

July 15, 2021

NEX-2021120.00

Mr. Peter Mahoney  
JMC/TBG Lunenburg LLC  
c/o John M. Corcoran & Co. LLC  
100 Grandview Road, Suite 203  
Braintree, Massachusetts 02184

SUBJECT: Trip Generation and Site Access Letter  
Industrial Development  
535 Leominster Shirley Road  
Lunenburg, Massachusetts

Dear Mr. Mahoney:

**Greenman-Pedersen Inc.** (GPI) has prepared this letter to evaluate the expected trips, existing collision history, and site access associated with the proposed industrial development to be located at 535 Leominster Shirley Road (pending Town designation) in Lunenburg, Massachusetts. The site is currently vacant. As currently envisioned, the development would include constructing a ±372,000 square foot (SF) building for use as a warehouse and distribution facility. Access to the site is proposed via one access-only driveway and one egress-only driveway on Leominster Shirley Road. The site location in relation to the surrounding roadways is shown on the map on Figure 1.

## **Existing Conditions**

### **Geometry**

Leominster Shirley Road in the vicinity of the site is under the jurisdiction of the Town of Lunenburg and is classified as an urban minor arterial. Leominster Shirley Road is an east-west roadway and has a posted speed limit of 40 miles per hour (mph). Adjacent to the project site, Leominster Shirley Road provides one lane in each direction and directional travel is separated by a double yellow center line. In the vicinity of the project site, there are no pedestrian or bicycle accommodations. Land uses along Leominster Shirley Road consist of industrial and deciduous forest.

### **Collisions**

Collision data for the Leominster Shirley Road segment adjacent to the site were obtained from the Massachusetts Department of Transportation (MassDOT) for the latest five years available (2016 through 2020). A summary of the crashes at this segment is provided in Table 1.

In addition to the collision summary, crash occurrence also should be compared to the volume of traffic through a particular classification of roadway to determine any significance. Accordingly, the crash rate was calculated for the study area roadway and compared with the statewide and district-wide averages. A roadway segment crash rate is a measure of the frequency of collisions compared to the volume of traffic along the roadway and is presented in crashes per million vehicle miles traveled (c/mvmt). A comparison of the calculated crash rate to these averages can be used to establish the significance of collision occurrences and whether potential safety problems exist. The crash rate worksheet is attached to this letter.



**FIGURE I**  
**SITE LOCATION MAP**

**TABLE 1**  
**Collision Summary**

Location	Number of Collisions		Severity <sup>a</sup>					Collision Type <sup>b</sup>					Percent During	
	Total	Average per Year	Crash Rate <sup>c</sup>	PD	PI	F	NR	SS	RE	CM	SV	FO	Commuter Peak <sup>d</sup>	Wet/Icy Conditions <sup>e</sup>
Leominster Shirley Road Between Reservoir Road and Shirley Town Line	2	0.4	0.40	--	1	1	--	--	--	--	2	0%	50%	

Source: MassDOT (2016-2020).

<sup>a</sup> PD = property damage only; PI = personal injury; F = fatality, NR = not reported.

<sup>b</sup> SS = sideswipe; RE = rear end; CM = cross movement/angle; FO = fixed object; SV = single vehicle; U = unknown.

<sup>c</sup> Measured in crashes per million vehicle miles traveled.

<sup>d</sup> Percent of vehicle incidents that occurred during the weekday AM (7:00 AM-9:00 AM) and weekday PM (4:00 PM -6:00 PM) commuter peak periods.

<sup>e</sup> Represents the percentage of only "known" collisions occurring during inclement weather conditions.

Based on the collision data for the segment adjacent to the proposed site, between Reservoir Road and the Shirley town line, two crashes were reported. Both crashes were single vehicle crashes, one of which was during wet/icy conditions. One crash resulted in injury and the other crash resulted in a fatality. Neither crash occurred during the commuter peak periods. The crash rate for this roadway segment (0.40 c/mvmt) is significantly lower than the statewide (3.49 c/mvmt) average for urban minor arterials and does not indicate a pattern correctable by engineering measures.

## **Design Conditions**

### **Sight Distance**

To identify potential safety concerns associated with site access and egress, sight distances have been evaluated at the proposed site driveway locations 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)<sup>1</sup>. AASHTO is the national standard by which vehicle sight distance is calculated, measured, and reported. The Massachusetts Department of Transportation (MassDOT) and the Executive Office of Energy and Environmental Affairs (EEA) require the use of AASHTO sight distance standards when preparing traffic impact assessments and studies, as stated in their guidelines for traffic impact assessments.

Sight distance is the length of roadway ahead that is visible to the driver. 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. The values are based on a driver perception and reaction time of 2.5 seconds and a braking distance calculated for wet, level pavements. When the roadway is either on an upgrade or downgrade, grade correction factors are applied. Stopping sight distance is measured from an eye height of 3.5 feet to an object height of 2 feet above street level, equivalent to the taillight height of a passenger car. The SSD is measured along the centerline of the traveled way of the major road.

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. By definition, ISD is the minimum distance required for a motorist exiting a minor street to turn onto the major street, without being overtaken by an approaching vehicle reducing its speed from the design speed to 70 percent of the design speed. ISD is measured from an eye height of 3.5 feet to an object height of 3.5 feet above street level. For trucks, the measured eye height is 7.6 feet above street level. The use of an object height equal to the driver eye height makes intersection sight distances reciprocal (i.e., if one driver can see another vehicle, then the driver of that vehicle can also see the first vehicle). When the minor street is on an upgrade that exceeds 3 percent, grade correction factors are applied.

SSD is generally more important as it represents the minimum distance required for safe stopping while ISD is based only upon acceptable speed reductions to the approaching traffic stream. The ISD, however, must be equal to or greater than the minimum required SSD in order to provide safe operations at the intersection. In accordance with the AASHTO manual, *"If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road."* Accordingly, ISD should be at least equal to the distance required to allow a driver approaching the minor road to safely stop.

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<sup>1</sup> A Policy on Geometric Design of Highways and Streets; American Association of State Highway and Transportation Officials (AASHTO); 2018.

The available SSD and ISD at the proposed site driveway location were measured and compared to minimum requirements as established by AASHTO. The average speeds along Leominster Shirley Road were found to be 42 mph in the eastbound direction and 41 mph in the westbound direction with the 85<sup>th</sup> percentile speeds of 47 mph in the eastbound direction and 45 mph in the westbound direction. Based on the posted and observed speeds, the SSD and ISD requirements were calculated. The sight distance calculations are attached to this letter. The required minimum sight distances at the proposed site driveway are compared to the available distances as shown in Table 2.

**TABLE 2  
 Sight Distance Summary**

Location/Direction	Stopping Sight Distance (feet)		Intersection Sight Distance (feet)		
	Measured	Minimum Required <sup>a</sup>	Measured	Minimum Required <sup>b</sup>	Desirable <sup>c</sup>
<b>Leominster Shirley Road at West (Exit-Only) Site Drive:</b>					
<i>East of intersection (WB)</i>	500+	360	500+(700+)	360	385(620)
<i>West of intersection (EB)</i>	700+	400	700+(700+)	400	445(680)

<sup>a</sup> Values based on AASHTO requirements for minimum SSD based on 85<sup>th</sup> percentile speeds; 47 mph for eastbound travel and 45 mph for westbound travel on Leominster Shirley Road.

<sup>b</sup> Values based on AASHTO requirements for SSD.

<sup>c</sup> Values based on AASHTO requirements for ISD for posted speed of 40 mph on Leominster Shirley Road for passenger vehicles and combination trucks. XX(XX) = passenger vehicles (combination trucks). ISD calculations based on two lanes.

As indicated in Table 2, available sight distances at the proposed site driveway on Leominster Shirley Road exceed the minimum and desirable SSD and ISD requirements for safe operation. In addition, it is recommended that any proposed plantings, vegetation, landscaping, and signing along the site frontage be kept low to the ground (no more than 3.0 feet above street level) or set back sufficiently from Leominster Shirley Road so as not to inhibit the available sight lines.

**Trip Generation**

To estimate the volume of traffic to be generated by the proposed development, trip-generation rates published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual* <sup>2</sup> were researched. Multiple Land Use Codes (LUCs) were considered for the site. To determine the trip generation, LUC 150 (Warehousing), LUC 154 (High-Cube Transload and Short-Term Storage Warehouse), and LUC 155 (High-Cube Fulfillment Center Warehouse) were evaluated. Land Use Code (LUC) 150 (Warehousing) was used for the site to estimate the most conservative trip generation. A worksheet comparison of the LUC trip generations are attached to this letter.

<sup>2</sup> *Trip Generation, 10<sup>th</sup> Edition*. Institute of Transportation Engineers; Washington, DC; 2017.

**TABLE 3**  
**Trip-Generation Summary**

Peak Hour/Direction	Employee Trips <sup>a</sup>	Truck Trips <sup>a</sup>	Total Trips <sup>b</sup>
<b>Weekday Daily:</b>			
<i>Enter</i>	213	104	317
<i>Exit</i>	<u>213</u>	<u>104</u>	<u>317</u>
<i>Total</i>	426	208	634
<b>Weekday AM Peak Hour:</b>			
<i>Enter</i>	50	4	54
<i>Exit</i>	<u>13</u>	<u>3</u>	<u>16</u>
<i>Total</i>	63	7	70
<b>Weekday PM Peak Hour:</b>			
<i>Enter</i>	13	6	19
<i>Exit</i>	<u>48</u>	<u>5</u>	<u>53</u>
<i>Total</i>	61	11	72

<sup>a</sup> Based on ITE LUC 150 (Warehousing) for 372,000 SF.

<sup>b</sup> Employee Trips plus Truck Trips

As shown in Table 3, the proposed development is expected to generate 634 daily vehicle trips (317 entering and 317 exiting) during an average weekday, 70 vehicles trips (54 entering and 16 exiting) during the weekday AM peak hour, and 72 vehicles trips (19 entering and 53 exiting) during the weekday PM peak hour.

### Trip Distribution

Having estimated project-generated vehicle trips, the next step is to determine the distribution of project traffic and assign these trips to the local roadway network. The distribution of the employee site-generated trips was based on a Journey-to-Work gravity model using 2011-2015 U.S. Census data for the residences of the workforce in Lunenburg. The communities having residents working in Lunenburg include Lunenburg, Fitchburg, Leominster, Townsend, Ashby, and other surrounding communities as listed in the data attached to this letter. Accordingly, 40 percent of the employee site traffic is expected to/from the west along Leominster Shirley Road, 10 percent is expected to/from the east along Leominster Shirley Road, 20 percent is expected to/from the north along Reservoir Road, 15 percent is expected to/from the west along Route 2, and 15 percent is expected to/from the east along Route 2. All site generated heavy vehicle traffic was assumed to come to and from Route 2. The Journey-to-Work data are attached to this letter.

### Traffic Increases

Traffic volume increases on Leominster Shirley Road are anticipated to be between 70 to 72 vehicle trips during the peak hours. These increases represent, on average, one additional vehicle trip approximately every minute during the peak hours. Based on Automatic Traffic Recorder (ATR) counts conducted in May 2021, Leominster Shirley Road west of the site carries 377 vehicles per hour (vph) during the weekday AM peak hour (352 vph\*7 percent COVID adjustment), 542 vph during the weekday PM peak hour (507\*7 percent), and 5,154 vehicles per day (vpd) on a weekday (4,817\*7 percent). Based on the project's trip distribution, traffic increases on Leominster Shirley Road west of the site (90 percent of the employee site-generated trips and

100 percent of the truck trips) are expected to be approximately 17 percent during the weekday AM peak hour (64 vph/377 vph) and approximately 12 percent during the weekday PM peak hour (66 vph/542 vph). On a weekday basis, traffic volumes are expected to increase by approximately 11 percent (591 vpd/5,154 vpd). The traffic count data are attached to this letter.

### **Recommended Improvements**

Due to the existing speeds on Leominster Shirley Road, and the fact that tractor-trailer trucks will be entering the site, improvements are recommended to separate the traffic entering the site from the traffic that will continue along Leominster Shirley Road. This would include the construction of an eastbound left-turn lane at the eastern enter-only driveway. It is expected that with the turn lane in place, delays and queues at the site driveway will be slightly reduced. Although the proposed turn lane is expected to provide slight improvements to operations, the main purpose of the turn lane is to allow the traffic to continue along Leominster Shirley Road without extending queues to the west. A schematic design plan of the proposed left-turn lane is attached to this letter.

### **Impact Report – Traffic, Transportation and Circulation**

Traffic volumes were collected in May 2021 at the following intersections in Lunenburg:

- Leominster Shirley Road at Reservoir Road
- Leominster Shirley Road at Fort Pond Road and Old Shirley Road

Due to the COVID-19 pandemic, the traffic volumes were upwardly adjusted by 7 percent. May traffic volumes were found to be 2.8 percent above average-month conditions so the traffic data was not seasonally adjusted in order to reflect an above average-month analysis condition. Base traffic volumes were established based on these adjustments and the existing traffic-volume network is graphically depicted in Figure 1 - 2021 Base Year Peak Hour Traffic Volumes attached to this letter.

To estimate the impact of site-generated traffic within the study area, existing traffic volumes were projected to the year 2028, representing a seven-year design horizon in accordance with state guidelines. The future traffic volume conditions were developed by applying an annual growth rate of 1 percent compounded per year. In addition, the Town was contacted to determine if there were any background developments that should be included in the study area traffic volumes. Although a few developments were identified, the only project expected to add substantial traffic to the study area is the Capital Commerce Center proposed on McGovern Boulevard in Lancaster, Massachusetts. Accordingly, the 2028 No-Build peak-hour traffic volumes were developed by applying a 1.0 percent compounded annual traffic growth rate (7.2 percent over seven years) to the 2021 Base Year traffic volumes and adding the trips associated with the Capital Commerce Center. The 2028 No-Build peak hour traffic volumes are shown graphically on Figure 2 – No-Build Peak Hour Traffic Volumes attached to this letter.

To estimate the volume of traffic to be generated by the proposed development, trip-generation rates published by the ITE Trip Generation Manual were researched as noted above in the *Trip Generation* section of this letter. In addition, the distribution of the employee site-generated trips was based on a Journey-to-Work gravity model using 2011-2015 U.S. Census data for the residences of the workforce in Lunenburg as noted in the *Trip Distribution* section of this letter. All site generated heavy vehicle traffic was assumed to come to and from Route 2. The Site-Generated Trips for the weekday AM and weekday PM peak hour traffic volumes are shown graphically on Figures 3 through 4, respectively, and are attached to this letter.

The site-generated traffic volumes were then combined with the 2028 No-Build traffic volumes to develop the 2028 Build peak-hour traffic-volume networks. The 2028 Build weekday AM and weekday PM peak hour traffic volumes are illustrated on Figures 5 and 6, respectively, and are attached to this letter.

Capacity and queue analyses were conducted at all study area locations under 2021 Existing, 2028 No-Build, and 2028 Build traffic-volume conditions. The impact of site-generated traffic can be measured by comparing 2028 No-Build conditions to 2028 Build conditions. The results of the capacity and queue analyses are summarized in the Intersection Capacity Analysis Summary table attached to this letter. Capacity and queue analyses were conducted utilizing *Sidra* software.

The project site is currently vacant. Under future traffic volume conditions, with the project in place, all movements along Leominster Shirley Road are expected to operate at optimal levels (Level-Of-Service [LOS] A). In addition the Reservoir Road approach, Old Shirley Road approach, and Fort Pond Road right-turn movement are also expected to operate at acceptable levels (LOS C or better). The Fort Pond Road left-turn movement onto Leominster Shirley Road is expected to operate with long delays during the weekday AM peak hour (LOS D) and long delays and capacity constraints with or without the project in place during the weekday PM peak hour. The proposed project, however, does not add any additional trips to this left-turn movement. With the project in place, the site driveways are expected to operate at LOS B or better with queues of one vehicle or less on the exit-only driveway and left-turn movement into the site.

### **Summary**

- The site is currently vacant. As currently envisioned, the development would include constructing a ±372,000 square foot (SF) building for use as a warehouse and distribution facility. Access to the site is proposed via one access-only and one egress-only driveway on Leominster Shirley Road.
- Based on the collision data, the roadway segment adjacent to the proposed site, between Reservoir Road and the Shirley town line, experienced two collisions over a five-year study period, averaging 0.4 collisions per year. Based on the average number of collisions per year, a safety risk does not appear to exist in this section of roadway.
- Available sight distances at the proposed site driveway on Leominster Shirley Road exceed the minimum and desirable SSD and ISD requirements for safe operation. In addition, it is recommended that any proposed plantings, vegetation, landscaping, and signing along the site frontage be kept low to the ground (no more than 3.0 feet above street level) or set back sufficiently from Leominster Shirley Road so as not to inhibit the available sight lines.
- The proposed development is expected to generate 634 daily vehicle trips (317 entering and 317 exiting) during an average weekday, 70 vehicles trips (54 entering and 16 exiting) during the weekday AM peak hour, and 72 vehicles trips (19 entering and 53 exiting) during the weekday PM peak hour.
- Traffic volume increases on Leominster Shirley Road are anticipated to be between 70 to 72 vehicle trips during the peak hours. These increases represent, on average, one additional vehicle trip approximately every minute during the peak hours. Based on the traffic counts collected and Census data, traffic increases on Leominster Shirley Road west of the site are expected to be approximately 17 percent during the weekday AM peak hour, 12 percent during the weekday PM peak hour, and approximately 11 percent on a daily weekday basis.
- Due to the existing speeds on Leominster Shirley Road, and the fact that tractor-trailer trucks will be entering the site, improvements are recommended to separate the traffic entering the site from traffic that will continue along Leominster Shirley Road. These improvements include the construction of an



eastbound left-turn lane at the eastern enter-only driveway. It is expected that with the turn lane in place, delays and queues at the site driveway will be slightly reduced. Although the proposed turn lane is expected to provide slight improvements to operations, the main purpose of the turn lane is to allow the traffic to continue along Leominster Shirley Road without extending queues to the west.

- Traffic volume volumes were collected along Leominster Shirley Road and at its intersections with Reservoir Road and Fort Pond Road/Old Shirley Road. Traffic volumes networks were created for the weekday AM and weekday PM peak hours and capacity and queue analyses were conducted at each study area intersection and at the site driveways.
  - Under future traffic volume conditions, with the project in place, all movements along Leominster Shirley Road are expected to operate at optimal levels (Level-Of-Service [LOS] A). In addition the Reservoir Road approach, Old Shirley Road approach, and Fort Pond Road right-turn movement are also expected to operate at acceptable levels (LOS C or better). The Fort Pond Road left-turn movement onto Leominster Shirley Road is expected to operate with long delays during the weekday AM peak hour (LOS D) and long delays and capacity constraints with or without the project in place during the weekday PM peak hour. The proposed project, however, does not add any additional trips to this left-turn movement. With the project in place, the site driveways are expected to operate at LOS B or better with queues of one vehicle or less on the exit-only driveway and left-turn movement into the site.

Should you have any questions, or require additional information, please contact me at (978) 570-2968.

Sincerely,

**GREENMAN-PEDERSEN, INC.**



Heather L. Monticup, P.E.  
Assistant Vice President / Director of Traffic Engineering – Land Development

**Enclosures:**

**Crash Rate Worksheet**  
**Sight Distance Calculations**  
**Trip Generation Data**  
**Journey-To-Work Data**  
**Traffic-Count Data**  
**Left-Turn Lane Concept**  
**Traffic Volume Networks**  
**Intersection Capacity Analysis Summary**

## SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : Lunenburg COUNT DATE : 2016-2020

DISTRICT : 3

~ SEGMENT DATA ~

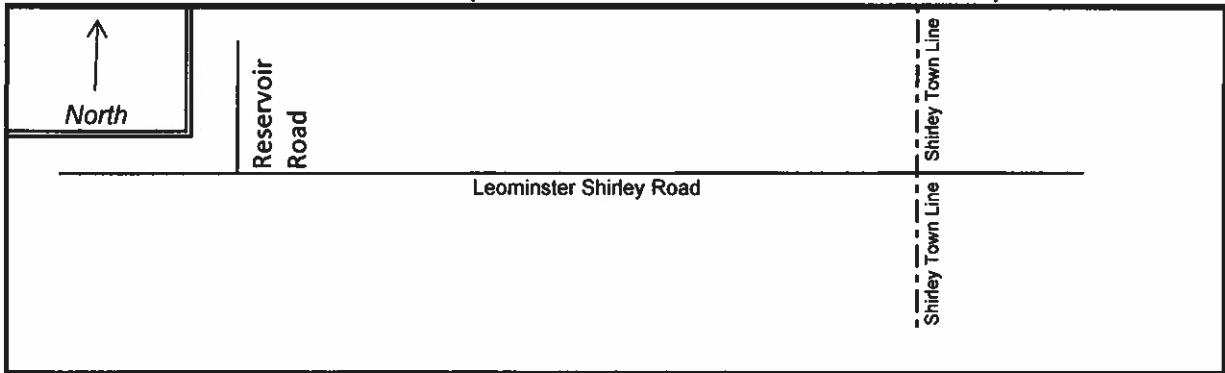
ROADWAY NAME: Leominster Shirley Road

START POINT: Reservoir Road

END POINT: Shirley Town Line

FUNCTIONAL CLASSIFICATION OF ROADWAY: Urban Minor Arterial

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES ( L ): **0.60**

AVERAGE DAILY TRAFFIC VOLUME ( V ): **4,534**

TOTAL # OF CRASHES: **2** # OF YEARS: **5** AVERAGE # OF CRASHES PER YEAR ( A ): **0.4**

CRASH RATE CALCULATION : **0.40** RATE =  $\frac{(A * 1,000,000)}{(L * V * 365)}$

Comments : \_\_\_\_\_

Project Title: Lunenburg, MA - Warehouse-Distribution Facility

## AASHTO Recommended Sight Distance Summary (Passenger Vehicles)

LOCATION: Leominster Shirley Road at Site Driveway

Side Street Direction: **SB**  
 Number of Lanes on Mainline = **2**  
 Median Width (Feet) = **0**

**STOPPING SIGHT DISTANCE**

Mainline Direction: **WB**  
 85th Percentile Speed (V) = **45 MPH**  
 Grade (G) = **0.0%**  
 Apply Grade Adjustment **No**  
 Brake Reaction Time (T) = **2.5 seconds**  
 Deceleration Rate (A) = **11.2 ft/s<sup>2</sup>**  
 $SSD = 1.47 V * T + 1.075 V^2/A =$  **360 FT**  
**SSD = 360 FT**

Mainline Direction: **EB**  
 85th Percentile Speed (V) = **47 MPH**  
 Grade (G) = **-2.0%**  
 Apply Grade Adjustment **Yes**  
 Brake Reaction Time (T) = **2.5 seconds**  
 Deceleration Rate (A) = **11.2 ft/s<sup>2</sup>**  
 $SSD = 1.47 V * T + 1.075 V^2/A =$  **398 FT**  
**SSD = 400 FT**

**INTERSECTION SIGHT DISTANCE**

RIGHT TURN FROM STOP: **East of Driveway**  
 Posted Speed (V) = **40 MPH**  
 Minor Street Approach Grade (G) = **0.0%**  
 Apply Grade Adjustment **No**  
 Time Gap (t<sub>g</sub>) = **6.5 seconds**  
 $ISD (Right Turn from Stop) = 1.47 * t_g * V =$  **383 FT**  
**ISD (Right Turn from Stop) = 385 FT**

LEFT TURN FROM STOP: **West of Driveway**  
 Posted Speed (V) = **40 MPH**  
 Minor Street Approach Grade (G) = **0.0%**  
 Apply Grade Adjustment **No**  
 Time Gap (t<sub>g</sub>) = **7.5 seconds**  
 $ISD (Left Turn from Stop) = 1.47 * t_g * V =$  **441 FT**  
**ISD (Left Turn from Stop) = 445 FT**

## AASHTO Recommended Sight Distance Summary (Combination Trucks)

LOCATION: Leominster Shirley Road at Site Driveway

Side Street Direction: **SB**  
 Number of Lanes on Mainline = **2**  
 Median Width (feet) = **0**

### STOPPING SIGHT DISTANCE

Mainline Direction: **WB**  
 85th Percentile Speed (V) = **45 MPH**  
 Grade (G) = **0.0%**  
 Apply Grade Adjustment **No**  
 Brake Reaction Time (T) = **2.5 seconds**  
 Deceleration Rate (A) = **11.2 ft/s<sup>2</sup>**  
 $SSD = 1.47 V * T + 1.075 V^2/A =$  **360 FT**  
**SSD = 360 FT**

Mainline Direction: **EB**  
 85th Percentile Speed (V) = **47 MPH**  
 Grade (G) = **-2.0%**  
 Apply Grade Adjustment **Yes**  
 Brake Reaction Time (T) = **2.5 seconds**  
 Deceleration Rate (A) = **11.2 ft/s<sup>2</sup>**  
 $SSD = 1.47 V * T + 1.075 V^2/A =$  **398 FT**  
**SSD = 400 FT**

### INTERSECTION SIGHT DISTANCE

RIGHT TURN FROM STOP: **East of Driveway**  
 Posted Speed (V) = **40 MPH**  
 Minor Street Approach Grade (G) = **0.0%**  
 Apply Grade Adjustment **No**  
 Time Gap (t<sub>g</sub>) = **10.5 seconds**  
 $ISD (Right Turn from Stop) = 1.47 * t_g * V =$  **618 FT**  
**ISD (Right Turn from Stop) = 620 FT**

LEFT TURN FROM STOP: **West of Driveway**  
 Posted Speed (V) = **40 MPH**  
 Minor Street Approach Grade (G) = **0.0%**  
 Apply Grade Adjustment **No**  
 Time Gap (t<sub>g</sub>) = **11.5 seconds**  
 $ISD (Left Turn from Stop) = 1.47 * t_g * V =$  **677 FT**  
**ISD (Left Turn from Stop) = 680 FT**

Trip Generation Estimates

Building Size = 372

	LUC 150	LUC 154	LUC 155
	HCT & STS		
	Warehousing	Warehouse	HCFC Warehouse
Weekday Daily	Entering <u>317</u>	260	337
	Exiting <u>317</u>	<u>260</u>	<u>337</u>
	Total 634	520	674
Weekday AM Peak Hour	Entering <u>54</u>	23	45
	Exiting <u>16</u>	<u>7</u>	<u>11</u>
	Total 70	30	56
Weekday PM Peak Hour	Entering <u>19</u>	10	23
	Exiting <u>53</u>	<u>27</u>	<u>37</u>
	Total 72	37	60

***Institute of Transportation Engineers (ITE)***

**Land Use Code (LUC) 150 - Warehousing**

**General Urban/Suburban**

Average Vehicle Trips Ends vs: 1000 Sq. Feet Gross Floor Area

Independent Variable (X): 372.000

**AVERAGE WEEKDAY DAILY**

$$T = 1.58 * (X) + 45.54$$

$$T = 1.58 * 372.000 + 45.54$$

$$T = 633.30$$

$$T = 634 \text{ vehicle trips}$$

with 50% ( 317 vpd) entering and 50% ( 317 vpd) exiting.

**WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.12 * (X) + 25.32$$

$$T = 0.12 * 372.000 + 25.32$$

$$T = 69.96$$

$$T = 70 \text{ vehicle trips}$$

with 77% ( 54 vph) entering and 23% ( 16 vph) exiting.

**WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.12 * (X) + 27.82$$

$$T = 0.12 * 372.000 + 27.82$$

$$T = 72.46$$

$$T = 72 \text{ vehicle trips}$$

with 27% ( 19 vph) entering and 73% ( 53 vph) exiting.

**SATURDAY DAILY**

$$T = 0.15 * (X)$$

$$T = 0.150 * 372.000$$

$$T = 55.80$$

$$T = 56 \text{ vehicle trips}$$

with 50% ( 28 vpd) entering and 50% ( 28 vpd) exiting.

**SATURDAY PEAK HOUR OF GENERATOR**

$$T = 0.05 * (X)$$

$$T = 0.05 * 372.000$$

$$T = 18.60$$

$$T = 19 \text{ vehicle trips}$$

with 64% ( 12 vph) entering and 36% ( 7 vph) exiting.

# Warehousing (150)

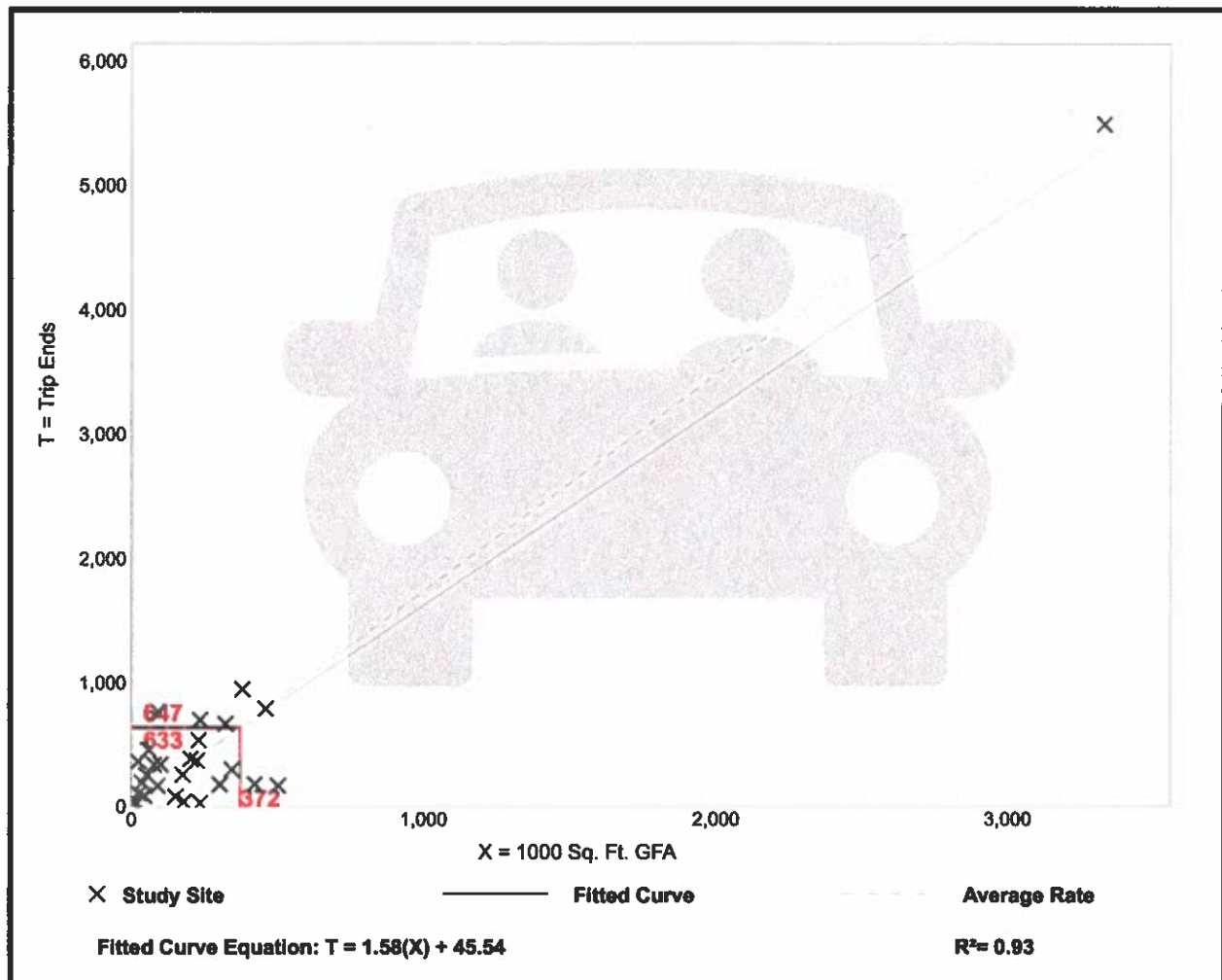
**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday**

**Setting/Location: General Urban/Suburban**  
Number of Studies: 29  
Avg. 1000 Sq. Ft. GFA: 285  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.74	0.15 - 16.93	1.55

