



To: Mr. Andrew Petty  
Director of Public Health  
Health Department  
Mary Alley Municipal Building  
7 Widger Road  
Marblehead, MA 01945

Date: August 15, 2022

Memorandum

Project #: 15699.00

From: Vinod Kalikiri, PE, PTOE  
Michael A. Santos, PE, PTOE

Re: Transportation Evaluation  
Marblehead Transfer Station  
Marblehead, Massachusetts

On behalf of Town of Marblehead Board of Health (the Client), VHB conducted an evaluation of the proposed reconfiguration and operations of the Marblehead Transfer Station (the "Project") located off Woodfin Terrace (via Beacon Street) and Green Street in Marblehead, Massachusetts. The Project seeks to construct a new scale house with a new weigh scale, reconfigure vehicular access to and circulation through the Site, and upgrade the employee parking area at the Marblehead Transfer Station along with other enhancements to operations on the Site.

Based on information provided by the Client, there are primarily three types of users of the facility: residential users that access the rear portion of the site for recycling, compost, hazardous materials drop-off, and donations; commercial users that are required to use a commercial weigh scale for heavier vehicular loads; and container/trailer trucks that transport material from the commercial drop-off pit from the Site. Both the commercial and residential users of the Site currently use Woodfin Terrace via Beacon Street as the primary point of access and egress. The container trucks use a gated access point on Green Street.

The proposed circulation plan calls for the Green Street driveway to be open to entering residential and commercial users and maintain the existing container truck access and egress. Under the new plan, the Woodfin Terrace driveway will be used by exiting residential and commercial users. No vehicles will enter the Site from the Woodfin Terrance driveway.

This memorandum is intended to provide the Client with an assessment of and recommendations related to the transportation impacts of the proposed vehicular circulation changes for the Site.

Specifically, the evaluation summarized in this memorandum includes the following:

- › An existing conditions assessment including new traffic counts, a review of existing commercial weight scale activity, and a safety evaluation
- › An evaluation of the future transportation conditions with the Project
- › A summary of the changes to the Project Site
- › Conclusions and potential recommendations that could further refine and finetune future vehicle operations at the Transfer Station

The following conclusions and recommendations are provided based on the evaluation presented in this memorandum:

- › The Project will improve vehicular safety and eliminate queue spillbacks onto Beacon Street by moving the entrance away from Woodfin Terrace to Green Street.
- › The Project will have relatively minimal impacts to the operations at the intersection of Green Street at West Shore Drive and Pitman Road, as well as Green Street in general.
- › The Site will provide storage for up to 25 - 30 vehicles of on-site queuing for the time periods when vehicles must wait for the gates to open (e.g. in the morning and during the lunch break when the facility is closed from 12:00 – 1:00 PM). The queue storage that will be available will minimize the potential for long queues to spill back on to Green Street.
- › Commercial weigh scale activity represents around 5 to 6 percent of the total activity and will be accommodated entirely on the Site as a result of the proposed circulation changes.
- › A gate internal to the Site is recommended to allow residential vehicles and vehicles using the commercial weigh scale to queue during the time periods prior to opening and during the lunch break. The approximate location of the proposed gate is shown on the enclosed site plan.
- › The existing gate at the end of the Green Street should remain in place and be opened 15 – 20 minutes prior to the opening of the Transfer Station to further minimize queuing on Green Street.
- › Traffic operations on and surrounding the Site should be monitored after the Project is complete to determine if any additional refinements to Site operations are needed.

Overall, the analysis presented in this memorandum indicate that the Project can be constructed with minimal impact to the surrounding transportation infrastructure. The Project will improve safety along Beacon Street and will provide sufficient on-Site storage for vehicles that need to queue during periods when the Transfer Station is closed to customers.

## Existing Conditions

An assessment of existing conditions was conducted to understand the transportation characteristics in the vicinity of the Transfer Station including roadway geometry, traffic controls, daily and peak hour traffic flow, and traffic safety data. Each of these elements is described in detail below.

### Site Operations

The Marblehead Transfer Station currently operates from Monday through Saturday between the hours of 7:30 AM and 3:25 PM and is closed for lunch between 12:00 – 1:00 PM. Based on conversations with the Transfer Station staff, peak season for the Transfer Station generally occurs between late spring and early autumn, with the highest amount of activity occurring during the autumn, coinciding with residents' yard waste cleanup activity. The primary activities on the Site include general residential uses such as recycling, compost, hazardous materials drop-off, and donations and heavy-duty uses that require commercial scale access for heavier loads. Both residential and commercial access and egress for the Site is provided at the end of Woodfin Terrace, which intersects the south side of Beacon Street. A gated access is also provided along Green Street, which is used sparingly for container trucks that transport the waste from vehicles that use the commercial weigh scale. A diagram of the existing Site operations is shown on Figure 1.

## Roadway and Intersection Characteristics

### *Green Street*

Green Street is a collector roadway that provides north-south access within the Town of Marblehead and serves as one of the current primary routes to and from the Transfer Station. Green Street consists of two travel lanes separated by a double-yellow centerline. Sidewalks are provided along both sides of Green Street near the Site. Land uses along Green Street include residential properties and the Transfer Station.

### *Beacon Street*

Beacon Street is a collector roadway that provides local access throughout the northern portion of Marblehead, serving primarily residential properties. Beacon Street consists of two travel lanes separated by a double-yellow centerline. Sidewalks are provided along both sides of Beacon Street at and west of Woodfin Terrace. The sidewalks end approximately 275 east of Woodfin Terrace (at Schooner Ridge). A marked crosswalk is provided across Beacon Street, approximately 75 feet east of Woodfin Terrace.

### *Green Street at West Shore Drive and Pitman Road*

West Shore Drive intersects Green Street from the south and Pitman Road intersects Green Street from the west to form this four-legged, offset, unsignalized intersection. The West Shore Drive northbound and Green Street southbound approaches consist of a single lane and operate under free traffic control. The Pitman Road eastbound approach consists of a single travel lane under stop-sign control and the Green Street westbound approach consists of a single lane under yield-sign control. The Green Street westbound approach is skewed at approximately 60 degrees from the intersection and is offset to the south from the Pitman Road eastbound approach. Sidewalks are provided on both sides of all legs of the intersection with the exception of the east side of Pitman Road. A marked crosswalk is provided across the Green Street east leg of the intersection. Land uses at the intersection consist of residential properties. This intersection currently serves a majority of the vehicular traffic associated with the Transfer Station. A review of the available data indicates that under current conditions, approximately 30 percent of the Site traffic travels along Green Street and 60 percent uses West Shore Drive. An operations analysis of the intersection is provided later in this study.

### Traffic Volumes

Based on an understanding of the area roadway network and the expected transportation characteristics of the Project, the following traffic count data was collected:

- › 72-hour automatic traffic recorder (ATR) counts collected vehicular volumes and classification on Beacon Street east of Green Street and Green Street south of West Shore Drive. The counts were conducted from Thursday May 19 to Saturday May 21, 2022.
- › ATR counts collected vehicular volumes and classification at the Transfer Station access point on Beacon Street from Thursday May 19 to Wednesday May 25, 2022.
- › Turning movement counts (TMCs) were conducted at the intersection of Green Street at West Shore Drive and Pitman Road on Thursday May 19 between 7:00 – 9:00 AM and 2:00 – 4:00 PM and on Saturday May 21, 2022 between 10:00 AM and 2:00 PM.

The daily and peak hour traffic volumes are presented on Figures 2 and 3, respectively. The detailed traffic data sheets are provided in the Appendix.

#### **Transfer Station Commercial Activity**

VHB obtained records of commercial scale activity and pit usage at the Transfer Station for the period of Monday May 3 through Saturday May 15, 2021 to determine the amount of heavy duty commercial activity that occurs on the Site. The commercial scale operates daily from 7:30 AM to 3:25 PM, with the exception of Sunday when the Transfer Station is closed. The Transfer Station also closes between 12:00 – 1:00 PM each day for a scheduled lunch break. The analysis time period for the review of the commercial scale activity from 2021 was selected to be consistent with the traffic counts that were conducted in May 2022, since the scale activity from 2022 was not available at the time of this study. Both the number of transactions and the vehicle weights were recorded and documented. Table 1 shows the amount of daily commercial scale activity. The detailed commercial scale activity is provided in the Appendix.

**Table 1 Transfer Station Commercial Activity**

	Number of Transactions <sup>1</sup>	Class 1 vehicles <sup>2</sup>	Class 2 vehicles <sup>3</sup>	Other <sup>4</sup>
Monday May 3, 2021	69	30	36	3
Tuesday May 4, 2021	34	9	25	0
Wednesday May 5, 2021	67	18	46	3
Thursday May 6, 2021	53	15	33	5
Friday May 7, 2021	77	30	45	2
Saturday May 8, 2021	51	14	30	7
Monday May 10, 2021	53	23	27	3
Tuesday May 11, 2021	46	18	25	3
Wednesday May 12, 2021	77	15	54	8
Thursday May 13, 2021	77	20	54	3
Friday May 14, 2021	66	29	35	2
Saturday May 15, 2021	92	42	46	4
<b>Total Activity</b>	<b>762</b>	<b>263</b>	<b>456</b>	<b>43</b>
<b>Average Daily Activity</b>	<b>64</b>	<b>22</b>	<b>38</b>	<b>4</b>

1 Based on transfer station slips

2 Vehicles 6,000 pounds or less (passenger vehicles, pick-up trucks, and small vans)

3 Vehicles between 6,000 and 10,000 pounds (larger pick-up trucks, vans, and small delivery vehicles)

4 Vehicles over 10,000 pounds (heavy duty commercial vehicles)

As shown in Table 1, there were a total of 762 vehicles that accessed the commercial scales for pit usage during the two-week period in May 2021, with an average of 64 vehicles per day. The majority of vehicles using the commercial drop-off area were Class 1 or Class 2 vehicles, which consist of single-unit trucks, vans, pick-up trucks, and passenger vehicles.

The transfer scale usage was also documented by time of day to determine the peak usage of the commercial activity on the Site. Table 2 shows the average commercial drop-off activity by time of day.

Table 2 indicates that the commercial weigh scale activity is evenly spread out throughout the course of the day, with peak activity ranging from 8 to 11 vehicles over the course of one hour. This results in one vehicle accessing the scales every 5 to 8 minutes over the course of one hour.

**Table 2 Transfer Station Commercial Activity**

Time Period	Number of Transactions <sup>1</sup>
7:00 – 8:00 AM	4
8:00 – 9:00 AM	9
9:00 – 10:00 AM	9
10:00 – 11:00 AM	11
11:00 AM – 12:00 PM	9
12:00 – 1:00 PM (closed)	0
1:00 – 2:00 PM	10
2:00 – 3:00 PM	8
3:00 – 4:00 PM	2

<sup>1</sup> Average number of transactions per day for specified time period for all days evaluated

The data for the commercial weigh scale activity was compared to the traffic counts at the Site driveway. Table 3 presents the overall activity on the Site including both residential and commercial scale usage.

**Table 3 Existing Transfer Station Traffic Volumes**

Time Period	Total Site Traffic Volumes <sup>1</sup>	Commercial Scale Usage Traffic Volumes <sup>2</sup>	Percent Commercial Scale Volumes <sup>3</sup>
<b>Weekday Daily<sup>4</sup></b>			
Enter	1,100	62	6%
Exit	1,100	62	6%
<b>Weekday AM Peak (10:45 – 11:45 AM)</b>			
Enter	180	11	6%
Exit	170	11	6%
<b>Weekday PM Peak (1:15 – 2:15 PM)</b>			
Enter	175	9	5%
Exit	185	9	5%
<b>Saturday Daily<sup>5</sup></b>			
Enter	1,400	72	5%
Exit	1,400	72	5%
<b>Saturday Peak (10:00 – 11:00 AM)</b>			
Enter	280	13	5%
Exit	275	13	5%

<sup>1</sup> Volumes rounded to the nearest 5 vehicles.

<sup>2</sup> Scale usage activity from May 3 – 15, 2021.

<sup>3</sup> Percentage is based on commercial scale activity from May 2021 and traffic counts conducted on driveway in May 2022. It was assumed that activity in May 2021 and May 2022 are similar.

<sup>4</sup> Total traffic volumes from Monday May 23, 2022, which was the weekday that experienced the most activity on the Site.

<sup>5</sup> Total traffic volumes from Saturday May 21, 2022.

Table 3 shows the total traffic volumes entering the Site and the total commercial scale-use traffic volumes for the daily and peak hours. Based on the comparison of the commercial weigh scale usage and the traffic counts, most activity on the Site is related to residential uses (vehicles that do not require the weight scale). The commercial weigh scale activity represents 5 to 6 percent of all activity on the Site.

As shown in Table 3, A total of 1,100 vehicles accessed the Transfer Station on the busiest weekday of the count period in 2022 and an average of 62 vehicles access the commercial scale on a weekday. The weekday morning peak hour of activity occurs between 10:45 – 11:45 AM, with a total of 180 entering vehicles and 170 exiting vehicles. The weekday evening peak hour of activity occurs between 1:15 – 2:15 PM, with a total of 175 entering vehicles and 185 exiting vehicles. A total of 1,400 vehicles accessed the Transfer Station on the Saturday during the May 2022 count period and an average of 72 vehicles access the commercial scale on a Saturday. The Saturday peak hour of activity occurs between 10:00 – 11:00 AM.

### **Motor Vehicle Crash History**

Reported motor vehicle crash data for the nearby intersections of Beacon Street at Woodfin Terrace, Green Street at Beacon Street, and Green Street at West Shore Drive and Pitman Road was obtained from MassDOT and the Town of Marblehead Police Department for the time period of January 2017 through May 2022. The summary of the crash data at the intersection is presented in Table 4. The detailed crash data is provided in the Appendix.

Table 4 shows that a total of 14 crashes were reported at the intersections adjacent to the Transfer Station since 2017. The intersection of Beacon Street at Woodfin Terrace experienced the most crashes, with 8 total crashes over the review period, with most of the crashes classified as a sideswipe. These collisions could be a result of conflicts between on-street parking that occurs along the north side of Beacon Street and activity along Woodfin Terrace.

**Table 4 Vehicular Crash Summary (2017 – May 2022)**

	Beacon Street at Woodfin Terrace	Green Street at Beacon Street	Green Street at West Shore Drive and Pitman Road
<b>Year</b>			
2017	2	1	1
2018	1	0	0
2019	1	0	1
2020	2	0	2
2021	2	0	0
<u>2022 (partial)</u>	<u>0</u>	<u>1</u>	<u>0</u>
Total	8	2	4
<b>Collision Type</b>			
Rear-End	0	1	2
Single Vehicle Crash	1	1	2
Sideswipe	6	0	0
Not Reported/Unknown	1	0	0
<b>Severity</b>			
Fatal Injury	0	0	0
Non-Fatal Injury	1	1	0
Property Damage Only	7	1	4
<b>Time of day</b>			
Weekday, 7:00 AM - 9:00 AM	0	0	0
Weekday, 4:00 – 6:00 PM	0	0	0
Saturday, 11:00 AM – 2:00 PM	1	0	0
Weekday, other time	7	1	3
Weekend, other time	0	1	1
<b>Pavement Conditions</b>			
Dry	7	0	4
Wet	1	1	0
Ice/Snow	0	1	0
Non-Motorist (Bike, Pedestrian)	0	1	0

1 Crash rate calculated for 2017 – 2019 only. MassDOT data after 2019 may be incomplete.

Source: MassDOT IMPACT Portal and Marblehead Police Department crash reports

## Site Access Plan

The Project will consist of a reconfiguration of the Transfer Station including the construction of a new scale house and a relocated commercial weigh scale, a new parking area for staff, and modifications to that will open the Green Street driveway as an entrance-only access point for residential and commercial scale uses. Container trucks will

continue to use Green Street for access and egress. Residential and commercial scale users will continue to exit the Site onto Woodfin Terrace and Beacon Street. The proposed Site plan is shown in Figure 4 and the changes to vehicular circulation are summarized below:

- › The Green Street driveway will be used as the entrance for residential and commercial scale users and will continue to serve access and egress for container trucks.
- › The Woodfin Terrace/Beacon Street driveway will be used as an egress point for residential and commercial scale users.
- › Vehicular safety will be enhanced along Beacon Street by the removal of the entering traffic along Woodfin Terrace. Queuing onto the public roadways that occurs when the Transfer Station is closed for lunch and during the morning prior to opening will also be eliminated.
- › Gates will be placed internal to the Site to allow vehicles to queue within the Transfer Station property in the morning and during the scheduled lunch break between 12:00 – 1:00 PM. There will be up to 750 feet of queue storage on the Site, which is the equivalent of approximately 25 to 30 vehicles. The queue storage will not be needed during hours of operation since the gates will be open.
- › The existing gate along Green Street will be retained and will be operated remotely to allow vehicles early access into the Site to prevent queuing on Green Street.
- › The Green Street driveway is approximately 20-feet wide at its narrowest point, which will allow for occasional two-way traffic. Exiting vehicles will be limited to container trucks, which should be scheduled to minimize conflicts with entering vehicles.

### **Proposed Circulation Patterns**

The Project will change the traffic patterns along Beacon Street and Green Street due to the changes in operations at the Site driveways. To estimate the changes in traffic volumes along Beacon Street and Green Street, a trip distribution pattern for vehicles entering and exiting the Site was developed based on existing traffic volumes along both roadways and at the intersection of Green Street at West Shore Drive and Pitman Road. The trip distribution patterns for trips related to the Transfer Station is shown in Figure 5. As shown, approximately 60 percent of the Site related traffic uses West Shore Drive, 30 percent uses Green Street, with the remaining 10 percent oriented to the neighborhoods to the north and east. Figure 6 shows the total number of daily trips related to the Transfer Station on the adjacent roadways for a weekday and Saturday.

The Project will redistribute the entering Site-related trips from Beacon Street to Green Street. The redistribution of entering traffic volumes will result in a decrease in traffic along Beacon Street and an increase in traffic along Green Street between the Site driveway and West Shore Drive. The Project will not have any impact on traffic volumes along West Shore Drive west of Green Street or on Green Street south of the Site driveway. The change in traffic volumes resulting from the redistribution of entering traffic is shown on Figures 7 and 8 for the daily and peak hour time periods and shown in Table 4. As shown in Figures 7 and 8 and Table 4, the segment of Beacon Street east of Green Street will experience reductions of 880 vehicles on a weekday, 1,120 vehicles on a Saturday, 140 vehicles during the weekday peak hour of the Site, and 225 vehicles during the Saturday peak hour of the Site. The segment of Green Street between West Shore Drive and the site driveway will experience increases of 440 vehicles on a weekday, 560 vehicles on a Saturday, 70 vehicles during the weekday peak hour of the Site, and 115 vehicles during the Saturday peak hour of the Site.

**Table 4 Traffic Volume Changes**

Roadway Segment	Existing Traffic Volumes <sup>1</sup>	Change <sup>2</sup>	Future Traffic Volumes
<b>Green Street north of Site Driveway</b>			
Weekday Daily	3,540	+440	3,980
Weekday Peak Hour	275	+70	345
Saturday Daily	2,970	+560	3,530
Saturday Peak Hour	300	+115	415
<b>Beacon Street east of Green Street</b>			
Weekday Daily	7,300	-880	6,420
Weekday Peak Hour	510	-140	370
Saturday Daily	5,450	-1,120	4,330
Saturday Peak Hour	775	-225	550

1 Based on ATR counts conducted in May 2022.

2 Change in traffic volumes due to proposed Site access modifications

### Sight Distance Measurements

Sight distance measurements were performed at the intersection of Green Street at the Site driveway in conformance with guidelines of the American Association of State Highway and Transportation Officials (AASHTO)<sup>1</sup>.

Sight distance considerations are generally divided into two categories: Stopping Sight Distance (SSD) and Intersection Sight Distance (ISD). Stopping Sight Distance (SSD) is the distance required for a vehicle approaching an intersection from either direction to perceive, react and come to a complete stop before colliding with an object in the road, in this case the exiting vehicle from a driveway. In this respect, SSD can be considered as the minimum visibility criterion for the safe operation of an unsignalized intersection. SSD is affected by vehicle speeds, the grade of the roadway, perception-reaction time of the driver, and the vehicle's deceleration rate.

Intersection Sight Distance (ISD) is based on the time required for perception, reaction, and completion of the desired critical exiting maneuver once the driver on a minor street or driveway approach decided to execute the maneuver. Calculation for the critical ISD includes the time to (1) turn left, and to clear the half of the intersection without conflicting with the vehicles approaching from the left; and (2) accelerate to the operating speed of the roadway without causing approaching vehicles to unduly reduce their speed. In this context, ISD can be considered as a desirable visibility criterion for the safe operation of an unsignalized intersection. Essentially, while SSD is the minimum distance needed to avoid collisions, ISD is the minimum distance needed so that mainline motorists will not have to substantially reduce their speed due to turning vehicles. To maintain the safe operation of an unsignalized intersection, ISD only needs to be equal to the stopping sight distance, though it is desirable to meet ISD requirements by themselves. The Green Street driveway will primarily be used for entering traffic only and ISD will not be applicable for most activity that occurs at the intersection.

1 A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), 2013.

An operating speed of 35 miles per hour (mph) along Green Street was used to conduct the sight distance evaluation.

Table 5 summarizes the sight distance analyses based on field measurements. The sight distance worksheets are included in the Appendix to this document.

