



Memorandum

To: Mr. Nick Smith
Rand-Whitney Container Corporation LLC
One Rand-Whitney Way
Worcester, MA 01607

Date: October 13, 2021

Project #: 124260.01

From: Vinod K. Kalikiri, PE, PTOE
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Re: Traffic Impact Evaluation
Proposed Warehouse Expansion
580 Fort Pond Road, Lancaster, Massachusetts

VHB has prepared this report to summarize the anticipated transportation impacts associated with an expansion to the existing UN1F1ED² Global Packaging Group warehouse (the Project) located at 580 Fort Pond Road (the Site) in Lancaster, Massachusetts. As proposed, the existing 255,000 square foot (sf) warehouse on the Site would be expanded by approximately 212,000 sf to support the growing operations of the current user. Access to the Site is currently provided by way of an existing full access driveway along the north side of Fort Pond Road, between Lunenburg Road and Shirley Road. The existing driveway will continue to support the future expanded Site development as well. The site location in relation to the surrounding roadways is shown on Figure 1. A copy of the Site Layout Plan is included in the Appendix.

This traffic assessment has been conducted in three stages. The first stage involved an assessment of existing traffic conditions within the project area including an inventory of existing roadway geometry; observations of traffic flow, including daily and peak period traffic counts, speed data; and a review of vehicular crash data.

The second stage of the study established the framework for evaluating the transportation impacts of the proposed project. Specific travel demand forecasts for the project were assessed along with future traffic demands on the study area roadways due to projected background traffic growth and other proposed area development that will occur, independent of the proposed development. The year 2028, a seven-year time horizon, was selected as the design year for analysis for the preparation of this traffic impact and access assessment in accordance with MassDOT's Transportation Impact Assessment (TIA) Guidelines.¹

The third and final stage involved conducting traffic analyses to identify both existing and projected future roadway capacities and demands. This analysis was used as the basis for determining potential project impacts and mitigation measures to offset the impacts.

Overall, the detailed analysis presented in this document indicates that the Project would generate 36 to 40 new peak hour vehicle trips on area roadways during the weekday commuting peak hours. These nominal increases in traffic volume would not have a noticeable traffic impact to the adjacent roadway system. The roadway network has adequate capacity to handle estimated additional Site generated traffic and no roadway improvements or traffic control changes will be necessary to support the development.

¹ Massachusetts Department of Transportation, Transportation Impact Assessment (TIA) Guidelines, 2014.

Existing Conditions

Existing conditions were developed by conducting field reconnaissance and collecting traffic volumes within the vicinity of the site. In preparing this study for the proposed development, the following intersections and their approach roadways have been evaluated:

- Fort Pond Road and Route 2 westbound ramps at Exit 103
- Fort Pond Road and the existing site driveway
- Fort Pond Road and Route 2 westbound ramps at Exit 105
- Fort Pond Road and Shirley Road
- Shirley Road and Route 2 eastbound ramps at Exit 105

Intersection Geometries

Fort Pond Road and Route 2 Westbound Ramps (Exit 103)

Fort Pond Road and the Route 2 westbound ramps at Exit 103 intersect to form a three-legged unsignalized intersection. The Fort Pond Road eastbound approach consists of a single travel lane with right turns channelized onto the Route 2 westbound on-ramp that operate under YIELD sign control. The Fort Pond Road westbound approach consists of a single travel lane with the left turns destined for the Route 2 westbound on-ramp. Directional flow along Fort Pond Road is separated by a double yellow centerline. The Route 2 westbound off-ramp is a single travel lane that opens to provide an exclusive left-turn lane and an exclusive right-turn lane that are separated by a raised island at the intersection. The Route 2 westbound off-ramp left- and right-turn lanes are under STOP sign control. Directional flow along the Route 2 westbound off-ramp is separated by a raised median. There are no pedestrian or bicycle accommodations at the intersection.

Fort Pond Road and Site Driveway

Fort Pond Road and the driveway for UN1F1ED² Global Packaging Group intersect to form a three-legged unsignalized intersection. The Fort Pond Road eastbound and westbound approach each consist of a single travel lane with directional flow separated by a double yellow centerline. The site driveway allows for both entering and exiting vehicles without pavement markings to separate vehicular travel flow. The site driveway southbound approach is under STOP sign control. There are no pedestrian or bicycle accommodations at the intersection. There is a Slow Blind Drive sign posted approximately 320 feet to the west of the site driveway facing Fort Pond Road eastbound vehicles. As detailed within the Sight Distance section of this traffic study, ample sight lines are available at the existing site driveway that meet national guidelines. The posted speed limit along Fort Pond Road in the vicinity of the site is 40 miles per hour (mph).

Fort Pond Road and Route 2 Westbound Ramps (Exit 105)

Fort Pond Road and the Route 2 westbound ramps at Exit 105 intersect to form a three-legged unsignalized intersection. The geometric layout of this intersection is similar to that of the Fort Pond Road and Route 2 westbound ramps intersection at Exit 103. The Fort Pond Road eastbound approach consists of a single travel lane with right turns channelized onto the Route 2 westbound on-ramp. Although there are Yield lines striped on the pavement for the Fort Pond Road eastbound right turns, there is no Yield sign present. The Fort Pond Road westbound approach consists of

a single travel lane with the left turns destined for the Route 2 westbound on-ramp. Directional flow along Fort Pond Road is separated by a double yellow centerline. The Route 2 westbound off-ramp is a single travel lane that opens to provide an exclusive left-turn lane and an exclusive right-turn lane that are separated by a raised island at the intersection. The Route 2 westbound off-ramp left- and right-turn lanes are under STOP sign control. Directional flow along the Route 2 westbound off-ramp is separated by a raised median. There are no pedestrian or bicycle accommodations at the intersection.

Fort Pond Road and Shirley Road

Fort Pond Road and Shirley Road intersect to form a three-legged unsignalized intersection with the Fort Pond Road westbound approach operating under STOP sign control. The Shirley Road northbound consists of a single travel lane. The Shirley Road southbound approach contains a single travel with right turns channelized onto Fort Pond Road. Directional flow along Shirley Road is separated by a double yellow centerline. The Fort Pond Road eastbound approach is a single travel lane that opens to provide an exclusive left-turn lane and an exclusive right-turn lane that are separated by a raised island at the intersection. The Fort Pond Road eastbound left- and right-turn lanes are under STOP sign control. Directional flow along Fort Pond Road is separated by a raised median at the intersection that tapers down to a double yellow centerline west of the intersection. There are no pedestrian or bicycle accommodations at the intersection.

Shirley Road and Route 2 eastbound ramps at Exit 105

Shirley Road and the Route 2 eastbound ramps at Exit 105 intersect to form a three-legged unsignalized intersection. The Route 2 eastbound off-ramp is a single travel lane that opens to provide an exclusive left-turn lane and an exclusive right-turn lane that are separated by a raised island at the intersection. The Route 2 eastbound off-ramp left-turn lane is under STOP sign control and the right-turn lane is under Yield sign control. Directional flow along the Route 2 westbound off-ramp is separated by a raised median. The Shirley Road northbound approach consists of a single travel lane with right turns channelized onto the Route 2 eastbound on-ramp. Although there are Yield lines striped on the pavement for the Shirley Road northbound right turns, there is no Yield sign present. The Shirley Road southbound approach consists of a single travel lane with the left turns destined for the Route 2 westbound on-ramp. Approximately 170 feet north of the intersection, there is a No Left Turn sign posted facing Shirley Road southbound vehicles approaching the interchange to discourage motorists from turning left onto the Route 2 eastbound off-ramp. At the intersection, there is an Enter Here sign facing Shirley Road southbound motorists to turn left south of the Route 2 eastbound off-ramp left-turn lane. Directional flow along Fort Pond Road is separated by a double yellow centerline. There are no pedestrian or bicycle accommodations at the intersection.



Photo 1: Shirley Road Southbound Approach at Route 2 Eastbound Ramps

Traffic Volumes

Traffic Counts

Base traffic conditions at the study area intersections were developed by conducting manual turning movement counts (TMCs) and vehicle classification counts. The traffic counts were collected on Wednesday, September 8, 2021, during the weekday morning peak period (7:00 to 9:00 AM) and the weekday evening peak period (4:00 to 6:00 PM). In addition, automatic traffic recorder (ATR) counts were conducted along Fort Pond Road adjacent to the site to collect weekday daily traffic volumes and vehicle speed measurements on Wednesday, September 8, 2021, and on Thursday, September 9, 2021. The traffic count data are provided in the Appendix. Table 1 provides a summary of the September 2021 traffic counts along Fort Pond Road near the site.

Table 1 Traffic Count Summary

Location/Time Period	Daily Traffic Volume (vpd) ^a	Peak Hour Traffic Volume (vph) ^b	K-Factor ^c	Directional Distribution ^d
Fort Pond Road west of Site Driveway				
Weekday Daily	1,080			
Weekday Morning Peak Hour		58	5.4	74% EB
Weekday Evening Peak Hour		134	12.4	84% WB

a In vehicles per day. Obtained from ATR count collected on September 8, 2021

b In vehicles per hour. Obtained from ATR count collected on September 8, 2021

c Percent of average daily traffic occurring during the peak hour

d Predominant traffic flow; EB = eastbound and WB = westbound

Table 1 shows that the predominant traffic flow along Fort Pond Road is eastbound during the weekday morning peak hour and westbound during the weekday evening peak hour.

Pandemic Adjustment

In accordance with MassDOT guidelines, traffic counts collected after March 13, 2020 may not be representative of typical traffic volumes due to the current coronavirus disease 2019 (COVID-19) pandemic.^{2, 3} To determine whether a pandemic adjustment should be made to the September 2021 traffic counts, a comparison was made with the traffic counts presented in the Capital Commerce Center Traffic Impact and Access Study.⁴ This comparison revealed that traffic volumes decreased by approximately 22 percent at the Fort Pond Road and Route 2 westbound ramp Exit 103 intersection during the weekday morning and weekday evening peak hours. Therefore, the September 2021 traffic counts at the study area intersections were increased by 22 percent during the weekday morning and weekday evening peak hours to account for the traffic volume effects from the pandemic. The pre-pandemic and pandemic traffic-volume comparison is provided in the Appendix.

Seasonal Adjustment

Traffic on a given roadway typically fluctuates throughout the year depending on the area and the type of roadway. Based on MassDOT guidelines, existing traffic volumes must represent annual average-month conditions. Accordingly, MassDOT Permanent Count Station on Route 2 west of Route 70 was reviewed for seasonal variation of traffic volumes. These MassDOT data show that September traffic volumes are approximately 3 percent higher than average annual conditions. In addition, the 2019 MassDOT Weekday Seasonal Factors for a minor arterial roadway in an urban area (Fort Pond Road) suggest that September traffic volumes are approximately 8 percent above average-month traffic volume conditions. To provide a conservative (worse-case) base condition, the September pandemically adjusted traffic volumes were used without a downward seasonal adjustment. The MassDOT seasonal factors are provided in the Appendix. Figures 2 and 3 graphically depict the 2021 Existing weekday morning and weekday evening peak hour traffic volumes, respectively, at the study area intersections.

Crash Analysis

Crash data for the study area intersections were obtained from MassDOT for the most recent five-year period available (between 2016 and 2020). In addition to the collision summary, incident occurrence was compared to the volume of traffic through a particular intersection to determine significance and whether or not potential safety problems may exist. Accordingly, the crash rates were calculated for each study area intersection and compared with the statewide and district-wide (MassDOT District 3) averages. For unsignalized intersections, the statewide average is 0.57 collisions per million entering vehicles (c/mev) and the district-wide average is 0.61 c/mev. The crash rate worksheets are provided in the Appendix. A summary of the MassDOT crash data at the study area intersections is provided in Table 2.

² Chief Engineer Patricia Leavenworth. MassDOT Engineering Directive E-20-005 – Guidance on Traffic Count Data. 11 May 2020.

³ Massachusetts Department of Transportation, Highway Division. Guidance on Traffic Count Data. Apr 2020.

⁴ TEC, Inc./The Engineering Corp. Traffic Impact and Access Study, Capital Commerce Center: McGovern Boulevard, Lancaster, Massachusetts. rev 28 July. 2021.

Table 2 **Collision Data Summary**

Condition	Fort Pond Rd and Route 2 WB Ramps (Exit 103)	Fort Pond Rd and Site Driveway
Year		
<i>2016</i>	0	0
<i>2017</i>	0	0
<i>2018</i>	2	1
<i>2019</i>	0	0
<i>2020</i>	0	0
<i>Total</i>	2	1
<i>Crash Rate</i>	0.17	0.29
Crash Type		
<i>Property Damage Only</i>	2	1
<i>Personal Injury</i>	0	0
Crash Manner		
<i>Angle/Sideswipe</i>	0	0
<i>Head On</i>	0	0
<i>Rear End</i>	1	0
<i>Fixed Object/Ran off Road</i>	1	0
<i>Unknown/Other</i>	0	1
Roadway Condition		
<i>Dry</i>	0	1
<i>Wet</i>	1	0
<i>Snow/Ice/Slush</i>	1	0
Weather		
<i>Clear/Cloudy</i>	0	1
<i>Rain</i>	1	0
<i>Snow</i>	1	0
Peak		
<i>Weekday AM Commuter ^a</i>	0	0
<i>Weekday PM Commuter ^b</i>	1	0
<i>Non-Commuter</i>	1	1

Source: MassDOT's IMPACT Crash Data Portal, Data Query and Visualization tool

^a Weekday between 7:00-9:00 AM

^b Weekday between 4:00-6:00 PM

Table 2 (continued) Collision Data Summary

Condition	Fort Pond Rd and Rte 2 WB Ramps (Exit 105)	Fort Pond Rd and Shirley Rd	Shirley Rd and Rte 2 EB Ramps (Exit 105)
Year			
<i>2016</i>	0	0	1
<i>2017</i>	0	1	0
<i>2018</i>	0	0	1
<i>2019</i>	2	1	0
<i>2020</i>	0	2	0
<i>Total</i>	2	4	2
<i>Crash Rate</i>	0.23	0.25	0.20
Crash Type			
<i>Property Damage Only</i>	2	3	1
<i>Personal Injury</i>	0	1	1
Crash Manner			
<i>Angle/Sideswipe</i>	1	1	1
<i>Head On</i>	0	1	0
<i>Rear End</i>	1	2	0
<i>Fixed Object/Ran Off Road</i>	0	0	1
<i>Unknown/Other</i>	0	0	0
Roadway Condition			
<i>Dry</i>	1	2	1
<i>Wet</i>	1	2	1
<i>Snow/Ice/Slush</i>	0	0	0
Weather			
<i>Clear/Cloudy</i>	1	3	2
<i>Rain</i>	1	0	0
<i>Snow</i>	0	1	0
Peak			
<i>Weekday AM Commuter ^a</i>	0	2	0
<i>Weekday PM Commuter ^b</i>	0	0	1
<i>Non-Commuter</i>	2	2	1

Source: MassDOT's IMPACT Crash Data Portal, Data Query and Visualization tool

^a Weekday between 7:00-9:00 AM

^b Weekday between 4:00-6:00 PM

Based on the MassDOT IMPACT website, the Fort Pond Road and Shirley Road intersection experienced an average of less than one reported collision per year over the past five years (4 total collisions). There were two crashes noted at the Fort Pond Road and the Route 2 westbound ramps at Exits 103 and 105, and at the Shirley Road intersection with the Route 2 eastbound ramps at Exit 2. The incident reported in proximity to the Fort Pond Road site driveway intersection was identified to have occurred at 700 Fort Pond Road and involved a motor vehicle collision with a deer. The calculated crash rates for the study area intersections are less than the district-wide and statewide averages for unsignalized intersections. Overall, a review of the available crash data does not indicate notable deficiencies that affect safety at the locations reviewed.

Future Conditions

To estimate the impact of the proposed development's traffic on the adjacent roadway system, existing traffic volumes were projected to the year 2028. This design horizon represents a seven-year projection from the year of this traffic study that is in accordance with MassDOT guidelines for transportation impact assessments. Traffic volumes in the future, independent of the Project, would include existing traffic, new traffic due to normal traffic growth, and traffic related to significant development by others that are expected to be completed within the analysis horizon. The incremental impacts of the proposed development may then be determined by adding site-generated traffic volumes (Build conditions) and making comparisons to the future baseline (No-Build) conditions.

No-Build Conditions

Traffic growth is a function of the expected land development in a region. To predict a rate at which traffic can be expected to grow during the forecast periods, both historical growth and planned areas developments were examined.

Historical Growth

To develop future baseline traffic volume conditions, two components of traffic growth were considered. First, an annual average traffic-growth percentage was determined based on MassDOT historical traffic volume data. A review of the MassDOT historical annual traffic growth rates were reviewed for minor arterial roadways in urban areas (Fort Pond Road). These data suggest a 0.5 percent annual growth rate which is consistent with traffic studies prepared by others in the area. Therefore, a 0.5 percent compounded annual growth rate was used to account for general population growth and traffic to be generated by smaller developments in the area. The MassDOT historical traffic data are provided in the Appendix.

Background Developments

Traffic to be generated by planned developments anticipated to add traffic volumes through the study area were considered in projecting future traffic volumes. Based on feedback from the Town of Lancaster, the following developments were identified.

- **Capital Commerce Center** is located along McGovern Boulevard off of Lunenburg Road (Route 70). Existing uses on the site to be retained include FC Stars outdoor soccer complex of 3 soccer fields, a 2,300 sf Dunkin' restaurant, and a 5,000 sf Mobil gas station with a convenience market. As planned, access would remain via McGovern Boulevard as well as minor retail driveways along Route 70. Future uses consist of the following:
 - › 2,484,000 sf industrial park,

- › 37,600 sf professional office,
- › 48,699 sf retail space; and
- › 150 residential apartment units.

The traffic volumes associated with the Capital Commerce Center mixed-use development were obtained from the traffic study prepared for that project.⁵

- **Fort Pond Road Industrial Development:** The Town staff indicated that GFI Partners was in the conceptual development phase for the construction of approximately 810,000 sf of warehouse/storage space with access via a single driveway along Fort Pond Road west of the Route 2 westbound ramps (Exit 105). However, no detailed traffic analysis or data is available for the development for inclusion in this study.

Future Planned Roadway Improvements

The Town of Lancaster and MassDOT are currently in the preliminary design stage for the relocation of the Route 2 Exit 102 ramps and widening for improved acceleration and deceleration lanes. While not having a direct impact on the project site, construction of these improvements would have a temporary impact on traffic flows in this area of Lancaster.

In February 2016, MassDOT prepared alternatives analyses for Route 2 interchanges east of Interstate 90 (I-90/ Massachusetts Turnpike [Mass Pike]) in Harvard and Lancaster. These conceptual alternatives included both the Route 102 Exit 103 and Exit 105 interchanges. Further investigation into the concept plans is being considered and the potential modifications at these interchanges have not moved into the design phase. Since the design and programming for these improvements is not expected within the analysis horizon for the proposed warehouse expansion project, it was assumed these roadway improvement projects will not be in place to affect the future conditions traffic volumes projected in this study.

No-Build Traffic Volumes

The 2028 No-Build peak hour traffic volumes were accordingly developed by applying a 0.5 percent compounded annual traffic growth rate to the 2021 Existing volumes and adding traffic associated with the Capital Commerce Center development. The 2028 No-Build traffic volumes are shown graphically for the study area intersections on Figures 4 and 5 for the weekday morning and weekday evening peak hours, respectively.

Build Conditions

As proposed, the existing 255,000 sf warehouse on the Site would be expanded by approximately 212,000 sf to be used by the current user on the property. Access to the site would remain by way of the existing full access driveway along the north side of Fort Pond Road.

Trip Generation

To estimate the volume of traffic to be generated by the proposed warehouse expansion project, a trip rate was developed based on the existing vehicles entering and exiting the site since the proposed use would be an expansion of the existing warehouse facility. ATR counts were used to collect entering and exiting vehicles and the associated

⁵ Ibid. 4.

vehicle classification along the site driveway on Wednesday, September 8, 2021, and on Thursday, September 9, 2021. Trip rates were then calculated by dividing the traffic volumes by the existing 255,000 sf warehouse. Since the proposed use would be similar to the existing use, the trip rates were applied to the proposed 212,000 sf warehouse expansion. For comparison purposes, trip rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual⁶ were researched for Land Use Code 150 (Warehousing). The trip-generation comparison is summarized in Table 3 with the trip-generation calculations provided in the Appendix.

Table 3 Trip-Generation Comparison

Time Period/Direction	Empirical Methodology ^a	ITE Methodology ^b
Weekday Daily (Trips per day)		
<i>Enter</i>	110	191
<i>Exit</i>	110	191
<i>Total</i>	220	382
Weekday Morning Peak Hour (Trips per hour)		
<i>Enter</i>	7	28
<i>Exit</i>	7	8
<i>Total</i>	14	36
Weekday Evening Peak Hour (Trips per hour)		
<i>Enter</i>	2	11
<i>Exit</i>	7	29
<i>Total</i>	9	40

a Trips calculated based on existing traffic counts/255,000 sf of existing warehouse space x 212,000 sf of proposed expansion

b ITE Land Use Code 150 (Warehousing) for 212,000 sf

As shown in Table 3, the proposed warehouse expansion is estimated to generate more site trips with the ITE methodology than the local trip-generation methodology. To present a conservatively worst-case analysis, the ITE trips were used in the impact analysis. Based on the ITE guidelines, the warehouse expansion project would generate 382 additional trips on a weekday (191 entering and 191 exiting) with 36 additional trips (28 entering and 8 exiting) during the weekday morning peak hour and 40 trips (11 entering and 29 exiting) during the weekday evening peak hour.

Development trips were then assigned to the adjacent roadway network based on United States Census Journey-to-Work data for the Town of Lancaster. A summary of the gravity model developed with these data is provided in the Appendix. Since a traffic study has not been prepared for this development, the associated trips developed within this study are suitable for planning purposes only, as a background development for the proposed expansion project.

The volume of truck traffic that is expected to be generated by the proposed warehouse expansion has been included in both the trip-generation estimates set forth in Table 3 of this traffic study. For consistency purposes, ITE trip-

⁶ Institute of Transportation Engineers. Trip Generation Manual, 10th ed. Washington, DC, 2017

generation methodologies were used to estimate the volume of truck trips. The peak hour site trip characteristics for automobile and truck site trips are summarized in Table 4.

Table 4 Trip-Generation Characteristics Summary

Peak Hour/Direction	Truck Trips ^a	Automobile Trips ^b
Weekday Morning Peak Hour		
<i>Enter</i>	2	26
<i>Exit</i>	2	6
<i>Total</i>	4	32
Weekday Evening Peak Hour		
<i>Enter</i>	3	8
<i>Exit</i>	3	26
<i>Total</i>	6	34

a ITE Land Use Code 150 (Warehousing) for 212,000 sf
 b ITE Methodology Trips (from Table 3) minus Truck Trips

As shown in Table 4, ITE methodologies estimate that the proposed warehouse expansion would generate 4 truck trips (2 in and 2 out) during the weekday morning peak hour and 6 truck trips (3 in and 3 out) during the weekday evening peak hour.

Build Traffic Volumes

The directional distribution of the automobile site generated trips was approximated based on the existing driveway counts, access to the nearby highway system, and United States Census Journey-to-Work data for the Town of Lancaster. A summary of the Census Journey-to-Work data worksheet for the distribution of automobile trips is provided in the Appendix. The additional truck trips were distributed to and from Route 2. Based on the traffic-generation and distribution estimates for the proposed warehouse expansion project, the site trips were assigned to the adjacent roadway network. The project-generated traffic volumes are shown on Figure 6 and 7 for the weekday morning and weekday evening peak hours, respectively.

Sight Distance

Sight distances have been evaluated at the existing site driveway location to determine if the available sight distances for vehicles exiting the site meet or exceed the minimum distances required for approaching vehicles to safely stop. The available sight distances were compared with minimum requirements, as established by the American Association of State Highway and Transportation Officials (AASHTO).⁷ AASHTO is the national standard by which vehicle sight distance is calculated, measured, and reported.

Sight distance is the length of roadway ahead visible to the driver. The Stopping Sight Distance (SSD) is the minimum distance required for a vehicle traveling at a certain speed to safely stop before reaching a stationary object in its path.

⁷ A Policy on Geometric Design of Highways and Streets, 6th Edition. Washington, D.C.: American Association of State Highway and Transportation Officials (AASHTO), 2011.

The Intersection Sight Distance (ISD) is provided on minor street approaches to allow the drivers of stopped vehicles a sufficient view of the major roadway to decide when to enter the major roadway.

The available SSD and ISD at the proposed site driveway location were measured and compared to minimum requirements as established by AASHTO. Since the distance required to stop a vehicle is dependent on the speed of the vehicle, speed observations were conducted. Table 5 provides statistical data summarized from the speed study conducted along Fort Pond Road adjacent to the site. The average vehicular speed is calculated as the arithmetic mean of all the observed vehicle speeds (the sum of all speeds divided by the number of observations). The 85th percentile speed indicates the speed that most drivers consider safe and reasonable under ideal conditions. Since this speed more accurately represents the overall travel speed on the roadway, 85th percentile speeds are typically used to verify speeding concerns. Pace speed is the 10-mph range of speed with the greatest number of observations. Additional speed statistics such as the 15th and 95th percentile speeds are provided in the Appendix.

Table 5 Vehicle Speed Summary

Location/Direction	Posted Speed Limit (mph)	Average Speed (mph)	85 th %ile Speed (mph)	10 mph Pace (mph)
Fort Pond Road Adjacent to the Site				
<i>Eastbound</i>	40	42	49	36-45
<i>Westbound</i>	40	44	50	41-50
<i>Combined</i>	40	43	50	39-48

Based on the posted speed limit and the observed travel speeds, the SSD and ISD requirements at the proposed site driveways were calculated. The required minimum sight distances for each speed are shown in Table 6.

Table 6 Sight Distance Summary

Location/Condition	Stopping Sight Distance (feet)	Intersection Sight Distance (feet)
Fort Pond Road at the Site Driveway		
<i>Measured^a</i>	600+ / 600+	600+ / 600+
<i>Posted Speed (40 mph)</i>	305	445
<i>85th %ile Speed EB (49 mph)</i>	410	540
<i>85th %ile Speed WB (50 mph)</i>	425	555

Source: AASHTO Table 9-7 Design Intersection Sight Distance – Case B1, Left Turn from Stop and from Equation 3-2 and Equation 9-1.

a to/from the east/west

As indicated in Table 6, available sight distances to the east and west of the existing site driveway exceed the AASHTO SSD and ISD requirements. In addition, the available sight lines satisfy the Town of Lancaster requirements of

450 feet.⁸ Photos 2 and 3 depict the 600 foot distances captured east and west of the site driveway. To encourage safe and efficient flow of traffic to and from the site, proposed plantings, vegetation, landscaping, and signing along the site frontage and at the site driveway are recommended to be kept low to the ground or set back sufficiently from the edge of the roadways so as not to inhibit the available sight lines.



Photo 2: Fort Pond Road Westbound 600 feet East of Site Driveway



Photo 3: Fort Pond Road Eastbound 600 feet West of Site Driveway

Capacity and Queue Analyses

Capacity Analysis Methodology

Capacity analyses were performed for the study area intersections with the 2021 Existing, 2028 No-Build, and 2028 Build traffic volumes during the weekday evening and Saturday midday peak hours based on the concepts and procedures in the Highway Capacity Manual (HCM) ⁹ using the *Trafficware Synchro Software* computer program. This software program is a MassDOT approved traffic analysis tools for determining intersection capacity operations.

The analysis results are categorized in terms of Level of Service (LOS), which describes the qualitative intersection operational conditions based on the calculated average delay per vehicle. The relationship between LOS and delay is summarized in Table 7.

⁸ Lancaster Zoning Code 220-22.1.D(2): 450 feet on an arterial street, 275 feet on a collector street, and 175 feet on a minor street.

⁹ Transportation Research Board. Highway Capacity Manual, 6th ed. 2016.

Table 7 **Level of Service Criteria**

Level of Service	Unsignalized Intersection Criteria Average Total Delay (Seconds per Vehicle)
<i>A</i>	< 10.0
<i>B</i>	10.1 to 15.0
<i>C</i>	15.1 to 25.0
<i>D</i>	25.1 to 35.0
<i>E</i>	35.1 to 50.0
<i>F</i>	> 50.0

Source: Highway Capacity Manual 6th edition.

Queue Length Methodology

The study area intersections were also evaluated with respect to vehicle queuing. For unsignalized intersections, the quantitative measure of vehicle queue length is defined as the 95th percentile queue. The 95th percentile queue represents the percent of time during the peak period being analyzed that the calculated maximum back of queue would be equal to or less than the percentile estimate (i.e., the maximum queue length that would be exceeded only 5 percent of the time).

Intersection Operational Results

The capacity and queue length analysis results are summarized in Table 8 for the 2021 Base, 2028 No-Build, and 2028 Build traffic-volume conditions. The computer-generated analysis reports are provided in the Appendix. The comparison of the No-Build and Build intersection operations help to demonstrate a project’s impacts on the adjacent roadway network and to identify if the added traffic to the transportation system would result in adverse effects. In accordance with Town Zoning Bylaws, local intersections shall operate at LOS B or better and state highway intersections shall operate at LOS D or better. If intersection operations under future No-Build traffic-volume conditions exceed these thresholds, then the addition of proposed site trips (i.e., future Build traffic volumes) must not further degrade operating service levels.¹⁰ Should a development result in a significant degradation in intersection operations, then off-site improvements may be required to offset the increased traffic generated by the project.¹¹

The peak hour factor (PHF) is a measure of traffic demand fluctuations within the peak hour. In compliance with MassDOT guidelines, the PHF on each intersection approach was used under 2021 existing traffic-volume conditions.¹² With the increase in traffic volumes within the seven-year design horizon, the concentration of traffic volumes is not anticipated to remain stagnant. Therefore, existing PHFs were increased to 0.92 for the future No-Build and Build

¹⁰ Lancaster Zoning Code 220-38.2.E(1)(c).

¹¹ Lancaster Zoning Code 220-38.2.E(1)(d).

¹² Massachusetts Department of Transportation, Highway Division. Traffic and Safety Engineering 25% Design Submission Guidelines. 15 Feb. 2011.

traffic operational analyses in conformance with MassDOT guidelines.¹³ For those approaches where existing PHFs were observed to be above 0.92, the PHFs were used as observed without a reduction.

¹³ Ibid. 14.

Table 8 Capacity Analysis Summary

Intersection/Peak Hour/Lane Group	2021 Existing				2028 No-Build				2028 Build			
	v/c	Delay	LOS	95 th % Queue	v/c	Delay	LOS	95 th % Queue	v/c	Delay	LOS	95 th % Queue
Fort Pond Road and Route 2 Westbound Ramps (Exit 103)												
<i>Weekday Morning:</i>												
Fort Pond Rd WB Left	0.01	7.6	A	0	0.00	7.8	A	0	0.01	7.8	A	0
Rte 2 Off-Ramp Left	0.18	10.9	B	1	0.21	11.4	B	1	0.22	11.8	B	1
Rte 2 Off-Ramp Right	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0
<i>Weekday Evening:</i>												
Fort Pond Rd WB Left	0.02	7.7	A	0	0.02	8.3	A	0	0.03	8.3	A	0
Rte 2 Off-Ramp Left	0.45	14.4	B	2	0.58	19.5	C	4	0.62	21.9	C	4
Rte 2 Off-Ramp Right	0.01	8.7	A	0	0.01	9.4	A	0	0.01	9.4	A	0
Fort Pond Road and Site Driveway												
<i>Weekday Morning:</i>												
Fort Pond Rd EB Left	0.01	7.7	A	0	0.00	7.7	A	0	0.02	7.8	A	0
Site Driveway SB Approach	0.02	9.6	A	0	0.01	9.5	A	0	0.03	9.8	A	0
<i>Weekday Evening:</i>												
Fort Pond Rd EB Left	0.01	8.1	A	0	0.01	8.1	A	0	0.01	8.1	A	0
Site Driveway SB Approach	0.04	10.0	B	0	0.01	9.8	A	0	0.06	10.1	B	0

v/c = volume-to-capacity ratio
 Delay in seconds
 Queue length in vehicles

Table 8 (continued) Capacity Analysis Summary

Intersection/Peak Hour/Lane Group	2021 Existing				2028 No-Build				2028 Build			
	v/c	Delay	LOS	95 th % Queue	v/c	Delay	LOS	95 th % Queue	v/c	Delay	LOS	95 th % Queue
Fort Pond Road and Route 2 Westbound Ramps (Exit 105)												
<i>Weekday Morning:</i>												
Fort Pond Rd WB Left	0.16	7.8	A	1	0.12	7.6	A	0	0.12	7.6	A	0
Rte 2 Off-Ramp Left	0.02	14.7	B	0	0.02	12.6	B	0	0.02	12.8	B	0
Rte 2 Off-Ramp Right	0.11	9.0	A	0	0.08	8.9	A	0	0.08	8.9	A	0
<i>Weekday Evening:</i>												
Fort Pond Rd WB Left	0.14	7.7	A	1	0.13	7.7	A	0	0.13	7.7	A	0
Rte 2 Off-Ramp Left	0.17	15.4	C	1	0.17	14.8	B	1	0.18	15.1	C	1
Rte 2 Off-Ramp Right	0.11	9.1	A	0	0.11	9.0	A	0	0.11	9.1	A	0
Fort Pond Road and Shirley Road												
<i>Weekday Morning:</i>												
Fort Pond Rd EB Left	0.34	19.3	C	2	0.28	17.1	C	1	0.29	17.9	C	1
Fort Pond Rd EB Right	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0
Shirley Rd NB Left	0.01	8.4	A	0	0.01	8.3	A	0	0.02	8.3	A	0
<i>Weekday Evening:</i>												
Fort Pond Rd EB Left	0.24	18.0	C	1	0.22	16.5	C	1	0.23	16.9	C	1
Fort Pond Rd EB Right	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0
Shirley Rd NB Left	0.01	8.8	A	0	0.01	8.6	A	0	0.02	8.7	A	0

v/c = volume-to-capacity ratio
 Delay in seconds
 Queue length in vehicles

Table 8 (continued) Capacity Analysis Summary

Intersection/Peak Hour/Lane Group	2021 Existing				2028 No-Build				2028 Build			
	v/c	Delay	LOS	95 th % Queue	v/c	Delay	LOS	95 th % Queue	v/c	Delay	LOS	95 th % Queue
Shirley Road and Route 2 Eastbound Ramps (Exit 105)												
<i>Weekday Morning:</i>												
Rte 2 Off-Ramp Left	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0
Rte 2 Off-Ramp Right	0.29	11.0	B	1	0.24	10.6	B	1	0.26	10.7	B	1
Shirley Rd NB Left	0.12	8.1	A	0	0.12	8.1	A	0	0.12	8.1	A	0
<i>Weekday Evening:</i>												
Rte 2 Off-Ramp Left	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0
Rte 2 Off-Ramp Right	0.23	10.0	B	1	0.21	9.8	A	1	0.21	9.8	A	1
Shirley Rd NB Left	0.08	7.6	A	0	0.07	7.6	A	0	0.07	7.6	A	0

v/c = volume-to-capacity ratio
 Delay in seconds
 Queue length in vehicles

Fort Pond Road and Route 2 Westbound Ramps (Exit 103)

For the 2021 Existing, 2028 No-Build, and 2028 Build traffic-volume conditions, the exiting movements from the Route 2 westbound off-ramp at Exit 103 onto Fort Pond Road would be expected to operate at LOS C or better during the weekday morning and weekday evening peak hours. The Fort Pond Road westbound mainline left turns onto the Route 2 westbound on-ramp would be expected to operate at optimal levels (LOS A) during the weekday commuting peak periods. With the addition of the warehouse expansion trips, delays would increase by less than 3 seconds based the higher trip-generation methodology. The impacts of the proposed expansion project are anticipated to be minimal with movement increases to be in the range of one to 16 vehicles per hour.

Fort Pond Road and Site Driveway

Under the 2021 Existing, 2028 No-Build, and 2028 Build traffic-volume conditions, the exiting movements from the existing site driveway at Fort Pond Road would operate at LOS B or better during the weekday morning and weekday evening peak hours. The Fort Pond Road eastbound mainline left turns onto the site driveway would be expected to operate at optimal levels (LOS A) during the weekday commuting peak periods.

Fort Pond Road and Route 2 Westbound Ramps (Exit 105)

Based on the 2021 Existing, 2028 No-Build, and 2028 Build traffic-volume conditions, the exiting movements from the Route 2 westbound off-ramp at Exit 105 onto Fort Pond Road would be expected to operate at LOS C or better during the weekday morning and weekday evening peak hours. The Fort Pond Road westbound mainline left turns onto the Route 2 westbound on-ramp would be expected to operate at optimal levels (LOS A) during the weekday commuting peak periods. With the addition of the warehouse expansion trips, delays would increase by less than one second based the higher trip-generation methodology. The impacts of the proposed expansion project are anticipated to be minimal with movement increases to be in the range of one to nine vehicles per hour.

Fort Pond Road and Shirley Road

For the 2021 Existing, 2028 No-Build, and 2028 Build traffic-volume conditions, the exiting movements from Fort Pond Road onto Shirley Road would operate at LOS C or better during the weekday morning and weekday evening peak hours. The Shirley Road northbound mainline left turns onto Fort Pond Road would be expected to operate at optimal levels (LOS A) during the weekday commuting peak periods. Under 2028 Build conditions, delays would increase by less than 1 second using the higher trip-generation methodology. The impacts of the proposed expansion project are anticipated to be minimal with movement increases to be in the range of one to eight vehicles per hour.

Shirley Road and Route 2 Eastbound Ramps (Exit 105)

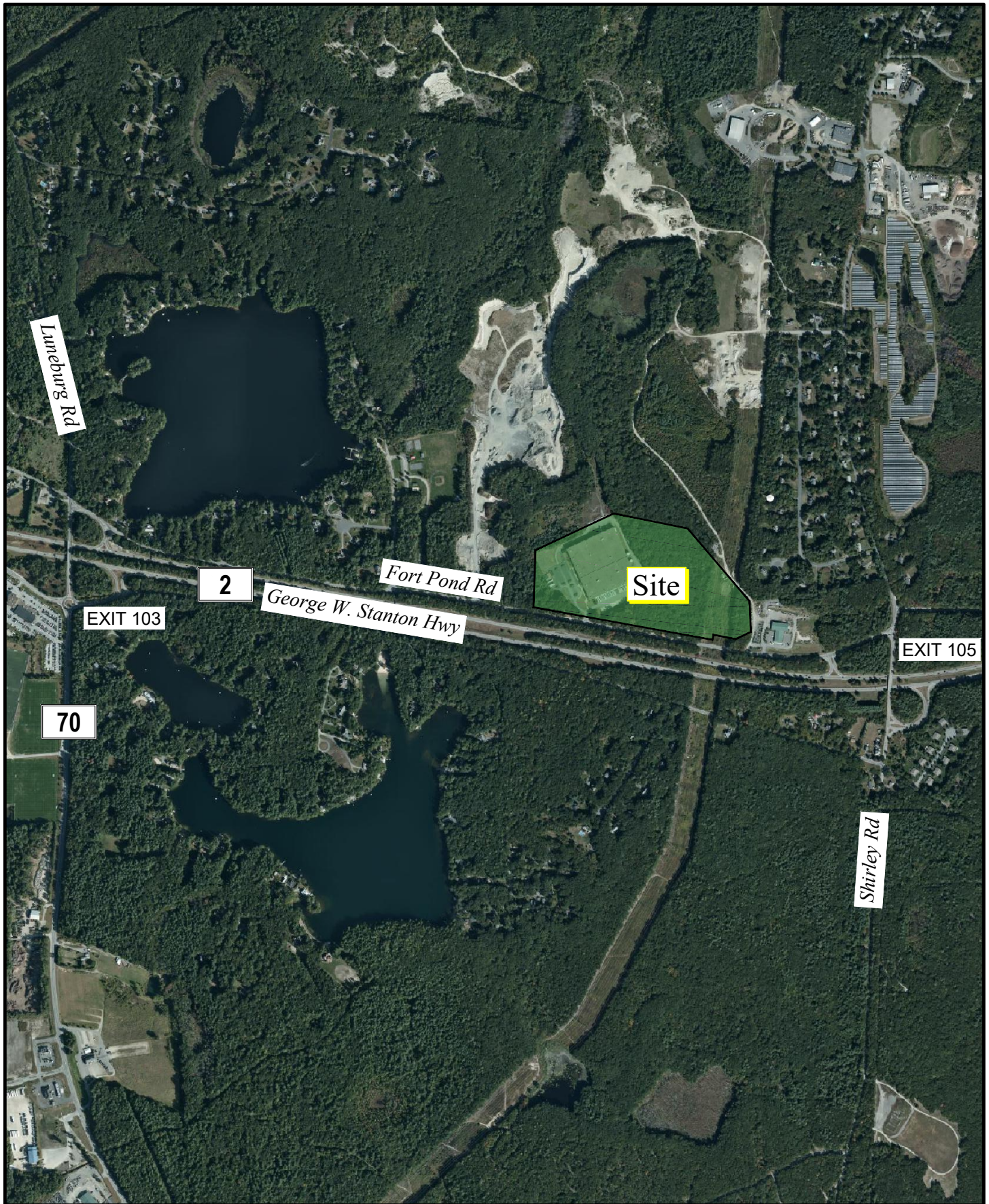
Under the 2021 Existing, 2028 No-Build, and 2028 Build traffic-volume conditions, the exiting movements from the Route 2 eastbound off-ramp at Exit 105 onto Shirley Road would operate at LOS B or better during the weekday morning and weekday evening peak hours. The Shirley Road northbound mainline left turns onto the Route 2 eastbound on-ramp would be expected to operate at optimal levels (LOS A) during the weekday commuting peak periods. With the addition of the warehouse expansion trips, delays would increase by less than one second based the higher trip-generation methodology. The impacts of the proposed expansion project are anticipated to be minimal with movement increases to be in the range of one to eight vehicles per hour.

