	1003	-	-	-	-
Stage 2	967	-	-	-	-

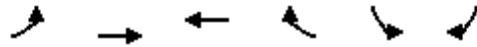
Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	928	1326
HCM Lane V/C Ratio	-	-	0.018	0.013
HCM Control Delay (s)	-	-	8.9	7.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Build Midday

09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↗	↖	↗
Traffic Volume (vph)	47	455	478	71	28	40
Future Volume (vph)	47	455	478	71	28	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Flt Protected		0.995			0.950	
Satd. Flow (prot)	0	1874	1863	1583	1805	1615
Flt Permitted		0.924			0.950	
Satd. Flow (perm)	0	1740	1863	1583	1805	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				75		42
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	2%	2%	0%	0%
Adj. Flow (vph)	49	479	503	75	29	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	528	503	75	29	42
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Build Midday
 09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		76.1	76.1	76.1	6.1	6.1
Actuated g/C Ratio		0.85	0.85	0.85	0.07	0.07
v/c Ratio		0.36	0.32	0.06	0.24	0.28
Control Delay		3.0	2.7	0.6	43.9	17.9
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		3.0	2.7	0.6	43.9	17.9
LOS		A	A	A	D	B
Approach Delay		3.0	2.4		28.5	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.36
 Intersection Signal Delay: 4.3
 Intersection Capacity Utilization 118.3%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service H

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

Build Midday
09/13/2022

Intersection						
Int Delay, s/veh	3.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↑	↑	↑	↑
Traffic Vol, veh/h	107	46	39	94	60	53
Future Vol, veh/h	107	46	39	94	60	53
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	0	0	1	2	0
Mvmt Flow	114	49	41	100	64	56

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	163	0	321
Stage 1	-	-	-	-	139
Stage 2	-	-	-	-	182
Critical Hdwy	-	-	4.1	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.2	-	3.518
Pot Cap-1 Maneuver	-	-	1428	-	673
Stage 1	-	-	-	-	888
Stage 2	-	-	-	-	849
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1428	-	653
Mov Cap-2 Maneuver	-	-	-	-	653
Stage 1	-	-	-	-	888
Stage 2	-	-	-	-	824

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	653	915	-	-	1428	-
HCM Lane V/C Ratio	0.098	0.062	-	-	0.029	-
HCM Control Delay (s)	11.1	9.2	-	-	7.6	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	140	8	19	114	4	22
Future Vol, veh/h	140	8	19	114	4	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	13	0	3	0	0
Mvmt Flow	165	9	22	134	5	26

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	174	0	348	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1415	-	653	879
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	858	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1415	-	642	879
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	843	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	832	-	-	1415	-
HCM Lane V/C Ratio	0.037	-	-	0.016	-
HCM Control Delay (s)	9.5	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	6	10	6	15	16	6
Future Vol, veh/h	6	10	6	15	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	7	7	0
Mvmt Flow	8	13	8	19	21	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	27	0	-	0	47 18
Stage 1	-	-	-	-	18 -
Stage 2	-	-	-	-	29 -
Critical Hdwy	4.1	-	-	-	6.47 6.2
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	2.2	-	-	-	3.563 3.3
Pot Cap-1 Maneuver	1600	-	-	-	950 1066
Stage 1	-	-	-	-	992 -
Stage 2	-	-	-	-	981 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1600	-	-	-	945 1066
Mov Cap-2 Maneuver	-	-	-	-	945 -
Stage 1	-	-	-	-	987 -
Stage 2	-	-	-	-	981 -

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1600	-	-	-	975
HCM Lane V/C Ratio	0.005	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	15	11	0	15	12
Future Vol, veh/h	0	15	11	0	15	12
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	92	92	92	92	92	92
Heavy Vehicles, %	0	50	0	0	50	0
Mvmt Flow	0	16	12	0	16	13

Major/Minor	Minor1	Major1	Major2	Major3	Major4
Conflicting Flow All	57	12	0	0	12
Stage 1	12	-	-	-	-
Stage 2	45	-	-	-	-
Critical Hdwy	6.4	6.7	-	-	4.6
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.75	-	-	2.65
Pot Cap-1 Maneuver	955	945	-	-	1344
Stage 1	1016	-	-	-	-
Stage 2	983	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	944	945	-	-	1344
Mov Cap-2 Maneuver	944	-	-	-	-
Stage 1	1016	-	-	-	-
Stage 2	971	-	-	-	-

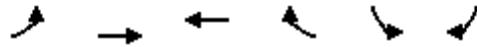
Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	945	1344
HCM Lane V/C Ratio	-	-	0.017	0.012
HCM Control Delay (s)	-	-	8.9	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Build PM