**Table 5      Sight Distance Summary**

Location	Stopping Sight Distance (feet)			Intersection Sight Distance (feet)		
	Traveling	Required <sup>a</sup>	Measured <sup>b</sup>	Turning	Desirable <sup>a</sup>	Measured <sup>b</sup>
Green Street at Site Driveway	NB <sup>c</sup>	250	450	Left	390	450
	SB <sup>d</sup>	250	500	Right	335	450

a Based on standards established in A Policy on the Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 2013. Based on an operating speed of 35 mph at the Site driveway.

b Based on field measurements taken by VHB in May 2022. Measured ISD for left turns is the minimum of available sight distance for both directions. Measured ISD for right-turns is the available sight distance while looking left from the intersection location.

c Sight distance is limited by the vertical curvature of the roadway.

d Sight distance extends to West Shore Drive.

As shown in Table 5, sight lines extend 450 feet south of the Site driveway and 500 feet north of the Site driveway. Adequate SSD and ISD are currently provided at the Site driveway intersection with Green Street. This driveway will primarily be used for entering vehicles only, except for the limited number of container trucks that will exit onto Green Street.

## Traffic Operations Analysis

A traffic operations analysis was conducted for the intersection of Green Street at West Shore Drive and Pitman Road and the intersection of Green Street at the Site driveway (for the future conditions only) for the weekday morning, afternoon, and Saturday midday peak hours of the intersections. The operations analysis was conducted for the Existing conditions and for the Build conditions, which incorporates the expected redistribution of traffic volumes resulting from the Project. The operations analysis represents a slightly conservative projection for future conditions by combining the peak hour of the intersection operations and the peak hour of the redistributed Site traffic (i.e. the TMCs were conducted between 7:00 – 9:00 AM and 2:00 – 4:00 PM on the weekday but peak operations of the Site occur between 10:45 – 11:45 AM and 1:15 – 2:15 PM). The operations analysis was conducted using the Synchro software and is presented in Table 6.

As shown in Table 6, movements at the intersection of Green Street at West Shore Drive and Pitman Road operate at LOS C or better during the three analysis periods and will continue to operate at these levels with the implementation of the Transfer Station upgrades. Operations are expected to improve with the Project due to fewer vehicles that must travel through the intersection from the south along Green Street. The maximum queues at the intersection are approximately 50 feet, which represents two vehicles.

The intersection of Green Street at the Site driveway will operate at LOS A for all movements with the implementation of the Project. The intersection primarily serves entering vehicles, with only scheduled container trucks exiting the driveway.

Based on the operations analysis, the Project will have minimal impacts to operations of the surrounding transportation network and no additional off-site improvements are necessary to accommodate the Project.

**Table 6 Intersection Capacity Analysis**

	Existing Conditions				Build Conditions			
	v/c <sup>a</sup>	Del <sup>b</sup>	LOS <sup>c</sup>	95Q <sup>d</sup>	v/c	Del	LOS	95Q
<b>Green Street at West Shore Drive and Pitman Road</b>								
<i>Weekday Morning Peak Hour</i>								
Pitman Road EB L/T/R	0.07	11.4	B	<1	0.07	11.1	B	<1
Green Street WB L/T/R	0.43	19.0	C	2	0.35	17.4	C	2
West Shore Drive NB L/T/R	0.01	7.6	A	0	0.01	7.6	A	0
Green Street SB L/T/R	0.09	8.0	A	<1	0.09	7.8	A	<1
<i>Weekday Afternoon Peak Hour</i>								
Pitman Road EB L/T/R	0.06	14.6	B	<1	0.06	13.8	B	<1
Green Street WB L/T/R	0.37	16.7	C	2	0.31	15.8	C	2
West Shore Drive NB L/T/R	0.02	7.8	A	<1	0.02	7.8	A	<1
Green Street SB L/T/R	0.08	7.9	A	<1	0.08	7.7	A	<1
<i>Saturday Peak Hour</i>								
Pitman Road EB L/T/R	0.11	18.5	C	<1	0.09	15.6	C	<1
Green Street WB L/T/R	0.41	18.2	C	2	0.23	16.7	C	1
West Shore Drive NB L/T/R	0.01	7.9	A	0	0.01	7.9	A	0
Green Street SB L/T/R	0.10	8.2	A	<1	0.11	7.7	A	<1
<b>Green Street at Site Driveway</b>								
<i>Weekday Morning Peak Hour</i>								
Driveway WB L/R					0.00	0.0	A	0
Green Street NB T/R					0.00	0.0	A	0
Green Street SB L/T					0.05	7.7	A	<1
<i>Weekday Evening Peak Hour</i>								
Driveway WB L/R					0.00	0.0	A	0
Green Street NB T/R					0.00	0.0	A	0
Green Street SB L/T					0.06	7.7	A	<1
<i>Saturday Peak Hour</i>								
Driveway WB L/R					0.00	0.0	A	0
Green Street NB T/R					0.00	0.0	A	0
Green Street SB L/T					0.15	8.0	A	<1

a volume to capacity ratio

b delay, measured in seconds

c level of service

d 95<sup>th</sup> percentile queue in number of vehicles

Intersection not analyzed under Existing Conditions due to minimal traffic volumes at the Site Driveway

## Conclusions and Recommendations

The Project is proposing modifications and upgrades to the existing Marblehead Transfer Station. The proposed upgrades include the construction of a new scale house with a new weigh scale, a reconfiguration of vehicular access to and circulation through the Site, and a new employee parking area at the Marblehead Transfer Station along with other enhancements to operations on the Site.

The proposed circulation plan calls for the Green Street driveway to be open to entering residential and commercial users and maintain the existing container truck access and egress. Under the new plan, the Woodfin Terrace driveway will be used by exiting residential and commercial users. No vehicles will enter the Site from the Woodfin Terrace driveway.

This memorandum is intended to provide the Client with an assessment and recommendations related to the transportation impacts and the proposed vehicular circulation changes for the Site. The following conclusions and recommendations are provided based on the evaluation presented in this memorandum:

- › The Project will improve vehicular safety and eliminate queue spillbacks onto Beacon Street by moving the entrance away from Woodfin Terrace to Green Street.
- › The Project will have relatively minimal impacts to the operations at the intersection of Green Street at West Shore Drive and Pitman Road, as well as Green Street in general.
- › The Site will provide storage for up to 25 - 30 vehicles of on-site queuing for the time periods when vehicles must wait for the gates to open (e.g. in the morning and during the lunch break when the facility is closed from 12:00 – 1:00 PM). The queue storage that will be available will minimize the potential for long queues to spill back on to Green Street.
- › Commercial weigh scale activity represents around 5 to 6 percent of the total activity and will be accommodated entirely on the Site as a result of the proposed circulation changes.
- › A gate internal to the Site is recommended to allow residential vehicles and vehicles using the commercial weigh scale to queue during the time periods prior to opening and during the lunch break. The approximate location of the proposed gate is shown on the enclosed site plan.
- › The existing gate at the end of the Green Street should remain in place and be opened 15 – 20 minutes prior to the opening of the Transfer Station to further minimize queuing on Green Street.
- › Traffic operations on and surrounding the Site should be monitored after the Project is complete to determine if any additional refinements to Site operations are needed.

Overall, the analysis presented in this memorandum indicate that the Project can be constructed with minimal impact to the surrounding transportation infrastructure. The Project will improve safety along Beacon Street and will provide sufficient on-Site storage for vehicles that need to queue during periods when the Transfer Station is closed to customers.



Not to Scale



Existing Site Context

Marblehead Transfer Station  
Marblehead, Massachusetts

**Figure 1**



Not to Scale



Existing Daily Traffic Volumes

Marblehead Transfer Station  
Marblehead, Massachusetts

**Figure 2**



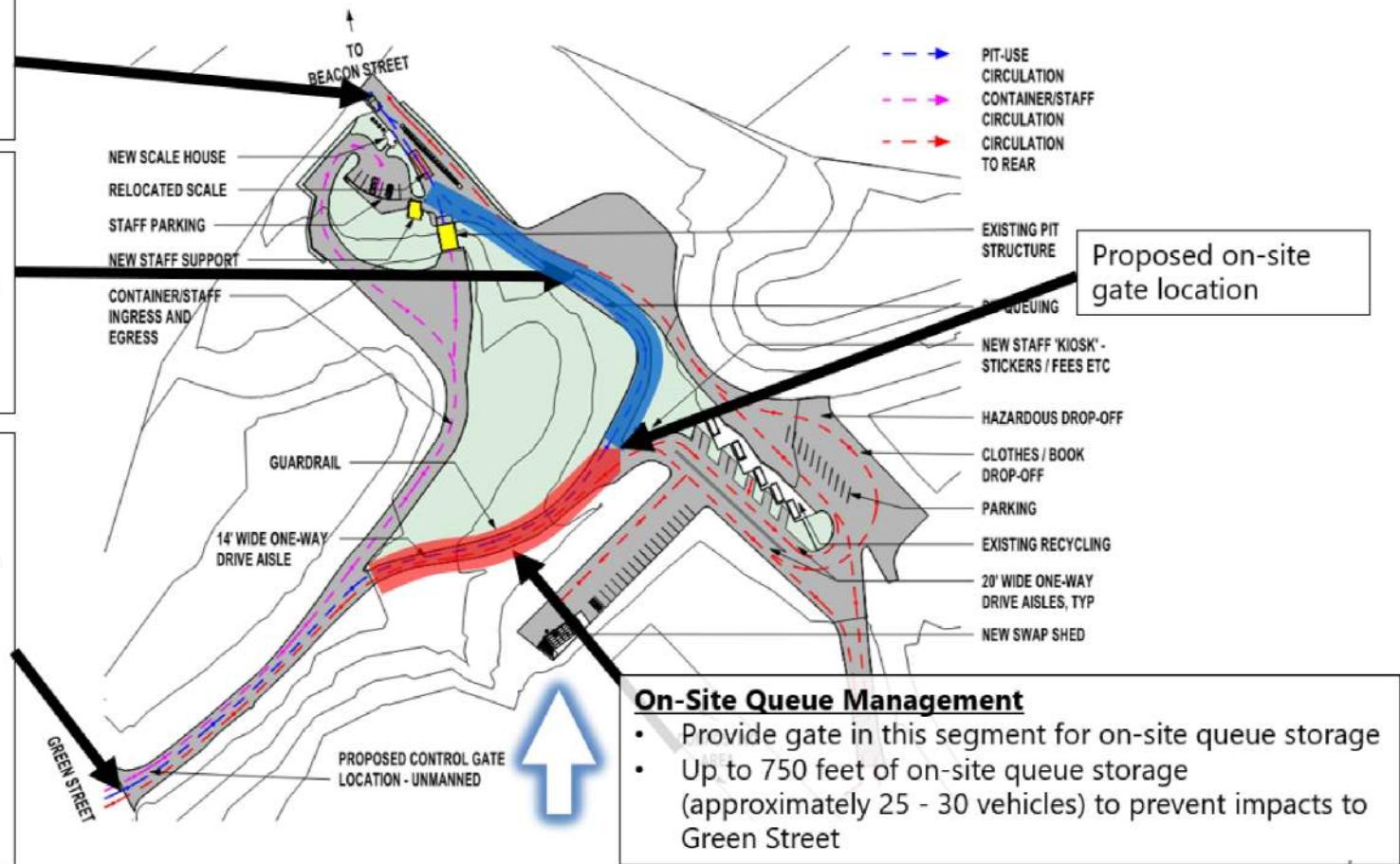
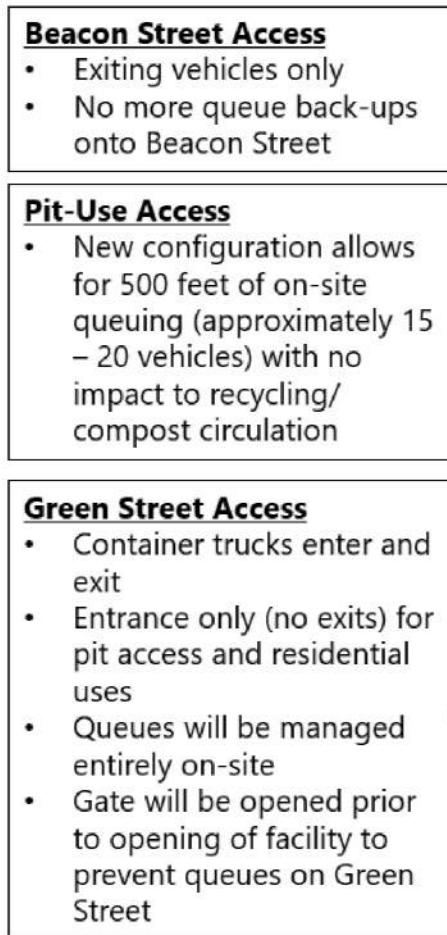
Existing Peak Hour Traffic Volumes

**Figure 3**



Not to Scale

Marblehead Transfer Station  
Marblehead, Massachusetts



Not to Scale



Future Site Operations

Marblehead Transfer Station  
Marblehead, Massachusetts

**Figure 4**



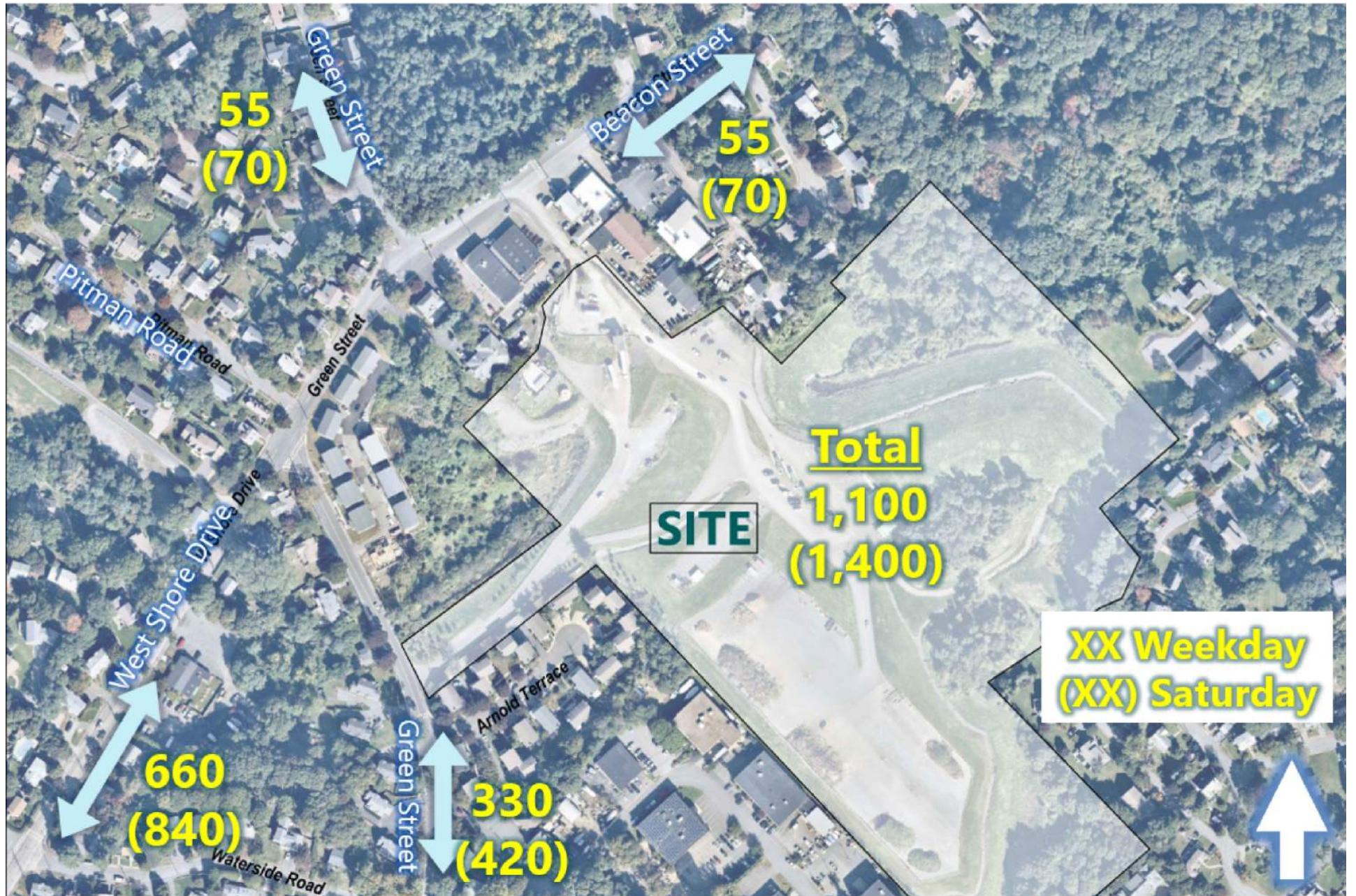
Trip Distribution Patterns



Not to Scale

Marblehead Transfer Station  
Marblehead, Massachusetts

**Figure 5**



↑  
Not to Scale



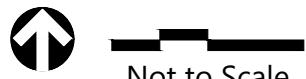
Transfer Station Daily Visits

Marblehead Transfer Station  
Marblehead, Massachusetts

**Figure 6**



Daily Traffic Volume Changes



Not to Scale

Marblehead Transfer Station  
Marblehead, Massachusetts

**Figure 7**



↑  
Not to Scale



Peak Hour Traffic Volume Changes

**Figure 8**

Marblehead Transfer Station  
Marblehead, Massachusetts

## Appendix

- › Traffic Count Data
- › Commercial Weigh Scale Data
- › Motor Vehicle Crash Data
- › Sight Distance Calculations
- › Traffic Operations Analysis Worksheets

## Traffic Count Data

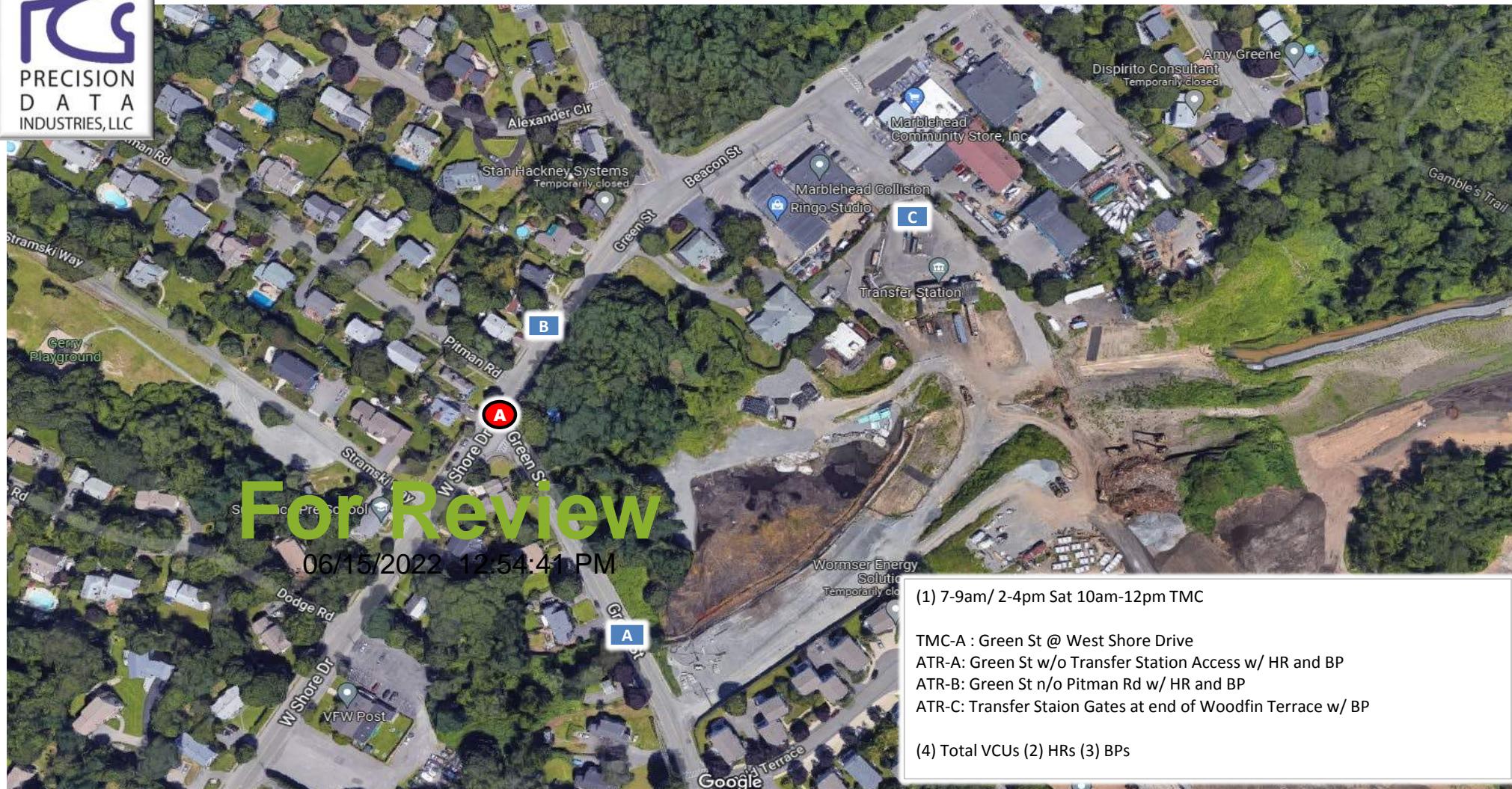
This page contains traffic count data for various locations. The data is presented in a table format.