## Data Plot and Equation



# Warehousing (150)

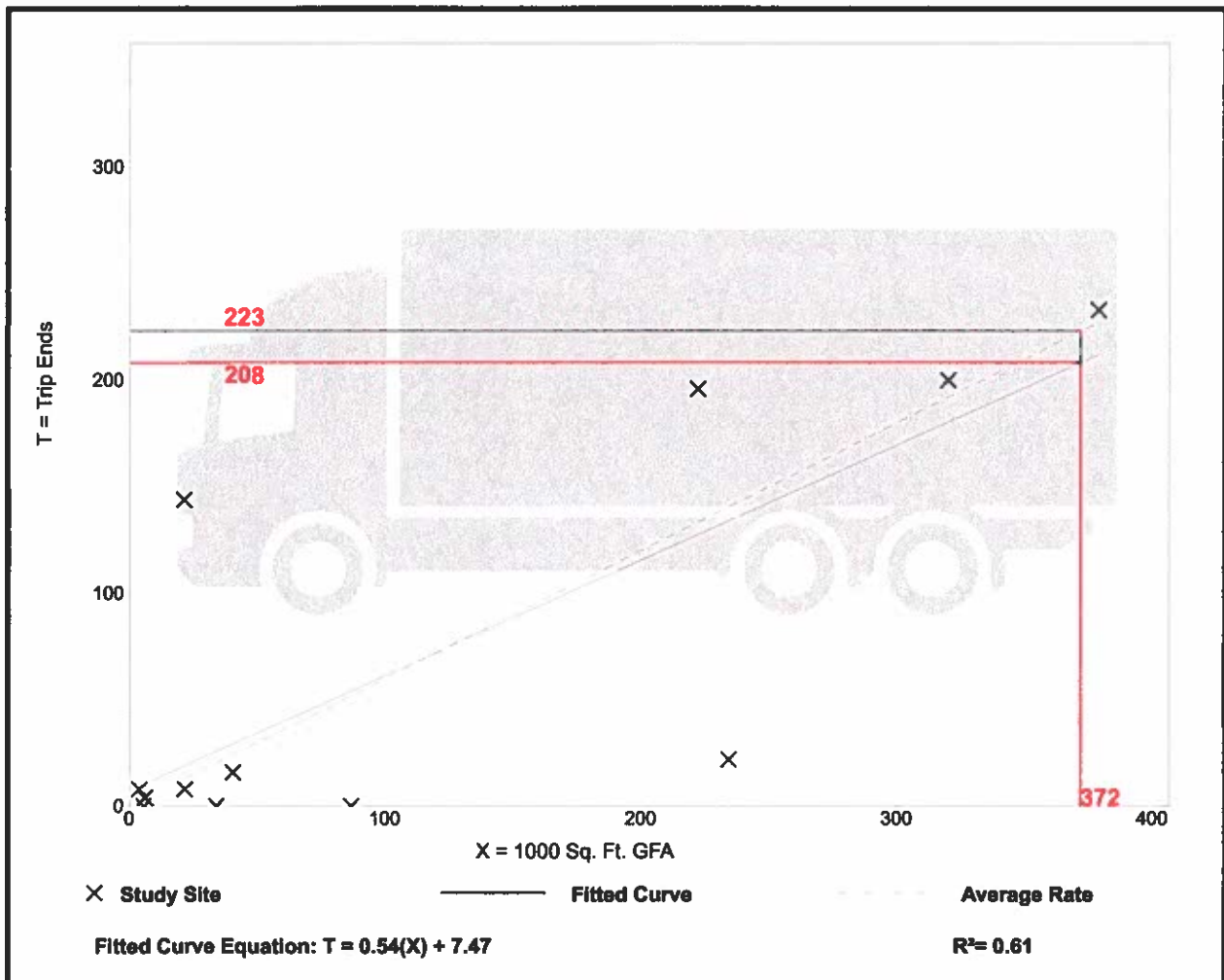
**Truck Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday**

**Setting/Location: General Urban/Suburban**  
Number of Studies: 12  
Avg. 1000 Sq. Ft. GFA: 115  
Directional Distribution: 50% entering, 50% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.60	0.00 - 6.66	0.86

## Data Plot and Equation





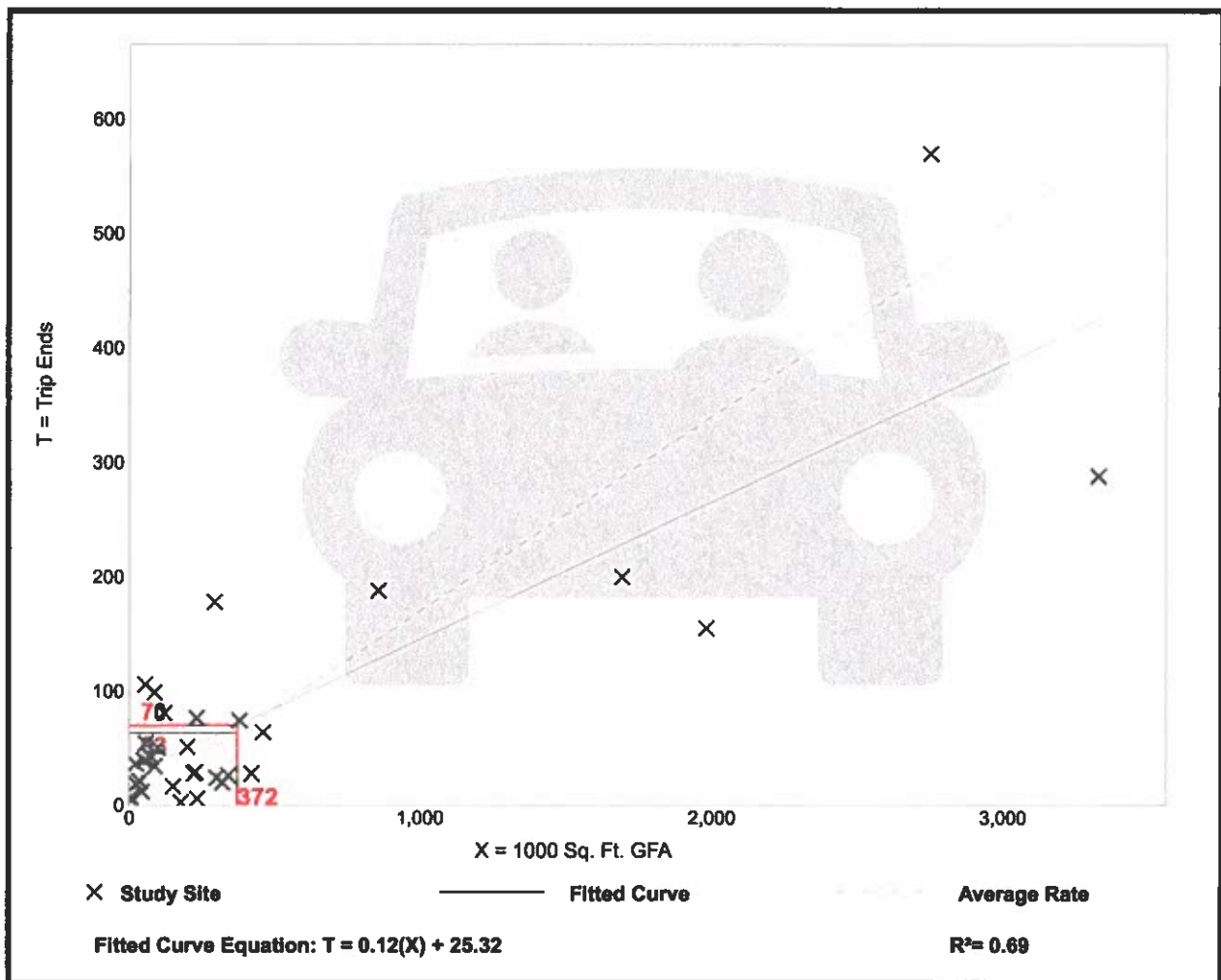
# Warehousing (150)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 34  
 Avg. 1000 Sq. Ft. GFA: 451  
 Directional Distribution: 77% entering, 23% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.20

## Data Plot and Equation



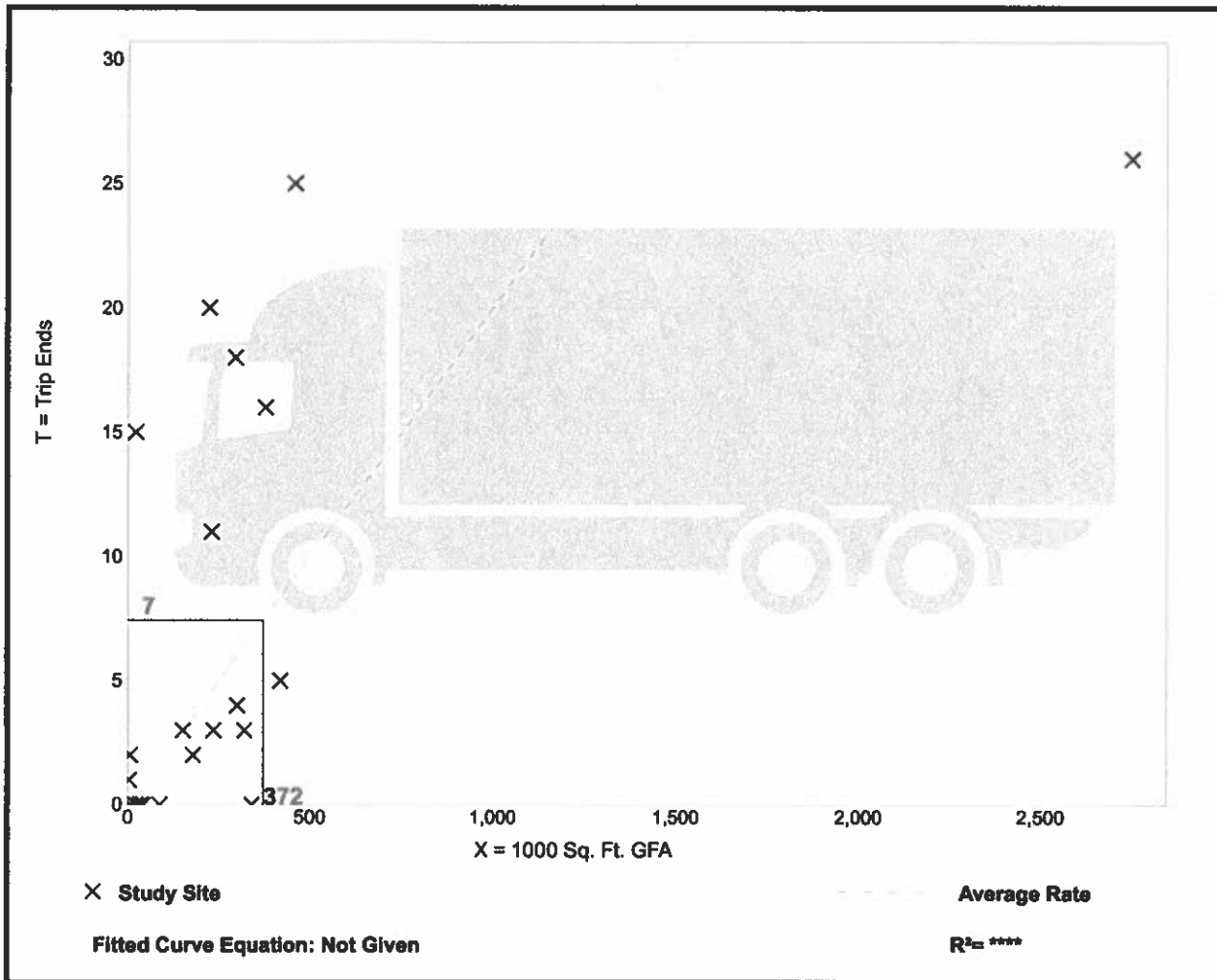
# Warehousing (150)

**Truck Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 21  
 Avg. 1000 Sq. Ft. GFA: 309  
 Directional Distribution: 52% entering, 48% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.69	0.05

## Data Plot and Equation



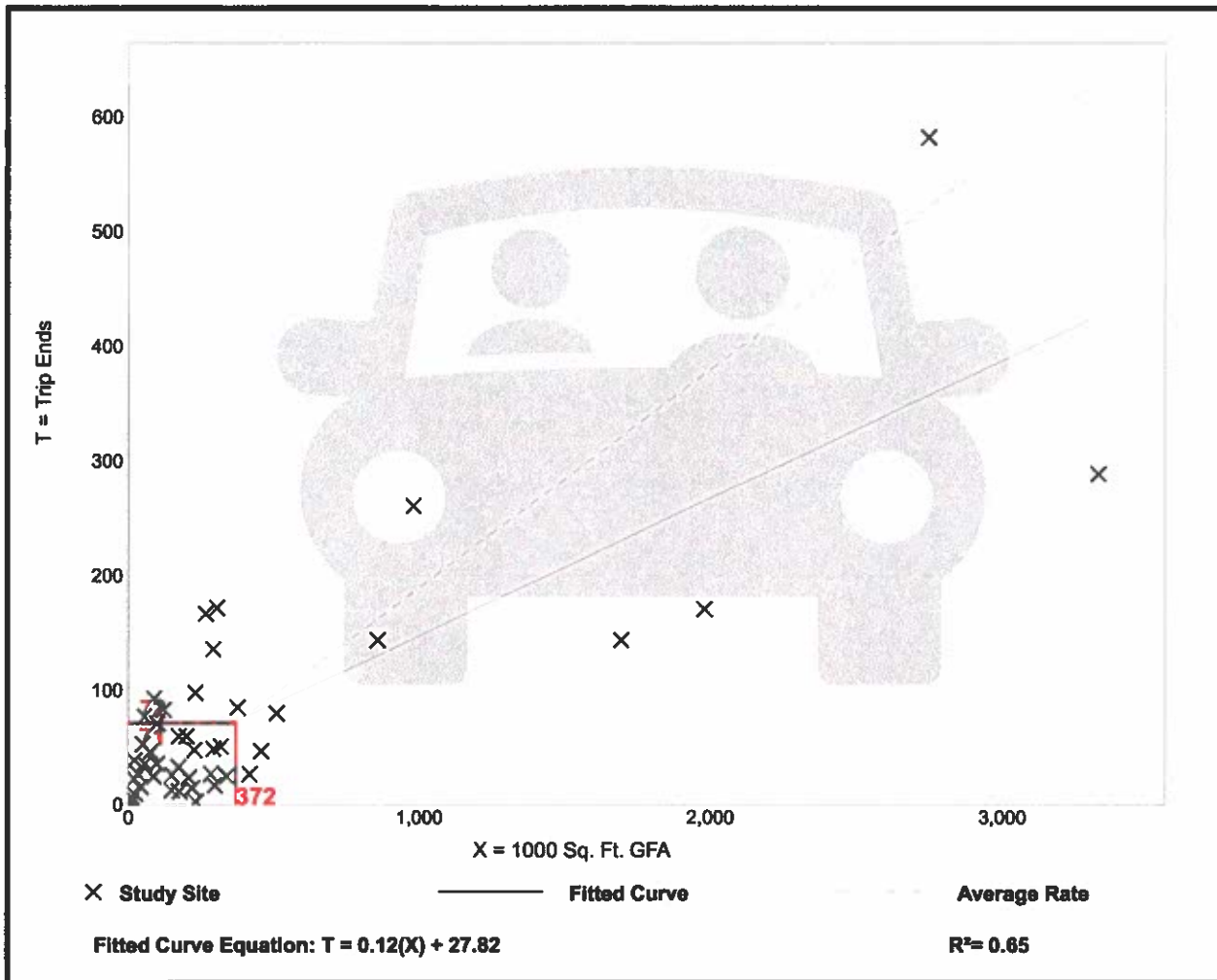
# Warehousing (150)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 47  
 Avg. 1000 Sq. Ft. GFA: 400  
 Directional Distribution: 27% entering, 73% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.19	0.01 - 1.80	0.18

## Data Plot and Equation



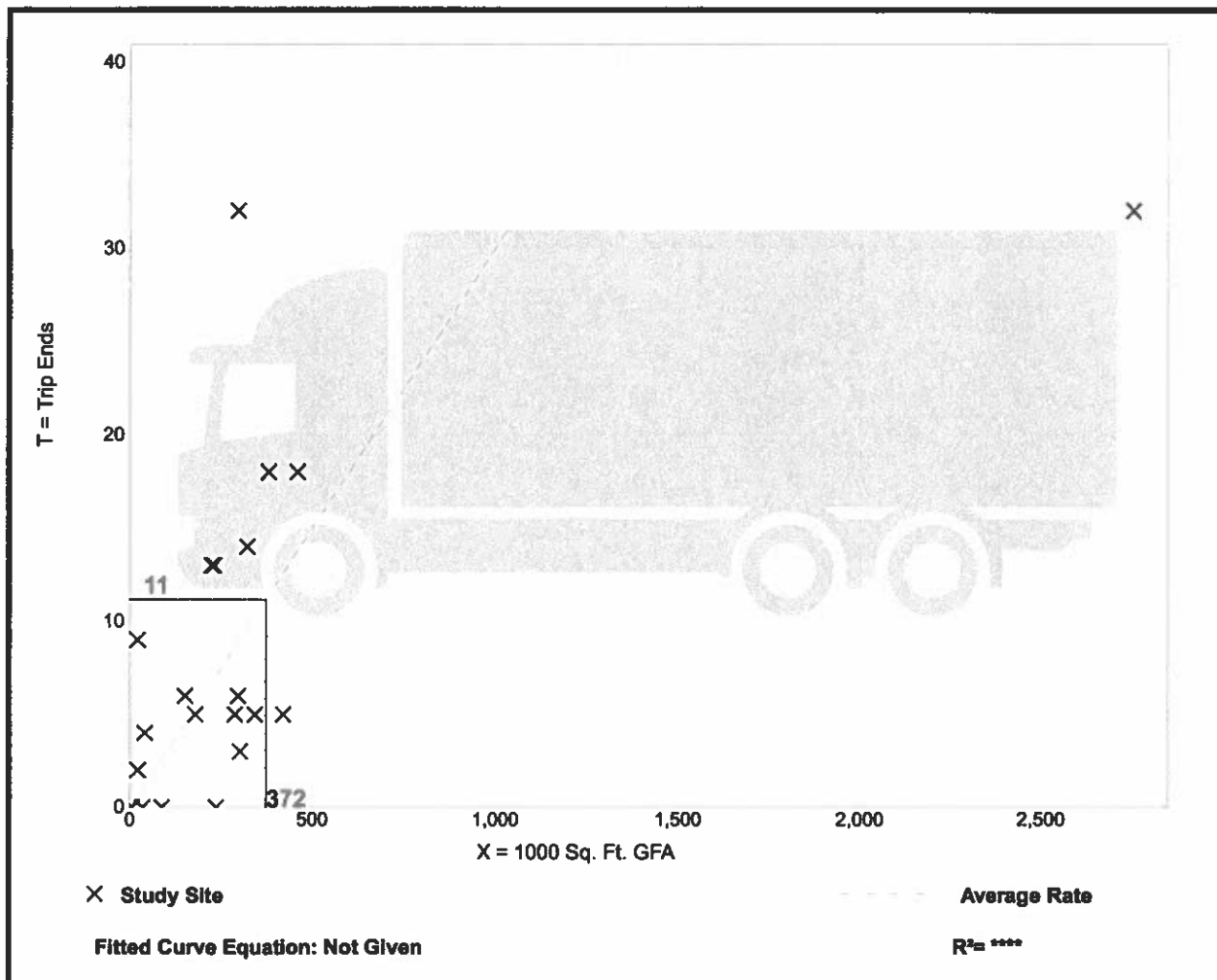
# Warehousing (150)

**Truck Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 23  
 Avg. 1000 Sq. Ft. GFA: 308  
 Directional Distribution: 52% entering, 48% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.03	0.00 - 0.42	0.03

## Data Plot and Equation



***Institute of Transportation Engineers (ITE)***

**Land Use Code (LUC) 154 - High-Cube Transload and Short-Term Storage Warehouse  
General Urban/Suburban**

Average Vehicle Trips Ends vs: 1000 Sq. Feet Gross Floor Area  
Independent Variable (X): 372.000

**AVERAGE WEEKDAY DAILY**

$$T = 1.40 * (X)$$

$$T = 1.40 * 372.000$$

$$T = 520.80$$

T = 520 vehicle trips  
with 50% ( 260 vpd) entering and 50% ( 260 vpd) exiting.

**WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.08 * (X)$$

$$T = 0.08 * 372.000$$

$$T = 29.76$$

T = 30 vehicle trips  
with 77% ( 23 vph) entering and 23% ( 7 vph) exiting.

**WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.10 * (X)$$

$$T = 0.10 * 372.000$$

$$T = 37.20$$

T = 37 vehicle trips  
with 28% ( 10 vph) entering and 23% ( 27 vph) exiting.

**SATURDAY DAILY**

$$T = 0.94 * (X)$$

$$T = 0.94 * 372.000$$

$$T = 349.68$$

T = 350 vehicle trips  
with 50% ( 175 vpd) entering and 50% ( 175 vpd) exiting.

**SATURDAY PEAK HOUR OF GENERATOR**

$$T = 0.12 * (X)$$

$$T = 0.12 * 372.000$$

$$T = 44.64$$

T = 45 vehicle trips  
\*with 50% ( 23 vph) entering and 50% ( 22 vph) exiting.  
*\*assumed distribution based on Saturday Daily*

# High-Cube Transload and Short-Term Storage Warehouse (154)

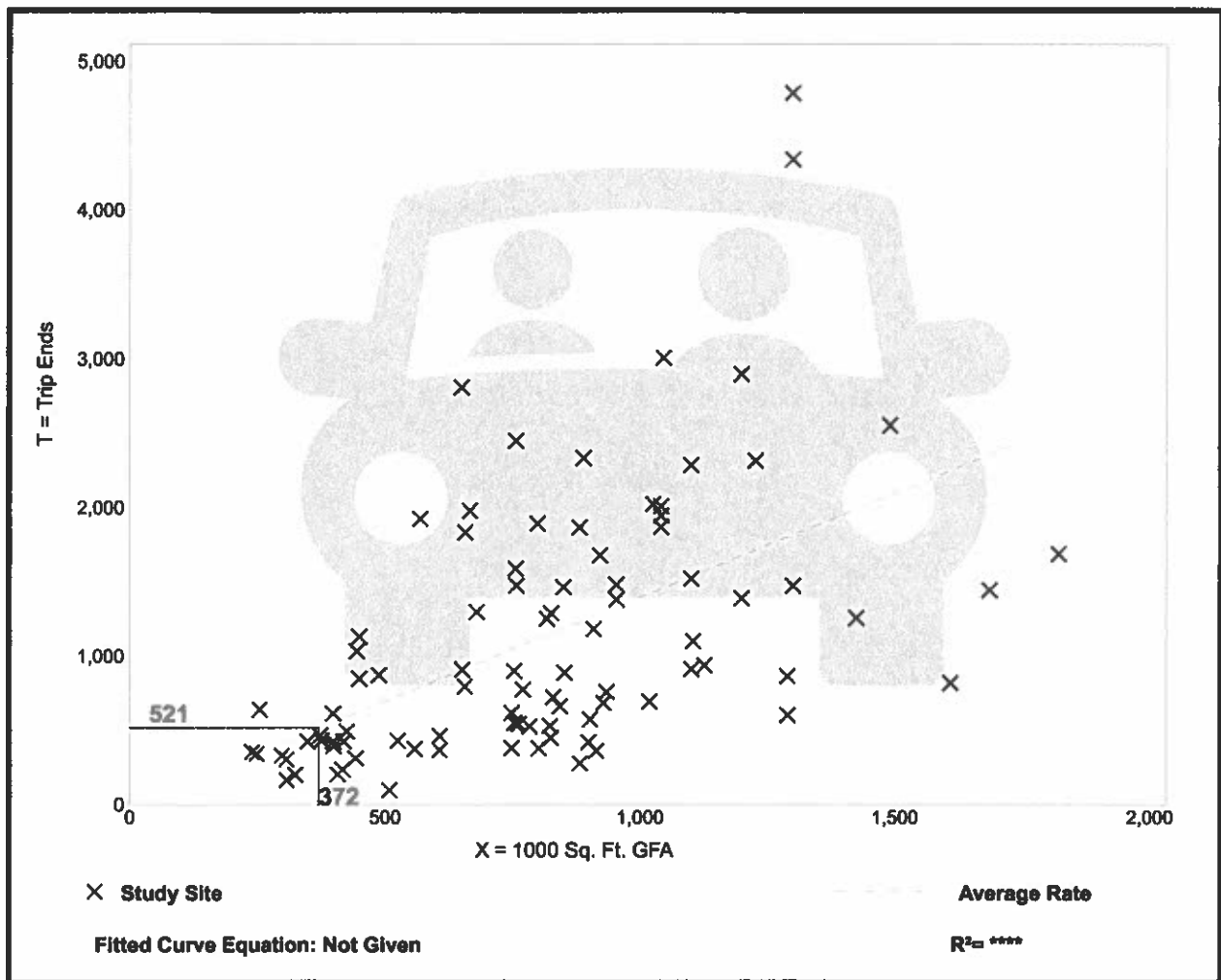
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 91  
Avg. 1000 Sq. Ft. GFA: 798  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.40	0.20 - 4.32	0.86

## Data Plot and Equation



# High-Cube Transload and Short-Term Storage Warehouse (154)

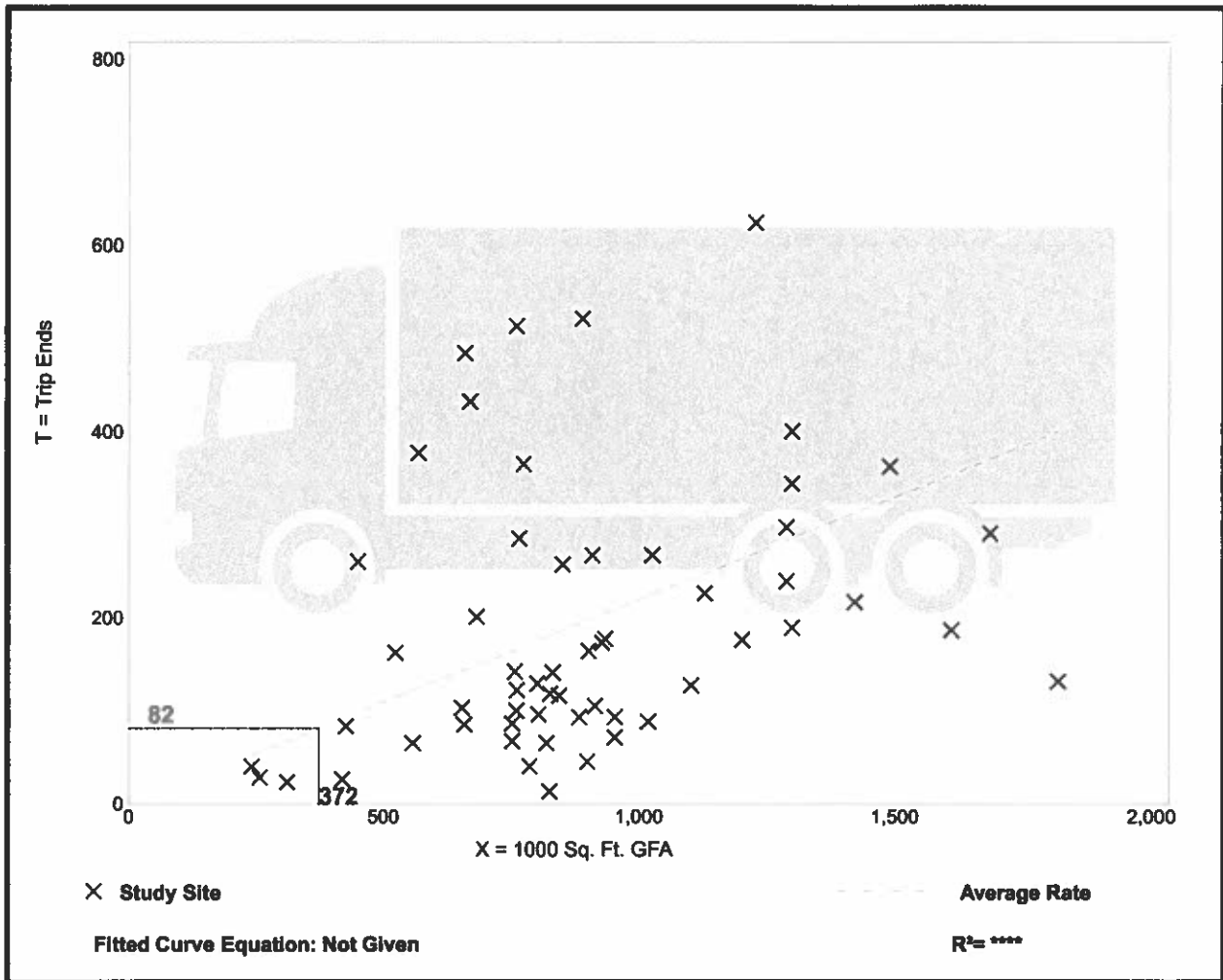
Truck Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 57  
Avg. 1000 Sq. Ft. GFA: 892  
Directional Distribution: 50% entering, 50% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.22	0.02 - 0.74	0.16

## Data Plot and Equation



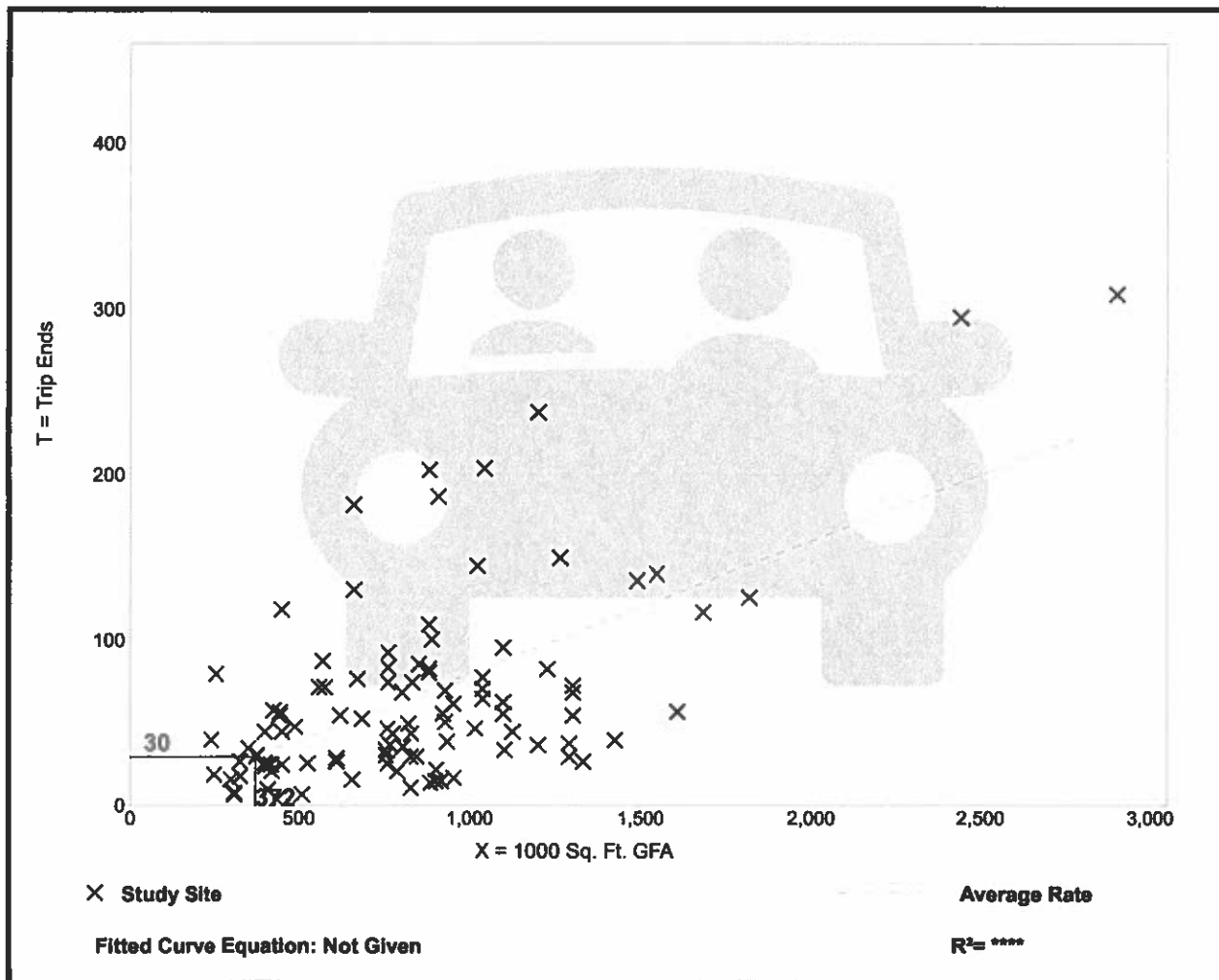
# High-Cube Transload and Short-Term Storage Warehouse (154)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 102  
 Avg. 1000 Sq. Ft. GFA: 846  
 Directional Distribution: 77% entering, 23% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.08	0.01 - 0.31	0.05