Summary of Findings

Existing and future conditions in the study area have been described, analyzed, and evaluated with respect to traffic operations and the impact of the proposed warehouse expansion project. Vehicle trip generation analysis was conducted using both empirical data as well as ITE data, and the higher of the two sets of estimates were used in the peak hour capacity analyses presented in this report.

Common traffic engineering practice suggests that a development may have a noticeable impact (i.e., increase delay by ≥ 10 seconds or appreciably increase the v/c ratio) if the addition of site trips increases traffic volumes on an intersection approach by 100 vehicles per hour or more. Based on the findings of this traffic study, the addition of warehouse expansion site traffic through the study area intersections does not trigger this threshold. In accordance with Town of Lancaster Zoning Bylaws, the proposed additional site trips onto the adjacent roadway network would not degrade intersection operations that would require mitigation measures to offset traffic impacts.

Overall, it is the finding of this traffic impact assessment that the proposed warehouse expansion project will not have a noticeable traffic impact to the surrounding area, and no traffic improvements will be necessary to support the site generated traffic.

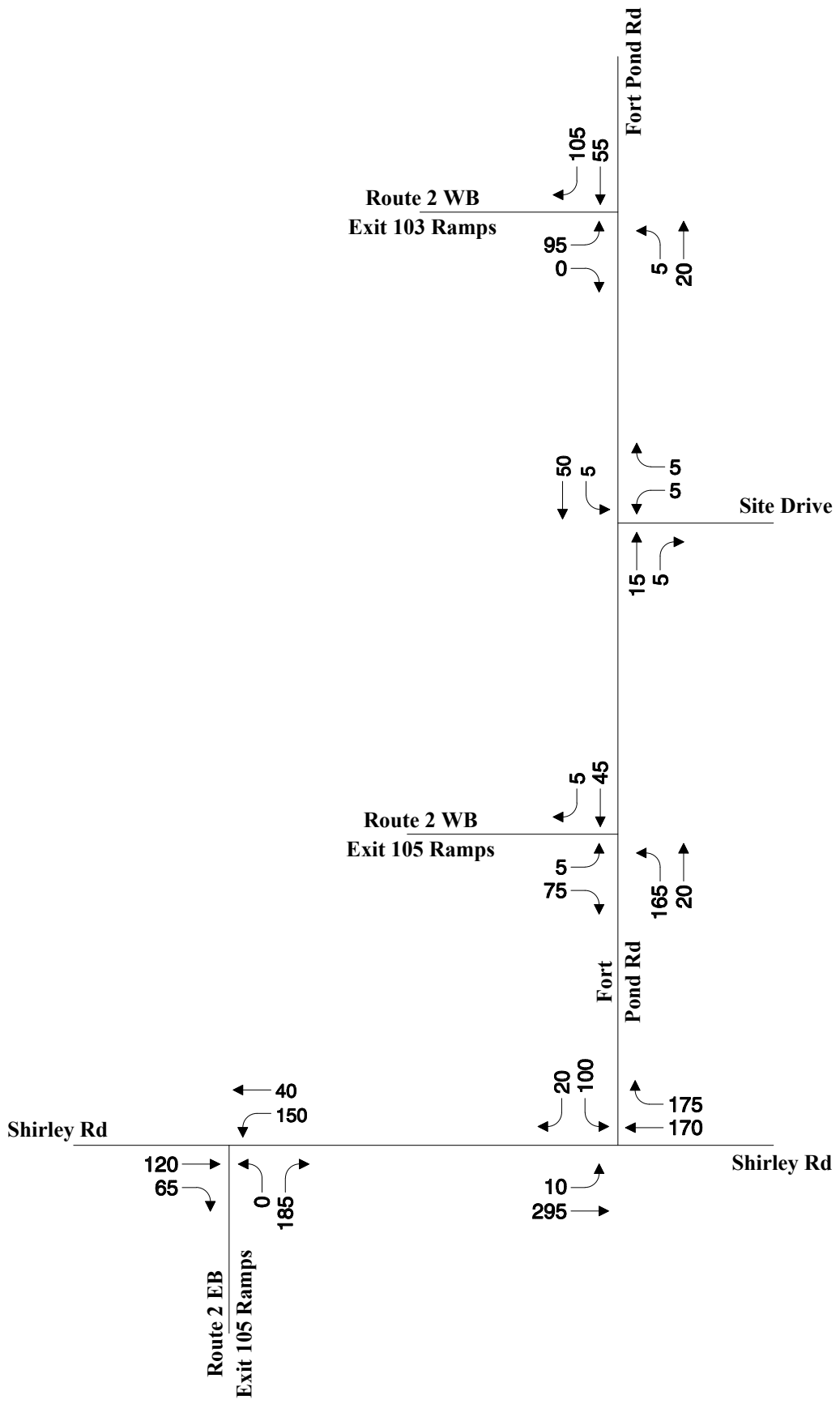


Site Location Image

Figure 1



0 600 1,200 Feet

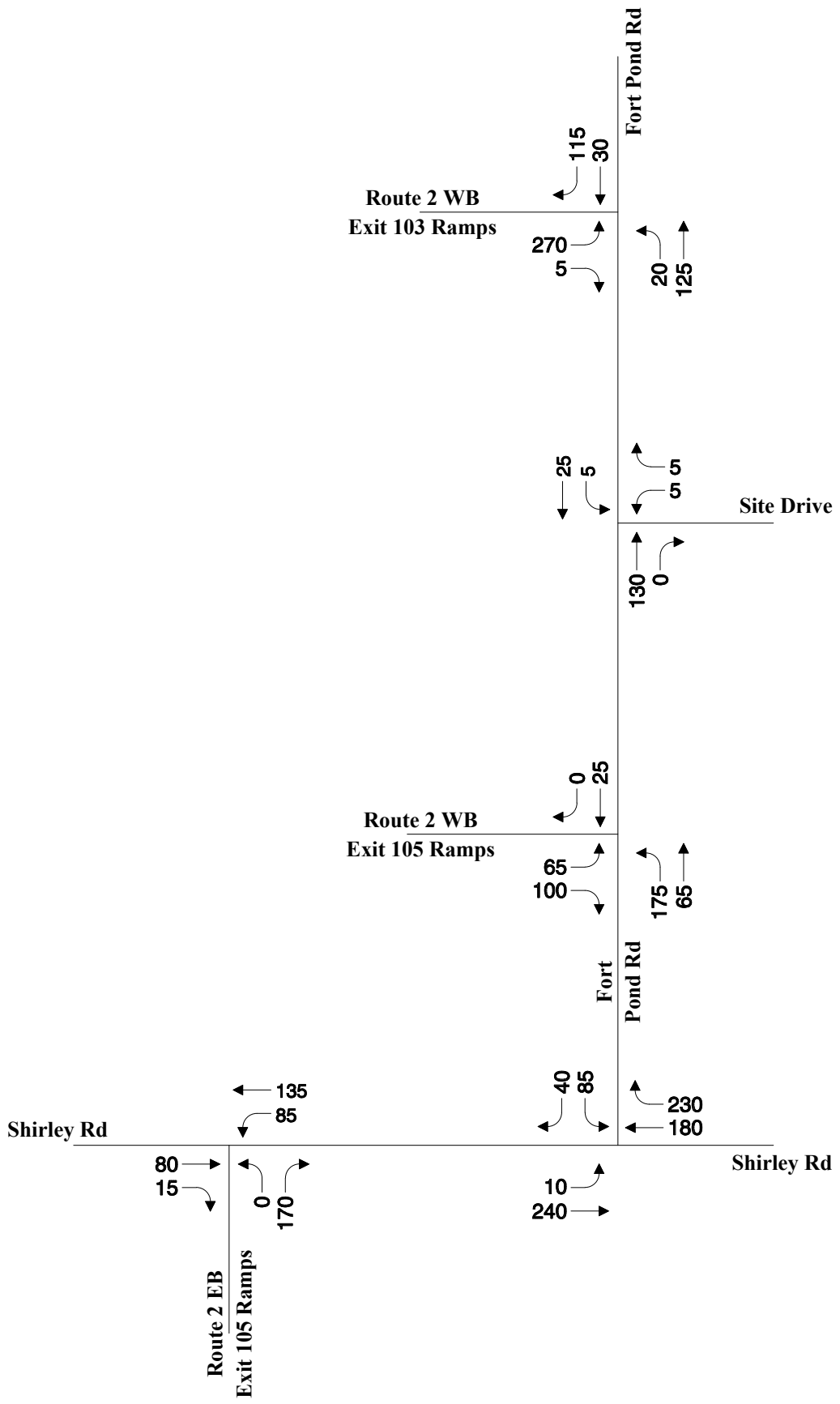


➔
Not to Scale



2021 Existing
Weekday Morning
Peak Hour Traffic Volumes

Figure 2

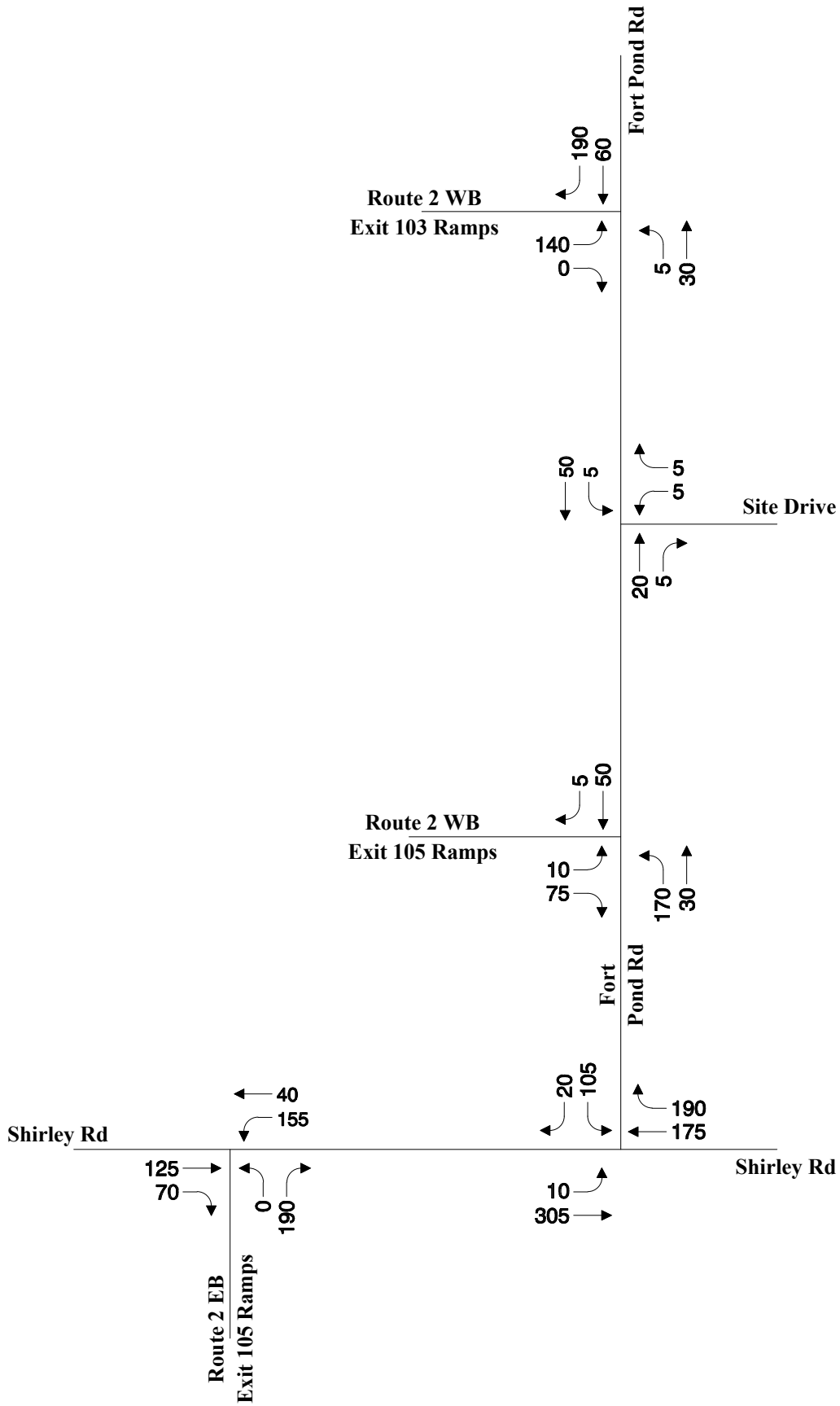


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Not to Scale



2021 Existing
Weekday Evening
Peak Hour Traffic Volumes

Figure 3

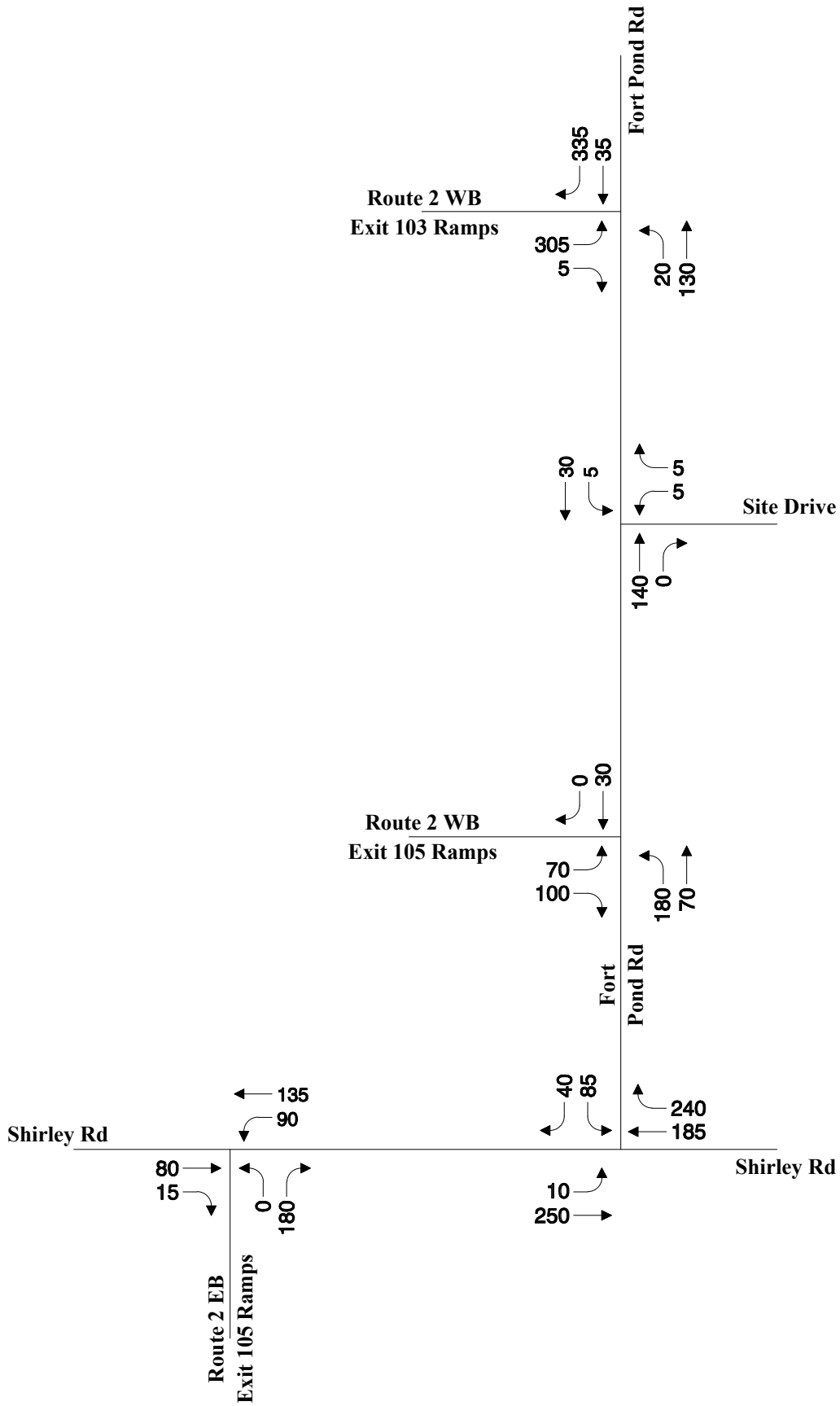


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Not to Scale



2028 No-Build
Weekday Morning
Peak Hour Traffic Volumes

Figure 4

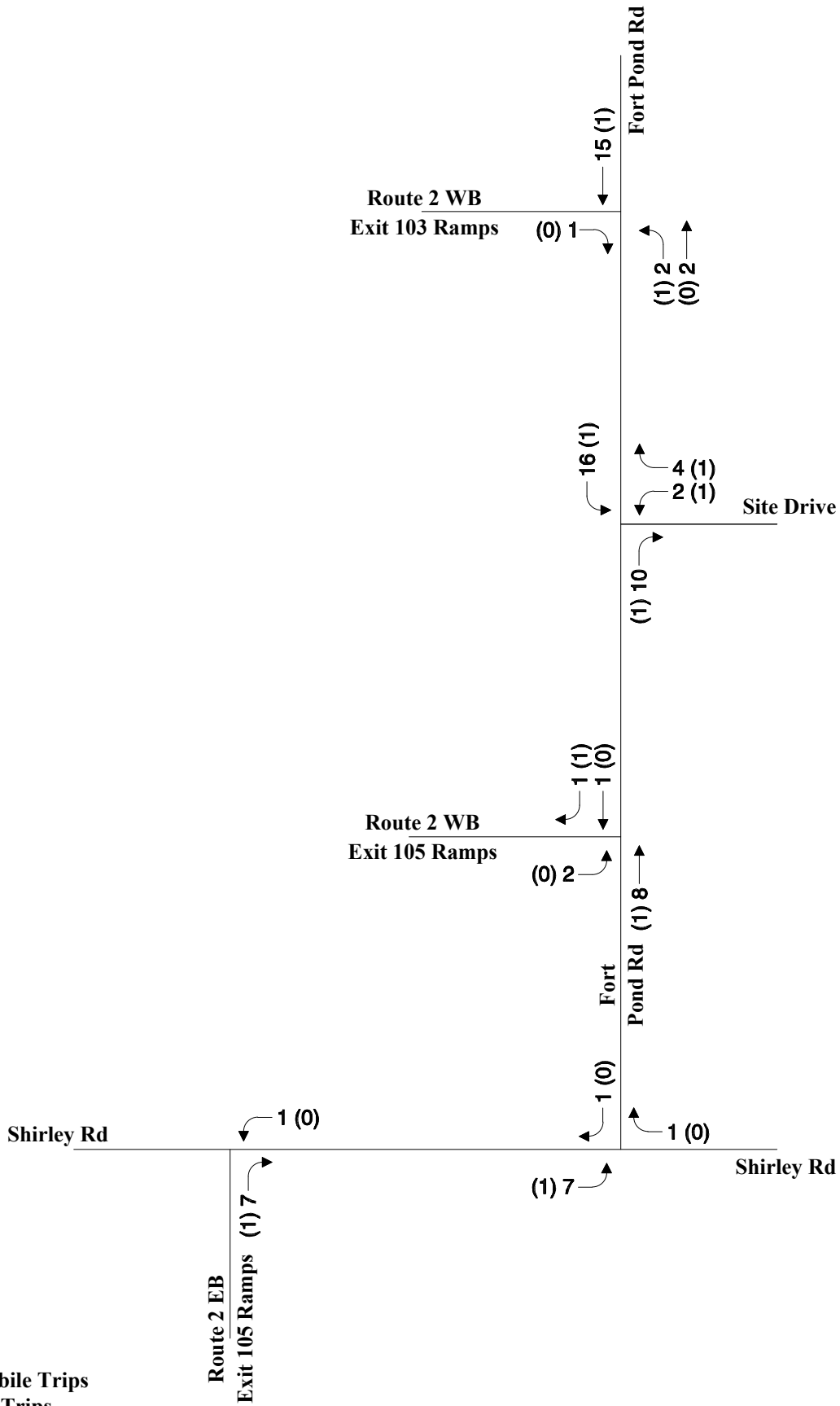


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Not to Scale



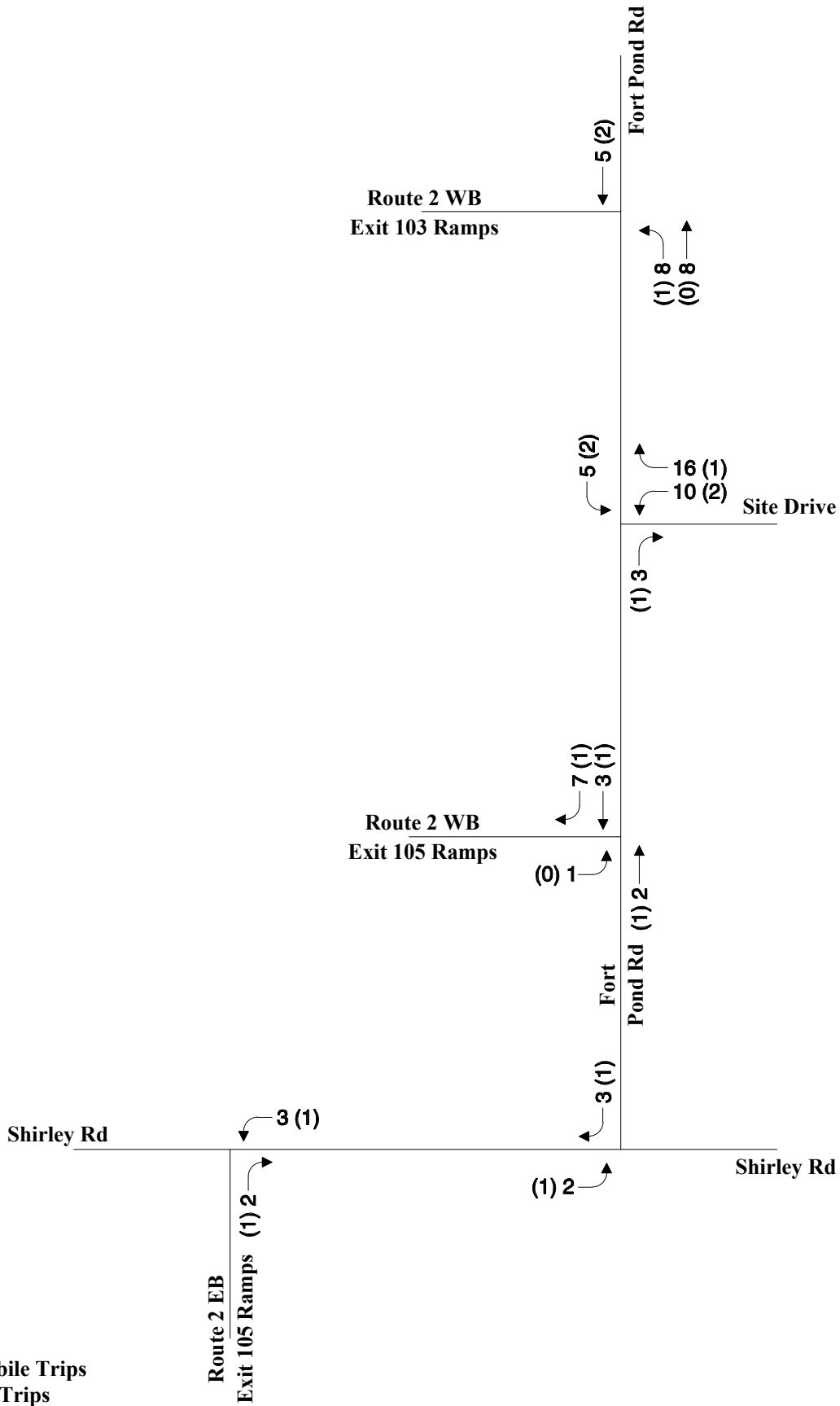
2028 No-Build
Weekday Evening
Peak Hour Traffic Volumes

Figure 5



Site Generated Trips
 Weekday Morning
 Peak Hour Traffic Volumes

Figure 6

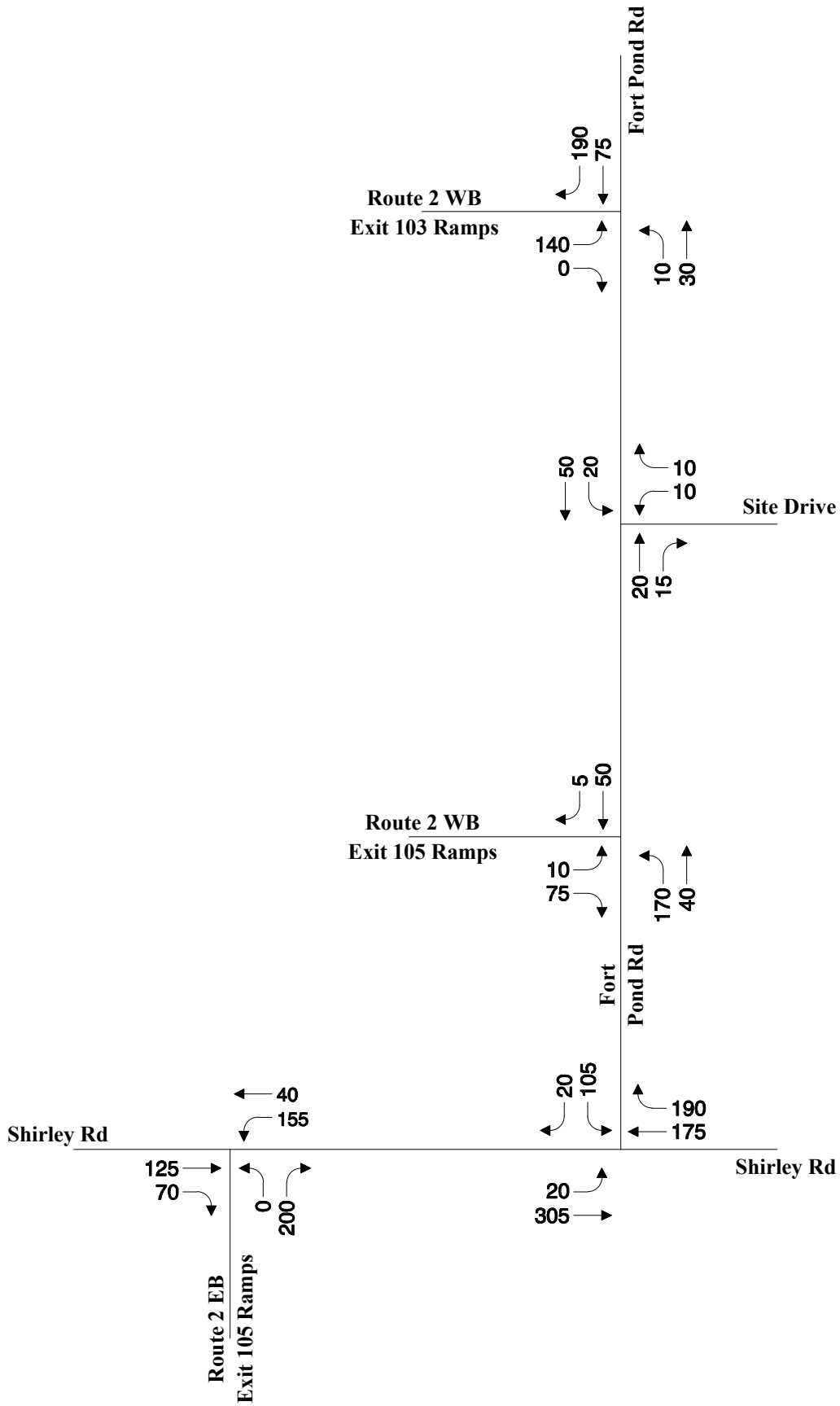


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Not to Scale



Site Generated Trips
 Weekday Evening
 Peak Hour Traffic Volumes

Figure 7

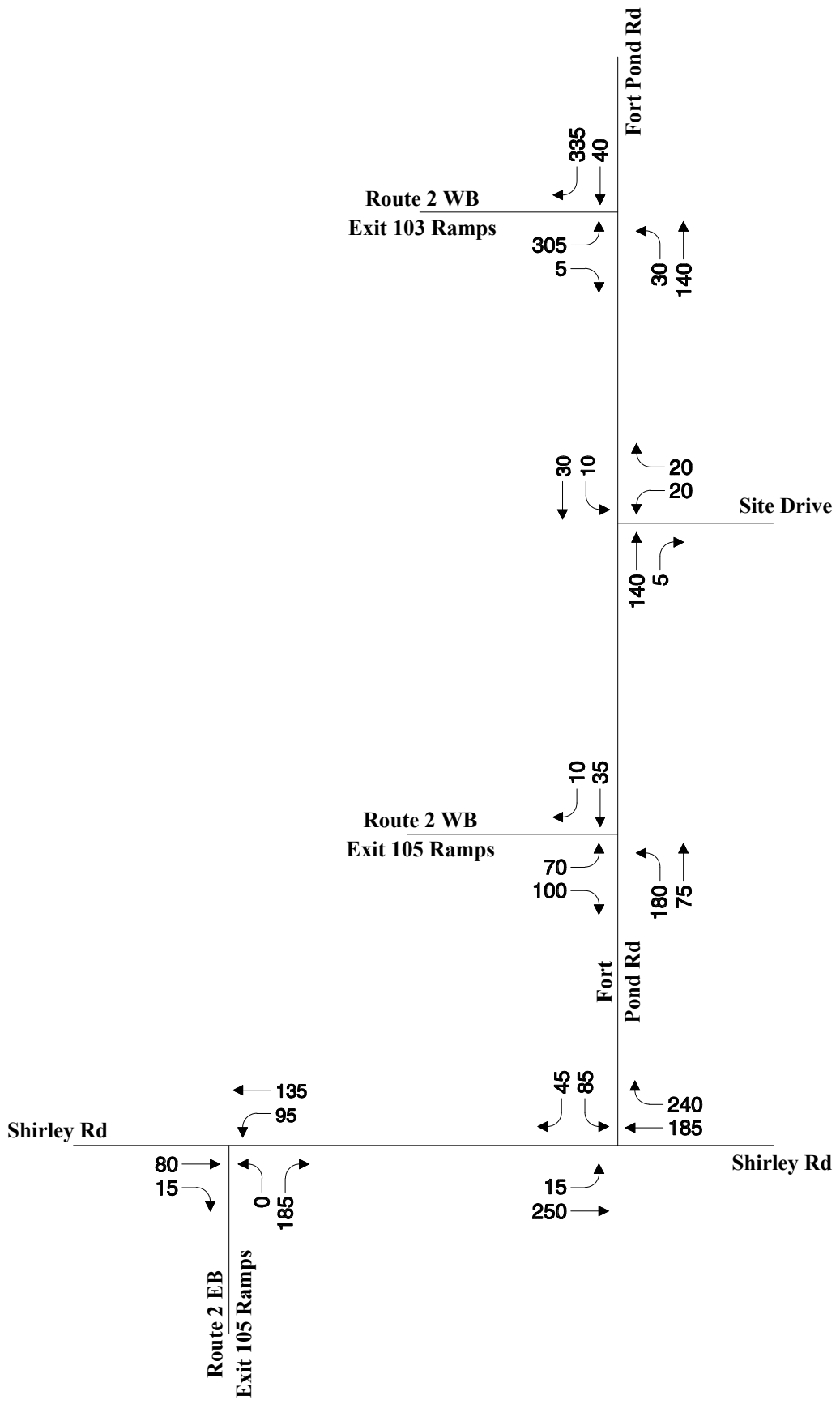


➔
Not to Scale



2028 Build
Weekday Morning
Peak Hour Traffic Volumes

Figure 8



➔
Not to Scale



2028 Build
Weekday Evening
Peak Hour Traffic Volumes

Figure 9

Appendices

Site Layout Plan

Traffic Count Data

Existing Traffic-Volume Adjustment Data

Crash Data

Future Traffic-Volume Adjustment Data

Trip-Generation Calculations

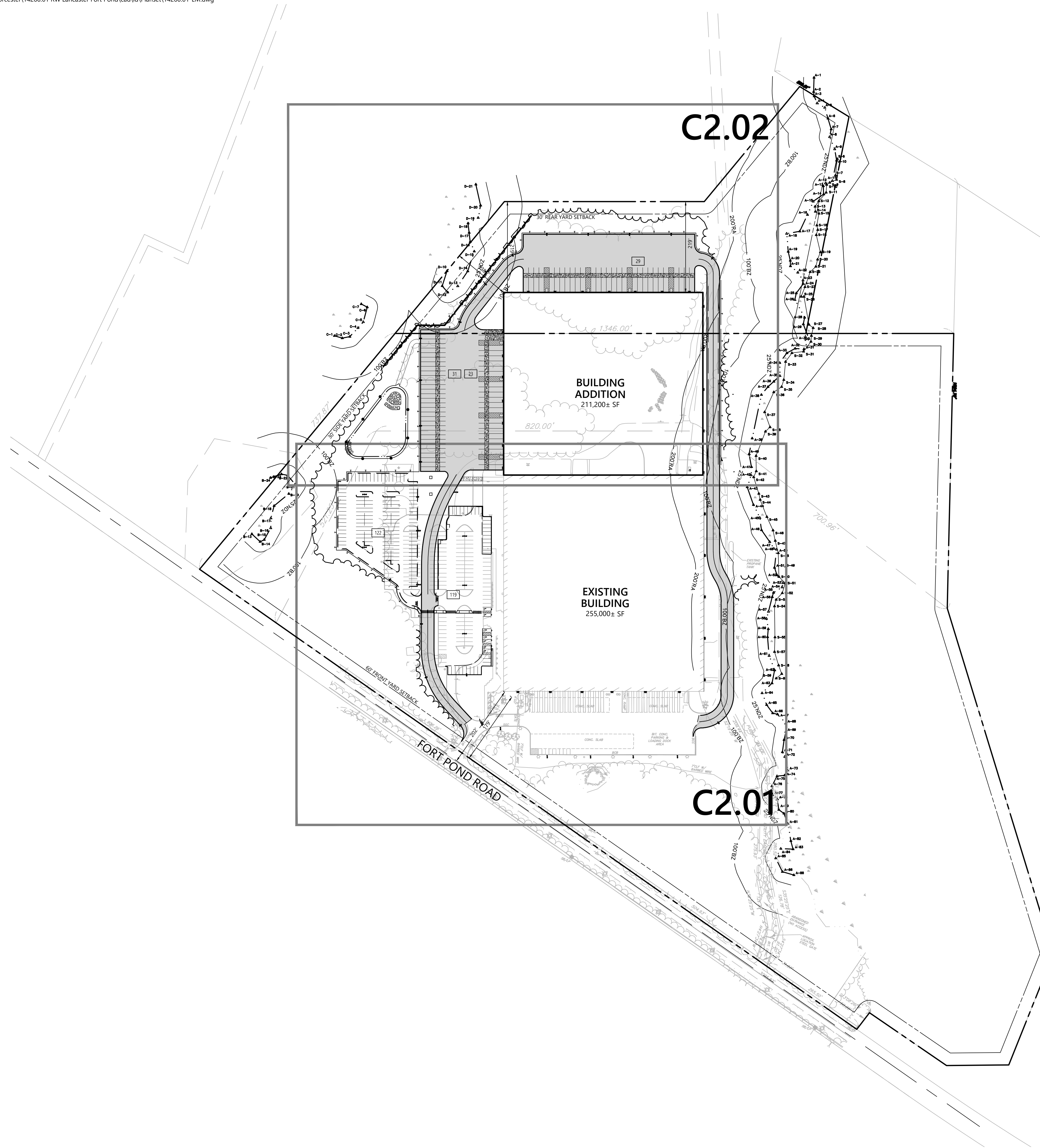
Vehicle Speed Data

Capacity and Queue Analysis Worksheets

Site Layout Plan



120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001



Zoning Summary Chart ¹

Zoning District(S):	EZ-A District Enterprise District		
Overlay District(S):	Wireless Communications District Solar District Water Resource District		
Zoning Regulation Requirements	Required*	Existing	Provided
MINIMUM LOT AREA	64,000 SF	2,178,715 SF	2,516,897 SF ²
MINIMUM LOT FRONTAGE	225.0 Feet	+/- 1,933 Feet	+/- 1,933 Feet
LOT SHAPE MAXIMUM ³	75,506,910 SF	65,361,450 SF	51,887,531 SF
MINIMUM FRONT SETBACK ⁴	60 Feet	202.0 Feet	202.0 Feet
MINIMUM SIDE SETBACK	30 Feet	428.9 Feet	138.7 Feet
MINIMUM REAR SETBACK	30 Feet	344.8 Feet	219.0 Feet
MAXIMUM BUILDING HEIGHT	40 Feet	40 Feet	40 Feet
MAXIMUM IMPERVIOUS ⁵	15.0 %	27.0 %	32.7 %

- ZONING REQUIREMENTS AS SPECIFIED ARE BASED ON TOWN OF LANCASTER ZONING BY-LAWS AS FOUND ONLINE.
- PROVIDED LOT AREA ASSUMES THE ADDITIONAL 7.78 ACRES OF LAND AS SHOWN ON ATTACHED PRELIMINARY APPROVAL NOT REQUIRED PLAN.
- THE SQUARE OF THE PERIMETER CANNOT EXCEED 30 TIMES THE LOT AREA.
REQUIRED: $30 \times 2,516,897 \text{ S.F.} = 75,506,910 \text{ S.F.}$
EXISTING: $30 \times 2,178,715 \text{ S.F.} = 65,361,450 \text{ S.F.}$
PROVIDED: $(7,203.3 \text{ FT})^2 = 51,887,531 \text{ S.F.}$
- FRONT YARD SETBACK IS TO BE MEASURED FROM THE STREET CENTER LINE. FORT POND ROAD IS A COLLECTOR STREET THEREFORE THE 60-FOOT SETBACK APPLIES.
- PURSUANT TO LANCASTER PLANNING BOARD CERTIFICATE OF APPROVAL - SPECIAL PERMIT APPLICATION ISSUED JUNE 14, 2010 AND RECORDED WITH THE WORCESTER REGISTRY DISTRICT OF THE LAND COURT AS DOCUMENT NO. 98704 IMPERVIOUS COVERAGE OF 27% WAS ALLOWED ON THE 37.55 ACRE PORTION OF THE EXISTING SITE OWNED BY THE APPLICANT (I.E. LOT 1 ON THE EXISTING CONDITIONS PLAN). THE PROPOSED IMPERVIOUS COVERAGE IS A RESULT OF ADDING THE 12.45 ACRE PORTION OF THE EXISTING SITE OWNED BY THE APPLICANT (I.E. LOT 2 ON THE EXISTING CONDITIONS PLAN) AND THE 7.78 ACRE PORTION OF THE FORT POND ROAD PARCEL TO THE OVERALL PROPERTY FOR A TOTAL OF 57.8 ACRES AS THE DENOMINATOR, AND ADDING THE NEW IMPERVIOUS AREAS FOR THE PROJECT TO THE EXISTING IMPERVIOUS AREAS FOR TOTAL OF 18.9 ACRES AS THE NUMERATOR. THE OWNER MUST AMEND AN EXISTING 2010 SPECIAL PERMIT FROM THE PLANNING BOARD ALLOWING GREATER THAN 15% IMPERVIOUS COVERAGE IN THE WATER RESOURCE DISTRICT.