Location	Day Type	Count (approx.)
Highway A	Weekday	12,000
Highway A	Weekend	8,000
Highway B	Weekday	10,000
Highway B	Weekend	7,000
Highway C	Weekday	9,000
Highway C	Weekend	6,000
Highway D	Weekday	8,000
Highway D	Weekend	5,000
Highway E	Weekday	7,000
Highway E	Weekend	4,000
Highway F	Weekday	6,000
Highway F	Weekend	3,000
Highway G	Weekday	5,000
Highway G	Weekend	2,000
Highway H	Weekday	4,000
Highway H	Weekend	1,500
Highway I	Weekday	3,000
Highway I	Weekend	1,000
Highway J	Weekday	2,000
Highway J	Weekend	500



## Location Map: 228589 Marblehead, MA

Precision Data Industries, LLC 157 Washington Street, Suite 2, Hudson, MA 01749 ph: 508-875-0100 email: datarequests@pdillc.com



(1) 7-9am/ 2-4pm Sat 10am-12pm TMC

TMC-A : Green St @ West Shore Drive

ATR-A: Green St w/o Transfer Station Access w/ HR and BP

ATR-B: Green St n/o Pitman Rd w/ HR and BP

ATR-C: Transfer Staion Gates at end of Woodfin Terrace w/ BP

(4) Total VCUs (2) HRs (3) BPs

Client:  
VHB

Engineer:  
V. Kalikiri

Site Code:

Date:  
Thurs 5/19 thru Wed 5/25/2022

PDI Job #  
228589

City, State:  
Marblehead, MA

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Thursday, May 19, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**



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

Class:

### Cars and Heavy Vehicles (Combined)

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
7:00 AM	0	32	11	0	43	5	1	8	0	14	6	19	0	0	25	3	0	0	0	3	85
7:15 AM	0	39	9	0	48	7	1	11	0	19	16	22	0	0	38	4	2	1	0	7	112
7:30 AM	0	61	17	0	78	11	0	18	0	29	15	29	1	0	45	10	2	0	0	12	164
7:45 AM	0	48	33	0	81	22	3	12	0	37	19	46	2	0	67	6	3	1	0	10	195
<b>Total</b>	0	180	70	0	250	45	5	49	0	99	56	116	3	0	175	23	7	2	0	32	556
8:00 AM	0	37	27	0	64	27	0	18	0	45	25	60	0	0	85	3	1	0	0	4	198
8:15 AM	0	32	22	0	54	17	3	11	0	31	15	33	0	0	48	3	1	0	0	4	137
8:30 AM	0	39	14	0	53	28	1	19	0	48	16	38	0	0	54	5	3	1	0	9	164
8:45 AM	0	40	21	0	61	17	3	13	0	33	13	43	0	0	56	3	0	0	0	3	153
<b>Total</b>	0	148	84	0	232	89	7	61	0	157	69	174	0	0	243	14	5	1	0	20	652
Grand Total	0	328	154	0	482	134	12	110	0	256	125	290	3	0	418	37	12	3	0	52	1208
Approach %	0.0	68.0	32.0	0.0		52.3	4.7	43.0	0.0		29.9	69.4	0.7	0.0		71.2	23.1	5.8	0.0		
Total %	0.0	27.2	12.7	0.0	39.9	11.1	1.0	9.1	0.0	21.2	10.3	24.0	0.2	0.0	34.6	3.1	1.0	0.2	0.0	4.3	
Exiting Leg Total					427					291					475					15	1208
Cars	0	318	148	0	466	126	12	104	0	242	124	271	3	0	398	36	12	3	0	51	1157
% Cars	0.0	97.0	96.1	0.0	96.7	94.0	100.0	94.5	0.0	94.5	99.2	93.4	100.0	0.0	95.2	97.3	100.0	100.0	0.0	98.1	95.8
Exiting Leg Total					400					284					458					15	1157
Heavy Vehicles	0	10	6	0	16	8	0	6	0	14	1	19	0	0	20	1	0	0	0	1	51
% Heavy Vehicles	0.0	3.0	3.9	0.0	3.3	6.0	0.0	5.5	0.0	5.5	0.8	6.6	0.0	0.0	4.8	2.7	0.0	0.0	0.0	1.9	4.2
Exiting Leg Total					27					7					17					0	51

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

7:30 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
7:30 AM	0	61	17	0	78	11	0	18	0	29	15	29	1	0	45	10	2	0	0	12	164
7:45 AM	0	48	33	0	81	22	3	12	0	37	19	46	2	0	67	6	3	1	0	10	195
8:00 AM	0	37	27	0	64	27	0	18	0	45	25	60	0	0	85	3	1	0	0	4	198
8:15 AM	0	32	22	0	54	17	3	11	0	31	15	33	0	0	48	3	1	0	0	4	137
<b>Total Volume</b>	0	178	99	0	277	77	6	59	0	142	74	168	3	0	245	22	7	1	0	30	694
% Approach Total	0.0	64.3	35.7	0.0		54.2	4.2	41.5	0.0		30.2	68.6	1.2	0.0		73.3	23.3	3.3	0.0		
PHF	0.000	0.730	0.750	0.000	0.855	0.713	0.500	0.819	0.000	0.789	0.740	0.700	0.375	0.000	0.721	0.550	0.583	0.250	0.000	0.625	0.876
Cars	0	174	95	0	269	75	6	53	0	134	73	158	3	0	234	22	7	1	0	30	667
Cars %	0.0	97.8	96.0	0.0	97.1	97.4	100.0	89.8	0.0	94.4	98.6	94.0	100.0	0.0	95.5	100.0	100.0	100.0	0.0	100.0	96.1
Heavy Vehicles	0	4	4	0	8	2	0	6	0	8	1	10	0	0	11	0	0	0	0	0	27
Heavy Vehicles %	0.0	2.2	4.0	0.0	2.9	2.6	0.0	10.2	0.0	5.6	1.4	6.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	3.9
Cars Enter Leg	0	174	95	0	269	75	6	53	0	134	73	158	3	0	234	22	7	1	0	30	667
Heavy Enter Leg	0	4	4	0	8	2	0	6	0	8	1	10	0	0	11	0	0	0	0	0	27
<b>Total Entering Leg</b>	0	178	99	0	277	77	6	59	0	142	74	168	3	0	245	22	7	1	0	30	694
Cars Exiting Leg					234					175					249					9	667
Heavy Exiting Leg					12					5					10					0	27
<b>Total Exiting Leg</b>					246					180					259					9	694

PDI File #: 228589 A

Location: N: Green Street S: West Shore Drive

Location: E: Green Street W: Pitman Road

City, State: Marblehead, MA

Client: VHB/ V. Kalikiri

Site Code: TBA

Count Date: Thursday, May 19, 2022

Start Time: 7:00 AM

End Time: 9:00 AM

Class:



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

**Cars**

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
7:00 AM	0	30	11	0	41	5	1	8	0	14	6	18	0	0	24	3	0	0	0	3	82
7:15 AM	0	38	9	0	47	7	1	11	0	19	16	20	0	0	36	4	2	1	0	7	109
7:30 AM	0	60	17	0	77	11	0	16	0	27	14	27	1	0	42	10	2	0	0	12	158
7:45 AM	0	47	33	0	80	22	3	11	0	36	19	46	2	0	67	6	3	1	0	10	193
<b>Total</b>	0	175	70	0	245	45	5	46	0	96	55	111	3	0	169	23	7	2	0	32	542
8:00 AM	0	36	25	0	61	26	0	17	0	43	25	55	0	0	80	3	1	0	0	4	188
8:15 AM	0	31	20	0	51	16	3	9	0	28	15	30	0	0	45	3	1	0	0	4	128
8:30 AM	0	36	14	0	50	25	1	19	0	45	16	35	0	0	51	5	3	1	0	9	155
8:45 AM	0	40	19	0	59	14	3	13	0	30	13	40	0	0	53	2	0	0	0	2	144
<b>Total</b>	0	143	78	0	221	81	7	58	0	146	69	160	0	0	229	13	5	1	0	19	615
Grand Total	0	318	148	0	466	126	12	104	0	242	124	271	3	0	398	36	12	3	0	51	1157
Approach %	0.0	68.2	31.8	0.0		52.1	5.0	43.0	0.0		31.2	68.1	0.8	0.0		70.6	23.5	5.9	0.0		
Total %	0.0	27.5	12.8	0.0	40.3	10.9	1.0	9.0	0.0	20.9	10.7	23.4	0.3	0.0	34.4	3.1	1.0	0.3	0.0	4.4	
Exiting Leg Total					400					284					458					15	1157

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

7:30 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	60	17	0	77	11	0	16	0	27	14	27	1	0	42	10	2	0	0	12	158
7:45 AM	0	47	33	0	80	22	3	11	0	36	19	46	2	0	67	6	3	1	0	10	193
8:00 AM	0	36	25	0	61	26	0	17	0	43	25	55	0	0	80	3	1	0	0	4	188
8:15 AM	0	31	20	0	51	16	3	9	0	28	15	30	0	0	45	3	1	0	0	4	128
Total Volume	0	174	95	0	269	75	6	53	0	134	73	158	3	0	234	22	7	1	0	30	667
% Approach Total	0.0	64.7	35.3	0.0		56.0	4.5	39.6	0.0		31.2	67.5	1.3	0.0		73.3	23.3	3.3	0.0		
PHF	0.000	0.725	0.720	0.000	0.841	0.721	0.500	0.779	0.000	0.779	0.730	0.718	0.375	0.000	0.731	0.550	0.583	0.250	0.000	0.625	0.864
Entering Leg	0	174	95	0	269	75	6	53	0	134	73	158	3	0	234	22	7	1	0	30	667
Exiting Leg					234					175					249					9	667
Total					503					309					483					39	1334

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Thursday, May 19, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**



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

Class:

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

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	2	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	
7:30 AM	0	1	0	0	1	0	0	2	0	2	1	2	0	0	3	0	0	0	0	6	
7:45 AM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	
<b>Total</b>	0	5	0	0	5	0	0	3	0	3	1	5	0	0	6	0	0	0	0	14	
8:00 AM	0	1	2	0	3	1	0	1	0	2	0	5	0	0	5	0	0	0	0	10	
8:15 AM	0	1	2	0	3	1	0	2	0	3	0	3	0	0	3	0	0	0	0	9	
8:30 AM	0	3	0	0	3	3	0	0	0	3	0	3	0	0	3	0	0	0	0	9	
8:45 AM	0	0	2	0	2	3	0	0	0	3	0	3	0	0	3	1	0	0	0	9	
<b>Total</b>	0	5	6	0	11	8	0	3	0	11	0	14	0	0	14	1	0	0	0	37	
Grand Total	0	10	6	0	16	8	0	6	0	14	1	19	0	0	20	1	0	0	0	51	
Approach %	0.0	62.5	37.5	0.0		57.1	0.0	42.9	0.0		5.0	95.0	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	19.6	11.8	0.0	31.4	15.7	0.0	11.8	0.0	27.5	2.0	37.3	0.0	0.0	39.2	2.0	0.0	0.0	0.0	2.0	
Exiting Leg Total					27					7					17					51	
Buses	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	
% Buses	0.0	20.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	5.0	0.0	0.0	0.0	0.0	5.9	
Exiting Leg Total					1					0					2					3	
Single-Unit Trucks	0	6	5	0	11	8	0	5	0	13	1	15	0	0	16	1	0	0	0	1	41
% Single-Unit	0.0	60.0	83.3	0.0	68.8	100.0	0.0	83.3	0.0	92.9	100.0	78.9	0.0	0.0	80.0	100.0	0.0	0.0	0.0	100.0	80.4
Exiting Leg Total					23					6					12					0	41
Articulated Trucks	0	2	1	0	3	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	7
% Articulated	0.0	20.0	16.7	0.0	18.8	0.0	0.0	16.7	0.0	7.1	0.0	15.8	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	13.7
Exiting Leg Total					3					1					3					0	7

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

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	1	2	0	3	1	0	1	0	2	0	5	0	0	5	0	0	0	0	0	10
8:15 AM	0	1	2	0	3	1	0	2	0	3	0	3	0	0	3	0	0	0	0	0	9
8:30 AM	0	3	0	0	3	3	0	0	0	3	0	3	0	0	3	0	0	0	0	0	9
8:45 AM	0	0	2	0	2	3	0	0	0	3	0	3	0	0	3	1	0	0	0	1	9
<b>Total Volume</b>	0	5	6	0	11	8	0	3	0	11	0	14	0	0	14	1	0	0	0	1	37
<b>% Approach Total</b>	0.0	45.5	54.5	0.0		72.7	0.0	27.3	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.417	0.750	0.000	0.917	0.667	0.000	0.375	0.000	0.917	0.000	0.700	0.000	0.000	0.700	0.250	0.000	0.000	0.000	0.250	0.925
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	4	5	0	9	8	0	3	0	11	0	11	0	0	11	1	0	0	0	1	32
Single-Unit %	0.0	80.0	83.3	0.0	81.8	100.0	0.0	100.0	0.0	100.0	0.0	78.6	0.0	0.0	78.6	100.0	0.0	0.0	0.0	100.0	86.5
Articulated Trucks	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Articulated %	0.0	20.0	16.7	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0	21.4	0.0	0.0	0.0	0.0	0.0	13.5
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	4	5	0	9	8	0	3	0	11	0	11	0	0	11	1	0	0	0	1	32
Articulated Trucks	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Total Entering Leg	0	5	6	0	11	8	0	3	0	11	0	14	0	0	14	1	0	0	0	1	37
Buses					0					0					0					0	0
Single-Unit Trucks					19					5					8					0	32
Articulated Trucks					3					1					1					0	5
Total Exiting Leg					22					6					9					0	37

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Thursday, May 19, 2022**  
 Start Time: **7:00 AM**  
 End Time: **9:00 AM**



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

Class:

**Buses**

	Green Street					Green Street					West Shore Drive					Pitman Road						
	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	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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>0</b>	<b>2</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>1</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>3</b>	
8:00 AM	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	
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	0	0	0	0	0	
<b>Total</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>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>Grand Total</b>	<b>0</b>	<b>2</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>1</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>3</b>	
<b>Approach %</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>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>0.0</b>			
<b>Total %</b>	<b>0.0</b>	<b>66.7</b>	<b>0.0</b>	<b>0.0</b>	<b>66.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>	<b>33.3</b>	<b>0.0</b>	<b>0.0</b>	<b>33.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>			
<b>Exiting Leg Total</b>					<b>1</b>							<b>0</b>				<b>2</b>					<b>0</b>	<b>3</b>

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

7:00 AM	Green Street					Green Street					West Shore Drive					Pitman 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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
7:45 AM	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>	<b>0</b>	<b>2</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>1</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>3</b>	
<b>% Approach Total</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>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>0.0</b>			
<b>PHF</b>	<b>0.000</b>	<b>0.500</b>	<b>0.000</b>	<b>0.000</b>	<b>0.500</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>0.000</b>	<b>0.250</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.375</b>	
<b>Entering Leg</b>	<b>0</b>	<b>2</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>1</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>3</b>	
<b>Exiting Leg</b>					<b>1</b>						<b>0</b>				<b>2</b>					<b>0</b>	<b>3</b>	
<b>Total</b>					<b>3</b>						<b>0</b>				<b>3</b>					<b>0</b>	<b>6</b>	

PDI File #: 228589 A

Location: N: Green Street S: West Shore Drive

Location: E: Green Street W: Pitman Road

City, State: Marblehead, MA

Client: VHB/ V. Kalikiri

Site Code: TBA

Count Date: Thursday, May 19, 2022

Start Time: 7:00 AM

End Time: 9:00 AM

Class:



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

## Single-Unit Trucks

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	2	0	0	0	0	3
7:45 AM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	2	0	0	2	0	0	2	0	2	1	4	0	0	5	0	0	0	0	0	9
8:00 AM	0	1	1	0	2	1	0	1	0	2	0	4	0	0	4	0	0	0	0	0	8
8:15 AM	0	1	2	0	3	1	0	2	0	3	0	2	0	0	2	0	0	0	0	0	8
8:30 AM	0	2	0	0	2	3	0	0	0	3	0	3	0	0	3	0	0	0	0	0	8
8:45 AM	0	0	2	0	2	3	0	0	0	3	0	2	0	0	2	1	0	0	0	1	8
Total	0	4	5	0	9	8	0	3	0	11	0	11	0	0	11	1	0	0	0	1	32
Grand Total	0	6	5	0	11	8	0	5	0	13	1	15	0	0	16	1	0	0	0	1	41
Approach %	0.0	54.5	45.5	0.0		61.5	0.0	38.5	0.0		6.3	93.8	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	14.6	12.2	0.0	26.8	19.5	0.0	12.2	0.0	31.7	2.4	36.6	0.0	0.0	39.0	2.4	0.0	0.0	0.0	2.4	
Exiting Leg Total					23					6					12					0	41

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

8:00 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
8:00 AM	0	1	1	0	2	1	0	1	0	2	0	4	0	0	4	0	0	0	0	0	8
8:15 AM	0	1	2	0	3	1	0	2	0	3	0	2	0	0	2	0	0	0	0	0	8
8:30 AM	0	2	0	0	2	3	0	0	0	3	0	3	0	0	3	0	0	0	0	0	8
8:45 AM	0	0	2	0	2	3	0	0	0	3	0	2	0	0	2	1	0	0	0	1	8
Total Volume	0	4	5	0	9	8	0	3	0	11	0	11	0	0	11	1	0	0	0	1	32
% Approach Total	0.0	44.4	55.6	0.0		72.7	0.0	27.3	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.625	0.000	0.750	0.667	0.000	0.375	0.000	0.917	0.000	0.688	0.000	0.000	0.688	0.250	0.000	0.000	0.000	0.250	1.000
Entering Leg	0	4	5	0	9	8	0	3	0	11	0	11	0	0	11	1	0	0	0	1	32
Exiting Leg					19					5					8					0	32
Total					28					16					19					1	64

PDI File #: 228589 A

Location: N: Green Street S: West Shore Drive

Location: E: Green Street W: Pitman Road

City, State: Marblehead, MA

Client: VHB/ V. Kalikiri

Site Code: TBA

Count Date: Thursday, May 19, 2022

Start Time: 7:00 AM

End Time: 9:00 AM

Class:



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

## Articulated Trucks

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
<b>Total</b>	0	1	1	0	2	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	5
<b>Grand Total</b>	0	2	1	0	3	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	7
<b>Approach %</b>	0.0	66.7	33.3	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
<b>Total %</b>	0.0	28.6	14.3	0.0	42.9	0.0	0.0	14.3	0.0	14.3	0.0	42.9	0.0	0.0	42.9	0.0	0.0	0.0	0.0		
<b>Exiting Leg Total</b>					3					1					3					0	7

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

8:00 AM	Green Street					Green Street					West Shore Drive					Pitman 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	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
<b>Total Volume</b>	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5	
<b>% Approach Total</b>	0.0	50.0	50.0	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			
<b>PHF</b>	0.000	0.250	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.625		
<b>Entering Leg</b>	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5	
<b>Exiting Leg</b>					3					1					1					0	5	
<b>Total</b>					5					1					4					0	10	

PDI File #: **228589 A**Location: **N: Green Street S: West Shore Drive**Location: **E: Green Street W: Pitman Road**City, State: **Marblehead, MA**Client: **VHB/ V. Kalikiri**Site Code: **TBA**Count Date: **Thursday, May 19, 2022**Start Time: **7:00 AM**End Time: **9:00 AM**

Class:



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

**Bicycles (on Roadway and Crosswalks)**

	Green Street							Green Street							West Shore Drive							Pitman Road							Total
	from North							from East							from South							from West							Total
	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	Total
7:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
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
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
<b>Total</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</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>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>
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
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
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
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
<b>Total</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>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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Grand Total	0	1	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Approach %	0.0	50.0	50.0	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	25.0	25.0	0.0	0.0	0.0	50.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	
Exiting Leg Total							1							1							2							0	4

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

7:00 AM	Green Street							Green Street							West Shore Drive							Pitman 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	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:15 AM	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
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	
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	
<b>Total Volume</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</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>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	
% Approach Total	0.0	50.0	50.0	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.333	
PHF	0.000	0.250	0.250	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.333		
Entering Leg	0	1	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
Exiting Leg							1							1							2							0	4	
<b>Total</b>							3							2							2							1	8	

PDI File #: **228589 A**Location: **N: Green Street S: West Shore Drive**Location: **E: Green Street W: Pitman Road**City, State: **Marblehead, MA**Client: **VHB/ V. Kalikiri**Site Code: **TBA**Count Date: **Thursday, May 19, 2022**Start Time: **7:00 AM**End Time: **9:00 AM**

Class:



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

**Pedestrians**

	Green Street							Green Street							West Shore Drive							Pitman Road							Total
	from North							from East							from South							from West							Total
	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	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	1	4	5	
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	
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	1	1	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	0	3	0	0	0	0	1	0	1	
<b>Total</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>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>8</b>		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	1	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	1	1	1	
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	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>	
<b>Grand Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>6</b>	<b>9</b>	<b>15</b>	
<b>Approach %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>50</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33.3</b>	<b>66.7</b>		
<b>Total %</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6.67</b>	<b>6.67</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6.67</b>	<b>6.67</b>	<b>13.3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>40</b>	<b>60</b>		
<b>Exiting Leg Total</b>						<b>1</b>								<b>2</b>					<b>3</b>						<b>9</b>		<b>15</b>		

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

7:00 AM	Green Street							Green Street							West Shore Drive							Pitman Road							Total
	from North							from East							from South							from West							Total
	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	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	1	4	5	
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	
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	1	1	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	3	0	3	0	0	0	0	1	0	1	
<b>Total Volume</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>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>8</b>		
<b>% Approach Total</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>100.0</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>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>37.5</b>	<b>62.5</b>		
<b>PHF</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</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>0.250</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.250</b>	<b>0.000</b>	<b>0.250</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.750</b>	<b>0.313</b>	<b>0.400</b>		
<b>Entering Leg</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>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>8</b>		
<b>Exiting Leg</b>													<b>1</b>							<b>3</b>					<b>3</b>		<b>8</b>	<b>12</b>	
<b>Total</b>						<b>0</b>							<b>2</b>							<b>6</b>							<b>16</b>	<b>24</b>	