## Data Plot and Equation





# High-Cube Transload and Short-Term Storage Warehouse (154)

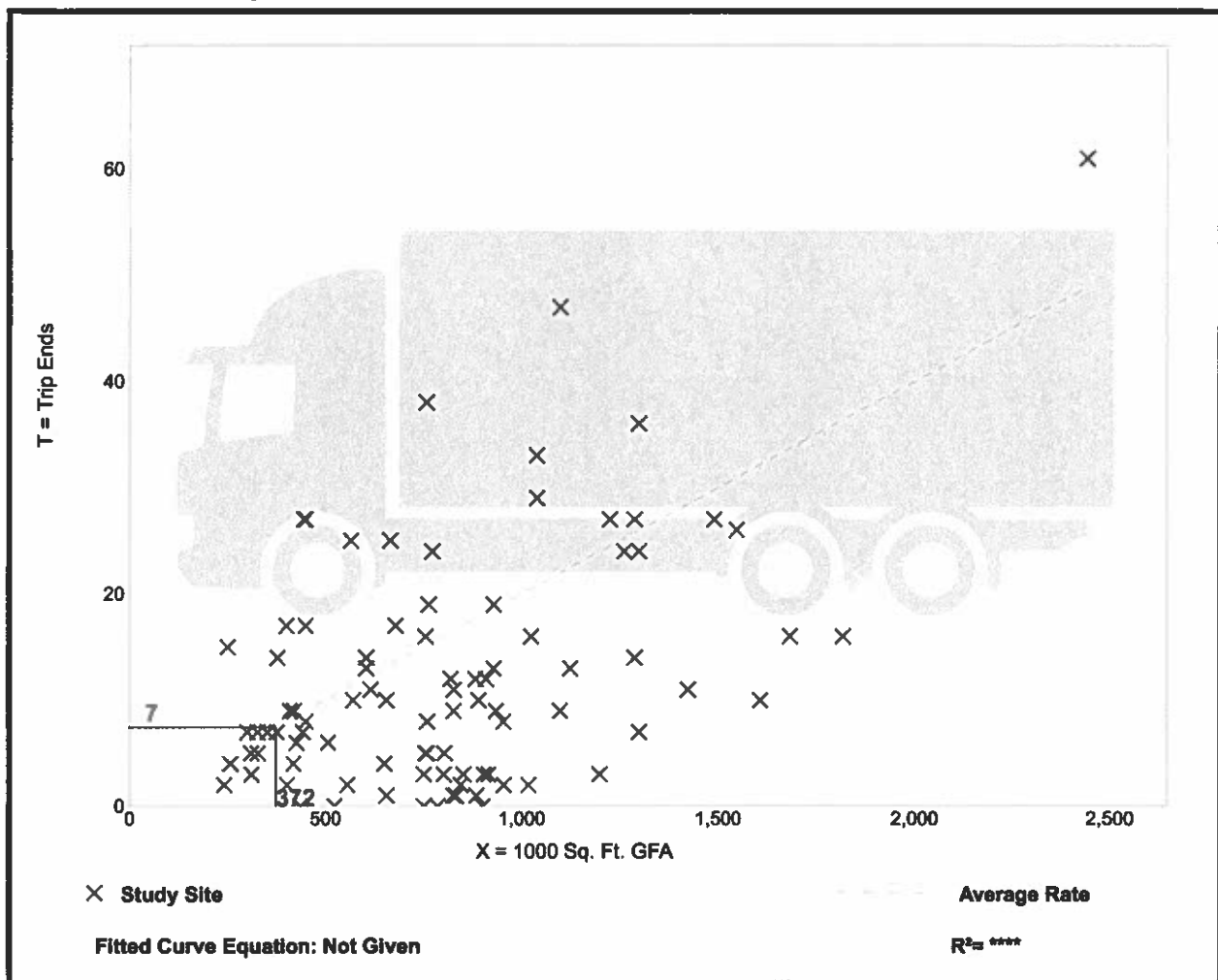
Truck Trip Ends vs: 1000 Sq. Ft. GFA  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban  
 Number of Studies: 90  
 Avg. 1000 Sq. Ft. GFA: 812  
 Directional Distribution: 49% entering, 51% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.06	0.01

## Data Plot and Equation



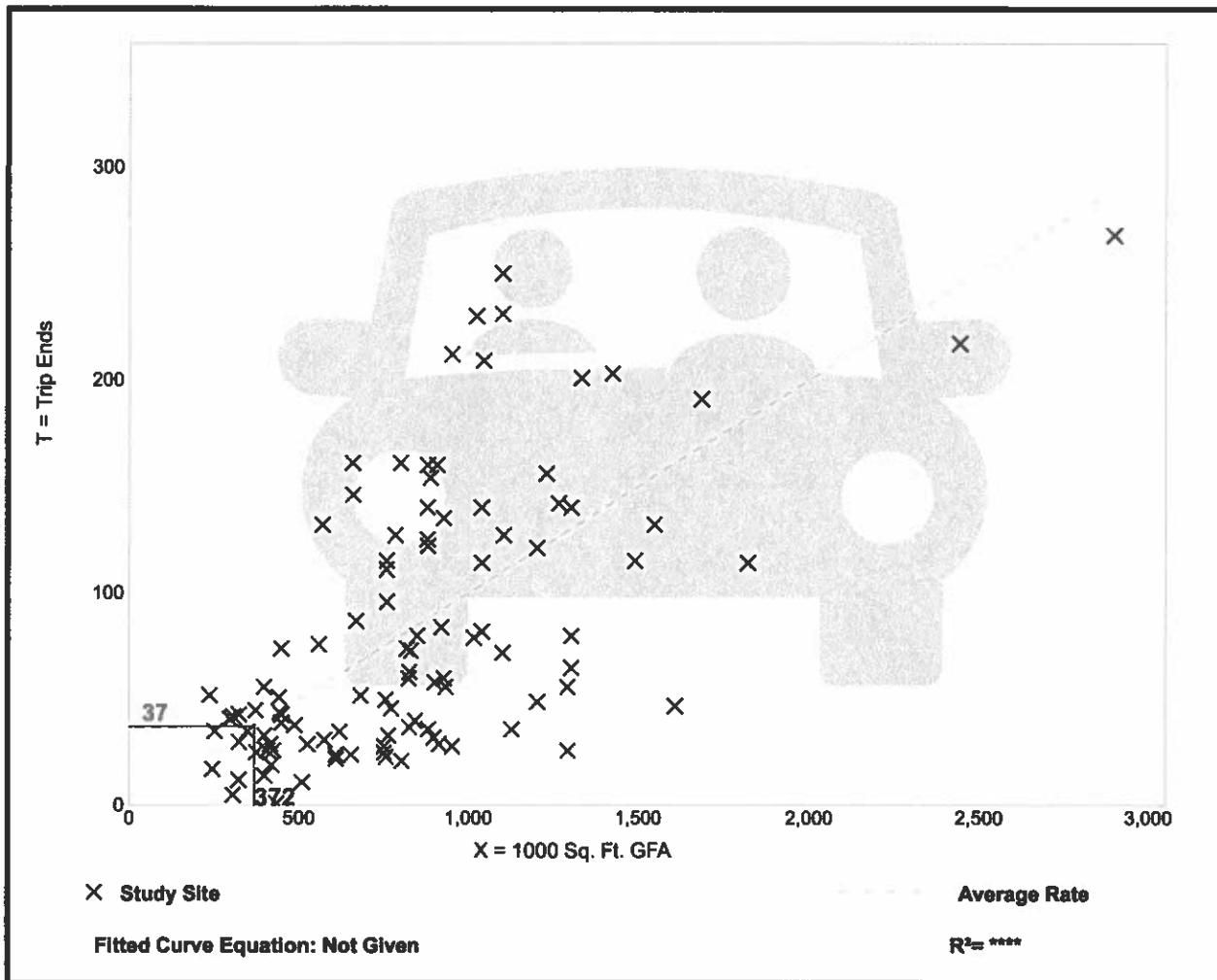
# High-Cube Transload and Short-Term Storage Warehouse (154)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 103  
 Avg. 1000 Sq. Ft. GFA: 840  
 Directional Distribution: 28% entering, 72% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.10	0.00 - 0.25	0.06

## Data Plot and Equation



# High-Cube Transload and Short-Term Storage Warehouse (154)

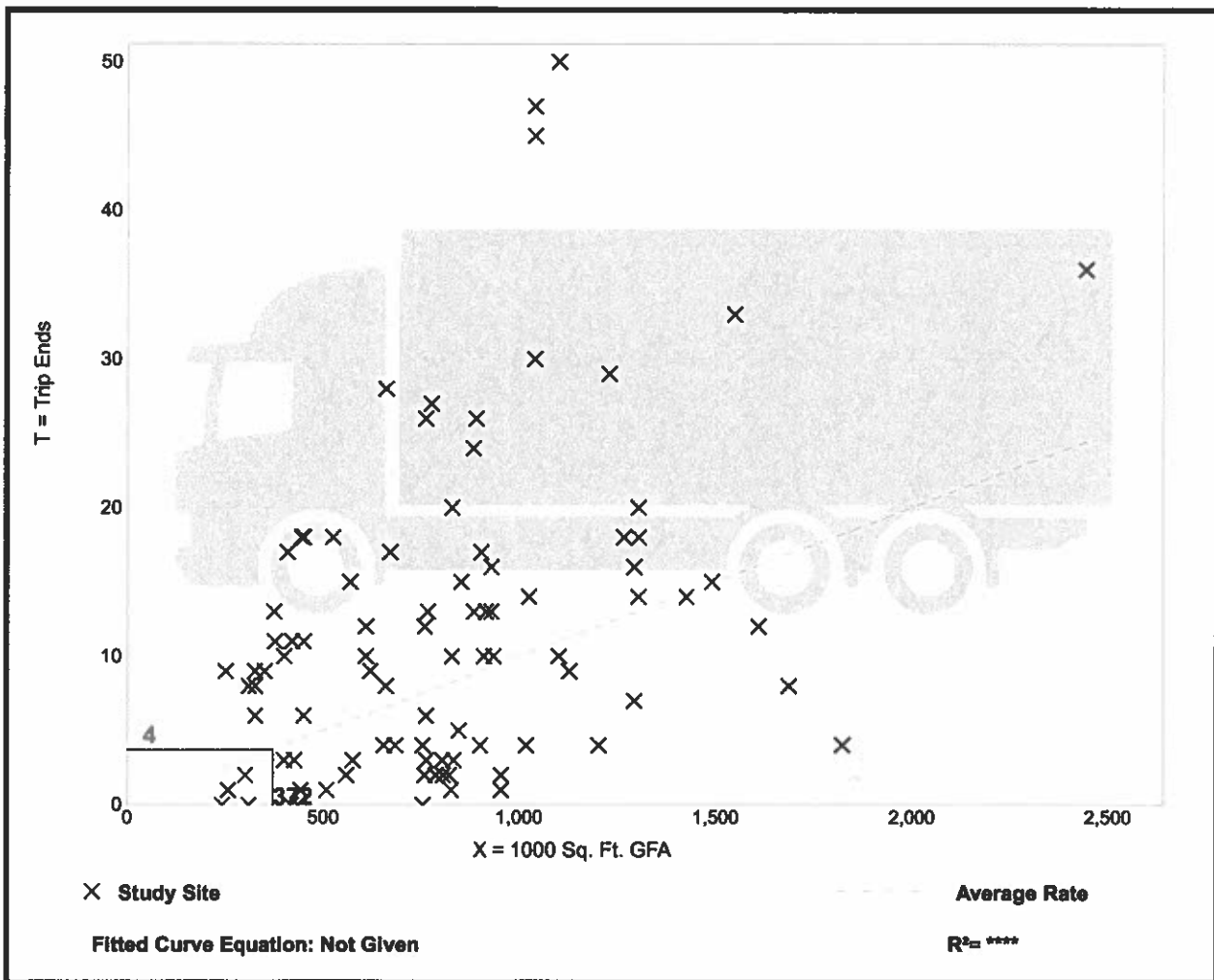
Truck Trip Ends vs: 1000 Sq. Ft. GFA  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban  
 Number of Studies: 91  
 Avg. 1000 Sq. Ft. GFA: 807  
 Directional Distribution: 47% entering, 53% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.01	0.00 - 0.05	0.01

## Data Plot and Equation



***Institute of Transportation Engineers (ITE)***

**Land Use Code (LUC) 155 - High-Cube Fulfillment Center Warehouse (Non-Sort)**

**General Urban/Suburban**

Average Vehicle Trips Ends vs: 1000 Sq. Feet Gross Floor Area  
Independent Variable (X): 372.000

**AVERAGE WEEKDAY DAILY**

$$T = 1.81 * (X)$$

$$T = 1.81 * 372.000$$

$$T = 673.32$$

$$T = 674 \text{ vehicle trips}$$

with 50% ( 337 vpd) entering and 50% ( 337 vpd) exiting.

**WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.15 * (X)$$

$$T = 0.15 * 372.000$$

$$T = 55.80$$

$$T = 56 \text{ vehicle trips}$$

with 81% ( 45 vph) entering and 19% ( 11 vph) exiting.

**WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC**

$$T = 0.16 * (X)$$

$$T = 0.16 * 372.000$$

$$T = 59.52$$

$$T = 60 \text{ vehicle trips}$$

with 39% ( 23 vph) entering and 61% ( 37 vph) exiting.

**SATURDAY DAILY**

$$\frac{\text{ITE LUC 154 Saturday Daily Trip Rate}}{\text{ITE LUC 154 Weekday Daily Trip Rate}} = \frac{\text{ITE LUC 155 Saturday Daily Trip Rate}}{\text{ITE LUC 155 Weekday Daily Trip Rate}}$$

$$\frac{0.94}{1.40} = \frac{(Y)}{1.81} \quad Y = 1.22$$

$$T = Y * 372.0$$

$$T = 453.84$$

$$T = 454 \text{ vehicle trips}$$

with 50% ( 227 vpd) entering and 50% ( 227 vpd) exiting.

*(same distribution split as ITE LUC 154 during the Saturday Daily traffic)*

**SATURDAY PEAK HOUR OF GENERATOR**

$$T = 0.20 * (X)$$

$$T = 0.20 * 372.000$$

$$T = 74.40$$

$$T = 74 \text{ vehicle trips}$$

\*with 50% ( 37 vph) entering and 50% ( 37 vph) exiting.

*\*assumed distribution based on Saturday Daily*

# High-Cube Fulfillment Center Warehouse - Non-Sort (155)

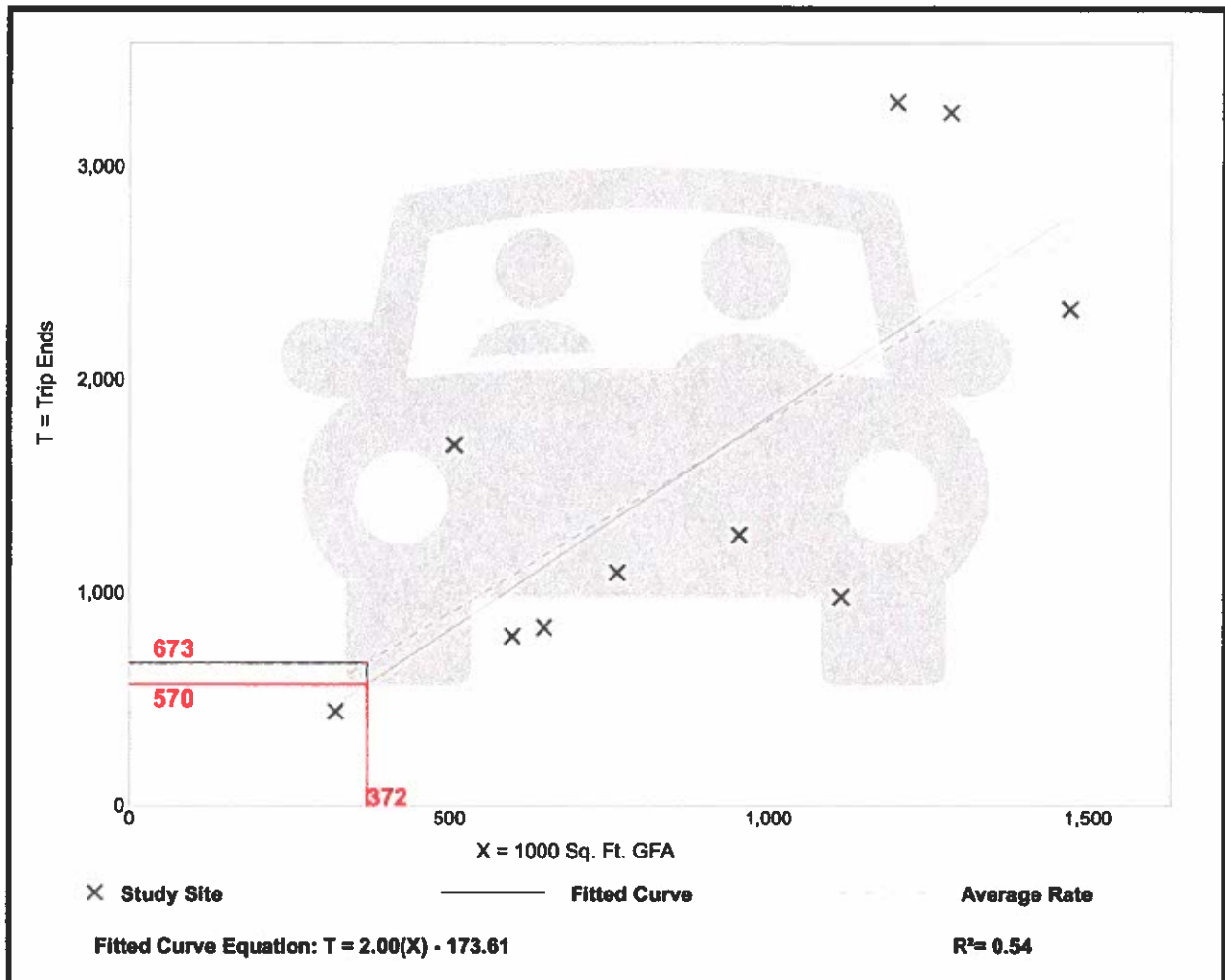
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 10  
Avg. 1000 Sq. Ft. GFA: 886  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.81	0.88 - 3.34	0.76

## Data Plot and Equation



# High-Cube Fulfillment Center Warehouse - Non-Sort (155)

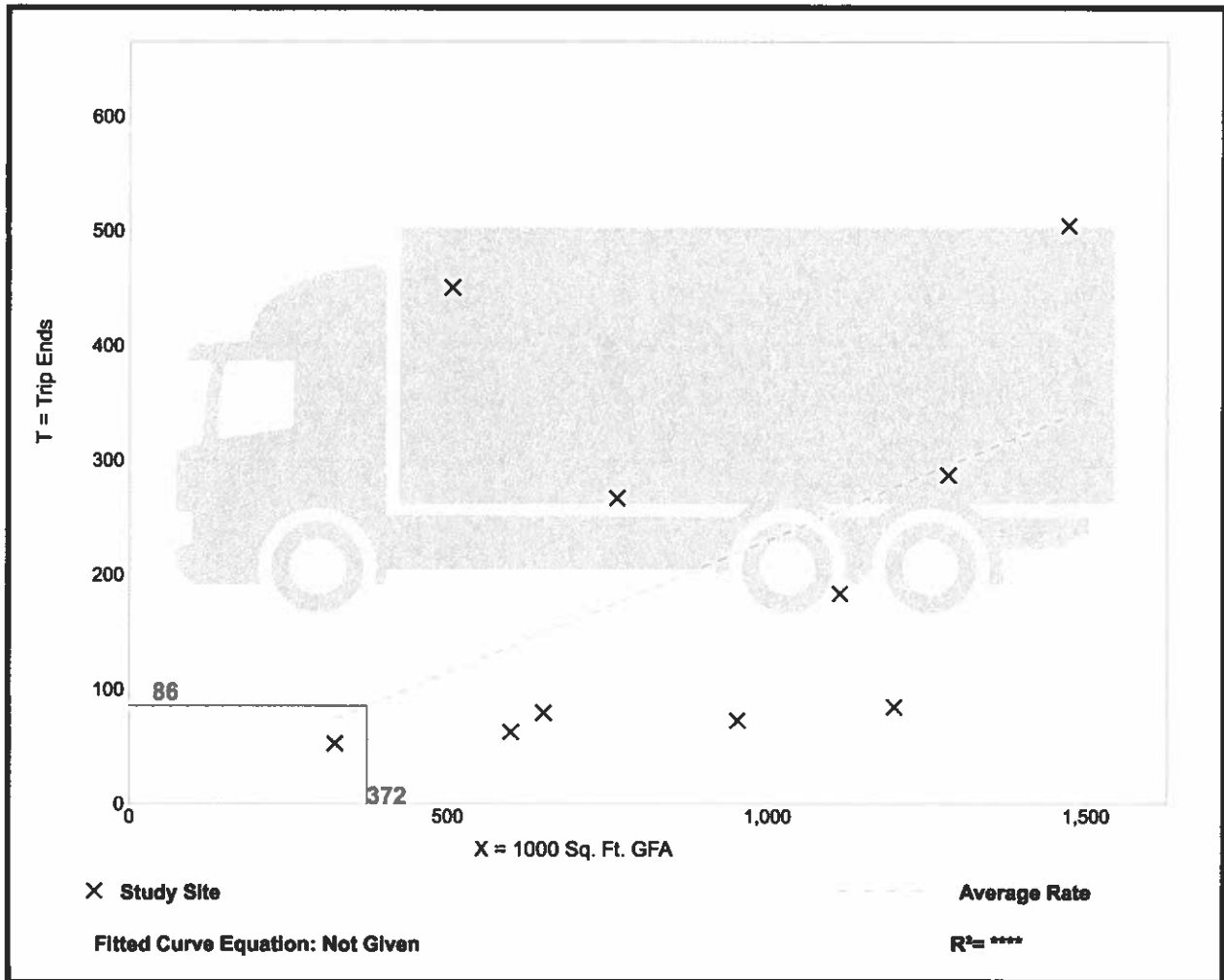
Truck Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 10  
Avg. 1000 Sq. Ft. GFA: 886  
Directional Distribution: 50% entering, 50% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.23	0.07 - 0.89	0.20

## Data Plot and Equation



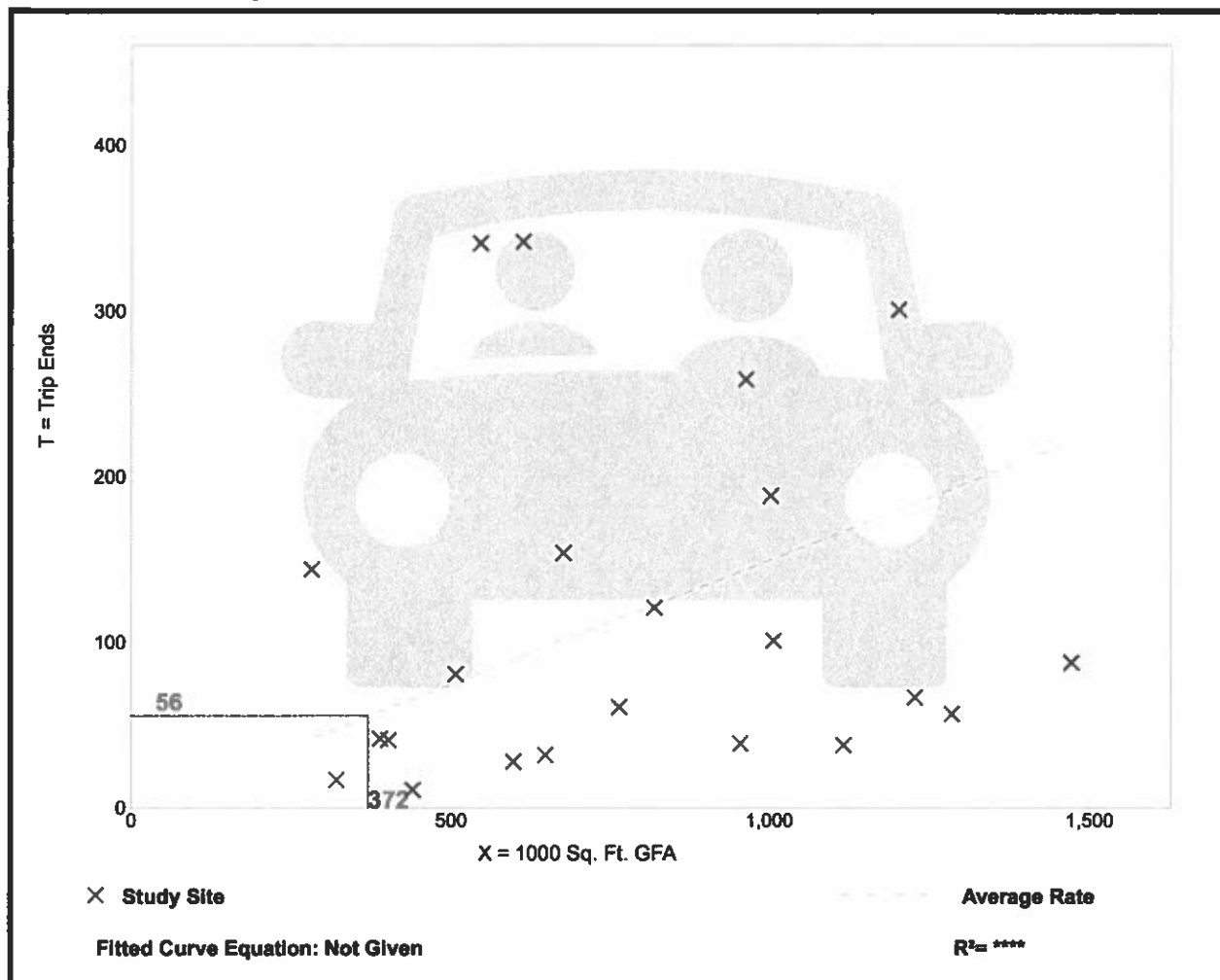
# High-Cube Fulfillment Center Warehouse - Non-Sort (155)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 22  
 Avg. 1000 Sq. Ft. GFA: 783  
 Directional Distribution: 81% entering, 19% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.03 - 0.62	0.15

## Data Plot and Equation



# High-Cube Fulfillment Center Warehouse - Non-Sort (155)

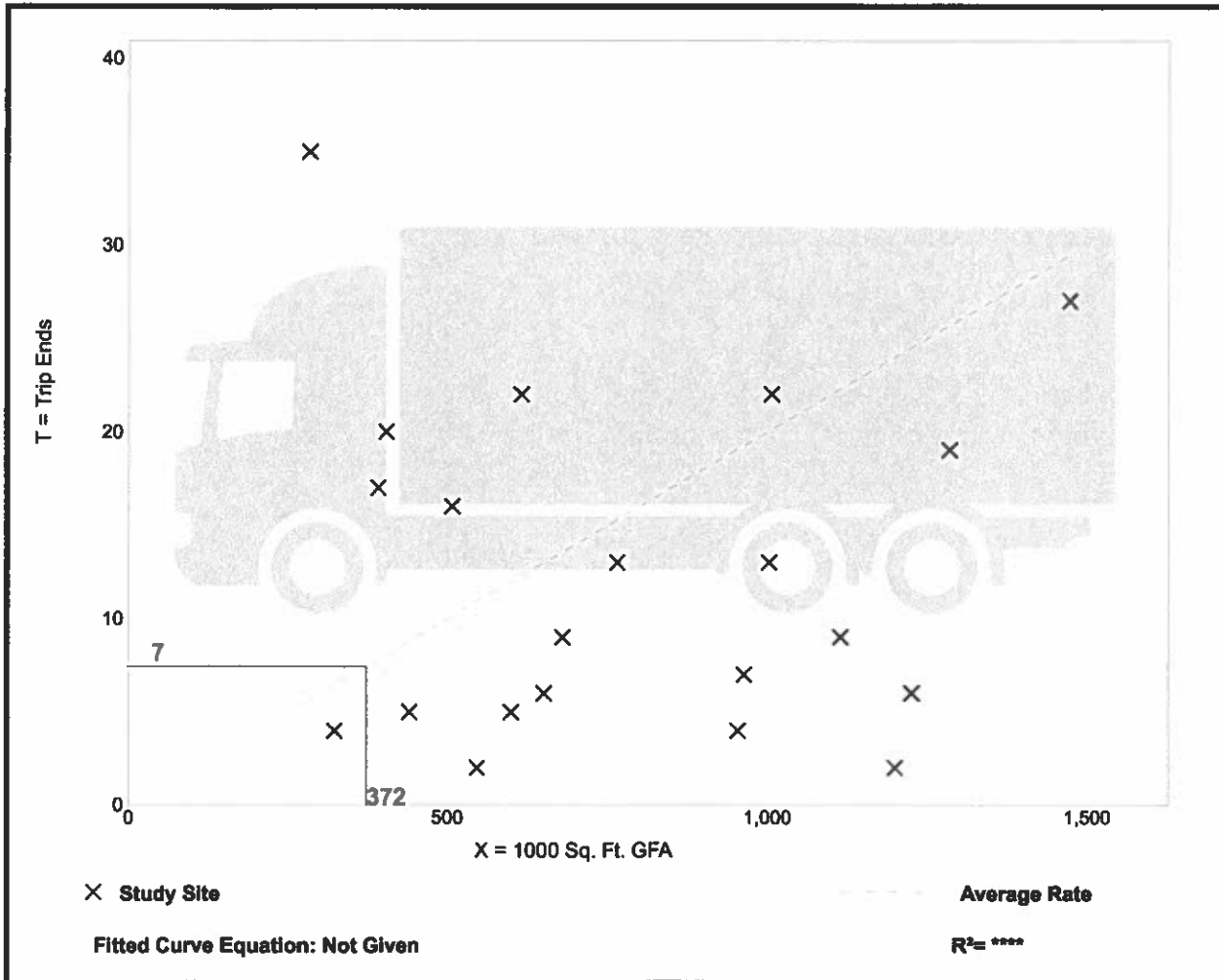
Truck Trip Ends vs: 1000 Sq. Ft. GFA  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban  
 Number of Studies: 21  
 Avg. 1000 Sq. Ft. GFA: 782  
 Directional Distribution: 50% entering, 50% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.02	0.00 - 0.12	0.02

## Data Plot and Equation





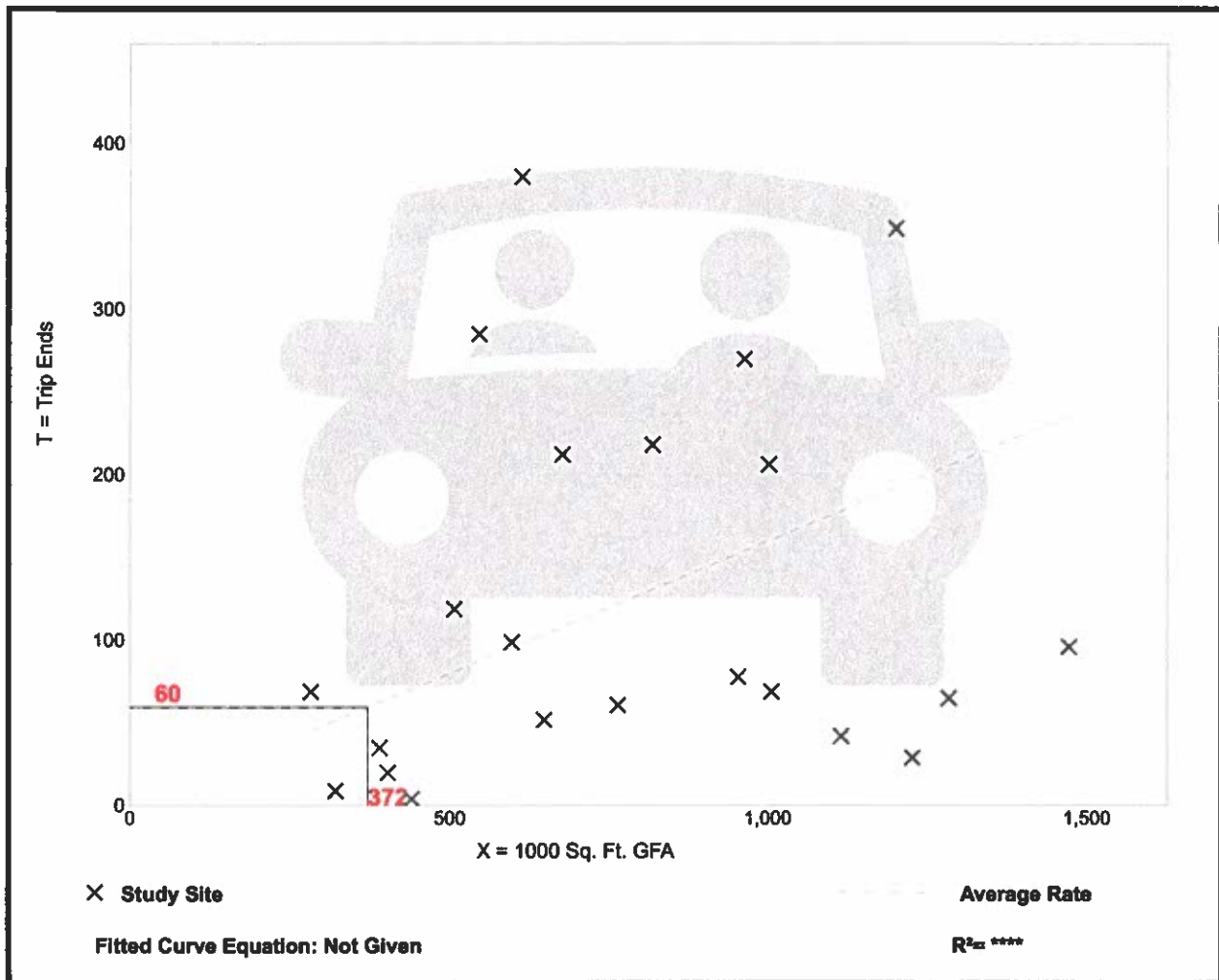
# High-Cube Fulfillment Center Warehouse - Non-Sort (155)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 22  
 Avg. 1000 Sq. Ft. GFA: 783  
 Directional Distribution: 39% entering, 61% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.16	0.01 - 0.62	0.15