Parking Summary Chart

Description	Size		Spaces		
	Required	Provided	Existing	Required	Provided
STANDARD SPACES ¹	9 x 20	9 x 20	144	1554	112
STANDARD ACCESSIBLE SPACES ²	9 x 20	9 x 20	3	5	5
VAN ACCESSIBLE SPACES	9 x 20	9 x 20	1	2	2
LAND BANKED	9 x 20	9 x 20	-	-	122
TOTAL SPACES			148	1,561	241

- UNDER SECTION 220-23 OF THE BYLAW, THE PARKING RATIO MAY BE REDUCED BY THE PLANNING BOARD IF THEY DETERMINE "A LESSE NUMBER WOULD BE ADEQUATE FOR ALL PARKING NEEDS"
- ADA/STATE/LOCAL REQUIREMENTS

Parking Requirements:

MANUFACTURING, PROCESSING, ASSEMBLY, PACKAGING, STORAGE ¹	466,200 SF	x	1 SPACES / 300	=	1554 SPACES
TOTAL PARKING REQUIRED = 1554 SPACES					

- FOR MANUFACTURING, PROCESSING, ASSEMBLY, PACKAGING, AND STORAGE USES, THE BYLAW REQUIRES 1 PARKING SPACE PER 250 S.F. OF GROSS FLOOR AREA OF OFFICES, OR 300 S.F. OF PRODUCTION AREA, OR 2,000 S.F. OF STORAGE AREA, BUT CAPABLE OF EXPANSION TO NOT FEWER THAN ONE SPACE PER 300 S.F. OF GROSS FLOOR AREA.

Sign Summary

M.U.T.C.D. Number	Specification		Desc.
	Width	Height	
R1-1	30"	30"	
R7-8	12"	18"	
R7-BP	12"	6"	

Notes

- ANY AND ALL EXISTING MONITORING WELLS, AND ACCESS TO THEM, SHALL BE MAINTAINED WITHIN THE EXISTING DRAINAGE EASEMENT AT THE WEST PROPERTY LINE.



Fort Pond Building Expansion
580 Fort Pond Road
Lancaster, Massachusetts

No.	Revision	Date	Appr.

Designed by: CPM
Checked by: BMG
Issued for: _____
Date: _____

Local Approvals Oct 29, 2021

Not Approved for Construction

Drawing Title
Layout and Materials Plan

Drawing Number

C2.00

Sheet **2** of **20**

Project Number
14260.01

Traffic Count Data



PRECISION
D A T A
INDUSTRIES, LLC

157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Fort Pond Road
west of #580 Driveway
City, State: Lancaster, MA
Client: VHB/ J. Plourde
Site Code: 14260.01

PDI File #: 218148 ATR-A

Count Date:
Wednesday, September, 08, 2021

Volume

EB					WB					Combined							
Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min			
12:00 AM	0		12:00 PM	9	12:00 AM	0		12:00 PM	9	12:00 AM	0		12:00 PM	18			
12:15 AM	0		12:15 PM	6	12:15 AM	0		12:15 PM	4	12:15 AM	0		12:15 PM	10			
12:30 AM	1		12:30 PM	8	12:30 AM	0		12:30 PM	13	12:30 AM	1		12:30 PM	21			
12:45 AM	0	1	12:45 PM	6	29	12:45 AM	0	0	12:45 PM	9	35	12:45 AM	0	1	12:45 PM	15	64
1:00 AM	0		1:00 PM	4		1:00 AM	1		1:00 PM	11		1:00 AM	1		1:00 PM	15	
1:15 AM	1		1:15 PM	4		1:15 AM	0		1:15 PM	8		1:15 AM	1		1:15 PM	12	
1:30 AM	0		1:30 PM	6		1:30 AM	0		1:30 PM	10		1:30 AM	0		1:30 PM	16	
1:45 AM	0	1	1:45 PM	7	21	1:45 AM	0	1	1:45 PM	10	39	1:45 AM	0	2	1:45 PM	17	60
2:00 AM	0		2:00 PM	8		2:00 AM	1		2:00 PM	13		2:00 AM	1		2:00 PM	21	
2:15 AM	1		2:15 PM	14		2:15 AM	0		2:15 PM	6		2:15 AM	1		2:15 PM	20	
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2:45 AM	1	2	2:45 PM	6	35	2:45 AM	2	3	2:45 PM	19	62	2:45 AM	3	5	2:45 PM	25	97
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7:45 AM	14	43	7:45 PM	1	5	7:45 AM	5	15	7:45 PM	6	14	7:45 AM	19	58	7:45 PM	7	19
8:00 AM	11		8:00 PM	2		8:00 AM	8		8:00 PM	2		8:00 AM	19		8:00 PM	4	
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8:30 AM	6		8:30 PM	0		8:30 AM	10		8:30 PM	0		8:30 AM	16		8:30 PM	0	
8:45 AM	5	33	8:45 PM	0	3	8:45 AM	7	27	8:45 PM	2	4	8:45 AM	12	60	8:45 PM	2	7
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11:30 AM	10		11:30 PM	0		11:30 AM	15		11:30 PM	1		11:30 AM	25		11:30 PM	1	
11:45 AM	11	32	11:45 PM	0	2	11:45 AM	11	46	11:45 PM	0	3	11:45 AM	22	78	11:45 PM	0	5
Total	239		172		Total	191		478		Total	430		650				
Percent	58.15%		41.85%		Percent	28.55%		71.45%		Percent	39.81%		60.19%				
Day Total			411		Day Total			669		Day Total			1080				
Peak Hour	7:30 AM		1:45 PM		Peak Hour	11:15 AM		4:00 PM		Peak Hour	11:15 AM		3:45 PM				
Volume	49		36		Volume	47		113		Volume	81		135				
P.H.F.	0.875		0.643		P.H.F.	0.783		0.911		P.H.F.	0.810		0.888				



Fort Pond Road
west of #580 Driveway
City, State: Lancaster, MA
Client: VHB/ J. Plourde
Site Code: 14260.01

PDI File #: 218148 ATR-A

Count Date:
Thursday, September 9, 2021

Volume

EB					WB					Combined							
Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min	Start Time:	15 min	60 min	15 min	60 min			
12:00 AM	0		12:00 PM	6	12:00 AM	1		12:00 PM	8	12:00 AM	1		12:00 PM	14			
12:15 AM	1		12:15 PM	7	12:15 AM	1		12:15 PM	9	12:15 AM	2		12:15 PM	16			
12:30 AM	0		12:30 PM	7	12:30 AM	0		12:30 PM	8	12:30 AM	0		12:30 PM	15			
12:45 AM	0	1	12:45 PM	6	26	12:45 AM	0	2	12:45 PM	11	36	12:45 AM	0	3	12:45 PM	17	62
1:00 AM	0		1:00 PM	5		1:00 AM	1		1:00 PM	8		1:00 AM	1		1:00 PM	13	
1:15 AM	0		1:15 PM	6		1:15 AM	0		1:15 PM	8		1:15 AM	0		1:15 PM	14	
1:30 AM	0		1:30 PM	2		1:30 AM	0		1:30 PM	12		1:30 AM	0		1:30 PM	14	
1:45 AM	1	1	1:45 PM	7	20	1:45 AM	0	1	1:45 PM	15	43	1:45 AM	1	2	1:45 PM	22	63
2:00 AM	0		2:00 PM	12		2:00 AM	0		2:00 PM	15		2:00 AM	0		2:00 PM	27	
2:15 AM	0		2:15 PM	9		2:15 AM	1		2:15 PM	12		2:15 AM	1		2:15 PM	21	
2:30 AM	0		2:30 PM	5		2:30 AM	2		2:30 PM	24		2:30 AM	2		2:30 PM	29	
2:45 AM	0	0	2:45 PM	8	34	2:45 AM	0	3	2:45 PM	18	69	2:45 AM	0	3	2:45 PM	26	103
3:00 AM	0		3:00 PM	12		3:00 AM	1		3:00 PM	30		3:00 AM	1		3:00 PM	42	
3:15 AM	0		3:15 PM	7		3:15 AM	4		3:15 PM	10		3:15 AM	4		3:15 PM	17	
3:30 AM	1		3:30 PM	7		3:30 AM	0		3:30 PM	18		3:30 AM	1		3:30 PM	25	
3:45 AM	0	1	3:45 PM	5	31	3:45 AM	0	5	3:45 PM	19	77	3:45 AM	0	6	3:45 PM	24	108
4:00 AM	0		4:00 PM	6		4:00 AM	2		4:00 PM	26		4:00 AM	2		4:00 PM	32	
4:15 AM	0		4:15 PM	6		4:15 AM	1		4:15 PM	26		4:15 AM	1		4:15 PM	32	
4:30 AM	2		4:30 PM	1		4:30 AM	1		4:30 PM	33		4:30 AM	3		4:30 PM	34	
4:45 AM	6	8	4:45 PM	2	15	4:45 AM	1	5	4:45 PM	19	104	4:45 AM	7	13	4:45 PM	21	119
5:00 AM	8		5:00 PM	2		5:00 AM	0		5:00 PM	23		5:00 AM	8		5:00 PM	25	
5:15 AM	7		5:15 PM	2		5:15 AM	3		5:15 PM	21		5:15 AM	10		5:15 PM	23	
5:30 AM	7		5:30 PM	3		5:30 AM	0		5:30 PM	16		5:30 AM	7		5:30 PM	19	
5:45 AM	10	32	5:45 PM	4	11	5:45 AM	3	6	5:45 PM	12	72	5:45 AM	13	38	5:45 PM	16	83
6:00 AM	9		6:00 PM	3		6:00 AM	6		6:00 PM	9		6:00 AM	15		6:00 PM	12	
6:15 AM	5		6:15 PM	1		6:15 AM	5		6:15 PM	10		6:15 AM	10		6:15 PM	11	
6:30 AM	14		6:30 PM	2		6:30 AM	2		6:30 PM	10		6:30 AM	16		6:30 PM	12	
6:45 AM	9	37	6:45 PM	1	7	6:45 AM	4	17	6:45 PM	8	37	6:45 AM	13	54	6:45 PM	9	44
7:00 AM	11		7:00 PM	0		7:00 AM	4		7:00 PM	5		7:00 AM	15		7:00 PM	5	
7:15 AM	14		7:15 PM	1		7:15 AM	8		7:15 PM	3		7:15 AM	22		7:15 PM	4	
7:30 AM	12		7:30 PM	1		7:30 AM	5		7:30 PM	2		7:30 AM	17		7:30 PM	3	
7:45 AM	15	52	7:45 PM	2	4	7:45 AM	7	24	7:45 PM	3	13	7:45 AM	22	76	7:45 PM	5	17
8:00 AM	5		8:00 PM	3		8:00 AM	4		8:00 PM	2		8:00 AM	9		8:00 PM	5	
8:15 AM	7		8:15 PM	0		8:15 AM	6		8:15 PM	2		8:15 AM	13		8:15 PM	2	
8:30 AM	5		8:30 PM	1		8:30 AM	3		8:30 PM	1		8:30 AM	8		8:30 PM	2	
8:45 AM	4	21	8:45 PM	1	5	8:45 AM	4	17	8:45 PM	1	6	8:45 AM	8	38	8:45 PM	2	11
9:00 AM	4		9:00 PM	1		9:00 AM	6		9:00 PM	0		9:00 AM	10		9:00 PM	1	
9:15 AM	2		9:15 PM	1		9:15 AM	10		9:15 PM	0		9:15 AM	12		9:15 PM	1	
9:30 AM	6		9:30 PM	3		9:30 AM	12		9:30 PM	1		9:30 AM	18		9:30 PM	4	
9:45 AM	4	16	9:45 PM	2	7	9:45 AM	2	30	9:45 PM	2	3	9:45 AM	6	46	9:45 PM	4	10
10:00 AM	6		10:00 PM	3		10:00 AM	6		10:00 PM	3		10:00 AM	12		10:00 PM	6	
10:15 AM	7		10:15 PM	0		10:15 AM	9		10:15 PM	0		10:15 AM	16		10:15 PM	0	
10:30 AM	4		10:30 PM	0		10:30 AM	8		10:30 PM	3		10:30 AM	12		10:30 PM	3	
10:45 AM	4	21	10:45 PM	1	4	10:45 AM	7	30	10:45 PM	2	8	10:45 AM	11	51	10:45 PM	3	12
11:00 AM	7		11:00 PM	1		11:00 AM	4		11:00 PM	10		11:00 AM	11		11:00 PM	11	
11:15 AM	3		11:15 PM	1		11:15 AM	10		11:15 PM	2		11:15 AM	13		11:15 PM	3	
11:30 AM	5		11:30 PM	0		11:30 AM	8		11:30 PM	0		11:30 AM	13		11:30 PM	0	
11:45 AM	7	22	11:45 PM	0	2	11:45 AM	17	39	11:45 PM	1	13	11:45 AM	24	61	11:45 PM	1	15
Total	212		166			Total	179		481			Total	391		647		
Percent	56.08%		43.92%			Percent	27.12%		72.88%			Percent	37.67%		62.33%		
Day Total			378			Day Total			660			Day Total			1038		
Peak Hour	7:00 AM		2:00 PM			Peak Hour	11:15 AM		3:45 PM			Peak Hour	7:00 AM		3:45 PM		
Volume	52		34			Volume	43		104			Volume	76		122		
P.H.F.	0.867		0.708			P.H.F.	0.632		0.788			P.H.F.	0.864		0.897		

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Wednesday, September, 08, 2021

Classification (60-minute)

EB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	8	1	0	0	0	0	0	1	0	0	0	0	0	10
5:00 AM	0	23	2	0	7	0	0	0	1	0	0	0	0	0	33
6:00 AM	1	18	8	1	8	0	0	0	3	0	0	0	0	0	39
7:00 AM	0	26	6	1	8	0	0	1	1	0	0	0	0	0	43
8:00 AM	2	13	7	0	7	0	3	0	1	0	0	0	0	0	33
9:00 AM	0	13	6	0	5	1	2	0	1	1	0	0	0	0	29
10:00 AM	0	6	6	1	3	0	0	0	0	0	0	0	0	0	16
11:00 AM	1	17	3	1	3	3	1	2	1	0	0	0	0	0	32
12:00 PM	0	16	7	0	4	1	0	0	1	0	0	0	0	0	29
1:00 PM	0	11	5	0	5	0	0	0	0	0	0	0	0	0	21
2:00 PM	0	19	8	1	6	0	0	1	0	0	0	0	0	0	35
3:00 PM	1	6	4	1	5	1	0	0	3	0	0	0	0	0	21
4:00 PM	0	11	4	2	3	0	0	0	1	0	0	0	0	0	21
5:00 PM	1	3	3	0	1	1	0	0	2	0	0	0	0	0	11
6:00 PM	1	4	3	0	1	0	0	0	0	0	0	0	0	0	9
7:00 PM	0	3	1	0	0	0	0	0	1	0	0	0	0	0	5
8:00 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
9:00 PM	0	6	2	0	0	0	0	0	0	0	0	0	0	0	8
10:00 PM	0	4	0	0	2	0	0	0	1	0	0	0	0	0	7
11:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
Total	7	213	79	8	68	7	6	4	18	1	0	0	0	0	411
Percent	1.70%	51.82%	19.22%	1.95%	16.55%	1.70%	1.46%	0.97%	4.38%	0.24%	0.00%	0.00%	0.00%	0.00%	

AM Peak	8:00 AM	7:00 AM	6:00 AM	6:00 AM	6:00 AM	11:00 AM	8:00 AM	11:00 AM	6:00 AM	9:00 AM					7:00 AM
Volume	2	26	8	1	8	3	3	2	3	1	0	0	0	0	43

PM Peak	3:00 PM	2:00 PM	2:00 PM	4:00 PM	2:00 PM	12:00 PM		2:00 PM	3:00 PM						2:00 PM
Volume	1	19	8	2	6	1	0	1	3	0	0	0	0	0	35

Bicycles	0	0.0%
Motorcycles, Cars, Light Trucks:	299	72.7%
Heavy Vehicles:	112	27.3%

Fort Pond Road
west of #580 Driveway
City, State: Lancaster, MA
Client: VHB/ J. Plourde
Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
Wednesday, September, 08, 2021

Classification (60-minute)

WB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	1	0	0	1	0	0	0	0	1	0	0	0	0	3
5:00 AM	0	5	1	0	0	0	0	0	1	0	0	0	0	0	7
6:00 AM	0	10	4	3	4	1	0	1	2	0	0	0	0	0	25
7:00 AM	0	8	3	1	1	1	0	0	1	0	0	0	0	0	15
8:00 AM	0	12	4	2	4	4	0	1	0	0	0	0	0	0	27
9:00 AM	0	14	8	0	3	2	0	0	3	0	0	0	0	0	30
10:00 AM	0	9	14	3	4	0	0	0	0	0	0	0	0	0	30
11:00 AM	0	22	8	3	5	5	0	2	1	0	0	0	0	0	46
12:00 PM	0	21	5	0	4	3	0	0	2	0	0	0	0	0	35
1:00 PM	0	21	8	0	8	1	0	0	1	0	0	0	0	0	39
2:00 PM	1	41	8	4	7	0	0	0	1	0	0	0	0	0	62
3:00 PM	0	62	22	2	13	1	0	3	2	0	0	0	0	0	105
4:00 PM	0	73	22	2	15	1	0	0	0	0	0	0	0	0	113
5:00 PM	1	33	7	0	9	0	0	0	0	0	0	0	0	0	50
6:00 PM	0	22	7	0	0	1	0	0	0	0	0	0	0	0	30
7:00 PM	0	10	2	1	1	0	0	0	0	0	0	0	0	0	14
8:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
9:00 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
10:00 PM	1	15	2	0	0	0	1	0	0	0	0	0	0	0	19
11:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	0	0	3
PM Total	3	395	125	21	82	20	1	7	14	1	0	0	0	0	669
Percent	0.45%	59.04%	18.68%	3.14%	12.26%	2.99%	0.15%	1.05%	2.09%	0.15%	0.00%	0.00%	0.00%	0.00%	

AM Peak		11:00 AM	10:00 AM	6:00 AM	11:00 AM	11:00 AM		11:00 AM	9:00 AM	4:00 AM					11:00 AM
Volume	0	22	14	3	5	5	0	2	3	1	0	0	0	0	46

PM Peak	2:00 PM	4:00 PM	3:00 PM	2:00 PM	4:00 PM	12:00 PM	10:00 PM	3:00 PM	12:00 PM						4:00 PM
Volume	1	73	22	4	15	3	1	3	2	0	0	0	0	0	113

Bicycles	0	0.0%
Motorcycles, Cars, Light Trucks:	523	78.2%
Heavy Vehicles:	146	21.8%

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Wednesday, September, 08, 2021

Classification (60-minute)

Combined															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
3:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	9	1	0	1	0	0	0	1	1	0	0	0	0	13
5:00 AM	0	28	3	0	7	0	0	0	2	0	0	0	0	0	40
6:00 AM	1	28	12	4	12	1	0	1	5	0	0	0	0	0	64
7:00 AM	0	34	9	2	9	1	0	1	2	0	0	0	0	0	58
8:00 AM	2	25	11	2	11	4	3	1	1	0	0	0	0	0	60
9:00 AM	0	27	14	0	8	3	2	0	4	1	0	0	0	0	59
10:00 AM	0	15	20	4	7	0	0	0	0	0	0	0	0	0	46
11:00 AM	1	39	11	4	8	8	1	4	2	0	0	0	0	0	78
12:00 PM	0	37	12	0	8	4	0	0	3	0	0	0	0	0	64
1:00 PM	0	32	13	0	13	1	0	0	1	0	0	0	0	0	60
2:00 PM	1	60	16	5	13	0	0	1	1	0	0	0	0	0	97
3:00 PM	1	68	26	3	18	2	0	3	5	0	0	0	0	0	126
4:00 PM	0	84	26	4	18	1	0	0	1	0	0	0	0	0	134
5:00 PM	2	36	10	0	10	1	0	0	2	0	0	0	0	0	61
6:00 PM	1	26	10	0	1	1	0	0	0	0	0	0	0	0	39
7:00 PM	0	13	3	1	1	0	0	0	1	0	0	0	0	0	19
8:00 PM	0	5	1	0	1	0	0	0	0	0	0	0	0	0	7
9:00 PM	0	10	2	0	0	0	0	0	0	0	0	0	0	0	12
10:00 PM	1	19	2	0	2	0	1	0	1	0	0	0	0	0	26
11:00 PM	0	2	1	0	2	0	0	0	0	0	0	0	0	0	5
PM Total	10	608	204	29	150	27	7	11	32	2	0	0	0	0	1080
Percent	0.93%	56.30%	18.89%	2.69%	13.89%	2.50%	0.65%	1.02%	2.96%	0.19%	0.00%	0.00%	0.00%	0.00%	

AM Peak	8:00 AM	11:00 AM	10:00 AM	6:00 AM	6:00 AM	11:00 AM	8:00 AM	11:00 AM	6:00 AM	4:00 AM					11:00 AM
Volume	2	39	20	4	12	8	3	4	5	1	0	0	0	0	78

PM Peak	5:00 PM	4:00 PM	3:00 PM	2:00 PM	3:00 PM	12:00 PM	10:00 PM	3:00 PM	3:00 PM						4:00 PM
Volume	2	84	26	5	18	4	1	3	5	0	0	0	0	0	134

Bicycles	0	0.0%
Motorcycles, Cars, Light Trucks:	822	76.1%
Heavy Vehicles:	258	23.9%

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Thursday, September 9, 2021

Classification (60-minute)

EB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	6	0	0	0	0	0	0	2	0	0	0	0	0	8
5:00 AM	0	25	2	0	4	0	0	0	1	0	0	0	0	0	32
6:00 AM	0	20	7	1	8	1	0	0	0	0	0	0	0	0	37
7:00 AM	0	22	16	2	9	1	0	0	2	0	0	0	0	0	52
8:00 AM	0	5	9	0	4	2	0	0	1	0	0	0	0	0	21
9:00 AM	0	8	3	0	1	1	0	0	3	0	0	0	0	0	16
10:00 AM	0	9	6	1	3	1	0	0	1	0	0	0	0	0	21
11:00 AM	0	7	5	0	8	2	0	0	0	0	0	0	0	0	22
12:00 PM	0	12	4	1	6	1	0	1	1	0	0	0	0	0	26
1:00 PM	0	8	6	1	2	1	0	0	2	0	0	0	0	0	20
2:00 PM	0	19	6	0	4	1	0	2	2	0	0	0	0	0	34
3:00 PM	1	13	7	0	7	0	0	0	3	0	0	0	0	0	31
4:00 PM	0	10	2	0	3	0	0	0	0	0	0	0	0	0	15
5:00 PM	0	8	1	0	1	0	0	0	1	0	0	0	0	0	11
6:00 PM	0	5	1	0	1	0	0	0	0	0	0	0	0	0	7
7:00 PM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
8:00 PM	0	3	1	0	0	1	0	0	0	0	0	0	0	0	5
9:00 PM	0	5	0	0	2	0	0	0	0	0	0	0	0	0	7
10:00 PM	0	3	0	0	0	0	0	0	1	0	0	0	0	0	4
11:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	195	78	6	63	12	0	3	20	0	0	0	0	0	378
Percent	0.26%	51.59%	20.63%	1.59%	16.67%	3.17%	0.00%	0.79%	5.29%	0.00%	0.00%	0.00%	0.00%	0.00%	

AM Peak		5:00 AM	7:00 AM	7:00 AM	7:00 AM	8:00 AM			9:00 AM						7:00 AM
Volume	0	25	16	2	9	2	0	0	3	0	0	0	0	0	52
PM Peak	3:00 PM	2:00 PM	3:00 PM	12:00 PM	3:00 PM	12:00 PM		2:00 PM	3:00 PM						2:00 PM
Volume	1	19	7	1	7	1	0	2	3	0	0	0	0	0	34

Bicycles	0	0.0%
Motorcycles, Cars, Light Trucks:	274	72.5%
Heavy Vehicles:	104	27.5%

Fort Pond Road
west of #580 Driveway
City, State: Lancaster, MA
Client: VHB/ J. Plourde
Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
Thursday, September 9, 2021

Classification (60-minute)

WB															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
4:00 AM	0	3	0	0	1	0	0	1	0	0	0	0	0	0	5
5:00 AM	0	4	0	0	0	0	0	0	2	0	0	0	0	0	6
6:00 AM	0	5	5	2	3	1	0	0	1	0	0	0	0	0	17
7:00 AM	0	11	3	3	2	4	0	0	1	0	0	0	0	0	24
8:00 AM	0	9	5	2	0	1	0	0	0	0	0	0	0	0	17
9:00 AM	0	10	7	1	5	4	1	0	2	0	0	0	0	0	30
10:00 AM	0	10	7	0	6	4	0	0	3	0	0	0	0	0	30
11:00 AM	0	23	7	2	4	2	0	0	1	0	0	0	0	0	39
12:00 PM	0	22	3	1	6	2	0	2	0	0	0	0	0	0	36
1:00 PM	1	22	8	0	6	2	0	2	2	0	0	0	0	0	43
2:00 PM	0	38	14	2	10	2	0	1	2	0	0	0	0	0	69
3:00 PM	0	51	14	2	8	0	0	1	1	0	0	0	0	0	77
4:00 PM	0	61	24	0	16	2	0	0	1	0	0	0	0	0	104
5:00 PM	0	52	11	1	8	0	0	0	0	0	0	0	0	0	72
6:00 PM	1	26	7	0	3	0	0	0	0	0	0	0	0	0	37
7:00 PM	0	7	4	0	2	0	0	0	0	0	0	0	0	0	13
8:00 PM	0	5	0	0	1	0	0	0	0	0	0	0	0	0	6
9:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
10:00 PM	0	7	1	0	0	0	0	0	0	0	0	0	0	0	8
11:00 PM	0	11	1	0	1	0	0	0	0	0	0	0	0	0	13
PM Total	2	388	122	16	84	24	1	7	16	0	0	0	0	0	660
Percent	0.30%	58.79%	18.48%	2.42%	12.73%	3.64%	0.15%	1.06%	2.42%	0.00%	0.00%	0.00%	0.00%	0.00%	

AM Peak		11:00 AM	9:00 AM	7:00 AM	10:00 AM	7:00 AM	9:00 AM	4:00 AM	10:00 AM						11:00 AM
Volume	0	23	7	3	6	4	1	1	3	0	0	0	0	0	39
PM Peak	1:00 PM	4:00 PM	4:00 PM	2:00 PM	4:00 PM	12:00 PM		12:00 PM	1:00 PM						4:00 PM
Volume	1	61	24	2	16	2	0	2	2	0	0	0	0	0	104

Bicycles	0	0.0%
Motorcycles, Cars, Light Trucks:	512	77.6%
Heavy Vehicles:	148	22.4%

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Thursday, September 9, 2021

Classification (60-minute)

Combined															
Start Time:	Motorcycles	Cars and Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Bicycles	Total
12:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
3:00 AM	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
4:00 AM	0	9	0	0	1	0	0	1	2	0	0	0	0	0	13
5:00 AM	0	29	2	0	4	0	0	0	3	0	0	0	0	0	38
6:00 AM	0	25	12	3	11	2	0	0	1	0	0	0	0	0	54
7:00 AM	0	33	19	5	11	5	0	0	3	0	0	0	0	0	76
8:00 AM	0	14	14	2	4	3	0	0	1	0	0	0	0	0	38
9:00 AM	0	18	10	1	6	5	1	0	5	0	0	0	0	0	46
10:00 AM	0	19	13	1	9	5	0	0	4	0	0	0	0	0	51
11:00 AM	0	30	12	2	12	4	0	0	1	0	0	0	0	0	61
12:00 PM	0	34	7	2	12	3	0	3	1	0	0	0	0	0	62
1:00 PM	1	30	14	1	8	3	0	2	4	0	0	0	0	0	63
2:00 PM	0	57	20	2	14	3	0	3	4	0	0	0	0	0	103
3:00 PM	1	64	21	2	15	0	0	1	4	0	0	0	0	0	108
4:00 PM	0	71	26	0	19	2	0	0	1	0	0	0	0	0	119
5:00 PM	0	60	12	1	9	0	0	0	1	0	0	0	0	0	83
6:00 PM	1	31	8	0	4	0	0	0	0	0	0	0	0	0	44
7:00 PM	0	10	5	0	2	0	0	0	0	0	0	0	0	0	17
8:00 PM	0	8	1	0	1	1	0	0	0	0	0	0	0	0	11
9:00 PM	0	8	0	0	2	0	0	0	0	0	0	0	0	0	10
10:00 PM	0	10	1	0	0	0	0	0	1	0	0	0	0	0	12
11:00 PM	0	13	1	0	1	0	0	0	0	0	0	0	0	0	15
PM Total	3	583	200	22	147	36	1	10	36	0	0	0	0	0	1038
Percent	0.29%	56.17%	19.27%	2.12%	14.16%	3.47%	0.10%	0.96%	3.47%	0.00%	0.00%	0.00%	0.00%	0.00%	

AM Peak		7:00 AM	7:00 AM	7:00 AM	11:00 AM	7:00 AM	9:00 AM	4:00 AM	9:00 AM						7:00 AM
Volume	0	33	19	5	12	5	1	1	5	0	0	0	0	0	76

PM Peak	1:00 PM	4:00 PM	4:00 PM	12:00 PM	4:00 PM	12:00 PM		12:00 PM	1:00 PM						4:00 PM
Volume	1	71	26	2	19	3	0	3	4	0	0	0	0	0	119

Bicycles	0	0.0%
Motorcycles, Cars, Light Trucks:	786	75.7%
Heavy Vehicles:	252	24.3%

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	3	2	0	5	0	27	0	27	15	7	0	22	54
7:15 AM	4	0	0	4	0	15	0	15	25	10	0	35	54
7:30 AM	3	1	0	4	0	18	0	18	23	11	0	34	56
7:45 AM	7	2	0	9	0	17	0	17	25	16	0	41	67
Total	17	5	0	22	0	77	0	77	88	44	0	132	231
8:00 AM	7	2	0	9	0	20	0	20	15	11	0	26	55
8:15 AM	0	1	0	1	0	14	0	14	14	9	0	23	38
8:30 AM	8	3	0	11	1	14	0	15	15	7	0	22	48
8:45 AM	4	3	0	7	0	12	0	12	22	4	0	26	45
Total	19	9	0	28	1	60	0	61	66	31	0	97	186
Grand Total	36	14	0	50	1	137	0	138	154	75	0	229	417
Approach %	72.0	28.0	0.0		0.7	99.3	0.0		67.2	32.8	0.0		
Total %	8.6	3.4	0.0	12.0	0.2	32.9	0.0	33.1	36.9	18.0	0.0	54.9	
Exiting Leg Total				76				168				173	417
Cars	30	11	0	41	1	105	0	106	148	69	0	217	364
% Cars	83.3	78.6	0.0	82.0	100.0	76.6	0.0	76.8	96.1	92.0	0.0	94.8	87.3
Exiting Leg Total				70				159				135	364
Heavy Vehicles	6	3	0	9	0	32	0	32	6	6	0	12	53
% Heavy Vehicles	16.7	21.4	0.0	18.0	0.0	23.4	0.0	23.2	3.9	8.0	0.0	5.2	12.7
Exiting Leg Total				6				9				38	53

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:15 AM	4	0	0	4	0	15	0	15	25	10	0	35	54
7:30 AM	3	1	0	4	0	18	0	18	23	11	0	34	56
7:45 AM	7	2	0	9	0	17	0	17	25	16	0	41	67
8:00 AM	7	2	0	9	0	20	0	20	15	11	0	26	55
Total Volume	21	5	0	26	0	70	0	70	88	48	0	136	232
% Approach Total	80.8	19.2	0.0		0.0	100.0	0.0		64.7	35.3	0.0		
PHF	0.750	0.625	0.000	0.722	0.000	0.875	0.000	0.875	0.880	0.750	0.000	0.829	0.866
Cars	18	5	0	23	0	55	0	55	85	46	0	131	209
Cars %	85.7	100.0	0.0	88.5	0.0	78.6	0.0	78.6	96.6	95.8	0.0	96.3	90.1
Heavy Vehicles	3	0	0	3	0	15	0	15	3	2	0	5	23
Heavy Vehicles %	14.3	0.0	0.0	11.5	0.0	21.4	0.0	21.4	3.4	4.2	0.0	3.7	9.9
Cars Enter Leg	18	5	0	23	0	55	0	55	85	46	0	131	209
Heavy Enter Leg	3	0	0	3	0	15	0	15	3	2	0	5	23
Total Entering Leg	21	5	0	26	0	70	0	70	88	48	0	136	232
Cars Exiting Leg				46				90				73	209
Heavy Exiting Leg				2				3				18	23
Total Exiting Leg				48				93				91	232

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	1	2	0	3	0	20	0	20	15	7	0	22	45
7:15 AM	3	0	0	3	0	12	0	12	24	10	0	34	49
7:30 AM	3	1	0	4	0	16	0	16	22	10	0	32	52
7:45 AM	6	2	0	8	0	11	0	11	24	15	0	39	58
Total	13	5	0	18	0	59	0	59	85	42	0	127	204
8:00 AM	6	2	0	8	0	16	0	16	15	11	0	26	50
8:15 AM	0	0	0	0	0	8	0	8	14	6	0	20	28
8:30 AM	7	1	0	8	1	12	0	13	15	7	0	22	43
8:45 AM	4	3	0	7	0	10	0	10	19	3	0	22	39
Total	17	6	0	23	1	46	0	47	63	27	0	90	160
Grand Total	30	11	0	41	1	105	0	106	148	69	0	217	364
Approach %	73.2	26.8	0.0		0.9	99.1	0.0		68.2	31.8	0.0		
Total %	8.2	3.0	0.0	11.3	0.3	28.8	0.0	29.1	40.7	19.0	0.0	59.6	
Exiting Leg Total				70				159				135	364

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:15 AM	3	0	0	3	0	12	0	12	24	10	0	34	49
7:30 AM	3	1	0	4	0	16	0	16	22	10	0	32	52
7:45 AM	6	2	0	8	0	11	0	11	24	15	0	39	58
8:00 AM	6	2	0	8	0	16	0	16	15	11	0	26	50
Total Volume	18	5	0	23	0	55	0	55	85	46	0	131	209
% Approach Total	78.3	21.7	0.0		0.0	100.0	0.0		64.9	35.1	0.0		
PHF	0.750	0.625	0.000	0.719	0.000	0.859	0.000	0.859	0.885	0.767	0.000	0.840	0.901
Entering Leg	18	5	0	23	0	55	0	55	85	46	0	131	209
Exiting Leg				46				90				73	209
Total				69				145				204	418

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class: Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	2	0	0	2	0	7	0	7	0	0	0	0	9
7:15 AM	1	0	0	1	0	3	0	3	1	0	0	1	5
7:30 AM	0	0	0	0	0	2	0	2	1	1	0	2	4
7:45 AM	1	0	0	1	0	6	0	6	1	1	0	2	9
Total	4	0	0	4	0	18	0	18	3	2	0	5	27
8:00 AM	1	0	0	1	0	4	0	4	0	0	0	0	5
8:15 AM	0	1	0	1	0	6	0	6	0	3	0	3	10
8:30 AM	1	2	0	3	0	2	0	2	0	0	0	0	5
8:45 AM	0	0	0	0	0	2	0	2	3	1	0	4	6
Total	2	3	0	5	0	14	0	14	3	4	0	7	26
Grand Total	6	3	0	9	0	32	0	32	6	6	0	12	53
Approach %	66.7	33.3	0.0		0.0	100.0	0.0		50.0	50.0	0.0		
Total %	11.3	5.7	0.0	17.0	0.0	60.4	0.0	60.4	11.3	11.3	0.0	22.6	
Exiting Leg Total				6				9				38	53
Buses	3	0	0	3	0	0	0	0	0	0	0	0	3
% Buses	50.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
Exiting Leg Total				0				0				3	3
Single-Unit Trucks	2	2	0	4	0	23	0	23	4	4	0	8	35
% Single-Unit	33.3	66.7	0.0	44.4	0.0	71.9	0.0	71.9	66.7	66.7	0.0	66.7	66.0
Exiting Leg Total				4				6				25	35
Articulated Trucks	1	1	0	2	0	9	0	9	2	2	0	4	15
% Articulated	16.7	33.3	0.0	22.2	0.0	28.1	0.0	28.1	33.3	33.3	0.0	33.3	28.3
Exiting Leg Total				2				3				10	15

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:45 AM	1	0	0	1	0	6	0	6	1	1	0	2	9
8:00 AM	1	0	0	1	0	4	0	4	0	0	0	0	5
8:15 AM	0	1	0	1	0	6	0	6	0	3	0	3	10
8:30 AM	1	2	0	3	0	2	0	2	0	0	0	0	5
Total Volume	3	3	0	6	0	18	0	18	1	4	0	5	29
% Approach Total	50.0	50.0	0.0		0.0	100.0	0.0		20.0	80.0	0.0		
PHF	0.750	0.375	0.000	0.500	0.000	0.750	0.000	0.750	0.250	0.333	0.000	0.417	0.725
Buses	1	0	0	1	0	0	0	0	0	0	0	0	1
Buses %	33.3	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Single-Unit Trucks	2	2	0	4	0	11	0	11	1	2	0	3	18
Single-Unit %	66.7	66.7	0.0	66.7	0.0	61.1	0.0	61.1	100.0	50.0	0.0	60.0	62.1
Articulated Trucks	0	1	0	1	0	7	0	7	0	2	0	2	10
Articulated %	0.0	33.3	0.0	16.7	0.0	38.9	0.0	38.9	0.0	50.0	0.0	40.0	34.5
Buses	1	0	0	1	0	0	0	0	0	0	0	0	1
Single-Unit Trucks	2	2	0	4	0	11	0	11	1	2	0	3	18
Articulated Trucks	0	1	0	1	0	7	0	7	0	2	0	2	10
Total Entering Leg	3	3	0	6	0	18	0	18	1	4	0	5	29
Buses				0				0				1	1
Single-Unit Trucks				2				3				13	18
Articulated Trucks				2				1				7	10
Total Exiting Leg				4				4				21	29

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	0	0	0	0	0	0	2
8:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
Grand Total	3	0	0	3	0	0	0	0	0	0	0	0	3
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0					3

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	2
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	2	0	0	2	0	0	0	0	0	0	0	0	2
Exiting Leg				0				0					2
Total				2				0					4

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	0	0	0	0	6	0	6	0	0	0	0	6
7:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
7:30 AM	0	0	0	0	0	2	0	2	0	1	0	1	3
7:45 AM	1	0	0	1	0	3	0	3	1	0	0	1	5
Total	1	0	0	1	0	14	0	14	2	1	0	3	18
8:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
8:15 AM	0	0	0	0	0	4	0	4	0	2	0	2	6
8:30 AM	1	2	0	3	0	2	0	2	0	0	0	0	5
8:45 AM	0	0	0	0	0	1	0	1	2	1	0	3	4
Total	1	2	0	3	0	9	0	9	2	3	0	5	17
Grand Total	2	2	0	4	0	23	0	23	4	4	0	8	35
Approach %	50.0	50.0	0.0		0.0	100.0	0.0		50.0	50.0	0.0		
Total %	5.7	5.7	0.0	11.4	0.0	65.7	0.0	65.7	11.4	11.4	0.0	22.9	
Exiting Leg Total				4				6				25	35

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	0	0	0	0	6	0	6	0	0	0	0	6
7:15 AM	0	0	0	0	0	3	0	3	1	0	0	1	4
7:30 AM	0	0	0	0	0	2	0	2	0	1	0	1	3
7:45 AM	1	0	0	1	0	3	0	3	1	0	0	1	5
Total Volume	1	0	0	1	0	14	0	14	2	1	0	3	18
% Approach Total	100.0	0.0	0.0		0.0	100.0	0.0		66.7	33.3	0.0		
PHF	0.250	0.000	0.000	0.250	0.000	0.583	0.000	0.583	0.500	0.250	0.000	0.750	0.750
Entering Leg	1	0	0	1	0	14	0	14	2	1	0	3	18
Exiting Leg				1				2				15	18
Total				2				16				18	36