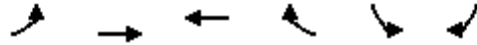
09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Volume (vph)	55	510	729	73	33	82
Future Volume (vph)	55	510	729	73	33	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850		0.850
Fl _t Protected		0.995			0.950	
Satd. Flow (prot)	0	1870	1900	1615	1703	1615
Fl _t Permitted		0.882			0.950	
Satd. Flow (perm)	0	1658	1900	1615	1703	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				76		85
Link Speed (mph)		30	30		30	
Link Distance (ft)		1940	758		2129	
Travel Time (s)		44.1	17.2		48.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	1%	0%	0%	6%	0%
Adj. Flow (vph)	57	531	759	76	34	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	588	759	76	34	85
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						

Lanes, Volumes, Timings
3: Route 57 & Airport Road

Build PM
 09/13/2022



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	65.0	65.0	65.0	65.0	5.0	5.0
Minimum Split (s)	71.0	71.0	71.0	71.0	10.0	10.0
Total Split (s)	71.0	71.0	71.0	71.0	19.0	19.0
Total Split (%)	78.9%	78.9%	78.9%	78.9%	21.1%	21.1%
Maximum Green (s)	65.0	65.0	65.0	65.0	14.0	14.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None
Act Effct Green (s)		75.7	75.7	75.7	6.5	6.5
Actuated g/C Ratio		0.84	0.84	0.84	0.07	0.07
v/c Ratio		0.42	0.47	0.06	0.28	0.44
Control Delay		3.6	3.9	0.6	44.7	16.6
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		3.6	3.9	0.6	44.7	16.6
LOS		A	A	A	D	B
Approach Delay		3.6	3.6		24.6	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 39 (43%), Referenced to phase 4:EBTL and 8:WBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 5.2
 Intersection Capacity Utilization 118.3%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service H

Splits and Phases: 3: Route 57 & Airport Road



HCM 2010 TWSC
4: Airport Road & Rockport Road

Build PM
09/13/2022

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗		↘	↖	↘	↖
Traffic Vol, veh/h	141	52	48	162	81	64
Future Vol, veh/h	141	52	48	162	81	64
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	0	0	0
Mvmt Flow	157	58	53	180	90	71

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	215	0	472	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	286	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1367	-	554	861
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1367	-	532	861
Mov Cap-2 Maneuver	-	-	-	-	532	-
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	737	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	532	861	-	-	1367	-
HCM Lane V/C Ratio	0.169	0.083	-	-	0.039	-
HCM Control Delay (s)	13.1	9.6	-	-	7.7	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.6	0.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗			↖	↘	↙
Traffic Vol, veh/h	126	7	26	187	10	28
Future Vol, veh/h	126	7	26	187	10	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	138	8	29	205	11	31

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	146	0	405	142
Stage 1	-	-	-	-	142	-
Stage 2	-	-	-	-	263	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1448	-	606	911
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1448	-	592	911
Mov Cap-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	768	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	798	-	-	1448	-
HCM Lane V/C Ratio	0.052	-	-	0.02	-
HCM Control Delay (s)	9.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 2010 TWSC
8: Watters Road & Blau Road

Build PM
 09/13/2022

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	10	6	10	25	23	10
Future Vol, veh/h	10	6	10	25	23	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	7	12	29	27	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	41	0	-	0	58 27
Stage 1	-	-	-	-	27 -
Stage 2	-	-	-	-	31 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1581	-	-	-	954 1054
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	997 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1581	-	-	-	946 1054
Mov Cap-2 Maneuver	-	-	-	-	946 -
Stage 1	-	-	-	-	993 -
Stage 2	-	-	-	-	997 -

Approach	EB	WB	SB
HCM Control Delay, s	4.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1581	-	-	-	976
HCM Lane V/C Ratio	0.007	-	-	-	0.039
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	4	16	22	0	15	18
Future Vol, veh/h	4	16	22	0	15	18
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	92	92	92	92	92	92
Heavy Vehicles, %	0	50	0	0	50	0
Mvmt Flow	4	17	24	0	16	20

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	76	24	0	0	24
Stage 1	24	-	-	-	-
Stage 2	52	-	-	-	-
Critical Hdwy	6.4	6.7	-	-	4.6
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.75	-	-	2.65
Pot Cap-1 Maneuver	932	930	-	-	1329
Stage 1	1004	-	-	-	-
Stage 2	976	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	921	930	-	-	1329
Mov Cap-2 Maneuver	921	-	-	-	-
Stage 1	1004	-	-	-	-
Stage 2	964	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	928	1329
HCM Lane V/C Ratio	-	-	0.023	0.012
HCM Control Delay (s)	-	-	9	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0