## Data Plot and Equation



# High-Cube Fulfillment Center Warehouse - Non-Sort (155)

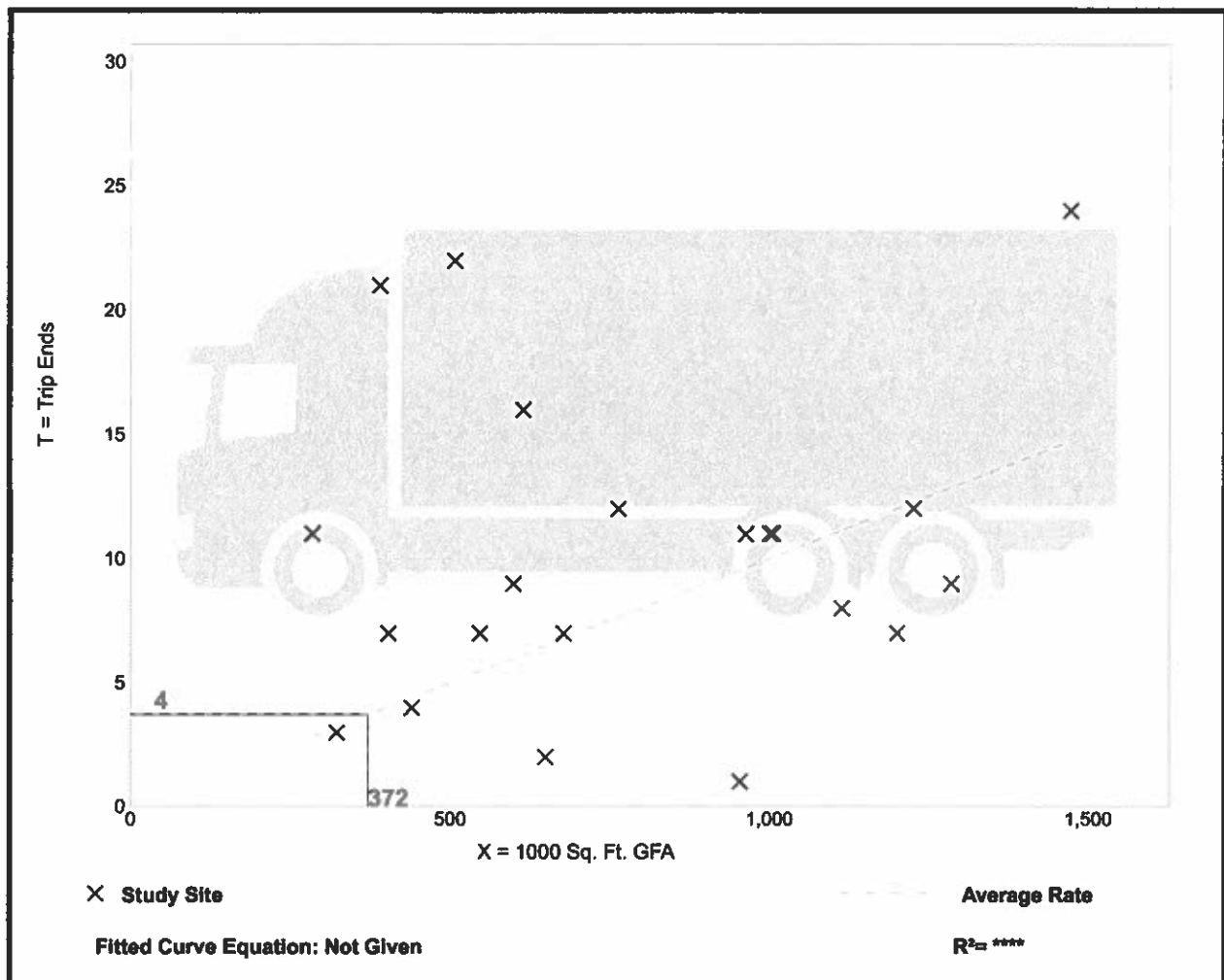
Truck Trip Ends vs: 1000 Sq. Ft. GFA  
 On a: Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban  
 Number of Studies: 21  
 Avg. 1000 Sq. Ft. GFA: 782  
 Directional Distribution: 46% entering, 54% exiting

## Truck Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.01	0.00 - 0.05	0.01

## Data Plot and Equation



TRIP DISTRIBUTION - LUNENBURG, MA - INDUSTRIAL DEVELOPMENT

State Name	Residence		Place of Work		Commuting Flow Workers in Commuting Flow	West Lunenburg Shirley Rd	East Lunenburg Shirley Rd	South Lunenburg Rd (Route 70)	West Route 2	East Route 2	North Riverside Road	West Lunenburg Shirley Rd	East Lunenburg Shirley Rd	South Lunenburg Rd (Route 70)	West Route 2	East Route 2	North Riverside Road																				
	Minor Civil Division Name	State Name	Minor Civil Division Name	State Name																																	
Massachusetts	Lunenburg town	Massachusetts	Lunenburg town	Massachusetts	1,202	59%	10%	0%	0%	0%	43%	49%	0	0	0	0	0																				
Massachusetts	Fitchburg city	Massachusetts	Lunenburg town	Massachusetts	428	0%	0%	0%	50%	0%	0%	21%	0	0	21%	0	0																				
Massachusetts	Lowell city	Massachusetts	Lunenburg town	Massachusetts	359	60%	0%	0%	40%	0%	0%	23%	0	0	13%	0	0																				
Massachusetts	Lowell city	Massachusetts	Lunenburg town	Massachusetts	205	50%	0%	0%	0%	0%	0%	10%	10%	0	0	0	0																				
Massachusetts	Lowell city	Massachusetts	Lunenburg town	Massachusetts	91	40%	0%	0%	0%	0%	60%	3%	0	0	0	0	5%																				
Massachusetts	Lowell city	Massachusetts	Lunenburg town	Massachusetts	81	0%	0%	0%	100%	0%	0%	0	0	0	61	0	0																				
Massachusetts	Lowell city	Massachusetts	Lunenburg town	Massachusetts	59	0%	0%	0%	0%	100%	0%	0	0	0	59	0	0																				
Massachusetts	New Ipswich town	Massachusetts	Lunenburg town	Massachusetts	52	0%	0%	0%	100%	0%	0%	3%	0	0	52	0	0																				
Massachusetts	New Ipswich town	Massachusetts	Lunenburg town	Massachusetts	44	75%	0%	0%	0%	0%	25%	0	0	0	0	0	11																				
Massachusetts	Gardner city	Massachusetts	Lunenburg town	Massachusetts	42	0%	0%	0%	100%	0%	0%	0	0	0	42	0	0																				
Massachusetts	Madisonville town	Massachusetts	Lunenburg town	Massachusetts	38	0%	0%	0%	100%	0%	0%	0	0	0	38	0	0																				
Massachusetts	Madisonville town	Massachusetts	Lunenburg town	Massachusetts	37	0%	0%	0%	100%	0%	0%	0	0	0	37	0	0																				
Massachusetts	Orange town	Massachusetts	Lunenburg town	Massachusetts	34	0%	0%	0%	100%	0%	0%	0	0	0	34	0	0																				
Massachusetts	Alford town	Massachusetts	Lunenburg town	Massachusetts	34	0%	0%	0%	100%	0%	0%	0	0	0	34	0	0																				
Massachusetts	Shirley town	Massachusetts	Lunenburg town	Massachusetts	32	0%	0%	25%	75%	0%	0%	0	0	8	24	0	0																				
Massachusetts	Shirley town	Massachusetts	Lunenburg town	Massachusetts	31	0%	100%	0%	0%	0%	0%	0	0	0	0	0	0																				
Massachusetts	Westborough town	Massachusetts	Lunenburg town	Massachusetts	31	0%	0%	40%	20%	40%	0%	0	0	12	12	0	0																				
Massachusetts	Lithton town	Massachusetts	Lunenburg town	Massachusetts	30	0%	40%	0%	0%	60%	0%	0	0	0	0	0	0																				
<table border="1"> <tr> <td>1,122</td> <td>256</td> <td>30</td> <td>701</td> <td>89</td> <td>564</td> <td>2,753</td> </tr> <tr> <td>40.00%</td> <td>9.31%</td> <td>0.74%</td> <td>25.47%</td> <td>3.25%</td> <td>20.46%</td> <td>calculated</td> </tr> <tr> <td>40.00%</td> <td>10.00%</td> <td>0.00%</td> <td>25.00%</td> <td>5.00%</td> <td>20.00%</td> <td>unpl</td> </tr> </table>																	1,122	256	30	701	89	564	2,753	40.00%	9.31%	0.74%	25.47%	3.25%	20.46%	calculated	40.00%	10.00%	0.00%	25.00%	5.00%	20.00%	unpl
1,122	256	30	701	89	564	2,753																															
40.00%	9.31%	0.74%	25.47%	3.25%	20.46%	calculated																															
40.00%	10.00%	0.00%	25.00%	5.00%	20.00%	unpl																															

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date:  
 Wednesday, May, 26, 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	2		12:00 PM	29	12:00 AM	4		12:00 PM	42	12:00 AM	6		12:00 PM	71			
12:15 AM	1		12:15 PM	29	12:15 AM	1		12:15 PM	30	12:15 AM	2		12:15 PM	59			
12:30 AM	0		12:30 PM	38	12:30 AM	3		12:30 PM	28	12:30 AM	3		12:30 PM	66			
12:45 AM	3	6	12:45 PM	36	132	12:45 AM	0	8	12:45 PM	30	130	12:45 AM	3	14	12:45 PM	66	262
1:00 AM	1		1:00 PM	26		1:00 AM	0		1:00 PM	39		1:00 AM	1		1:00 PM	65	
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1:45 AM	2	5	1:45 PM	33	118	1:45 AM	3	8	1:45 PM	43	150	1:45 AM	5	13	1:45 PM	76	268
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2:30 AM	2		2:30 PM	39		2:30 AM	0		2:30 PM	46		2:30 AM	2		2:30 PM	85	
2:45 AM	2	9	2:45 PM	40	136	2:45 AM	1	2	2:45 PM	46	185	2:45 AM	3	11	2:45 PM	86	321
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3:30 AM	4		3:30 PM	31		3:30 AM	1		3:30 PM	70		3:30 AM	5		3:30 PM	101	
3:45 AM	0	6	3:45 PM	37	142	3:45 AM	0	4	3:45 PM	92	275	3:45 AM	0	10	3:45 PM	129	417
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5:30 AM	16		5:30 PM	31		5:30 AM	6		5:30 PM	67		5:30 AM	22		5:30 PM	98	
5:45 AM	28	56	5:45 PM	27	129	5:45 AM	14	31	5:45 PM	46	245	5:45 AM	42	87	5:45 PM	73	374
6:00 AM	27		6:00 PM	32		6:00 AM	13		6:00 PM	49		6:00 AM	40		6:00 PM	81	
6:15 AM	27		6:15 PM	31		6:15 AM	19		6:15 PM	44		6:15 AM	46		6:15 PM	75	
6:30 AM	57		6:30 PM	34		6:30 AM	19		6:30 PM	26		6:30 AM	76		6:30 PM	60	
6:45 AM	44	155	6:45 PM	27	124	6:45 AM	22	73	6:45 PM	36	155	6:45 AM	66	228	6:45 PM	63	279
7:00 AM	44		7:00 PM	37		7:00 AM	20		7:00 PM	31		7:00 AM	64		7:00 PM	68	
7:15 AM	53		7:15 PM	39		7:15 AM	35		7:15 PM	19		7:15 AM	88		7:15 PM	58	
7:30 AM	46		7:30 PM	18		7:30 AM	30		7:30 PM	18		7:30 AM	76		7:30 PM	36	
7:45 AM	51	194	7:45 PM	19	113	7:45 AM	35	120	7:45 PM	14	82	7:45 AM	86	314	7:45 PM	33	195
8:00 AM	52		8:00 PM	20		8:00 AM	34		8:00 PM	14		8:00 AM	86		8:00 PM	34	
8:15 AM	41		8:15 PM	19		8:15 AM	34		8:15 PM	19		8:15 AM	75		8:15 PM	38	
8:30 AM	22		8:30 PM	18		8:30 AM	39		8:30 PM	18		8:30 AM	61		8:30 PM	36	
8:45 AM	24	139	8:45 PM	10	67	8:45 AM	34	141	8:45 PM	19	70	8:45 AM	58	280	8:45 PM	29	137
9:00 AM	22		9:00 PM	9		9:00 AM	26		9:00 PM	9		9:00 AM	48		9:00 PM	18	
9:15 AM	23		9:15 PM	9		9:15 AM	23		9:15 PM	6		9:15 AM	46		9:15 PM	15	
9:30 AM	28		9:30 PM	5		9:30 AM	29		9:30 PM	5		9:30 AM	57		9:30 PM	10	
9:45 AM	25	98	9:45 PM	13	36	9:45 AM	29	107	9:45 PM	4	24	9:45 AM	54	205	9:45 PM	17	60
10:00 AM	25		10:00 PM	4		10:00 AM	33		10:00 PM	3		10:00 AM	58		10:00 PM	7	
10:15 AM	20		10:15 PM	6		10:15 AM	34		10:15 PM	4		10:15 AM	54		10:15 PM	10	
10:30 AM	27		10:30 PM	12		10:30 AM	31		10:30 PM	10		10:30 AM	58		10:30 PM	22	
10:45 AM	22	94	10:45 PM	6	28	10:45 AM	28	126	10:45 PM	3	20	10:45 AM	50	220	10:45 PM	9	48
11:00 AM	39		11:00 PM	5		11:00 AM	40		11:00 PM	4		11:00 AM	79		11:00 PM	9	
11:15 AM	25		11:15 PM	1		11:15 AM	29		11:15 PM	7		11:15 AM	54		11:15 PM	8	
11:30 AM	28		11:30 PM	3		11:30 AM	46		11:30 PM	6		11:30 AM	74		11:30 PM	9	
11:45 AM	28	120	11:45 PM	2	11	11:45 AM	41	156	11:45 PM	4	21	11:45 AM	69	276	11:45 PM	6	32
Total	897		1174		Total	788		1670		Total	1685		2844				
Percent	43.31%		56.69%		Percent	32.06%		67.94%		Percent	37.20%		62.80%				
Day Total		2071			Day Total		2458			Day Total		4529					
Peak Hour	7:15 AM		2:30 PM		Peak Hour	11:30 AM		3:30 PM		Peak Hour	7:15 AM		3:45 PM				
Volume	202		153		Volume	159		335		Volume	336		473				
P.H.F.	0.953		0.911		P.H.F.	0.864		0.910		P.H.F.	0.955		0.917				

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date:  
 Thursday, May 27, 2021

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	4		12:00 PM	33		12:00 AM	5		12:00 PM	30		12:00 AM	9		12:00 PM	63	
12:15 AM	0		12:15 PM	34		12:15 AM	2		12:15 PM	29		12:15 AM	2		12:15 PM	63	
12:30 AM	3		12:30 PM	23		12:30 AM	1		12:30 PM	36		12:30 AM	4		12:30 PM	59	
12:45 AM	1	8	12:45 PM	39	129	12:45 AM	1	9	12:45 PM	41	136	12:45 AM	2	17	12:45 PM	80	265
1:00 AM	0		1:00 PM	32		1:00 AM	1		1:00 PM	25		1:00 AM	1		1:00 PM	57	
1:15 AM	2		1:15 PM	38		1:15 AM	0		1:15 PM	34		1:15 AM	2		1:15 PM	72	
1:30 AM	1		1:30 PM	35		1:30 AM	1		1:30 PM	41		1:30 AM	2		1:30 PM	76	
1:45 AM	0	3	1:45 PM	29	134	1:45 AM	0	2	1:45 PM	23	123	1:45 AM	0	5	1:45 PM	52	257
2:00 AM	1		2:00 PM	22		2:00 AM	0		2:00 PM	49		2:00 AM	1		2:00 PM	71	
2:15 AM	2		2:15 PM	29		2:15 AM	1		2:15 PM	54		2:15 AM	3		2:15 PM	83	
2:30 AM	2		2:30 PM	39		2:30 AM	0		2:30 PM	50		2:30 AM	2		2:30 PM	89	
2:45 AM	2	7	2:45 PM	53	143	2:45 AM	0	1	2:45 PM	49	202	2:45 AM	2	8	2:45 PM	102	345
3:00 AM	1		3:00 PM	37		3:00 AM	2		3:00 PM	58		3:00 AM	3		3:00 PM	95	
3:15 AM	4		3:15 PM	38		3:15 AM	1		3:15 PM	74		3:15 AM	5		3:15 PM	112	
3:30 AM	2		3:30 PM	53		3:30 AM	2		3:30 PM	73		3:30 AM	4		3:30 PM	126	
3:45 AM	1	8	3:45 PM	25	153	3:45 AM	3	8	3:45 PM	77	282	3:45 AM	4	16	3:45 PM	102	435
4:00 AM	2		4:00 PM	33		4:00 AM	0		4:00 PM	96		4:00 AM	2		4:00 PM	129	
4:15 AM	3		4:15 PM	35		4:15 AM	1		4:15 PM	103		4:15 AM	4		4:15 PM	138	
4:30 AM	5		4:30 PM	40		4:30 AM	1		4:30 PM	70		4:30 AM	6		4:30 PM	110	
4:45 AM	7	17	4:45 PM	43	151	4:45 AM	4	6	4:45 PM	87	356	4:45 AM	11	23	4:45 PM	130	507
5:00 AM	5		5:00 PM	38		5:00 AM	3		5:00 PM	67		5:00 AM	8		5:00 PM	105	
5:15 AM	6		5:15 PM	45		5:15 AM	7		5:15 PM	58		5:15 AM	13		5:15 PM	103	
5:30 AM	20		5:30 PM	37		5:30 AM	11		5:30 PM	60		5:30 AM	31		5:30 PM	97	
5:45 AM	20	51	5:45 PM	36	156	5:45 AM	9	30	5:45 PM	50	235	5:45 AM	29	81	5:45 PM	86	391
6:00 AM	28		6:00 PM	34		6:00 AM	17		6:00 PM	30		6:00 AM	45		6:00 PM	64	
6:15 AM	24		6:15 PM	31		6:15 AM	16		6:15 PM	34		6:15 AM	40		6:15 PM	65	
6:30 AM	45		6:30 PM	28		6:30 AM	20		6:30 PM	38		6:30 AM	65		6:30 PM	66	
6:45 AM	55	152	6:45 PM	36	129	6:45 AM	14	67	6:45 PM	32	134	6:45 AM	69	219	6:45 PM	68	263
7:00 AM	50		7:00 PM	31		7:00 AM	20		7:00 PM	26		7:00 AM	70		7:00 PM	57	
7:15 AM	52		7:15 PM	34		7:15 AM	30		7:15 PM	33		7:15 AM	82		7:15 PM	67	
7:30 AM	57		7:30 PM	25		7:30 AM	21		7:30 PM	39		7:30 AM	78		7:30 PM	64	
7:45 AM	43	202	7:45 PM	21	111	7:45 AM	52	123	7:45 PM	35	133	7:45 AM	95	325	7:45 PM	56	244
8:00 AM	50		8:00 PM	40		8:00 AM	32		8:00 PM	28		8:00 AM	82		8:00 PM	68	
8:15 AM	69		8:15 PM	24		8:15 AM	28		8:15 PM	18		8:15 AM	97	352	8:15 PM	42	
8:30 AM	45		8:30 PM	18		8:30 AM	43		8:30 PM	21		8:30 AM	88		8:30 PM	39	
8:45 AM	33	197	8:45 PM	29	111	8:45 AM	44	147	8:45 PM	13	80	8:45 AM	77	344	8:45 PM	42	191
9:00 AM	21		9:00 PM	18		9:00 AM	36		9:00 PM	19		9:00 AM	57		9:00 PM	37	
9:15 AM	22		9:15 PM	13		9:15 AM	33		9:15 PM	9		9:15 AM	55		9:15 PM	22	
9:30 AM	32		9:30 PM	8		9:30 AM	24		9:30 PM	7		9:30 AM	56		9:30 PM	15	
9:45 AM	25	100	9:45 PM	14	53	9:45 AM	25	118	9:45 PM	6	41	9:45 AM	50	218	9:45 PM	20	94
10:00 AM	26		10:00 PM	8		10:00 AM	33		10:00 PM	7		10:00 AM	59		10:00 PM	15	
10:15 AM	27		10:15 PM	7		10:15 AM	36		10:15 PM	7		10:15 AM	63		10:15 PM	14	
10:30 AM	28		10:30 PM	11		10:30 AM	31		10:30 PM	9		10:30 AM	59		10:30 PM	20	
10:45 AM	30	111	10:45 PM	8	34	10:45 AM	36	136	10:45 PM	3	26	10:45 AM	66	247	10:45 PM	11	60
11:00 AM	16		11:00 PM	6		11:00 AM	29		11:00 PM	6		11:00 AM	45		11:00 PM	12	
11:15 AM	24		11:15 PM	3		11:15 AM	25		11:15 PM	10		11:15 AM	49		11:15 PM	13	
11:30 AM	31		11:30 PM	1		11:30 AM	31		11:30 PM	4		11:30 AM	62		11:30 PM	5	
11:45 AM	31	102	11:45 PM	4	14	11:45 AM	35	120	11:45 PM	6	26	11:45 AM	66	222	11:45 PM	10	40
Total	958		1318			Total	767		1774			Total	1725		3092		
Percent	42.09%		57.91%			Percent	30.18%		69.82%			Percent	35.81%		64.19%		
Day Total		2276				Day Total		2541				Day Total		4817			
Peak Hour	7:30 AM		2:45 PM			Peak Hour	8:30 AM		4:00 PM			Peak Hour	7:45 AM		4:00 PM		
Volume	219		181			Volume	156		356			Volume	362		507		
P.H.F.	0.793		0.854			P.H.F.	0.886		0.864			P.H.F.	0.933		0.918		

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Wednesday, May, 26, 2021

**Classification (60-minute)**

EB														
Start Time:	Cycles	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	Total
12:00 AM	0	5	0	0	1	0	0	0	0	0	0	0	0	6
1:00 AM	0	2	1	0	0	0	2	0	0	0	0	0	0	5
2:00 AM	0	6	1	0	1	1	0	0	0	0	0	0	0	9
3:00 AM	0	4	1	0	0	1	0	0	0	0	0	0	0	6
4:00 AM	0	10	2	0	1	0	0	0	2	0	0	0	0	15
5:00 AM	0	38	14	1	3	0	0	0	0	0	0	0	0	56
6:00 AM	3	101	32	0	15	1	0	0	3	0	0	0	0	155
7:00 AM	3	147	28	0	9	5	0	1	1	0	0	0	0	194
8:00 AM	6	98	24	0	5	3	0	2	1	0	0	0	0	139
9:00 AM	0	69	25	0	1	1	1	1	0	0	0	0	0	98
10:00 AM	0	61	23	0	3	2	1	2	2	0	0	0	0	94
11:00 AM	3	85	22	0	6	4	0	0	0	0	0	0	0	120
12:00 PM	1	95	25	0	7	1	0	1	2	0	0	0	0	132
1:00 PM	4	94	16	1	1	1	0	0	1	0	0	0	0	118
2:00 PM	0	111	17	0	3	1	0	1	3	0	0	0	0	136
3:00 PM	2	107	24	1	5	3	0	0	0	0	0	0	0	142
4:00 PM	1	113	19	0	4	0	0	0	1	0	0	0	0	138
5:00 PM	5	98	23	0	2	0	0	1	0	0	0	0	0	129
6:00 PM	1	95	24	0	2	0	0	1	1	0	0	0	0	124
7:00 PM	0	92	15	0	6	0	0	0	0	0	0	0	0	113
8:00 PM	1	57	7	0	2	0	0	0	0	0	0	0	0	67
9:00 PM	0	33	3	0	0	0	0	0	0	0	0	0	0	36
10:00 PM	0	22	5	0	1	0	0	0	0	0	0	0	0	28
11:00 PM	0	10	1	0	0	0	0	0	0	0	0	0	0	11
<b>Total</b>	<b>30</b>	<b>1553</b>	<b>352</b>	<b>3</b>	<b>78</b>	<b>24</b>	<b>4</b>	<b>10</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2071</b>
<b>Percent</b>	<b>1.45%</b>	<b>74.99%</b>	<b>17.00%</b>	<b>0.14%</b>	<b>3.77%</b>	<b>1.16%</b>	<b>0.19%</b>	<b>0.48%</b>	<b>0.82%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	

AM Peak	8:00 AM	7:00 AM	6:00 AM	5:00 AM	6:00 AM	7:00 AM	1:00 AM	8:00 AM	6:00 AM					7:00 AM
Volume	6	147	32	1	15	5	2	2	3	0	0	0	0	194
PM Peak	5:00 PM	4:00 PM	12:00 PM	1:00 PM	12:00 PM	3:00 PM		12:00 PM	2:00 PM					3:00 PM
Volume	5	113	25	1	7	3	0	1	3	0	0	0	0	142

Cycles:	30	1.4%
Cars and Light Trucks:	1905	92.0%
Heavy Vehicles:	136	6.6%

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Wednesday, May, 26, 2021

**Classification (60-minute)**

WB														
Start Time:	Cycles	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	Total
12:00 AM	0	7	0	0	1	0	0	0	0	0	0	0	0	8
1:00 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	8
2:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	1	2	0	0	1	0	0	0	0	0	0	0	4
4:00 AM	0	10	2	0	0	0	0	0	0	0	0	0	0	12
5:00 AM	0	23	5	0	2	0	0	0	1	0	0	0	0	31
6:00 AM	0	50	13	2	4	2	0	2	0	0	0	0	0	73
7:00 AM	0	92	22	0	3	2	0	1	0	0	0	0	0	120
8:00 AM	2	95	31	0	7	4	1	1	0	0	0	0	0	141
9:00 AM	0	77	18	1	6	1	0	2	2	0	0	0	0	107
10:00 AM	0	93	21	0	5	4	0	2	1	0	0	0	0	126
11:00 AM	4	106	33	1	6	5	0	1	0	0	0	0	0	156
12:00 PM	1	95	25	0	6	2	0	0	1	0	0	0	0	130
1:00 PM	6	109	25	0	5	1	1	1	2	0	0	0	0	150
2:00 PM	1	137	28	1	14	1	0	2	1	0	0	0	0	185
3:00 PM	2	210	43	0	6	4	0	8	2	0	0	0	0	275
4:00 PM	2	239	58	1	10	2	0	1	0	0	0	0	0	313
5:00 PM	2	197	35	0	7	1	0	2	1	0	0	0	0	245
6:00 PM	1	112	36	0	5	0	0	1	0	0	0	0	0	155
7:00 PM	1	63	14	0	3	0	0	1	0	0	0	0	0	82
8:00 PM	0	57	10	0	3	0	0	0	0	0	0	0	0	70
9:00 PM	0	19	4	0	1	0	0	0	0	0	0	0	0	24
10:00 PM	0	19	0	0	1	0	0	0	0	0	0	0	0	20
11:00 PM	0	18	3	0	0	0	0	0	0	0	0	0	0	21
PM Total	22	1836	428	6	95	33	2	25	11	0	0	0	0	2458
Percent	0.90%	74.69%	17.41%	0.24%	3.86%	1.34%	0.08%	1.02%	0.45%	0.00%	0.00%	0.00%	0.00%	

AM Peak	11:00 AM	11:00 AM	11:00 AM	6:00 AM	8:00 AM	11:00 AM	8:00 AM	6:00 AM	9:00 AM					11:00 AM
Volume	4	106	33	2	7	5	1	2	2	0	0	0	0	156
PM Peak	1:00 PM	4:00 PM	4:00 PM	2:00 PM	2:00 PM	3:00 PM	1:00 PM	3:00 PM	1:00 PM					4:00 PM
Volume	6	239	58	1	14	4	1	8	2	0	0	0	0	313

Cycles:	22	0.9%
Cars and Light Trucks:	2264	92.1%
Heavy Vehicles:	172	7.0%

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
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PDI File #: 217953 ATR-A

Count Date  
 Wednesday, May, 26, 2021

**Classification (60-minute)**

Combined														
Start Time:	Cycles	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	Total
12:00 AM	0	12	0	0	2	0	0	0	0	0	0	0	0	14
1:00 AM	0	7	1	0	0	3	2	0	0	0	0	0	0	13
2:00 AM	0	8	1	0	1	1	0	0	0	0	0	0	0	11
3:00 AM	0	5	3	0	0	2	0	0	0	0	0	0	0	10
4:00 AM	0	20	4	0	1	0	0	0	2	0	0	0	0	27
5:00 AM	0	61	19	1	5	0	0	0	1	0	0	0	0	87
6:00 AM	3	151	45	2	19	3	0	2	3	0	0	0	0	228
7:00 AM	3	239	50	0	12	7	0	2	1	0	0	0	0	314
8:00 AM	8	193	55	0	12	7	1	3	1	0	0	0	0	280
9:00 AM	0	146	43	1	7	2	1	3	2	0	0	0	0	205
10:00 AM	0	154	44	0	8	6	1	4	3	0	0	0	0	220
11:00 AM	7	191	55	1	12	9	0	1	0	0	0	0	0	276
12:00 PM	2	190	50	0	13	3	0	1	3	0	0	0	0	262
1:00 PM	10	203	41	1	6	2	1	1	3	0	0	0	0	268
2:00 PM	1	248	45	1	17	2	0	3	4	0	0	0	0	321
3:00 PM	4	317	67	1	11	7	0	8	2	0	0	0	0	417
4:00 PM	3	352	77	1	14	2	0	1	1	0	0	0	0	451
5:00 PM	7	295	58	0	9	1	0	3	1	0	0	0	0	374
6:00 PM	2	207	60	0	7	0	0	2	1	0	0	0	0	279
7:00 PM	1	155	29	0	9	0	0	1	0	0	0	0	0	195
8:00 PM	1	114	17	0	5	0	0	0	0	0	0	0	0	137
9:00 PM	0	52	7	0	1	0	0	0	0	0	0	0	0	60
10:00 PM	0	41	5	0	2	0	0	0	0	0	0	0	0	48
11:00 PM	0	28	4	0	0	0	0	0	0	0	0	0	0	32
PM Total	52	3389	780	9	173	57	6	35	28	0	0	0	0	4529
Percent	1.15%	74.83%	17.22%	0.20%	3.82%	1.26%	0.13%	0.77%	0.62%	0.00%	0.00%	0.00%	0.00%	

AM Peak	8:00 AM	7:00 AM	8:00 AM	6:00 AM	6:00 AM	11:00 AM	1:00 AM	10:00 AM	6:00 AM					7:00 AM
Volume	8	239	55	2	19	9	2	4	3	0	0	0	0	314
PM Peak	1:00 PM	4:00 PM	4:00 PM	1:00 PM	2:00 PM	3:00 PM	1:00 PM	3:00 PM	2:00 PM					4:00 PM
Volume	10	352	77	1	17	7	1	8	4	0	0	0	0	451

Cycles:	52	1.1%
Cars and Light Trucks:	4169	92.1%
Heavy Vehicles:	308	6.8%



Leominster-Shirley Road  
east of Reservoir Road  
City, State: Lunenburg, MA  
Client: GPI/ H. Monticup  
Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
Thursday, May 27, 2021

**Classification (60-minute)**

EB														
Start Time:	Cycles	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	Total
12:00 AM	0	7	1	0	0	0	0	0	0	0	0	0	0	8
1:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	0	3
2:00 AM	0	6	0	0	0	0	1	0	0	0	0	0	0	7
3:00 AM	0	6	2	0	0	0	0	0	0	0	0	0	0	8
4:00 AM	0	12	4	0	0	0	0	0	1	0	0	0	0	17
5:00 AM	0	33	15	1	1	0	1	0	0	0	0	0	0	51
6:00 AM	2	103	38	1	7	1	0	0	0	0	0	0	0	152
7:00 AM	3	156	28	3	9	0	1	1	1	0	0	0	0	202
8:00 AM	0	152	30	1	11	1	1	0	1	0	0	0	0	197
9:00 AM	1	60	24	0	8	2	0	5	0	0	0	0	0	100
10:00 AM	0	78	19	1	3	4	3	1	2	0	0	0	0	111
11:00 AM	2	82	11	0	5	0	1	1	0	0	0	0	0	102
12:00 PM	2	95	21	1	5	0	1	0	4	0	0	0	0	129
1:00 PM	4	100	21	2	4	1	0	2	0	0	0	0	0	134
2:00 PM	0	119	19	0	1	0	1	1	2	0	0	0	0	143
3:00 PM	4	114	24	3	2	1	0	2	3	0	0	0	0	153
4:00 PM	5	119	20	1	4	1	0	0	1	0	0	0	0	151
5:00 PM	2	127	20	0	5	1	0	0	1	0	0	0	0	156
6:00 PM	1	104	22	0	1	0	0	1	0	0	0	0	0	129
7:00 PM	3	89	16	0	3	0	0	0	0	0	0	0	0	111
8:00 PM	4	93	14	0	0	0	0	0	0	0	0	0	0	111
9:00 PM	1	44	7	0	1	0	0	0	0	0	0	0	0	53
10:00 PM	1	23	9	0	1	0	0	0	0	0	0	0	0	34
11:00 PM	0	11	3	0	0	0	0	0	0	0	0	0	0	14
Total	35	1735	368	14	72	12	10	14	16	0	0	0	0	2276
Percent	1.54%	76.23%	16.17%	0.62%	3.16%	0.53%	0.44%	0.62%	0.70%	0.00%	0.00%	0.00%	0.00%	