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:45 AM	0	0	0	0	0	3	0	3	0	1	0	1	4
Total	1	0	0	1	0	4	0	4	1	1	0	2	7
8:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
8:15 AM	0	1	0	1	0	2	0	2	0	1	0	1	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	2
Total	0	1	0	1	0	5	0	5	1	1	0	2	8
Grand Total	1	1	0	2	0	9	0	9	2	2	0	4	15
Approach %	50.0	50.0	0.0		0.0	100.0	0.0		50.0	50.0	0.0		
Total %	6.7	6.7	0.0	13.3	0.0	60.0	0.0	60.0	13.3	13.3	0.0	26.7	
Exiting Leg Total				2				3				10	15

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:45 AM	0	0	0	0	0	3	0	3	0	1	0	1	4
8:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
8:15 AM	0	1	0	1	0	2	0	2	0	1	0	1	4
Total Volume	0	1	0	1	0	7	0	7	1	2	0	3	11
% Approach Total	0.0	100.0	0.0		0.0	100.0	0.0		33.3	66.7	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.583	0.000	0.583	0.250	0.500	0.000	0.750	0.688
Entering Leg	0	1	0	1	0	7	0	7	1	2	0	3	11
Exiting Leg				2				2				7	11
Total				3				9				10	22

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total	1						0						0						1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Exiting Leg	1						0						0						1
Total	1						0						1						2

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total	
	from East				from South				from West					
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total		
4:00 PM	20	9	0	29	1	61	0	62	22	6	0	28	119	
4:15 PM	28	3	0	31	0	47	0	47	25	5	0	30	108	
4:30 PM	24	2	0	26	0	63	0	63	22	7	0	29	118	
4:45 PM	29	2	0	31	1	50	0	51	24	6	0	30	112	
Total	101	16	0	117	2	221	0	223	93	24	0	117	457	
5:00 PM	17	2	0	19	0	49	0	49	30	2	0	32	100	
5:15 PM	16	4	0	20	0	69	0	69	31	7	0	38	127	
5:30 PM	10	3	0	13	0	58	0	58	21	6	0	27	98	
5:45 PM	4	0	0	4	0	50	0	50	27	7	0	34	88	
Total	47	9	0	56	0	226	0	226	109	22	0	131	413	
Grand Total	148	25	0	173	2	447	0	449	202	46	0	248	870	
Approach %	85.5	14.5	0.0		0.4	99.6	0.0		81.5	18.5	0.0			
Total %	17.0	2.9	0.0	19.9	0.2	51.4	0.0	51.6	23.2	5.3	0.0	28.5		
Exiting Leg Total				48				227					595	870
Cars	146	23	0	169	2	428	0	430	192	39	0	231	830	
% Cars	98.6	92.0	0.0	97.7	100.0	95.7	0.0	95.8	95.0	84.8	0.0	93.1	95.4	
Exiting Leg Total				41				215					574	830
Heavy Vehicles	2	2	0	4	0	19	0	19	10	7	0	17	40	
% Heavy Vehicles	1.4	8.0	0.0	2.3	0.0	4.3	0.0	4.2	5.0	15.2	0.0	6.9	4.6	
Exiting Leg Total				7				12					21	40

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total	
	from East				from South				from West					
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total		
4:00 PM	20	9	0	29	1	61	0	62	22	6	0	28	119	
4:15 PM	28	3	0	31	0	47	0	47	25	5	0	30	108	
4:30 PM	24	2	0	26	0	63	0	63	22	7	0	29	118	
4:45 PM	29	2	0	31	1	50	0	51	24	6	0	30	112	
Total Volume	101	16	0	117	2	221	0	223	93	24	0	117	457	
% Approach Total	86.3	13.7	0.0		0.9	99.1	0.0		79.5	20.5	0.0			
PHF	0.871	0.444	0.000	0.944	0.500	0.877	0.000	0.885	0.930	0.857	0.000	0.975	0.960	
Cars	99	14	0	113	2	210	0	212	89	20	0	109	434	
Cars %	98.0	87.5	0.0	96.6	100.0	95.0	0.0	95.1	95.7	83.3	0.0	93.2	95.0	
Heavy Vehicles	2	2	0	4	0	11	0	11	4	4	0	8	23	
Heavy Vehicles %	2.0	12.5	0.0	3.4	0.0	5.0	0.0	4.9	4.3	16.7	0.0	6.8	5.0	
Cars Enter Leg	99	14	0	113	2	210	0	212	89	20	0	109	434	
Heavy Enter Leg	2	2	0	4	0	11	0	11	4	4	0	8	23	
Total Entering Leg	101	16	0	117	2	221	0	223	93	24	0	117	457	
Cars Exiting Leg				22				103					309	434
Heavy Exiting Leg				4				6					13	23
Total Exiting Leg				26				109					322	457

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	20	8	0	28	1	58	0	59	21	3	0	24	111
4:15 PM	27	2	0	29	0	45	0	45	23	4	0	27	101
4:30 PM	23	2	0	25	0	59	0	59	21	7	0	28	112
4:45 PM	29	2	0	31	1	48	0	49	24	6	0	30	110
Total	99	14	0	113	2	210	0	212	89	20	0	109	434
5:00 PM	17	2	0	19	0	47	0	47	30	2	0	32	98
5:15 PM	16	4	0	20	0	64	0	64	28	6	0	34	118
5:30 PM	10	3	0	13	0	58	0	58	19	6	0	25	96
5:45 PM	4	0	0	4	0	49	0	49	26	5	0	31	84
Total	47	9	0	56	0	218	0	218	103	19	0	122	396
Grand Total	146	23	0	169	2	428	0	430	192	39	0	231	830
Approach %	86.4	13.6	0.0		0.5	99.5	0.0		83.1	16.9	0.0		
Total %	17.6	2.8	0.0	20.4	0.2	51.6	0.0	51.8	23.1	4.7	0.0	27.8	
Exiting Leg Total				41				215				574	830

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:30 PM	23	2	0	25	0	59	0	59	21	7	0	28	112
4:45 PM	29	2	0	31	1	48	0	49	24	6	0	30	110
5:00 PM	17	2	0	19	0	47	0	47	30	2	0	32	98
5:15 PM	16	4	0	20	0	64	0	64	28	6	0	34	118
Total Volume	85	10	0	95	1	218	0	219	103	21	0	124	438
% Approach Total	89.5	10.5	0.0		0.5	99.5	0.0		83.1	16.9	0.0		
PHF	0.733	0.625	0.000	0.766	0.250	0.852	0.000	0.855	0.858	0.750	0.000	0.912	0.928
Entering Leg	85	10	0	95	1	218	0	219	103	21	0	124	438
Exiting Leg				22				113				303	438
Total				117				332				427	876

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Class: Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	1	0	1	0	3	0	3	1	3	0	4	8
4:15 PM	1	1	0	2	0	2	0	2	2	1	0	3	7
4:30 PM	1	0	0	1	0	4	0	4	1	0	0	1	6
4:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
Total	2	2	0	4	0	11	0	11	4	4	0	8	23
5:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
5:15 PM	0	0	0	0	0	5	0	5	3	1	0	4	9
5:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	2
5:45 PM	0	0	0	0	0	1	0	1	1	2	0	3	4
Total	0	0	0	0	0	8	0	8	6	3	0	9	17
Grand Total	2	2	0	4	0	19	0	19	10	7	0	17	40
Approach %	50.0	50.0	0.0		0.0	100.0	0.0		58.8	41.2	0.0		
Total %	5.0	5.0	0.0	10.0	0.0	47.5	0.0	47.5	25.0	17.5	0.0	42.5	
Exiting Leg Total				7				12				21	40
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	2	2	0	4	0	15	0	15	5	3	0	8	27
% Single-Unit	100.0	100.0	0.0	100.0	0.0	78.9	0.0	78.9	50.0	42.9	0.0	47.1	67.5
Exiting Leg Total				3				7				17	27
Articulated Trucks	0	0	0	0	0	4	0	4	5	4	0	9	13
% Articulated	0.0	0.0	0.0	0.0	0.0	21.1	0.0	21.1	50.0	57.1	0.0	52.9	32.5
Exiting Leg Total				4				5				4	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	1	0	1	0	3	0	3	1	3	0	4	8
4:15 PM	1	1	0	2	0	2	0	2	2	1	0	3	7
4:30 PM	1	0	0	1	0	4	0	4	1	0	0	1	6
4:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
Total Volume	2	2	0	4	0	11	0	11	4	4	0	8	23
% Approach Total	50.0	50.0	0.0		0.0	100.0	0.0		50.0	50.0	0.0		
PHF	0.500	0.500	0.000	0.500	0.000	0.688	0.000	0.688	0.500	0.333	0.000	0.500	0.719
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	2	2	0	4	0	9	0	9	2	3	0	5	18
Single-Unit %	100.0	100.0	0.0	100.0	0.0	81.8	0.0	81.8	50.0	75.0	0.0	62.5	78.3
Articulated Trucks	0	0	0	0	0	2	0	2	2	1	0	3	5
Articulated %	0.0	0.0	0.0	0.0	0.0	18.2	0.0	18.2	50.0	25.0	0.0	37.5	21.7
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	2	2	0	4	0	9	0	9	2	3	0	5	18
Articulated Trucks	0	0	0	0	0	2	0	2	2	1	0	3	5
Total Entering Leg	2	2	0	4	0	11	0	11	4	4	0	8	23
Buses				0				0				0	0
Single-Unit Trucks				3				4				11	18
Articulated Trucks				1				2				2	5
Total Exiting Leg				4				6				13	23

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0					0
Total				0				0					0

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	1	0	1	0	3	0	3	0	2	0	2	6
4:15 PM	1	1	0	2	0	2	0	2	1	1	0	2	6
4:30 PM	1	0	0	1	0	3	0	3	1	0	0	1	5
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	2	2	0	4	0	9	0	9	2	3	0	5	18
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	4	0	4	2	0	0	2	6
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	6	0	6	3	0	0	3	9
Grand Total	2	2	0	4	0	15	0	15	5	3	0	8	27
Approach %	50.0	50.0	0.0		0.0	100.0	0.0		62.5	37.5	0.0		
Total %	7.4	7.4	0.0	14.8	0.0	55.6	0.0	55.6	18.5	11.1	0.0	29.6	
Exiting Leg Total				3				7				17	27

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	1	0	1	0	3	0	3	0	2	0	2	6
4:15 PM	1	1	0	2	0	2	0	2	1	1	0	2	6
4:30 PM	1	0	0	1	0	3	0	3	1	0	0	1	5
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	2	2	0	4	0	9	0	9	2	3	0	5	18
% Approach Total	50.0	50.0	0.0		0.0	100.0	0.0		40.0	60.0	0.0		
PHF	0.500	0.500	0.000	0.500	0.000	0.750	0.000	0.750	0.500	0.375	0.000	0.625	0.750
Entering Leg	2	2	0	4	0	9	0	9	2	3	0	5	18
Exiting Leg				3				4				11	18
Total				7				13				16	36

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	1	1	0	2	2
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	2	0	2	2	1	0	3	5
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	1	0	1	1	1	0	2	3
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	1	2	0	3	3
Total	0	0	0	0	0	2	0	2	3	3	0	6	8
Grand Total	0	0	0	0	0	4	0	4	5	4	0	9	13
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		55.6	44.4	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	30.8	0.0	30.8	38.5	30.8	0.0	69.2	
Exiting Leg Total				4				5				4	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 103				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	1	0	1	1	1	0	2	3
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	1	2	0	3	3
Total Volume	0	0	0	0	0	2	0	2	3	3	0	6	8
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		50.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.750	0.375	0.000	0.500	0.667
Entering Leg	0	0	0	0	0	2	0	2	3	3	0	6	8
Exiting Leg				3				3				2	8
Total				3				5				8	16

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 A**
 Location: **S: Route 2 WB Ramps-Exit 103**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Fort Pond Road						Route 2 WB Ramps-Exit 103						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Cars and Heavy Vehicles (Combined)

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	1	1	0	2	0	3	0	3	6	0	0	6	11
7:15 AM	1	1	0	2	1	1	0	2	10	0	0	10	14
7:30 AM	0	1	0	1	0	3	0	3	10	3	0	13	17
7:45 AM	0	0	0	0	1	5	0	6	13	1	0	14	20
Total	2	3	0	5	2	12	0	14	39	4	0	43	62
8:00 AM	1	0	0	1	1	7	0	8	10	1	0	11	20
8:15 AM	1	1	0	2	1	1	0	2	10	1	0	11	15
8:30 AM	1	1	0	2	0	9	0	9	6	0	0	6	17
8:45 AM	0	0	0	0	0	7	0	7	5	0	0	5	12
Total	3	2	0	5	2	24	0	26	31	2	0	33	64
Grand Total	5	5	0	10	4	36	0	40	70	6	0	76	126
Approach %	50.0	50.0	0.0		10.0	90.0	0.0		92.1	7.9	0.0		
Total %	4.0	4.0	0.0	7.9	3.2	28.6	0.0	31.7	55.6	4.8	0.0	60.3	
Exiting Leg Total				10				75				41	126
Cars	2	1	0	3	1	28	0	29	64	3	0	67	99
% Cars	40.0	20.0	0.0	30.0	25.0	77.8	0.0	72.5	91.4	50.0	0.0	88.2	78.6
Exiting Leg Total				4				65				30	99
Heavy Vehicles	3	4	0	7	3	8	0	11	6	3	0	9	27
% Heavy Vehicles	60.0	80.0	0.0	70.0	75.0	22.2	0.0	27.5	8.6	50.0	0.0	11.8	21.4
Exiting Leg Total				6				10				11	27

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:30 AM	0	1	0	1	0	3	0	3	10	3	0	13	17
7:45 AM	0	0	0	0	1	5	0	6	13	1	0	14	20
8:00 AM	1	0	0	1	1	7	0	8	10	1	0	11	20
8:15 AM	1	1	0	2	1	1	0	2	10	1	0	11	15
Total Volume	2	2	0	4	3	16	0	19	43	6	0	49	72
% Approach Total	50.0	50.0	0.0		15.8	84.2	0.0		87.8	12.2	0.0		
PHF	0.500	0.500	0.000	0.500	0.750	0.571	0.000	0.594	0.827	0.500	0.000	0.875	0.900
Cars	1	1	0	2	1	12	0	13	39	3	0	42	57
Cars %	50.0	50.0	0.0	50.0	33.3	75.0	0.0	68.4	90.7	50.0	0.0	85.7	79.2
Heavy Vehicles	1	1	0	2	2	4	0	6	4	3	0	7	15
Heavy Vehicles %	50.0	50.0	0.0	50.0	66.7	25.0	0.0	31.6	9.3	50.0	0.0	14.3	20.8
Cars Enter Leg	1	1	0	2	1	12	0	13	39	3	0	42	57
Heavy Enter Leg	1	1	0	2	2	4	0	6	4	3	0	7	15
Total Entering Leg	2	2	0	4	3	16	0	19	43	6	0	49	72
Cars Exiting Leg				4				40				13	57
Heavy Exiting Leg				5				5				5	15
Total Exiting Leg				9				45				18	72

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	1	0	0	1	0	2	0	2	6	0	0	6	9
7:15 AM	0	0	0	0	0	1	0	1	10	0	0	10	11
7:30 AM	0	0	0	0	0	3	0	3	10	2	0	12	15
7:45 AM	0	0	0	0	1	4	0	5	13	0	0	13	18
Total	1	0	0	1	1	10	0	11	39	2	0	41	53
8:00 AM	1	0	0	1	0	5	0	5	9	1	0	10	16
8:15 AM	0	1	0	1	0	0	0	0	7	0	0	7	8
8:30 AM	0	0	0	0	0	7	0	7	6	0	0	6	13
8:45 AM	0	0	0	0	0	6	0	6	3	0	0	3	9
Total	1	1	0	2	0	18	0	18	25	1	0	26	46
Grand Total	2	1	0	3	1	28	0	29	64	3	0	67	99
Approach %	66.7	33.3	0.0		3.4	96.6	0.0		95.5	4.5	0.0		
Total %	2.0	1.0	0.0	3.0	1.0	28.3	0.0	29.3	64.6	3.0	0.0	67.7	
Exiting Leg Total				4				65				30	99

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:15 AM	0	0	0	0	0	1	0	1	10	0	0	10	11
7:30 AM	0	0	0	0	0	3	0	3	10	2	0	12	15
7:45 AM	0	0	0	0	1	4	0	5	13	0	0	13	18
8:00 AM	1	0	0	1	0	5	0	5	9	1	0	10	16
Total Volume	1	0	0	1	1	13	0	14	42	3	0	45	60
% Approach Total	100.0	0.0	0.0		7.1	92.9	0.0		93.3	6.7	0.0		
PHF	0.250	0.000	0.000	0.250	0.250	0.650	0.000	0.700	0.808	0.375	0.000	0.865	0.833
Entering Leg	1	0	0	1	1	13	0	14	42	3	0	45	60
Exiting Leg				4				42				14	60
Total				5				56				59	120

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
7:15 AM	1	1	0	2	1	0	0	1	0	0	0	0	3
7:30 AM	0	1	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	0	0	0	0	0	1	0	1	0	1	0	1	2
Total	1	3	0	4	1	2	0	3	0	2	0	2	9
8:00 AM	0	0	0	0	1	2	0	3	1	0	0	1	4
8:15 AM	1	0	0	1	1	1	0	2	3	1	0	4	7
8:30 AM	1	1	0	2	0	2	0	2	0	0	0	0	4
8:45 AM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total	2	1	0	3	2	6	0	8	6	1	0	7	18
Grand Total	3	4	0	7	3	8	0	11	6	3	0	9	27
Approach %	42.9	57.1	0.0		27.3	72.7	0.0		66.7	33.3	0.0		
Total %	11.1	14.8	0.0	25.9	11.1	29.6	0.0	40.7	22.2	11.1	0.0	33.3	
Exiting Leg Total				6				10				11	27
Buses	0	0	0	0	0	2	0	2	0	0	0	0	2
% Buses	0.0	0.0	0.0	0.0	0.0	25.0	0.0	18.2	0.0	0.0	0.0	0.0	7.4
Exiting Leg Total				0				0				2	2
Single-Unit Trucks	1	1	0	2	1	6	0	7	6	1	0	7	16
% Single-Unit	33.3	25.0	0.0	28.6	33.3	75.0	0.0	63.6	100.0	33.3	0.0	77.8	59.3
Exiting Leg Total				2				7				7	16
Articulated Trucks	2	3	0	5	2	0	0	2	0	2	0	2	9
% Articulated	66.7	75.0	0.0	71.4	66.7	0.0	0.0	18.2	0.0	66.7	0.0	22.2	33.3
Exiting Leg Total				4				3				2	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	1	2	0	3	1	0	0	1	4
8:15 AM	1	0	0	1	1	1	0	2	3	1	0	4	7
8:30 AM	1	1	0	2	0	2	0	2	0	0	0	0	4
8:45 AM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total Volume	2	1	0	3	2	6	0	8	6	1	0	7	18
% Approach Total	66.7	33.3	0.0		25.0	75.0	0.0		85.7	14.3	0.0		
PHF	0.500	0.250	0.000	0.375	0.500	0.750	0.000	0.667	0.500	0.250	0.000	0.438	0.643
Buses	0	0	0	0	0	1	0	1	0	0	0	0	1
Buses %	0.0	0.0	0.0	0.0	0.0	16.7	0.0	12.5	0.0	0.0	0.0	0.0	5.6
Single-Unit Trucks	1	1	0	2	1	5	0	6	6	0	0	6	14
Single-Unit %	50.0	100.0	0.0	66.7	50.0	83.3	0.0	75.0	100.0	0.0	0.0	85.7	77.8
Articulated Trucks	1	0	0	1	1	0	0	1	0	1	0	1	3
Articulated %	50.0	0.0	0.0	33.3	50.0	0.0	0.0	12.5	0.0	100.0	0.0	14.3	16.7
Buses	0	0	0	0	0	1	0	1	0	0	0	0	1
Single-Unit Trucks	1	1	0	2	1	5	0	6	6	0	0	6	14
Articulated Trucks	1	0	0	1	1	0	0	1	0	1	0	1	3
Total Entering Leg	2	1	0	3	2	6	0	8	6	1	0	7	18
Buses				0				0				1	1
Single-Unit Trucks				1				7				6	14
Articulated Trucks				2				0				1	3
Total Exiting Leg				3				7				8	18

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	2	0	2	0	0	0	0	2
Approach %	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0					2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0		0.0	100.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	1	0	1	0	0	0	0	1
Exiting Leg				0				0					1
Total				0				1					2

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	1	0	1	2
8:00 AM	0	0	0	0	1	1	0	2	1	0	0	1	3
8:15 AM	0	0	0	0	0	1	0	1	3	0	0	3	4
8:30 AM	1	1	0	2	0	2	0	2	0	0	0	0	4
8:45 AM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total	1	1	0	2	1	5	0	6	6	0	0	6	14
Grand Total	1	1	0	2	1	6	0	7	6	1	0	7	16
Approach %	50.0	50.0	0.0		14.3	85.7	0.0		85.7	14.3	0.0		
Total %	6.3	6.3	0.0	12.5	6.3	37.5	0.0	43.8	37.5	6.3	0.0	43.8	
Exiting Leg Total				2				7				7	16

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	1	1	0	2	1	0	0	1	3
8:15 AM	0	0	0	0	0	1	0	1	3	0	0	3	4
8:30 AM	1	1	0	2	0	2	0	2	0	0	0	0	4
8:45 AM	0	0	0	0	0	1	0	1	2	0	0	2	3
Total Volume	1	1	0	2	1	5	0	6	6	0	0	6	14
% Approach Total	50.0	50.0	0.0		16.7	83.3	0.0		100.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.250	0.250	0.625	0.000	0.750	0.500	0.000	0.000	0.500	0.875
Entering Leg	1	1	0	2	1	5	0	6	6	0	0	6	14
Exiting Leg				1				7				6	14
Total				3				13				12	28

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	1	1	0	2	1	0	0	1	0	0	0	0	3
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	3	0	4	1	0	0	1	0	1	0	1	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	1	1	0	0	1	0	1	0	1	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	0	0	1	0	1	0	1	3
Grand Total	2	3	0	5	2	0	0	2	0	2	0	2	9
Approach %	40.0	60.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	22.2	33.3	0.0	55.6	22.2	0.0	0.0	22.2	0.0	22.2	0.0	22.2	
Exiting Leg Total				4				3				2	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	1	1	0	2	1	0	0	1	0	0	0	0	3
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	1	3	0	4	1	0	0	1	0	1	0	1	6
% Approach Total	25.0	75.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.750	0.000	0.500	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.500
Entering Leg	1	3	0	4	1	0	0	1	0	1	0	1	6
Exiting Leg				2				3				1	6
Total				6				4				2	12

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total	0						1						0						1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Exiting Leg	0						1						0						1
Total	0						1						1						2

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	2	3	0	5	0	28	0	28	6	2	0	8	41
4:15 PM	1	0	0	1	1	23	0	24	1	0	0	1	26
4:30 PM	1	0	0	1	0	26	0	26	9	0	0	9	36
4:45 PM	0	0	0	0	0	31	0	31	3	0	0	3	34
Total	4	3	0	7	1	108	0	109	19	2	0	21	137
5:00 PM	0	2	0	2	1	13	0	14	3	0	0	3	19
5:15 PM	0	0	0	0	0	19	0	19	2	1	0	3	22
5:30 PM	0	0	0	0	0	13	0	13	1	0	0	1	14
5:45 PM	0	0	0	0	0	5	0	5	2	1	0	3	8
Total	0	2	0	2	1	50	0	51	8	2	0	10	63
Grand Total	4	5	0	9	2	158	0	160	27	4	0	31	200
Approach %	44.4	55.6	0.0		1.3	98.8	0.0		87.1	12.9	0.0		
Total %	2.0	2.5	0.0	4.5	1.0	79.0	0.0	80.0	13.5	2.0	0.0	15.5	
Exiting Leg Total				6				32				162	200
Cars	2	3	0	5	1	156	0	157	23	1	0	24	186
% Cars	50.0	60.0	0.0	55.6	50.0	98.7	0.0	98.1	85.2	25.0	0.0	77.4	93.0
Exiting Leg Total				2				26				158	186
Heavy Vehicles	2	2	0	4	1	2	0	3	4	3	0	7	14
% Heavy Vehicles	50.0	40.0	0.0	44.4	50.0	1.3	0.0	1.9	14.8	75.0	0.0	22.6	7.0
Exiting Leg Total				4				6				4	14

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	2	3	0	5	0	28	0	28	6	2	0	8	41
4:15 PM	1	0	0	1	1	23	0	24	1	0	0	1	26
4:30 PM	1	0	0	1	0	26	0	26	9	0	0	9	36
4:45 PM	0	0	0	0	0	31	0	31	3	0	0	3	34
Total Volume	4	3	0	7	1	108	0	109	19	2	0	21	137
% Approach Total	57.1	42.9	0.0		0.9	99.1	0.0		90.5	9.5	0.0		
PHF	0.500	0.250	0.000	0.350	0.250	0.871	0.000	0.879	0.528	0.250	0.000	0.583	0.835
Cars	2	2	0	4	1	106	0	107	16	1	0	17	128
Cars %	50.0	66.7	0.0	57.1	100.0	98.1	0.0	98.2	84.2	50.0	0.0	81.0	93.4
Heavy Vehicles	2	1	0	3	0	2	0	2	3	1	0	4	9
Heavy Vehicles %	50.0	33.3	0.0	42.9	0.0	1.9	0.0	1.8	15.8	50.0	0.0	19.0	6.6
Cars Enter Leg	2	2	0	4	1	106	0	107	16	1	0	17	128
Heavy Enter Leg	2	1	0	3	0	2	0	2	3	1	0	4	9
Total Entering Leg	4	3	0	7	1	108	0	109	19	2	0	21	137
Cars Exiting Leg				2				18				108	128
Heavy Exiting Leg				1				4				4	9
Total Exiting Leg				3				22				112	137

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	1	2	0	3	0	27	0	27	4	1	0	5	35
4:15 PM	0	0	0	0	1	23	0	24	0	0	0	0	24
4:30 PM	1	0	0	1	0	25	0	25	9	0	0	9	35
4:45 PM	0	0	0	0	0	31	0	31	3	0	0	3	34
Total	2	2	0	4	1	106	0	107	16	1	0	17	128
5:00 PM	0	1	0	1	0	13	0	13	3	0	0	3	17
5:15 PM	0	0	0	0	0	19	0	19	2	0	0	2	21
5:30 PM	0	0	0	0	0	13	0	13	1	0	0	1	14
5:45 PM	0	0	0	0	0	5	0	5	1	0	0	1	6
Total	0	1	0	1	0	50	0	50	7	0	0	7	58
Grand Total	2	3	0	5	1	156	0	157	23	1	0	24	186
Approach %	40.0	60.0	0.0		0.6	99.4	0.0		95.8	4.2	0.0		
Total %	1.1	1.6	0.0	2.7	0.5	83.9	0.0	84.4	12.4	0.5	0.0	12.9	
Exiting Leg Total				2				26				158	186

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	1	2	0	3	0	27	0	27	4	1	0	5	35
4:15 PM	0	0	0	0	1	23	0	24	0	0	0	0	24
4:30 PM	1	0	0	1	0	25	0	25	9	0	0	9	35
4:45 PM	0	0	0	0	0	31	0	31	3	0	0	3	34
Total Volume	2	2	0	4	1	106	0	107	16	1	0	17	128
% Approach Total	50.0	50.0	0.0		0.9	99.1	0.0		94.1	5.9	0.0		
PHF	0.500	0.250	0.000	0.333	0.250	0.855	0.000	0.863	0.444	0.250	0.000	0.472	0.914
Entering Leg	2	2	0	4	1	106	0	107	16	1	0	17	128
Exiting Leg				2				18				108	128
Total				6				125				125	256

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	1	1	0	2	0	1	0	1	2	1	0	3	6
4:15 PM	1	0	0	1	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	1	0	3	0	2	0	2	3	1	0	4	9
5:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	2	2
Total	0	1	0	1	1	0	0	1	1	2	0	3	5
Grand Total	2	2	0	4	1	2	0	3	4	3	0	7	14
Approach %	50.0	50.0	0.0		33.3	66.7	0.0		57.1	42.9	0.0		
Total %	14.3	14.3	0.0	28.6	7.1	14.3	0.0	21.4	28.6	21.4	0.0	50.0	
Exiting Leg Total				4				6				4	14
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	2	1	0	3	1	2	0	3	3	0	0	3	9
% Single-Unit	100.0	50.0	0.0	75.0	100.0	100.0	0.0	100.0	75.0	0.0	0.0	42.9	64.3
Exiting Leg Total				1				4				4	9
Articulated Trucks	0	1	0	1	0	0	0	0	1	3	0	4	5
% Articulated	0.0	50.0	0.0	25.0	0.0	0.0	0.0	0.0	25.0	100.0	0.0	57.1	35.7
Exiting Leg Total				3				2				0	5

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	1	1	0	2	0	1	0	1	2	1	0	3	6
4:15 PM	1	0	0	1	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	1	0	3	0	2	0	2	3	1	0	4	9
% Approach Total	66.7	33.3	0.0		0.0	100.0	0.0		75.0	25.0	0.0		
PHF	0.500	0.250	0.000	0.375	0.000	0.500	0.000	0.500	0.375	0.250	0.000	0.333	0.375
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	2	0	0	2	0	2	0	2	3	0	0	3	7
Single-Unit %	100.0	0.0	0.0	66.7	0.0	100.0	0.0	100.0	100.0	0.0	0.0	75.0	77.8
Articulated Trucks	0	1	0	1	0	0	0	0	0	1	0	1	2
Articulated %	0.0	100.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0	25.0	22.2
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	2	0	0	2	0	2	0	2	3	0	0	3	7
Articulated Trucks	0	1	0	1	0	0	0	0	0	1	0	1	2
Total Entering Leg	2	1	0	3	0	2	0	2	3	1	0	4	9
Buses				0				0				0	0
Single-Unit Trucks				0				3				4	7
Articulated Trucks				1				1				0	2
Total Exiting Leg				1				4				4	9

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0				0				0				0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0				0				0				0
Total	0				0				0				0

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	1	0	0	1	0	1	0	1	2	0	0	2	4
4:15 PM	1	0	0	1	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	2	0	2	3	0	0	3	7
5:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
Grand Total	2	1	0	3	1	2	0	3	3	0	0	3	9
Approach %	66.7	33.3	0.0		33.3	66.7	0.0		100.0	0.0	0.0		
Total %	22.2	11.1	0.0	33.3	11.1	22.2	0.0	33.3	33.3	0.0	0.0	33.3	
Exiting Leg Total				1				4				4	9

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	1	0	0	1	0	1	0	1	2	0	0	2	4
4:15 PM	1	0	0	1	0	0	0	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	2	0	2	3	0	0	3	7
% Approach Total	100.0	0.0	0.0		0.0	100.0	0.0		100.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.500	0.000	0.500	0.000	0.500	0.375	0.000	0.000	0.375	0.438
Entering Leg	2	0	0	2	0	2	0	2	3	0	0	3	7
Exiting Leg				0				3				4	7
Total				2				5				7	14

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	1	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	2	2
Total	0	0	0	0	0	0	0	0	1	2	0	3	3
Grand Total	0	1	0	1	0	0	0	0	1	3	0	4	5
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		25.0	75.0	0.0		
Total %	0.0	20.0	0.0	20.0	0.0	0.0	0.0	0.0	20.0	60.0	0.0	80.0	
Exiting Leg Total				3				2				0	5

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	#580 Driveway				Fort Pond Road				Fort Pond Road				Total
	from North				from East				from West				
	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	1	0	2	2
Total Volume	0	0	0	0	0	0	0	0	1	2	0	3	3
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		33.3	66.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.375	0.375
Entering Leg	0	0	0	0	0	0	0	0	1	2	0	3	3
Exiting Leg				2				1				0	3
Total				2				1				3	6

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 B**
 Location: **N: #580 Driveway**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	#580 Driveway						Fort Pond Road						Fort Pond Road						Total
	from North						from East						from West						
	Right	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	U-Turn	CW-SB	CW-NB	Total	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	4	51	0	55	12	1	0	13	0	8	0	8	76
7:15 AM	2	34	0	36	9	0	0	9	2	9	0	11	56
7:30 AM	2	20	0	22	20	2	0	22	1	8	0	9	53
7:45 AM	8	21	0	29	15	3	0	18	0	10	0	10	57
Total	16	126	0	142	56	6	0	62	3	35	0	38	242
8:00 AM	6	21	0	27	17	2	0	19	1	8	0	9	55
8:15 AM	1	15	0	16	18	2	0	20	2	9	0	11	47
8:30 AM	12	33	0	45	13	5	0	18	2	10	0	12	75
8:45 AM	7	23	0	30	13	4	0	17	0	4	0	4	51
Total	26	92	0	118	61	13	0	74	5	31	0	36	228
Grand Total	42	218	0	260	117	19	0	136	8	66	0	74	470
Approach %	16.2	83.8	0.0		86.0	14.0	0.0		10.8	89.2	0.0		
Total %	8.9	46.4	0.0	55.3	24.9	4.0	0.0	28.9	1.7	14.0	0.0	15.7	
Exiting Leg Total				183				226				61	470
Cars	36	209	0	245	111	12	0	123	7	57	0	64	432
% Cars	85.7	95.9	0.0	94.2	94.9	63.2	0.0	90.4	87.5	86.4	0.0	86.5	91.9
Exiting Leg Total				168				216				48	432
Heavy Vehicles	6	9	0	15	6	7	0	13	1	9	0	10	38
% Heavy Vehicles	14.3	4.1	0.0	5.8	5.1	36.8	0.0	9.6	12.5	13.6	0.0	13.5	8.1
Exiting Leg Total				15				10				13	38

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	4	51	0	55	12	1	0	13	0	8	0	8	76
7:15 AM	2	34	0	36	9	0	0	9	2	9	0	11	56
7:30 AM	2	20	0	22	20	2	0	22	1	8	0	9	53
7:45 AM	8	21	0	29	15	3	0	18	0	10	0	10	57
Total Volume	16	126	0	142	56	6	0	62	3	35	0	38	242
% Approach Total	11.3	88.7	0.0		90.3	9.7	0.0		7.9	92.1	0.0		
PHF	0.500	0.618	0.000	0.645	0.700	0.500	0.000	0.705	0.375	0.875	0.000	0.864	0.796
Cars	13	121	0	134	54	5	0	59	2	33	0	35	228
Cars %	81.3	96.0	0.0	94.4	96.4	83.3	0.0	95.2	66.7	94.3	0.0	92.1	94.2
Heavy Vehicles	3	5	0	8	2	1	0	3	1	2	0	3	14
Heavy Vehicles %	18.8	4.0	0.0	5.6	3.6	16.7	0.0	4.8	33.3	5.7	0.0	7.9	5.8
Cars Enter Leg	13	121	0	134	54	5	0	59	2	33	0	35	228
Heavy Enter Leg	3	5	0	8	2	1	0	3	1	2	0	3	14
Total Entering Leg	16	126	0	142	56	6	0	62	3	35	0	38	242
Cars Exiting Leg				87				123				18	228
Heavy Exiting Leg				4				6				4	14
Total Exiting Leg				91				129				22	242

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	3	50	0	53	12	1	0	13	0	7	0	7	73
7:15 AM	1	32	0	33	8	0	0	8	2	9	0	11	52
7:30 AM	2	19	0	21	19	2	0	21	0	7	0	7	49
7:45 AM	7	20	0	27	15	2	0	17	0	10	0	10	54
Total	13	121	0	134	54	5	0	59	2	33	0	35	228
8:00 AM	5	19	0	24	16	1	0	17	1	6	0	7	48
8:15 AM	1	15	0	16	18	0	0	18	2	6	0	8	42
8:30 AM	11	32	0	43	13	4	0	17	2	9	0	11	71
8:45 AM	6	22	0	28	10	2	0	12	0	3	0	3	43
Total	23	88	0	111	57	7	0	64	5	24	0	29	204
Grand Total	36	209	0	245	111	12	0	123	7	57	0	64	432
Approach %	14.7	85.3	0.0		90.2	9.8	0.0		10.9	89.1	0.0		
Total %	8.3	48.4	0.0	56.7	25.7	2.8	0.0	28.5	1.6	13.2	0.0	14.8	
Exiting Leg Total				168				216				48	432

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	3	50	0	53	12	1	0	13	0	7	0	7	73
7:15 AM	1	32	0	33	8	0	0	8	2	9	0	11	52
7:30 AM	2	19	0	21	19	2	0	21	0	7	0	7	49
7:45 AM	7	20	0	27	15	2	0	17	0	10	0	10	54
Total Volume	13	121	0	134	54	5	0	59	2	33	0	35	228
% Approach Total	9.7	90.3	0.0		91.5	8.5	0.0		5.7	94.3	0.0		
PHF	0.464	0.605	0.000	0.632	0.711	0.625	0.000	0.702	0.250	0.825	0.000	0.795	0.781
Entering Leg	13	121	0	134	54	5	0	59	2	33	0	35	228
Exiting Leg				87				123				18	228
Total				221				182				53	456

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	1	1	0	2	0	0	0	0	0	1	0	1	3
7:15 AM	1	2	0	3	1	0	0	1	0	0	0	0	4
7:30 AM	0	1	0	1	1	0	0	1	1	1	0	2	4
7:45 AM	1	1	0	2	0	1	0	1	0	0	0	0	3
Total	3	5	0	8	2	1	0	3	1	2	0	3	14
8:00 AM	1	2	0	3	1	1	0	2	0	2	0	2	7
8:15 AM	0	0	0	0	0	2	0	2	0	3	0	3	5
8:30 AM	1	1	0	2	0	1	0	1	0	1	0	1	4
8:45 AM	1	1	0	2	3	2	0	5	0	1	0	1	8
Total	3	4	0	7	4	6	0	10	0	7	0	7	24
Grand Total	6	9	0	15	6	7	0	13	1	9	0	10	38
Approach %	40.0	60.0	0.0		46.2	53.8	0.0		10.0	90.0	0.0		
Total %	15.8	23.7	0.0	39.5	15.8	18.4	0.0	34.2	2.6	23.7	0.0	26.3	
Exiting Leg Total				15				10				13	38
Buses	2	0	0	2	0	0	0	0	0	0	0	0	2
% Buses	33.3	0.0	0.0	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
Exiting Leg Total				0				0				2	2
Single-Unit Trucks	2	8	0	10	4	5	0	9	0	7	0	7	26
% Single-Unit	33.3	88.9	0.0	66.7	66.7	71.4	0.0	69.2	0.0	77.8	0.0	70.0	68.4
Exiting Leg Total				11				8				7	26
Articulated Trucks	2	1	0	3	2	2	0	4	1	2	0	3	10
% Articulated	33.3	11.1	0.0	20.0	33.3	28.6	0.0	30.8	100.0	22.2	0.0	30.0	26.3
Exiting Leg Total				4				2				4	10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
8:00 AM	1	2	0	3	1	1	0	2	0	2	0	2	7
8:15 AM	0	0	0	0	0	2	0	2	0	3	0	3	5
8:30 AM	1	1	0	2	0	1	0	1	0	1	0	1	4
8:45 AM	1	1	0	2	3	2	0	5	0	1	0	1	8
Total Volume	3	4	0	7	4	6	0	10	0	7	0	7	24
% Approach Total	42.9	57.1	0.0		40.0	60.0	0.0		0.0	100.0	0.0		
PHF	0.750	0.500	0.000	0.583	0.333	0.750	0.000	0.500	0.000	0.583	0.000	0.583	0.750
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	2	4	0	6	2	4	0	6	0	7	0	7	19
Single-Unit %	66.7	100.0	0.0	85.7	50.0	66.7	0.0	60.0	0.0	100.0	0.0	100.0	79.2
Articulated Trucks	1	0	0	1	2	2	0	4	0	0	0	0	5
Articulated %	33.3	0.0	0.0	14.3	50.0	33.3	0.0	40.0	0.0	0.0	0.0	0.0	20.8
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	2	4	0	6	2	4	0	6	0	7	0	7	19
Articulated Trucks	1	0	0	1	2	2	0	4	0	0	0	0	5
Total Entering Leg	3	4	0	7	4	6	0	10	0	7	0	7	24
Buses				0				0				0	0
Single-Unit Trucks				9				4				6	19
Articulated Trucks				2				0				3	5
Total Exiting Leg				11				4				9	24

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	2	0	0	2	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	2	0	0	2	0	0	0	0	0	0	0	0	2
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				0				0					2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	2	0	0	2	0	0	0	0	0	0	0	0	2
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	2	0	0	2	0	0	0	0	0	0	0	0	2
Exiting Leg				0				0					2
Total				2				0					4