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Thursday, May 19, 2022**  
 Start Time: **2:00 PM**  
 End Time: **4:00 PM**



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

Class:

### Cars and Heavy Vehicles (Combined)

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
2:00 PM	0	40	23	0	63	26	2	25	0	53	10	34	0	0	44	5	1	0	0	6	166
2:15 PM	0	64	25	0	89	22	2	13	0	37	9	46	5	0	60	4	1	1	0	6	192
2:30 PM	0	58	18	0	76	27	0	13	0	40	11	58	3	0	72	2	2	1	0	5	193
2:45 PM	1	50	25	0	76	30	1	13	0	44	17	47	12	0	76	3	1	0	0	4	200
<b>Total</b>	<b>1</b>	<b>212</b>	<b>91</b>	<b>0</b>	<b>304</b>	<b>105</b>	<b>5</b>	<b>64</b>	<b>0</b>	<b>174</b>	<b>47</b>	<b>185</b>	<b>20</b>	<b>0</b>	<b>252</b>	<b>14</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>21</b>	<b>751</b>
3:00 PM	3	52	25	0	80	28	0	18	0	46	9	55	5	0	69	3	1	1	0	5	200
3:15 PM	0	49	29	0	78	28	1	15	0	44	11	35	3	0	49	3	2	0	0	5	176
3:30 PM	1	47	10	0	58	19	0	20	0	39	21	44	2	0	67	4	2	0	0	6	170
3:45 PM	0	49	16	0	65	18	5	19	0	42	18	36	3	0	57	5	3	0	0	8	172
<b>Total</b>	<b>4</b>	<b>197</b>	<b>80</b>	<b>0</b>	<b>281</b>	<b>93</b>	<b>6</b>	<b>72</b>	<b>0</b>	<b>171</b>	<b>59</b>	<b>170</b>	<b>13</b>	<b>0</b>	<b>242</b>	<b>15</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>24</b>	<b>718</b>
Grand Total	5	409	171	0	585	198	11	136	0	345	106	355	33	0	494	29	13	3	0	45	1469
Approach %	0.9	69.9	29.2	0.0		57.4	3.2	39.4	0.0		21.5	71.9	6.7	0.0		64.4	28.9	6.7	0.0		
Total %	0.3	27.8	11.6	0.0	39.8	13.5	0.7	9.3	0.0	23.5	7.2	24.2	2.2	0.0	33.6	2.0	0.9	0.2	0.0	3.1	
Exiting Leg Total					556					290					574					49	1469
Cars	4	393	168	0	565	192	11	128	0	331	96	343	33	0	472	29	12	3	0	44	1412
% Cars	80.0	96.1	98.2	0.0	96.6	97.0	100.0	94.1	0.0	95.9	90.6	96.6	100.0	0.0	95.5	100.0	92.3	100.0	0.0	97.8	96.1
Exiting Leg Total					538					276					550					48	1412
Heavy Vehicles	1	16	3	0	20	6	0	8	0	14	10	12	0	0	22	0	1	0	0	1	57
% Heavy Vehicles	20.0	3.9	1.8	0.0	3.4	3.0	0.0	5.9	0.0	4.1	9.4	3.4	0.0	0.0	4.5	0.0	7.7	0.0	0.0	2.2	3.9
Exiting Leg Total					18					14					24					1	57

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

2:15 PM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
2:15 PM	0	64	25	0	89	22	2	13	0	37	9	46	5	0	60	4	1	1	0	6	192
2:30 PM	0	58	18	0	76	27	0	13	0	40	11	58	3	0	72	2	2	1	0	5	193
2:45 PM	1	50	25	0	76	30	1	13	0	44	17	47	12	0	76	3	1	0	0	4	200
3:00 PM	3	52	25	0	80	28	0	18	0	46	9	55	5	0	69	3	1	1	0	5	200
Total Volume	4	224	93	0	321	107	3	57	0	167	46	206	25	0	277	12	5	3	0	20	785
% Approach Total	1.2	69.8	29.0	0.0		64.1	1.8	34.1	0.0		16.6	74.4	9.0	0.0		60.0	25.0	15.0	0.0		
PHF	0.333	0.875	0.930	0.000	0.902	0.892	0.375	0.792	0.000	0.908	0.676	0.888	0.521	0.000	0.911	0.750	0.625	0.750	0.000	0.833	0.981
Cars	3	216	92	0	311	104	3	54	0	161	41	200	25	0	266	12	5	3	0	20	758
Cars %	75.0	96.4	98.9	0.0	96.9	97.2	100.0	94.7	0.0	96.4	89.1	97.1	100.0	0.0	96.0	100.0	100.0	100.0	0.0	100.0	96.6
Heavy Vehicles	1	8	1	0	10	3	0	3	0	6	5	6	0	0	11	0	0	0	0	0	27
Heavy Vehicles %	25.0	3.6	1.1	0.0	3.1	2.8	0.0	5.3	0.0	3.6	10.9	2.9	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	3.4
Cars Enter Leg	3	216	92	0	311	104	3	54	0	161	41	200	25	0	266	12	5	3	0	20	758
Heavy Enter Leg	1	8	1	0	10	3	0	3	0	6	5	6	0	0	11	0	0	0	0	0	27
Total Entering Leg	4	224	93	0	321	107	3	57	0	167	46	206	25	0	277	12	5	3	0	20	785
Cars Exiting Leg					307					138					282					31	758
Heavy Exiting Leg					9					6					11					1	27
Total Exiting Leg					316					144					293					32	785

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
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 City, State: **Marblehead, MA**  
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 Start Time: **2:00 PM**  
 End Time: **4:00 PM**



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

Class:

**Cars**

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
2:00 PM	0	38	23	0	61	25	2	22	0	49	8	34	0	0	42	5	1	0	0	6	158
2:15 PM	0	62	25	0	87	22	2	12	0	36	8	45	5	0	58	4	1	1	0	6	187
2:30 PM	0	56	18	0	74	26	0	12	0	38	9	56	3	0	68	2	2	1	0	5	185
2:45 PM	1	49	24	0	74	30	1	12	0	43	15	45	12	0	72	3	1	0	0	4	193
<b>Total</b>	<b>1</b>	<b>205</b>	<b>90</b>	<b>0</b>	<b>296</b>	<b>103</b>	<b>5</b>	<b>58</b>	<b>0</b>	<b>166</b>	<b>40</b>	<b>180</b>	<b>20</b>	<b>0</b>	<b>240</b>	<b>14</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>21</b>	<b>723</b>
3:00 PM	2	49	25	0	76	26	0	18	0	44	9	54	5	0	68	3	1	1	0	5	193
3:15 PM	0	46	28	0	74	27	1	15	0	43	9	33	3	0	45	3	2	0	0	5	167
3:30 PM	1	46	10	0	57	19	0	18	0	37	20	40	2	0	62	4	1	0	0	5	161
3:45 PM	0	47	15	0	62	17	5	19	0	41	18	36	3	0	57	5	3	0	0	8	168
<b>Total</b>	<b>3</b>	<b>188</b>	<b>78</b>	<b>0</b>	<b>269</b>	<b>89</b>	<b>6</b>	<b>70</b>	<b>0</b>	<b>165</b>	<b>56</b>	<b>163</b>	<b>13</b>	<b>0</b>	<b>232</b>	<b>15</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>23</b>	<b>689</b>
<b>Grand Total</b>	<b>4</b>	<b>393</b>	<b>168</b>	<b>0</b>	<b>565</b>	<b>192</b>	<b>11</b>	<b>128</b>	<b>0</b>	<b>331</b>	<b>96</b>	<b>343</b>	<b>33</b>	<b>0</b>	<b>472</b>	<b>29</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>44</b>	<b>1412</b>
<b>Approach %</b>	<b>0.7</b>	<b>69.6</b>	<b>29.7</b>	<b>0.0</b>		<b>58.0</b>	<b>3.3</b>	<b>38.7</b>	<b>0.0</b>		<b>20.3</b>	<b>72.7</b>	<b>7.0</b>	<b>0.0</b>		<b>65.9</b>	<b>27.3</b>	<b>6.8</b>	<b>0.0</b>		
<b>Total %</b>	<b>0.3</b>	<b>27.8</b>	<b>11.9</b>	<b>0.0</b>	<b>40.0</b>	<b>13.6</b>	<b>0.8</b>	<b>9.1</b>	<b>0.0</b>	<b>23.4</b>	<b>6.8</b>	<b>24.3</b>	<b>2.3</b>	<b>0.0</b>	<b>33.4</b>	<b>2.1</b>	<b>0.8</b>	<b>0.2</b>	<b>0.0</b>	<b>3.1</b>	
<b>Exiting Leg Total</b>					<b>538</b>					<b>276</b>					<b>550</b>					<b>48</b>	<b>1412</b>

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

2:15 PM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
2:15 PM	0	62	25	0	87	22	2	12	0	36	8	45	5	0	58	4	1	1	0	6	187
2:30 PM	0	56	18	0	74	26	0	12	0	38	9	56	3	0	68	2	2	1	0	5	185
2:45 PM	1	49	24	0	74	30	1	12	0	43	15	45	12	0	72	3	1	0	0	4	193
3:00 PM	2	49	25	0	76	26	0	18	0	44	9	54	5	0	68	3	1	1	0	5	193
<b>Total Volume</b>	<b>3</b>	<b>216</b>	<b>92</b>	<b>0</b>	<b>311</b>	<b>104</b>	<b>3</b>	<b>54</b>	<b>0</b>	<b>161</b>	<b>41</b>	<b>200</b>	<b>25</b>	<b>0</b>	<b>266</b>	<b>12</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>20</b>	<b>758</b>
<b>% Approach Total</b>	<b>1.0</b>	<b>69.5</b>	<b>29.6</b>	<b>0.0</b>		<b>64.6</b>	<b>1.9</b>	<b>33.5</b>	<b>0.0</b>		<b>15.4</b>	<b>75.2</b>	<b>9.4</b>	<b>0.0</b>		<b>60.0</b>	<b>25.0</b>	<b>15.0</b>	<b>0.0</b>		
<b>PHF</b>	<b>0.375</b>	<b>0.871</b>	<b>0.920</b>	<b>0.000</b>	<b>0.894</b>	<b>0.867</b>	<b>0.375</b>	<b>0.750</b>	<b>0.000</b>	<b>0.915</b>	<b>0.683</b>	<b>0.893</b>	<b>0.521</b>	<b>0.000</b>	<b>0.924</b>	<b>0.750</b>	<b>0.625</b>	<b>0.750</b>	<b>0.000</b>	<b>0.833</b>	<b>0.982</b>
<b>Entering Leg</b>	<b>3</b>	<b>216</b>	<b>92</b>	<b>0</b>	<b>311</b>	<b>104</b>	<b>3</b>	<b>54</b>	<b>0</b>	<b>161</b>	<b>41</b>	<b>200</b>	<b>25</b>	<b>0</b>	<b>266</b>	<b>12</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>20</b>	<b>758</b>
<b>Exiting Leg</b>					<b>307</b>					<b>138</b>					<b>282</b>					<b>31</b>	<b>758</b>
<b>Total</b>					<b>618</b>					<b>299</b>					<b>548</b>					<b>51</b>	<b>1516</b>

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Thursday, May 19, 2022**  
 Start Time: **2:00 PM**  
 End Time: **4:00 PM**



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

Class:

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

	Green Street					Green Street					West Shore Drive					Pitman Road				
	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
2:00 PM	0	2	0	0	2	1	0	3	0	4	2	0	0	0	2	0	0	0	0	8
2:15 PM	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	5
2:30 PM	0	2	0	0	2	1	0	1	0	2	2	2	0	0	4	0	0	0	0	8
2:45 PM	0	1	1	0	2	0	0	1	0	1	2	2	0	0	4	0	0	0	0	7
<b>Total</b>	0	7	1	0	8	2	0	6	0	8	7	5	0	0	12	0	0	0	0	28
3:00 PM	1	3	0	0	4	2	0	0	0	2	0	1	0	0	1	0	0	0	0	7
3:15 PM	0	3	1	0	4	1	0	0	0	1	2	2	0	0	4	0	0	0	0	9
3:30 PM	0	1	0	0	1	0	0	2	0	2	1	4	0	0	5	0	1	0	0	9
3:45 PM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4
<b>Total</b>	1	9	2	0	12	4	0	2	0	6	3	7	0	0	10	0	1	0	0	29
<b>Grand Total</b>	1	16	3	0	20	6	0	8	0	14	10	12	0	0	22	0	1	0	0	57
<b>Approach %</b>	5.0	80.0	15.0	0.0		42.9	0.0	57.1	0.0		45.5	54.5	0.0	0.0		0.0	100.0	0.0	0.0	
<b>Total %</b>	1.8	28.1	5.3	0.0	35.1	10.5	0.0	14.0	0.0	24.6	17.5	21.1	0.0	0.0	38.6	0.0	1.8	0.0	0.0	1.8
<b>Exiting Leg Total</b>						18				14					24					57
Buses	0	2	0	0	2	1	0	2	0	3	2	2	0	0	4	0	0	0	0	9
% Buses	0.0	12.5	0.0	0.0	10.0	16.7	0.0	25.0	0.0	21.4	20.0	16.7	0.0	0.0	18.2	0.0	0.0	0.0	0.0	15.8
<b>Exiting Leg Total</b>						3				2					4					9
Single-Unit Trucks	0	10	3	0	13	2	0	6	0	8	7	10	0	0	17	0	0	0	0	38
% Single-Unit	0.0	62.5	100.0	0.0	65.0	33.3	0.0	75.0	0.0	57.1	70.0	83.3	0.0	0.0	77.3	0.0	0.0	0.0	0.0	66.7
<b>Exiting Leg Total</b>						12				10					16					38
Articulated Trucks	1	4	0	0	5	3	0	0	0	3	1	0	0	0	1	0	1	0	0	10
% Articulated	100.0	25.0	0.0	0.0	25.0	50.0	0.0	0.0	0.0	21.4	10.0	0.0	0.0	0.0	4.5	0.0	100.0	0.0	0.0	100.0
<b>Exiting Leg Total</b>						3				2					4					10

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

2:45 PM	Green Street					Green Street					West Shore Drive					Pitman Road				
	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
2:45 PM	0	1	1	0	2	0	0	1	0	1	2	2	0	0	4	0	0	0	0	7
3:00 PM	1	3	0	0	4	2	0	0	0	2	0	1	0	0	1	0	0	0	0	7
3:15 PM	0	3	1	0	4	1	0	0	0	1	2	2	0	0	4	0	0	0	0	9
3:30 PM	0	1	0	0	1	0	0	2	0	2	1	4	0	0	5	0	1	0	0	9
<b>Total Volume</b>	1	8	2	0	11	3	0	3	0	6	5	9	0	0	14	0	1	0	0	32
<b>% Approach Total</b>	9.1	72.7	18.2	0.0		50.0	0.0	50.0	0.0		35.7	64.3	0.0	0.0		0.0	100.0	0.0	0.0	
<b>PHF</b>	0.250	0.667	0.500	0.000	0.688	0.375	0.000	0.375	0.000	0.750	0.625	0.563	0.000	0.000	0.700	0.000	0.250	0.000	0.000	0.889
Buses	0	1	0	0	1	1	0	1	0	2	2	1	0	0	3	0	0	0	0	6
Buses %	0.0	12.5	0.0	0.0	9.1	33.3	0.0	33.3	0.0	33.3	40.0	11.1	0.0	0.0	21.4	0.0	0.0	0.0	0.0	18.8
Single-Unit Trucks	0	6	2	0	8	0	0	2	0	2	2	8	0	0	10	0	0	0	0	20
Single-Unit %	0.0	75.0	100.0	0.0	72.7	0.0	0.0	66.7	0.0	33.3	40.0	88.9	0.0	0.0	71.4	0.0	0.0	0.0	0.0	62.5
Articulated Trucks	1	1	0	0	2	2	0	0	0	2	1	0	0	0	1	0	1	0	0	6
Articulated %	100.0	12.5	0.0	0.0	18.2	66.7	0.0	0.0	0.0	33.3	20.0	0.0	0.0	0.0	7.1	0.0	100.0	0.0	0.0	100.0
Buses	0	1	0	0	1	1	0	1	0	2	2	1	0	0	3	0	0	0	0	6
Single-Unit Trucks	0	6	2	0	8	0	0	2	0	2	2	8	0	0	10	0	0	0	0	20
Articulated Trucks	1	1	0	0	2	2	0	0	0	2	1	0	0	0	1	0	1	0	0	6
<b>Total Entering Leg</b>	1	8	2	0	11	3	0	3	0	6	5	9	0	0	14	0	1	0	0	32
Buses						2					2					2				0
Single-Unit Trucks						8					4					8				0
Articulated Trucks						2					2					1				1
<b>Total Exiting Leg</b>						12					8					11				1

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Thursday, May 19, 2022**  
 Start Time: **2:00 PM**  
 End Time: **4:00 PM**



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

Class:

**Buses**

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
2:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2
<b>Total</b>	0	1	0	0	1	0	0	2	0	2	1	1	0	0	2	0	0	0	0	0	5
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
<b>Total</b>	0	1	0	0	1	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	4
<b>Grand Total</b>	0	2	0	0	2	1	0	2	0	3	2	2	0	0	4	0	0	0	0	0	9
<b>Approach %</b>	0.0	100.0	0.0	0.0		33.3	0.0	66.7	0.0		50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
<b>Total %</b>	0.0	22.2	0.0	0.0	22.2	11.1	0.0	22.2	0.0	33.3	22.2	22.2	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	
<b>Exiting Leg Total</b>					3					2					4					0	9

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

2:45 PM	Green Street					Green Street					West Shore Drive					Pitman 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		
2:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2	
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
3:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
<b>Total Volume</b>	0	1	0	0	1	1	0	1	0	2	2	1	0	0	3	0	0	0	0	0	6	
<b>% Approach Total</b>	0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0		66.7	33.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
<b>PHF</b>	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.250	0.000	0.500	0.500	0.250	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.750		
<b>Entering Leg</b>	0	1	0	0	1	1	0	1	0	2	2	1	0	0	3	0	0	0	0	0	6	
<b>Exiting Leg</b>					2					2					2					0	6	
<b>Total</b>					3					4					5					0	12	

PDI File #: 228589 A

Location: N: Green Street S: West Shore Drive

Location: E: Green Street W: Pitman Road

City, State: Marblehead, MA

Client: VHB/ V. Kalikiri

Site Code: TBA

Count Date: Thursday, May 19, 2022

Start Time: 2:00 PM

End Time: 4:00 PM

Class:



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

## Single-Unit Trucks

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
2:00 PM	0	1	0	0	1	1	0	2	0	3	2	0	0	0	2	0	0	0	0	0	6
2:15 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2
2:30 PM	0	1	0	0	1	1	0	1	0	2	2	2	0	0	4	0	0	0	0	0	7
2:45 PM	0	1	1	0	2	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	5
Total	0	3	1	0	4	2	0	4	0	6	6	4	0	0	10	0	0	0	0	0	20
3:00 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
3:15 PM	0	2	1	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
3:30 PM	0	1	0	0	1	0	0	2	0	2	1	3	0	0	4	0	0	0	0	0	7
3:45 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	7	2	0	9	0	0	2	0	2	1	6	0	0	7	0	0	0	0	0	18
Grand Total	0	10	3	0	13	2	0	6	0	8	7	10	0	0	17	0	0	0	0	0	38
Approach %	0.0	76.9	23.1	0.0		25.0	0.0	75.0	0.0		41.2	58.8	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total %	0.0	26.3	7.9	0.0	34.2	5.3	0.0	15.8	0.0	21.1	18.4	26.3	0.0	0.0	44.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					12					10										0	38

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

2:00 PM	Green Street					Green Street					West Shore Drive					Pitman 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		
2:00 PM	0	1	0	0	1	1	0	2	0	3	2	0	0	0	2	0	0	0	0	0	6	
2:15 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2	
2:30 PM	0	1	0	0	1	1	0	1	0	2	2	2	0	0	4	0	0	0	0	0	7	
2:45 PM	0	1	1	0	2	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	5	
Total Volume	0	3	1	0	4	2	0	4	0	6	6	4	0	0	10	0	0	0	0	0	20	
% Approach Total	0.0	75.0	25.0	0.0		33.3	0.0	66.7	0.0		60.0	40.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.250	0.000	0.500	0.500	0.000	0.500	0.000	0.500	0.750	0.500	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.714		
Entering Leg	0	3	1	0	4			2	0	4	0	6	6	4	0	0	10	0	0	0	20	
Exiting Leg					6			0		7		7					7			0	20	
Total					10					13							17			0	40	

PDI File #: 228589 A

Location: N: Green Street S: West Shore Drive

Location: E: Green Street W: Pitman Road

City, State: Marblehead, MA

Client: VHB/ V. Kalikiri

Site Code: TBA

Count Date: Thursday, May 19, 2022

Start Time: 2:00 PM

End Time: 4:00 PM

Class:



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

## Articulated Trucks

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
2:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:00 PM	1	0	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
3:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
3:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	1	1	0	0	2	3	0	0	0	3	1	0	0	0	1	0	1	0	0	1	7
Grand Total	1	4	0	0	5	3	0	0	0	3	1	0	0	0	1	0	1	0	0	1	10
Approach %	20.0	80.0	0.0	0.0		100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
Total %	10.0	40.0	0.0	0.0	50.0	30.0	0.0	0.0	0.0	30.0	10.0	0.0	0.0	0.0	10.0	0.0	10.0	0.0	0.0	10.0	
Exiting Leg Total					3					2					4					1	10

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

3:00 PM	Green Street					Green Street					West Shore Drive					Pitman 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		
3:00 PM	1	0	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	
3:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
3:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
Total Volume	1	1	0	0	2	3	0	0	0	3	1	0	0	0	1	0	1	0	0	1	7	
% Approach Total	50.0	50.0	0.0	0.0		100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.000	0.500	0.375	0.000	0.000	0.000	0.375	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.583	
Entering Leg	1	1	0	0	2	3	0	0	0	3	1	0	0	0	1	0	1	0	0	1	7	
Exiting Leg					3					2				1						1	7	
Total					5					5				2						2	14	

PDI File #: **228589 A**Location: **N: Green Street S: West Shore Drive**Location: **E: Green Street W: Pitman Road**City, State: **Marblehead, MA**Client: **VHB/ V. Kalikiri**Site Code: **TBA**Count Date: **Thursday, May 19, 2022**Start Time: **2:00 PM**End Time: **4:00 PM**

Class:



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

**Bicycles (on Roadway and Crosswalks)**

	Green Street							Green Street							West Shore Drive							Pitman Road							Total
	from North							from East							from South							from West							Total
	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	Total
2:00 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	
2:15 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	
2:30 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	
2:45 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	
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	
3:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 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	
3:30 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	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	
Total	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	2	
Grand Total	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	2	
Approach %	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	100.0	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	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total								1						0							0						1	2	

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

3:00 PM	Green Street							Green Street							West Shore Drive							Pitman 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		
3:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
3:15 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		
3:30 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		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1		
Total Volume	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	2		
% Approach Total	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	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	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.500			
Entering Leg	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	2		
Exiting Leg								1						0			0				0					1		2		
Total								1						1							1						1	4		

PDI File #: **228589 A**Location: **N: Green Street S: West Shore Drive**Location: **E: Green Street W: Pitman Road**City, State: **Marblehead, MA**Client: **VHB/ V. Kalikiri**Site Code: **TBA**Count Date: **Thursday, May 19, 2022**Start Time: **2:00 PM**End Time: **4:00 PM**

Class:



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

**Pedestrians**

	Green Street							Green Street							West Shore Drive							Pitman Road							Total
	from North				from East				from South				from West							Total									
	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	Total
2:00 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	
2:15 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	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
2:45 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	1	0	1	
<b>Total</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>1</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>2</b>	
3:00 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
3:15 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
3:30 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
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
<b>Total</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>2</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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	
<b>Grand Total</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>2</b>	<b>1</b>	<b>3</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>4</b>	
<b>Approach %</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>66.7</b>	<b>33.3</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>100</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total %</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>50</b>	<b>25</b>	<b>75</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>25</b>	<b>0</b>	<b>25</b>	<b>4</b>	
<b>Exiting Leg Total</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>3</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>4</b>			

Peak Hour Analysis from 02:00 PM to 04:00 PM begins at:

2:00 PM	Green Street							Green Street							West Shore Drive							Pitman Road							Total
	from North				from East				from South				from West							Total									
	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	Total
2:00 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
2:15 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
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 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	1	0	1	1
<b>Total Volume</b>	<b>0</b>	<b>1</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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>											
<b>% Approach Total</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>0.0</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>0.0</b>	<b>2</b>												
<b>PHF</b>	<b>0.000</b>	<b>0.250</b>	<b>0.250</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</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>0.250</b>	<b>0.500</b>													
<b>Entering Leg</b>	<b>0</b>	<b>1</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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>											
<b>Exiting Leg</b>	<b>0</b>	<b>1</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>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>												
<b>Total</b>	<b>0</b>	<b>2</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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>											

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Saturday, May 21, 2022**  
 Start Time: **10:00 AM**  
 End Time: **2:00 PM**



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

Class:

### Cars and Heavy Vehicles (Combined)

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:00 AM	3	60	27	0	90	33	1	5	0	39	7	52	2	0	61	2	2	1	0	5	195
10:15 AM	1	62	25	0	88	35	1	7	0	43	8	73	3	0	84	4	2	2	0	8	223
10:30 AM	0	81	30	0	111	30	0	15	0	45	9	63	3	0	75	4	2	1	0	7	238
10:45 AM	0	75	30	0	105	22	2	9	0	33	5	58	3	0	66	2	3	1	0	6	210
<b>Total</b>	<b>4</b>	<b>278</b>	<b>112</b>	<b>0</b>	<b>394</b>	<b>120</b>	<b>4</b>	<b>36</b>	<b>0</b>	<b>160</b>	<b>29</b>	<b>246</b>	<b>11</b>	<b>0</b>	<b>286</b>	<b>12</b>	<b>9</b>	<b>5</b>	<b>0</b>	<b>26</b>	<b>866</b>
11:00 AM	0	67	33	0	100	34	2	11	0	47	6	48	0	0	54	2	1	0	0	3	204
11:15 AM	1	81	24	0	106	32	2	8	0	42	4	51	1	0	56	0	1	1	0	2	206
11:30 AM	1	62	26	0	89	24	0	2	0	26	5	57	4	0	66	4	2	1	0	7	188
11:45 AM	2	62	28	0	92	19	1	10	0	30	4	61	3	0	68	4	1	0	0	5	195
<b>Total</b>	<b>4</b>	<b>272</b>	<b>111</b>	<b>0</b>	<b>387</b>	<b>109</b>	<b>5</b>	<b>31</b>	<b>0</b>	<b>145</b>	<b>19</b>	<b>217</b>	<b>8</b>	<b>0</b>	<b>244</b>	<b>10</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>17</b>	<b>793</b>
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 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>	<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>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>
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 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>	<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>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>
Grand Total	8	550	223	0	781	229	9	67	0	305	48	463	19	0	530	22	14	7	0	43	1659
Approach %	1.0	70.4	28.6	0.0		75.1	3.0	22.0	0.0		9.1	87.4	3.6	0.0		51.2	32.6	16.3	0.0		
Total %	0.5	33.2	13.4	0.0	47.1	13.8	0.5	4.0	0.0	18.4	2.9	27.9	1.1	0.0	31.9	1.3	0.8	0.4	0.0	2.6	
Exiting Leg Total					699					285					639					36	1659
Cars	8	544	220	0	772	227	9	67	0	303	48	455	19	0	522	22	14	7	0	43	1640
% Cars	100.0	98.9	98.7	0.0	98.8	99.1	100.0	100.0	0.0	99.3	100.0	98.3	100.0	0.0	98.5	100.0	100.0	100.0	0.0	100.0	98.9
Exiting Leg Total					689					282					633					36	1640
Heavy Vehicles	0	6	3	0	9	2	0	0	0	2	0	8	0	0	8	0	0	0	0	0	19
% Heavy Vehicles	0.0	1.1	1.3	0.0	1.2	0.9	0.0	0.0	0.0	0.7	0.0	1.7	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.1
Exiting Leg Total					10					3					6					0	19

Peak Hour Analysis from 10:00 AM to 02:00 PM begins at:

10:15 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:15 AM	1	62	25	0	88	35	1	7	0	43	8	73	3	0	84	4	2	2	0	8	223
10:30 AM	0	81	30	0	111	30	0	15	0	45	9	63	3	0	75	4	2	1	0	7	238
10:45 AM	0	75	30	0	105	22	2	9	0	33	5	58	3	0	66	2	3	1	0	6	210
11:00 AM	0	67	33	0	100	34	2	11	0	47	6	48	0	0	54	2	1	0	0	3	204
Total Volume	1	285	118	0	404	121	5	42	0	168	28	242	9	0	279	12	8	4	0	24	875
% Approach Total	0.2	70.5	29.2	0.0		72.0	3.0	25.0	0.0		10.0	86.7	3.2	0.0		50.0	33.3	16.7	0.0		
PHF	0.250	0.880	0.894	0.000	0.910	0.864	0.625	0.700	0.000	0.894	0.778	0.829	0.750	0.000	0.830	0.750	0.667	0.500	0.000	0.750	0.919
Cars	1	280	116	0	397	120	5	42	0	167	28	238	9	0	275	12	8	4	0	24	863
Cars %	100.0	98.2	98.3	0.0	98.3	99.2	100.0	100.0	0.0	99.4	100.0	98.3	100.0	0.0	98.6	100.0	100.0	100.0	0.0	100.0	98.6
Heavy Vehicles	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
Heavy Vehicles %	0.0	1.8	1.7	0.0	1.7	0.8	0.0	0.0	0.0	0.6	0.0	1.7	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	1.4
Cars Enter Leg	1	280	116	0	397	120	5	42	0	167	28	238	9	0	275	12	8	4	0	24	863
Heavy Enter Leg	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
Total Entering Leg	1	285	118	0	404	121	5	42	0	168	28	242	9	0	279	12	8	4	0	24	875
Cars Exiting Leg					362					152					334					15	863
Heavy Exiting Leg					5					2					5					0	12
Total Exiting Leg					367					154					339					15	875

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Saturday, May 21, 2022**  
 Start Time: **10:00 AM**  
 End Time: **2:00 PM**



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

Class:

**Cars**

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:00 AM	3	59	27	0	89	33	1	5	0	39	7	52	2	0	61	2	2	1	0	5	194
10:15 AM	1	60	24	0	85	34	1	7	0	42	8	73	3	0	84	4	2	2	0	8	219
10:30 AM	0	81	30	0	111	30	0	15	0	45	9	63	3	0	75	4	2	1	0	7	238
10:45 AM	0	74	29	0	103	22	2	9	0	33	5	55	3	0	63	2	3	1	0	6	205
<b>Total</b>	<b>4</b>	<b>274</b>	<b>110</b>	<b>0</b>	<b>388</b>	<b>119</b>	<b>4</b>	<b>36</b>	<b>0</b>	<b>159</b>	<b>29</b>	<b>243</b>	<b>11</b>	<b>0</b>	<b>283</b>	<b>12</b>	<b>9</b>	<b>5</b>	<b>0</b>	<b>26</b>	<b>856</b>
11:00 AM	0	65	33	0	98	34	2	11	0	47	6	47	0	0	53	2	1	0	0	3	201
11:15 AM	1	81	24	0	106	32	2	8	0	42	4	50	1	0	55	0	1	1	0	2	205
11:30 AM	1	62	26	0	89	24	0	2	0	26	5	55	4	0	64	4	2	1	0	7	186
11:45 AM	2	62	27	0	91	18	1	10	0	29	4	60	3	0	67	4	1	0	0	5	192
<b>Total</b>	<b>4</b>	<b>270</b>	<b>110</b>	<b>0</b>	<b>384</b>	<b>108</b>	<b>5</b>	<b>31</b>	<b>0</b>	<b>144</b>	<b>19</b>	<b>212</b>	<b>8</b>	<b>0</b>	<b>239</b>	<b>10</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>17</b>	<b>784</b>
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 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>	<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>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>
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 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>	<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>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>Grand Total</b>	<b>8</b>	<b>544</b>	<b>220</b>	<b>0</b>	<b>772</b>	<b>227</b>	<b>9</b>	<b>67</b>	<b>0</b>	<b>303</b>	<b>48</b>	<b>455</b>	<b>19</b>	<b>0</b>	<b>522</b>	<b>22</b>	<b>14</b>	<b>7</b>	<b>0</b>	<b>43</b>	<b>1640</b>
<b>Approach %</b>	<b>1.0</b>	<b>70.5</b>	<b>28.5</b>	<b>0.0</b>		<b>74.9</b>	<b>3.0</b>	<b>22.1</b>	<b>0.0</b>		<b>9.2</b>	<b>87.2</b>	<b>3.6</b>	<b>0.0</b>		<b>51.2</b>	<b>32.6</b>	<b>16.3</b>	<b>0.0</b>		
<b>Total %</b>	<b>0.5</b>	<b>33.2</b>	<b>13.4</b>	<b>0.0</b>	<b>47.1</b>	<b>13.8</b>	<b>0.5</b>	<b>4.1</b>	<b>0.0</b>	<b>18.5</b>	<b>2.9</b>	<b>27.7</b>	<b>1.2</b>	<b>0.0</b>	<b>31.8</b>	<b>1.3</b>	<b>0.9</b>	<b>0.4</b>	<b>0.0</b>	<b>2.6</b>	
<b>Exiting Leg Total</b>					<b>689</b>					<b>282</b>					<b>633</b>					<b>36</b>	<b>1640</b>

Peak Hour Analysis from 10:00 AM to 02:00 PM begins at:

10:15 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:15 AM	1	60	24	0	85	34	1	7	0	42	8	73	3	0	84	4	2	2	0	8	219
10:30 AM	0	81	30	0	111	30	0	15	0	45	9	63	3	0	75	4	2	1	0	7	238
10:45 AM	0	74	29	0	103	22	2	9	0	33	5	55	3	0	63	2	3	1	0	6	205
11:00 AM	0	65	33	0	98	34	2	11	0	47	6	47	0	0	53	2	1	0	0	3	201
<b>Total Volume</b>	<b>1</b>	<b>280</b>	<b>116</b>	<b>0</b>	<b>397</b>	<b>120</b>	<b>5</b>	<b>42</b>	<b>0</b>	<b>167</b>	<b>28</b>	<b>238</b>	<b>9</b>	<b>0</b>	<b>275</b>	<b>12</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>24</b>	<b>863</b>
<b>% Approach Total</b>	<b>0.3</b>	<b>70.5</b>	<b>29.2</b>	<b>0.0</b>		<b>71.9</b>	<b>3.0</b>	<b>25.1</b>	<b>0.0</b>		<b>10.2</b>	<b>86.5</b>	<b>3.3</b>	<b>0.0</b>		<b>50.0</b>	<b>33.3</b>	<b>16.7</b>	<b>0.0</b>		
<b>PHF</b>	<b>0.250</b>	<b>0.864</b>	<b>0.879</b>	<b>0.000</b>	<b>0.894</b>	<b>0.882</b>	<b>0.625</b>	<b>0.700</b>	<b>0.000</b>	<b>0.888</b>	<b>0.778</b>	<b>0.815</b>	<b>0.750</b>	<b>0.000</b>	<b>0.818</b>	<b>0.750</b>	<b>0.667</b>	<b>0.500</b>	<b>0.000</b>	<b>0.750</b>	<b>0.907</b>
<b>Entering Leg</b>	<b>1</b>	<b>280</b>	<b>116</b>	<b>0</b>	<b>397</b>	<b>120</b>	<b>5</b>	<b>42</b>	<b>0</b>	<b>167</b>	<b>28</b>	<b>238</b>	<b>9</b>	<b>0</b>	<b>275</b>	<b>12</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>24</b>	<b>863</b>
<b>Exiting Leg</b>					<b>362</b>					<b>152</b>					<b>334</b>				<b>15</b>	<b>863</b>	
<b>Total</b>					<b>759</b>					<b>319</b>					<b>609</b>				<b>39</b>	<b>1726</b>	

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Saturday, May 21, 2022**  
 Start Time: **10:00 AM**  
 End Time: **2:00 PM**



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

Class:

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

	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15 AM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Total	0	4	2	0	6	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	10
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
11:45 AM	0	0	1	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3
Total	0	2	1	0	3	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	9
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	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
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	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
Grand Total	0	6	3	0	9	2	0	0	0	2	0	8	0	0	8	0	0	0	0	0	19
Approach %	0.0	66.7	33.3	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total %	0.0	31.6	15.8	0.0	47.4	10.5	0.0	0.0	0.0	10.5	0.0	42.1	0.0	0.0	42.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					10					3					6					0	19
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
Single-Unit Trucks	0	6	3	0	9	2	0	0	0	2	0	8	0	0	8	0	0	0	0	0	19
% Single-Unit	0.0	100.0	100.0	0.0	100.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total					10					3					6					0	19
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 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	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 10:00 AM to 02:00 PM begins at:

10:15 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:15 AM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Total Volume	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
% Approach Total	0.0	71.4	28.6	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	12
PHF	0.000	0.625	0.500	0.000	0.583	0.250	0.000	0.000	0.000	0.250	0.000	0.333	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.600	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Single-Unit Trucks	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
Single-Unit %	0.0	100.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Single-Unit Trucks	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
Buses					0					0					0					0	0

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Saturday, May 21, 2022**  
 Start Time: **10:00 AM**  
 End Time: **2:00 PM**



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

Class:

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

	Green Street					Green Street					West Shore Drive					Pitman Road					
	from North				Total	from East				Total	from South				from West					Total	
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Single-Unit Trucks					5					2					5					0	12
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					5					2					5					0	12

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
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 Office: 508-875-0100 Fax: 508-875-0118

Class:

**Buses**

	Green Street					Green Street					West Shore Drive					Pitman Road						
	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	Total	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</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>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>	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	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>	<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>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>	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	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>	<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>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>	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	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>	<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>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>Grand Total</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>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>Approach %</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>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>Total %</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>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>Exiting Leg Total</b>					<b>0</b>					<b>0</b>						<b>0</b>				<b>0</b>	<b>0</b>	

Peak Hour Analysis from 10:00 AM to 02:00 PM begins at:

10:00 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	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>	<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>% Approach Total</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>PHF</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>											
<b>Entering Leg</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>Exiting Leg</b>					<b>0</b>					<b>0</b>				<b>0</b>				<b>0</b>		<b>0</b>	<b>0</b>
<b>Total</b>					<b>0</b>					<b>0</b>				<b>0</b>				<b>0</b>		<b>0</b>	<b>0</b>

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Saturday, May 21, 2022**  
 Start Time: **10:00 AM**  
 End Time: **2:00 PM**



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

Class:

**Single-Unit Trucks**

	Green Street					Green Street					West Shore Drive					Pitman Road						
	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	Total	
10:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
10:15 AM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	4		
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10:45 AM	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	5		
<b>Total</b>	0	4	2	0	6	1	0	0	0	1	0	3	0	0	3	0	0	0	0	10		
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	3		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2		
11:45 AM	0	0	1	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	3		
<b>Total</b>	0	2	1	0	3	1	0	0	0	1	0	5	0	0	5	0	0	0	0	9		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 PM	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		
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45 PM	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		
<b>Grand Total</b>	0	6	3	0	9	2	0	0	0	2	0	8	0	0	8	0	0	0	0	19		
Approach %	0.0	66.7	33.3	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0			
Total %	0.0	31.6	15.8	0.0	47.4	10.5	0.0	0.0	0.0	10.5	0.0	42.1	0.0	0.0	42.1	0.0	0.0	0.0	0.0			
<b>Exiting Leg Total</b>						10						3						6			0	19

Peak Hour Analysis from 10:00 AM to 02:00 PM begins at:

10:15 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:15 AM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Total Volume	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
% Approach Total	0.0	71.4	28.6	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.625	0.500	0.000	0.583	0.250	0.000	0.000	0.000	0.250	0.000	0.333	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.600	
Entering Leg	0	5	2	0	7	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	12
Exiting Leg					5					2					5					0	12
Total					12					3					9					0	24

PDI File #: **228589 A**  
 Location: **N: Green Street S: West Shore Drive**  
 Location: **E: Green Street W: Pitman Road**  
 City, State: **Marblehead, MA**  
 Client: **VHB/ V. Kalikiri**  
 Site Code: **TBA**  
 Count Date: **Saturday, May 21, 2022**  
 Start Time: **10:00 AM**  
 End Time: **2:00 PM**



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

Class:

### Articulated Trucks

	Green Street					Green Street					West Shore Drive					Pitman Road						
	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	Total	
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</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>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>	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	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>	<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>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>	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	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>	<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>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>	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	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>	<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>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>Grand Total</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>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>Approach %</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>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>Total %</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>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>Exiting Leg Total</b>					<b>0</b>					<b>0</b>							<b>0</b>			<b>0</b>	<b>0</b>	

Peak Hour Analysis from 10:00 AM to 02:00 PM begins at:

10:00 AM	Green Street					Green Street					West Shore Drive					Pitman Road					
	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	Total
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	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>	<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>% Approach Total</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>PHF</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>										
<b>Entering Leg</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>Exiting Leg</b>					<b>0</b>					<b>0</b>				<b>0</b>				<b>0</b>		<b>0</b>	<b>0</b>
<b>Total</b>					<b>0</b>					<b>0</b>				<b>0</b>				<b>0</b>		<b>0</b>	<b>0</b>

PDI File #: 228589 A

Location: N: Green Street S: West Shore Drive

Location: E: Green Street W: Pitman Road

City, State: Marblehead, MA

Client: VHB/ V. Kalikiri

Site Code: TBA

Count Date: Saturday, May 21, 2022

Start Time: 10:00 AM

End Time: 2:00 PM

Class:



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

**Bicycles (on Roadway and Crosswalks)**

	Green Street							Green Street							West Shore Drive							Pitman Road									
	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	Total		
10:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	4	
10:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
10:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2	
10:45 AM	0	3	0	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
<b>Total</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</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>12</b>		
11:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
11:15 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	
11:30 AM	0	3	0	0	0	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
11:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
<b>Total</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>0</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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>		
12:00 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	
12:15 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	
12:30 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	
12:45 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	
<b>Total</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>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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 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	
1:30 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	
1:45 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	
<b>Total</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>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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Grand Total</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>0</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>0</b>	<b>20</b>	
<b>Approach %</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>75.0</b>	<b>0.0</b>	<b>25.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>50.0</b>	<b>50.0</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>0.0</b>			
<b>Total %</b>	<b>0.0</b>	<b>70.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>70.0</b>	<b>15.0</b>	<b>0.0</b>	<b>5.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>20.0</b>	<b>5.0</b>	<b>5.0</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>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>Exiting Leg Total</b>								<b>4</b>						<b>1</b>								<b>15</b>								<b>0</b>	<b>20</b>