AM Peak	7:00 AM	7:00 AM	6:00 AM	7:00 AM	8:00 AM	10:00 AM	10:00 AM	9:00 AM	10:00 AM					7:00 AM
Volume	3	156	38	3	11	4	3	5	2	0	0	0	0	202
PM Peak	4:00 PM	5:00 PM	3:00 PM	3:00 PM	12:00 PM	1:00 PM	12:00 PM	1:00 PM	12:00 PM					5:00 PM
Volume	5	127	24	3	5	1	1	2	4	0	0	0	0	156

Cycles:	35	1.5%
Cars and Light Trucks:	2103	92.4%
Heavy Vehicles:	138	6.1%

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Thursday, May 27, 2021

**Classification (60-minute)**

WB														
Start Time:	Cycles	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	Total
12:00 AM	0	8	0	0	1	0	0	0	0	0	0	0	0	9
1:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1
3:00 AM	0	5	2	0	1	0	0	0	0	0	0	0	0	8
4:00 AM	0	2	3	0	1	0	0	0	0	0	0	0	0	6
5:00 AM	0	20	8	0	1	0	0	0	1	0	0	0	0	30
6:00 AM	0	47	16	1	2	1	0	0	0	0	0	0	0	67
7:00 AM	2	91	21	0	6	0	0	0	3	0	0	0	0	123
8:00 AM	0	110	29	0	5	1	0	0	2	0	0	0	0	147
9:00 AM	2	82	26	0	5	1	1	1	0	0	0	0	0	118
10:00 AM	0	98	27	2	3	2	0	2	2	0	0	0	0	136
11:00 AM	1	92	21	0	5	0	1	0	0	0	0	0	0	120
12:00 PM	3	95	20	2	11	2	0	1	2	0	0	0	0	136
1:00 PM	1	82	25	1	11	2	0	0	1	0	0	0	0	123
2:00 PM	5	147	39	2	7	2	0	0	0	0	0	0	0	202
3:00 PM	3	198	59	1	13	3	0	2	2	1	0	0	0	282
4:00 PM	5	272	61	0	10	2	1	3	2	0	0	0	0	356
5:00 PM	6	181	39	0	6	0	1	2	0	0	0	0	0	235
6:00 PM	2	109	21	0	1	0	1	0	0	0	0	0	0	134
7:00 PM	3	105	20	0	5	0	0	0	0	0	0	0	0	133
8:00 PM	2	61	17	0	0	0	0	0	0	0	0	0	0	80
9:00 PM	1	35	5	0	0	0	0	0	0	0	0	0	0	41
10:00 PM	0	21	5	0	0	0	0	0	0	0	0	0	0	26
11:00 PM	0	24	2	0	0	0	0	0	0	0	0	0	0	26
PM Total	36	1887	466	9	94	16	5	12	15	1	0	0	0	2541
Percent	1.42%	74.26%	18.34%	0.35%	3.70%	0.63%	0.20%	0.47%	0.59%	0.04%	0.00%	0.00%	0.00%	

AM Peak	7:00 AM	8:00 AM	8:00 AM	10:00 AM	7:00 AM	10:00 AM	9:00 AM	10:00 AM	7:00 AM					8:00 AM
Volume	2	110	29	2	6	2	1	2	3	0	0	0	0	147
PM Peak	5:00 PM	4:00 PM	4:00 PM	12:00 PM	3:00 PM	3:00 PM	4:00 PM	4:00 PM	12:00 PM	3:00 PM				4:00 PM
Volume	6	272	61	2	13	3	1	3	2	1	0	0	0	356

Cycles:	36	1.4%
Cars and Light Trucks:	2353	92.6%
Heavy Vehicles:	152	6.0%

Leominster-Shirley Road  
east of Reservoir Road  
City, State: Lunenburg, MA  
Client: GPI/ H. Monticup  
Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
Thursday, May 27, 2021

**Classification (60-minute)**

Combined														
Start Time:	Cycles	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	Total
12:00 AM	0	15	1	0	1	0	0	0	0	0	0	0	0	17
1:00 AM	0	4	0	0	1	0	0	0	0	0	0	0	0	5
2:00 AM	0	6	0	0	0	0	1	1	0	0	0	0	0	8
3:00 AM	0	11	4	0	1	0	0	0	0	0	0	0	0	16
4:00 AM	0	14	7	0	1	0	0	0	1	0	0	0	0	23
5:00 AM	0	53	23	1	2	0	1	0	1	0	0	0	0	81
6:00 AM	2	150	54	2	9	2	0	0	0	0	0	0	0	219
7:00 AM	5	247	49	3	15	0	1	1	4	0	0	0	0	325
8:00 AM	0	262	59	1	16	2	1	0	3	0	0	0	0	344
9:00 AM	3	142	50	0	13	3	1	6	0	0	0	0	0	218
10:00 AM	0	176	46	3	6	6	3	3	4	0	0	0	0	247
11:00 AM	3	174	32	0	10	0	2	1	0	0	0	0	0	222
12:00 PM	5	190	41	3	16	2	1	1	6	0	0	0	0	265
1:00 PM	5	182	46	3	15	3	0	2	1	0	0	0	0	257
2:00 PM	5	266	58	2	8	2	1	1	2	0	0	0	0	345
3:00 PM	7	312	83	4	15	4	0	4	5	1	0	0	0	435
4:00 PM	10	391	81	1	14	3	1	3	3	0	0	0	0	507
5:00 PM	8	308	59	0	11	1	1	2	1	0	0	0	0	391
6:00 PM	3	213	43	0	2	0	1	1	0	0	0	0	0	263
7:00 PM	6	194	36	0	8	0	0	0	0	0	0	0	0	244
8:00 PM	6	154	31	0	0	0	0	0	0	0	0	0	0	191
9:00 PM	2	79	12	0	1	0	0	0	0	0	0	0	0	94
10:00 PM	1	44	14	0	1	0	0	0	0	0	0	0	0	60
11:00 PM	0	35	5	0	0	0	0	0	0	0	0	0	0	40
PM Total	71	3622	834	23	166	28	15	26	31	1	0	0	0	4817
Percent	1.47%	75.19%	17.31%	0.48%	3.45%	0.58%	0.31%	0.54%	0.64%	0.02%	0.00%	0.00%	0.00%	
AM Peak	7:00 AM	8:00 AM	8:00 AM	7:00 AM	8:00 AM	10:00 AM	10:00 AM	9:00 AM	7:00 AM					8:00 AM
Volume	5	262	59	3	16	6	3	6	4	0	0	0	0	344
PM Peak	4:00 PM	4:00 PM	3:00 PM	3:00 PM	12:00 PM	3:00 PM	12:00 PM	3:00 PM	12:00 PM	3:00 PM				4:00 PM
Volume	10	391	83	4	16	4	1	4	6	1	0	0	0	507

Cycles:	71	1.5%
Cars and Light Trucks:	4456	92.5%
Heavy Vehicles:	290	6.0%

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Wednesday, May, 26, 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	1	0	0	1	3	1	0	0	0	0	0	6	42.5	38.0
1:00 AM	0	0	0	0	0	1	3	1	0	0	0	0	0	5	44.4	41.6
2:00 AM	0	0	0	0	1	2	5	1	0	0	0	0	0	9	43.4	39.6
3:00 AM	0	0	0	0	0	1	3	2	0	0	0	0	0	6	46.3	42.7
4:00 AM	0	0	0	0	1	4	6	3	1	0	0	0	0	15	46.8	41.2
5:00 AM	0	0	0	0	2	9	29	15	0	1	0	0	0	56	46.0	42.6
6:00 AM	0	0	0	2	5	34	64	40	10	0	0	0	0	155	47.0	42.1
7:00 AM	0	0	0	2	6	33	100	49	4	0	0	0	0	194	46.1	42.4
8:00 AM	0	0	0	1	3	34	66	29	6	0	0	0	0	139	46.3	41.9
9:00 AM	0	0	0	1	3	14	54	23	3	0	0	0	0	98	46.0	42.4
10:00 AM	0	1	1	1	2	21	34	31	3	0	0	0	0	94	47.0	42.2
11:00 AM	2	0	1	0	1	29	53	28	6	0	0	0	0	120	47.0	41.7
12:00 PM	0	0	0	1	3	27	59	35	5	2	0	0	0	132	47.0	42.7
1:00 PM	0	1	0	0	2	27	58	28	2	0	0	0	0	118	46.0	41.9
2:00 PM	0	0	1	0	7	36	58	25	7	2	0	0	0	136	46.0	41.7
3:00 PM	0	0	0	0	3	33	55	46	5	0	0	0	0	142	47.0	42.5
4:00 PM	0	1	0	1	3	24	62	39	7	1	0	0	0	138	47.0	42.6
5:00 PM	0	0	0	0	3	24	53	39	8	2	0	0	0	129	48.0	43.2
6:00 PM	0	0	0	0	0	27	64	31	2	0	0	0	0	124	46.0	42.3
7:00 PM	0	0	0	4	7	28	42	27	4	1	0	0	0	113	46.0	41.0
8:00 PM	0	1	0	0	7	26	24	6	2	1	0	0	0	67	43.1	39.6
9:00 PM	0	0	0	0	4	12	9	9	2	0	0	0	0	36	48.0	41.1
10:00 PM	0	0	0	0	1	7	11	7	2	0	0	0	0	28	48.0	42.4
11:00 PM	0	0	0	0	0	5	4	2	0	0	0	0	0	11	44.5	41.0
Total	2	4	4	13	64	459	919	517	79	10	0	0	0	2071	47.0	42.1
Percent	0.10%	0.19%	0.19%	0.63%	3.09%	22.16%	44.37%	24.96%	3.81%	0.48%	0.00%	0.00%	0.00%			

AM Peak	11:00 AM	10:00 AM	12:00 AM	6:00 AM	7:00 AM	6:00 AM	7:00 AM	7:00 AM	6:00 AM	5:00 AM				7:00 AM
Volume	2	1	1	2	6	34	100	49	10	1	0	0	0	194
PM Peak		1:00 PM	2:00 PM	7:00 PM	2:00 PM	2:00 PM	6:00 PM	3:00 PM	5:00 PM	12:00 PM				3:00 PM
Volume	0	1	1	4	7	36	64	46	8	2	0	0	0	142

15th Percentile:	38.0 MPH	Average Speed:	42.1 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	42.0 MPH	10 MPH Pace:	38 to 47 MPH	Number of Vehicles > 40 MPH:	1359
85th Percentile:	47.0 MPH	Number in Pace:	1556	Percent of Vehicles > 40 MPH:	65.6%
95th Percentile:	49.0 MPH	Percent in Pace:	75.1%		

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Wednesday, May, 26, 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	2	4	2	0	0	0	0	0	8	45.0	42.0
1:00 AM	0	0	0	0	2	3	2	1	0	0	0	0	0	8	43.0	38.0
2:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	44.0	41.5
3:00 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	4	42.2	39.0
4:00 AM	0	0	0	0	0	3	4	3	2	0	0	0	0	12	49.7	43.8
5:00 AM	0	0	0	1	0	12	7	8	3	0	0	0	0	31	46.0	41.5
6:00 AM	0	0	0	0	4	20	30	13	4	2	0	0	0	73	47.0	42.0
7:00 AM	0	0	0	2	6	42	54	13	3	0	0	0	0	120	44.0	40.3
8:00 AM	0	0	0	0	7	53	62	19	0	0	0	0	0	141	44.0	40.5
9:00 AM	0	0	0	3	6	27	50	16	5	0	0	0	0	107	45.1	41.0
10:00 AM	0	0	0	2	5	38	56	23	2	0	0	0	0	126	45.0	40.9
11:00 AM	0	0	0	1	15	51	65	20	4	0	0	0	0	156	44.8	40.1
12:00 PM	0	0	0	1	8	44	55	21	1	0	0	0	0	130	45.0	40.5
1:00 PM	0	0	0	1	11	52	61	20	4	1	0	0	0	150	45.0	40.6
2:00 PM	0	0	0	1	10	51	90	30	3	0	0	0	0	185	45.0	41.1
3:00 PM	0	0	0	0	6	87	145	29	8	0	0	0	0	275	44.0	41.0
4:00 PM	1	0	0	0	13	85	161	48	5	0	0	0	0	313	45.0	41.1
5:00 PM	0	0	0	0	3	53	136	47	6	0	0	0	0	245	46.0	42.0
6:00 PM	0	0	0	0	6	42	90	16	0	1	0	0	0	155	44.0	40.9
7:00 PM	0	0	0	1	7	32	29	10	2	0	0	1	0	82	44.9	40.0
8:00 PM	0	0	0	0	9	28	28	5	0	0	0	0	0	70	43.0	39.2
9:00 PM	0	0	0	2	2	9	8	2	1	0	0	0	0	24	44.0	38.9
10:00 PM	0	0	0	0	1	6	7	4	2	0	0	0	0	20	47.2	42.0
11:00 PM	0	0	0	0	3	9	6	2	1	0	0	0	0	21	43.0	39.4
Total	1	0	0	15	125	751	1152	353	56	4	0	1	0	2458	45.0	40.9
Percent	0.04%	0.00%	0.00%	0.61%	5.09%	30.55%	46.87%	14.36%	2.28%	0.16%	0.00%	0.04%	0.00%			

AM Peak	9:00 AM	11:00 AM	8:00 AM	11:00 AM	10:00 AM	9:00 AM	6:00 AM	11:00 AM						
Volume	0	0	0	3	15	53	65	23	5	2	0	0	0	156

PM Peak	4:00 PM	9:00 PM	4:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	1:00 PM	7:00 PM	4:00 PM				
Volume	1	0	0	2	13	87	161	48	8	1	0	1	0	313

15th Percentile:	37.0 MPH	Average Speed:	40.9 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	41.0 MPH	10 MPH Pace:	37 to 46 MPH	Number of Vehicles > 40 MPH:	1319
85th Percentile:	45.0 MPH	Number in Pace:	1989	Percent of Vehicles > 40 MPH:	53.7%
95th Percentile:	47.0 MPH	Percent in Pace:	80.9%		

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Wednesday, May, 26, 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	1	0	0	3	7	3	0	0	0	0	0	14	45.1	40.3
1:00 AM	0	0	0	0	2	4	5	2	0	0	0	0	0	13	44.2	39.4
2:00 AM	0	0	0	0	1	3	5	2	0	0	0	0	0	11	44.5	39.9
3:00 AM	0	0	0	0	1	2	5	2	0	0	0	0	0	10	45.3	41.2
4:00 AM	0	0	0	0	1	7	10	6	3	0	0	0	0	27	47.2	42.4
5:00 AM	0	0	0	1	2	21	36	23	3	1	0	0	0	87	46.0	42.2
6:00 AM	0	0	0	2	9	54	94	53	14	2	0	0	0	228	47.0	42.1
7:00 AM	0	0	0	4	12	75	154	62	7	0	0	0	0	314	46.0	41.6
8:00 AM	0	0	0	1	10	87	128	48	6	0	0	0	0	280	45.0	41.2
9:00 AM	0	0	0	4	9	41	104	39	8	0	0	0	0	205	46.0	41.7
10:00 AM	0	1	1	3	7	59	90	54	5	0	0	0	0	220	46.0	41.4
11:00 AM	2	0	1	1	16	80	118	48	10	0	0	0	0	276	45.8	40.8
12:00 PM	0	0	0	2	11	71	114	56	6	2	0	0	0	262	46.0	41.6
1:00 PM	0	1	0	1	13	79	119	48	6	1	0	0	0	268	45.0	41.2
2:00 PM	0	0	1	1	17	87	148	55	10	2	0	0	0	321	45.0	41.4
3:00 PM	0	0	0	0	9	120	200	75	13	0	0	0	0	417	46.0	41.5
4:00 PM	1	1	0	1	16	109	223	87	12	1	0	0	0	451	45.5	41.5
5:00 PM	0	0	0	0	6	77	189	86	14	2	0	0	0	374	47.0	42.4
6:00 PM	0	0	0	0	6	69	154	47	2	1	0	0	0	279	45.0	41.5
7:00 PM	0	0	0	5	14	60	71	37	6	1	0	1	0	195	46.0	40.6
8:00 PM	0	1	0	0	16	54	52	11	2	1	0	0	0	137	43.0	39.4
9:00 PM	0	0	0	2	6	21	17	11	3	0	0	0	0	60	46.0	40.2
10:00 PM	0	0	0	0	2	13	18	11	4	0	0	0	0	48	48.0	42.2
11:00 PM	0	0	0	0	3	14	10	4	1	0	0	0	0	32	44.4	39.9
<b>Total</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>28</b>	<b>189</b>	<b>1210</b>	<b>2071</b>	<b>870</b>	<b>135</b>	<b>14</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4529</b>	<b>46.0</b>	<b>41.4</b>
<b>Percent</b>	<b>0.07%</b>	<b>0.09%</b>	<b>0.09%</b>	<b>0.62%</b>	<b>4.17%</b>	<b>26.72%</b>	<b>45.73%</b>	<b>19.21%</b>	<b>2.98%</b>	<b>0.31%</b>	<b>0.00%</b>	<b>0.02%</b>	<b>0.00%</b>			

AM Peak	11:00 AM	10:00 AM	12:00 AM	7:00 AM	11:00 AM	8:00 AM	7:00 AM	7:00 AM	6:00 AM	6:00 AM				7:00 AM
Volume	2	1	1	4	16	87	154	62	14	2	0	0	0	314
PM Peak	4:00 PM	1:00 PM	2:00 PM	7:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM	5:00 PM	12:00 PM		7:00 PM		4:00 PM
Volume	1	1	1	5	17	120	223	87	14	2	0	1	0	451

15th Percentile:	37.0 MPH	Average Speed:	41.4 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	41.0 MPH	10 MPH Pace:	37 to 46 MPH	Number of Vehicles > 40 MPH:	2678
85th Percentile:	46.0 MPH	Number in Pace:	3538	Percent of Vehicles > 40 MPH:	59.1%
95th Percentile:	48.0 MPH	Percent in Pace:	78.1%		

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Thursday, May 27, 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	1	4	1	1	1	0	0	0	0	8	45.9	40.4
1:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	3	41.7	40.0
2:00 AM	0	0	0	0	1	3	1	1	1	0	0	0	0	7	45.8	40.0
3:00 AM	0	0	0	0	1	2	2	3	0	0	0	0	0	8	45.0	40.8
4:00 AM	0	0	0	0	1	5	9	2	0	0	0	0	0	17	44.0	40.4
5:00 AM	0	0	0	0	3	5	24	15	3	1	0	0	0	51	47.5	43.2
6:00 AM	0	0	0	0	3	21	71	52	5	0	0	0	0	152	46.0	43.0
7:00 AM	0	0	0	0	9	22	77	74	19	1	0	0	0	202	48.0	43.6
8:00 AM	0	0	0	2	4	34	90	53	12	2	0	0	0	197	47.0	42.7
9:00 AM	1	0	0	0	3	23	51	16	6	0	0	0	0	100	46.0	41.5
10:00 AM	0	0	1	1	7	22	52	26	1	1	0	0	0	111	45.0	41.4
11:00 AM	0	0	2	0	4	18	50	25	3	0	0	0	0	102	46.0	41.9
12:00 PM	0	2	2	1	7	31	54	27	5	0	0	0	0	129	45.8	40.9
1:00 PM	0	0	1	1	6	39	49	32	6	0	0	0	0	134	46.0	41.4
2:00 PM	0	0	0	0	7	45	60	28	3	0	0	0	0	143	45.0	41.2
3:00 PM	0	0	0	2	2	41	57	41	8	2	0	0	0	153	47.0	42.4
4:00 PM	1	0	0	3	4	31	67	35	7	1	1	1	0	151	47.0	42.4
5:00 PM	0	0	1	0	3	26	64	52	8	1	1	0	0	156	47.0	43.2
6:00 PM	0	0	0	0	0	21	60	39	8	1	0	0	0	129	47.0	43.4
7:00 PM	0	0	0	0	4	25	47	31	3	0	0	1	0	111	47.0	42.5
8:00 PM	0	0	2	0	5	33	48	20	2	1	0	0	0	111	46.0	41.0
9:00 PM	0	0	0	0	7	6	22	9	6	2	1	0	0	53	50.0	43.1
10:00 PM	0	0	0	0	3	8	15	5	1	2	0	0	0	34	45.1	42.0
11:00 PM	0	0	0	0	0	0	6	5	2	1	0	0	0	14	50.1	45.8
<b>Total</b>	<b>2</b>	<b>2</b>	<b>9</b>	<b>10</b>	<b>85</b>	<b>466</b>	<b>979</b>	<b>592</b>	<b>110</b>	<b>16</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>2276</b>	<b>47.0</b>	<b>42.3</b>
<b>Percent</b>	<b>0.09%</b>	<b>0.09%</b>	<b>0.40%</b>	<b>0.44%</b>	<b>3.73%</b>	<b>20.47%</b>	<b>43.01%</b>	<b>26.01%</b>	<b>4.83%</b>	<b>0.70%</b>	<b>0.13%</b>	<b>0.09%</b>	<b>0.00%</b>			

AM Peak	9:00 AM		11:00 AM	8:00 AM	7:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM	8:00 AM					7:00 AM
Volume	1	0	2	2	9	34	90	74	19	2	0	0	0	202	
PM Peak	4:00 PM	12:00 PM	12:00 PM	4:00 PM	12:00 PM	2:00 PM	4:00 PM	5:00 PM	3:00 PM	3:00 PM	4:00 PM	4:00 PM		5:00 PM	
Volume	1	2	2	3	7	45	67	52	8	2	1	1	0	156	

15th Percentile:	38.0 MPH	Average Speed:	42.3 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	42.0 MPH	10 MPH Pace:	38 to 47 MPH	Number of Vehicles > 40 MPH:	1527
85th Percentile:	47.0 MPH	Number in Pace:	1719	Percent of Vehicles > 40 MPH:	67.1%
95th Percentile:	50.0 MPH	Percent in Pace:	75.5%		

Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Thursday, May 27, 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	1	6	0	1	1	0	0	0	0	9	45.2	38.9
1:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	45.7	42.5
2:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	45.0	45.0
3:00 AM	0	0	0	1	0	1	3	3	0	0	0	0	0	8	46.0	41.4
4:00 AM	0	0	0	0	1	4	1	0	0	0	0	0	0	6	39.3	37.2
5:00 AM	0	0	0	1	0	11	13	4	1	0	0	0	0	30	44.7	40.2
6:00 AM	0	0	0	0	3	6	37	17	2	2	0	0	0	67	46.0	43.1
7:00 AM	0	0	0	2	5	34	62	17	2	0	1	0	0	123	45.0	41.0
8:00 AM	0	0	0	0	3	49	76	17	2	0	0	0	0	147	44.0	40.8
9:00 AM	0	0	0	3	11	40	49	13	2	0	0	0	0	118	44.0	39.8
10:00 AM	0	0	0	1	6	62	49	17	1	0	0	0	0	136	44.0	39.9
11:00 AM	0	0	0	0	8	40	60	10	2	0	0	0	0	120	44.0	40.4
12:00 PM	0	0	0	3	10	53	59	7	3	1	0	0	0	136	43.0	39.6
1:00 PM	0	0	0	1	6	43	65	8	0	0	0	0	0	123	43.0	39.9
2:00 PM	0	0	0	0	11	72	92	26	1	0	0	0	0	202	44.0	40.5
3:00 PM	0	0	0	4	18	77	135	43	2	3	0	0	0	282	45.0	40.7
4:00 PM	0	0	0	0	16	135	165	37	1	2	0	0	0	356	44.0	40.4
5:00 PM	0	0	0	1	11	73	121	26	2	0	1	0	0	235	44.0	40.8
6:00 PM	0	0	0	0	2	43	63	19	5	1	0	1	0	134	45.0	41.4
7:00 PM	0	0	0	1	16	48	49	17	1	0	0	1	0	133	44.0	39.7
8:00 PM	1	0	1	2	10	31	29	6	0	0	0	0	0	80	42.2	38.2
9:00 PM	0	0	0	0	3	15	12	10	1	0	0	0	0	41	47.0	41.0
10:00 PM	0	0	0	1	2	10	5	5	1	0	1	1	0	26	49.0	41.8
11:00 PM	0	0	0	0	0	7	10	8	1	0	0	0	0	26	48.0	42.8
Total	1	0	1	21	143	861	1155	313	31	9	3	3	0	2541	44.0	40.5
Percent	0.04%	0.00%	0.04%	0.83%	5.63%	33.88%	45.45%	12.32%	1.22%	0.35%	0.12%	0.12%	0.00%			

AM Peak	9:00 AM	9:00 AM	10:00 AM	8:00 AM	6:00 AM	6:00 AM	6:00 AM	7:00 AM	8:00 AM					
Volume	0	0	0	3	11	62	76	17	2	2	1	0	0	147
PM Peak	8:00 PM	8:00 PM	3:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	6:00 PM	3:00 PM	5:00 PM	6:00 PM	4:00 PM		
Volume	1	0	1	4	18	135	165	43	5	3	1	1	0	356

15th Percentile:	37.0 MPH	Average Speed:	40.5 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	40.0 MPH	10 MPH Pace:	36 to 45 MPH	Number of Vehicles > 40 MPH:	1253
85th Percentile:	44.0 MPH	Number in Pace:	2058	Percent of Vehicles > 40 MPH:	49.3%
95th Percentile:	47.0 MPH	Percent in Pace:	81.0%		



Leominster-Shirley Road  
 east of Reservoir Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00



PDI File #: 217953 ATR-A

Count Date  
 Thursday, May 27, 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	2	10	1	2	2	0	0	0	0	17	46.6	39.6
1:00 AM	0	0	0	0	0	2	2	1	0	0	0	0	0	5	44.0	41.0
2:00 AM	0	0	0	0	1	3	1	2	1	0	0	0	0	8	45.0	40.6
3:00 AM	0	0	0	1	1	3	5	6	0	0	0	0	0	16	45.8	41.1
4:00 AM	0	0	0	0	2	9	10	2	0	0	0	0	0	23	43.7	39.6
5:00 AM	0	0	0	1	3	16	37	19	4	1	0	0	0	81	46.0	42.0
6:00 AM	0	0	0	0	6	27	108	69	7	2	0	0	0	219	46.0	43.0
7:00 AM	0	0	0	2	14	56	139	91	21	1	1	0	0	325	47.0	42.6
8:00 AM	0	0	0	2	7	83	166	70	14	2	0	0	0	344	46.0	41.9
9:00 AM	1	0	0	3	14	63	100	29	8	0	0	0	0	218	45.0	40.6
10:00 AM	0	0	1	2	13	84	101	43	2	1	0	0	0	247	45.0	40.6
11:00 AM	0	0	2	0	12	58	110	35	5	0	0	0	0	222	45.0	41.1
12:00 PM	0	2	2	4	17	84	113	34	8	1	0	0	0	265	45.0	40.2
1:00 PM	0	0	1	2	12	82	114	40	6	0	0	0	0	257	45.0	40.7
2:00 PM	0	0	0	0	18	117	152	54	4	0	0	0	0	345	45.0	40.8
3:00 PM	0	0	0	6	20	118	192	84	10	5	0	0	0	435	45.0	41.3
4:00 PM	1	0	0	3	20	166	232	72	8	3	1	1	0	507	45.0	41.0
5:00 PM	0	0	1	1	14	99	185	78	10	1	2	0	0	391	46.0	41.7
6:00 PM	0	0	0	0	2	64	123	58	13	2	0	1	0	263	47.0	42.4
7:00 PM	0	0	0	1	20	73	96	48	4	0	0	2	0	244	46.0	41.0
8:00 PM	1	0	3	2	15	64	77	26	2	1	0	0	0	191	44.5	39.8
9:00 PM	0	0	0	0	10	21	34	19	7	2	1	0	0	94	48.0	42.2
10:00 PM	0	0	0	1	5	18	20	10	2	2	1	1	0	60	48.2	41.9
11:00 PM	0	0	0	0	0	7	16	13	3	1	0	0	0	40	48.0	43.8
<b>Total</b>	<b>3</b>	<b>2</b>	<b>10</b>	<b>31</b>	<b>228</b>	<b>1327</b>	<b>2134</b>	<b>905</b>	<b>141</b>	<b>25</b>	<b>6</b>	<b>5</b>	<b>0</b>	<b>4817</b>	<b>46.0</b>	<b>41.3</b>
<b>Percent</b>	<b>0.06%</b>	<b>0.04%</b>	<b>0.21%</b>	<b>0.64%</b>	<b>4.73%</b>	<b>27.55%</b>	<b>44.30%</b>	<b>18.79%</b>	<b>2.93%</b>	<b>0.52%</b>	<b>0.12%</b>	<b>0.10%</b>	<b>0.00%</b>			

<b>AM Peak</b>	9:00 AM		11:00 AM	9:00 AM	7:00 AM	10:00 AM	8:00 AM	7:00 AM	7:00 AM	6:00 AM	7:00 AM			8:00 AM
<b>Volume</b>	1	0	2	3	14	84	166	91	21	2	1	0	0	344
<b>PM Peak</b>	4:00 PM	12:00 PM	8:00 PM	3:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	6:00 PM	3:00 PM	5:00 PM	7:00 PM		4:00 PM
<b>Volume</b>	1	2	3	6	20	166	232	84	13	5	2	2	0	507

15th Percentile:	37.0 MPH	Average Speed:	41.3 MPH	Posted Speed Limit:	40 MPH
50th Percentile:	41.0 MPH	10 MPH Pace:	37 to 46 MPH	Number of Vehicles > 40 MPH:	2780
85th Percentile:	46.0 MPH	Number in Pace:	3711	Percent of Vehicles > 40 MPH:	57.7%
95th Percentile:	49.0 MPH	Percent in Pace:	77.0%		

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:00 AM	16	0	2	0	18	0	0	0	0	0	1	0	20	0	21	48	0	10	0	58	97
7:15 AM	19	0	10	0	29	0	0	0	0	0	0	0	31	0	31	45	0	2	0	47	107
7:30 AM	29	0	8	0	37	0	0	0	0	0	0	0	27	0	27	48	0	10	0	58	122
7:45 AM	22	0	2	0	24	0	0	0	0	0	3	0	50	0	53	43	0	10	0	53	130
<b>Total</b>	86	0	22	0	108	0	0	0	0	0	4	0	128	0	132	184	0	32	0	216	456
8:00 AM	20	0	3	0	23	0	0	0	0	0	2	0	31	0	33	49	0	9	0	58	114
8:15 AM	27	0	4	0	31	0	0	0	0	0	1	0	28	0	29	67	0	9	0	76	136
8:30 AM	19	0	1	0	20	0	0	0	0	0	1	0	45	0	46	45	0	13	0	58	124
8:45 AM	30	0	2	0	32	0	0	0	0	0	1	0	44	0	45	35	0	10	0	45	122
<b>Total</b>	96	0	10	0	106	0	0	0	0	0	5	0	148	0	153	196	0	41	0	237	496
Grand Total	182	0	32	0	214	0	0	0	0	0	9	0	276	0	285	380	0	73	0	453	952
Approach %	85.0	0.0	15.0	0.0		0.0	0.0	0.0	0.0		3.2	0.0	96.8	0.0		83.9	0.0	16.1	0.0		
Total %	19.1	0.0	3.4	0.0	22.5	0.0	0.0	0.0	0.0	0.0	0.9	0.0	29.0	0.0	29.9	39.9	0.0	7.7	0.0	47.6	
Exiting Leg Total	73					41					380					458					952
Cars	173	0	30	0	203	0	0	0	0	0	7	0	261	0	268	351	0	58	0	409	880
% Cars	95.1	0.0	93.8	0.0	94.9	0.0	0.0	0.0	0.0	0.0	77.8	0.0	94.6	0.0	94.0	92.4	0.0	79.5	0.0	90.3	92.4
Exiting Leg Total	58					37					351					434					880
Heavy Vehicles	9	0	2	0	11	0	0	0	0	0	2	0	15	0	17	29	0	15	0	44	72
% Heavy Vehicles	4.9	0.0	6.3	0.0	5.1	0.0	0.0	0.0	0.0	0.0	22.2	0.0	5.4	0.0	6.0	7.6	0.0	20.5	0.0	9.7	7.6
Exiting Leg Total	15					4					29					24					72