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
7:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	2
Total	0	4	0	4	2	1	0	3	0	0	0	0	7
8:00 AM	1	2	0	3	1	1	0	2	0	2	0	2	7
8:15 AM	0	0	0	0	0	1	0	1	0	3	0	3	4
8:30 AM	1	1	0	2	0	1	0	1	0	1	0	1	4
8:45 AM	0	1	0	1	1	1	0	2	0	1	0	1	4
Total	2	4	0	6	2	4	0	6	0	7	0	7	19
Grand Total	2	8	0	10	4	5	0	9	0	7	0	7	26
Approach %	20.0	80.0	0.0		44.4	55.6	0.0		0.0	100.0	0.0		
Total %	7.7	30.8	0.0	38.5	15.4	19.2	0.0	34.6	0.0	26.9	0.0	26.9	
Exiting Leg Total				11				8				7	26

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
8:00 AM	1	2	0	3	1	1	0	2	0	2	0	2	7
8:15 AM	0	0	0	0	0	1	0	1	0	3	0	3	4
8:30 AM	1	1	0	2	0	1	0	1	0	1	0	1	4
8:45 AM	0	1	0	1	1	1	0	2	0	1	0	1	4
Total Volume	2	4	0	6	2	4	0	6	0	7	0	7	19
% Approach Total	33.3	66.7	0.0		33.3	66.7	0.0		0.0	100.0	0.0		
PHF	0.500	0.500	0.000	0.500	0.500	1.000	0.000	0.750	0.000	0.583	0.000	0.583	0.679
Entering Leg	2	4	0	6	2	4	0	6	0	7	0	7	19
Exiting Leg				9				4				6	19
Total				15				10				13	38

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total	
	from East				from South				from West					
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	1	0	0	0	0	0	1	1	0	2	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	0	0	0	0	0	1	2	0	3	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	1	2	1	0	3	0	0	0	0	0	4
Total	1	0	0	1	2	2	0	4	0	0	0	0	0	5
Grand Total	2	1	0	3	2	2	0	4	1	2	0	3	3	10
Approach %	66.7	33.3	0.0		50.0	50.0	0.0		33.3	66.7	0.0			
Total %	20.0	10.0	0.0	30.0	20.0	20.0	0.0	40.0	10.0	20.0	0.0	30.0	30.0	
Exiting Leg Total				4				2					4	10

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total	
	from East				from South				from West					
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	1	0	0	0	0	0	1	1	0	2	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	0	2	0	0	0	0	0	1	2	0	3	5
% Approach Total	50.0	50.0	0.0		0.0	0.0	0.0		33.3	66.7	0.0			
PHF	0.250	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.375	0.417	
Entering Leg	1	1	0	2	0	0	0	0	1	2	0	3	3	5
Exiting Leg				2				2					1	5
Total				4				2					4	10

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total	1						0						0						1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Exiting Leg	1						0						0						1
Total	1						0						1						2

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	13	46	0	59	20	16	0	36	1	7	0	8	103
4:15 PM	17	40	0	57	21	6	0	27	0	3	0	3	87
4:30 PM	10	27	0	37	18	16	0	34	0	7	0	7	78
4:45 PM	13	29	0	42	21	16	0	37	0	3	0	3	82
Total	53	142	0	195	80	54	0	134	1	20	0	21	350
5:00 PM	5	26	0	31	25	5	0	30	1	6	0	7	68
5:15 PM	7	33	0	40	28	10	0	38	1	5	0	6	84
5:30 PM	3	22	0	25	22	9	0	31	0	1	0	1	57
5:45 PM	4	21	0	25	16	2	0	18	1	0	0	1	44
Total	19	102	0	121	91	26	0	117	3	12	0	15	253
Grand Total	72	244	0	316	171	80	0	251	4	32	0	36	603
Approach %	22.8	77.2	0.0		68.1	31.9	0.0		11.1	88.9	0.0		
Total %	11.9	40.5	0.0	52.4	28.4	13.3	0.0	41.6	0.7	5.3	0.0	6.0	
Exiting Leg Total				203				248				152	603
Cars	70	232	0	302	153	78	0	231	4	28	0	32	565
% Cars	97.2	95.1	0.0	95.6	89.5	97.5	0.0	92.0	100.0	87.5	0.0	88.9	93.7
Exiting Leg Total				181				236				148	565
Heavy Vehicles	2	12	0	14	18	2	0	20	0	4	0	4	38
% Heavy Vehicles	2.8	4.9	0.0	4.4	10.5	2.5	0.0	8.0	0.0	12.5	0.0	11.1	6.3
Exiting Leg Total				22				12				4	38

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	13	46	0	59	20	16	0	36	1	7	0	8	103
4:15 PM	17	40	0	57	21	6	0	27	0	3	0	3	87
4:30 PM	10	27	0	37	18	16	0	34	0	7	0	7	78
4:45 PM	13	29	0	42	21	16	0	37	0	3	0	3	82
Total Volume	53	142	0	195	80	54	0	134	1	20	0	21	350
% Approach Total	27.2	72.8	0.0		59.7	40.3	0.0		4.8	95.2	0.0		
PHF	0.779	0.772	0.000	0.826	0.952	0.844	0.000	0.905	0.250	0.714	0.000	0.656	0.850
Cars	52	131	0	183	67	52	0	119	1	17	0	18	320
Cars %	98.1	92.3	0.0	93.8	83.8	96.3	0.0	88.8	100.0	85.0	0.0	85.7	91.4
Heavy Vehicles	1	11	0	12	13	2	0	15	0	3	0	3	30
Heavy Vehicles %	1.9	7.7	0.0	6.2	16.3	3.7	0.0	11.2	0.0	15.0	0.0	14.3	8.6
Cars Enter Leg	52	131	0	183	67	52	0	119	1	17	0	18	320
Heavy Enter Leg	1	11	0	12	13	2	0	15	0	3	0	3	30
Total Entering Leg	53	142	0	195	80	54	0	134	1	20	0	21	350
Cars Exiting Leg				84				132				104	320
Heavy Exiting Leg				16				11				3	30
Total Exiting Leg				100				143				107	350

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	13	42	0	55	15	15	0	30	1	6	0	7	92
4:15 PM	16	35	0	51	15	6	0	21	0	1	0	1	73
4:30 PM	10	26	0	36	17	15	0	32	0	7	0	7	75
4:45 PM	13	28	0	41	20	16	0	36	0	3	0	3	80
Total	52	131	0	183	67	52	0	119	1	17	0	18	320
5:00 PM	5	26	0	31	24	5	0	29	1	6	0	7	67
5:15 PM	7	32	0	39	26	10	0	36	1	4	0	5	80
5:30 PM	3	22	0	25	20	9	0	29	0	1	0	1	55
5:45 PM	3	21	0	24	16	2	0	18	1	0	0	1	43
Total	18	101	0	119	86	26	0	112	3	11	0	14	245
Grand Total	70	232	0	302	153	78	0	231	4	28	0	32	565
Approach %	23.2	76.8	0.0		66.2	33.8	0.0		12.5	87.5	0.0		
Total %	12.4	41.1	0.0	53.5	27.1	13.8	0.0	40.9	0.7	5.0	0.0	5.7	
Exiting Leg Total				181				236				148	565

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	13	42	0	55	15	15	0	30	1	6	0	7	92
4:15 PM	16	35	0	51	15	6	0	21	0	1	0	1	73
4:30 PM	10	26	0	36	17	15	0	32	0	7	0	7	75
4:45 PM	13	28	0	41	20	16	0	36	0	3	0	3	80
Total Volume	52	131	0	183	67	52	0	119	1	17	0	18	320
% Approach Total	28.4	71.6	0.0		56.3	43.7	0.0		5.6	94.4	0.0		
PHF	0.813	0.780	0.000	0.832	0.838	0.813	0.000	0.826	0.250	0.607	0.000	0.643	0.870
Entering Leg	52	131	0	183	67	52	0	119	1	17	0	18	320
Exiting Leg				84				132				104	320
Total				267				251				122	640

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	4	0	4	5	1	0	6	0	1	0	1	11
4:15 PM	1	5	0	6	6	0	0	6	0	2	0	2	14
4:30 PM	0	1	0	1	1	1	0	2	0	0	0	0	3
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	1	11	0	12	13	2	0	15	0	3	0	3	30
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:15 PM	0	1	0	1	2	0	0	2	0	1	0	1	4
5:30 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	1	0	2	5	0	0	5	0	1	0	1	8
Grand Total	2	12	0	14	18	2	0	20	0	4	0	4	38
Approach %	14.3	85.7	0.0		90.0	10.0	0.0		0.0	100.0	0.0		
Total %	5.3	31.6	0.0	36.8	47.4	5.3	0.0	52.6	0.0	10.5	0.0	10.5	
Exiting Leg Total				22				12				4	38
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	2	10	0	12	13	2	0	15	0	4	0	4	31
% Single-Unit	100.0	83.3	0.0	85.7	72.2	100.0	0.0	75.0	0.0	100.0	0.0	100.0	81.6
Exiting Leg Total				17				10				4	31
Articulated Trucks	0	2	0	2	5	0	0	5	0	0	0	0	7
% Articulated	0.0	16.7	0.0	14.3	27.8	0.0	0.0	25.0	0.0	0.0	0.0	0.0	18.4
Exiting Leg Total				5				2				0	7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	4	0	4	5	1	0	6	0	1	0	1	11
4:15 PM	1	5	0	6	6	0	0	6	0	2	0	2	14
4:30 PM	0	1	0	1	1	1	0	2	0	0	0	0	3
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total Volume	1	11	0	12	13	2	0	15	0	3	0	3	30
% Approach Total	8.3	91.7	0.0		86.7	13.3	0.0		0.0	100.0	0.0		
PHF	0.250	0.550	0.000	0.500	0.542	0.500	0.000	0.625	0.000	0.375	0.000	0.375	0.536
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	1	9	0	10	10	2	0	12	0	3	0	3	25
Single-Unit %	100.0	81.8	0.0	83.3	76.9	100.0	0.0	80.0	0.0	100.0	0.0	100.0	83.3
Articulated Trucks	0	2	0	2	3	0	0	3	0	0	0	0	5
Articulated %	0.0	18.2	0.0	16.7	23.1	0.0	0.0	20.0	0.0	0.0	0.0	0.0	16.7
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	1	9	0	10	10	2	0	12	0	3	0	3	25
Articulated Trucks	0	2	0	2	3	0	0	3	0	0	0	0	5
Total Entering Leg	1	11	0	12	13	2	0	15	0	3	0	3	30
Buses				0				0				0	0
Single-Unit Trucks				13				9				3	25
Articulated Trucks				3				2				0	5
Total Exiting Leg				16				11				3	30

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0					0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0					0
Total				0				0					0

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	2	0	2	5	1	0	6	0	1	0	1	9
4:15 PM	1	5	0	6	3	0	0	3	0	2	0	2	11
4:30 PM	0	1	0	1	1	1	0	2	0	0	0	0	3
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	1	9	0	10	10	2	0	12	0	3	0	3	25
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	1	2	0	0	2	0	1	0	1	4
5:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	1	0	2	3	0	0	3	0	1	0	1	6
Grand Total	2	10	0	12	13	2	0	15	0	4	0	4	31
Approach %	16.7	83.3	0.0		86.7	13.3	0.0		0.0	100.0	0.0		
Total %	6.5	32.3	0.0	38.7	41.9	6.5	0.0	48.4	0.0	12.9	0.0	12.9	
Exiting Leg Total				17				10				4	31

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	2	0	2	5	1	0	6	0	1	0	1	9
4:15 PM	1	5	0	6	3	0	0	3	0	2	0	2	11
4:30 PM	0	1	0	1	1	1	0	2	0	0	0	0	3
4:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total Volume	1	9	0	10	10	2	0	12	0	3	0	3	25
% Approach Total	10.0	90.0	0.0		83.3	16.7	0.0		0.0	100.0	0.0		
PHF	0.250	0.450	0.000	0.417	0.500	0.500	0.000	0.500	0.000	0.375	0.000	0.375	0.568
Entering Leg	1	9	0	10	10	2	0	12	0	3	0	3	25
Exiting Leg				13				9				3	25
Total				23				21				6	50

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	3	0	0	3	0	0	0	0	5
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	0	0	2	0	0	0	0	2
Grand Total	0	2	0	2	5	0	0	5	0	0	0	0	7
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total %	0.0	28.6	0.0	28.6	71.4	0.0	0.0	71.4	0.0	0.0	0.0	0.0	
Exiting Leg Total				5				2					7

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road				Route 2 WB Ramps-Exit 105				Fort Pond Road				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	3	0	0	3	0	0	0	0	5
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0	0.0	
PHF	0.000	0.250	0.000	0.250	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.417
Entering Leg	0	2	0	2	3	0	0	3	0	0	0	0	5
Exiting Leg				3				2					5
Total				5				5					10

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 C**
 Location: **S: Route 2 WB Ramps-Exit 105**
 Location: **E: Fort Pond Road W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Fort Pond Road						Route 2 WB Ramps-Exit 105						Fort Pond Road						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	53	33	0	86	57	3	0	60	4	14	0	18	164
7:15 AM	36	36	0	72	52	2	0	54	4	13	0	17	143
7:30 AM	22	28	0	50	58	1	0	59	5	26	0	31	140
7:45 AM	32	40	0	72	75	1	0	76	3	29	0	32	180
Total	143	137	0	280	242	7	0	249	16	82	0	98	627
8:00 AM	27	20	0	47	39	1	0	40	5	20	0	25	112
8:15 AM	18	30	0	48	44	2	0	46	2	22	0	24	118
8:30 AM	40	34	0	74	35	1	0	36	6	18	0	24	134
8:45 AM	28	21	0	49	33	2	0	35	2	16	0	18	102
Total	113	105	0	218	151	6	0	157	15	76	0	91	466
Grand Total	256	242	0	498	393	13	0	406	31	158	0	189	1093
Approach %	51.4	48.6	0.0		96.8	3.2	0.0		16.4	83.6	0.0		
Total %	23.4	22.1	0.0	45.6	36.0	1.2	0.0	37.1	2.8	14.5	0.0	17.3	
Exiting Leg Total				551				273				269	1093
Cars	244	235	0	479	385	11	0	396	24	147	0	171	1046
% Cars	95.3	97.1	0.0	96.2	98.0	84.6	0.0	97.5	77.4	93.0	0.0	90.5	95.7
Exiting Leg Total				532				259				255	1046
Heavy Vehicles	12	7	0	19	8	2	0	10	7	11	0	18	47
% Heavy Vehicles	4.7	2.9	0.0	3.8	2.0	15.4	0.0	2.5	22.6	7.0	0.0	9.5	4.3
Exiting Leg Total				19				14				14	47

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	53	33	0	86	57	3	0	60	4	14	0	18	164
7:15 AM	36	36	0	72	52	2	0	54	4	13	0	17	143
7:30 AM	22	28	0	50	58	1	0	59	5	26	0	31	140
7:45 AM	32	40	0	72	75	1	0	76	3	29	0	32	180
Total Volume	143	137	0	280	242	7	0	249	16	82	0	98	627
% Approach Total	51.1	48.9	0.0		97.2	2.8	0.0		16.3	83.7	0.0		
PHF	0.675	0.856	0.000	0.814	0.807	0.583	0.000	0.819	0.800	0.707	0.000	0.766	0.871
Cars	136	134	0	270	239	6	0	245	14	78	0	92	607
Cars %	95.1	97.8	0.0	96.4	98.8	85.7	0.0	98.4	87.5	95.1	0.0	93.9	96.8
Heavy Vehicles	7	3	0	10	3	1	0	4	2	4	0	6	20
Heavy Vehicles %	4.9	2.2	0.0	3.6	1.2	14.3	0.0	1.6	12.5	4.9	0.0	6.1	3.2
Cars Enter Leg	136	134	0	270	239	6	0	245	14	78	0	92	607
Heavy Enter Leg	7	3	0	10	3	1	0	4	2	4	0	6	20
Total Entering Leg	143	137	0	280	242	7	0	249	16	82	0	98	627
Cars Exiting Leg				317				148				142	607
Heavy Exiting Leg				7				5				8	20
Total Exiting Leg				324				153				150	627

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	52	33	0	85	57	3	0	60	3	14	0	17	162
7:15 AM	34	33	0	67	51	1	0	52	4	11	0	15	134
7:30 AM	21	28	0	49	57	1	0	58	4	25	0	29	136
7:45 AM	29	40	0	69	74	1	0	75	3	28	0	31	175
Total	136	134	0	270	239	6	0	245	14	78	0	92	607
8:00 AM	25	20	0	45	39	1	0	40	3	19	0	22	107
8:15 AM	18	30	0	48	43	2	0	45	1	19	0	20	113
8:30 AM	38	30	0	68	32	1	0	33	5	18	0	23	124
8:45 AM	27	21	0	48	32	1	0	33	1	13	0	14	95
Total	108	101	0	209	146	5	0	151	10	69	0	79	439
Grand Total	244	235	0	479	385	11	0	396	24	147	0	171	1046
Approach %	50.9	49.1	0.0		97.2	2.8	0.0		14.0	86.0	0.0		
Total %	23.3	22.5	0.0	45.8	36.8	1.1	0.0	37.9	2.3	14.1	0.0	16.3	
Exiting Leg Total				532				259				255	1046

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	52	33	0	85	57	3	0	60	3	14	0	17	162
7:15 AM	34	33	0	67	51	1	0	52	4	11	0	15	134
7:30 AM	21	28	0	49	57	1	0	58	4	25	0	29	136
7:45 AM	29	40	0	69	74	1	0	75	3	28	0	31	175
Total Volume	136	134	0	270	239	6	0	245	14	78	0	92	607
% Approach Total	50.4	49.6	0.0		97.6	2.4	0.0		15.2	84.8	0.0		
PHF	0.654	0.838	0.000	0.794	0.807	0.500	0.000	0.817	0.875	0.696	0.000	0.742	0.867
Entering Leg	136	134	0	270	239	6	0	245	14	78	0	92	607
Exiting Leg				317				148				142	607
Total				587				393				234	1214

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	1	0	0	1	0	0	0	0	1	0	0	1	2
7:15 AM	2	3	0	5	1	1	0	2	0	2	0	2	9
7:30 AM	1	0	0	1	1	0	0	1	1	1	0	2	4
7:45 AM	3	0	0	3	1	0	0	1	0	1	0	1	5
Total	7	3	0	10	3	1	0	4	2	4	0	6	20
8:00 AM	2	0	0	2	0	0	0	0	2	1	0	3	5
8:15 AM	0	0	0	0	1	0	0	1	1	3	0	4	5
8:30 AM	2	4	0	6	3	0	0	3	1	0	0	1	10
8:45 AM	1	0	0	1	1	1	0	2	1	3	0	4	7
Total	5	4	0	9	5	1	0	6	5	7	0	12	27
Grand Total	12	7	0	19	8	2	0	10	7	11	0	18	47
Approach %	63.2	36.8	0.0		80.0	20.0	0.0		38.9	61.1	0.0		
Total %	25.5	14.9	0.0	40.4	17.0	4.3	0.0	21.3	14.9	23.4	0.0	38.3	
Exiting Leg Total				19				14				14	47
Buses	1	2	0	3	2	0	0	2	0	0	0	0	5
% Buses	8.3	28.6	0.0	15.8	25.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	10.6
Exiting Leg Total				2				2				1	5
Single-Unit Trucks	10	4	0	14	5	0	0	5	5	9	0	14	33
% Single-Unit	83.3	57.1	0.0	73.7	62.5	0.0	0.0	50.0	71.4	81.8	0.0	77.8	70.2
Exiting Leg Total				14				9				10	33
Articulated Trucks	1	1	0	2	1	2	0	3	2	2	0	4	9
% Articulated	8.3	14.3	0.0	10.5	12.5	100.0	0.0	30.0	28.6	18.2	0.0	22.2	19.1
Exiting Leg Total				3				3				3	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
8:00 AM	2	0	0	2	0	0	0	0	2	1	0	3	5
8:15 AM	0	0	0	0	1	0	0	1	1	3	0	4	5
8:30 AM	2	4	0	6	3	0	0	3	1	0	0	1	10
8:45 AM	1	0	0	1	1	1	0	2	1	3	0	4	7
Total Volume	5	4	0	9	5	1	0	6	5	7	0	12	27
% Approach Total	55.6	44.4	0.0		83.3	16.7	0.0		41.7	58.3	0.0		
PHF	0.625	0.250	0.000	0.375	0.417	0.250	0.000	0.500	0.625	0.583	0.000	0.750	0.675
Buses	0	2	0	2	0	0	0	0	0	0	0	0	2
Buses %	0.0	50.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4
Single-Unit Trucks	5	1	0	6	4	0	0	4	5	5	0	10	20
Single-Unit %	100.0	25.0	0.0	66.7	80.0	0.0	0.0	66.7	100.0	71.4	0.0	83.3	74.1
Articulated Trucks	0	1	0	1	1	1	0	2	0	2	0	2	5
Articulated %	0.0	25.0	0.0	11.1	20.0	100.0	0.0	33.3	0.0	28.6	0.0	16.7	18.5
Buses	0	2	0	2	0	0	0	0	0	0	0	0	2
Single-Unit Trucks	5	1	0	6	4	0	0	4	5	5	0	10	20
Articulated Trucks	0	1	0	1	1	1	0	2	0	2	0	2	5
Total Entering Leg	5	4	0	9	5	1	0	6	5	7	0	12	27
Buses				0				2				0	2
Single-Unit Trucks				9				6				5	20
Articulated Trucks				3				1				1	5
Total Exiting Leg				12				9				6	27

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Shirley Road				Shirley Road				Fort Pond Road				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:45 AM	1	0	0	1	1	0	0	1	0	0	0	0	0	2
Total	1	0	0	1	2	0	0	2	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	0	0	0	0	2
Grand Total	1	2	0	3	2	0	0	2	0	0	0	0	0	5
Approach %	33.3	66.7	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
Total %	20.0	40.0	0.0	60.0	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				2				2					1	5

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Shirley Road				Shirley Road				Fort Pond Road				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
7:45 AM	1	0	0	1	1	0	0	1	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	2
Total Volume	1	2	0	3	1	0	0	1	0	0	0	0	0	4
% Approach Total	33.3	66.7	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.250	0.250	0.000	0.375	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	1	2	0	3	1	0	0	1	0	0	0	0	0	4
Exiting Leg				1				2					1	4
Total				4				3					1	8

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	2	3	0	5	1	0	0	1	0	2	0	2	8
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:45 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
Total	5	3	0	8	1	0	0	1	0	4	0	4	13
8:00 AM	2	0	0	2	0	0	0	0	2	1	0	3	5
8:15 AM	0	0	0	0	0	0	0	0	1	3	0	4	4
8:30 AM	2	1	0	3	3	0	0	3	1	0	0	1	7
8:45 AM	1	0	0	1	1	0	0	1	1	1	0	2	4
Total	5	1	0	6	4	0	0	4	5	5	0	10	20
Grand Total	10	4	0	14	5	0	0	5	5	9	0	14	33
Approach %	71.4	28.6	0.0		100.0	0.0	0.0		35.7	64.3	0.0		
Total %	30.3	12.1	0.0	42.4	15.2	0.0	0.0	15.2	15.2	27.3	0.0	42.4	
Exiting Leg Total				14				9				10	33

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
8:00 AM	2	0	0	2	0	0	0	0	2	1	0	3	5
8:15 AM	0	0	0	0	0	0	0	0	1	3	0	4	4
8:30 AM	2	1	0	3	3	0	0	3	1	0	0	1	7
8:45 AM	1	0	0	1	1	0	0	1	1	1	0	2	4
Total Volume	5	1	0	6	4	0	0	4	5	5	0	10	20
% Approach Total	83.3	16.7	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
PHF	0.625	0.250	0.000	0.500	0.333	0.000	0.000	0.333	0.625	0.417	0.000	0.625	0.714
Entering Leg	5	1	0	6	4	0	0	4	5	5	0	10	20
Exiting Leg				9				6				5	20
Total				15				10				15	40

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Shirley Road				Shirley Road				Fort Pond Road				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 AM	0	0	0	0	0	1	0	1	1	0	0	0	0	1
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	1	0	1	1	2	0	0	2	4
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	1	0	0	0	0	1
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	1	1	0	2	0	2	3
Total	0	1	0	1	1	1	0	2	2	0	2	0	2	5
Grand Total	1	1	0	2	1	2	0	3	3	2	2	0	4	9
Approach %	50.0	50.0	0.0		33.3	66.7	0.0			50.0	50.0	0.0		
Total %	11.1	11.1	0.0	22.2	11.1	22.2	0.0	33.3		22.2	22.2	0.0	44.4	
Exiting Leg Total				3				3					3	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Shirley Road				Shirley Road				Fort Pond Road				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	1	0	0	0	0	1
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	1	0	1	1	0	2	0	2	3
Total Volume	0	1	0	1	1	1	0	2	2	0	2	0	2	5
% Approach Total	0.0	100.0	0.0		50.0	50.0	0.0			0.0	100.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.250	0.250	0.000	0.500		0.000	0.250	0.000	0.250	0.417
Entering Leg	0	1	0	1	1	1	0	2		0	2	0	2	5
Exiting Leg				3				1					1	5
Total				4				3					3	10

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0
Exiting Leg Total	1						0						0						1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Exiting Leg	1						0						0						1
Total	1						0						1						2

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	61	45	0	106	47	0	0	47	14	11	0	25	178
4:15 PM	49	38	0	87	56	6	0	62	6	18	0	24	173
4:30 PM	37	34	0	71	53	2	0	55	6	18	0	24	150
4:45 PM	40	30	0	70	41	1	0	42	4	18	0	22	134
Total	187	147	0	334	197	9	0	206	30	65	0	95	635
5:00 PM	35	28	0	63	32	1	0	33	11	23	0	34	130
5:15 PM	38	33	0	71	43	2	0	45	11	23	0	34	150
5:30 PM	34	23	0	57	42	0	0	42	7	15	0	22	121
5:45 PM	23	16	0	39	37	2	0	39	4	15	0	19	97
Total	130	100	0	230	154	5	0	159	33	76	0	109	498
Grand Total	317	247	0	564	351	14	0	365	63	141	0	204	1133
Approach %	56.2	43.8	0.0		96.2	3.8	0.0		30.9	69.1	0.0		
Total %	28.0	21.8	0.0	49.8	31.0	1.2	0.0	32.2	5.6	12.4	0.0	18.0	
Exiting Leg Total				492				310				331	1133
Cars	308	242	0	550	339	11	0	350	61	122	0	183	1083
% Cars	97.2	98.0	0.0	97.5	96.6	78.6	0.0	95.9	96.8	86.5	0.0	89.7	95.6
Exiting Leg Total				461				303				319	1083
Heavy Vehicles	9	5	0	14	12	3	0	15	2	19	0	21	50
% Heavy Vehicles	2.8	2.0	0.0	2.5	3.4	21.4	0.0	4.1	3.2	13.5	0.0	10.3	4.4
Exiting Leg Total				31				7				12	50

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	61	45	0	106	47	0	0	47	14	11	0	25	178
4:15 PM	49	38	0	87	56	6	0	62	6	18	0	24	173
4:30 PM	37	34	0	71	53	2	0	55	6	18	0	24	150
4:45 PM	40	30	0	70	41	1	0	42	4	18	0	22	134
Total Volume	187	147	0	334	197	9	0	206	30	65	0	95	635
% Approach Total	56.0	44.0	0.0		95.6	4.4	0.0		31.6	68.4	0.0		
PHF	0.766	0.817	0.000	0.788	0.879	0.375	0.000	0.831	0.536	0.903	0.000	0.950	0.892
Cars	179	144	0	323	188	7	0	195	29	52	0	81	599
Cars %	95.7	98.0	0.0	96.7	95.4	77.8	0.0	94.7	96.7	80.0	0.0	85.3	94.3
Heavy Vehicles	8	3	0	11	9	2	0	11	1	13	0	14	36
Heavy Vehicles %	4.3	2.0	0.0	3.3	4.6	22.2	0.0	5.3	3.3	20.0	0.0	14.7	5.7
Cars Enter Leg	179	144	0	323	188	7	0	195	29	52	0	81	599
Heavy Enter Leg	8	3	0	11	9	2	0	11	1	13	0	14	36
Total Entering Leg	187	147	0	334	197	9	0	206	30	65	0	95	635
Cars Exiting Leg				240				173				186	599
Heavy Exiting Leg				22				4				10	36
Total Exiting Leg				262				177				196	635

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	58	45	0	103	46	0	0	46	14	7	0	21	170
4:15 PM	46	38	0	84	52	4	0	56	5	11	0	16	156
4:30 PM	35	31	0	66	53	2	0	55	6	17	0	23	144
4:45 PM	40	30	0	70	37	1	0	38	4	17	0	21	129
Total	179	144	0	323	188	7	0	195	29	52	0	81	599
5:00 PM	35	28	0	63	30	1	0	31	11	22	0	33	127
5:15 PM	37	32	0	69	43	2	0	45	10	21	0	31	145
5:30 PM	34	23	0	57	42	0	0	42	7	13	0	20	119
5:45 PM	23	15	0	38	36	1	0	37	4	14	0	18	93
Total	129	98	0	227	151	4	0	155	32	70	0	102	484
Grand Total	308	242	0	550	339	11	0	350	61	122	0	183	1083
Approach %	56.0	44.0	0.0		96.9	3.1	0.0		33.3	66.7	0.0		
Total %	28.4	22.3	0.0	50.8	31.3	1.0	0.0	32.3	5.6	11.3	0.0	16.9	
Exiting Leg Total				461				303				319	1083

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	58	45	0	103	46	0	0	46	14	7	0	21	170
4:15 PM	46	38	0	84	52	4	0	56	5	11	0	16	156
4:30 PM	35	31	0	66	53	2	0	55	6	17	0	23	144
4:45 PM	40	30	0	70	37	1	0	38	4	17	0	21	129
Total Volume	179	144	0	323	188	7	0	195	29	52	0	81	599
% Approach Total	55.4	44.6	0.0		96.4	3.6	0.0		35.8	64.2	0.0		
PHF	0.772	0.800	0.000	0.784	0.887	0.438	0.000	0.871	0.518	0.765	0.000	0.880	0.881
Entering Leg	179	144	0	323	188	7	0	195	29	52	0	81	599
Exiting Leg				240				173				186	599
Total				563				368				267	1198

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	3	0	0	3	1	0	0	1	0	4	0	4	8
4:15 PM	3	0	0	3	4	2	0	6	1	7	0	8	17
4:30 PM	2	3	0	5	0	0	0	0	0	1	0	1	6
4:45 PM	0	0	0	0	4	0	0	4	0	1	0	1	5
Total	8	3	0	11	9	2	0	11	1	13	0	14	36
5:00 PM	0	0	0	0	2	0	0	2	0	1	0	1	3
5:15 PM	1	1	0	2	0	0	0	0	1	2	0	3	5
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
5:45 PM	0	1	0	1	1	1	0	2	0	1	0	1	4
Total	1	2	0	3	3	1	0	4	1	6	0	7	14
Grand Total	9	5	0	14	12	3	0	15	2	19	0	21	50
Approach %	64.3	35.7	0.0		80.0	20.0	0.0		9.5	90.5	0.0		
Total %	18.0	10.0	0.0	28.0	24.0	6.0	0.0	30.0	4.0	38.0	0.0	42.0	
Exiting Leg Total				31				7				12	50
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	7	4	0	11	8	3	0	11	1	14	0	15	37
% Single-Unit	77.8	80.0	0.0	78.6	66.7	100.0	0.0	73.3	50.0	73.7	0.0	71.4	74.0
Exiting Leg Total				22				5				10	37
Articulated Trucks	2	1	0	3	4	0	0	4	1	5	0	6	13
% Articulated	22.2	20.0	0.0	21.4	33.3	0.0	0.0	26.7	50.0	26.3	0.0	28.6	26.0
Exiting Leg Total				9				2				2	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	3	0	0	3	1	0	0	1	0	4	0	4	8
4:15 PM	3	0	0	3	4	2	0	6	1	7	0	8	17
4:30 PM	2	3	0	5	0	0	0	0	0	1	0	1	6
4:45 PM	0	0	0	0	4	0	0	4	0	1	0	1	5
Total Volume	8	3	0	11	9	2	0	11	1	13	0	14	36
% Approach Total	72.7	27.3	0.0		81.8	18.2	0.0		7.1	92.9	0.0		
PHF	0.667	0.250	0.000	0.550	0.563	0.250	0.000	0.458	0.250	0.464	0.000	0.438	0.529
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	6	3	0	9	6	2	0	8	0	11	0	11	28
Single-Unit %	75.0	100.0	0.0	81.8	66.7	100.0	0.0	72.7	0.0	84.6	0.0	78.6	77.8
Articulated Trucks	2	0	0	2	3	0	0	3	1	2	0	3	8
Articulated %	25.0	0.0	0.0	18.2	33.3	0.0	0.0	27.3	100.0	15.4	0.0	21.4	22.2
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	6	3	0	9	6	2	0	8	0	11	0	11	28
Articulated Trucks	2	0	0	2	3	0	0	3	1	2	0	3	8
Total Entering Leg	8	3	0	11	9	2	0	11	1	13	0	14	36
Buses				0				0				0	0
Single-Unit Trucks				17				3				8	28
Articulated Trucks				5				1				2	8
Total Exiting Leg				22				4				10	36

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Shirley Road				Shirley Road				Fort Pond Road				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0					0	0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Shirley Road				Fort Pond Road				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0					0	0
Total				0				0					0	0

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Shirley Road				Shirley Road				Fort Pond Road				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	1	0	0	1	0	0	0	0	0	0	4	0	4	5
4:15 PM	3	0	0	3	2	2	0	4	0	5	0	5	12	
4:30 PM	2	3	0	5	0	0	0	0	0	1	0	1	6	
4:45 PM	0	0	0	0	4	0	0	4	0	1	0	1	5	
Total	6	3	0	9	6	2	0	8	0	11	0	11	28	
5:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2	
5:15 PM	1	1	0	2	0	0	0	0	1	2	0	3	5	
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	
Total	1	1	0	2	2	1	0	3	1	3	0	4	9	
Grand Total	7	4	0	11	8	3	0	11	1	14	0	15	37	
Approach %	63.6	36.4	0.0		72.7	27.3	0.0		6.7	93.3	0.0			
Total %	18.9	10.8	0.0	29.7	21.6	8.1	0.0	29.7	2.7	37.8	0.0	40.5		
Exiting Leg Total				22				5				10	37	

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	1	0	0	1	0	0	0	0	0	4	0	4	5
4:15 PM	3	0	0	3	2	2	0	4	0	5	0	5	12
4:30 PM	2	3	0	5	0	0	0	0	0	1	0	1	6
4:45 PM	0	0	0	0	4	0	0	4	0	1	0	1	5
Total Volume	6	3	0	9	6	2	0	8	0	11	0	11	28
% Approach Total	66.7	33.3	0.0		75.0	25.0	0.0		0.0	100.0	0.0		
PHF	0.500	0.250	0.000	0.450	0.375	0.250	0.000	0.500	0.000	0.550	0.000	0.550	0.583
Entering Leg	6	3	0	9	6	2	0	8	0	11	0	11	28
Exiting Leg				17				3				8	28
Total				26				11				19	56

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	3
4:15 PM	0	0	0	0	2	0	0	2	1	2	0	3	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	3	0	0	3	1	2	0	3	8
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	1	0	1	1	0	0	1	0	1	0	1	3
Total	0	1	0	1	1	0	0	1	0	3	0	3	5
Grand Total	2	1	0	3	4	0	0	4	1	5	0	6	13
Approach %	66.7	33.3	0.0		100.0	0.0	0.0		16.7	83.3	0.0		
Total %	15.4	7.7	0.0	23.1	30.8	0.0	0.0	30.8	7.7	38.5	0.0	46.2	
Exiting Leg Total				9				2				2	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Shirley Road				Fort Pond Road				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	3
4:15 PM	0	0	0	0	2	0	0	2	1	2	0	3	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	3	0	0	3	1	2	0	3	8
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		33.3	66.7	0.0		
PHF	0.250	0.000	0.000	0.250	0.375	0.000	0.000	0.375	0.250	0.250	0.000	0.250	0.400
Entering Leg	2	0	0	2	3	0	0	3	1	2	0	3	8
Exiting Leg				5				1				2	8
Total				7				4				5	16

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 D**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **W: Fort Pond Road**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Shirley Road						Shirley Road						Fort Pond Road						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	4	34	0	38	39	0	0	39	10	21	0	31	108
7:15 AM	8	29	0	37	27	0	0	27	13	27	0	40	104
7:30 AM	8	27	0	35	36	0	0	36	22	25	0	47	118
7:45 AM	11	31	0	42	49	0	0	49	9	27	0	36	127
Total	31	121	0	152	151	0	0	151	54	100	0	154	457
8:00 AM	8	18	0	26	30	1	0	31	9	4	0	13	70
8:15 AM	4	28	0	32	31	0	0	31	5	7	0	12	75
8:30 AM	13	25	0	38	26	0	0	26	3	8	0	11	75
8:45 AM	11	15	0	26	19	0	0	19	3	15	0	18	63
Total	36	86	0	122	106	1	0	107	20	34	0	54	283
Grand Total	67	207	0	274	257	1	0	258	74	134	0	208	740
Approach %	24.5	75.5	0.0		99.6	0.4	0.0		35.6	64.4	0.0		
Total %	9.1	28.0	0.0	37.0	34.7	0.1	0.0	34.9	10.0	18.1	0.0	28.1	
Exiting Leg Total				391				281				68	740
Cars	66	192	0	258	249	1	0	250	74	132	0	206	714
% Cars	98.5	92.8	0.0	94.2	96.9	100.0	0.0	96.9	100.0	98.5	0.0	99.0	96.5
Exiting Leg Total				381				266				67	714
Heavy Vehicles	1	15	0	16	8	0	0	8	0	2	0	2	26
% Heavy Vehicles	1.5	7.2	0.0	5.8	3.1	0.0	0.0	3.1	0.0	1.5	0.0	1.0	3.5
Exiting Leg Total				10				15				1	26

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	4	34	0	38	39	0	0	39	10	21	0	31	108
7:15 AM	8	29	0	37	27	0	0	27	13	27	0	40	104
7:30 AM	8	27	0	35	36	0	0	36	22	25	0	47	118
7:45 AM	11	31	0	42	49	0	0	49	9	27	0	36	127
Total Volume	31	121	0	152	151	0	0	151	54	100	0	154	457
% Approach Total	20.4	79.6	0.0		100.0	0.0	0.0		35.1	64.9	0.0		
PHF	0.705	0.890	0.000	0.905	0.770	0.000	0.000	0.770	0.614	0.926	0.000	0.819	0.900
Cars	30	116	0	146	149	0	0	149	54	98	0	152	447
Cars %	96.8	95.9	0.0	96.1	98.7	0.0	0.0	98.7	100.0	98.0	0.0	98.7	97.8
Heavy Vehicles	1	5	0	6	2	0	0	2	0	2	0	2	10
Heavy Vehicles %	3.2	4.1	0.0	3.9	1.3	0.0	0.0	1.3	0.0	2.0	0.0	1.3	2.2
Cars Enter Leg	30	116	0	146	149	0	0	149	54	98	0	152	447
Heavy Enter Leg	1	5	0	6	2	0	0	2	0	2	0	2	10
Total Entering Leg	31	121	0	152	151	0	0	151	54	100	0	154	457
Cars Exiting Leg				247				170				30	447
Heavy Exiting Leg				4				5				1	10
Total Exiting Leg				251				175				31	457

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	4	33	0	37	39	0	0	39	10	21	0	31	107
7:15 AM	7	26	0	33	26	0	0	26	13	26	0	39	98
7:30 AM	8	26	0	34	35	0	0	35	22	25	0	47	116
7:45 AM	11	31	0	42	49	0	0	49	9	26	0	35	126
Total	30	116	0	146	149	0	0	149	54	98	0	152	447
8:00 AM	8	16	0	24	30	1	0	31	9	4	0	13	68
8:15 AM	4	27	0	31	30	0	0	30	5	7	0	12	73
8:30 AM	13	21	0	34	23	0	0	23	3	8	0	11	68
8:45 AM	11	12	0	23	17	0	0	17	3	15	0	18	58
Total	36	76	0	112	100	1	0	101	20	34	0	54	267
Grand Total	66	192	0	258	249	1	0	250	74	132	0	206	714
Approach %	25.6	74.4	0.0		99.6	0.4	0.0		35.9	64.1	0.0		
Total %	9.2	26.9	0.0	36.1	34.9	0.1	0.0	35.0	10.4	18.5	0.0	28.9	
Exiting Leg Total				381				266				67	714