Peak Hour Analysis from 10:00 AM to 02:00 PM begins at:

10:00 AM	Green Street							Green Street							West Shore Drive							Pitman Road									
	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	Total		
10:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	4	
10:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
10:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	
10:45 AM	0	3	0	0	0	0	3	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Total Volume	0	8	0	0	0	0	8	1	0	1	0	0	0	2	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	12	
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.667	0.000	0.000	0.000	0.000	0.667	0.250	0.000	0.250	0.000	0.000	0.000	0.500	0.250	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750		
Entering Leg	0	8	0	0	0	0	8	1	0	1	0	0	0	2	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	12	
Exiting Leg								2						1							9									12	
Total								10						3							11									0	

PDI File #: **228589 A**Location: **N: Green Street S: West Shore Drive**Location: **E: Green Street W: Pitman Road**City, State: **Marblehead, MA**Client: **VHB/ V. Kalikiri**Site Code: **TBA**Count Date: **Saturday, May 21, 2022**Start Time: **10:00 AM**End Time: **2:00 PM**

Class:



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

**Pedestrians**

	Green Street							Green Street							West Shore Drive							Pitman Road								
	from North				from East			from South				from West			Total				Total				Total				Total			
	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		
10:00 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	2	0	2	2	
10:15 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	
10:30 AM	0	0	0	0	1	3	4	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	2	3	9	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5	
<b>Total</b>	0	0	0	0	2	3	5	0	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	4	4	8	20	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	
11:15 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4	
11:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	4	
11:45 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	1	0	1	1	
<b>Total</b>	0	0	0	0	1	1	2	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	7	0	7	13	
12:00 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	
12:15 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	
12:30 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	
12:45 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	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 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	
1:30 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	
1:45 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	
Grand Total	0	0	0	0	3	4	7	0	0	0	0	4	7	11	0	0	0	0	0	0	0	0	0	0	11	4	15	33		
Approach %	0	0	0	0	42.9	57.1		0	0	0	0	36.4	63.6		0	0	0	0	0	0	0	0	0	0	73.3	26.7				
Total %	0	0	0	0	9.09	12.1	21.2	0	0	0	0	12.1	21.2	33.3	0	0	0	0	0	0	0	0	0	0	33.3	12.1	45.5			
Exiting Leg Total					7							11													0		15	33		

Peak Hour Analysis from 10:00 AM to 02:00 PM begins at:

	Green Street							Green Street							West Shore Drive							Pitman Road								
	from North				from East			from South				from West			Total				Total				Total				Total			
	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		
10:15 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2	4		
10:30 AM	0	0	0	0	1	3	4	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	2	3	9	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	
Total Volume	0	0	0	0	2	3	5	0	0	0	0	3	7	10	0	0	0	0	0	0	0	0	0	0	0	3	4	7	22	
% Approach Total	0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	30.0	70.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9	57.1		0.611	
PHF	0.000	0.000	0.000	0.000	0.500	0.250	0.313	0.000	0.000	0.000	0.000	0.750	0.583	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.500	0.583	0.611		
Entering Leg	0	0	0	0	2	3	5	0	0	0	0	3	7	10	0	0	0	0	0	0	0	0	0	0	0	3	4	7	22	
Exiting Leg					5							10				0				0				0		7	22			
Total					10							20				0				0				0		14	44			

Green Street  
west of Tranfer Station Driveway  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-A

Count Date: Thursday, May 19, 2022  
Direction: EB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	0	0	0	1	12:00 PM	0	0	21	0	3	1	25
12:15 AM	0	0	2	0	0	0	2	12:15 PM	0	0	22	0	0	0	22
12:30 AM	0	0	0	0	0	0	0	12:30 PM	0	0	30	0	1	0	31
12:45 AM	0	0	1	0	0	0	1	12:45 PM	0	0	23	0	2	0	25
1:00 AM	0	0	0	0	0	0	0	1:00 PM	1	0	22	0	0	0	23
1:15 AM	0	0	0	0	0	0	0	1:15 PM	0	0	32	0	2	0	34
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	0	29	0	1	0	30
1:45 AM	0	0	1	0	0	0	1	1:45 PM	0	0	20	1	3	0	24
2:00 AM	0	0	1	0	0	0	1	2:00 PM	0	0	32	0	0	0	32
2:15 AM	0	0	0	0	0	0	0	2:15 PM	0	0	37	0	1	0	38
2:30 AM	0	0	0	0	0	0	0	2:30 PM	0	0	29	0	2	0	31
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	40	1	2	0	43
3:00 AM	0	0	0	0	0	0	0	3:00 PM	0	0	31	0	1	0	32
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	39	1	1	1	42
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	29	0	1	2	32
3:45 AM	0	0	0	0	0	0	0	3:45 PM	0	0	37	0	1	0	38
4:00 AM	0	0	0	0	0	0	0	4:00 PM	0	0	37	0	0	0	37
4:15 AM	0	0	0	0	0	0	0	4:15 PM	0	0	35	0	1	0	36
4:30 AM	0	0	0	0	0	0	0	4:30 PM	0	0	28	0	0	1	29
4:45 AM	0	0	1	0	0	0	1	4:45 PM	0	0	26	0	1	0	27
5:00 AM	0	0	1	0	0	0	1	5:00 PM	0	0	26	0	0	0	26
5:15 AM	1	0	6	0	0	0	7	5:15 PM	2	1	35	0	0	1	39
5:30 AM	0	0	1	0	0	0	1	5:30 PM	0	0	27	0	1	0	28
5:45 AM	0	0	1	0	0	0	1	5:45 PM	0	0	19	0	0	0	19
6:00 AM	0	0	3	0	0	0	3	6:00 PM	0	0	24	0	0	0	24
6:15 AM	0	0	7	0	0	0	7	6:15 PM	0	0	14	0	0	0	14
6:30 AM	0	0	8	0	0	0	8	6:30 PM	0	0	19	0	0	0	19
6:45 AM	0	0	16	0	0	0	16	6:45 PM	0	0	15	0	1	0	16
7:00 AM	1	0	16	0	1	0	18	7:00 PM	0	1	15	0	0	0	16
7:15 AM	0	0	25	0	0	0	25	7:15 PM	0	0	18	0	0	0	18
7:30 AM	0	0	31	0	1	0	32	7:30 PM	0	0	9	0	0	0	9
7:45 AM	0	0	59	0	0	0	59	7:45 PM	0	0	10	0	0	0	10
8:00 AM	0	0	52	0	1	1	54	8:00 PM	0	0	12	0	0	0	12
8:15 AM	0	0	38	0	2	0	40	8:15 PM	0	0	7	0	0	0	7
8:30 AM	0	0	31	0	0	0	31	8:30 PM	0	0	5	0	0	0	5
8:45 AM	0	0	32	0	2	0	34	8:45 PM	0	0	2	0	0	0	2
9:00 AM	0	0	35	0	1	0	36	9:00 PM	0	0	2	0	0	0	2
9:15 AM	0	0	28	0	5	0	33	9:15 PM	0	0	4	0	0	0	4
9:30 AM	0	0	18	0	0	2	20	9:30 PM	0	0	4	0	0	0	4
9:45 AM	0	0	37	0	1	0	38	9:45 PM	0	0	3	0	0	0	3
10:00 AM	0	0	29	0	1	0	30	10:00 PM	0	0	4	0	0	0	4
10:15 AM	0	0	28	0	1	1	30	10:15 PM	0	0	2	0	0	0	2
10:30 AM	0	0	34	0	0	0	34	10:30 PM	0	0	0	0	0	0	0
10:45 AM	0	0	35	0	0	0	35	10:45 PM	0	0	1	0	0	0	1
11:00 AM	0	0	25	0	3	1	29	11:00 PM	0	0	2	0	0	0	2
11:15 AM	0	0	30	0	3	1	34	11:15 PM	0	0	2	0	0	0	2
11:30 AM	0	0	20	0	2	0	22	11:30 PM	0	0	0	0	0	0	0
11:45 AM	0	0	26	0	0	0	26	11:45 PM	0	0	0	0	0	0	0

AM Total 2 0 679 0 24 6 711

Percentage 0.28% 0.00% 95.50% 0.00% 3.38% 0.84%

AM Peak Volume 4:30 AM 12:00 AM 7:30 AM 12:00 AM 8:30 AM 9:30 AM 7:30 AM

Volume 1 0 180 0 8 3 185

PM Total 3 2 880 3 25 6 919

Percentage 0.33% 0.22% 95.76% 0.33% 2.72% 0.65%

PM Peak Volume 4:30 PM 4:30 PM 3:15 PM 2:30 PM 12:00 PM 2:45 PM 2:45 PM

Volume 2 1 142 2 6 3 149

Day Total 5 2 1559 3 49 12 1630

Percentage 0.31% 0.12% 95.64% 0.18% 3.01% 0.74%

Green Street  
west of Tranfer Station Driveway  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-A

Count Date: Friday, May 20, 2022  
Direction: EB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	0	0	0	1	12:00 PM	0	0	31	0	0	1	32
12:15 AM	0	0	1	0	0	0	1	12:15 PM	0	1	24	0	0	0	25
12:30 AM	0	0	0	0	0	0	0	12:30 PM	0	0	25	0	1	0	26
12:45 AM	0	0	0	0	0	0	0	12:45 PM	0	0	27	0	0	0	27
1:00 AM	0	0	0	0	0	0	0	1:00 PM	0	0	21	0	0	1	22
1:15 AM	0	0	0	0	0	0	0	1:15 PM	0	0	34	0	1	0	35
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	1	29	0	2	0	32
1:45 AM	0	0	0	0	0	0	0	1:45 PM	0	0	27	1	2	0	30
2:00 AM	0	0	0	0	0	0	0	2:00 PM	0	0	33	0	1	0	34
2:15 AM	0	0	0	0	0	0	0	2:15 PM	0	0	32	0	1	0	33
2:30 AM	0	0	0	0	0	0	0	2:30 PM	1	0	33	0	1	0	35
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	41	1	3	0	45
3:00 AM	0	0	0	0	0	0	0	3:00 PM	0	0	46	0	1	1	48
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	27	0	2	1	30
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	29	1	0	0	30
3:45 AM	0	0	0	0	0	0	0	3:45 PM	1	0	33	1	0	0	35
4:00 AM	0	0	0	0	0	0	0	4:00 PM	0	0	30	0	0	1	31
4:15 AM	0	0	0	0	0	0	0	4:15 PM	3	0	29	1	1	0	34
4:30 AM	0	0	1	0	0	0	1	4:30 PM	2	0	18	0	0	0	20
4:45 AM	0	0	2	0	0	0	2	4:45 PM	0	0	30	0	1	0	31
5:00 AM	0	0	2	0	0	0	2	5:00 PM	0	0	23	0	0	0	23
5:15 AM	0	0	4	0	0	0	4	5:15 PM	0	0	28	0	0	0	28
5:30 AM	0	0	2	0	0	0	2	5:30 PM	0	0	19	0	0	0	19
5:45 AM	1	0	1	0	1	0	3	5:45 PM	2	0	23	0	0	0	25
6:00 AM	0	0	6	0	0	0	6	6:00 PM	0	0	20	0	0	0	20
6:15 AM	0	0	1	0	0	0	1	6:15 PM	0	0	10	0	0	0	10
6:30 AM	0	0	4	0	0	0	4	6:30 PM	0	1	24	0	0	0	25
6:45 AM	0	0	15	0	0	0	15	6:45 PM	0	1	25	0	0	0	26
7:00 AM	1	0	13	0	2	0	16	7:00 PM	0	0	13	0	0	0	13
7:15 AM	0	0	27	0	0	0	27	7:15 PM	0	0	13	0	1	0	14
7:30 AM	0	0	45	0	0	0	45	7:30 PM	0	0	11	0	0	0	11
7:45 AM	0	0	36	0	0	0	36	7:45 PM	0	0	10	0	0	0	10
8:00 AM	0	0	49	0	0	1	50	8:00 PM	0	0	10	0	0	0	10
8:15 AM	0	0	44	0	0	1	45	8:15 PM	1	0	7	0	0	0	8
8:30 AM	0	0	27	0	2	0	29	8:30 PM	0	0	11	0	0	0	11
8:45 AM	0	0	35	0	2	0	37	8:45 PM	0	0	6	0	0	0	6
9:00 AM	0	0	36	0	0	0	36	9:00 PM	0	0	6	0	0	0	6
9:15 AM	0	0	28	1	1	0	30	9:15 PM	0	0	6	0	0	0	6
9:30 AM	0	0	25	0	0	0	25	9:30 PM	0	0	2	0	0	0	2
9:45 AM	1	0	27	0	1	0	29	9:45 PM	0	0	1	0	0	0	1
10:00 AM	0	0	25	0	3	0	28	10:00 PM	0	0	5	0	0	0	5
10:15 AM	0	0	21	0	1	0	22	10:15 PM	0	0	3	0	0	0	3
10:30 AM	0	0	26	0	0	0	26	10:30 PM	0	0	5	0	0	0	5
10:45 AM	0	0	30	0	1	0	31	10:45 PM	0	0	10	0	0	0	10
11:00 AM	0	0	30	0	1	0	31	11:00 PM	0	0	5	0	0	0	5
11:15 AM	0	0	41	0	2	0	43	11:15 PM	0	0	5	0	0	0	5
11:30 AM	0	0	32	0	1	0	33	11:30 PM	0	0	1	0	0	0	1
11:45 AM	0	0	37	0	3	0	40	11:45 PM	0	0	1	0	0	0	1

AM Total 3 0 674 1 21 2 701

Percentage 0.43% 0.00% 96.15% 0.14% 3.00% 0.29%

AM Peak Volume 5:00 AM 12:00 AM 7:30 AM 8:30 AM 11:00 AM 7:30 AM 7:30 AM 174 1 7 2 176

PM Total 10 4 902 5 18 5 944

Percentage 1.06% 0.42% 95.55% 0.53% 1.91% 0.53%

PM Peak Volume 3:45 PM 6:00 PM 2:15 PM 3:30 PM 2:30 PM 2:15 PM 6 152 3 7 2 161

Day Total 13 4 1576 6 39 7 1645

Percentage 0.79% 0.24% 95.81% 0.36% 2.37% 0.43%

Green Street  
west of Tranfer Station Driveway  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-A

Count Date: Saturday, May 21, 2022  
Direction: EB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	2	0	0	0	2	12:00 PM	0	0	16	0	2	0	18
12:15 AM	0	0	3	0	0	0	3	12:15 PM	0	0	24	0	0	1	25
12:30 AM	0	0	0	0	0	0	0	12:30 PM	0	0	22	0	0	0	22
12:45 AM	0	0	3	0	0	0	3	12:45 PM	0	0	15	0	0	0	15
1:00 AM	0	0	0	0	0	0	0	1:00 PM	1	0	34	0	1	0	36
1:15 AM	0	0	0	0	0	0	0	1:15 PM	0	0	32	0	0	0	32
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	0	26	0	1	0	27
1:45 AM	0	0	0	0	0	0	0	1:45 PM	0	0	34	0	0	0	34
2:00 AM	0	0	1	0	0	0	1	2:00 PM	0	0	31	0	0	0	31
2:15 AM	0	0	0	0	0	0	0	2:15 PM	2	0	22	0	0	0	24
2:30 AM	0	0	0	0	0	0	0	2:30 PM	2	0	35	0	2	0	39
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	34	0	0	0	34
3:00 AM	0	0	0	0	0	0	0	3:00 PM	0	0	29	0	0	0	29
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	31	0	0	0	31
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	19	0	0	0	19
3:45 AM	0	0	0	0	0	0	0	3:45 PM	4	0	20	0	0	0	24
4:00 AM	0	0	0	0	0	0	0	4:00 PM	2	0	26	0	0	0	28
4:15 AM	0	0	0	0	0	0	0	4:15 PM	0	0	22	0	0	0	22
4:30 AM	0	0	0	0	0	0	0	4:30 PM	0	0	12	0	0	0	12
4:45 AM	0	0	0	0	0	0	0	4:45 PM	1	0	19	0	0	1	21
5:00 AM	0	0	1	0	0	0	1	5:00 PM	0	0	15	0	0	0	15
5:15 AM	0	0	1	0	0	0	1	5:15 PM	0	0	12	0	0	0	12
5:30 AM	0	0	1	0	0	0	1	5:30 PM	0	0	14	0	0	0	14
5:45 AM	0	0	3	0	0	0	3	5:45 PM	0	0	17	0	0	0	17
6:00 AM	0	0	1	0	0	0	1	6:00 PM	0	0	16	0	0	0	16
6:15 AM	0	0	4	0	0	0	4	6:15 PM	0	0	13	0	0	0	13
6:30 AM	0	0	4	0	0	0	4	6:30 PM	0	0	10	0	0	0	10
6:45 AM	0	0	9	0	0	0	9	6:45 PM	0	0	10	0	0	0	10
7:00 AM	0	0	2	0	0	0	2	7:00 PM	0	0	13	0	0	0	13
7:15 AM	0	0	11	0	0	0	11	7:15 PM	0	0	15	0	0	0	15
7:30 AM	0	0	13	0	0	0	13	7:30 PM	3	0	8	0	0	0	11
7:45 AM	0	0	20	0	0	0	20	7:45 PM	2	0	14	0	0	0	16
8:00 AM	0	0	19	0	0	0	19	8:00 PM	0	0	14	0	0	0	14
8:15 AM	0	0	17	0	1	0	18	8:15 PM	0	0	11	0	0	0	11
8:30 AM	0	0	21	0	1	0	22	8:30 PM	0	1	8	0	0	0	9
8:45 AM	0	0	29	0	0	0	29	8:45 PM	0	0	8	0	0	0	8
9:00 AM	0	0	21	0	2	0	23	9:00 PM	1	0	9	0	0	0	10
9:15 AM	0	1	21	0	1	0	23	9:15 PM	1	0	6	0	0	0	7
9:30 AM	0	0	25	0	1	0	26	9:30 PM	2	0	6	0	0	0	8
9:45 AM	0	0	28	0	1	0	29	9:45 PM	0	0	6	0	0	0	6
10:00 AM	0	0	36	0	0	0	36	10:00 PM	0	0	4	0	0	0	4
10:15 AM	0	0	33	0	2	0	35	10:15 PM	0	0	6	0	0	0	6
10:30 AM	0	0	44	0	0	0	44	10:30 PM	0	0	7	0	0	0	7
10:45 AM	0	0	32	0	1	0	33	10:45 PM	5	0	7	0	0	0	12
11:00 AM	0	0	41	0	0	0	41	11:00 PM	0	0	5	0	0	0	5
11:15 AM	0	0	30	0	0	0	30	11:15 PM	0	0	4	0	0	0	4
11:30 AM	0	0	32	0	0	0	32	11:30 PM	0	0	2	0	0	0	2
11:45 AM	0	1	35	0	1	0	37	11:45 PM	0	0	2	0	0	0	2

AM Total 0 2 543 0 11 0 556

Percentage 0.00% 0.36% 97.66% 0.00% 1.98% 0.00%

AM Peak 12:00 AM 8:30 AM 10:15 AM 12:00 AM 9:00 AM 12:00 AM 10:15 AM

Volume 0 1 150 0 5 0 153

PM Total 26 1 765 0 6 2 800

Percentage 3.25% 0.13% 95.63% 0.00% 0.75% 0.25%

PM Peak 3:15 PM 7:45 PM 2:30 PM 12:00 PM 12:00 PM 12:00 PM 2:30 PM

Volume 6 1 129 0 2 1 133

Day Total 26 3 1308 0 17 2 1356

Percentage 1.92% 0.22% 96.46% 0.00% 1.25% 0.15%

Green Street  
west of Tranfer Station Driveway  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-A