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

7:45 AM	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:45 AM	22	0	2	0	24	0	0	0	0	0	3	0	50	0	53	43	0	10	0	53	130
8:00 AM	20	0	3	0	23	0	0	0	0	0	2	0	31	0	33	49	0	9	0	58	114
8:15 AM	27	0	4	0	31	0	0	0	0	0	1	0	28	0	29	67	0	9	0	76	136
8:30 AM	19	0	1	0	20	0	0	0	0	0	1	0	45	0	46	45	0	13	0	58	124
Total Volume	88	0	10	0	98	0	0	0	0	0	7	0	154	0	161	204	0	41	0	245	504
% Approach Total	89.8	0.0	10.2	0.0		0.0	0.0	0.0	0.0		4.3	0.0	95.7	0.0		83.3	0.0	16.7	0.0		
PHF	0.815	0.000	0.625	0.000	0.790	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.770	0.000	0.759	0.761	0.000	0.788	0.000	0.806	0.926
Cars	86	0	9	0	95	0	0	0	0	0	6	0	147	0	153	188	0	37	0	225	473
Cars %	97.7	0.0	90.0	0.0	96.9	0.0	0.0	0.0	0.0	0.0	85.7	0.0	95.5	0.0	95.0	92.2	0.0	90.2	0.0	91.8	93.8
Heavy Vehicles	2	0	1	0	3	0	0	0	0	0	1	0	7	0	8	16	0	4	0	20	31
Heavy Vehicles %	2.3	0.0	10.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	14.3	0.0	4.5	0.0	5.0	7.8	0.0	9.8	0.0	8.2	6.2
Cars Enter Leg	86	0	9	0	95	0	0	0	0	0	6	0	147	0	153	188	0	37	0	225	473
Heavy Enter Leg	2	0	1	0	3	0	0	0	0	0	1	0	7	0	8	16	0	4	0	20	31
Total Entering Leg	88	0	10	0	98	0	0	0	0	0	7	0	154	0	161	204	0	41	0	245	504
Cars Exiting Leg	37					15					188					233					473
Heavy Exiting Leg	4					2					16					9					31
Total Exiting Leg	41					17					204					242					504

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Cars**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:00 AM	14	0	2	0	16	0	0	0	0	0	1	0	18	0	19	46	0	6	0	52	87
7:15 AM	18	0	10	0	28	0	0	0	0	0	0	0	29	0	29	42	0	1	0	43	100
7:30 AM	27	0	8	0	35	0	0	0	0	0	0	0	26	0	26	47	0	7	0	54	115
7:45 AM	22	0	1	0	23	0	0	0	0	0	2	0	49	0	51	40	0	10	0	50	124
<b>Total</b>	<b>81</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>102</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>122</b>	<b>0</b>	<b>125</b>	<b>175</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>199</b>	<b>426</b>
8:00 AM	18	0	3	0	21	0	0	0	0	0	2	0	28	0	30	44	0	8	0	52	103
8:15 AM	27	0	4	0	31	0	0	0	0	0	1	0	27	0	28	64	0	9	0	73	132
8:30 AM	19	0	1	0	20	0	0	0	0	0	1	0	43	0	44	40	0	10	0	50	114
8:45 AM	28	0	1	0	29	0	0	0	0	0	0	0	41	0	41	28	0	7	0	35	105
<b>Total</b>	<b>92</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>139</b>	<b>0</b>	<b>143</b>	<b>176</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>210</b>	<b>454</b>
Grand Total	173	0	30	0	203	0	0	0	0	0	7	0	261	0	268	351	0	58	0	409	880
Approach %	85.2	0.0	14.8	0.0		0.0	0.0	0.0	0.0		2.6	0.0	97.4	0.0		85.8	0.0	14.2	0.0		
Total %	19.7	0.0	3.4	0.0	23.1	0.0	0.0	0.0	0.0	0.0	0.8	0.0	29.7	0.0	30.5	39.9	0.0	6.6	0.0	46.5	
Exiting Leg Total	58					37					351					434					880

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:30 AM	27	0	8	0	35	0	0	0	0	0	0	0	26	0	26	47	0	7	0	54	115
7:45 AM	22	0	1	0	23	0	0	0	0	0	2	0	49	0	51	40	0	10	0	50	124
8:00 AM	18	0	3	0	21	0	0	0	0	0	2	0	28	0	30	44	0	8	0	52	103
8:15 AM	27	0	4	0	31	0	0	0	0	0	1	0	27	0	28	64	0	9	0	73	132
<b>Total Volume</b>	<b>94</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>110</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>130</b>	<b>0</b>	<b>135</b>	<b>195</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>229</b>	<b>474</b>
% Approach Total	85.5	0.0	14.5	0.0		0.0	0.0	0.0	0.0		3.7	0.0	96.3	0.0		85.2	0.0	14.8	0.0		
PHF	0.870	0.000	0.500	0.000	0.786	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.663	0.000	0.662	0.762	0.000	0.850	0.000	0.784	0.898
Entering Leg	94	0	16	0	110	0	0	0	0	0	5	0	130	0	135	195	0	34	0	229	474
Exiting Leg	34					21					195					224					474
<b>Total</b>	<b>144</b>					<b>21</b>					<b>330</b>					<b>453</b>					<b>948</b>

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	2	0	2	2	0	4	0	6	10
7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	3	0	1	0	4	7
7:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	1	0	3	0	4	7
7:45 AM	0	0	1	0	1	0	0	0	0	0	1	0	1	0	2	3	0	0	0	3	6
<b>Total</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>7</b>	<b>9</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>17</b>	<b>30</b>
8:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	3	0	3	5	0	1	0	6	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5	0	3	0	8	10
8:45 AM	2	0	1	0	3	0	0	0	0	0	1	0	3	0	4	7	0	3	0	10	17
<b>Total</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>10</b>	<b>20</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>27</b>	<b>42</b>
Grand Total	9	0	2	0	11	0	0	0	0	0	2	0	15	0	17	29	0	15	0	44	72
Approach %	81.8	0.0	18.2	0.0		0.0	0.0	0.0	0.0		11.8	0.0	88.2	0.0		65.9	0.0	34.1	0.0		
Total %	12.5	0.0	2.8	0.0	15.3	0.0	0.0	0.0	0.0	0.0	2.8	0.0	20.8	0.0	23.6	40.3	0.0	20.8	0.0	61.1	
Exiting Leg Total	15					4					29					24					72
Buses	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	0	0	0	4	5
% 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	6.7	0.0	5.9	13.8	0.0	0.0	0.0	9.1	6.9
Exiting Leg Total	0					0					4					1					5
Single-Unit Trucks	8	0	2	0	10	0	0	0	0	0	2	0	7	0	9	21	0	14	0	35	54
% Single-Unit	88.9	0.0	100.0	0.0	90.9	0.0	0.0	0.0	0.0	0.0	100.0	0.0	46.7	0.0	52.9	72.4	0.0	93.3	0.0	79.5	75.0
Exiting Leg Total	14					4					21					15					54
Articulated Trucks	1	0	0	0	1	0	0	0	0	0	0	0	7	0	7	4	0	1	0	5	13
% Articulated	11.1	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	0.0	41.2	13.8	0.0	6.7	0.0	11.4	18.1
Exiting Leg Total	1					0					4					8					13

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
8:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	3	0	3	5	0	1	0	6	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5	0	3	0	8	10
8:45 AM	2	0	1	0	3	0	0	0	0	0	1	0	3	0	4	7	0	3	0	10	17
<b>Total Volume</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>10</b>	<b>20</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>27</b>	<b>42</b>
% Approach Total	80.0	0.0	20.0	0.0		0.0	0.0	0.0	0.0		10.0	0.0	90.0	0.0		74.1	0.0	25.9	0.0		
PHF	0.500	0.000	0.250	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.625	0.714	0.000	0.583	0.000	0.675	0.618
Buses	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3
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	11.1	0.0	10.0	10.0	0.0	0.0	0.0	7.4	7.1
Single-Unit Trucks	4	0	1	0	5	0	0	0	0	0	1	0	5	0	6	16	0	7	0	23	34
Single-Unit %	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	55.6	0.0	60.0	80.0	0.0	100.0	0.0	85.2	81.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	5
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	30.0	10.0	0.0	0.0	0.0	7.4	11.9
Buses	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	3
Single-Unit Trucks	4	0	1	0	5	0	0	0	0	0	1	0	5	0	6	16	0	7	0	23	34
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	5
<b>Total Entering Leg</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>10</b>	<b>20</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>27</b>	<b>42</b>
Buses	0					0					2					1					3
Single-Unit Trucks	7					2					16					9					34
Articulated Trucks	0					0					2					3					5
<b>Total Exiting Leg</b>	<b>7</b>					<b>2</b>					<b>20</b>					<b>13</b>					<b>42</b>

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Buses**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total		
	from North					from Northeast					from East					from West							
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total			
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	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	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	2
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	2	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	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	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	2	2
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2	3	3
<b>Grand Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	0	0	0	0	4	5	5
<b>Approach %</b>	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total %</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	20.0	80.0	0.0	0.0	0.0	0.0	80.0	80.0	80.0
<b>Exiting Leg Total</b>	0					0					4					1					5		

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total		
	from North					from Northeast					from East					from West							
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total			
7:15 AM	0	0	0	0	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	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	2	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
<b>Total Volume</b>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2	3	3
<b>% Approach Total</b>	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>PHF</b>	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	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.375	0.375
<b>Entering Leg</b>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	2	3	3
<b>Exiting Leg</b>	0					0					2					1					3		
<b>Total</b>	0					0					3					3					6		

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Single-Unit Trucks**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	4	0	6	7
7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	2	0	1	0	3	6
7:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4
7:45 AM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	3
<b>Total</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>12</b>	<b>20</b>
8:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	2	0	2	4	0	1	0	5	9
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5	0	3	0	8	10
8:45 AM	2	0	1	0	3	0	0	0	0	0	1	0	1	0	2	5	0	3	0	8	13
<b>Total</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>16</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>23</b>	<b>34</b>
Grand Total	8	0	2	0	10	0	0	0	0	0	2	0	7	0	9	21	0	14	0	35	54
Approach %	80.0	0.0	20.0	0.0		0.0	0.0	0.0	0.0		22.2	0.0	77.8	0.0		60.0	0.0	40.0	0.0		
Total %	14.8	0.0	3.7	0.0	18.5	0.0	0.0	0.0	0.0	0.0	3.7	0.0	13.0	0.0	16.7	38.9	0.0	25.9	0.0	64.8	
Exiting Leg Total	14					4					21					15					54

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
8:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	2	0	2	4	0	1	0	5	9
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5	0	3	0	8	10
8:45 AM	2	0	1	0	3	0	0	0	0	0	1	0	1	0	2	5	0	3	0	8	13
Total Volume	4	0	1	0	5	0	0	0	0	0	1	0	5	0	6	16	0	7	0	23	34
% Approach Total	80.0	0.0	20.0	0.0		0.0	0.0	0.0	0.0		16.7	0.0	83.3	0.0		69.6	0.0	30.4	0.0		
PHF	0.500	0.000	0.250	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.625	0.000	0.750	0.800	0.000	0.583	0.000	0.719	0.654
Entering Leg	4	0	1	0	5	0	0	0	0	0	1	0	5	0	6	16	0	7	0	23	34
Exiting Leg	7					2					16					9					34
<b>Total</b>	<b>12</b>					<b>2</b>					<b>22</b>					<b>32</b>					<b>68</b>

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Articulated Trucks**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
<b>Total</b>	1	0	0	0	1	0	0	0	0	0	0	0	4	0	4	2	0	1	0	3	8
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
8:30 AM	0	0	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	2	0	2	0	0	0	0	0	2
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	5
<b>Grand Total</b>	1	0	0	0	1	0	0	0	0	0	0	0	7	0	7	4	0	1	0	5	13
Approach %	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		80.0	0.0	20.0	0.0		
Total %	7.7	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.8	0.0	53.8	30.8	0.0	7.7	0.0	38.5	
Exiting Leg Total	1					0					4					8					13

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
7:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
<b>Total Volume</b>	1	0	0	0	1	0	0	0	0	0	0	0	4	0	4	2	0	1	0	3	8
<b>% Approach Total</b>	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		66.7	0.0	33.3	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500	0.000	0.250	0.000	0.375	0.667
Entering Leg	1	0	0	0	1	0	0	0	0	0	0	0	4	0	4	2	0	1	0	3	8
Exiting Leg	1					0					2					5					8
<b>Total</b>	2					0					6					8					16

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



157 Washington Street, Suite 2  
 Hudson, MA 01749  
 508-875-0100 datarequests@pdilc.com

**Bicycles (on Roadway and Crosswalks)**

	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total	
	from North								from Northeast								from East								from West									
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Beer Right	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-NB	Total		Thru	Beer Left	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	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	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	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	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	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	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	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	
Grand 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	
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		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	0.0	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								0	

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

7:00 AM	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total
	from North								from Northeast								from East								from West								
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Beer Right	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-NB	Total		Thru	Beer Left	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	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	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	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	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	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		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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0								0								0								0								0
Total	0								0								0								0								0



PDI File #: **217953 A**  
 Location: **N: Reservoir Road NE: Reservoir Road**  
 Location: **E: Leominster Shirley Road W: Leominster Shirley Road**  
 City, State: **Lunenburg, MA**  
 Client: **GPI/ H. Monticup**  
 Site Code: **NEX-2021120.00**  
 Count Date: **Thursday, May 27, 2021**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**  
 Class:



**Pedestrians**

	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total						
	from North								from Northeast								from East								from West														
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Beer Right	Hard Left	U-Turn	CW-SEB	CW-NWB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-WB	Total		Thru	Beer Left	Left	U-Turn	CW-WB	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	0	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	0	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	0	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	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	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	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	0	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	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	0
Grand 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	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	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	0
Exiting Leg Total	0								0								0								0								0						

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

	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total						
	from North								from Northeast								from East								from West														
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Beer Right	Hard Left	U-Turn	CW-SEB	CW-NWB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-WB	Total		Thru	Beer Left	Left	U-Turn	CW-WB	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	0	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	0	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	0	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	0	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	0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0								0								0								0								0						
Total	0								0								0								0								0						

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	18	0	3	0	21	0	0	0	0	0	6	0	95	0	101	25	0	32	0	57	179
4:15 PM	15	0	1	0	16	0	0	0	0	0	4	0	108	0	112	32	0	22	0	54	182
4:30 PM	19	0	1	0	20	0	0	0	0	0	2	0	69	0	71	39	0	26	0	65	156
4:45 PM	17	0	1	0	18	0	0	0	0	0	4	0	88	0	92	43	0	32	0	75	185
<b>Total</b>	69	0	6	0	75	0	0	0	0	0	16	0	360	0	376	139	0	112	0	251	702
5:00 PM	23	1	0	0	24	0	0	0	0	0	6	0	56	0	62	39	0	34	0	73	159
5:15 PM	23	0	0	0	23	0	0	0	0	0	4	0	65	0	69	45	0	28	0	73	165
5:30 PM	16	0	1	0	17	0	0	0	0	0	3	1	57	0	61	37	0	28	0	65	143
5:45 PM	19	1	4	0	24	0	0	0	0	0	4	0	47	0	51	32	0	19	0	51	126
<b>Total</b>	81	2	5	0	88	0	0	0	0	0	17	1	225	0	243	153	0	109	0	262	593
Grand Total	150	2	11	0	163	0	0	0	0	0	33	1	585	0	619	292	0	221	0	513	1295
Approach %	92.0	1.2	6.7	0.0		0.0	0.0	0.0	0.0		5.3	0.2	94.5	0.0		56.9	0.0	43.1	0.0		
Total %	11.6	0.2	0.8	0.0	12.6	0.0	0.0	0.0	0.0	0.0	2.5	0.1	45.2	0.0	47.8	22.5	0.0	17.1	0.0	39.6	
Exiting Leg Total	222					44					294					735					1295
Cars	144	2	11	0	157	0	0	0	0	0	32	1	571	0	604	283	0	219	0	502	1263
% Cars	96.0	100.0	100.0	0.0	96.3	0.0	0.0	0.0	0.0	0.0	97.0	100.0	97.6	0.0	97.6	96.9	0.0	99.1	0.0	97.9	97.5
Exiting Leg Total	220					43					285					715					1263
Heavy Vehicles	6	0	0	0	6	0	0	0	0	0	1	0	14	0	15	9	0	2	0	11	32
% Heavy Vehicles	4.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	3.0	0.0	2.4	0.0	2.4	3.1	0.0	0.9	0.0	2.1	2.5
Exiting Leg Total	2					1					9					20					32

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

4:00 PM	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	18	0	3	0	21	0	0	0	0	0	6	0	95	0	101	25	0	32	0	57	179
4:15 PM	15	0	1	0	16	0	0	0	0	0	4	0	108	0	112	32	0	22	0	54	182
4:30 PM	19	0	1	0	20	0	0	0	0	0	2	0	69	0	71	39	0	26	0	65	156
4:45 PM	17	0	1	0	18	0	0	0	0	0	4	0	88	0	92	43	0	32	0	75	185
Total Volume	69	0	6	0	75	0	0	0	0	0	16	0	360	0	376	139	0	112	0	251	702
% Approach Total	92.0	0.0	8.0	0.0		0.0	0.0	0.0	0.0		4.3	0.0	95.7	0.0		55.4	0.0	44.6	0.0		
PHF	0.908	0.000	0.500	0.000	0.893	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.833	0.000	0.839	0.808	0.000	0.875	0.000	0.837	0.949
Cars	65	0	6	0	71	0	0	0	0	0	15	0	350	0	365	134	0	112	0	246	682
Cars %	94.2	0.0	100.0	0.0	94.7	0.0	0.0	0.0	0.0	0.0	93.8	0.0	97.2	0.0	97.1	96.4	0.0	100.0	0.0	98.0	97.2
Heavy Vehicles	4	0	0	0	4	0	0	0	0	0	1	0	10	0	11	5	0	0	0	5	20
Heavy Vehicles %	5.8	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	6.3	0.0	2.8	0.0	2.9	3.6	0.0	0.0	0.0	2.0	2.8
Cars Enter Leg	65	0	6	0	71	0	0	0	0	0	15	0	350	0	365	134	0	112	0	246	682
Heavy Enter Leg	4	0	0	0	4	0	0	0	0	0	1	0	10	0	11	5	0	0	0	5	20
Total Entering Leg	69	0	6	0	75	0	0	0	0	0	16	0	360	0	376	139	0	112	0	251	702
Cars Exiting Leg	112					21					134					415					682
Heavy Exiting Leg	0					1					5					14					20
Total Exiting Leg	112					22					139					429					702

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Cars**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	15	0	3	0	18	0	0	0	0	0	5	0	92	0	97	23	0	32	0	55	170
4:15 PM	15	0	1	0	16	0	0	0	0	0	4	0	105	0	109	31	0	22	0	53	178
4:30 PM	18	0	1	0	19	0	0	0	0	0	2	0	66	0	68	37	0	26	0	63	150
4:45 PM	17	0	1	0	18	0	0	0	0	0	4	0	87	0	91	43	0	32	0	75	184
<b>Total</b>	65	0	6	0	71	0	0	0	0	0	15	0	350	0	365	134	0	112	0	246	682
5:00 PM	22	1	0	0	23	0	0	0	0	0	6	0	55	0	61	38	0	34	0	72	156
5:15 PM	23	0	0	0	23	0	0	0	0	0	4	0	64	0	68	45	0	27	0	72	163
5:30 PM	15	0	1	0	16	0	0	0	0	0	3	1	56	0	60	34	0	28	0	62	138
5:45 PM	19	1	4	0	24	0	0	0	0	0	4	0	46	0	50	32	0	18	0	50	124
<b>Total</b>	79	2	5	0	86	0	0	0	0	0	17	1	221	0	239	149	0	107	0	256	581
<b>Grand Total</b>	144	2	11	0	157	0	0	0	0	0	32	1	571	0	604	283	0	219	0	502	1263
Approach %	91.7	1.3	7.0	0.0		0.0	0.0	0.0	0.0		5.3	0.2	94.5	0.0		56.4	0.0	43.6	0.0		
Total %	11.4	0.2	0.9	0.0	12.4	0.0	0.0	0.0	0.0	0.0	2.5	0.1	45.2	0.0	47.8	22.4	0.0	17.3	0.0	39.7	
Exiting Leg Total	220					43					285					715					1263

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

4:00 PM	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	15	0	3	0	18	0	0	0	0	0	5	0	92	0	97	23	0	32	0	55	170
4:15 PM	15	0	1	0	16	0	0	0	0	0	4	0	105	0	109	31	0	22	0	53	178
4:30 PM	18	0	1	0	19	0	0	0	0	0	2	0	66	0	68	37	0	26	0	63	150
4:45 PM	17	0	1	0	18	0	0	0	0	0	4	0	87	0	91	43	0	32	0	75	184
<b>Total Volume</b>	65	0	6	0	71	0	0	0	0	0	15	0	350	0	365	134	0	112	0	246	682
<b>% Approach Total</b>	91.5	0.0	8.5	0.0		0.0	0.0	0.0	0.0		4.1	0.0	95.9	0.0		54.5	0.0	45.5	0.0		
<b>PHF</b>	0.903	0.000	0.500	0.000	0.934	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.833	0.000	0.837	0.779	0.000	0.875	0.000	0.820	0.927
Entering Leg	65	0	6	0	71	0	0	0	0	0	15	0	350	0	365	134	0	112	0	246	682
Exiting Leg	112					21					134					415					682
<b>Total</b>	183					21					499					661					1364

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	3	0	0	0	3	0	0	0	0	0	1	0	3	0	4	2	0	0	0	2	9
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	4
4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	6
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
<b>Total</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>11</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>20</b>
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>12</b>
<b>Grand Total</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>15</b>	<b>9</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>32</b>
<b>Approach %</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>6.7</b>	<b>0.0</b>	<b>93.3</b>	<b>0.0</b>	<b>0.0</b>	<b>81.8</b>	<b>0.0</b>	<b>18.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total %</b>	<b>18.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>18.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.1</b>	<b>0.0</b>	<b>43.8</b>	<b>0.0</b>	<b>46.9</b>	<b>28.1</b>	<b>0.0</b>	<b>6.3</b>	<b>0.0</b>	<b>34.4</b>	<b>0.0</b>
<b>Exiting Leg Total</b>	<b>2</b>					<b>1</b>					<b>9</b>					<b>20</b>					<b>32</b>
<b>Buses</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% Buses</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>7.1</b>	<b>0.0</b>	<b>6.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Exiting Leg Total</b>	<b>0</b>					<b>0</b>					<b>0</b>					<b>1</b>					<b>1</b>
<b>Single-Unit Trucks</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>12</b>	<b>7</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>9</b>	<b>26</b>
<b>% Single-Unit</b>	<b>83.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>83.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.0</b>	<b>78.6</b>	<b>0.0</b>	<b>80.0</b>	<b>77.8</b>	<b>0.0</b>	<b>100.0</b>	<b>0.0</b>	<b>81.8</b>	<b>81.3</b>
<b>Exiting Leg Total</b>	<b>2</b>					<b>1</b>					<b>7</b>					<b>16</b>					<b>26</b>
<b>Articulated Trucks</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>5</b>
<b>% Articulated</b>	<b>16.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>16.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>14.3</b>	<b>0.0</b>	<b>13.3</b>	<b>22.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>18.2</b>	<b>15.6</b>
<b>Exiting Leg Total</b>	<b>0</b>					<b>0</b>					<b>2</b>					<b>3</b>					<b>5</b>

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	3	0	0	0	3	0	0	0	0	0	1	0	3	0	4	2	0	0	0	2	9
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	4
4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	6
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
<b>Total Volume</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>11</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>20</b>
<b>% Approach Total</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>9.1</b>	<b>0.0</b>	<b>90.9</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>PHF</b>	<b>0.333</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.333</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.250</b>	<b>0.000</b>	<b>0.833</b>	<b>0.000</b>	<b>0.688</b>	<b>0.625</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.625</b>	<b>0.556</b>
<b>Buses</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Buses %</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>10.0</b>	<b>0.0</b>	<b>9.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Single-Unit Trucks</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>17</b>
<b>Single-Unit %</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>100.0</b>	<b>0.0</b>	<b>80.0</b>	<b>0.0</b>	<b>81.8</b>	<b>80.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>80.0</b>	<b>85.0</b>
<b>Articulated Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>
<b>Articulated %</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>10.0</b>	<b>0.0</b>	<b>9.1</b>	<b>20.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>20.0</b>	<b>10.0</b>
<b>Buses</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Single-Unit Trucks</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>17</b>
<b>Articulated Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>
<b>Total Entering Leg</b>	<b>4</b>					<b>0</b>					<b>11</b>					<b>5</b>					<b>20</b>
<b>Buses</b>	<b>0</b>					<b>0</b>					<b>0</b>					<b>0</b>					<b>0</b>
<b>Single-Unit Trucks</b>	<b>0</b>					<b>1</b>					<b>4</b>					<b>12</b>					<b>17</b>
<b>Articulated Trucks</b>	<b>0</b>					<b>0</b>					<b>1</b>					<b>1</b>					<b>2</b>
<b>Total Exiting Leg</b>	<b>0</b>					<b>1</b>					<b>5</b>					<b>14</b>					<b>20</b>

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Buses**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total					
	from North					from Northeast					from East					from West										
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	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	100.0	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	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					0					1					1					

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total					
	from North					from Northeast					from East					from West										
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	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	100.0	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	0.250	0.000	0.250	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	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	0					0					0					1					1					
Total	0					0					1					1					2					

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Single-Unit Trucks**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	3	0	0	0	3	0	0	0	0	0	1	0	2	0	3	1	0	0	0	1	7
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3
4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	6
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
<b>Total</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>17</b>
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	2
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>9</b>
<b>Grand Total</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>12</b>	<b>7</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>9</b>	<b>26</b>
Approach %	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		8.3	0.0	91.7	0.0		77.8	0.0	22.2	0.0		
Total %	19.2	0.0	0.0	0.0	19.2	0.0	0.0	0.0	0.0	0.0	3.8	0.0	42.3	0.0	46.2	26.9	0.0	7.7	0.0	34.6	
Exiting Leg Total	2					1					7					16					26

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	3	0	0	0	3	0	0	0	0	0	1	0	2	0	3	1	0	0	0	1	7
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	3
4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	6
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
<b>Total Volume</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>17</b>
% Approach Total	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		11.1	0.0	88.9	0.0		100.0	0.0	0.0	0.0		
PHF	0.333	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.667	0.000	0.750	0.500	0.000	0.000	0.000	0.500	0.607
Entering Leg	4					0					1					4					17
Exiting Leg	0					1					4					12					17
<b>Total</b>	<b>4</b>					<b>1</b>					<b>13</b>					<b>16</b>					<b>34</b>

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Articulated Trucks**

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
4:15 PM	0	0	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	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
5:00 PM	0	0	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	0	0
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	3
<b>Grand Total</b>	1	0	0	0	1	0	0	0	0	0	0	0	2	0	2	2	0	0	0	2	5
Approach %	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		
Total %	20.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	40.0	40.0	0.0	0.0	0.0	40.0	
Exiting Leg Total	0					0					2					3					5

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

	Reservoir Road					Reservoir Road					Leominster Shirley Road					Leominster Shirley Road					Total
	from North					from Northeast					from East					from West					
	Right	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Hard Left	U-Turn	Total	Hard Right	Right	Thru	U-Turn	Total	Thru	Bear Left	Left	U-Turn	Total	
4:45 PM	0	0	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	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	3
<b>Total Volume</b>	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	3
% Approach Total	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.250
Entering Leg	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	3
Exiting Leg	0					0					1					2					3
<b>Total</b>	1					0					2					3					6

PDI File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



PRECISION  
 DATA  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 508-875-0100 datarequests@pdillc.com

**Bicycles (on Roadway and Crosswalks)**

	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total
	from North								from Northeast								from East								from West								
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Beer Right	Hard Left	U-Turn	CW-SEB	CW-NWB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-NB	Total		Thru	Beer Left	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	1	0	0	0	0	0	0	0	0	0	0	0	1	1	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	0	2	3			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	2	2			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	2	2			
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	5			
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	100.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	20.0					80.0	0.0	0.0	0.0	80.0		
Exiting Leg Total	0								0								4								1								5

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

	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total
	from North								from Northeast								from East								from West								
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Beer Right	Hard Left	U-Turn	CW-SEB	CW-NWB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-NB	Total		Thru	Beer Left	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	1	0	0	0	0	0	0	0	0	0	0	1	1		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	2	3				
% 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	100.0	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	0.000	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				0.500	0.000	0.000	0.000	0.000	0.500		
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	3					
Exiting Leg	0								0								2								1								3
Total	0								0								3								3								6



PDF File #: 217953 A  
 Location: N: Reservoir Road NE: Reservoir Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Pedestrians**

	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total		
	from North								from Northeast								from East								from West										
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Hard Left	Hard Right	U-Turn	CW-SEB	CW-NWB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-WB	Total		Thru	Beer Left	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	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	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	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	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	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	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	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
Grand 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
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
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
Exiting Leg Total	0								0								0								0								0		

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

	Reservoir Road								Reservoir Road								Leominster Shirley Road								Leominster Shirley Road								Total			
	from North								from Northeast								from East								from West											
	Right	Left	Hard Left	U-Turn	CW-EB	CW-WB	Total		Hard Right	Hard Left	Hard Right	U-Turn	CW-SEB	CW-NWB	Total		Hard Right	Right	Thru	U-Turn	CW-SB	CW-WB	Total		Thru	Beer Left	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	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	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	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	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	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	0.0	0.0	0.0	0.0	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0								0								0								0								0			
Total	0								0								0								0								0			

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	22	18	0	40	24	0	18	0	42	68	41	0	2	111	193
7:15 AM	1	0	0	0	1	0	34	27	0	61	13	1	25	0	39	50	43	0	1	94	195
7:30 AM	4	0	0	0	4	0	43	28	0	71	24	0	21	0	45	84	45	3	2	134	254
7:45 AM	0	0	0	0	0	0	51	22	0	73	23	0	22	0	45	53	39	0	1	93	211
<b>Total</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>150</b>	<b>95</b>	<b>0</b>	<b>245</b>	<b>84</b>	<b>1</b>	<b>86</b>	<b>0</b>	<b>171</b>	<b>255</b>	<b>168</b>	<b>3</b>	<b>6</b>	<b>432</b>	<b>853</b>
8:00 AM	1	0	0	0	1	0	41	19	0	60	21	0	18	0	39	51	48	1	1	101	201
8:15 AM	0	0	0	0	0	0	41	21	0	62	44	0	32	0	76	48	48	0	2	98	236
8:30 AM	1	1	0	0	2	1	51	14	0	66	28	0	26	0	54	46	35	1	0	82	204
8:45 AM	0	0	0	0	0	0	51	33	0	84	22	0	22	0	44	44	29	0	0	73	201
<b>Total</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>184</b>	<b>87</b>	<b>0</b>	<b>272</b>	<b>115</b>	<b>0</b>	<b>98</b>	<b>0</b>	<b>213</b>	<b>189</b>	<b>160</b>	<b>2</b>	<b>3</b>	<b>354</b>	<b>842</b>
Grand Total	7	1	0	0	8	1	334	182	0	517	199	1	184	0	384	444	328	5	9	786	1695
Approach %	87.5	12.5	0.0	0.0		0.2	64.6	35.2	0.0		51.8	0.3	47.9	0.0		56.5	41.7	0.6	1.1		
Total %	0.4	0.1	0.0	0.0	0.5	0.1	19.7	10.7	0.0	30.5	11.7	0.1	10.9	0.0	22.7	26.2	19.4	0.3	0.5	46.4	
Exiting Leg Total	7					527					627					534					1695
Cars	5	0	0	0	5	0	299	136	0	435	149	1	165	0	315	421	295	4	8	728	1483
% Cars	71.4	0.0	0.0	0.0	62.5	0.0	89.5	74.7	0.0	84.1	74.9	100.0	89.7	0.0	82.0	94.8	89.9	80.0	88.9	92.6	87.5
Exiting Leg Total	5					444					557					477					1483
Heavy Vehicles	2	1	0	0	3	1	35	46	0	82	50	0	19	0	69	23	33	1	1	58	212
% Heavy Vehicles	28.6	100.0	0.0	0.0	37.5	100.0	10.5	25.3	0.0	15.9	25.1	0.0	10.3	0.0	18.0	5.2	10.1	20.0	11.1	7.4	12.5
Exiting Leg Total	2					83					70					57					212

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

7:30 AM	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	4	0	0	0	4	0	43	28	0	71	24	0	21	0	45	84	45	3	2	134	254
7:45 AM	0	0	0	0	0	0	51	22	0	73	23	0	22	0	45	53	39	0	1	93	211
8:00 AM	1	0	0	0	1	0	41	19	0	60	21	0	18	0	39	51	48	1	1	101	201
8:15 AM	0	0	0	0	0	0	41	21	0	62	44	0	32	0	76	48	48	0	2	98	236
Total Volume	5	0	0	0	5	0	176	90	0	266	112	0	93	0	205	236	180	4	6	426	902
% Approach Total	100.0	0.0	0.0	0.0		0.0	66.2	33.8	0.0		54.6	0.0	45.4	0.0		55.4	42.3	0.9	1.4		
PHF	0.313	0.000	0.000	0.000	0.313	0.000	0.863	0.804	0.000	0.911	0.636	0.000	0.727	0.000	0.674	0.702	0.938	0.333	0.750	0.795	0.888
Cars	4	0	0	0	4	0	158	71	0	229	89	0	85	0	174	226	164	3	5	398	805
Cars %	80.0	0.0	0.0	0.0	80.0	0.0	89.8	78.9	0.0	86.1	79.5	0.0	91.4	0.0	84.9	95.8	91.1	75.0	83.3	93.4	89.2
Heavy Vehicles	1	0	0	0	1	0	18	19	0	37	23	0	8	0	31	10	16	1	1	28	97
Heavy Vehicles %	20.0	0.0	0.0	0.0	20.0	0.0	10.2	21.1	0.0	13.9	20.5	0.0	8.6	0.0	15.1	4.2	8.9	25.0	16.7	6.6	10.8
Cars Enter Leg	4	0	0	0	4	0	158	71	0	229	89	0	85	0	174	226	164	3	5	398	805
Heavy Enter Leg	1	0	0	0	1	0	18	19	0	37	23	0	8	0	31	10	16	1	1	28	97
Total Entering Leg	5	0	0	0	5	0	176	90	0	266	112	0	93	0	205	236	180	4	6	426	902
Cars Exiting Leg	3					253					297					252					805
Heavy Exiting Leg	1					39					29					28					97
Total Exiting Leg	4					292					326					280					902