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	4	33	0	37	39	0	0	39	10	21	0	31	107
7:15 AM	7	26	0	33	26	0	0	26	13	26	0	39	98
7:30 AM	8	26	0	34	35	0	0	35	22	25	0	47	116
7:45 AM	11	31	0	42	49	0	0	49	9	26	0	35	126
Total Volume	30	116	0	146	149	0	0	149	54	98	0	152	447
% Approach Total	20.5	79.5	0.0		100.0	0.0	0.0		35.5	64.5	0.0		
PHF	0.682	0.879	0.000	0.869	0.760	0.000	0.000	0.760	0.614	0.942	0.000	0.809	0.887
Entering Leg	30	116	0	146	149	0	0	149	54	98	0	152	447
Exiting Leg				247				170				30	447
Total				393				319				182	894

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class: Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total	
	from North				from East				from South					
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total		
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1	
7:15 AM	1	3	0	4	1	0	0	1	0	1	0	1	6	
7:30 AM	0	1	0	1	1	0	0	1	0	0	0	0	2	
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	
Total	1	5	0	6	2	0	0	2	0	2	0	2	10	
8:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	2	
8:15 AM	0	1	0	1	1	0	0	1	0	0	0	0	2	
8:30 AM	0	4	0	4	3	0	0	3	0	0	0	0	7	
8:45 AM	0	3	0	3	2	0	0	2	0	0	0	0	5	
Total	0	10	0	10	6	0	0	6	0	0	0	0	16	
Grand Total	1	15	0	16	8	0	0	8	0	2	0	2	26	
Approach %	6.3	93.8	0.0		100.0	0.0	0.0		0.0	100.0	0.0			
Total %	3.8	57.7	0.0	61.5	30.8	0.0	0.0	30.8	0.0	7.7	0.0	7.7		
Exiting Leg Total				10				15					1	26
Buses	0	2	0	2	1	0	0	1	0	1	0	1	4	
% Buses	0.0	13.3	0.0	12.5	12.5	0.0	0.0	12.5	0.0	50.0	0.0	50.0	15.4	
Exiting Leg Total				2				2					0	4
Single-Unit Trucks	1	10	0	11	4	0	0	4	0	1	0	1	16	
% Single-Unit	100.0	66.7	0.0	68.8	50.0	0.0	0.0	50.0	0.0	50.0	0.0	50.0	61.5	
Exiting Leg Total				5				10					1	16
Articulated Trucks	0	3	0	3	3	0	0	3	0	0	0	0	6	
% Articulated	0.0	20.0	0.0	18.8	37.5	0.0	0.0	37.5	0.0	0.0	0.0	0.0	23.1	
Exiting Leg Total				3				3					0	6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total	
	from North				from East				from South					
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total		
8:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	2	
8:15 AM	0	1	0	1	1	0	0	1	0	0	0	0	2	
8:30 AM	0	4	0	4	3	0	0	3	0	0	0	0	7	
8:45 AM	0	3	0	3	2	0	0	2	0	0	0	0	5	
Total Volume	0	10	0	10	6	0	0	6	0	0	0	0	16	
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.000	0.625	0.000	0.625	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.571	
Buses	0	2	0	2	0	0	0	0	0	0	0	0	2	
Buses %	0.0	20.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	
Single-Unit Trucks	0	7	0	7	4	0	0	4	0	0	0	0	11	
Single-Unit %	0.0	70.0	0.0	70.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	68.8	
Articulated Trucks	0	1	0	1	2	0	0	2	0	0	0	0	3	
Articulated %	0.0	10.0	0.0	10.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	18.8	
Buses	0	2	0	2	0	0	0	0	0	0	0	0	2	
Single-Unit Trucks	0	7	0	7	4	0	0	4	0	0	0	0	11	
Articulated Trucks	0	1	0	1	2	0	0	2	0	0	0	0	3	
Total Entering Leg	0	10	0	10	6	0	0	6	0	0	0	0	16	
Buses				0				2					0	2
Single-Unit Trucks				4				7					0	11
Articulated Trucks				2				1					0	3
Total Exiting Leg				6				10					0	16

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	1	0	0	1	0	1	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	0	0	0	2
Grand Total	0	2	0	2	1	0	0	1	0	1	0	1	4
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	50.0	0.0	50.0	25.0	0.0	0.0	25.0	0.0	25.0	0.0	25.0	
Exiting Leg Total				2				2					0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	2	0	2	0	0	0	0	0	0	1	0	1
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.375
Entering Leg	0	2	0	2	0	0	0	0	0	1	0	1	3
Exiting Leg				1				2				0	3
Total				3				2				1	6

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	3	0	4	0	0	0	0	0	1	0	1	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	3	0	4	0	0	0	0	0	1	0	1	5
8:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
8:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	1	0	1	3	0	0	3	0	0	0	0	4
8:45 AM	0	3	0	3	1	0	0	1	0	0	0	0	4
Total	0	7	0	7	4	0	0	4	0	0	0	0	11
Grand Total	1	10	0	11	4	0	0	4	0	1	0	1	16
Approach %	9.1	90.9	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	6.3	62.5	0.0	68.8	25.0	0.0	0.0	25.0	0.0	6.3	0.0	6.3	
Exiting Leg Total				5				10				1	16

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
8:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
8:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	1	0	1	3	0	0	3	0	0	0	0	4
8:45 AM	0	3	0	3	1	0	0	1	0	0	0	0	4
Total Volume	0	7	0	7	4	0	0	4	0	0	0	0	11
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.583	0.000	0.583	0.333	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.688
Entering Leg	0	7	0	7	4	0	0	4	0	0	0	0	11
Exiting Leg				4				7				0	11
Total				11				11				0	22

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	1	0	0	1	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	1	0	1	2	0	0	2	0	0	0	0	3
Grand Total	0	3	0	3	3	0	0	3	0	0	0	0	6
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total %	0.0	50.0	0.0	50.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				3				3					6

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
7:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	1	0	0	1	0	0	0	0	3
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	2	0	2	1	0	0	1	0	0	0	0	3
Exiting Leg				1				2					3
Total				3				3					6

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0	0	0	100	0		0	0	0	0	0		0	0	0	0	0		
Total %	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total	1						0						0						1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	1						0						0						1
Total	2						0						0						2

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	34	24	0	58	33	0	0	33	4	13	0	17	108
4:15 PM	25	20	0	45	44	0	1	45	1	18	0	19	109
4:30 PM	25	15	0	40	34	0	0	34	2	18	0	20	94
4:45 PM	23	10	0	33	26	1	0	27	4	15	0	19	79
Total	107	69	0	176	137	1	1	139	11	64	0	75	390
5:00 PM	27	14	0	41	21	0	0	21	1	14	0	15	77
5:15 PM	23	21	0	44	30	0	0	30	1	13	0	14	88
5:30 PM	18	12	0	30	26	0	1	27	2	16	0	18	75
5:45 PM	10	10	0	20	30	0	0	30	0	10	0	10	60
Total	78	57	0	135	107	0	1	108	4	53	0	57	300
Grand Total	185	126	0	311	244	1	2	247	15	117	0	132	690
Approach %	59.5	40.5	0.0		98.8	0.4	0.8		11.4	88.6	0.0		
Total %	26.8	18.3	0.0	45.1	35.4	0.1	0.3	35.8	2.2	17.0	0.0	19.1	
Exiting Leg Total				361				143				186	690
Cars	182	122	0	304	234	1	2	237	15	112	0	127	668
% Cars	98.4	96.8	0.0	97.7	95.9	100.0	100.0	96.0	100.0	95.7	0.0	96.2	96.8
Exiting Leg Total				346				139				183	668
Heavy Vehicles	3	4	0	7	10	0	0	10	0	5	0	5	22
% Heavy Vehicles	1.6	3.2	0.0	2.3	4.1	0.0	0.0	4.0	0.0	4.3	0.0	3.8	3.2
Exiting Leg Total				15				4				3	22

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	34	24	0	58	33	0	0	33	4	13	0	17	108
4:15 PM	25	20	0	45	44	0	1	45	1	18	0	19	109
4:30 PM	25	15	0	40	34	0	0	34	2	18	0	20	94
4:45 PM	23	10	0	33	26	1	0	27	4	15	0	19	79
Total Volume	107	69	0	176	137	1	1	139	11	64	0	75	390
% Approach Total	60.8	39.2	0.0		98.6	0.7	0.7		14.7	85.3	0.0		
PHF	0.787	0.719	0.000	0.759	0.778	0.250	0.250	0.772	0.688	0.889	0.000	0.938	0.894
Cars	106	67	0	173	130	1	1	132	11	60	0	71	376
Cars %	99.1	97.1	0.0	98.3	94.9	100.0	100.0	95.0	100.0	93.8	0.0	94.7	96.4
Heavy Vehicles	1	2	0	3	7	0	0	7	0	4	0	4	14
Heavy Vehicles %	0.9	2.9	0.0	1.7	5.1	0.0	0.0	5.0	0.0	6.3	0.0	5.3	3.6
Cars Enter Leg	106	67	0	173	130	1	1	132	11	60	0	71	376
Heavy Enter Leg	1	2	0	3	7	0	0	7	0	4	0	4	14
Total Entering Leg	107	69	0	176	137	1	1	139	11	64	0	75	390
Cars Exiting Leg				190				79				107	376
Heavy Exiting Leg				11				2				1	14
Total Exiting Leg				201				81				108	390

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	34	24	0	58	32	0	0	32	4	13	0	17	107
4:15 PM	24	20	0	44	42	0	1	43	1	14	0	15	102
4:30 PM	25	13	0	38	34	0	0	34	2	18	0	20	92
4:45 PM	23	10	0	33	22	1	0	23	4	15	0	19	75
Total	106	67	0	173	130	1	1	132	11	60	0	71	376
5:00 PM	27	14	0	41	19	0	0	19	1	14	0	15	75
5:15 PM	21	20	0	41	30	0	0	30	1	13	0	14	85
5:30 PM	18	12	0	30	26	0	1	27	2	16	0	18	75
5:45 PM	10	9	0	19	29	0	0	29	0	9	0	9	57
Total	76	55	0	131	104	0	1	105	4	52	0	56	292
Grand Total	182	122	0	304	234	1	2	237	15	112	0	127	668
Approach %	59.9	40.1	0.0		98.7	0.4	0.8		11.8	88.2	0.0		
Total %	27.2	18.3	0.0	45.5	35.0	0.1	0.3	35.5	2.2	16.8	0.0	19.0	
Exiting Leg Total				346				139				183	668

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	34	24	0	58	32	0	0	32	4	13	0	17	107
4:15 PM	24	20	0	44	42	0	1	43	1	14	0	15	102
4:30 PM	25	13	0	38	34	0	0	34	2	18	0	20	92
4:45 PM	23	10	0	33	22	1	0	23	4	15	0	19	75
Total Volume	106	67	0	173	130	1	1	132	11	60	0	71	376
% Approach Total	61.3	38.7	0.0		98.5	0.8	0.8		15.5	84.5	0.0		
PHF	0.779	0.698	0.000	0.746	0.774	0.250	0.250	0.767	0.688	0.833	0.000	0.888	0.879
Entering Leg	106	67	0	173	130	1	1	132	11	60	0	71	376
Exiting Leg				190				79				107	376
Total				363				211				178	752

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Class: Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:15 PM	1	0	0	1	2	0	0	2	0	4	0	4	7
4:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	4	0	0	4	0	0	0	0	4
Total	1	2	0	3	7	0	0	7	0	4	0	4	14
5:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
5:15 PM	2	1	0	3	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	1	1	0	0	1	0	1	0	1	3
Total	2	2	0	4	3	0	0	3	0	1	0	1	8
Grand Total	3	4	0	7	10	0	0	10	0	5	0	5	22
Approach %	42.9	57.1	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	13.6	18.2	0.0	31.8	45.5	0.0	0.0	45.5	0.0	22.7	0.0	22.7	
Exiting Leg Total				15				4				3	22
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total				0				0				0	0
Single-Unit Trucks	1	3	0	4	7	0	0	7	0	3	0	3	14
% Single-Unit	33.3	75.0	0.0	57.1	70.0	0.0	0.0	70.0	0.0	60.0	0.0	60.0	63.6
Exiting Leg Total				10				3				1	14
Articulated Trucks	2	1	0	3	3	0	0	3	0	2	0	2	8
% Articulated	66.7	25.0	0.0	42.9	30.0	0.0	0.0	30.0	0.0	40.0	0.0	40.0	36.4
Exiting Leg Total				5				1				2	8

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:15 PM	1	0	0	1	2	0	0	2	0	4	0	4	7
4:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	4	0	0	4	0	0	0	0	4
5:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
Total Volume	1	2	0	3	8	0	0	8	0	4	0	4	15
% Approach Total	33.3	66.7	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.250	0.000	0.375	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.250	0.536
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	2	0	2	7	0	0	7	0	2	0	2	11
Single-Unit %	0.0	100.0	0.0	66.7	87.5	0.0	0.0	87.5	0.0	50.0	0.0	50.0	73.3
Articulated Trucks	1	0	0	1	1	0	0	1	0	2	0	2	4
Articulated %	100.0	0.0	0.0	33.3	12.5	0.0	0.0	12.5	0.0	50.0	0.0	50.0	26.7
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	2	0	2	7	0	0	7	0	2	0	2	11
Articulated Trucks	1	0	0	1	1	0	0	1	0	2	0	2	4
Total Entering Leg	1	2	0	3	8	0	0	8	0	4	0	4	15
Buses				0				0				0	0
Single-Unit Trucks				9				2				0	11
Articulated Trucks				3				0				1	4
Total Exiting Leg				12				2				1	15

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0				0				0				0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0				0				0				0
Total	0				0				0				0

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
4:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	4	0	0	4	0	0	0	0	4
Total	0	2	0	2	5	0	0	5	0	2	0	2	9
5:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
5:15 PM	1	1	0	2	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	1	0	2	2	0	0	2	0	1	0	1	5
Grand Total	1	3	0	4	7	0	0	7	0	3	0	3	14
Approach %	25.0	75.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	7.1	21.4	0.0	28.6	50.0	0.0	0.0	50.0	0.0	21.4	0.0	21.4	
Exiting Leg Total				10				3				1	14

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:15 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
4:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	4	0	0	4	0	0	0	0	4
5:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
Total Volume	0	2	0	2	7	0	0	7	0	2	0	2	11
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.438	0.000	0.000	0.438	0.000	0.250	0.000	0.250	0.688
Entering Leg	0	2	0	2	7	0	0	7	0	2	0	2	11
Exiting Leg				9				2				0	11
Total				11				9				2	22

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:15 PM	1	0	0	1	1	0	0	1	0	2	0	2	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	2	0	0	2	0	2	0	2	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	1	1	0	2	1	0	0	1	0	0	0	0	3
Grand Total	2	1	0	3	3	0	0	3	0	2	0	2	8
Approach %	66.7	33.3	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	25.0	12.5	0.0	37.5	37.5	0.0	0.0	37.5	0.0	25.0	0.0	25.0	
Exiting Leg Total				5				1				2	8

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Shirley Road				Route 2 EB Ramps-Exit 105				Shirley Road				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:15 PM	1	0	0	1	1	0	0	1	0	2	0	2	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	2	0	0	2	0	2	0	2	5
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.500	0.000	0.000	0.500	0.000	0.250	0.000	0.250	0.313
Entering Leg	1	0	0	1	2	0	0	2	0	2	0	2	5
Exiting Leg				4				0				1	5
Total				5				2				3	10

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **218148 E**
 Location: **N: Shirley Road S: Shirley Road**
 Location: **E: Route 2 EB Ramps-Exit 105**
 City, State: **Lancaster, MA**
 Client: **VHB/ J. Plourde**
 Site Code: **14260.01**
 Count Date: **Wednesday, September 8, 2021**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Shirley Road						Route 2 EB Ramps-Exit 105						Shirley Road						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

Existing Traffic-Volume Adjustment Data

Pre-Pandemic vs. Pandemic Traffic Volume Comparison Fort Pond Road at Route 2 Westbound Ramps (Exit 103)

Volume Count Dates:

2018 Historical: ^a 12/19/2018 Wednesday
2021 New: ^b 9/8/2021 Wednesday

Peak Hour Periods:

AM Peak Hour: 7:00 - 8:00 AM
PM Peak Hour: 4:00 - 5:00 PM

Growth Factor (Inflating 2018 counts to 2019) ^c

Base Year	2018	Growth Rate =	0.50%
Future Year	2019		
Future - Base	1	Growth Factor =	1.005

MassDOT Seasonal Factor (Peak Month) ^d

December	13.51%
September	4.17%

WEEKDAY AM COMPARISON:

APPROACH	2018 RAW	2019	SUM	2021 NEW			DIFFERENCE (2021 - 2019)	
	COUNTS	ADJUSTED		RAW COUNTS	ADJUSTED	SUM	Volume	% Difference
NB	53	60	306	77	80	241	-65	-21.29%
EB	177	202		132	138			
WB	38	43		22	23			

WEEKDAY PM COMPARISON:

APPROACH	2018 RAW	2019	SUM	2021 NEW			DIFFERENCE (2021 - 2019)	
	COUNTS	ADJUSTED		RAW COUNTS	ADJUSTED	SUM	Volume	% Difference
NB	213	243	605	223	232	476.0569	-129	-21.26%
EB	181	206		117	122			
WB	136	155		117	122			

^a December 2018 traffic counts obtained from July 28, 2021 Traffic Impact and Access Study, Capital Commerce Center, prepared by TEC, Inc.

^b New traffic counts collected as part of this study in September 2021.

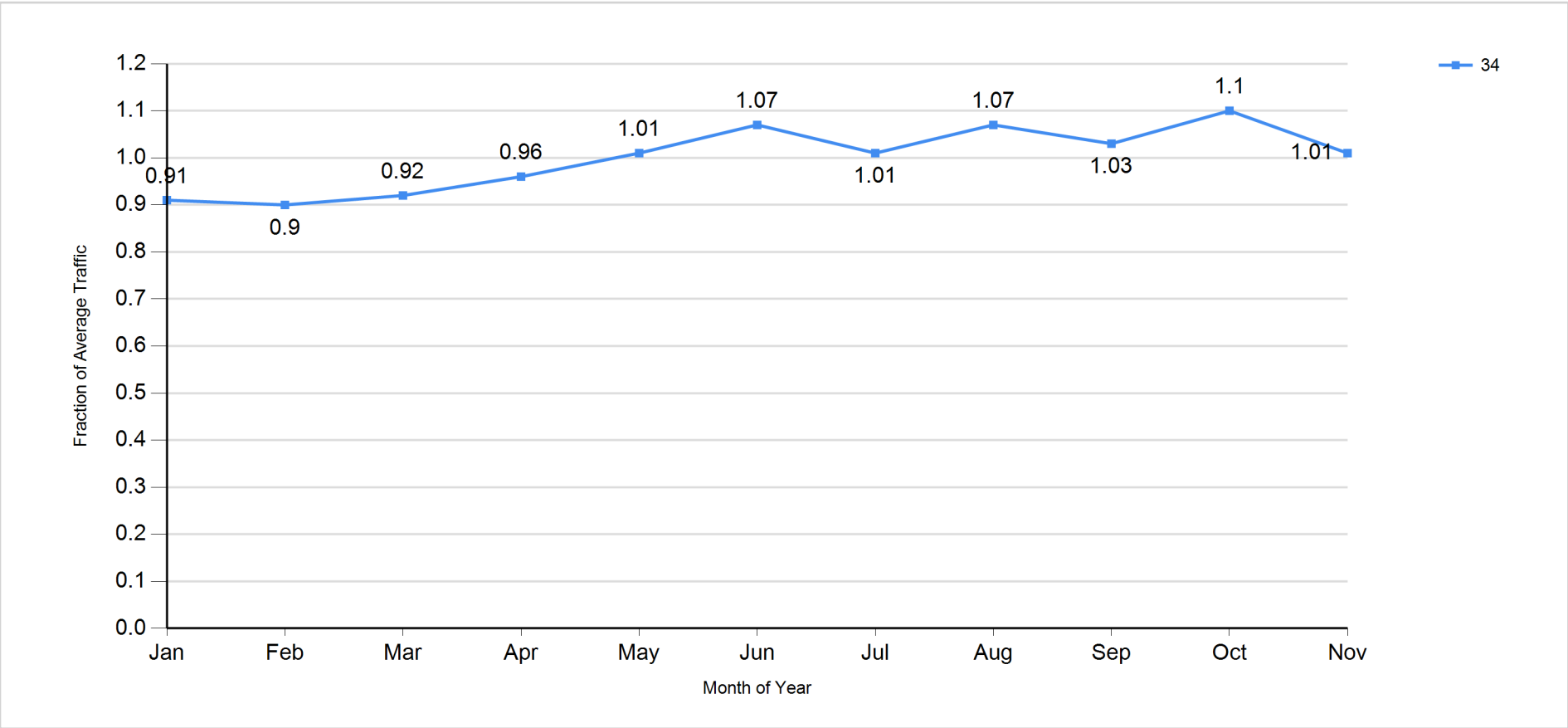
^c 0.5% growth rate used in the July 28, 2021 Traffic Impact and Access Study, Capital Commerce Center, prepared by TEC, Inc.

^d Seasonal factors from MassDOT Permanent Count Station 34 used in the July 28, 2021 Traffic Impact and Access Study, Capital Commerce Center, prepared by TEC, Inc.



Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2018 - 12/31/2018
Criteria: Location ID = 34, From 1/1/1900 To 12/31/2049 12:00:00 AM





Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2018 - 12/31/2018
Criteria: Location ID = 34, From 1/1/1900 To 12/31/2049 12:00:00 AM

Factor Group	Station	Weight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
U2	34	1	0.905	0.899	0.916	0.958	1.009	1.066	1.014	1.074	1.026	1.097	1.012	
Average of Weighted Factors			0.905	0.899	0.916	0.958	1.009	1.066	1.014	1.074	1.026	1.097	1.012	0.000

Massachusetts Highway Department
 Statewide Traffic Data Collection
 2019 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.22	1.14	1.12	1.06	1.00	0.96	0.87	0.85	0.96	0.99	1.04	1.12	0.85
R2	0.95	0.96	0.98	0.97	0.97	0.93	0.97	0.94	0.96	0.90	0.92	0.93	0.96
R3	1.15	1.06	1.07	1.00	0.89	0.88	0.89	0.89	0.95	0.92	1.02	1.01	0.97
R4-R7	1.09	1.09	1.11	1.02	0.96	0.92	0.89	0.89	0.99	0.98	1.09	1.13	0.98
U1-Boston	1.03	1.01	0.98	0.94	0.94	0.92	0.95	0.93	0.94	0.94	0.97	1.04	0.96
U1-Essex	1.09	1.06	1.03	0.99	0.94	0.90	0.88	0.86	0.93	0.94	0.99	1.06	0.93
U1-Southeast	1.06	1.05	1.01	0.97	0.95	0.93	0.93	0.90	0.94	0.94	0.98	1.04	0.98
U1-West	1.19	1.14	1.09	0.95	0.92	0.89	0.89	0.86	0.91	0.95	0.97	1.07	0.84
U1-Worcester	1.02	1.04	0.97	0.94	0.93	0.91	0.95	0.91	0.93	0.92	0.95	1.10	0.88
U2	1.01	1.00	0.94	0.93	0.91	0.89	0.93	0.90	0.90	0.91	0.94	1.02	0.99
U3	1.06	1.03	0.98	0.94	0.93	0.91	0.95	0.91	0.92	0.93	0.97	1.00	0.98
U4-U7	1.01	1.00	0.95	0.92	0.88	0.86	0.92	0.91	0.92	0.94	0.99	1.04	0.99
Rec - East	1.04	1.16	1.12	0.98	0.92	0.88	0.77	0.81	0.94	1.02	1.08	1.12	0.99
Rec - West	1.30	1.23	1.32	1.18	0.95	0.82	0.70	0.69	0.97	0.96	1.16	1.15	0.98

Round off:

0-999 = 10

>1000 = 100

U = Urban

R = Rural

1 - Interstate

2 - Freeway and Expressway

3 - Other Principal Arterial

4 - Minor Arterial

5 - Major Collector

6 - Minor Collector

7 - Local Road and Street

Recreational - East Group - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.

Recreational - West Group - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113,1114,1116,2196,2197 and 2198.

Crash Data

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Lancaster COUNT DATE : 9/8/2021

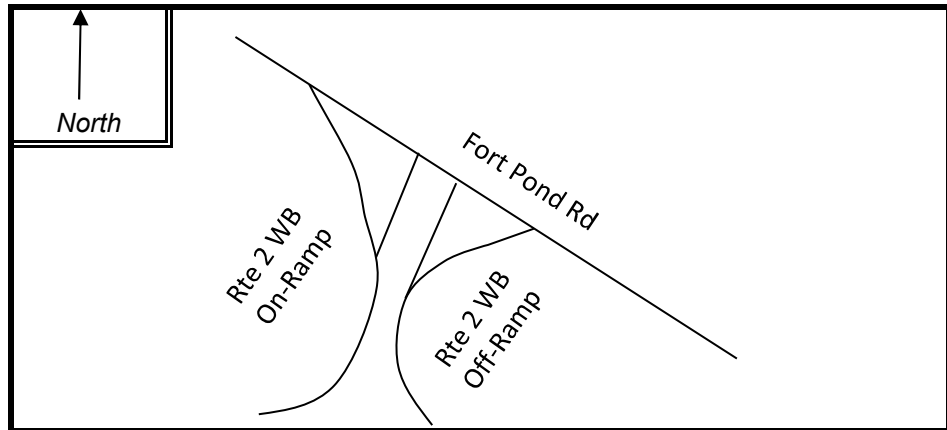
DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Fort Pond Road

MINOR STREET(S) : Route 2 Westbound Ramps (Exit 103)

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



WEEKDAY PM PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB			
PEAK HOURLY VOLUMES (AM/PM) :	145	145	275			565

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION : RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Traffic counts collected on 9/8/2021 and increased by 22% to account for pandemic impacted traffic volumes.

Intersection/Roadway Segment: Fort Pond Road and Route 2 Westbound Ramps (Exit 103)

	2016	2017	2018	2019	2020	TOTAL
SEVERITY:						
Property Damage Only			2			2
Personal Injury						0
Fatality						0
Unknown						0
TOTAL	0	0	2	0	0	2

	2016	2017	2018	2019	2020	TOTAL
CRASH MANNER/TYPE:						
Angle						0
Head On						0
Rear End			1			1
Sideswipe						0
Fixed Object			1			1
Unknown						0
Total	0	0	2	0	0	2

	2016	2017	2018	2019	2020	TOTAL
ROADWAY SURFACE CONDITION:						
Dry						0
Wet			1			1
Snowy						0
Ice/Slush			1			1
Unknown						0
TOTAL	0	0	2	0	0	2

	2016	2017	2018	2019	2020	TOTAL
WEATHER CONDITION:						
Clear						0
Cloudy						0
Rain			1			1
Snow			1			1
Unkown						0
TOTAL	0	0	2	0	0	2

	2016	2017	2018	2019	2020	TOTAL
WEEKDAY COMMUTER PEAK:						
Weekday AM Commuter (7-9 AM)						0
Weekday PM Commuter (4-6 PM)			1			1
Non-Commuter Peak			1			1
TOTAL	0	0	2	0	0	2

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Lancaster COUNT DATE : 9/8/2021

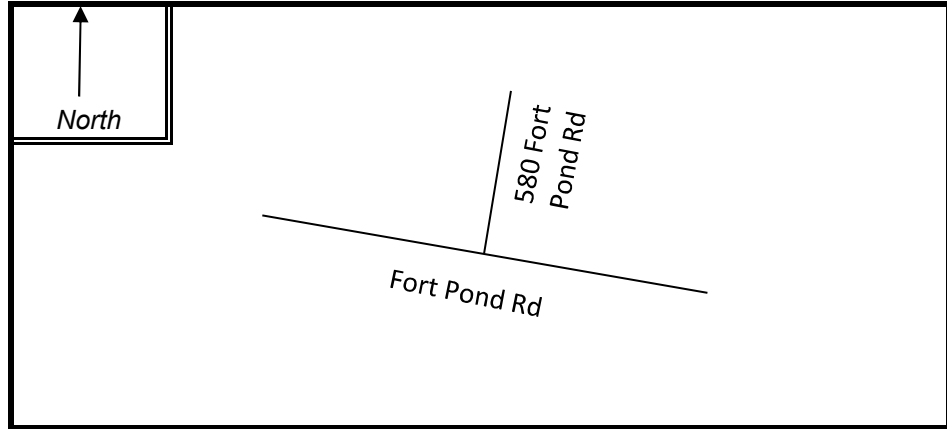
DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Fort Pond Road

MINOR STREET(S) : 580 Fort Pond Road

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



WEEKDAY PM PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	SB			
PEAK HOURLY VOLUMES (AM/PM) :	30	130	10			170

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION : RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Traffic counts collected on 9/8/2021 and increased by 22% to account for pandemic impacted traffic volumes.

Intersection/Roadway Segment: Fort Pond Road and 580 Fort Pond Road

	2016	2017	2018	2019	2020	TOTAL
SEVERITY:						
Property Damage Only			1			1
Personal Injury						0
Fatality						0
Unknown						0
TOTAL	0	0	1	0	0	1

	2016	2017	2018	2019	2020	TOTAL
CRASH MANNER/TYPE:						
Angle						0
Head On						0
Rear End						0
Sideswipe						0
Deer			1			1
Unknown						0
Total	0	0	1	0	0	1

	2016	2017	2018	2019	2020	TOTAL
ROADWAY SURFACE CONDITION:						
Dry			1			1
Wet						0
Snowy						0
Icy						0
Unknown						0
TOTAL	0	0	1	0	0	1

	2016	2017	2018	2019	2020	TOTAL
WEATHER CONDITION:						
Clear			1			1
Cloudy						0
Rain						0
Snow						0
Unkown						0
TOTAL	0	0	1	0	0	1

	2016	2017	2018	2019	2020	TOTAL
WEEKDAY COMMUTER PEAK:						
Weekday AM Commuter (7-9 AM)						0
Weekday PM Commuter (4-6 PM)						0
Non-Commuter Peak			1			1
TOTAL	0	0	1	0	0	1

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Lancaster COUNT DATE : 9/8/2021

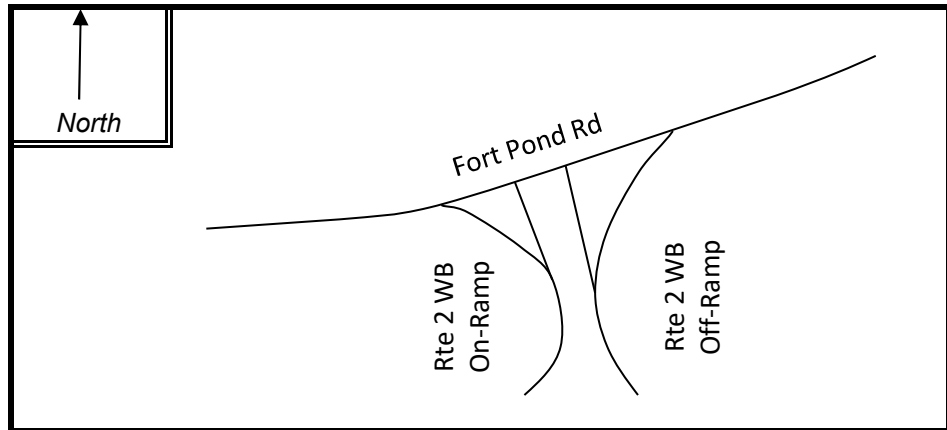
DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Fort Pond Road

MINOR STREET(S) : Route 2 Westbound Ramps (Exit 105)

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



WEEKDAY PM PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB			
PEAK HOURLY VOLUMES (AM/PM) :	25	240	165			430

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION : RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Traffic counts collected on 9/8/2021 and increased by 22% to account for pandemic impacted traffic volumes.

Intersection/Roadway Segment: Fort Pond Road and Route 2 Westbound Ramps (Exit 105)

	2016	2017	2018	2019	2020	TOTAL
SEVERITY:						
Property Damage Only				2		2
Personal Injury						0
Fatality						0
Unknown						0
TOTAL	0	0	0	2	0	2

	2016	2017	2018	2019	2020	TOTAL
CRASH MANNER/TYPE:						
Angle				1		1
Head On						0
Rear End				1		1
Sideswipe						0
Fixed Object						0
Unknown						0
Total	0	0	0	2	0	2

	2016	2017	2018	2019	2020	TOTAL
ROADWAY SURFACE CONDITION:						
Dry				1		1
Wet				1		1
Snowy						0
Icy						0
Unknown						0
TOTAL	0	0	0	2	0	2

	2016	2017	2018	2019	2020	TOTAL
WEATHER CONDITION:						
Clear						0
Cloudy				1		1
Rain				1		1
Snow						0
Unkown						0
TOTAL	0	0	0	2	0	2

	2016	2017	2018	2019	2020	TOTAL
WEEKDAY COMMUTER PEAK:						
Weekday AM Commuter (7-9 AM)						0
Weekday PM Commuter (4-6 PM)						0
Non-Commuter Peak				2		2
TOTAL	0	0	0	2	0	2

Intersection/Roadway Segment: Fort Pond Road and Shirley Road

	2016	2017	2018	2019	2020	TOTAL
SEVERITY:						
Property Damage Only		1		1	1	3
Personal Injury					1	1
Fatality						0
Unknown						0
TOTAL	0	1	0	1	2	4

CRASH MANNER/TYPE:						
Angle					1	1
Head On					1	1
Rear End		1		1		2
Sideswipe						0
Fixed Object						0
Unknown						0
Total	0	1	0	1	2	4

ROADWAY SURFACE CONDITION:						
Dry		1			1	2
Wet				1	1	2
Snowy						0
Icy						0
Unknown						0
TOTAL	0	1	0	1	2	4

WEATHER CONDITION:						
Clear		1			1	2
Cloudy				1		1
Rain						0
Snow					1	1
Unkown						0
TOTAL	0	1	0	1	2	4

WEEKDAY COMMUTER PEAK:						
Weekday AM Commuter (7-9 AM)					2	2
Weekday PM Commuter (4-6 PM)						0
Non-Commuter Peak		1		1		2
TOTAL	0	1	0	1	2	4

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Lancaster COUNT DATE : 9/8/2021

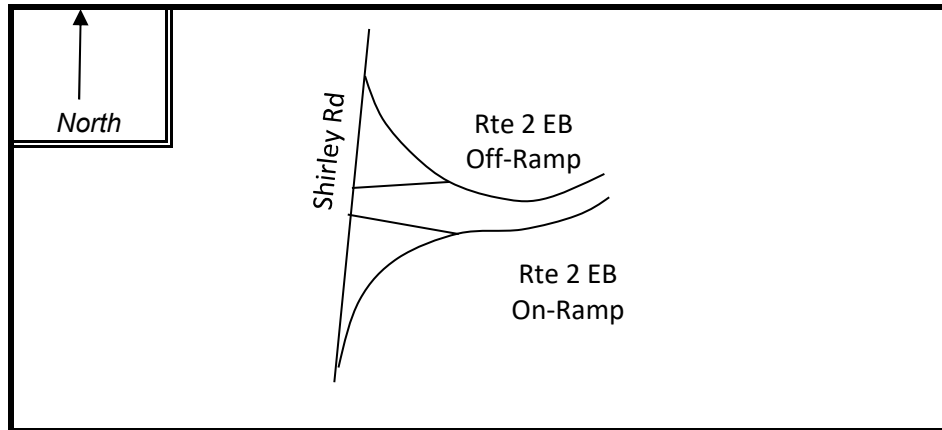
DISTRICT : 3 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Shirley Road

MINOR STREET(S) : Route 2 Eastbound Ramps (Exit 105)

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



WEEKDAY PM PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	WB			
PEAK HOURLY VOLUMES (AM/PM) :	95	220	170			485

" K " FACTOR : 0.090 INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME : 5,389

TOTAL # OF CRASHES : 2 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (A) : 0.40

CRASH RATE CALCULATION : 0.20 RATE =
$$\frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Traffic counts collected on 9/8/2021 and increased by 22% to account for pandemic impacted traffic volumes.

Intersection/Roadway Segment: Shirley Road and Route 2 Eastbound Ramps (Exit 105)

	2016	2017	2018	2019	2020	TOTAL
SEVERITY:						
Property Damage Only	1					1
Personal Injury			1			1
Fatality						0
Unknown						0
TOTAL	1	0	1	0	0	2

CRASH MANNER/TYPE:						
Angle			1			1
Head On						0
Rear End						0
Sideswipe						0
Fixed Object/Ran off Road	1					1
Unknown						0
Total	1	0	1	0	0	2

ROADWAY SURFACE CONDITION:						
Dry			1			1
Wet	1					1
Snowy						0
Icy						0
Unknown						0
TOTAL	1	0	1	0	0	2

WEATHER CONDITION:						
Clear						0
Cloudy	1		1			2
Rain						0
Snow						0
Unkown						0
TOTAL	1	0	1	0	0	2

WEEKDAY COMMUTER PEAK:						
Weekday AM Commuter (7-9 AM)						0
Weekday PM Commuter (4-6 PM)			1			1
Non-Commuter Peak	1					1
TOTAL	1	0	1	0	0	2

Future Traffic-Volume Adjustment Data

MassDOT Yearly Growth Rates

for data from 2014 to 2018

Growth					
Group	Grow 2014 to 2015	Grow 2015 to 2016	Grow 2016 to 2017	Grow 2017 to 2018	Grow 2018 to 2019
R1	0	0.023	0.004	0.018	0.016
R2	0.05	0.068	0.004	0.014	0.014
R3	-0.038	0.002	0.008	0.011	0.06
R4-7	-0.01	0.003	0.001	0.011	0.012
Rec - East		0.032	0.02	0.041	0.025
Rec - West		0.051	-0.008	0.029	0
U1-Boston	0.061	0.07	-0.003	0.012	0.006
U1-Essex	0.024	0.025	0.007	0.014	0.011
U1-Southeast	0.05	0.062	0.021	0.014	0
U1-West	0.03	-0.027	0.02	0.028	0.013
U1-Worcester	0.042	0.005	0.018	0.01	0.01
U2	0.04	0.048	0.008	0.01	0.02
U3	0.011	0.013	0.011	0.014	0.004
U4-7	0.023	0.062	0.017	0.003	-0.004

updated 5/1/2020

Traffic Impact and Access Study

TEC Project File No. T0852.04

Capital Commerce Center

McGovern Boulevard – Lancaster, Massachusetts

Prepared for: **Town of Lancaster, Massachusetts**
Prescott Building
701 Main Street
Lancaster, Massachusetts 01523



On Behalf of: **Capital Group Properties**
259 Turnpike Road, #100
Southborough, Massachusetts 01772



Prepared by: **TEC, Inc.**
146 Dascomb Road
Andover, Massachusetts 01810



I have reviewed this document as it relates to the proposed design and have determined the design to be safe for public health and welfare in conformity with accepted engineering standards.