Count Date: Thursday, May 19, 2022

Direction: WB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	0	0	0	1	12:00 PM	0	0	33	0	1	1	35
12:15 AM	0	0	0	0	0	0	0	12:15 PM	0	0	29	0	0	0	29
12:30 AM	0	0	0	0	0	0	0	12:30 PM	0	0	28	0	2	0	30
12:45 AM	0	0	0	0	0	0	0	12:45 PM	0	0	31	0	1	0	32
1:00 AM	0	0	0	0	0	0	0	1:00 PM	0	0	34	0	0	0	34
1:15 AM	0	0	1	0	0	0	1	1:15 PM	0	1	28	0	1	0	30
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	0	33	0	2	0	35
1:45 AM	0	0	0	0	0	0	0	1:45 PM	0	0	40	0	2	0	42
2:00 AM	0	0	1	0	0	0	1	2:00 PM	0	0	44	1	2	0	47
2:15 AM	0	0	1	0	0	0	1	2:15 PM	0	0	33	0	0	0	33
2:30 AM	0	0	0	0	0	0	0	2:30 PM	0	0	38	0	2	0	40
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	43	1	0	0	44
3:00 AM	0	0	0	0	0	0	0	3:00 PM	1	0	45	0	1	2	49
3:15 AM	0	0	1	0	0	0	1	3:15 PM	0	0	43	1	0	1	45
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	38	0	1	1	40
3:45 AM	0	0	0	0	0	0	0	3:45 PM	0	0	40	0	0	1	41
4:00 AM	0	0	0	0	0	0	0	4:00 PM	0	0	46	0	1	0	47
4:15 AM	0	0	0	0	0	0	0	4:15 PM	1	0	36	0	0	1	38
4:30 AM	0	0	0	0	0	1	1	4:30 PM	0	0	34	0	1	0	35
4:45 AM	0	0	0	0	0	0	0	4:45 PM	1	0	39	0	2	1	43
5:00 AM	0	0	0	0	0	0	0	5:00 PM	1	0	63	0	1	0	65
5:15 AM	0	0	1	0	0	0	1	5:15 PM	0	1	24	0	0	0	25
5:30 AM	0	0	0	0	0	0	0	5:30 PM	0	0	33	0	2	0	35
5:45 AM	0	0	1	0	0	0	1	5:45 PM	0	0	33	0	0	1	34
6:00 AM	0	0	2	0	0	0	2	6:00 PM	0	0	27	0	1	0	28
6:15 AM	0	0	10	0	0	0	10	6:15 PM	0	0	22	0	0	0	22
6:30 AM	1	0	9	1	0	0	11	6:30 PM	0	0	27	0	0	0	27
6:45 AM	0	0	5	0	0	0	5	6:45 PM	0	0	24	0	0	0	24
7:00 AM	0	0	12	0	2	0	14	7:00 PM	0	1	17	0	1	0	19
7:15 AM	0	0	21	0	0	0	21	7:15 PM	1	0	27	0	0	0	28
7:30 AM	0	0	21	0	1	1	23	7:30 PM	0	0	20	0	0	0	20
7:45 AM	0	0	37	0	1	0	38	7:45 PM	0	0	11	0	0	0	11
8:00 AM	0	0	43	0	2	0	45	8:00 PM	1	0	17	0	0	0	18
8:15 AM	0	0	25	0	3	0	28	8:15 PM	0	0	13	0	0	0	13
8:30 AM	0	0	40	0	3	2	45	8:30 PM	0	0	8	0	0	0	8
8:45 AM	0	0	30	0	3	0	33	8:45 PM	0	0	6	0	0	0	6
9:00 AM	0	0	27	1	3	0	31	9:00 PM	0	0	9	0	0	0	9
9:15 AM	0	0	33	0	0	0	33	9:15 PM	0	0	5	0	0	0	5
9:30 AM	0	0	32	0	2	0	34	9:30 PM	0	0	11	0	0	0	11
9:45 AM	0	0	33	0	0	1	34	9:45 PM	0	0	5	0	0	0	5
10:00 AM	1	0	27	0	0	0	28	10:00 PM	0	0	4	0	0	0	4
10:15 AM	0	0	39	0	0	0	39	10:15 PM	0	0	7	0	0	0	7
10:30 AM	0	0	34	0	1	0	35	10:30 PM	0	0	4	0	0	0	4
10:45 AM	0	0	39	0	2	1	42	10:45 PM	0	0	3	0	0	0	3
11:00 AM	0	0	25	0	2	0	27	11:00 PM	0	0	1	0	0	0	1
11:15 AM	0	0	31	0	7	0	38	11:15 PM	0	0	4	0	0	0	4
11:30 AM	0	0	35	1	2	1	39	11:30 PM	0	0	2	0	0	0	2
11:45 AM	0	0	39	0	0	0	39	11:45 PM	0	0	3	0	0	0	3

AM Total 2 0 656 3 34 7 702

Percentage 0.28% 0.00% 93.45% 0.43% 4.84% 1.00%

AM Peak Volume 5:45 AM 12:00 AM 7:45 AM 5:45 AM 10:45 AM 7:45 AM 7:45 AM

1 0 145 1 13 2 156

PM Total 6 3 1165 3 24 9 1210

Percentage 0.50% 0.25% 96.28% 0.25% 1.98% 0.74%

PM Peak Volume 4:15 PM 12:30 PM 4:15 PM 2:00 PM 1:15 PM 3:00 PM 4:15 PM

3 1 172 2 7 5 181

Day Total 8 3 1821 6 58 16 1912

Percentage 0.42% 0.16% 95.24% 0.31% 3.03% 0.84%

Green Street  
west of Tranfer Station Driveway  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-A

Count Date: Friday, May 20, 2022  
Direction: WB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	4	0	0	0	4	12:00 PM	0	0	25	0	2	0	27
12:15 AM	0	0	1	0	0	0	1	12:15 PM	0	0	39	0	0	1	40
12:30 AM	0	0	0	0	0	0	0	12:30 PM	0	0	25	0	1	0	26
12:45 AM	0	0	0	0	0	0	0	12:45 PM	0	0	26	0	0	0	26
1:00 AM	0	0	0	0	0	0	0	1:00 PM	0	0	39	0	2	0	41
1:15 AM	0	0	1	0	0	0	1	1:15 PM	0	1	43	0	2	0	46
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	0	39	0	4	0	43
1:45 AM	0	0	0	0	0	0	0	1:45 PM	0	0	40	0	0	1	41
2:00 AM	0	0	1	0	0	0	1	2:00 PM	0	0	28	1	0	0	29
2:15 AM	0	0	1	0	0	0	1	2:15 PM	0	0	40	0	1	1	42
2:30 AM	0	0	0	0	0	0	0	2:30 PM	0	0	36	0	2	1	39
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	56	0	1	1	58
3:00 AM	0	0	0	0	0	0	0	3:00 PM	1	0	42	1	0	0	44
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	31	0	1	0	32
3:30 AM	0	0	0	0	0	0	0	3:30 PM	4	0	29	0	0	1	34
3:45 AM	0	0	1	0	0	0	1	3:45 PM	0	0	31	0	0	0	31
4:00 AM	0	0	0	0	0	0	0	4:00 PM	0	1	51	0	1	1	54
4:15 AM	0	0	1	0	1	0	2	4:15 PM	0	0	38	0	0	1	39
4:30 AM	0	0	1	0	0	0	1	4:30 PM	0	1	31	0	1	1	34
4:45 AM	0	0	1	0	0	0	1	4:45 PM	0	0	32	0	0	0	32
5:00 AM	0	0	0	0	0	0	0	5:00 PM	1	0	49	0	0	1	51
5:15 AM	0	0	0	0	0	0	0	5:15 PM	0	0	26	0	1	0	27
5:30 AM	0	0	1	0	0	0	1	5:30 PM	1	1	22	0	0	0	24
5:45 AM	0	0	0	0	0	0	0	5:45 PM	0	0	25	0	0	0	25
6:00 AM	0	0	6	0	1	0	7	6:00 PM	1	1	20	0	0	0	22
6:15 AM	0	0	4	0	0	0	4	6:15 PM	0	0	16	0	0	0	16
6:30 AM	0	0	2	0	0	0	2	6:30 PM	0	1	19	0	0	0	20
6:45 AM	1	0	8	0	0	0	9	6:45 PM	0	0	18	0	0	0	18
7:00 AM	0	0	6	0	1	0	7	7:00 PM	0	0	29	0	0	0	29
7:15 AM	0	0	16	0	0	0	16	7:15 PM	0	0	19	0	0	0	19
7:30 AM	0	0	21	0	0	0	21	7:30 PM	0	0	15	0	0	0	15
7:45 AM	0	0	29	0	0	0	29	7:45 PM	2	0	15	0	0	0	17
8:00 AM	0	0	45	0	2	0	47	8:00 PM	0	0	20	0	0	0	20
8:15 AM	0	0	37	0	1	0	38	8:15 PM	0	0	11	0	0	0	11
8:30 AM	0	0	34	0	3	2	39	8:30 PM	1	1	15	0	0	0	17
8:45 AM	0	0	37	0	0	0	37	8:45 PM	0	0	12	0	0	0	12
9:00 AM	0	0	27	0	1	0	28	9:00 PM	0	0	14	0	0	0	14
9:15 AM	0	0	29	0	1	0	30	9:15 PM	0	0	6	0	0	0	6
9:30 AM	0	0	25	0	2	2	29	9:30 PM	3	0	15	0	0	0	18
9:45 AM	0	0	26	0	1	0	27	9:45 PM	0	0	11	0	0	0	11
10:00 AM	0	0	30	0	0	0	30	10:00 PM	0	0	4	0	0	0	4
10:15 AM	0	0	30	0	1	1	32	10:15 PM	0	0	10	0	0	0	10
10:30 AM	0	0	25	0	2	0	27	10:30 PM	4	0	3	0	0	0	7
10:45 AM	0	0	41	0	3	0	44	10:45 PM	1	0	4	0	0	0	5
11:00 AM	0	0	38	0	1	0	39	11:00 PM	0	0	7	0	0	0	7
11:15 AM	0	0	37	0	0	0	37	11:15 PM	0	0	7	0	0	0	7
11:30 AM	0	0	29	0	1	0	30	11:30 PM	0	0	2	0	0	0	2
11:45 AM	0	0	31	0	0	1	32	11:45 PM	0	0	9	0	0	0	9

AM Total 1 0 626 0 22 6 655

Percentage 0.15% 0.00% 95.57% 0.00% 3.36% 0.92%

AM Peak Volume 6:00 AM 12:00 AM 8:00 AM 12:00 AM 10:15 AM 9:30 AM 8:00 AM

Volume 1 0 153 0 7 3 161

PM Total 19 7 1144 2 19 10 1201

Percentage 1.58% 0.58% 95.25% 0.17% 1.58% 0.83%

PM Peak Volume 2:45 PM 3:45 PM 2:15 PM 1:15 PM 12:45 PM 1:45 PM 2:15 PM

Volume 5 2 174 1 8 3 183

Day Total 20 7 1770 2 41 16 1856

Percentage 1.08% 0.38% 95.37% 0.11% 2.21% 0.86%

Green Street  
west of Tranfer Station Driveway  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-A

Count Date: Saturday, May 21, 2022  
Direction: WB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	2	0	0	0	2	12:00 PM	0	0	26	0	0	0	26
12:15 AM	0	0	2	0	0	0	2	12:15 PM	0	0	29	0	0	0	29
12:30 AM	0	0	3	0	0	0	3	12:30 PM	2	0	26	0	2	0	30
12:45 AM	0	0	3	0	0	0	3	12:45 PM	2	0	24	0	1	0	27
1:00 AM	0	0	4	0	0	0	4	1:00 PM	2	0	43	0	0	0	45
1:15 AM	0	0	0	0	0	0	0	1:15 PM	0	0	46	0	0	0	46
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	0	44	0	0	0	44
1:45 AM	0	0	1	0	0	0	1	1:45 PM	0	0	39	0	0	0	39
2:00 AM	0	0	2	0	0	0	2	2:00 PM	0	0	40	0	0	0	40
2:15 AM	0	0	0	0	0	0	0	2:15 PM	2	0	36	0	2	0	40
2:30 AM	0	0	0	0	0	0	0	2:30 PM	0	0	43	0	0	0	43
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	34	0	0	0	34
3:00 AM	0	0	0	0	0	0	0	3:00 PM	0	0	38	0	0	0	38
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	30	0	2	0	32
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	20	0	0	0	20
3:45 AM	0	0	0	0	0	0	0	3:45 PM	3	0	32	0	0	0	35
4:00 AM	0	0	0	0	0	0	0	4:00 PM	1	0	19	0	0	0	20
4:15 AM	0	0	0	0	0	0	0	4:15 PM	2	0	18	0	0	0	20
4:30 AM	0	0	0	0	0	0	0	4:30 PM	0	0	29	0	0	0	29
4:45 AM	0	0	0	0	0	0	0	4:45 PM	0	0	21	0	0	0	21
5:00 AM	0	0	0	0	0	0	0	5:00 PM	0	0	24	0	0	0	24
5:15 AM	0	0	3	0	0	0	3	5:15 PM	1	0	18	0	0	0	19
5:30 AM	0	0	0	0	0	0	0	5:30 PM	4	0	20	0	0	0	24
5:45 AM	0	0	1	0	0	0	1	5:45 PM	9	0	21	0	0	0	30
6:00 AM	0	0	4	0	0	0	4	6:00 PM	0	0	28	0	0	0	28
6:15 AM	0	0	2	0	0	0	2	6:15 PM	0	0	12	0	0	0	12
6:30 AM	0	0	1	0	0	0	1	6:30 PM	0	0	15	0	0	0	15
6:45 AM	0	0	4	0	0	0	4	6:45 PM	0	0	14	0	0	0	14
7:00 AM	0	0	4	0	0	0	4	7:00 PM	0	0	17	0	0	0	17
7:15 AM	0	0	8	0	0	0	8	7:15 PM	0	0	11	0	0	0	11
7:30 AM	0	0	12	0	0	0	12	7:30 PM	2	0	13	0	0	0	15
7:45 AM	0	0	19	0	3	1	23	7:45 PM	0	0	11	0	0	0	11
8:00 AM	0	0	22	0	0	0	22	8:00 PM	0	0	13	0	0	0	13
8:15 AM	1	0	11	0	0	0	12	8:15 PM	0	0	14	0	0	0	14
8:30 AM	0	1	19	0	0	0	20	8:30 PM	0	0	10	0	0	0	10
8:45 AM	0	0	25	0	3	0	28	8:45 PM	5	0	12	0	0	0	17
9:00 AM	0	0	28	0	1	0	29	9:00 PM	1	0	11	0	0	0	12
9:15 AM	0	0	31	0	0	0	31	9:15 PM	1	0	5	0	0	0	6
9:30 AM	0	0	35	0	0	0	35	9:30 PM	2	0	7	0	0	0	9
9:45 AM	0	0	37	0	0	0	37	9:45 PM	0	0	7	0	0	0	7
10:00 AM	0	0	33	0	0	0	33	10:00 PM	0	0	7	0	0	0	7
10:15 AM	0	1	40	0	1	0	42	10:15 PM	0	0	3	0	0	0	3
10:30 AM	0	0	43	0	0	0	43	10:30 PM	0	0	10	0	0	0	10
10:45 AM	0	1	35	0	0	0	36	10:45 PM	0	0	5	0	0	0	5
11:00 AM	0	0	40	0	0	0	40	11:00 PM	0	0	6	0	0	0	6
11:15 AM	1	0	39	0	0	0	40	11:15 PM	0	0	15	0	0	0	15
11:30 AM	1	0	27	0	0	0	28	11:30 PM	0	0	4	0	0	0	4
11:45 AM	0	0	28	0	1	0	29	11:45 PM	0	0	9	0	0	0	9

AM Total 3 3 568 0 9 1 584

Percentage 0.51% 0.51% 97.26% 0.00% 1.54% 0.17%

AM Peak 10:45 AM 10:00 AM 10:15 AM 12:00 AM 8:15 AM 7:00 AM 10:15 AM

Volume 2 2 158 0 4 1 161

PM Total 39 0 979 0 7 0 1025

Percentage 3.80% 0.00% 95.51% 0.00% 0.68% 0.00%

PM Peak 5:00 PM 12:00 PM 1:00 PM 12:00 PM 12:00 PM 1:00 PM

Volume 14 0 172 0 3 0 174

Day Total 42 3 1547 0 16 1 1609

Percentage 2.61% 0.19% 96.15% 0.00% 0.99% 0.06%

**Green Street**  
**west of Tranfer Station Driveway**  
**City, State: Marblehead, MA**  
**Client: VHB/ V. Kalikiri**  
**Site Code: TBA**



PDI File # 228589 ATR-A

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

**Direction:** EB

## **Weekly Report**

**Green Street**  
**west of Tranfer Station Driveway**  
**City, State: Marblehead, MA**  
**Client: VHB/ V. Kalikiri**  
**Site Code: TBA**



PDI File # 228589 ATR-A

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

**Direction:** WB

## **Weekly Report**

Green Street  
north of Pitman Road  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-B

Count Date: Thursday, May 19, 2022  
Direction: NB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	4	0	0	0	4	12:00 PM	0	0	48	0	2	1	51
12:15 AM	0	0	1	0	0	0	1	12:15 PM	0	0	41	0	2	1	44
12:30 AM	0	0	0	0	0	0	0	12:30 PM	0	0	53	1	3	0	57
12:45 AM	0	0	4	0	0	0	4	12:45 PM	0	0	51	0	7	0	58
1:00 AM	0	0	3	0	0	0	3	1:00 PM	0	0	56	0	1	0	57
1:15 AM	0	0	0	0	0	0	0	1:15 PM	0	1	49	0	2	1	53
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	0	65	0	3	2	70
1:45 AM	0	0	0	0	0	0	0	1:45 PM	0	0	60	0	2	0	62
2:00 AM	0	0	0	0	0	0	0	2:00 PM	0	0	53	0	2	0	55
2:15 AM	0	0	0	0	0	0	0	2:15 PM	0	0	66	1	0	0	67
2:30 AM	0	0	0	0	0	0	0	2:30 PM	0	0	83	0	3	0	86
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	75	0	2	0	77
3:00 AM	0	0	0	0	0	0	0	3:00 PM	1	0	80	0	1	3	85
3:15 AM	0	0	1	0	0	0	1	3:15 PM	0	0	58	1	2	1	62
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	60	1	3	0	64
3:45 AM	0	0	0	0	0	0	0	3:45 PM	0	0	54	0	0	2	56
4:00 AM	0	0	1	0	0	0	1	4:00 PM	0	0	72	0	0	1	73
4:15 AM	0	0	1	0	1	0	2	4:15 PM	0	0	57	0	1	0	58
4:30 AM	0	0	0	0	0	0	0	4:30 PM	0	0	62	0	0	0	62
4:45 AM	0	0	0	0	0	0	0	4:45 PM	0	0	70	0	2	0	72
5:00 AM	0	0	0	0	0	0	0	5:00 PM	0	0	65	0	0	0	65
5:15 AM	0	0	1	0	0	0	1	5:15 PM	0	1	50	0	1	0	52
5:30 AM	0	0	5	0	1	0	6	5:30 PM	0	0	45	0	0	0	45
5:45 AM	0	0	6	0	1	0	7	5:45 PM	0	0	51	0	1	0	52
6:00 AM	0	0	3	0	0	0	3	6:00 PM	0	0	40	0	0	0	40
6:15 AM	0	0	6	0	0	0	6	6:15 PM	0	0	42	0	0	0	42
6:30 AM	1	0	15	0	1	0	17	6:30 PM	0	0	47	0	0	0	47
6:45 AM	0	0	16	0	0	0	16	6:45 PM	0	0	32	0	0	0	32
7:00 AM	0	0	20	0	3	0	23	7:00 PM	0	1	33	0	0	0	34
7:15 AM	1	0	25	2	6	0	34	7:15 PM	1	0	49	0	0	0	50
7:30 AM	0	0	38	0	2	0	40	7:30 PM	0	0	32	0	1	0	33
7:45 AM	0	0	67	0	1	0	68	7:45 PM	0	0	29	0	0	0	29
8:00 AM	0	0	83	0	5	0	88	8:00 PM	0	0	28	0	0	0	28
8:15 AM	0	0	45	0	3	1	49	8:15 PM	0	0	25	0	0	0	25
8:30 AM	0	0	61	0	5	0	66	8:30 PM	0	0	20	0	0	0	20
8:45 AM	0	0	55	0	5	1	61	8:45 PM	0	0	19	0	0	0	19
9:00 AM	0	0	42	1	5	0	48	9:00 PM	0	0	19	0	0	0	19
9:15 AM	0	0	48	0	3	0	51	9:15 PM	0	0	16	0	0	0	16
9:30 AM	0	1	65	0	8	1	75	9:30 PM	0	0	16	0	0	0	16
9:45 AM	0	0	54	0	2	0	56	9:45 PM	0	0	8	0	0	0	8
10:00 AM	1	0	41	0	3	0	45	10:00 PM	0	0	6	0	0	0	6
10:15 AM	0	0	51	1	4	0	56	10:15 PM	0	0	6	0	0	0	6
10:30 AM	0	0	51	0	7	0	58	10:30 PM	0	0	11	0	0	0	11
10:45 AM	0	0	67	0	5	1	73	10:45 PM	0	0	7	0	0	0	7
11:00 AM	0	0	39	0	4	1	44	11:00 PM	0	0	6	0	0	0	6
11:15 AM	0	0	70	0	12	0	82	11:15 PM	0	0	8	0	0	0	8
11:30 AM	0	0	54	0	7	0	61	11:30 PM	0	0	2	0	0	0	2
11:45 AM	0	0	54	0	1	0	55	11:45 PM	0	0	1	0	0	0	1