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Cars**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	20	10	0	30	16	0	16	0	32	65	38	0	2	105	167
7:15 AM	1	0	0	0	1	0	29	20	0	49	8	1	25	0	34	48	39	0	1	88	172
7:30 AM	4	0	0	0	4	0	37	21	0	58	18	0	19	0	37	81	44	3	2	130	229
7:45 AM	0	0	0	0	0	0	50	17	0	67	20	0	20	0	40	50	36	0	1	87	194
<b>Total</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>136</b>	<b>68</b>	<b>0</b>	<b>204</b>	<b>62</b>	<b>1</b>	<b>80</b>	<b>0</b>	<b>143</b>	<b>244</b>	<b>157</b>	<b>3</b>	<b>6</b>	<b>410</b>	<b>762</b>
8:00 AM	0	0	0	0	0	0	36	14	0	50	15	0	15	0	30	50	42	0	1	93	173
8:15 AM	0	0	0	0	0	0	35	19	0	54	36	0	31	0	67	45	42	0	1	88	209
8:30 AM	0	0	0	0	0	0	47	12	0	59	22	0	23	0	45	43	29	1	0	73	177
8:45 AM	0	0	0	0	0	0	45	23	0	68	14	0	16	0	30	39	25	0	0	64	162
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>163</b>	<b>68</b>	<b>0</b>	<b>231</b>	<b>87</b>	<b>0</b>	<b>85</b>	<b>0</b>	<b>172</b>	<b>177</b>	<b>138</b>	<b>1</b>	<b>2</b>	<b>318</b>	<b>721</b>
<b>Grand Total</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>299</b>	<b>136</b>	<b>0</b>	<b>435</b>	<b>149</b>	<b>1</b>	<b>165</b>	<b>0</b>	<b>315</b>	<b>421</b>	<b>295</b>	<b>4</b>	<b>8</b>	<b>728</b>	<b>1483</b>
Approach %	100.0	0.0	0.0	0.0		0.0	68.7	31.3	0.0		47.3	0.3	52.4	0.0		57.8	40.5	0.5	1.1		
Total %	0.3	0.0	0.0	0.0	0.3	0.0	20.2	9.2	0.0	29.3	10.0	0.1	11.1	0.0	21.2	28.4	19.9	0.3	0.5	49.1	
Exiting Leg Total	5					444					557					477					1483

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

7:30 AM	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	4	0	0	0	4	0	37	21	0	58	18	0	19	0	37	81	44	3	2	130	229
7:45 AM	0	0	0	0	0	0	50	17	0	67	20	0	20	0	40	50	36	0	1	87	194
8:00 AM	0	0	0	0	0	0	36	14	0	50	15	0	15	0	30	50	42	0	1	93	173
8:15 AM	0	0	0	0	0	0	35	19	0	54	36	0	31	0	67	45	42	0	1	88	209
<b>Total Volume</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>158</b>	<b>71</b>	<b>0</b>	<b>229</b>	<b>89</b>	<b>0</b>	<b>85</b>	<b>0</b>	<b>174</b>	<b>226</b>	<b>164</b>	<b>3</b>	<b>5</b>	<b>398</b>	<b>805</b>
% Approach Total	100.0	0.0	0.0	0.0		0.0	69.0	31.0	0.0		51.1	0.0	48.9	0.0		56.8	41.2	0.8	1.3		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.790	0.845	0.000	0.854	0.618	0.000	0.685	0.000	0.649	0.698	0.932	0.250	0.625	0.765	0.879
Entering Leg	4	0	0	0	4	0	158	71	0	229	89	0	85	0	174	226	164	3	5	398	805
Exiting Leg	3					253					297					252					805
<b>Total</b>	<b>7</b>					<b>482</b>					<b>471</b>					<b>650</b>					<b>1610</b>

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	2	8	0	10	8	0	2	0	10	3	3	0	0	6	26
7:15 AM	0	0	0	0	0	0	5	7	0	12	5	0	0	0	5	2	4	0	0	6	23
7:30 AM	0	0	0	0	0	0	6	7	0	13	6	0	2	0	8	3	1	0	0	4	25
7:45 AM	0	0	0	0	0	0	1	5	0	6	3	0	2	0	5	3	3	0	0	6	17
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>27</b>	<b>0</b>	<b>41</b>	<b>22</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>28</b>	<b>11</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>91</b>
8:00 AM	1	0	0	0	1	0	5	5	0	10	6	0	3	0	9	1	6	1	0	8	28
8:15 AM	0	0	0	0	0	0	6	2	0	8	8	0	1	0	9	3	6	0	1	10	27
8:30 AM	1	1	0	0	2	1	4	2	0	7	6	0	3	0	9	3	6	0	0	9	27
8:45 AM	0	0	0	0	0	0	6	10	0	16	8	0	6	0	14	5	4	0	0	9	39
<b>Total</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>21</b>	<b>19</b>	<b>0</b>	<b>41</b>	<b>28</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>41</b>	<b>12</b>	<b>22</b>	<b>1</b>	<b>1</b>	<b>36</b>	<b>121</b>
Grand Total	2	1	0	0	3	1	35	46	0	82	50	0	19	0	69	23	33	1	1	58	212
Approach %	66.7	33.3	0.0	0.0		1.2	42.7	56.1	0.0		72.5	0.0	27.5	0.0		39.7	56.9	1.7	1.7		
Total %	0.9	0.5	0.0	0.0	1.4	0.5	16.5	21.7	0.0	38.7	23.6	0.0	9.0	0.0	32.5	10.8	15.6	0.5	0.5	27.4	
Exiting Leg Total	2					83					70					57					212
Buses	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	1	4	6
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	1.2	2.0	0.0	0.0	0.0	1.4	0.0	9.1	0.0	100.0	6.9	2.8
Exiting Leg Total	0					4					0					2					6
Single-Unit Trucks	1	1	0	0	2	1	25	37	0	63	40	0	12	0	52	18	28	1	0	47	164
% Single-Unit	50.0	100.0	0.0	0.0	66.7	100.0	71.4	80.4	0.0	76.8	80.0	0.0	63.2	0.0	75.4	78.3	84.8	100.0	0.0	81.0	77.4
Exiting Leg Total	2					68					56					38					164
Articulated Trucks	1	0	0	0	1	0	9	9	0	18	9	0	7	0	16	5	2	0	0	7	42
% Articulated	50.0	0.0	0.0	0.0	33.3	0.0	25.7	19.6	0.0	22.0	18.0	0.0	36.8	0.0	23.2	21.7	6.1	0.0	0.0	12.1	19.8
Exiting Leg Total	0					11					14					17					42

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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	1	0	0	0	1	0	5	5	0	10	6	0	3	0	9	1	6	1	0	8	28
8:15 AM	0	0	0	0	0	0	6	2	0	8	8	0	1	0	9	3	6	0	1	10	27
8:30 AM	1	1	0	0	2	1	4	2	0	7	6	0	3	0	9	3	6	0	0	9	27
8:45 AM	0	0	0	0	0	0	6	10	0	16	8	0	6	0	14	5	4	0	0	9	39
<b>Total Volume</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>21</b>	<b>19</b>	<b>0</b>	<b>41</b>	<b>28</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>41</b>	<b>12</b>	<b>22</b>	<b>1</b>	<b>1</b>	<b>36</b>	<b>121</b>
% Approach Total	66.7	33.3	0.0	0.0		2.4	51.2	46.3	0.0		68.3	0.0	31.7	0.0		33.3	61.1	2.8	2.8		
PHF	0.500	0.250	0.000	0.000	0.375	0.250	0.875	0.475	0.000	0.641	0.875	0.000	0.542	0.000	0.732	0.600	0.917	0.250	0.250	0.900	0.776
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	1	3	4
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	100.0	8.3	3.3
Single-Unit Trucks	1	1	0	0	2	1	16	16	0	33	24	0	10	0	34	9	18	1	0	28	97
Single-Unit %	50.0	100.0	0.0	0.0	66.7	100.0	76.2	84.2	0.0	80.5	85.7	0.0	76.9	0.0	82.9	75.0	81.8	100.0	0.0	77.8	80.2
Articulated Trucks	1	0	0	0	1	0	4	3	0	7	4	0	3	0	7	3	2	0	0	5	20
Articulated %	50.0	0.0	0.0	0.0	33.3	0.0	19.0	15.8	0.0	17.1	14.3	0.0	23.1	0.0	17.1	25.0	9.1	0.0	0.0	13.9	16.5
Buses	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	1	3	4
Single-Unit Trucks	1	1	0	0	2	1	16	16	0	33	24	0	10	0	34	9	18	1	0	28	97
Articulated Trucks	1	0	0	0	1	0	4	3	0	7	4	0	3	0	7	3	2	0	0	5	20
<b>Total Entering Leg</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>21</b>	<b>19</b>	<b>0</b>	<b>41</b>	<b>28</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>41</b>	<b>12</b>	<b>22</b>	<b>1</b>	<b>1</b>	<b>36</b>	<b>121</b>
Buses	0					2					0					2					4
Single-Unit Trucks	2					42					26					27					97
Articulated Trucks	0					6					6					8					20
<b>Total Exiting Leg</b>	<b>2</b>					<b>50</b>					<b>32</b>					<b>37</b>					<b>121</b>

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Buses**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	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	0	0
7:30 AM	0	0	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	1	0	0	0	1	0	1	0	0	1	2
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	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	0	0	0	0	0	1	1	1
8:30 AM	0	0	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	2	0	0	2	2
<b>Total</b>	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	1	3	4
<b>Grand Total</b>	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	1	4	6
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	75.0	0.0	25.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	16.7	16.7	0.0	0.0	0.0	16.7	0.0	50.0	0.0	16.7	66.7	
Exiting Leg Total	0					4					0					2					6

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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	0	0	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	1	0	0	0	1	0	1	0	0	1	2
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	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	0	0	0	0	0	1	1	1
<b>Total Volume</b>	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	0	1	2	4
<b>% Approach Total</b>	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	50.0	0.0	50.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.500	0.500
Entering Leg	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	0	1	2	4
Exiting Leg	0					2					0					2					4
<b>Total</b>	0					3					1					4					8

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Single-Unit Trucks**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	6	0	6	8	0	0	0	8	2	3	0	0	5	19
7:15 AM	0	0	0	0	0	0	4	7	0	11	3	0	0	0	3	1	4	0	0	5	19
7:30 AM	0	0	0	0	0	0	4	6	0	10	4	0	0	0	4	3	1	0	0	4	18
7:45 AM	0	0	0	0	0	0	1	2	0	3	1	0	2	0	3	3	2	0	0	5	11
<b>Total</b>	0	0	0	0	0	0	9	21	0	30	16	0	2	0	18	9	10	0	0	19	67
8:00 AM	0	0	0	0	0	0	4	5	0	9	5	0	3	0	8	1	4	1	0	6	23
8:15 AM	0	0	0	0	0	0	5	1	0	6	7	0	0	0	7	3	6	0	0	9	22
8:30 AM	1	1	0	0	2	1	3	1	0	5	5	0	3	0	8	1	6	0	0	7	22
8:45 AM	0	0	0	0	0	0	4	9	0	13	7	0	4	0	11	4	2	0	0	6	30
<b>Total</b>	1	1	0	0	2	1	16	16	0	33	24	0	10	0	34	9	18	1	0	28	97
<b>Grand Total</b>	1	1	0	0	2	1	25	37	0	63	40	0	12	0	52	18	28	1	0	47	164
<b>Approach %</b>	50.0	50.0	0.0	0.0		1.6	39.7	58.7	0.0		76.9	0.0	23.1	0.0		38.3	59.6	2.1	0.0		
<b>Total %</b>	0.6	0.6	0.0	0.0	1.2	0.6	15.2	22.6	0.0	38.4	24.4	0.0	7.3	0.0	31.7	11.0	17.1	0.6	0.0	28.7	
<b>Exiting Leg Total</b>	2					68					56					38					164

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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	4	5	0	9	5	0	3	0	8	1	4	1	0	6	23
8:15 AM	0	0	0	0	0	0	5	1	0	6	7	0	0	0	7	3	6	0	0	9	22
8:30 AM	1	1	0	0	2	1	3	1	0	5	5	0	3	0	8	1	6	0	0	7	22
8:45 AM	0	0	0	0	0	0	4	9	0	13	7	0	4	0	11	4	2	0	0	6	30
<b>Total Volume</b>	1	1	0	0	2	1	16	16	0	33	24	0	10	0	34	9	18	1	0	28	97
<b>% Approach Total</b>	50.0	50.0	0.0	0.0		3.0	48.5	48.5	0.0		70.6	0.0	29.4	0.0		32.1	64.3	3.6	0.0		
<b>PHF</b>	0.250	0.250	0.000	0.000	0.250	0.250	0.800	0.444	0.000	0.635	0.857	0.000	0.625	0.000	0.773	0.563	0.750	0.250	0.000	0.778	0.808
<b>Entering Leg</b>	1	1	0	0	2	1	16	16	0	33	24	0	10	0	34	9	18	1	0	28	97
<b>Exiting Leg</b>	2					42					26					27					97
<b>Total</b>	4					75					60					55					194

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Articulated Trucks**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	2	2	0	4	0	0	2	0	2	1	0	0	0	1	7
7:15 AM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	1	0	0	0	1	4
7:30 AM	0	0	0	0	0	0	2	1	0	3	2	0	2	0	4	0	0	0	0	0	7
7:45 AM	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	0	0	0	0	0	4
<b>Total</b>	0	0	0	0	0	0	5	6	0	11	5	0	4	0	9	2	0	0	0	2	22
8:00 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	4
8:15 AM	0	0	0	0	0	0	1	1	0	2	1	0	1	0	2	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	2	0	0	0	2	5
8:45 AM	0	0	0	0	0	0	2	1	0	3	1	0	2	0	3	1	0	0	0	1	7
<b>Total</b>	1	0	0	0	1	0	4	3	0	7	4	0	3	0	7	3	2	0	0	5	20
<b>Grand Total</b>	1	0	0	0	1	0	9	9	0	18	9	0	7	0	16	5	2	0	0	7	42
Approach %	100.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		56.3	0.0	43.8	0.0		71.4	28.6	0.0	0.0		
Total %	2.4	0.0	0.0	0.0	2.4	0.0	21.4	21.4	0.0	42.9	21.4	0.0	16.7	0.0	38.1	11.9	4.8	0.0	0.0	16.7	
Exiting Leg Total	0					11					14					17					42

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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	2	2	0	4	0	0	2	0	2	1	0	0	0	1	7
7:15 AM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	1	0	0	0	1	4
7:30 AM	0	0	0	0	0	0	2	1	0	3	2	0	2	0	4	0	0	0	0	0	7
7:45 AM	0	0	0	0	0	0	0	3	0	3	1	0	0	0	1	0	0	0	0	0	4
<b>Total Volume</b>	0	0	0	0	0	0	5	6	0	11	5	0	4	0	9	2	0	0	0	2	22
% Approach Total	0.0	0.0	0.0	0.0		0.0	45.5	54.5	0.0		55.6	0.0	44.4	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.500	0.000	0.688	0.625	0.000	0.500	0.000	0.563	0.500	0.000	0.000	0.000	0.500	0.786
Entering Leg	0					5					9					2					22
Exiting Leg	0					11					14					17					42
<b>Total</b>	0					16					17					11					44

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Old Shirley Road								Leominster Shirley Road								Fort Pond Road								Leominster Shirley Road								Total																		
	from North								from East								from South								from West																										
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	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	0	0	0	0	0	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	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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								0																		

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

	Old Shirley Road								Leominster Shirley Road								Fort Pond Road								Leominster Shirley Road								Total																		
	from North								from East								from South								from West																										
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	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	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	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 Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	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	0	0	0	0	0	0	0	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	0								0								0								0								0																		
<b>Total</b>	0								0								0								0								0																		



PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 7:00 AM  
 End Time: 9:00 AM  
 Class: Pedestrians



PRECISION  
 DATA  
 INDUSTRIES, LLC  
 157 Washington Street, Suite 2  
 Hudson, MA 01749  
 508-875-0100 datarequests@pdilic.com

Pedestrians

	Old Shirley Road							Leominster Shirley Road							Fort Pond Road							Leominster Shirley Road							Total							
	from North							from East							from South							from West														
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	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	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	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	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	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	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	0	0	0	0	
Total %	0	0	0	0	100	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	0	0	0	0	0	
Exiting Leg Total	1							0							0							0							1							

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

	Old Shirley Road							Leominster Shirley Road							Fort Pond Road							Leominster Shirley Road							Total							
	from North							from East							from South							from West														
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total								
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	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	0.250	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	0.000	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	0.250	
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	1							0							0							0							1							
Total	2							0							0							0							2							

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Cars and Heavy Vehicles (Combined)**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	1	89	26	0	116	33	0	77	0	110	24	37	0	2	63	289
4:15 PM	0	0	0	0	0	0	94	27	0	121	30	0	85	0	115	36	26	0	0	62	298
4:30 PM	0	0	0	0	0	0	78	26	0	104	29	0	80	0	109	36	44	0	0	80	293
4:45 PM	0	0	0	0	0	0	90	21	0	111	34	0	82	0	116	31	49	0	0	80	307
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>351</b>	<b>100</b>	<b>0</b>	<b>452</b>	<b>126</b>	<b>0</b>	<b>324</b>	<b>0</b>	<b>450</b>	<b>127</b>	<b>156</b>	<b>0</b>	<b>2</b>	<b>285</b>	<b>1187</b>
5:00 PM	0	0	0	0	0	0	61	24	0	85	27	0	89	0	116	39	48	0	0	87	288
5:15 PM	2	0	0	0	2	0	69	23	0	92	30	0	75	0	105	32	45	0	0	77	276
5:30 PM	0	0	0	0	0	0	56	21	0	77	40	0	70	0	110	35	27	1	0	63	250
5:45 PM	0	0	0	0	0	0	57	20	0	77	21	0	59	1	81	29	33	0	1	63	221
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>243</b>	<b>88</b>	<b>0</b>	<b>331</b>	<b>118</b>	<b>0</b>	<b>293</b>	<b>1</b>	<b>412</b>	<b>135</b>	<b>153</b>	<b>1</b>	<b>1</b>	<b>290</b>	<b>1035</b>
Grand Total	2	0	0	0	2	1	594	188	0	783	244	0	617	1	862	262	309	1	3	575	2222
Approach %	100.0	0.0	0.0	0.0	0.0	0.1	75.9	24.0	0.0	0.0	28.3	0.0	71.6	0.1	0.0	45.6	53.7	0.2	0.5	0.0	
Total %	0.1	0.0	0.0	0.0	0.1	0.0	26.7	8.5	0.0	35.2	11.0	0.0	27.8	0.0	38.8	11.8	13.9	0.0	0.1	25.9	
Exiting Leg Total	2					553					451					1216					2222
Cars	2	0	0	0	2	1	579	182	0	762	233	0	594	1	828	250	302	1	2	555	2147
% Cars	100.0	0.0	0.0	0.0	100.0	100.0	97.5	96.8	0.0	97.3	95.5	0.0	96.3	100.0	96.1	95.4	97.7	100.0	66.7	96.5	96.6
Exiting Leg Total	2					535					433					1177					2147
Heavy Vehicles	0	0	0	0	0	0	15	6	0	21	11	0	23	0	34	12	7	0	1	20	75
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.2	0.0	2.7	4.5	0.0	3.7	0.0	3.9	4.6	2.3	0.0	33.3	3.5	3.4
Exiting Leg Total	0					18					18					39					75

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

4:00 PM	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	1	89	26	0	116	33	0	77	0	110	24	37	0	2	63	289
4:15 PM	0	0	0	0	0	0	94	27	0	121	30	0	85	0	115	36	26	0	0	62	298
4:30 PM	0	0	0	0	0	0	78	26	0	104	29	0	80	0	109	36	44	0	0	80	293
4:45 PM	0	0	0	0	0	0	90	21	0	111	34	0	82	0	116	31	49	0	0	80	307
<b>Total Volume</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>351</b>	<b>100</b>	<b>0</b>	<b>452</b>	<b>126</b>	<b>0</b>	<b>324</b>	<b>0</b>	<b>450</b>	<b>127</b>	<b>156</b>	<b>0</b>	<b>2</b>	<b>285</b>	<b>1187</b>
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.2	77.7	22.1	0.0	0.0	28.0	0.0	72.0	0.0	0.0	44.6	54.7	0.0	0.7	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.934	0.926	0.000	0.934	0.926	0.000	0.953	0.000	0.970	0.882	0.796	0.000	0.250	0.891	0.967
Cars	0	0	0	0	0	1	338	99	0	438	119	0	309	0	428	119	152	0	1	272	1138
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	96.3	99.0	0.0	96.9	94.4	0.0	95.4	0.0	95.1	93.7	97.4	0.0	50.0	95.4	95.9
Heavy Vehicles	0	0	0	0	0	0	13	1	0	14	7	0	15	0	22	8	4	0	1	13	49
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	3.7	1.0	0.0	3.1	5.6	0.0	4.6	0.0	4.9	6.3	2.6	0.0	50.0	4.6	4.1
Cars Enter Leg	0	0	0	0	0	1	338	99	0	438	119	0	309	0	428	119	152	0	1	272	1138
Heavy Enter Leg	0	0	0	0	0	0	13	1	0	14	7	0	15	0	22	8	4	0	1	13	49
Total Entering Leg	0					1					126					127					1187
Cars Exiting Leg						1															1138
Heavy Exiting Leg						0															49
Total Exiting Leg						1															1187

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Cars**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	1	82	25	0	108	31	0	72	0	103	21	34	0	1	56	267					
4:15 PM	0	0	0	0	0	0	90	27	0	117	29	0	80	0	109	33	26	0	0	59	285					
4:30 PM	0	0	0	0	0	0	76	26	0	102	25	0	78	0	103	34	44	0	0	78	283					
4:45 PM	0	0	0	0	0	0	90	21	0	111	34	0	79	0	113	31	48	0	0	79	303					
<b>Total</b>	0	0	0	0	0	1	338	99	0	438	119	0	309	0	428	119	152	0	1	272	1138					
5:00 PM	0	0	0	0	0	0	61	22	0	83	26	0	87	0	113	37	46	0	0	83	279					
5:15 PM	2	0	0	0	2	0	69	22	0	91	30	0	73	0	103	30	45	0	0	75	271					
5:30 PM	0	0	0	0	0	0	54	20	0	74	38	0	68	0	106	35	27	1	0	63	243					
5:45 PM	0	0	0	0	0	0	57	19	0	76	20	0	57	1	78	29	32	0	1	62	216					
<b>Total</b>	2	0	0	0	2	0	241	83	0	324	114	0	285	1	400	131	150	1	1	283	1009					
<b>Grand Total</b>	2	0	0	0	2	1	579	182	0	762	233	0	594	1	828	250	302	1	2	555	2147					
Approach %	100.0	0.0	0.0	0.0		0.1	76.0	23.9	0.0		28.1	0.0	71.7	0.1		45.0	54.4	0.2	0.4							
Total %	0.1	0.0	0.0	0.0	0.1	0.0	27.0	8.5	0.0	35.5	10.9	0.0	27.7	0.0	38.6	11.6	14.1	0.0	0.1	25.9						
Exiting Leg Total						2					535					433					1177					2147

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

4:15 PM	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:15 PM	0	0	0	0	0	0	90	27	0	117	29	0	80	0	109	33	26	0	0	59	285
4:30 PM	0	0	0	0	0	0	76	26	0	102	25	0	78	0	103	34	44	0	0	78	283
4:45 PM	0	0	0	0	0	0	90	21	0	111	34	0	79	0	113	31	48	0	0	79	303
5:00 PM	0	0	0	0	0	0	61	22	0	83	26	0	87	0	113	37	46	0	0	83	279
<b>Total Volume</b>	0	0	0	0	0	0	317	96	0	413	114	0	324	0	438	135	164	0	0	299	1150
% Approach Total	0.0	0.0	0.0	0.0		0.0	76.8	23.2	0.0		26.0	0.0	74.0	0.0		45.2	54.8	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.881	0.889	0.000	0.882	0.838	0.000	0.931	0.000	0.969	0.912	0.854	0.000	0.000	0.901	0.949
Entering Leg	0					0					114					135					1150
Exiting Leg	0					278					231					641					1150
<b>Total</b>	0					691					669					940					2300

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM



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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	7	1	0	8	2	0	5	0	7	3	3	0	1	7	22
4:15 PM	0	0	0	0	0	0	4	0	0	4	1	0	5	0	6	3	0	0	0	3	13
4:30 PM	0	0	0	0	0	0	2	0	0	2	4	0	2	0	6	2	0	0	0	2	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	0	1	4
<b>Total</b>	0	0	0	0	0	0	13	1	0	14	7	0	15	0	22	8	4	0	1	13	49
5:00 PM	0	0	0	0	0	0	0	2	0	2	1	0	2	0	3	2	2	0	0	4	9
5:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	2	0	0	0	2	5
5:30 PM	0	0	0	0	0	0	2	1	0	3	2	0	2	0	4	0	0	0	0	0	7
5:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	2	0	3	0	1	0	0	1	5
<b>Total</b>	0	0	0	0	0	0	2	5	0	7	4	0	8	0	12	4	3	0	0	7	26
<b>Grand Total</b>	0	0	0	0	0	0	15	6	0	21	11	0	23	0	34	12	7	0	1	20	75
<b>Approach %</b>	0.0	0.0	0.0	0.0	0.0	0.0	71.4	28.6	0.0	0.0	32.4	0.0	67.6	0.0	0.0	60.0	35.0	0.0	5.0	0.0	
<b>Total %</b>	0.0	0.0	0.0	0.0	0.0	0.0	20.0	8.0	0.0	28.0	14.7	0.0	30.7	0.0	45.3	16.0	9.3	0.0	1.3	26.7	
<b>Exiting Leg Total</b>	0					18					18					39					75
<b>Buses</b>	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	1	3
<b>% Buses</b>	0.0	0.0	0.0	0.0	0.0	0.0	6.7	16.7	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	5.0	4.0
<b>Exiting Leg Total</b>	0					0					1					2					3
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	12	2	0	14	9	0	17	0	26	10	4	0	0	14	54
<b>% Single-Unit</b>	0.0	0.0	0.0	0.0	0.0	0.0	80.0	33.3	0.0	66.7	81.8	0.0	73.9	0.0	76.5	83.3	57.1	0.0	0.0	70.0	72.0
<b>Exiting Leg Total</b>	0					13					12					29					54
<b>Articulated Trucks</b>	0	0	0	0	0	0	2	3	0	5	2	0	6	0	8	2	3	0	0	5	18
<b>% Articulated</b>	0.0	0.0	0.0	0.0	0.0	0.0	13.3	50.0	0.0	23.8	18.2	0.0	26.1	0.0	23.5	16.7	42.9	0.0	0.0	25.0	24.0
<b>Exiting Leg Total</b>	0					5					5					8					18

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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	7	1	0	8	2	0	5	0	7	3	3	0	1	7	22
4:15 PM	0	0	0	0	0	0	4	0	0	4	1	0	5	0	6	3	0	0	0	3	13
4:30 PM	0	0	0	0	0	0	2	0	0	2	4	0	2	0	6	2	0	0	0	2	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	0	1	4
<b>Total Volume</b>	0	0	0	0	0	0	13	1	0	14	7	0	15	0	22	8	4	0	1	13	49
<b>% Approach Total</b>	0.0	0.0	0.0	0.0	0.0	0.0	92.9	7.1	0.0	0.0	31.8	0.0	68.2	0.0	0.0	61.5	30.8	0.0	7.7	0.0	
<b>PHF</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.464	0.250	0.000	0.438	0.438	0.000	0.750	0.000	0.786	0.667	0.333	0.000	0.250	0.464	0.557
<b>Buses</b>	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	1	3
<b>Buses %</b>	0.0	0.0	0.0	0.0	0.0	0.0	7.7	100.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	7.7	6.1
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	10	0	0	10	5	0	13	0	18	7	2	0	0	9	37
<b>Single-Unit %</b>	0.0	0.0	0.0	0.0	0.0	0.0	76.9	0.0	0.0	71.4	71.4	0.0	86.7	0.0	81.8	87.5	50.0	0.0	0.0	69.2	75.5
<b>Articulated Trucks</b>	0	0	0	0	0	0	2	0	0	2	2	0	2	0	4	1	2	0	0	3	9
<b>Articulated %</b>	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	14.3	28.6	0.0	13.3	0.0	18.2	12.5	50.0	0.0	0.0	23.1	18.4
<b>Buses</b>	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	1	3
<b>Single-Unit Trucks</b>	0	0	0	0	0	0	10	0	0	10	5	0	13	0	18	7	2	0	0	9	37
<b>Articulated Trucks</b>	0	0	0	0	0	0	2	0	0	2	2	0	2	0	4	1	2	0	0	3	9
<b>Total Entering Leg</b>	0	0	0	0	0	0	13	1	0	14	7	0	15	0	22	8	4	0	1	13	49
<b>Buses</b>	0					0					1					2					3
<b>Single-Unit Trucks</b>	0					7					7					23					37
<b>Articulated Trucks</b>	0					4					1					4					9
<b>Total Exiting Leg</b>	0					11					9					29					49

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Buses**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	2
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	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	0	0
<b>Total</b>	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	1	3
5:00 PM	0	0	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	0	0
5:30 PM	0	0	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	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	1	3
Approach %	0.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	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	33.3	33.3	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	
Exiting Leg Total	0					0					1					2					3

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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	1	2
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	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	0	0
<b>Total Volume</b>	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	1	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	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	0.250	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.375
Entering Leg	0					0					0					0					3
Exiting Leg	0					0					1					2					3
<b>Total</b>	0					2					1					3					6

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Single-Unit Trucks**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	6	0	0	6	2	0	4	0	6	3	2	0	0	5	17
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	5	0	5	3	0	0	0	3	10
4:30 PM	0	0	0	0	0	0	2	0	0	2	3	0	2	0	5	1	0	0	0	1	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
<b>Total</b>	0	0	0	0	0	0	10	0	0	10	5	0	13	0	18	7	2	0	0	9	37
5:00 PM	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	2	1	0	0	3	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	2
5:30 PM	0	0	0	0	0	0	2	0	0	2	2	0	2	0	4	0	0	0	0	0	6
5:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	1	0	0	1	3
<b>Total</b>	0	0	0	0	0	0	2	2	0	4	4	0	4	0	8	3	2	0	0	5	17
<b>Grand Total</b>	0	0	0	0	0	0	12	2	0	14	9	0	17	0	26	10	4	0	0	14	54
<b>Approach %</b>	0.0	0.0	0.0	0.0		0.0	85.7	14.3	0.0		34.6	0.0	65.4	0.0		71.4	28.6	0.0	0.0		
<b>Total %</b>	0.0	0.0	0.0	0.0	0.0	0.0	22.2	3.7	0.0	25.9	16.7	0.0	31.5	0.0	48.1	18.5	7.4	0.0	0.0	25.9	
<b>Exiting Leg Total</b>	0					13					12					29					54

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

4:00 PM	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	6	0	0	6	2	0	4	0	6	3	2	0	0	5	17
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	5	0	5	3	0	0	0	3	10
4:30 PM	0	0	0	0	0	0	2	0	0	2	3	0	2	0	5	1	0	0	0	1	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
<b>Total Volume</b>	0	0	0	0	0	0	10	0	0	10	5	0	13	0	18	7	2	0	0	9	37
<b>% Approach Total</b>	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		27.8	0.0	72.2	0.0		77.8	22.2	0.0	0.0		
<b>PHF</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.417	0.417	0.000	0.650	0.000	0.750	0.583	0.250	0.000	0.000	0.450	0.544
<b>Entering Leg</b>	0	0	0	0	0	0	10	0	0	10	5	0	13	0	18	7	2	0	0	9	37
<b>Exiting Leg</b>	0					7					7					23					37
<b>Total</b>	0					17					25					32					74

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Articulated Trucks**

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	3
4:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
<b>Total</b>	0	0	0	0	0	0	2	0	0	2	2	0	2	0	4	1	2	0	0	3	9
5:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	1	0	0	0	1	3
5:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
<b>Total</b>	0	0	0	0	0	0	0	3	0	3	0	0	4	0	4	1	1	0	0	2	9
<b>Grand Total</b>	0	0	0	0	0	0	2	3	0	5	2	0	6	0	8	2	3	0	0	5	18
<b>Approach %</b>	0.0	0.0	0.0	0.0		0.0	40.0	60.0	0.0		25.0	0.0	75.0	0.0		40.0	60.0	0.0	0.0		
<b>Total %</b>	0.0	0.0	0.0	0.0	0.0	0.0	11.1	16.7	0.0	27.8	11.1	0.0	33.3	0.0	44.4	11.1	16.7	0.0	0.0	27.8	
<b>Exiting Leg Total</b>	0					5					5					8					18