Samuel W. Gregorio, PE, PTOE, RSP₁
Senior Design Engineer – Transportation Planning & ITS

May 5, 2021
REVISED July 28, 2021

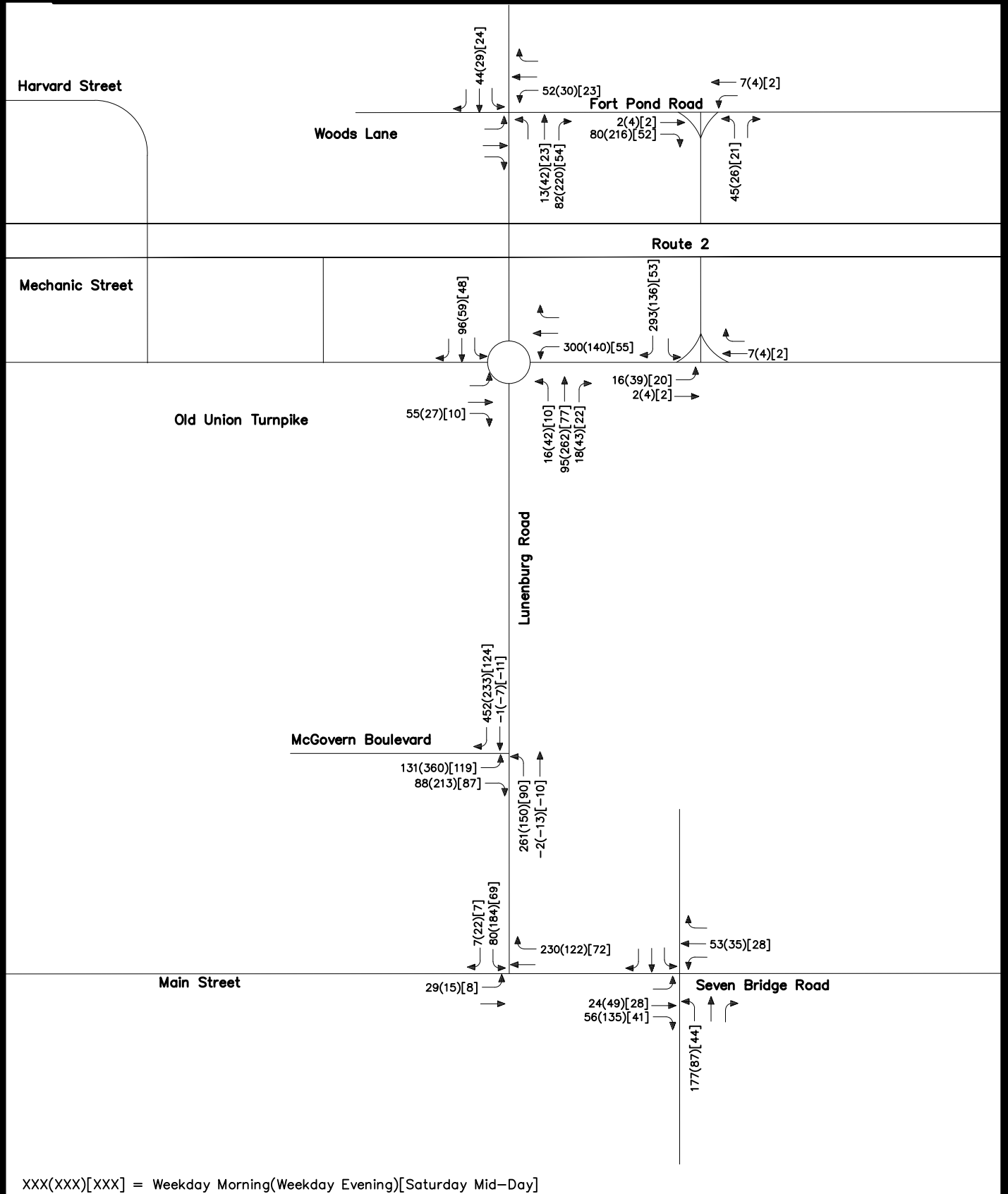


Not to Scale

Capital Commerce Center - Lancaster, MA

Traffic Impact and Access Study

C:\Users\local_Sgregorio\Temp\AcPublish_1232\T0852.04_Town Figure 2 - 6 - Traffic Networks.dwg 7/27/2021 3:47:24 PM



XXX(XXX)[XXX] = Weekday Morning(Weekday Evening)[Saturday Mid-Day]

Figure 5

Site-Generated Traffic
Weekday Morning, Weekday Evening,
and Saturday Mid-Day
Peak Hour Traffic Volumes



Trip-Generation Data

Local Trip-Generation Summary

Time Period/Direction	Traffic Counts		Trip Rates ^a		Trip Rates	Proposed
	9/8/2021, Wed	9/9/2021, Thu	9/8/2021, Wed	9/9/2021, Thu	Used ^b	Expansion Trips ^c
Weekday Daily:						
Enter	132	124	0.518	0.486	0.518	109.7
Exit	<u>133</u>	<u>125</u>	<u>0.522</u>	<u>0.490</u>	<u>0.522</u>	<u>110.6</u>
Total	265	249	1.039	0.976	1.039	220.3
Weekday AM Peak Hour:						
Enter	9	8	0.035	0.031	0.031	6.7
Exit	<u>4</u>	<u>8</u>	<u>0.016</u>	0.031	<u>0.031</u>	<u>6.7</u>
Total	13	16	0.051	0.063	0.063	13.3
Weekday PM Peak Hour:						
Enter	3	3	0.012	0.012	0.012	2.5
Exit	<u>8</u>	<u>6</u>	<u>0.031</u>	<u>0.024</u>	<u>0.031</u>	<u>6.7</u>
Total	11	9	0.043	0.035	0.043	9.1

^a Traffic counts divided by 255 ksf.

^b The higher of the 9/8/2021 or 9/9/2021 trip rates.

^c Trip rates multiplied by 212 ksf.

#580 Driveway
north of Fort Pond Road
City, State: Lancaster, MA
Client: VHB/J. Plourde
Site Code: 14260.01



PRECISION
DATA
INDUSTRIES, LLC

157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # 218148 ATR-B

Count Date: Wednesday, September 8, 2021
Direction: NB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	1	1
12:30 AM	1	0	0	1
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	4	0	0	4
4:45 AM	5	0	1	6
5:00 AM	3	0	1	4
5:15 AM	9	0	0	9
5:30 AM	8	0	0	8
5:45 AM	10	0	0	10
6:00 AM	3	1	0	4
6:15 AM	0	0	0	0
6:30 AM	1	0	2	3
6:45 AM	0	0	2	2
7:00 AM	0	0	0	0
7:15 AM	0	0	1	1
7:30 AM	2	1	0	3
7:45 AM	1	0	1	2
8:00 AM	1	1	0	2
8:15 AM	0	0	2	2
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	1	1
9:15 AM	2	0	0	2
9:30 AM	0	1	1	2
9:45 AM	2	0	0	2
10:00 AM	1	0	1	2
10:15 AM	0	0	2	2
10:30 AM	0	1	0	1
10:45 AM	1	0	1	2
11:00 AM	0	0	0	0
11:15 AM	1	0	1	2
11:30 AM	1	1	0	2
11:45 AM	1	0	0	1

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	3	0	1	4
12:15 PM	3	0	1	4
12:30 PM	1	0	0	1
12:45 PM	1	1	0	2
1:00 PM	0	0	0	0
1:15 PM	0	0	1	1
1:30 PM	0	0	1	1
1:45 PM	2	0	0	2
2:00 PM	3	0	0	3
2:15 PM	4	0	0	4
2:30 PM	1	0	0	1
2:45 PM	4	0	1	5
3:00 PM	2	0	0	2
3:15 PM	0	0	1	1
3:30 PM	0	0	1	1
3:45 PM	0	1	1	2
4:00 PM	1	0	1	2
4:15 PM	1	0	0	1
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	1
5:15 PM	0	0	1	1
5:30 PM	0	0	0	0
5:45 PM	0	0	1	1
6:00 PM	0	0	0	0
6:15 PM	1	0	0	1
6:30 PM	0	0	0	0
6:45 PM	0	0	0	0
7:00 PM	1	0	0	1
7:15 PM	0	0	1	1
7:30 PM	0	1	0	1
7:45 PM	0	0	0	0
8:00 PM	0	0	0	0
8:15 PM	0	0	0	0
8:30 PM	0	0	0	0
8:45 PM	0	0	0	0
9:00 PM	1	0	0	1
9:15 PM	2	0	0	2
9:30 PM	1	0	0	1
9:45 PM	0	0	0	0
10:00 PM	0	0	0	0
10:15 PM	0	0	0	0
10:30 PM	2	0	1	3
10:45 PM	0	0	0	0
11:00 PM	0	0	0	0
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0

AM Total 57 6 18 81
 Percentage 70.37% 7.41% 22.22%
 AM Peak 5:00 AM 7:15 AM 6:30 AM 5:00 AM
 Volume 30 2 5 31

PM Total 34 4 13 51
 Percentage 66.67% 7.84% 25.49%
 PM Peak 2:00 PM 12:00 PM 3:15 PM 2:00 PM
 Volume 12 1 4 13

Day Total 91 10 31 132
 Percentage 68.94% 7.58% 23.48%

#580 Driveway
north of Fort Pond Road
City, State: Lancaster, MA
Client: VHB/J. Plourde
Site Code: 14260.01



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DATA
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Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # 218148 ATR-B

Count Date: Thursday, September 9, 2021
Direction: NB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	1	0	0	1
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	2	0	0	2
4:45 AM	5	0	1	6
5:00 AM	8	0	1	9
5:15 AM	9	0	0	9
5:30 AM	6	0	0	6
5:45 AM	8	0	0	8
6:00 AM	5	1	0	6
6:15 AM	0	0	0	0
6:30 AM	1	1	1	3
6:45 AM	0	0	0	0
7:00 AM	0	0	1	1
7:15 AM	0	1	1	2
7:30 AM	2	1	1	4
7:45 AM	0	0	0	0
8:00 AM	2	0	0	2
8:15 AM	1	0	0	1
8:30 AM	1	0	2	3
8:45 AM	0	0	1	1
9:00 AM	1	0	0	1
9:15 AM	0	0	1	1
9:30 AM	1	0	3	4
9:45 AM	0	0	0	0
10:00 AM	0	0	1	1
10:15 AM	3	0	0	3
10:30 AM	0	0	0	0
10:45 AM	0	1	0	1
11:00 AM	0	0	0	0
11:15 AM	1	0	0	1
11:30 AM	0	0	0	0
11:45 AM	1	0	0	1

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	1	0	2	3
12:15 PM	3	0	0	3
12:30 PM	3	0	2	5
12:45 PM	1	0	0	1
1:00 PM	1	0	2	3
1:15 PM	0	0	0	0
1:30 PM	0	0	0	0
1:45 PM	2	0	1	3
2:00 PM	4	0	0	4
2:15 PM	3	0	2	5
2:30 PM	0	0	0	0
2:45 PM	2	0	1	3
3:00 PM	1	0	0	1
3:15 PM	1	0	1	2
3:30 PM	0	0	1	1
3:45 PM	0	0	0	0
4:00 PM	1	0	0	1
4:15 PM	1	0	0	1
4:30 PM	0	0	0	0
4:45 PM	1	0	0	1
5:00 PM	0	0	1	1
5:15 PM	0	0	1	1
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
6:00 PM	0	0	0	0
6:15 PM	1	0	0	1
6:30 PM	0	0	0	0
6:45 PM	0	0	0	0
7:00 PM	0	0	0	0
7:15 PM	0	0	0	0
7:30 PM	0	0	0	0
7:45 PM	0	0	0	0
8:00 PM	0	1	0	1
8:15 PM	0	0	0	0
8:30 PM	0	0	0	0
8:45 PM	0	0	0	0
9:00 PM	0	0	0	0
9:15 PM	1	0	0	1
9:30 PM	2	0	0	2
9:45 PM	0	0	0	0
10:00 PM	1	0	1	2
10:15 PM	0	0	0	0
10:30 PM	0	0	0	0
10:45 PM	0	0	0	0
11:00 PM	1	0	0	1
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0

AM Total 58 5 14 77
Percentage 75.32% 6.49% 18.18%
AM Peak 5:00 AM 5:45 AM 8:45 AM 5:00 AM
Volume 31 2 5 32

PM Total 31 1 15 47
Percentage 65.96% 2.13% 31.91%
PM Peak 1:30 PM 7:15 PM 12:00 PM 12:00 PM
Volume 9 1 4 12

Day Total 89 6 29 124
Percentage 71.77% 4.84% 23.39%

#580 Driveway
north of Fort Pond Road
City, State: Lancaster, MA
Client: VHB/J. Plourde
Site Code: 14260.01



PRECISION
DATA
INDUSTRIES, LLC

157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # 218148 ATR-B

Count Date: Wednesday, September 8, 2021
Direction: SB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	1	1
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	4	0	0	4
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	1	0	0	1
5:30 AM	1	0	1	2
5:45 AM	2	0	0	2
6:00 AM	3	0	2	5
6:15 AM	1	0	1	2
6:30 AM	0	1	0	1
6:45 AM	1	0	0	1
7:00 AM	1	0	1	2
7:15 AM	0	0	2	2
7:30 AM	0	0	1	1
7:45 AM	0	0	0	0
8:00 AM	1	0	0	1
8:15 AM	1	0	1	2
8:30 AM	0	2	0	2
8:45 AM	0	0	0	0
9:00 AM	1	0	2	3
9:15 AM	0	0	0	0
9:30 AM	1	0	1	2
9:45 AM	3	0	2	5
10:00 AM	0	0	0	0
10:15 AM	1	0	1	2
10:30 AM	0	1	0	1
10:45 AM	0	0	1	1
11:00 AM	0	1	2	3
11:15 AM	0	1	0	1
11:30 AM	2	0	0	2
11:45 AM	1	1	0	2

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	4	0	1	5
12:15 PM	0	0	0	0
12:30 PM	3	0	1	4
12:45 PM	0	0	1	1
1:00 PM	0	1	0	1
1:15 PM	0	0	0	0
1:30 PM	3	0	1	4
1:45 PM	1	0	0	1
2:00 PM	3	0	1	4
2:15 PM	0	0	0	0
2:30 PM	15	0	0	15
2:45 PM	3	0	0	3
3:00 PM	7	0	0	7
3:15 PM	2	0	0	2
3:30 PM	0	0	1	1
3:45 PM	3	0	1	4
4:00 PM	3	1	1	5
4:15 PM	0	1	0	1
4:30 PM	1	0	0	1
4:45 PM	1	0	0	1
5:00 PM	0	1	0	1
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
6:00 PM	1	0	1	2
6:15 PM	1	0	0	1
6:30 PM	0	0	0	0
6:45 PM	0	0	0	0
7:00 PM	1	0	0	1
7:15 PM	0	0	1	1
7:30 PM	0	0	0	0
7:45 PM	0	1	0	1
8:00 PM	0	0	0	0
8:15 PM	0	0	0	0
8:30 PM	0	0	0	0
8:45 PM	0	0	0	0
9:00 PM	0	0	0	0
9:15 PM	1	0	0	1
9:30 PM	0	0	0	0
9:45 PM	0	0	0	0
10:00 PM	0	0	0	0
10:15 PM	1	0	0	1
10:30 PM	10	0	0	10
10:45 PM	2	0	1	3
11:00 PM	0	0	0	0
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0

AM Total 25 7 19 51
Percentage 49.02% 13.73% 37.25%

AM Peak 5:15 AM 10:30 AM 9:00 AM 5:30 AM
Volume 7 3 5 11

PM Total 66 5 11 82
Percentage 80.49% 6.10% 13.41%

PM Peak 2:30 PM 3:30 PM 12:00 PM 2:30 PM
Volume 27 2 3 27

Day Total 91 12 30 133
Percentage 68.42% 9.02% 22.56%

#580 Driveway
north of Fort Pond Road
City, State: Lancaster, MA
Client: VHB/J. Plourde
Site Code: 14260.01



PRECISION
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INDUSTRIES, LLC

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PDI File # 218148 ATR-B

Count Date: Thursday, September 9, 2021
Direction: SB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	1	0	0	1
3:15 AM	3	0	0	3
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	1	0	0	1
5:15 AM	0	0	1	1
5:30 AM	0	0	1	1
5:45 AM	2	0	1	3
6:00 AM	1	0	0	1
6:15 AM	1	0	0	1
6:30 AM	0	0	1	1
6:45 AM	0	0	0	0
7:00 AM	0	0	1	1
7:15 AM	1	1	1	3
7:30 AM	0	0	1	1
7:45 AM	1	0	1	2
8:00 AM	1	0	1	2
8:15 AM	0	1	0	1
8:30 AM	0	0	0	0
8:45 AM	0	0	1	1
9:00 AM	0	0	1	1
9:15 AM	1	0	2	3
9:30 AM	0	0	0	0
9:45 AM	1	0	1	2
10:00 AM	0	0	3	3
10:15 AM	2	0	1	3
10:30 AM	3	0	0	3
10:45 AM	0	0	0	0
11:00 AM	1	0	0	1
11:15 AM	1	1	0	2
11:30 AM	1	0	0	1
11:45 AM	0	0	0	0

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	3	0	0	3
12:15 PM	0	0	1	1
12:30 PM	2	0	0	2
12:45 PM	1	0	2	3
1:00 PM	1	0	1	2
1:15 PM	2	0	1	3
1:30 PM	2	0	2	4
1:45 PM	3	0	2	5
2:00 PM	6	0	0	6
2:15 PM	2	0	0	2
2:30 PM	13	0	0	13
2:45 PM	1	1	1	3
3:00 PM	6	0	0	6
3:15 PM	1	0	1	2
3:30 PM	2	0	1	3
3:45 PM	1	0	0	1
4:00 PM	3	0	0	3
4:15 PM	0	0	0	0
4:30 PM	1	1	1	3
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	1	0	1	2
5:30 PM	1	0	0	1
5:45 PM	0	1	0	1
6:00 PM	0	0	0	0
6:15 PM	1	0	0	1
6:30 PM	0	0	0	0
6:45 PM	0	0	0	0
7:00 PM	0	0	0	0
7:15 PM	0	0	0	0
7:30 PM	0	0	0	0
7:45 PM	0	0	0	0
8:00 PM	0	0	0	0
8:15 PM	1	0	0	1
8:30 PM	0	0	0	0
8:45 PM	0	0	0	0
9:00 PM	0	0	0	0
9:15 PM	0	0	0	0
9:30 PM	0	0	0	0
9:45 PM	0	0	0	0
10:00 PM	0	0	0	0
10:15 PM	0	0	1	1
10:30 PM	1	0	0	1
10:45 PM	0	0	0	0
11:00 PM	8	0	0	8
11:15 PM	1	0	0	1
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0

AM Total 22 3 18 43
Percentage 51.16% 6.98% 41.86%
AM Peak 9:45 AM 6:30 AM 9:15 AM 9:45 AM
Volume 6 1 6 11

PM Total 64 3 15 82
Percentage 78.05% 3.66% 18.29%
PM Peak 1:45 PM 2:00 PM 12:45 PM 1:45 PM
Volume 24 1 6 26

Day Total 86 6 33 125
Percentage 68.80% 4.80% 26.40%

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north of Fort Pond Road
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Site Code: 14260.01



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DATA
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157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # 218148 ATR-B

Direction: NB

Weekly Report

Day Date	Wednesday 09/08/21		Thursday 09/09/21												Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0	4	0	3	0	0	0	0	0	0	0	0	0	0	0	4
12:15	1	4	1	3	0	0	0	0	0	0	0	0	0	0	1	4
12:30	1	1	0	5	0	0	0	0	0	0	0	0	0	0	1	3
12:45	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2
1:00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2
1:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:00	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:15	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45	0	5	0	3	0	0	0	0	0	0	0	0	0	0	0	4
3:00	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2
3:15	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:45	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2
4:15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30	4	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0
4:45	6	0	6	1	0	0	0	0	0	0	0	0	0	0	6	1
5:00	4	1	9	1	0	0	0	0	0	0	0	0	0	0	7	1
5:15	9	1	9	1	0	0	0	0	0	0	0	0	0	0	9	1
5:30	8	0	6	0	0	0	0	0	0	0	0	0	0	0	7	0
5:45	10	1	8	0	0	0	0	0	0	0	0	0	0	0	9	1
6:00	4	0	6	0	0	0	0	0	0	0	0	0	0	0	5	0
6:15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
6:30	3	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
6:45	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1
7:15	1	1	2	0	0	0	0	0	0	0	0	0	0	0	2	1
7:30	3	1	4	0	0	0	0	0	0	0	0	0	0	0	4	1
7:45	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00	2	0	2	1	0	0	0	0	0	0	0	0	0	0	2	1
8:15	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
8:30	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0
8:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
9:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1
9:15	2	2	1	1	0	0	0	0	0	0	0	0	0	0	2	2
9:30	2	1	4	2	0	0	0	0	0	0	0	0	0	0	3	2
9:45	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:00	2	0	1	2	0	0	0	0	0	0	0	0	0	0	2	1
10:15	2	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
10:30	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2
10:45	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
11:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:15	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
11:30	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:45	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Total	81	51	77	47	0	0	0	0	0	0	0	0	0	0	79	49
Day Total	132		124		0		0		0		0		0		128	
Peak HR	5:00 AM	2:00 PM	5:00 AM	12:00 PM											5:00 AM	2:00 PM
Volume	31	13	32	12											32	13

#580 Driveway
north of Fort Pond Road
City, State: Lancaster, MA
Client: VHB/J. Plourde
Site Code: 14260.01



PRECISION
DATA
INDUSTRIES, LLC

157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # 218148 ATR-B

Direction: SB

Weekly Report

Day Date	Wednesday 09/08/21		Thursday 09/09/21												Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0	5	0	3	0	0	0	0	0	0	0	0	0	0	0	4
12:15	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:30	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	3
12:45	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2
1:00	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	2
1:15	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2
1:30	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:45	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	3
2:00	0	4	0	6	0	0	0	0	0	0	0	0	0	0	0	5
2:15	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
2:30	0	15	0	13	0	0	0	0	0	0	0	0	0	0	0	14
2:45	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00	0	7	1	6	0	0	0	0	0	0	0	0	0	0	1	7
3:15	0	2	3	2	0	0	0	0	0	0	0	0	0	0	2	2
3:30	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2
3:45	4	4	0	1	0	0	0	0	0	0	0	0	0	0	2	3
4:00	0	5	0	3	0	0	0	0	0	0	0	0	0	0	0	4
4:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2
4:45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15	1	0	1	2	0	0	0	0	0	0	0	0	0	0	1	1
5:30	2	0	1	1	0	0	0	0	0	0	0	0	0	0	2	1
5:45	2	0	3	1	0	0	0	0	0	0	0	0	0	0	3	1
6:00	5	2	1	0	0	0	0	0	0	0	0	0	0	0	3	1
6:15	2	1	1	1	0	0	0	0	0	0	0	0	0	0	2	1
6:30	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
6:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:00	2	1	1	0	0	0	0	0	0	0	0	0	0	0	2	1
7:15	2	1	3	0	0	0	0	0	0	0	0	0	0	0	3	1
7:30	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
8:15	2	0	1	1	0	0	0	0	0	0	0	0	0	0	2	1
8:30	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
9:00	3	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
9:15	0	1	3	0	0	0	0	0	0	0	0	0	0	0	2	1
9:30	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9:45	5	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0
10:00	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0
10:15	2	1	3	1	0	0	0	0	0	0	0	0	0	0	3	1
10:30	1	10	3	1	0	0	0	0	0	0	0	0	0	0	2	6
10:45	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2
11:00	3	0	1	8	0	0	0	0	0	0	0	0	0	0	2	4
11:15	1	0	2	1	0	0	0	0	0	0	0	0	0	0	2	1
11:30	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
11:45	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Total	51	82	43	82	0	0	0	0	0	0	0	0	0	0	47	82
Day Total	133		125		0		0		0		0		0		129	
Peak HR	5:30 AM	2:30 PM	9:45 AM	1:45 PM											9:45 AM	2:30 PM
Volume	11	27	11	26											10	26

ITE TRIP GENERATION WORKSHEET

(10th Edition, Updated 2017)

LANDUSE: Warehousing
LANDUSE CODE: 150
LOCATION: General Urban / Suburban
JOB NAME:
JOB NUMBER:

Independent Variable --- 1,000 Sq. Feet Gross Floor Area

FLOOR AREA (KSF): 212.0

WEEKDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	29	0.93	1.74	0.15	16.93	285	1	3,200	50%	50%
AM PEAK OF GENERATOR	23	0.85	0.22	0.02	2.08	274	1	3,200	65%	35%
PM PEAK OF GENERATOR	25	0.91	0.24	0.02	1.80	275	1	3,200	24%	76%
AM PEAK (ADJACENT ST)	34	0.69	0.17	0.02	1.93	451	1	3,200	77%	23%
PM PEAK (ADJACENT ST)	47	0.65	0.19	0.01	1.80	400	1	3,200	27%	73%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	370	185	185	382	191	191
AM PEAK OF GENERATOR	47	30	16	53	35	19
PM PEAK OF GENERATOR	51	12	39	54	13	41
AM PEAK (ADJACENT ST)	36	28	8	51	39	12
PM PEAK (ADJACENT ST)	40	11	29	53	14	39

SATURDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	3	--	0.15	0.01	1.58	226	55	420	50%	50%
PEAK OF GENERATOR	2	--	0.05	0.01	0.22	129	55	202	64%	36%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	32	16	16	--	--	--
PEAK OF GENERATOR	11	7	4	--	--	--

SUNDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	3	--	0.06	0.03	0.32	226	55	420	50%	50%
PEAK OF GENERATOR	2	--	0.04	0.02	0.11	129	55	202	52%	48%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	14	7	7	--	--	--
PEAK OF GENERATOR	8	4	4	--	--	--

DATA SOURCE:
Trip Gen Manual, 10th Ed + Supplement

SEARCH BY LAND USE CODE:
150

LAND USE GROUP:
(100-199) Industrial

LAND USE:
150 - Warehousing

LAND USE SUBCATEGORY:
All Sites

INDEPENDENT VARIABLE (IV):
1000 Sq. Ft. GFA

TIME PERIOD:
Weekday, Peak Hour of Adjacent Street Traffic

SETTING/LOCATION:
General Urban/Suburban

TRIP TYPE:
Truck

ENTER IV VALUE TO CALCULATE TRIPS:
212



Land Use:
Warehousing (150) [Click for more details](#)

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Truck

Number of Studies:
21

Avg. 1000 Sq. Ft. GFA:
309

Average Rate:
0.02

Range of Rates:
0.00 - 0.09

Standard Deviation:
0.05

Fitted Curve Equation:
Not Given

R²:

Directional Distribution:
52% entering, 48% exiting

Calculated Trip Ends:
Average Rate: 4 (Total), 2 (Entry), 2 (Exit)

ITE Land Use Code 150 (Warehousing) Weekday AM Peak Hour of Adjacent Street Traffic

DATA SOURCE:
 Trip Gen Manual, 10th Ed + Supplement

SEARCH BY LAND USE CODE:
 150

LAND USE GROUP:
 (100-199) Industrial

LAND USE :
 150 - Warehousing

LAND USE SUBCATEGORY:
 All Sites

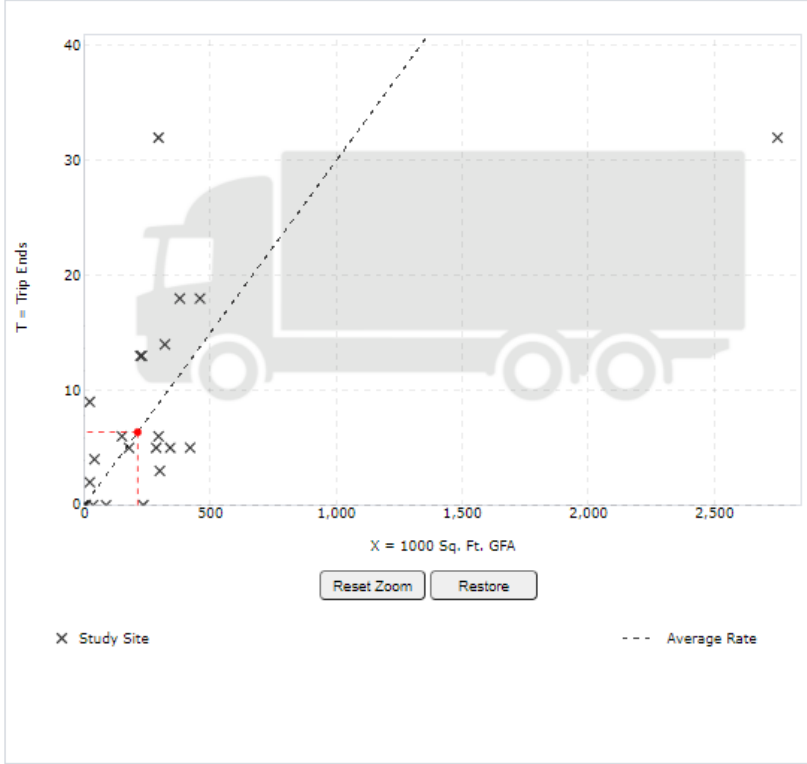
INDEPENDENT VARIABLE (IV):
 1000 Sq. Ft. GFA

TIME PERIOD:
 Weekday, Peak Hour of Adjacent Street Tra

SETTING/LOCATION:
 General Urban/Suburban

TRIP TYPE:
 Truck

ENTER IV VALUE TO CALCULATE TRIPS:
 212



Land Use:	Warehousing (150) Click for more details
Independent Variable:	1000 Sq. Ft. GFA
Time Period:	Weekday Peak Hour of Adjacent Street Traffic One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Trip Type:	Truck
Number of Studies:	23
Avg. 1000 Sq. Ft. GFA:	308
Average Rate:	0.03
Range of Rates:	0.00 - 0.42
Standard Deviation:	0.03
Fitted Curve Equation:	Not Given
R²:	****
Directional Distribution:	52% entering, 48% exiting
Calculated Trip Ends:	Average Rate: 6 (Total), 3 (Entry), 3 (Exit)

ITE Land Use Code 150 (Warehousing)
 Weekday PM Peak Hour of Adjacent Street Traffic

Trip Distribution Gravity Model - Office

Table 4 Residence MCD/County to Workplace MCD/County Commuting Flows for the United States and Puerto Rico Sorted by Workplace Geography: 5-Year ACS, 2011-2015

Place of Work: Lancaster, MA

Residence State	Residence County	Residence Town	Count	Rte 2 from East	Rte 2 from West	Rte 70 from South	Rte 70 from North	Shirley Rd from North	Rte 2 from East	Rte 2 from West	Rte 70 from South	Rte 70 from North	Shirley Rd from North	Total
Massachusetts	Barnstable County	Falmouth town	9			100%			0	0	9	0	0	9
Massachusetts	Bristol County	Dartmouth town	8			100%			0	0	9	0	0	9
Massachusetts	Essex County	Andover town	19	100%					19	0	0	0	0	19
Massachusetts	Hampden County	Ludlow town	10		100%				0	0	0	0	0	0
Massachusetts	Hampden County	Springfield city	5		100%				0	5	0	0	0	5
Massachusetts	Hampshire County	Ware town	15		100%				0	15	0	0	0	15
Massachusetts	Middlesex County	Acton town	31	100%					31	0	0	0	0	31
Massachusetts	Middlesex County	Ashby town	21		65%		35%		0	14	0	7	0	21
Massachusetts	Middlesex County	Billerica town	16	100%					16	0	0	0	0	16
Massachusetts	Middlesex County	Boxborough town	10	100%					10	0	0	0	0	10
Massachusetts	Middlesex County	Burlington town	11	100%					11	0	0	0	0	11
Massachusetts	Middlesex County	Framingham town	7	50%		50%			4	0	4	0	0	7
Massachusetts	Middlesex County	Groton town	24	50%				50%	12	0	0	0	12	24
Massachusetts	Middlesex County	Hudson town	29	50%		50%			15	0	15	0	0	29
Massachusetts	Middlesex County	Littleton town	33	100%					33	0	0	0	0	33
Massachusetts	Middlesex County	Newton city	8	50%		50%			4	0	4	0	0	8
Massachusetts	Middlesex County	Shirley town	25					100%	0	0	0	0	25	25
Massachusetts	Middlesex County	Somerville city	11	100%					11	0	0	0	0	11
Massachusetts	Middlesex County	Stoneham town	10	100%					10	0	0	0	0	10
Massachusetts	Middlesex County	Stow town	20	60%		40%			12	0	8	0	0	20
Massachusetts	Middlesex County	Townsend town	9				100%		0	0	0	9	0	9
Massachusetts	Middlesex County	Wakefield town	6	100%					6	0	0	0	0	6
Massachusetts	Middlesex County	Westford town	33	100%					33	0	0	0	0	33
Massachusetts	Norfolk County	Franklin Town city	6	50%		50%			3	0	3	0	0	6
Massachusetts	Suffolk County	Boston city	18	100%					18	0	0	0	0	18
Massachusetts	Worcester County	Athol town	6		100%				0	6	0	0	0	6
Massachusetts	Worcester County	Auburn town	8		100%				0	8	0	0	0	8
Massachusetts	Worcester County	Barre town	32		100%				0	32	0	0	0	32
Massachusetts	Worcester County	Bolton town	24		25%	75%			0	6	18	0	0	24
Massachusetts	Worcester County	Boylston town	34			100%			0	0	34	0	0	34
Massachusetts	Worcester County	Clinton town	150		50%	50%			0	75	75	0	0	150
Massachusetts	Worcester County	Dudley town	8		100%				0	8	0	0	0	8
Massachusetts	Worcester County	Fitchburg city	221		75%		25%		0	166	0	55	0	221
Massachusetts	Worcester County	Gardner city	77		100%				0	77	0	0	0	77
Massachusetts	Worcester County	Harvard town	7	100%					7	0	0	0	0	7
Massachusetts	Worcester County	Holden town	43		75%	25%			0	32	11	0	0	43
Massachusetts	Worcester County	Lancaster town	496			100%			0	0	496	0	0	496
Massachusetts	Worcester County	Leicester town	13		100%				0	13	0	0	0	13
Massachusetts	Worcester County	Leominster city	474		100%				0	474	0	0	0	474
Massachusetts	Worcester County	Lunenburg town	121				100%		0	0	0	121	0	121

Residence State	Residence County	Residence Town	Count	Rte 2 from East	Rte 2 from West	Rte 70 from South	Rte 70 from North	Shirley Rd from North	Rte 2 from East	Rte 2 from West	Rte 70 from South	Rte 70 from North	Shirley Rd from North	Total
Massachusetts	Worcester County	Milford town	49	100%					49	0	0	0	0	49
Massachusetts	Worcester County	Northborough town	6	50%		50%			3	0	3	0	0	6
Massachusetts	Worcester County	Petersham town	2		100%				0	2	0	0	0	2
Massachusetts	Worcester County	Phillipston town	15		100%				0	15	0	0	0	15
Massachusetts	Worcester County	Princeton town	12		100%				0	12	0	0	0	12
Massachusetts	Worcester County	Rutland town	16		100%				0	16	0	0	0	16
Massachusetts	Worcester County	Southborough town	10	50%		50%			5	0	5	0	0	10
Massachusetts	Worcester County	Southbridge Town city	7		100%				0	7	0	0	0	7
Massachusetts	Worcester County	Spencer town	12		100%				0	12	0	0	0	12
Massachusetts	Worcester County	Sterling town	84		100%				0	84	0	0	0	84
Massachusetts	Worcester County	Templeton town	19		100%				0	19	0	0	0	19
Massachusetts	Worcester County	Webster town	11		100%				0	11	0	0	0	11
Massachusetts	Worcester County	Westborough town	25	50%		50%			6	0	6	0	0	11
Massachusetts	Worcester County	Westminster town	52		100%				0	52	0	0	0	52
Massachusetts	Worcester County	Winchendon town	62		100%				0	62	0	0	0	62
Massachusetts	Worcester County	Worcester city	168		100%				0	168	0	0	0	168
Total									317	1,391	698	193	37	2,635
Percentage									12%	53%	26%	7%	1%	100%
USE									12%	55%	25%	7%	1%	100%

Vehicle Speed Data

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Wednesday, September, 08, 2021

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	42.0	42.0
1:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	37.0	37.0
2:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	2	59.3	57.5
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	0	0	2	2	4	2	0	0	0	0	0	10	44.7	40.1
5:00 AM	0	0	0	1	7	5	12	3	5	0	0	0	0	33	46.8	40.4
6:00 AM	0	0	0	1	4	2	13	13	5	1	0	0	0	39	49.3	43.5
7:00 AM	0	0	0	0	1	8	8	19	4	3	0	0	0	43	49.7	45.3
8:00 AM	0	0	0	3	1	8	9	7	3	0	2	0	0	33	49.4	42.2
9:00 AM	0	0	0	2	7	7	6	4	3	0	0	0	0	29	47.6	39.0
10:00 AM	0	0	0	0	2	2	9	3	0	0	0	0	0	16	44.8	40.9
11:00 AM	0	0	0	0	7	6	12	5	0	2	0	0	0	32	46.4	40.4
12:00 PM	0	0	0	2	3	5	12	5	2	0	0	0	0	29	46.8	40.4
1:00 PM	0	0	0	1	2	3	6	7	2	0	0	0	0	21	48.0	41.7
2:00 PM	0	0	0	0	3	9	12	8	3	0	0	0	0	35	46.9	41.8
3:00 PM	0	2	0	0	5	4	3	5	2	0	0	0	0	21	47.0	38.1
4:00 PM	0	0	0	1	1	8	6	2	2	1	0	0	0	21	48.0	41.5
5:00 PM	0	0	0	0	2	1	6	1	1	0	0	0	0	11	44.5	40.7
6:00 PM	0	0	0	0	1	4	2	1	1	0	0	0	0	9	47.8	40.9
7:00 PM	0	0	0	0	2	1	1	0	1	0	0	0	0	5	46.8	39.8
8:00 PM	0	0	0	0	0	0	2	0	1	0	0	0	0	3	48.6	45.3
9:00 PM	0	0	0	0	0	2	4	1	1	0	0	0	0	8	48.7	43.0
10:00 PM	0	0	0	0	1	3	2	0	1	0	0	0	0	7	42.2	40.0
11:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	46.4	42.5
Total	0	2	0	11	51	82	130	87	37	8	3	0	0	411	49.0	41.6
Percent	0.00%	0.49%	0.00%	2.68%	12.41%	19.95%	31.63%	21.17%	9.00%	1.95%	0.73%	0.00%	0.00%			

AM Peak				8:00 AM	5:00 AM	7:00 AM	6:00 AM	7:00 AM	5:00 AM	7:00 AM	8:00 AM			7:00 AM
Volume	0	0	0	3	7	8	13	19	5	3	2	0	0	43
PM Peak		3:00 PM		12:00 PM	3:00 PM	2:00 PM	12:00 PM	2:00 PM	2:00 PM	4:00 PM				2:00 PM
Volume	0	2	0	2	5	9	12	8	3	1	0	0	0	35

15th Percentile:	34.0 MPH	Average Speed:	41.6 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	42.0 MPH	10 MPH Pace:	36 to 45 MPH	Number of Vehicles > 40 MPH:	238
85th Percentile:	49.0 MPH	Number in Pace:	226	Percent of Vehicles > 40 MPH:	57.9%
95th Percentile:	52.0 MPH	Percent in Pace:	55.0%		

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Wednesday, September, 08, 2021

Speed (60-minute)

WB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
1:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	41.0	41.0
2:00 AM	0	0	0	0	0	0	2	0	1	0	0	0	0	3	48.9	45.3
3:00 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	4	37.1	34.3
4:00 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	3	47.7	46.3
5:00 AM	0	0	0	3	0	1	1	1	0	1	0	0	0	7	47.8	37.7
6:00 AM	0	0	0	1	2	5	7	6	3	1	0	0	0	25	48.8	41.8
7:00 AM	0	0	0	1	0	3	4	3	2	1	0	0	1	15	53.6	45.3
8:00 AM	0	0	0	0	4	3	12	5	3	0	0	0	0	27	46.1	41.3
9:00 AM	0	0	0	1	1	9	11	7	1	0	0	0	0	30	45.7	41.2
10:00 AM	0	0	0	1	1	6	9	12	1	0	0	0	0	30	47.0	42.7
11:00 AM	0	0	0	1	5	11	12	11	3	3	0	0	0	46	48.0	42.2
12:00 PM	0	0	0	2	3	6	10	11	2	1	0	0	0	35	47.9	41.8
1:00 PM	0	0	0	0	2	10	15	9	2	0	1	0	0	39	48.0	42.5
2:00 PM	0	0	0	0	8	8	18	19	6	3	0	0	0	62	49.0	43.4
3:00 PM	0	0	0	2	5	9	28	35	19	4	2	0	1	105	50.0	45.4
4:00 PM	0	0	0	1	0	8	38	37	25	4	0	0	0	113	50.0	45.8
5:00 PM	0	0	0	0	0	2	15	20	10	2	0	1	0	50	51.0	47.1
6:00 PM	0	0	0	1	0	5	7	12	4	1	0	0	0	30	50.3	44.4
7:00 PM	0	0	0	0	2	1	2	7	1	1	0	0	0	14	47.2	43.9
8:00 PM	0	0	0	0	0	0	1	1	2	0	0	0	0	4	50.6	48.3
9:00 PM	0	0	0	0	1	1	1	1	0	0	0	0	0	4	42.8	39.3
10:00 PM	0	0	0	2	2	5	5	3	0	2	0	0	0	19	46.9	39.7
11:00 PM	0	0	0	0	0	0	0	2	0	1	0	0	0	3	55.7	50.7
Total	0	0	0	17	37	95	200	204	85	25	3	1	2	669	50.0	43.8
Percent	0.00%	0.00%	0.00%	2.54%	5.53%	14.20%	29.90%	30.49%	12.71%	3.74%	0.45%	0.15%	0.30%			

AM Peak	5:00 AM	11:00 AM	11:00 AM	8:00 AM	10:00 AM	6:00 AM	11:00 AM	7:00 AM	11:00 AM					
Volume	0	0	0	3	5	11	12	12	3	3	0	0	1	46

PM Peak	12:00 PM	2:00 PM	1:00 PM	4:00 PM	4:00 PM	4:00 PM	3:00 PM	3:00 PM	5:00 PM	3:00 PM	4:00 PM			
Volume	0	0	0	2	8	10	38	37	25	4	2	1	1	113

15th Percentile:	37.0 MPH	Average Speed:	43.8 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	44.0 MPH	10 MPH Pace:	41 to 50 MPH	Number of Vehicles > 40 MPH:	483
85th Percentile:	50.0 MPH	Number in Pace:	407	Percent of Vehicles > 40 MPH:	72.2%
95th Percentile:	54.0 MPH	Percent in Pace:	60.8%		

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Wednesday, September, 08, 2021

Speed (60-minute)
Combined EB and WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	42.0	42.0
1:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	2	40.4	39.0
2:00 AM	0	0	0	0	0	0	2	0	1	1	1	0	0	5	57.0	50.2
3:00 AM	0	0	0	1	1	2	0	0	0	0	0	0	0	4	37.1	34.3
4:00 AM	0	0	0	0	2	2	5	4	0	0	0	0	0	13	47.2	41.5
5:00 AM	0	0	0	4	7	6	13	4	5	1	0	0	0	40	47.5	39.9
6:00 AM	0	0	0	2	6	7	20	19	8	2	0	0	0	64	49.6	42.8
7:00 AM	0	0	0	1	1	11	12	22	6	4	0	0	1	58	50.9	45.3
8:00 AM	0	0	0	3	5	11	21	12	6	0	2	0	0	60	49.0	41.8
9:00 AM	0	0	0	3	8	16	17	11	4	0	0	0	0	59	46.3	40.1
10:00 AM	0	0	0	1	3	8	18	15	1	0	0	0	0	46	46.3	42.1
11:00 AM	0	0	0	1	12	17	24	16	3	5	0	0	0	78	48.0	41.4
12:00 PM	0	0	0	4	6	11	22	16	4	1	0	0	0	64	47.0	41.2
1:00 PM	0	0	0	1	4	13	21	16	4	0	1	0	0	60	48.0	42.2
2:00 PM	0	0	0	0	11	17	30	27	9	3	0	0	0	97	49.0	42.9
3:00 PM	0	2	0	2	10	13	31	40	21	4	2	0	1	126	50.0	44.2
4:00 PM	0	0	0	2	1	16	44	39	27	5	0	0	0	134	50.0	45.1
5:00 PM	0	0	0	0	2	3	21	21	11	2	0	1	0	61	50.0	45.9
6:00 PM	0	0	0	1	1	9	9	13	5	1	0	0	0	39	49.6	43.6
7:00 PM	0	0	0	0	4	2	3	7	2	1	0	0	0	19	47.9	42.8
8:00 PM	0	0	0	0	0	0	3	1	3	0	0	0	0	7	51.0	47.0
9:00 PM	0	0	0	0	1	3	5	2	1	0	0	0	0	12	46.4	41.8
10:00 PM	0	0	0	2	3	8	7	3	1	2	0	0	0	26	46.8	39.8
11:00 PM	0	0	0	0	0	1	0	3	0	1	0	0	0	5	52.4	47.4
Total	0	2	0	28	88	177	330	291	122	33	6	1	2	1080	50.0	43.0
Percent	0.00%	0.19%	0.00%	2.59%	8.15%	16.39%	30.56%	26.94%	11.30%	3.06%	0.56%	0.09%	0.19%			

AM Peak	5:00 AM	11:00 AM	11:00 AM	11:00 AM	7:00 AM	6:00 AM	11:00 AM	8:00 AM	7:00 AM	11:00 AM				
Volume	0	0	0	4	12	17	24	22	8	5	2	0	1	78

PM Peak	3:00 PM	12:00 PM	2:00 PM	2:00 PM	4:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	5:00 PM	3:00 PM	4:00 PM		
Volume	0	2	0	4	11	17	44	40	27	5	2	1	1	134

15th Percentile:	36.0 MPH	Average Speed:	43.0 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	43.0 MPH	10 MPH Pace:	39 to 48 MPH	Number of Vehicles > 40 MPH:	721
85th Percentile:	50.0 MPH	Number in Pace:	623	Percent of Vehicles > 40 MPH:	66.8%
95th Percentile:	53.0 MPH	Percent in Pace:	57.7%		

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Thursday, September 9, 2021

Speed (60-minute)

EB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	42.0	42.0
1:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	40.0	40.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	33.0	33.0
4:00 AM	0	0	0	0	1	6	1	0	0	0	0	0	0	8	39.0	37.6
5:00 AM	0	0	0	3	5	13	6	4	1	0	0	0	0	32	43.7	38.2
6:00 AM	0	0	0	0	3	5	13	14	0	2	0	0	0	37	48.0	43.5
7:00 AM	0	0	0	1	3	9	12	14	7	6	0	0	0	52	52.7	44.5
8:00 AM	0	0	0	2	2	4	3	3	6	0	1	0	0	21	52.0	43.6
9:00 AM	0	0	0	2	1	4	4	3	0	2	0	0	0	16	45.8	41.1
10:00 AM	0	0	1	2	3	6	4	4	1	0	0	0	0	21	45.0	38.3
11:00 AM	0	0	0	3	0	4	8	5	0	1	1	0	0	22	47.0	41.9
12:00 PM	0	0	1	2	4	10	7	2	0	0	0	0	0	26	42.3	36.9
1:00 PM	0	0	0	1	6	5	4	3	1	0	0	0	0	20	45.2	38.0
2:00 PM	0	0	1	2	5	6	8	8	4	0	0	0	0	34	48.0	40.5
3:00 PM	1	0	0	4	2	6	9	6	2	1	0	0	0	31	48.0	39.6
4:00 PM	0	0	0	0	1	3	8	2	1	0	0	0	0	15	45.8	41.3
5:00 PM	0	0	1	0	1	1	5	3	0	0	0	0	0	11	45.5	40.3
6:00 PM	0	0	0	0	2	3	1	1	0	0	0	0	0	7	43.5	38.4
7:00 PM	0	0	0	0	0	1	2	1	0	0	0	0	0	4	43.2	40.3
8:00 PM	0	0	0	0	1	1	3	0	0	0	0	0	0	5	41.4	38.4
9:00 PM	0	0	0	0	0	4	2	1	0	0	0	0	0	7	41.8	39.9
10:00 PM	0	0	1	0	1	1	0	1	0	0	0	0	0	4	41.5	34.5
11:00 PM	0	0	0	1	0	0	0	0	1	0	0	0	0	2	46.6	38.5
Total	1	0	5	23	42	92	102	75	24	12	2	0	0	378	48.0	40.7
Percent	0.26%	0.00%	1.32%	6.08%	11.11%	24.34%	26.98%	19.84%	6.35%	3.17%	0.53%	0.00%	0.00%			

AM Peak		10:00 AM	5:00 AM	5:00 AM	5:00 AM	6:00 AM	6:00 AM	7:00 AM	7:00 AM	8:00 AM				7:00 AM
Volume	0	0	1	3	5	13	13	14	7	6	1	0	0	52
PM Peak	3:00 PM	12:00 PM	3:00 PM	1:00 PM	12:00 PM	3:00 PM	2:00 PM	2:00 PM	3:00 PM					2:00 PM
Volume	1	0	1	4	6	10	9	8	4	1	0	0	0	34

15th Percentile: 34.0 MPH Average Speed: 40.7 MPH Posted Speed Limit: 40 MPH
 50th Percentile: 41.0 MPH 10 MPH Pace: 37 to 46 MPH Number of Vehicles > 40 MPH: 194
 85th Percentile: 48.0 MPH Number in Pace: 205 Percent of Vehicles > 40 MPH: 51.3%
 95th Percentile: 52.2 MPH Percent in Pace: 54.2%

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Thursday, September 9, 2021

Speed (60-minute)

WB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	47.7	44.5
1:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	56.0	56.0
2:00 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	3	39.4	38.7
3:00 AM	0	0	0	0	2	2	0	0	0	0	0	1	0	5	47.0	39.6
4:00 AM	0	0	0	0	1	1	0	3	0	0	0	0	0	5	49.0	43.6
5:00 AM	0	1	0	3	1	0	0	1	0	0	0	0	0	6	34.8	30.5
6:00 AM	0	0	0	1	0	5	5	3	2	1	0	0	0	17	48.8	42.8
7:00 AM	0	0	0	2	3	4	7	5	3	0	0	0	0	24	49.0	41.4
8:00 AM	0	0	0	1	1	4	7	3	1	0	0	0	0	17	45.0	40.5
9:00 AM	0	0	1	1	3	8	9	5	3	0	0	0	0	30	48.7	40.6
10:00 AM	1	0	1	1	5	3	8	9	2	0	0	0	0	30	47.0	39.8
11:00 AM	0	0	0	0	2	10	13	10	3	0	0	1	0	39	48.0	42.7
12:00 PM	0	0	0	1	7	5	14	4	4	1	0	0	0	36	46.0	40.8
1:00 PM	0	0	0	0	6	7	15	11	2	1	1	0	0	43	47.7	42.5
2:00 PM	0	0	0	1	6	14	25	14	5	2	2	0	0	69	49.0	42.9
3:00 PM	0	0	1	0	4	12	27	21	5	4	2	1	0	77	49.6	44.3
4:00 PM	0	0	0	0	3	14	27	30	19	9	1	0	1	104	52.0	46.2
5:00 PM	0	0	0	0	0	4	19	31	14	2	1	0	1	72	51.0	46.9
6:00 PM	0	0	0	1	1	4	17	12	2	0	0	0	0	37	46.6	43.3
7:00 PM	0	0	0	0	1	2	3	6	0	0	1	0	0	13	48.0	44.7
8:00 PM	0	0	0	0	0	1	2	1	1	1	0	0	0	6	52.8	46.5
9:00 PM	0	0	0	0	0	1	1	0	1	0	0	0	0	3	48.9	44.7
10:00 PM	0	0	0	1	2	2	1	0	1	0	1	0	0	8	49.6	40.6
11:00 PM	0	0	0	2	3	5	1	1	1	0	0	0	0	13	42.6	36.9
Total	1	1	3	15	51	110	203	171	69	22	9	3	2	660	50.0	43.3
Percent	0.15%	0.15%	0.45%	2.27%	7.73%	16.67%	30.76%	25.91%	10.45%	3.33%	1.36%	0.45%	0.30%			

AM Peak	10:00 AM	5:00 AM	9:00 AM	5:00 AM	10:00 AM	11:00 AM	11:00 AM	11:00 AM	7:00 AM	1:00 AM		3:00 AM		11:00 AM
Volume	1	1	1	3	5	10	13	10	3	1	0	1	0	39
PM Peak			3:00 PM	11:00 PM	12:00 PM	2:00 PM	3:00 PM	5:00 PM	4:00 PM	4:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM
Volume	0	0	1	2	7	14	27	31	19	9	2	1	1	104

15th Percentile: 36.0 MPH Average Speed: 43.3 MPH Posted Speed Limit: 40 MPH
 50th Percentile: 44.0 MPH 10 MPH Pace: 39 to 48 MPH Number of Vehicles > 40 MPH: 454
 85th Percentile: 50.0 MPH Number in Pace: 382 Percent of Vehicles > 40 MPH: 68.8%
 95th Percentile: 55.0 MPH Percent in Pace: 57.9%

Fort Pond Road
 west of #580 Driveway
 City, State: Lancaster, MA
 Client: VHB/ J. Plourde
 Site Code: 14260.01



PDI File #: 218148 ATR-A

Count Date
 Thursday, September 9, 2021

Speed (60-minute)

Combined EB and WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	2	1	0	0	0	0	0	3	46.9	43.7
1:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	2	53.6	48.0
2:00 AM	0	0	0	0	0	2	1	0	0	0	0	0	0	3	39.4	38.7
3:00 AM	0	0	0	0	3	2	0	0	0	0	0	1	0	6	42.5	38.5
4:00 AM	0	0	0	0	2	7	1	3	0	0	0	0	0	13	47.4	39.9
5:00 AM	0	1	0	6	6	13	6	5	1	0	0	0	0	38	43.9	36.9
6:00 AM	0	0	0	1	3	10	18	17	2	3	0	0	0	54	48.0	43.3
7:00 AM	0	0	0	3	6	13	19	19	10	6	0	0	0	76	51.0	43.5
8:00 AM	0	0	0	3	3	8	10	6	7	0	1	0	0	38	51.5	42.2
9:00 AM	0	0	1	3	4	12	13	8	3	2	0	0	0	46	48.3	40.7
10:00 AM	1	0	2	3	8	9	12	13	3	0	0	0	0	51	47.0	39.2
11:00 AM	0	0	0	3	2	14	21	15	3	1	1	1	0	61	48.0	42.4
12:00 PM	0	0	1	3	11	15	21	6	4	1	0	0	0	62	45.0	39.2
1:00 PM	0	0	0	1	12	12	19	14	3	1	1	0	0	63	47.0	41.1
2:00 PM	0	0	1	3	11	20	33	22	9	2	2	0	0	103	49.0	42.1
3:00 PM	1	0	1	4	6	18	36	27	7	5	2	1	0	108	49.0	42.9
4:00 PM	0	0	0	0	4	17	35	32	20	9	1	0	1	119	51.3	45.6
5:00 PM	0	0	1	0	1	5	24	34	14	2	1	0	1	83	50.7	46.1
6:00 PM	0	0	0	1	3	7	18	13	2	0	0	0	0	44	46.6	42.5
7:00 PM	0	0	0	0	1	3	5	7	0	0	1	0	0	17	48.0	43.6
8:00 PM	0	0	0	0	1	2	5	1	1	1	0	0	0	11	49.0	42.8
9:00 PM	0	0	0	0	0	5	3	1	1	0	0	0	0	10	47.3	41.3
10:00 PM	0	0	1	1	3	3	1	1	1	0	1	0	0	12	47.4	38.6
11:00 PM	0	0	0	3	3	5	1	1	2	0	0	0	0	15	48.2	37.1
Total	2	1	8	38	93	202	305	246	93	34	11	3	2	1038	49.0	42.4
Percent	0.19%	0.10%	0.77%	3.66%	8.96%	19.46%	29.38%	23.70%	8.96%	3.28%	1.06%	0.29%	0.19%			

AM Peak	10:00 AM	5:00 AM	10:00 AM	5:00 AM	10:00 AM	11:00 AM	11:00 AM	7:00 AM	7:00 AM	7:00 AM	8:00 AM	3:00 AM		7:00 AM
Volume	1	1	2	6	8	14	21	19	10	6	1	1	0	76
PM Peak	3:00 PM		12:00 PM	3:00 PM	1:00 PM	2:00 PM	3:00 PM	5:00 PM	4:00 PM	4:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM
Volume	1	0	1	4	12	20	36	34	20	9	2	1	1	119

15th Percentile:	35.0 MPH	Average Speed:	42.4 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	43.0 MPH	10 MPH Pace:	39 to 48 MPH	Number of Vehicles > 40 MPH:	648
85th Percentile:	49.0 MPH	Number in Pace:	572	Percent of Vehicles > 40 MPH:	62.4%
95th Percentile:	54.0 MPH	Percent in Pace:	55.1%		

Capacity and Queue Analysis Worksheets

Intersection

Int Delay, s/veh 4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	105	5	20	95	0
Future Vol, veh/h	55	105	5	20	95	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	3	2	-
Peak Hour Factor	80	80	61	61	71	71
Heavy Vehicles, %	5	3	0	24	23	0
Mvmt Flow	69	131	8	33	134	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	200	0	184
Stage 1	-	-	-	-	135
Stage 2	-	-	-	-	49
Critical Hdwy	-	-	4.1	-	7.03
Critical Hdwy Stg 1	-	-	-	-	6.03
Critical Hdwy Stg 2	-	-	-	-	6.03
Follow-up Hdwy	-	-	2.2	-	3.707
Pot Cap-1 Maneuver	-	-	1384	-	744
Stage 1	-	-	-	-	830
Stage 2	-	-	-	-	917
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1384	-	740
Mov Cap-2 Maneuver	-	-	-	-	740
Stage 1	-	-	-	-	830
Stage 2	-	-	-	-	911

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	740	-	-	-	1384	-
HCM Lane V/C Ratio	0.181	-	-	-	0.006	-
HCM Control Delay (s)	10.9	0	-	-	7.6	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	-	0	-

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	50	15	5	5	5
Future Vol, veh/h	5	50	15	5	5	5
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, %	-	2	0	-	-1	-
Peak Hour Factor	77	77	58	58	63	63
Heavy Vehicles, %	50	0	17	33	100	50
Mvmt Flow	6	65	26	9	8	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	35	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.6	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.65	-	-
Pot Cap-1 Maneuver	1316	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1316	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1316	-	-	-	796
HCM Lane V/C Ratio	0.005	-	-	-	0.02
HCM Control Delay (s)	7.7	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	45	5	165	20	5	75
Future Vol, veh/h	45	5	165	20	5	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	1	-
Peak Hour Factor	86	86	65	65	70	70
Heavy Vehicles, %	6	33	0	31	0	4
Mvmt Flow	52	6	254	31	7	107

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	58
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1559
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1559
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.9	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	380	1005	-	-	1559	-
HCM Lane V/C Ratio	0.019	0.107	-	-	0.163	-
HCM Control Delay (s)	14.7	9	-	-	7.8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.4	-	-	0.6	-

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	100	20	10	295	170	175
Future Vol, veh/h	100	20	10	295	170	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	0	45	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-2	3	-
Peak Hour Factor	77	77	82	82	81	81
Heavy Vehicles, %	5	11	14	1	2	5
Mvmt Flow	130	26	12	360	210	216

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	702	- 426	0 - 0
Stage 1	318	- -	- - -
Stage 2	384	- -	- - -
Critical Hdwy	6.65	- 4.24	- - -
Critical Hdwy Stg 1	5.65	- -	- - -
Critical Hdwy Stg 2	5.65	- -	- - -
Follow-up Hdwy	3.545	- 2.326	- - -
Pot Cap-1 Maneuver	385	0 1072	- - -
Stage 1	718	0 -	- - -
Stage 2	668	0 -	- - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	380	- 1072	- - -
Mov Cap-2 Maneuver	380	- -	- - -
Stage 1	708	- -	- - -
Stage 2	668	- -	- - -

Approach	EB	NB	SB
HCM Control Delay, s	19.3	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1072	-	380	-	-	-
HCM Lane V/C Ratio	0.011	-	0.342	-	-	-
HCM Control Delay (s)	8.4	0	19.3	0	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	1.5	-	-	-

Intersection

Int Delay, s/veh	5.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	185	120	65	150	40
Future Vol, veh/h	0	185	120	65	150	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	120	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	5	-	2	-	-	-3
Peak Hour Factor	77	77	82	82	90	90
Heavy Vehicles, %	0	1	2	0	4	3
Mvmt Flow	0	240	146	79	167	44

Major/Minor	Minor1	Major1		Major2	
Conflicting Flow All	564	186	0	0	225
Stage 1	186	-	-	-	-
Stage 2	378	-	-	-	-
Critical Hdwy	7.4	6.71	-	-	4.14
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	2.236
Pot Cap-1 Maneuver	419	837	-	-	1332
Stage 1	808	-	-	-	-
Stage 2	628	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	365	837	-	-	1332
Mov Cap-2 Maneuver	365	-	-	-	-
Stage 1	808	-	-	-	-
Stage 2	547	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	837	1332
HCM Lane V/C Ratio	-	-	-	0.287	0.125
HCM Control Delay (s)	-	-	0	11	8.1
HCM Lane LOS	-	-	A	B	A
HCM 95th %tile Q(veh)	-	-	-	1.2	0.4

Intersection

Int Delay, s/veh 7.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	30	115	20	125	270	5
Future Vol, veh/h	30	115	20	125	270	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	3	2	-
Peak Hour Factor	98	98	94	94	88	88
Heavy Vehicles, %	17	4	13	2	5	0
Mvmt Flow	31	117	21	133	307	6

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	148
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.23
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.317
Pot Cap-1 Maneuver	-	-	1369
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1369
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	685	968	-	-	1369	-
HCM Lane V/C Ratio	0.448	0.006	-	-	0.016	-
HCM Control Delay (s)	14.4	8.7	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	2.3	0	-	-	0	-

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	5	25	130	0	5	5
Future Vol, veh/h	5	25	130	0	5	5
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, %	-	2	0	-	-1	-
Peak Hour Factor	58	58	88	88	35	35
Heavy Vehicles, %	50	16	2	0	33	50
Mvmt Flow	9	43	148	0	14	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	148	0	209
Stage 1	-	-	148
Stage 2	-	-	61
Critical Hdwy	4.6	-	6.53
Critical Hdwy Stg 1	-	-	5.53
Critical Hdwy Stg 2	-	-	5.53
Follow-up Hdwy	2.65	-	3.797
Pot Cap-1 Maneuver	1187	-	723
Stage 1	-	-	816
Stage 2	-	-	891
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1187	-	717
Mov Cap-2 Maneuver	-	-	717
Stage 1	-	-	809
Stage 2	-	-	891

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1187	-	-	-	752
HCM Lane V/C Ratio	0.007	-	-	-	0.038
HCM Control Delay (s)	8.1	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection

Int Delay, s/veh 7.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	25	0	175	65	65	100
Future Vol, veh/h	25	0	175	65	65	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	1	-
Peak Hour Factor	66	66	83	83	91	91
Heavy Vehicles, %	15	0	8	2	4	16
Mvmt Flow	38	0	211	78	71	110

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	38
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	1534
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1534
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.6	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	416	994	-	-	1534	-
HCM Lane V/C Ratio	0.172	0.111	-	-	0.137	-
HCM Control Delay (s)	15.4	9.1	-	-	7.7	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	0.4	-	-	0.5	-

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	40	10	240	180	230
Future Vol, veh/h	85	40	10	240	180	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	0	45	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-2	3	-
Peak Hour Factor	95	95	83	83	79	79
Heavy Vehicles, %	20	3	22	5	2	4
Mvmt Flow	89	42	12	289	228	291

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	687	- 519	0 - 0
Stage 1	374	- -	- - -
Stage 2	313	- -	- - -
Critical Hdwy	6.8	- 4.32	- - -
Critical Hdwy Stg 1	5.8	- -	- - -
Critical Hdwy Stg 2	5.8	- -	- - -
Follow-up Hdwy	3.68	- 2.398	- - -
Pot Cap-1 Maneuver	372	0 953	- - -
Stage 1	644	0 -	- - -
Stage 2	690	0 -	- - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	366	- 953	- - -
Mov Cap-2 Maneuver	366	- -	- - -
Stage 1	634	- -	- - -
Stage 2	690	- -	- - -

Approach	EB	NB	SB
HCM Control Delay, s	18	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	953	-	366	-	-	-
HCM Lane V/C Ratio	0.013	-	0.244	-	-	-
HCM Control Delay (s)	8.8	0	18	0	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-	-

Intersection

Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	170	80	15	85	135
Future Vol, veh/h	0	170	80	15	85	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	120	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	5	-	2	-	-	-3
Peak Hour Factor	77	77	94	94	76	76
Heavy Vehicles, %	0	5	6	0	3	1
Mvmt Flow	0	221	85	16	112	178

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	495	93	0	0	101
Stage 1	93	-	-	-	-
Stage 2	402	-	-	-	-
Critical Hdwy	7.4	6.75	-	-	4.13
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.227
Pot Cap-1 Maneuver	468	944	-	-	1485
Stage 1	912	-	-	-	-
Stage 2	608	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	429	944	-	-	1485
Mov Cap-2 Maneuver	429	-	-	-	-
Stage 1	912	-	-	-	-
Stage 2	557	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	2.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	944	1485
HCM Lane V/C Ratio	-	-	-	0.234	0.075
HCM Control Delay (s)	-	-	0	10	7.6
HCM Lane LOS	-	-	A	B	A
HCM 95th %tile Q(veh)	-	-	-	0.9	0.2

Intersection

Int Delay, s/veh 3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	60	190	5	30	140	0
Future Vol, veh/h	60	190	5	30	140	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	3	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	3	0	24	23	0
Mvmt Flow	65	207	5	33	152	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	272
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1303
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1303
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	-	1303	-
HCM Lane V/C Ratio	0.214	-	-	-	0.004	-
HCM Control Delay (s)	11.4	0	-	-	7.8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	-	0	-

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	50	20	5	5	5
Future Vol, veh/h	5	50	20	5	5	5
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, %	-	2	0	-	-1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	50	0	17	33	100	50
Mvmt Flow	5	54	22	5	5	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	27	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.6	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.65	-	-
Pot Cap-1 Maneuver	1326	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1326	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1326	-	-	-	811
HCM Lane V/C Ratio	0.004	-	-	-	0.013
HCM Control Delay (s)	7.7	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	5	170	30	10	75
Future Vol, veh/h	50	5	170	30	10	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	33	0	31	0	4
Mvmt Flow	54	5	185	33	11	82

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	59
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1558
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1558
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.5	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	483	1002	-	-	1558	-
HCM Lane V/C Ratio	0.023	0.081	-	-	0.119	-
HCM Control Delay (s)	12.6	8.9	-	-	7.6	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0.4	-

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	105	20	10	305	175	190
Future Vol, veh/h	105	20	10	305	175	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	0	45	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-2	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	11	14	1	2	5
Mvmt Flow	114	22	11	332	190	207

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	648	- 397	0 - 0
Stage 1	294	- -	- - -
Stage 2	354	- -	- - -
Critical Hdwy	6.65	- 4.24	- - -
Critical Hdwy Stg 1	5.65	- -	- - -
Critical Hdwy Stg 2	5.65	- -	- - -
Follow-up Hdwy	3.545	- 2.326	- - -
Pot Cap-1 Maneuver	415	0 1099	- - -
Stage 1	737	0 -	- - -
Stage 2	690	0 -	- - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	410	- 1099	- - -
Mov Cap-2 Maneuver	410	- -	- - -
Stage 1	728	- -	- - -
Stage 2	690	- -	- - -

Approach	EB	NB	SB
HCM Control Delay, s	17.1	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1099	-	410	-	-	-
HCM Lane V/C Ratio	0.01	-	0.278	-	-	-
HCM Control Delay (s)	8.3	0	17.1	0	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	1.1	-	-	-

Intersection

Int Delay, s/veh	5.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	190	125	70	155	40
Future Vol, veh/h	0	190	125	70	155	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	120	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	5	-	2	-	-	-3
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	4	3
Mvmt Flow	0	207	136	76	168	43

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	553	174	0	0	212
Stage 1	174	-	-	-	-
Stage 2	379	-	-	-	-
Critical Hdwy	7.4	6.71	-	-	4.14
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	2.236
Pot Cap-1 Maneuver	427	851	-	-	1347
Stage 1	821	-	-	-	-
Stage 2	627	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	372	851	-	-	1347
Mov Cap-2 Maneuver	372	-	-	-	-
Stage 1	821	-	-	-	-
Stage 2	547	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	851	1347
HCM Lane V/C Ratio	-	-	-	0.243	0.125
HCM Control Delay (s)	-	-	0	10.6	8.1
HCM Lane LOS	-	-	A	B	A
HCM 95th %tile Q(veh)	-	-	-	0.9	0.4

Intersection

Int Delay, s/veh	7.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	335	20	130	305	5
Future Vol, veh/h	35	335	20	130	305	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	3	2	-
Peak Hour Factor	98	98	94	94	92	92
Heavy Vehicles, %	17	4	13	2	5	0
Mvmt Flow	36	342	21	138	332	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	378	0	387
Stage 1	-	-	-	-	207
Stage 2	-	-	-	-	180
Critical Hdwy	-	-	4.23	-	6.85
Critical Hdwy Stg 1	-	-	-	-	5.85
Critical Hdwy Stg 2	-	-	-	-	5.85
Follow-up Hdwy	-	-	2.317	-	3.545
Pot Cap-1 Maneuver	-	-	1123	-	585
Stage 1	-	-	-	-	802
Stage 2	-	-	-	-	827
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1123	-	573
Mov Cap-2 Maneuver	-	-	-	-	573
Stage 1	-	-	-	-	802
Stage 2	-	-	-	-	810

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	573	829	-	-	1123	-
HCM Lane V/C Ratio	0.579	0.007	-	-	0.019	-
HCM Control Delay (s)	19.5	9.4	-	-	8.3	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	3.7	0	-	-	0.1	-

Intersection

Int Delay, s/veh 0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
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Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	30	140	0	5	5
Future Vol, veh/h	5	30	140	0	5	5
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, %	-	2	0	-	-1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	50	16	2	0	33	50
Mvmt Flow	5	33	152	0	5	5

Major/Minor	Major1	Major2	Minor2
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Conflicting Flow All	152	0	0	195	152
Stage 1	-	-	-	152	-
Stage 2	-	-	-	43	-
Critical Hdwy	4.6	-	-	6.53	6.6
Critical Hdwy Stg 1	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	5.53	-
Follow-up Hdwy	2.65	-	-	3.797	3.75
Pot Cap-1 Maneuver	1182	-	-	736	786
Stage 1	-	-	-	812	-
Stage 2	-	-	-	908	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1182	-	-	733	786
Mov Cap-2 Maneuver	-	-	-	733	-
Stage 1	-	-	-	809	-
Stage 2	-	-	-	908	-

Approach	EB	WB	SB
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HCM Control Delay, s	1.2	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
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Capacity (veh/h)	1182	-	-	-	759
HCM Lane V/C Ratio	0.005	-	-	-	0.014
HCM Control Delay (s)	8.1	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 7.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	30	0	180	70	70	100
Future Vol, veh/h	30	0	180	70	70	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	15	0	8	2	4	16
Mvmt Flow	33	0	196	76	76	109

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	33
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	1541
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1541
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	444	1001	-	-	1541	-
HCM Lane V/C Ratio	0.171	0.109	-	-	0.127	-
HCM Control Delay (s)	14.8	9	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	0.4	-	-	0.4	-

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	40	10	250	185	240
Future Vol, veh/h	85	40	10	250	185	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	0	45	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-2	3	-
Peak Hour Factor	95	95	92	92	92	92
Heavy Vehicles, %	20	3	22	5	2	4
Mvmt Flow	89	42	11	272	201	261

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	626	- 462	0 - 0
Stage 1	332	- -	- - -
Stage 2	294	- -	- - -
Critical Hdwy	6.8	- 4.32	- - -
Critical Hdwy Stg 1	5.8	- -	- - -
Critical Hdwy Stg 2	5.8	- -	- - -
Follow-up Hdwy	3.68	- 2.398	- - -
Pot Cap-1 Maneuver	406	0 1002	- - -
Stage 1	676	0 -	- - -
Stage 2	705	0 -	- - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	401	- 1002	- - -
Mov Cap-2 Maneuver	401	- -	- - -
Stage 1	667	- -	- - -
Stage 2	705	- -	- - -

Approach	EB	NB	SB
HCM Control Delay, s	16.5	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1002	-	401	-	-	-
HCM Lane V/C Ratio	0.011	-	0.223	-	-	-
HCM Control Delay (s)	8.6	0	16.5	0	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-	-

Intersection

Int Delay, s/veh	4.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	180	80	15	90	135
Future Vol, veh/h	0	180	80	15	90	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	120	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	5	-	2	-	-	-3
Peak Hour Factor	92	92	94	94	92	92
Heavy Vehicles, %	0	5	6	0	3	1
Mvmt Flow	0	196	85	16	98	147

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	436	93	0	0	101
Stage 1	93	-	-	-	-
Stage 2	343	-	-	-	-
Critical Hdwy	7.4	6.75	-	-	4.13
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.227
Pot Cap-1 Maneuver	515	944	-	-	1485
Stage 1	912	-	-	-	-
Stage 2	657	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	478	944	-	-	1485
Mov Cap-2 Maneuver	478	-	-	-	-
Stage 1	912	-	-	-	-
Stage 2	610	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	944	1485
HCM Lane V/C Ratio	-	-	-	0.207	0.066
HCM Control Delay (s)	-	-	0	9.8	7.6
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.8	0.2

Intersection

Int Delay, s/veh 3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	75	190	10	30	140	0
Future Vol, veh/h	75	190	10	30	140	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	3	2	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	3	0	24	23	0
Mvmt Flow	82	207	11	33	152	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	289
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1284
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1284
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	679	-	-	-	1284	-
HCM Lane V/C Ratio	0.224	-	-	-	0.008	-
HCM Control Delay (s)	11.8	0	-	-	7.8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	-	0	-

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	20	50	20	15	10	10
Future Vol, veh/h	20	50	20	15	10	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, %	-	2	0	-	-1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	50	0	17	33	100	50
Mvmt Flow	22	54	22	16	11	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	38	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.6	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.65	-	-
Pot Cap-1 Maneuver	1312	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1312	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1312	-	-	-	778
HCM Lane V/C Ratio	0.017	-	-	-	0.028
HCM Control Delay (s)	7.8	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection

Int Delay, s/veh 6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	5	170	40	10	75
Future Vol, veh/h	50	5	170	40	10	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	33	0	31	0	4
Mvmt Flow	54	5	185	43	11	82

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	59
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1558
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1558
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.2	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	475	1002	-	-	1558	-
HCM Lane V/C Ratio	0.023	0.081	-	-	0.119	-
HCM Control Delay (s)	12.8	8.9	-	-	7.6	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0.4	-

Intersection

Int Delay, s/veh 2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	105	20	20	305	175	190
Future Vol, veh/h	105	20	20	305	175	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	0	45	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-2	3	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	11	14	1	2	5
Mvmt Flow	114	22	22	332	190	207

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	670	- 397	0 - 0
Stage 1	294	- -	- - -
Stage 2	376	- -	- - -
Critical Hdwy	6.65	- 4.24	- - -
Critical Hdwy Stg 1	5.65	- -	- - -
Critical Hdwy Stg 2	5.65	- -	- - -
Follow-up Hdwy	3.545	- 2.326	- - -
Pot Cap-1 Maneuver	402	0 1099	- - -
Stage 1	737	0 -	- - -
Stage 2	673	0 -	- - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	392	- 1099	- - -
Mov Cap-2 Maneuver	392	- -	- - -
Stage 1	719	- -	- - -
Stage 2	673	- -	- - -

Approach	EB	NB	SB
HCM Control Delay, s	17.9	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1099	-	392	-	-	-
HCM Lane V/C Ratio	0.02	-	0.291	-	-	-
HCM Control Delay (s)	8.3	0	17.9	0	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	1.2	-	-	-

Intersection

Int Delay, s/veh	5.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	200	125	70	155	40
Future Vol, veh/h	0	200	125	70	155	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	120	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	5	-	2	-	-	-3
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	4	3
Mvmt Flow	0	217	136	76	168	43

Major/Minor	Minor1	Major1		Major2	
Conflicting Flow All	553	174	0	0	212
Stage 1	174	-	-	-	-
Stage 2	379	-	-	-	-
Critical Hdwy	7.4	6.71	-	-	4.14
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-	2.236
Pot Cap-1 Maneuver	427	851	-	-	1347
Stage 1	821	-	-	-	-
Stage 2	627	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	372	851	-	-	1347
Mov Cap-2 Maneuver	372	-	-	-	-
Stage 1	821	-	-	-	-
Stage 2	547	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	851	1347
HCM Lane V/C Ratio	-	-	-	0.255	0.125
HCM Control Delay (s)	-	-	0	10.7	8.1
HCM Lane LOS	-	-	A	B	A
HCM 95th %tile Q(veh)	-	-	-	1	0.4

Intersection

Int Delay, s/veh	8.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	40	335	30	140	305	5
Future Vol, veh/h	40	335	30	140	305	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	85
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	3	2	-
Peak Hour Factor	98	98	94	94	92	92
Heavy Vehicles, %	17	4	13	2	5	0
Mvmt Flow	41	342	32	149	332	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	383	0	425
Stage 1	-	-	-	-	212
Stage 2	-	-	-	-	213
Critical Hdwy	-	-	4.23	-	6.85
Critical Hdwy Stg 1	-	-	-	-	5.85
Critical Hdwy Stg 2	-	-	-	-	5.85
Follow-up Hdwy	-	-	2.317	-	3.545
Pot Cap-1 Maneuver	-	-	1118	-	554
Stage 1	-	-	-	-	797
Stage 2	-	-	-	-	796
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1118	-	537
Mov Cap-2 Maneuver	-	-	-	-	537
Stage 1	-	-	-	-	797
Stage 2	-	-	-	-	771

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	21.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	537	823	-	-	1118	-
HCM Lane V/C Ratio	0.617	0.007	-	-	0.029	-
HCM Control Delay (s)	21.9	9.4	-	-	8.3	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	4.2	0	-	-	0.1	-

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↖	↗		↘	
Traffic Vol, veh/h	10	30	140	5	20	20
Future Vol, veh/h	10	30	140	5	20	20
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, %	-	2	0	-	-1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	50	16	2	0	33	50
Mvmt Flow	11	33	152	5	22	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	157	0	210
Stage 1	-	-	155
Stage 2	-	-	55
Critical Hdwy	4.6	-	6.53
Critical Hdwy Stg 1	-	-	5.53
Critical Hdwy Stg 2	-	-	5.53
Follow-up Hdwy	2.65	-	3.797
Pot Cap-1 Maneuver	1177	-	722
Stage 1	-	-	810
Stage 2	-	-	897
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1177	-	715
Mov Cap-2 Maneuver	-	-	715
Stage 1	-	-	802
Stage 2	-	-	897

Approach	EB	WB	SB
HCM Control Delay, s	2	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1177	-	-	-	747
HCM Lane V/C Ratio	0.009	-	-	-	0.058
HCM Control Delay (s)	8.1	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection

Int Delay, s/veh 7.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	10	180	75	70	100
Future Vol, veh/h	35	10	180	75	70	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	0	70
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-1	1	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	15	0	8	2	4	16
Mvmt Flow	38	11	196	82	76	109

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	49
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	1520
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1520
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5.4	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	433	986	-	-	1520	-
HCM Lane V/C Ratio	0.176	0.11	-	-	0.129	-
HCM Control Delay (s)	15.1	9.1	-	-	7.7	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	0.4	-	-	0.4	-

Intersection

Int Delay, s/veh 2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	45	15	250	185	240
Future Vol, veh/h	85	45	15	250	185	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	None
Storage Length	0	45	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-2	3	-
Peak Hour Factor	95	95	92	92	92	92
Heavy Vehicles, %	20	3	22	5	2	4
Mvmt Flow	89	47	16	272	201	261

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	636	- 462	0 - 0
Stage 1	332	- -	- - -
Stage 2	304	- -	- - -
Critical Hdwy	6.8	- 4.32	- - -
Critical Hdwy Stg 1	5.8	- -	- - -
Critical Hdwy Stg 2	5.8	- -	- - -
Follow-up Hdwy	3.68	- 2.398	- - -
Pot Cap-1 Maneuver	400	0 1002	- - -
Stage 1	676	0 -	- - -
Stage 2	697	0 -	- - -
Platoon blocked, %			- - -
Mov Cap-1 Maneuver	392	- 1002	- - -
Mov Cap-2 Maneuver	392	- -	- - -
Stage 1	663	- -	- - -
Stage 2	697	- -	- - -

Approach	EB	NB	SB
HCM Control Delay, s	16.9	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1002	-	392	-	-	-
HCM Lane V/C Ratio	0.016	-	0.228	-	-	-
HCM Control Delay (s)	8.7	0	16.9	0	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-	-

Intersection

Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	185	80	15	95	135
Future Vol, veh/h	0	185	80	15	95	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	120	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	5	-	2	-	-	-3
Peak Hour Factor	92	92	94	94	92	92
Heavy Vehicles, %	0	5	6	0	3	1
Mvmt Flow	0	201	85	16	103	147

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	446	93	0	0	101
Stage 1	93	-	-	-	-
Stage 2	353	-	-	-	-
Critical Hdwy	7.4	6.75	-	-	4.13
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	3.5	3.345	-	-	2.227
Pot Cap-1 Maneuver	507	944	-	-	1485
Stage 1	912	-	-	-	-
Stage 2	649	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	468	944	-	-	1485
Mov Cap-2 Maneuver	468	-	-	-	-
Stage 1	912	-	-	-	-
Stage 2	600	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	3.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	944	1485
HCM Lane V/C Ratio	-	-	-	0.213	0.07
HCM Control Delay (s)	-	-	0	9.8	7.6
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.8	0.2