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

	Old Shirley Road					Leominster Shirley Road					Fort Pond Road					Leominster Shirley Road					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	1	0	0	0	1	3
<b>Total Volume</b>	0	0	0	0	0	0	0	2	0	2	1	0	3	0	4	2	2	0	0	4	10
<b>% Approach Total</b>	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		25.0	0.0	75.0	0.0		50.0	50.0	0.0	0.0		
<b>PHF</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.250	0.000	0.750	0.000	1.000	0.500	0.500	0.000	0.000	1.000	0.833
<b>Entering Leg</b>	0	0	0	0	0	0	0	2	0	2	1	0	3	0	4	2	2	0	0	4	10
<b>Exiting Leg</b>	0					3					4					3					10
<b>Total</b>	0					5					8					7					20

PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:



**Bicycles (on Roadway and Crosswalks)**

	Old Shirley Road								Leominster Shirley Road								Fort Pond Road								Leominster Shirley Road								Total							
	from North								from East								from South								from West															
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total									
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1		0	0	0	0	1	0	1		0	0	0	0	0	0	0		0	0	0	0	0	0	0		2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0		0	1	0	0	0	0	0		1								
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1	0	0	0	0	0	0		1	0	0	0	0	0	0		2								
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0		0	0	0	0	0	0	0		0								
<b>Total</b>	0	0	0	0	0	0	0	0	0	1	0	0	0	1		1	0	0	0	1	0	2		1	1	0	0	0	0	0		5								
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0		0	0	0	0	0	0	0		0								
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	0	0	0	0	0	2		0	1	0	0	0	0	0		3								
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0		0	0	0	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	0	0		0	0	0	0	0	0	0		0								
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	0	0	0	0	0	2		0	1	0	0	0	0	0		3								
<b>Grand Total</b>	0	0	0	0	0	0	0	0	0	1	0	0	0	1		3	0	0	0	1	0	4		1	2	0	0	0	0	0		8								
<b>Approach %</b>	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		75.0	0.0	0.0	0.0	25.0	0.0		33.3	66.7	0.0	0.0	0.0	0.0													
<b>Total %</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	12.5		37.5	0.0	0.0	0.0	12.5	0.0	50.0		12.5	25.0	0.0	0.0	0.0	0.0	37.5										
<b>Exiting Leg Total</b>	0							5							3							0							8											

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

	Old Shirley Road								Leominster Shirley Road								Fort Pond Road								Leominster Shirley Road								Total							
	from North								from East								from South								from West															
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total									
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1		0	0	0	0	1	0	1		0	0	0	0	0	0	0		0	0	0	0	0	0	0		2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0		0	1	0	0	0	0	0		1								
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1	0	0	0	0	0	1		1	0	0	0	0	0	0		2								
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0		0	0	0	0	0	0	0		0								
<b>Total Volume</b>	0	0	0	0	0	0	0	0	0	1	0	0	0	1		1	0	0	0	1	0	2		1	1	0	0	0	0	0		5								
<b>% Approach Total</b>	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		50.0	0.0	0.0	0.0	50.0	0.0		50.0	50.0	0.0	0.0	0.0	0.0													
<b>PHF</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250		0.250	0.000	0.000	0.000	0.250	0.000	0.500		0.250	0.250	0.000	0.000	0.000	0.000	0.500		0.625									
<b>Entering Leg</b>	0	0	0	0	0	0	0	0	0	1	0	0	0	1		1	0	0	0	1	0	2		1	1	0	0	0	0	0		5								
<b>Exiting Leg</b>	0							2							3							0							5											
<b>Total</b>	0							3							5							2							10											



PDI File #: 217953 B  
 Location: N: Old Shirley Road S: Fort Pond Road  
 Location: E: Leominster Shirley Road W: Leominster Shirley Road  
 City, State: Lunenburg, MA  
 Client: GPI/ H. Monticup  
 Site Code: NEX-2021120.00  
 Count Date: Thursday, May 27, 2021  
 Start Time: 4:00 PM  
 End Time: 6:00 PM  
 Class:

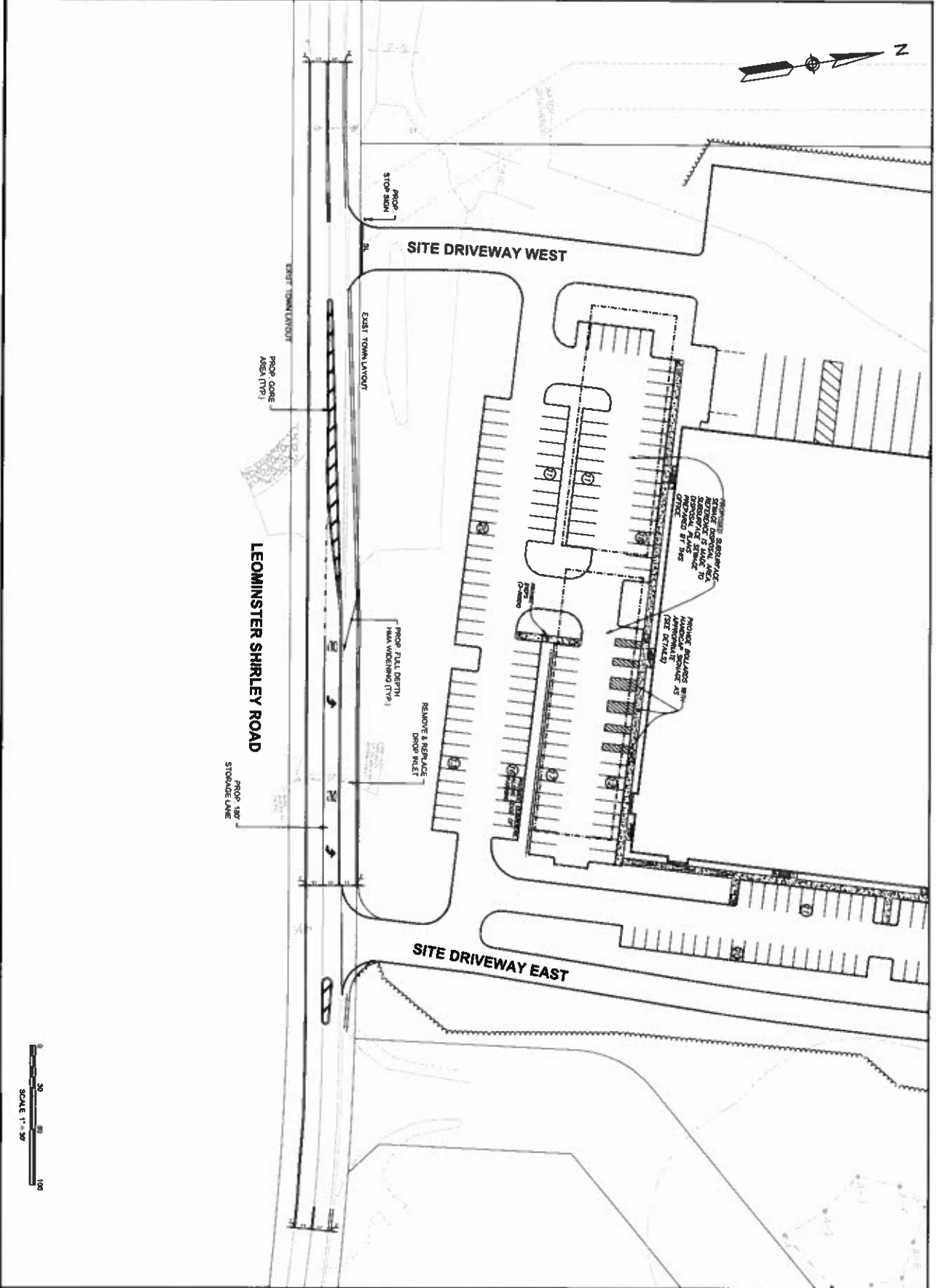


**Pedestrians**

	Old Shirley Road							Leominster Shirley Road							Fort Pond Road							Leominster Shirley Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	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	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	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	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	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	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	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	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	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	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Grand Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Approach %</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total %</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Exiting Leg Total</b>	0							0							0							0							0

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

4:00 PM	Old Shirley Road							Leominster Shirley Road							Fort Pond Road							Leominster Shirley Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	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	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	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	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	0	0	0	0	0	0	0	0	0	0
<b>Total Volume</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>% Approach Total</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>PHF</b>	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
<b>Entering Leg</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Exiting Leg</b>	0							0							0							0							0
<b>Total</b>	0							0							0							0							0



**SCHEMATIC  
DESIGN PLAN**

SCALE: AS NOTED  
 NEX-20211720  
 1 OF 1

NO	REVISION	DATE
1	7/14/2021	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

REVISIONS

**PROPOSED LEFT-TURN LANE  
WAREHOUSE DISTRIBUTION FACILITY  
LUNENBURG, MASSACHUSETTS**

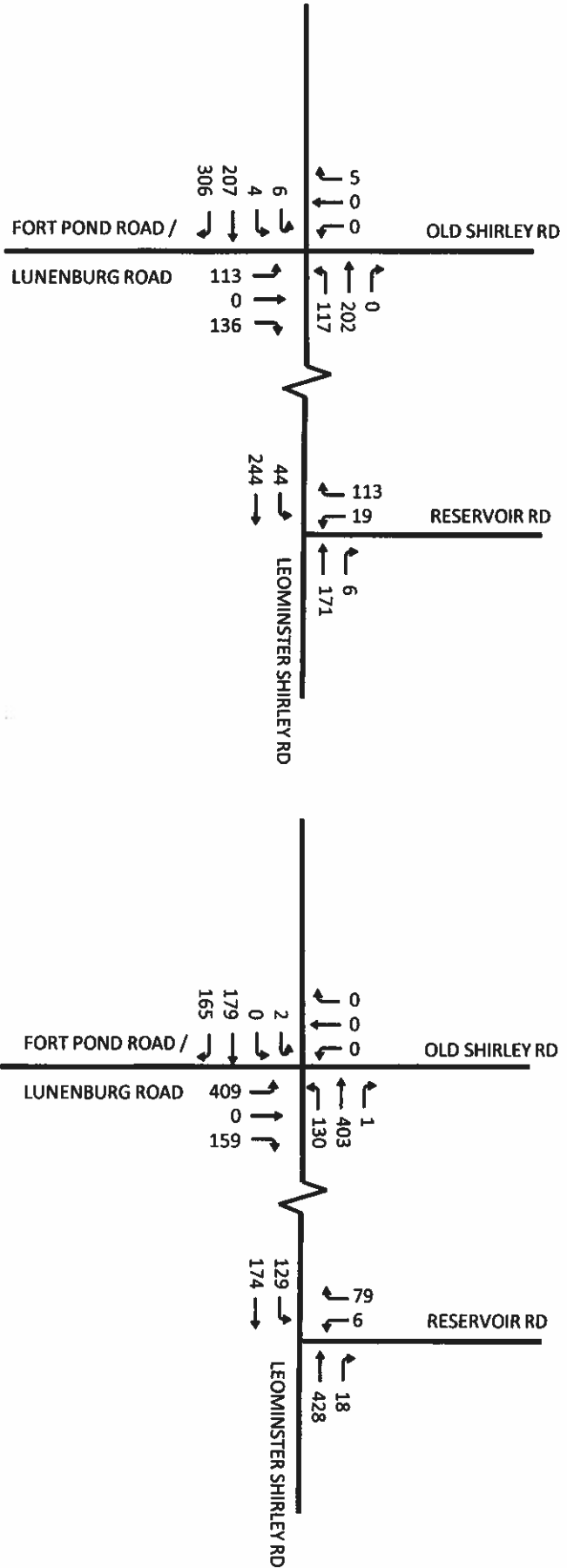
**GPI**  
 GROUP INCORPORATED  
 111 Massachusetts Street, Suite 202  
 Cambridge, MA 02142  
 Tel: 617.552.3600  
 Fax: 617.552.3601  
 www.gpi.com

PROJECT NO: 1720  
 1720 Warehouse Distribution Facility  
 170 Cambridge Road, Suite 202  
 Lunenburg, MA 01461



Greenman-Pedersen, Inc. | 181 Ballardvale Street, Suite 202, Wilmington, MA 01887  
 INDUSTRIAL DEVELOPMENT – LUNENBURG, MASSACHUSETTS

**FIGURE 1**  
**2021 BASE YEAR**  
**PEAK HOUR TRAFFIC VOLUMES**

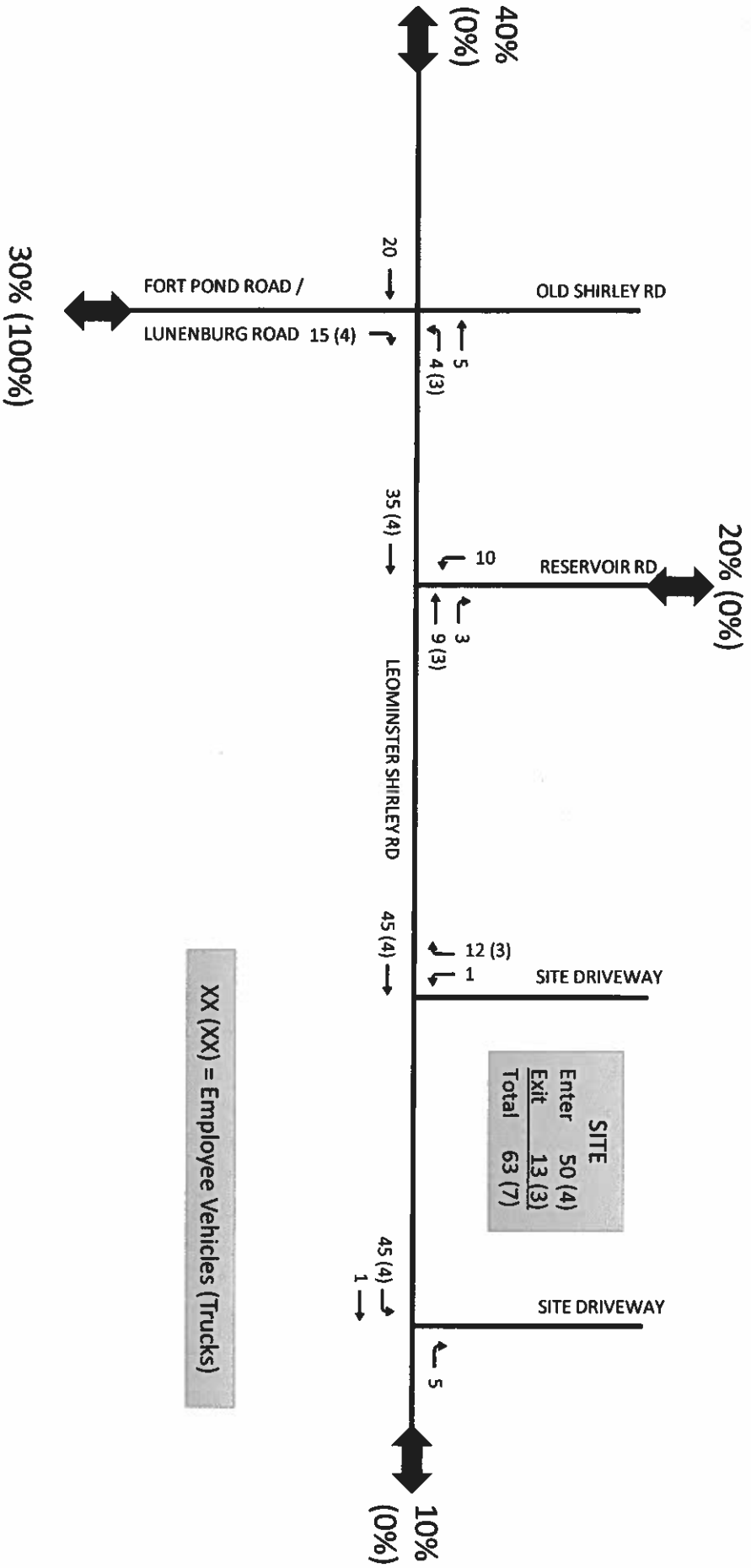


WEEKDAY PM



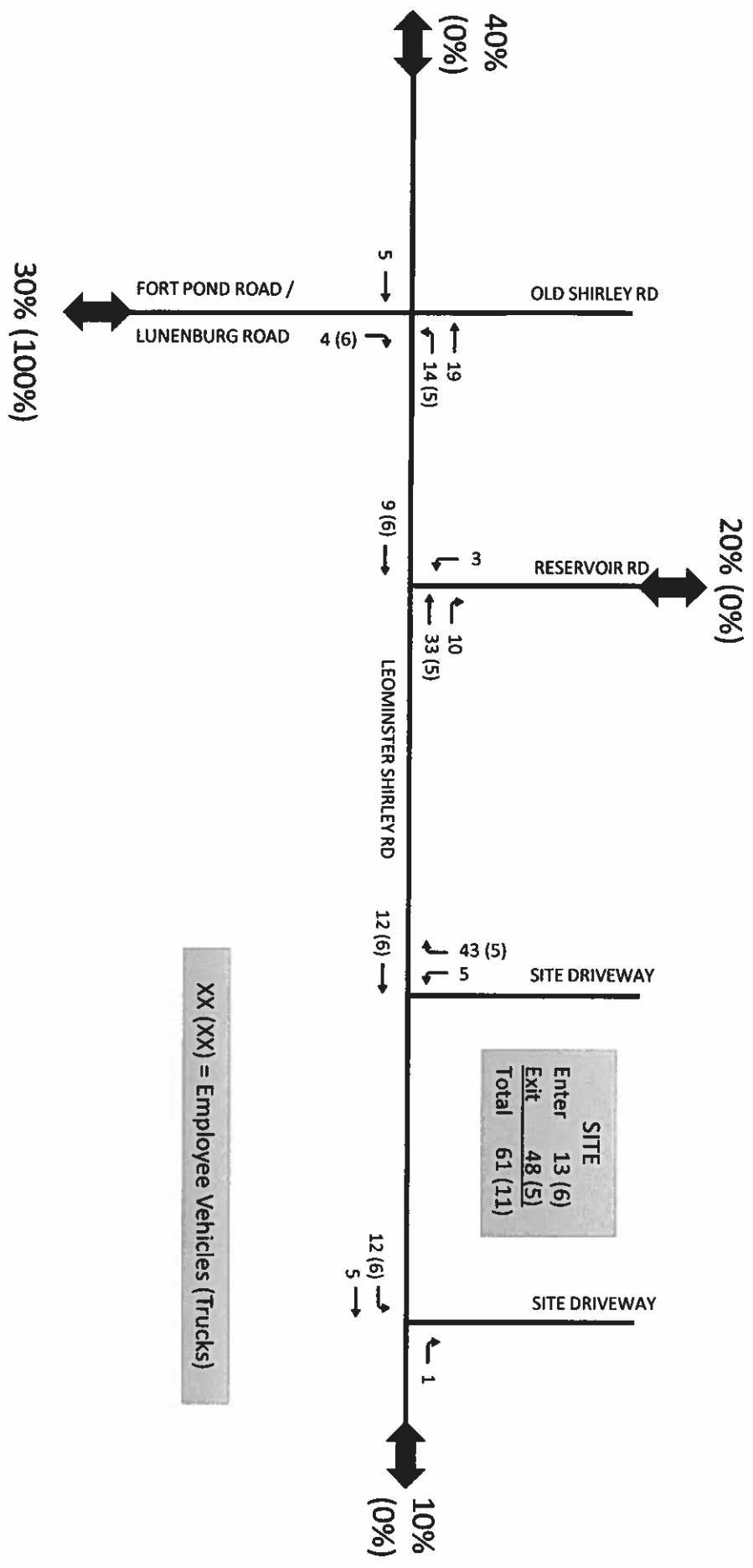
Greenman, Pedersen, Inc. | 181 Ballardvale Street, Suite 202, Wilmington, MA 01887  
INDUSTRIAL DEVELOPMENT - LUNENBURG, MASSACHUSETTS

**FIGURE 2**  
**2028 NO-BUILD**  
**PEAK HOUR TRAFFIC VOLUMES**

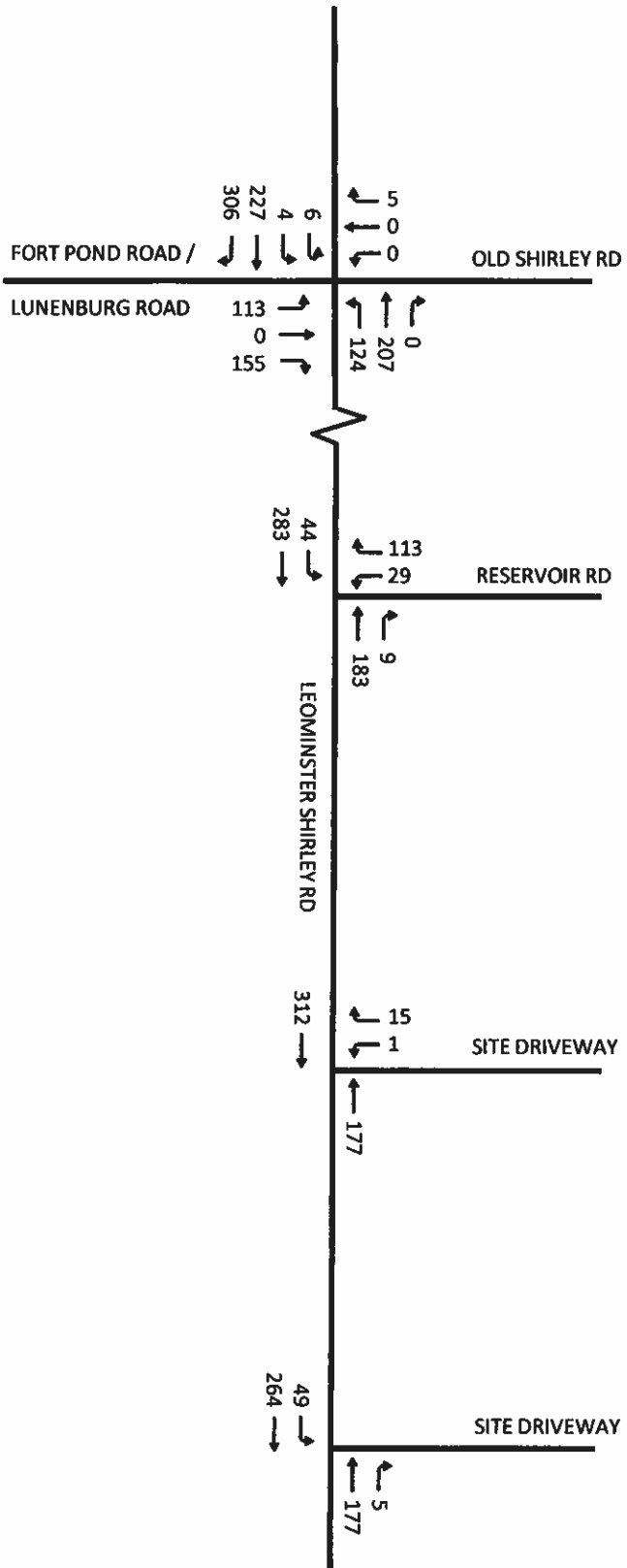


Greenman-Pedersen, Inc. | 181 Ballardvale Street, Suite 202, Wilmington, MA 01887  
 INDUSTRIAL DEVELOPMENT - LUNENBURG, MASSACHUSETTS

**FIGURE 3**  
**SITE-GENERATED TRIPS WEEKDAY AM**  
**PEAK HOUR TRAFFIC VOLUMES**

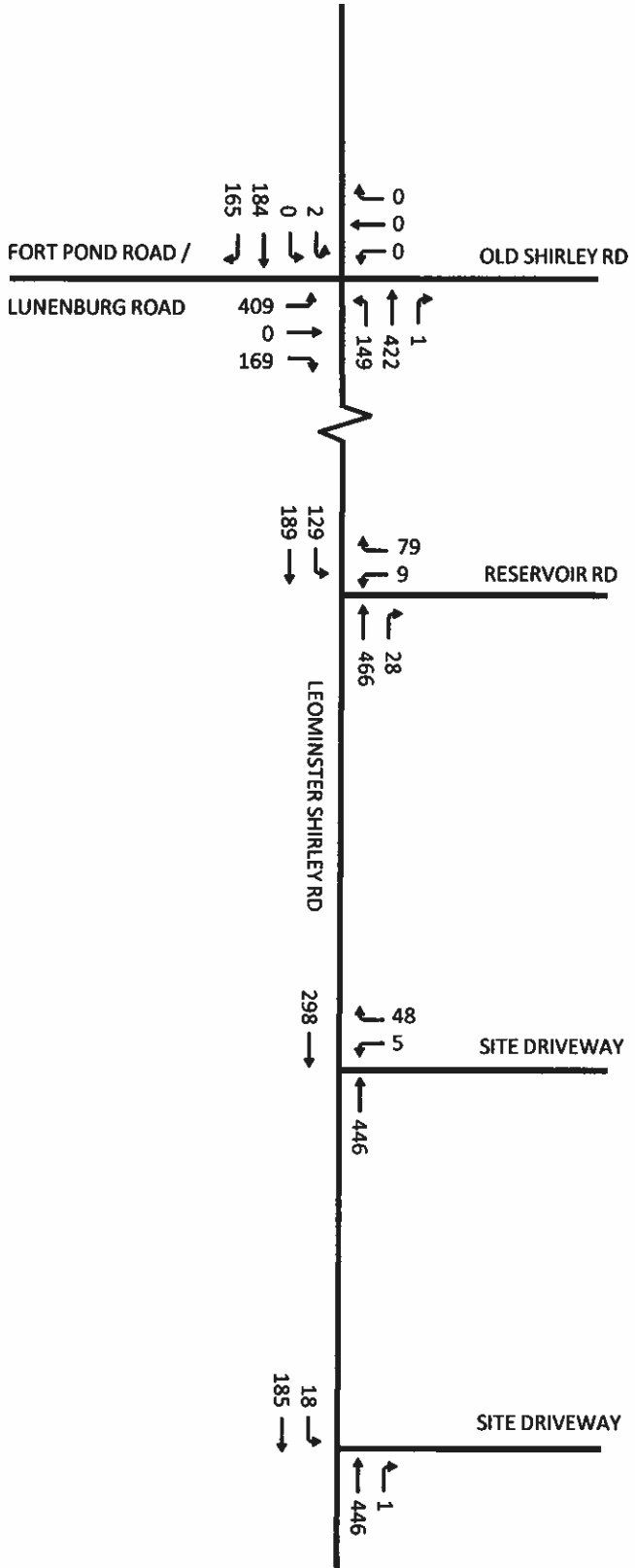


**FIGURE 4**  
**SITE-GENERATED TRIPS WEEKDAY PM**  
**PEAK HOUR TRAFFIC VOLUMES**



Greenman-Pedersen, Inc. 181 Ballardvale Street, Suite 202, Wilmington, MA, 01887  
 INDUSTRIAL DEVELOPMENT - LUNENBURG, MASSACHUSETTS

**FIGURE 5**  
**2028 BUILD WEEKDAY AM**  
**PEAK HOUR TRAFFIC VOLUMES**



Greenman-Pedersen, Inc. 181 Ballardvale Street, Suite 202, Wilmington, MA 01887  
 INDUSTRIAL DEVELOPMENT - LUNENBURG, MASSACHUSETTS

**FIGURE 6**  
**2028 BUILD WEEKDAY PM**  
**PEAK HOUR TRAFFIC VOLUMES**



## INTERSECTION CAPACITY ANALYSIS SUMMARY

Intersection/Peak Hour/Lane Group	2021 Existing				2028 No-Build				2028 Build			
	V/C <sup>a</sup>	Del. <sup>b</sup>	LOS <sup>c</sup>	Queue <sup>d</sup>	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue
<b>Leominster Shirley Road at Reservoir Road</b>												
<i>Weekday AM:</i>												
Reservoir Road SB approach	0.13	10.1	B	-/ <25	0.15	10.4	B	-/ <25	0.15	10.8	B	-/ <25
Leominster Shirley Road WB approach	0.09	1.1	A	-/ <25	0.11	1.1	A	-/ <25	0.12	1.4	A	-/ <25
Leominster Shirley Road EB approach	0.17	2.2	A	-/ <25	0.19	2.4	A	-/ <25	0.21	2.5	A	-/ <25
<i>Weekday PM:</i>												
Reservoir Road SB approach	0.13	11.8	B	-/ <25	0.15	12.6	B	-/ <25	0.16	13.3	B	-/ <25
Leominster Shirley Road WB approach	0.24	2.3	A	-/ <25	0.28	2.6	A	-/ <25	0.31	3.1	A	-/ <25
Leominster Shirley Road EB approach	0.20	4.2	A	-/ <25	0.23	4.6	A	-/30	0.25	4.8	A	-/33
<b>Leominster Shirley Road at Fort Pond Road and Old Shirley Road</b>												
<i>Weekday AM:</i>												
Old Shirley Road SB approach	0.02	11.8	B	-/ <25	0.02	12.2	B	-/ <25	0.02	12.5	B	-/ <25
Leominster Shirley Road WB approach	0.25	5.0	A	-/32	0.28	5.7	A	-/42	0.30	6.0	A	-/50
Leominster Shirley Road EB approach	0.32	2.8	A	-/ <25	0.35	3.2	A	-/ <25	0.37	3.3	A	-/ <25
Fort Pond Road NB Left-Thru Lane	0.36	22.4	C	-/49	0.43	26.4	D	-/62	0.45	28.6	D	-/66
Fort Pond Road NB Right-Turn Lane	0.19	11.2	B	-/ <25	0.21	11.4	B	-/27	0.25	12.0	B	-/32
<i>Weekday PM:</i>												
Old Shirley Road SB approach	0.01	14.8	B	-/ <25	0.01	16.8	C	-/ <25	0.01	17.7	C	-/ <25
Leominster Shirley Road WB approach	0.30	3.9	A	-/28	0.36	4.7	A	-/49	0.40	5.3	A	-/71
Leominster Shirley Road EB approach	0.19	1.5	A	-/ <25	0.22	1.9	A	-/ <25	0.23	1.9	A	-/ <25
Fort Pond Road NB Left-Thru Lane	1.14	132.1	F	-/748	1.73	>300	F	-/1,835	1.87	>300	F	-/1,985
Fort Pond Road NB Right-Turn Lane	0.17	10.1	B	-/ <25	0.21	10.6	B	-/26	0.23	10.8	B	-/29

<sup>a</sup> Volume-to-capacity ratio.

<sup>b</sup> Average control delay in seconds per vehicle.

<sup>c</sup> Level of service.

<sup>d</sup> Average/95<sup>th</sup> percentile queue length in feet per lane (assuming 25 feet per vehicle).

## INTERSECTION CAPACITY ANALYSIS SUMMARY

Intersection/Peak Hour/Lane Group	2021 Existing				2028 No-Build				2028 Build			
	V/C <sup>a</sup>	Del. <sup>b</sup>	LOS <sup>c</sup>	Queue <sup>d</sup>	V/C	Del.	LOS	Queue	V/C	Del.	LOS	Queue
<b>Leominster Shirley Road at Egress Site Driveway</b>												
<b>Weekday AM:</b>												
Site Driveway SB approach	--	--	--	-/-	--	--	--	-/-	0.02	10.1	B	-/<25
Leominster Shirley Road WB approach	--	--	--	-/-	--	--	-/-	0.10	0.0	A	-/<25	
Leominster Shirley Road EB approach	--	--	--	-/-	--	--	-/-	0.19	0.1	A	-/<25	
<b>Weekday PM:</b>												
Site Driveway SB approach	--	--	--	-/-	--	--	-/-	0.11	12.7	B	-/<25	
Leominster Shirley Road WB approach	--	--	--	-/-	--	--	-/-	0.26	0.1	A	-/<25	
Leominster Shirley Road EB approach	--	--	--	-/-	--	--	-/-	0.12	0.0	A	-/<25	
<b>Leominster Shirley Road at Access Site Driveway</b>												
<b>Weekday AM:</b>												
Leominster Shirley Road WB approach	--	--	--	-/-	--	--	-/-	0.11	0.0	A	-/<25	
Leominster Shirley Road EB approach	--	--	--	-/-	--	--	-/-	0.20	2.4	A	-/<25	
<b>Weekday PM:</b>												
Leominster Shirley Road WB approach	--	--	--	-/-	--	--	-/-	0.26	0.1	A	-/<25	
Leominster Shirley Road EB approach	--	--	--	-/-	--	--	-/-	0.13	2.0	A	-/<25	

<sup>a</sup> Volume-to-capacity ratio.

<sup>b</sup> Average control delay in seconds per vehicle.

<sup>c</sup> Level of service.

<sup>d</sup> Average/95<sup>th</sup> percentile queue length in feet per lane (assuming 25 feet per vehicle).