AM Total 3 1 1097 4 95 5 1205

Percentage 0.25% 0.08% 91.04% 0.33% 7.88% 0.41%

AM Peak Volume 6:30 AM 8:45 AM 7:45 AM 6:30 AM 10:30 AM 8:00 AM 7:45 AM

Volume 2 1 256 2 28 2 271

PM Total 2 3 1926 4 41 12 1988

Percentage 0.10% 0.15% 96.88% 0.20% 2.06% 0.60%

PM Peak Volume 2:15 PM 12:30 PM 2:15 PM 2:45 PM 12:00 PM 3:00 PM 2:15 PM

Volume 1 1 304 2 14 6 315

Day Total 5 4 3023 8 136 17 3193

Percentage 0.16% 0.13% 94.68% 0.25% 4.26% 0.53%

Green Street

north of Pitman Road

City, State: Marblehead, MA

Client: VHB/ V. Kalikiri

Site Code: TBA



PDI File #: 228589 ATR-B

Count Date: Friday, May 20, 2022

Direction: NB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	3	0	0	0	3
12:15 AM	0	0	2	0	0	0	2
12:30 AM	0	0	1	0	0	0	1
12:45 AM	0	0	1	0	0	0	1
1:00 AM	0	0	1	0	0	0	1
1:15 AM	0	0	1	0	0	0	1
1:30 AM	0	0	0	0	0	0	0
1:45 AM	0	0	1	0	0	0	1
2:00 AM	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0
3:45 AM	0	0	2	0	0	0	2
4:00 AM	0	0	0	0	0	0	0
4:15 AM	0	0	1	0	1	0	2
4:30 AM	0	0	0	0	0	0	0
4:45 AM	0	0	1	0	0	0	1
5:00 AM	0	0	2	0	0	0	2
5:15 AM	0	0	2	0	0	0	2
5:30 AM	0	0	3	0	0	0	3
5:45 AM	0	0	1	0	0	0	1
6:00 AM	0	0	3	0	0	0	3
6:15 AM	0	0	9	0	2	0	11
6:30 AM	0	0	17	0	0	0	17
6:45 AM	0	0	20	0	1	0	21
7:00 AM	0	0	29	0	3	0	32
7:15 AM	1	0	24	0	5	0	30
7:30 AM	0	0	34	2	4	1	41
7:45 AM	0	0	68	0	0	0	68
8:00 AM	0	0	69	0	5	0	74
8:15 AM	0	0	61	1	4	0	66
8:30 AM	0	0	49	3	7	0	59
8:45 AM	0	0	49	0	4	1	54
9:00 AM	1	0	45	1	5	0	52
9:15 AM	1	0	54	1	3	0	59
9:30 AM	0	0	56	0	4	0	60
9:45 AM	1	0	63	0	3	0	67
10:00 AM	0	0	42	0	3	0	45
10:15 AM	1	0	53	0	7	1	62
10:30 AM	0	0	57	0	1	1	59
10:45 AM	0	0	69	0	3	0	72
11:00 AM	0	0	69	0	2	1	72
11:15 AM	0	0	66	0	2	0	68
11:30 AM	0	0	62	0	1	0	63
11:45 AM	0	0	52	0	2	2	56

AM Total 5 0 1142 8 72 7 1234

Percentage 0.41% 0.00% 92.54% 0.65% 5.83% 0.57%

AM Peak Volume 9:00 AM 12:00 AM 10:45 AM 8:15 AM 8:00 AM 10:15 AM 10:45 AM

Volume 3 0 266 5 20 3 275

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	51	0	1	1	53
12:15 PM	0	0	61	0	1	0	62
12:30 PM	2	0	41	0	1	0	44
12:45 PM	0	0	58	0	3	0	61
1:00 PM	0	0	78	0	7	0	85
1:15 PM	0	1	66	0	4	0	71
1:30 PM	0	0	70	0	11	0	81
1:45 PM	0	0	68	1	4	0	73
2:00 PM	0	1	62	0	0	0	63
2:15 PM	0	0	80	1	6	0	87
2:30 PM	0	0	84	0	4	0	88
2:45 PM	0	0	103	0	2	1	106
3:00 PM	1	0	80	0	4	0	85
3:15 PM	0	0	78	0	2	0	80
3:30 PM	2	0	63	1	1	0	67
3:45 PM	0	0	57	0	3	0	60
4:00 PM	0	0	72	0	4	1	77
4:15 PM	1	1	63	0	0	0	65
4:30 PM	0	0	68	0	2	0	70
4:45 PM	0	0	70	0	2	0	72
5:00 PM	0	1	66	1	3	0	71
5:15 PM	3	2	55	0	1	0	61
5:30 PM	0	1	60	0	1	0	62
5:45 PM	0	0	50	0	0	0	50
6:00 PM	0	2	46	0	0	0	48
6:15 PM	1	0	46	0	0	0	47
6:30 PM	2	3	30	0	0	0	35
6:45 PM	0	0	43	1	0	0	44
7:00 PM	0	0	41	0	0	0	41
7:15 PM	0	0	43	0	0	0	43
7:30 PM	0	0	35	0	0	0	35
7:45 PM	2	0	30	0	0	0	32
8:00 PM	0	0	37	0	0	0	37
8:15 PM	0	0	32	0	0	0	32
8:30 PM	0	0	43	0	0	0	43
8:45 PM	0	0	22	0	0	0	22
9:00 PM	0	0	32	0	0	0	32
9:15 PM	0	0	15	0	0	0	15
9:30 PM	0	0	22	0	0	0	22
9:45 PM	0	0	14	0	0	0	14
10:00 PM	0	0	13	0	0	0	13
10:15 PM	0	0	23	0	0	0	23
10:30 PM	0	0	9	0	0	0	9
10:45 PM	1	0	6	0	0	0	7
11:00 PM	0	0	15	0	0	0	15
11:15 PM	0	0	9	0	0	0	9
11:30 PM	0	0	11	0	0	0	11
11:45 PM	0	0	10	0	0	0	10

PM Total 15 12 2231 5 67 3 2333

Percentage 0.64% 0.51% 95.63% 0.21% 2.87% 0.13%

PM Peak Volume 2:45 PM 5:15 PM 2:15 PM 1:30 PM 1:00 PM 12:00 PM 2:15 PM

Volume 3 5 347 2 26 1 366

Day Total 20 12 3373 13 139 10 3567

Percentage 0.56% 0.34% 94.56% 0.36% 3.90% 0.28%

Green Street  
north of Pitman Road  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-B

Count Date: Saturday, May 21, 2022  
Direction: NB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	6	0	0	0	6	12:00 PM	1	0	46	0	0	0	47
12:15 AM	0	0	4	0	0	0	4	12:15 PM	0	0	60	0	0	0	60
12:30 AM	0	0	4	0	0	0	4	12:30 PM	0	0	60	0	2	0	62
12:45 AM	0	0	4	0	0	0	4	12:45 PM	1	0	70	0	4	0	75
1:00 AM	0	0	2	0	0	0	2	1:00 PM	3	0	80	0	2	0	85
1:15 AM	0	0	2	0	0	0	2	1:15 PM	1	0	104	1	4	0	110
1:30 AM	0	0	1	0	0	0	1	1:30 PM	1	0	100	1	0	0	102
1:45 AM	0	0	2	0	0	0	2	1:45 PM	0	0	89	0	1	0	90
2:00 AM	0	0	1	0	0	0	1	2:00 PM	1	1	86	0	1	0	89
2:15 AM	0	0	0	0	0	0	0	2:15 PM	3	0	95	1	2	1	102
2:30 AM	0	0	1	0	0	0	1	2:30 PM	0	0	102	0	3	0	105
2:45 AM	0	0	0	0	0	0	0	2:45 PM	1	1	98	0	0	0	100
3:00 AM	0	0	0	0	0	0	0	3:00 PM	0	0	86	0	2	0	88
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	75	0	2	0	77
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	44	0	2	0	46
3:45 AM	0	0	0	0	0	0	0	3:45 PM	2	0	51	0	0	0	53
4:00 AM	0	0	0	0	0	0	0	4:00 PM	1	1	54	0	1	0	57
4:15 AM	0	0	1	0	0	0	1	4:15 PM	0	0	42	0	1	0	43
4:30 AM	0	0	0	0	0	0	0	4:30 PM	0	0	48	0	0	0	48
4:45 AM	0	0	2	0	0	0	2	4:45 PM	0	0	51	0	0	0	51
5:00 AM	0	0	1	0	0	0	1	5:00 PM	1	0	46	0	0	0	47
5:15 AM	0	0	6	0	0	0	6	5:15 PM	1	0	52	0	1	0	54
5:30 AM	0	0	3	0	0	0	3	5:30 PM	2	0	43	0	0	0	45
5:45 AM	0	0	1	0	0	0	1	5:45 PM	4	0	45	0	0	0	49
6:00 AM	0	0	3	0	0	0	3	6:00 PM	0	0	42	0	0	0	42
6:15 AM	0	0	2	0	0	0	2	6:15 PM	0	2	49	0	0	0	51
6:30 AM	0	1	5	0	0	0	6	6:30 PM	0	0	34	0	0	0	34
6:45 AM	0	0	7	0	2	0	9	6:45 PM	0	0	34	0	0	0	34
7:00 AM	0	0	14	0	0	0	14	7:00 PM	2	0	40	0	0	0	42
7:15 AM	0	0	12	0	1	0	13	7:15 PM	0	0	34	0	0	0	34
7:30 AM	0	0	30	0	2	0	32	7:30 PM	0	0	24	0	0	0	24
7:45 AM	0	0	32	0	6	0	38	7:45 PM	0	0	21	0	0	0	21
8:00 AM	0	0	40	0	4	0	44	8:00 PM	0	0	24	0	0	0	24
8:15 AM	1	0	42	0	1	0	44	8:15 PM	0	0	41	0	0	0	41
8:30 AM	1	1	31	1	4	0	38	8:30 PM	0	0	28	0	0	0	28
8:45 AM	0	0	39	0	4	0	43	8:45 PM	1	0	22	0	0	0	23
9:00 AM	0	0	44	0	3	0	47	9:00 PM	4	0	20	0	0	0	24
9:15 AM	0	0	48	0	2	0	50	9:15 PM	0	0	14	0	0	0	14
9:30 AM	0	0	78	0	1	0	79	9:30 PM	2	0	16	0	0	0	18
9:45 AM	1	0	65	0	2	0	68	9:45 PM	0	0	22	0	0	0	22
10:00 AM	1	0	91	0	1	0	93	10:00 PM	0	0	29	0	0	0	29
10:15 AM	0	1	102	0	2	0	105	10:15 PM	0	0	10	0	0	0	10
10:30 AM	0	0	94	0	2	0	96	10:30 PM	0	0	11	0	0	0	11
10:45 AM	0	0	79	0	5	0	84	10:45 PM	0	0	18	0	0	0	18
11:00 AM	0	0	81	0	2	0	83	11:00 PM	0	0	5	0	0	0	5
11:15 AM	1	1	82	0	3	0	87	11:15 PM	0	0	11	0	0	0	11
11:30 AM	0	0	80	0	1	0	81	11:30 PM	0	0	12	0	0	0	12
11:45 AM	1	0	78	0	3	0	82	11:45 PM	0	0	12	0	0	0	12

AM Total 6 4 1220 1 51 0 1282

Percentage 0.47% 0.31% 95.16% 0.08% 3.98% 0.00%

AM Peak Volume 7:45 AM 5:45 AM 10:00 AM 7:45 AM 7:45 AM 12:00 AM 10:00 AM

Volume 2 1 366 1 15 0 378

PM Total 32 5 2200 3 28 1 2269

Percentage 1.41% 0.22% 96.96% 0.13% 1.23% 0.04%

PM Peak Volume 5:00 PM 2:00 PM 2:00 PM 12:45 PM 12:30 PM 1:30 PM 2:00 PM

Volume 8 2 381 2 12 1 396

Day Total 38 9 3420 4 79 1 3551

Percentage 1.07% 0.25% 96.31% 0.11% 2.22% 0.03%

Green Street  
north of Pitman Road  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-B

Count Date: Thursday, May 19, 2022  
Direction: SB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	0	0	0	1	12:00 PM	0	0	48	0	3	0	51
12:15 AM	0	0	5	0	0	0	5	12:15 PM	0	0	48	0	1	0	49
12:30 AM	0	0	4	0	0	0	4	12:30 PM	0	0	49	0	3	0	52
12:45 AM	0	0	2	0	0	0	2	12:45 PM	0	0	37	0	2	0	39
1:00 AM	0	0	0	0	0	0	0	1:00 PM	0	0	37	0	5	0	42
1:15 AM	0	0	1	0	0	0	1	1:15 PM	0	0	60	1	4	0	65
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	0	67	0	2	0	69
1:45 AM	0	0	0	0	0	0	0	1:45 PM	0	0	69	0	4	0	73
2:00 AM	0	0	0	0	0	0	0	2:00 PM	0	0	61	0	2	0	63
2:15 AM	0	0	0	0	0	0	0	2:15 PM	0	0	84	1	1	0	86
2:30 AM	0	0	0	0	0	0	0	2:30 PM	0	0	74	0	2	0	76
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	0	73	0	1	0	74
3:00 AM	0	0	1	0	0	0	1	3:00 PM	0	0	80	1	3	0	84
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	1	69	0	4	0	74
3:30 AM	0	0	0	0	0	0	0	3:30 PM	0	0	57	0	0	0	57
3:45 AM	0	0	0	0	0	0	0	3:45 PM	0	0	60	0	4	0	64
4:00 AM	0	0	0	0	0	0	0	4:00 PM	0	0	64	0	3	1	68
4:15 AM	0	0	1	0	0	0	1	4:15 PM	0	0	48	0	3	1	52
4:30 AM	0	0	1	0	0	0	1	4:30 PM	0	0	46	0	1	0	47
4:45 AM	0	0	1	0	0	0	1	4:45 PM	0	0	60	0	2	0	62
5:00 AM	0	0	4	0	0	0	4	5:00 PM	1	0	63	0	0	0	64
5:15 AM	1	0	3	0	0	0	4	5:15 PM	1	1	69	0	4	0	75
5:30 AM	0	0	9	0	1	0	10	5:30 PM	0	0	55	0	1	0	56
5:45 AM	0	0	8	0	0	0	8	5:45 PM	0	0	46	0	1	0	47
6:00 AM	0	0	19	0	0	0	19	6:00 PM	0	0	41	0	0	0	41
6:15 AM	0	0	20	0	0	0	20	6:15 PM	0	0	29	0	0	0	29
6:30 AM	0	0	22	0	1	0	23	6:30 PM	0	0	25	0	0	0	25
6:45 AM	1	0	25	0	0	0	26	6:45 PM	0	0	33	0	0	0	33
7:00 AM	0	0	39	0	3	0	42	7:00 PM	0	1	34	0	1	0	36
7:15 AM	1	0	46	1	0	0	48	7:15 PM	0	0	32	0	0	0	32
7:30 AM	1	0	74	1	0	0	76	7:30 PM	0	0	23	0	0	0	23
7:45 AM	0	0	76	0	0	0	76	7:45 PM	0	0	20	0	1	0	21
8:00 AM	0	0	63	0	2	1	66	8:00 PM	0	0	26	0	1	0	27
8:15 AM	0	0	50	0	2	0	52	8:15 PM	0	0	21	0	0	0	21
8:30 AM	0	0	49	0	2	1	52	8:30 PM	0	0	11	0	0	0	11
8:45 AM	0	0	60	0	2	0	62	8:45 PM	0	0	8	0	0	0	8
9:00 AM	2	0	59	0	4	0	65	9:00 PM	0	0	8	0	1	0	9
9:15 AM	0	0	55	1	6	0	62	9:15 PM	0	0	10	0	0	0	10
9:30 AM	0	0	50	0	2	0	52	9:30 PM	0	0	8	0	0	0	8
9:45 AM	0	0	66	0	2	0	68	9:45 PM	0	0	10	0	0	0	10
10:00 AM	0	0	51	0	3	0	54	10:00 PM	0	0	2	0	0	0	2
10:15 AM	0	0	46	0	2	0	48	10:15 PM	0	0	6	0	0	0	6
10:30 AM	0	0	67	0	2	0	69	10:30 PM	0	0	1	0	0	0	1
10:45 AM	0	0	63	0	6	0	69	10:45 PM	0	0	6	0	0	0	6
11:00 AM	0	0	62	0	4	1	67	11:00 PM	0	0	7	0	0	0	7
11:15 AM	0	0	67	0	4	3	74	11:15 PM	0	0	3	0	0	0	3
11:30 AM	0	0	57	0	8	0	65	11:30 PM	0	0	1	0	0	0	1
11:45 AM	0	0	49	0	2	1	52	11:45 PM	0	0	1	0	0	0	1

AM Total 6 0 1276 3 58 7 1350

Percentage 0.44% 0.00% 94.52% 0.22% 4.30% 0.52%

AM Peak Volume 6:45 AM 12:00 AM 7:30 AM 6:45 AM 10:45 AM 11:00 AM 10:30 AM

3 0 263 2 22 5 279

PM Total 2 3 1790 3 60 2 1860

Percentage 0.11% 0.16% 96.24% 0.16% 3.23% 0.11%

PM Peak Volume 4:30 PM 2:30 PM 2:15 PM 2:15 PM 1:00 PM 3:30 PM 2:15 PM

2 1 311 2 15 2 320

Day Total 8 3 3066 6 118 9 3210

Percentage 0.25% 0.09% 95.51% 0.19% 3.68% 0.28%

Green Street  
north of Pitman Road  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-B

Count Date: Friday, May 20, 2022  
Direction: SB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	0	0	0	1	12:00 PM	0	0	56	0	1	0	57
12:15 AM	0	0	0	0	0	0	0	12:15 PM	0	1	44	0	1	0	46
12:30 AM	0	0	0	0	0	0	0	12:30 PM	0	0	45	0	1	0	46
12:45 AM	0	0	1	0	0	0	1	12:45 PM	0	1	51	0	0	0	52
1:00 AM	0	0	3	0	0	0	3	1:00 PM	0	0	73	0	1	1	75
1:15 AM	0	0	0	0	0	0	0	1:15 PM	0	0	77	0	5	0	82
1:30 AM	0	0	0	0	0	0	0	1:30 PM	0	1	72	0	7	0	80
1:45 AM	0	0	0	0	0	0	0	1:45 PM	0	0	84	0	2	0	86
2:00 AM	0	0	0	0	0	0	0	2:00 PM	0	0	91	0	4	0	95
2:15 AM	0	0	1	0	0	0	1	2:15 PM	0	0	82	1	2	0	85
2:30 AM	0	0	1	0	0	0	1	2:30 PM	0	0	79	0	3	0	82
2:45 AM	0	0	0	0	0	0	0	2:45 PM	0	1	102	0	6	0	109
3:00 AM	0	0	0	0	0	0	0	3:00 PM	2	0	80	1	4	1	88
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	81	0	0	0	81
3:30 AM	0	0	0	0	0	0	0	3:30 PM	2	0	76	0	2	0	80
3:45 AM	0	0	1	0	0	0	1	3:45 PM	2	0	75	1	3	0	81
4:00 AM	0	0	0	0	0	0	0	4:00 PM	0	0	58	0	2	0	60
4:15 AM	0	0	2	0	1	0	3	4:15 PM	4	0	74	0	4	0	82
4:30 AM	0	0	1	0	0	0	1	4:30 PM	2	0	64	0	1	0	67
4:45 AM	0	0	3	0	0	0	3	4:45 PM	1	2	60	0	1	0	64
5:00 AM	0	0	1	0	0	0	1	5:00 PM	1	2	56	0	0	0	59
5:15 AM	0	0	7	0	0	0	7	5:15 PM	1	1	75	0	2	0	79
5:30 AM	0	0	5	0	0	0	5	5:30 PM	1	1	51	0	2	0	55
5:45 AM	0	0	11	0	0	0	11	5:45 PM	4	0	59	0	2	0	65
6:00 AM	0	0	13	0	0	0	13	6:00 PM	0	0	60	0	2	0	62
6:15 AM	1	0	14	0	2	0	17	6:15 PM	0	1	29	0	0	0	30
6:30 AM	0	0	20	0	0	0	20	6:30 PM	0	1	46	0	0	0	47
6:45 AM	0	0	20	0	2	0	22	6:45 PM	0	1	49	0	0	0	50
7:00 AM	0	0	32	0	1	0	33	7:00 PM	0	0	45	0	0	0	45
7:15 AM	0	0	53	1	0	0	54	7:15 PM	0	0	36	0	0	0	36
7:30 AM	0	1	75	1	1	0	78	7:30 PM	0	0	28	0	1	0	29
7:45 AM	2	0	62	0	1	0	65	7:45 PM	0	1	34	0	0	0	35
8:00 AM	0	0	61	0	1	2	64	8:00 PM	0	0	33	0	0	0	33
8:15 AM	0	0	64	0	0	0	64	8:15 PM	0	0	25	0	0	0	25
8:30 AM	0	0	53	0	4	0	57	8:30 PM	0	0	27	0	0	0	27
8:45 AM	0	0	68	0	6	0	74	8:45 PM	0	0	15	0	0	0	15
9:00 AM	0	0	54	0	1	0	55	9:00 PM	0	0	23	0	0	0	23
9:15 AM	0	0	57	1	2	0	60	9:15 PM	0	0	23	0	0	0	23
9:30 AM	0	0	62	0	1	0	63	9:30 PM	0	0	12	0	0	0	12
9:45 AM	1	0	66	0	3	0	70	9:45 PM	0	0	18	0	0	0	18
10:00 AM	0	0	54	0	3	0	57	10:00 PM	0	0	5	0	0	0	5
10:15 AM	1	0	59	0	0	0	60	10:15 PM	0	0	18	1	0	0	19
10:30 AM	0	0	72	0	7	0	79	10:30 PM	0	0	18	0	0	0	18
10:45 AM	0	0	63	0	3	0	66	10:45 PM	0	0	13	0	0	0	13
11:00 AM	0	0	73	0	2	0	75	11:00 PM	0	0	13	0	0	0	13
11:15 AM	0	0	77	0	2	0	79	11:15 PM	0	0	9	0	0	0	9
11:30 AM	0	0	66	0	3	0	69	11:30 PM	0	0	8	0	0	0	8
11:45 AM	1	0	63	0	3	0	67	11:45 PM	0	0	6	0	0	0	6

AM Total 6 1 1339 3 49 2 1400

Percentage 0.43% 0.07% 95.64% 0.21% 3.50% 0.14%

AM Peak 7:00 AM 6:45 AM 10:30 AM 6:45 AM 10:30 AM 7:15 AM 10:30 AM

Volume 2 1 285 2 14 2 299

PM Total 20 14 2258 4 59 2 2357

Percentage 0.85% 0.59% 95.80% 0.17% 2.50% 0.08%

PM Peak 3:30 PM 4:45 PM 2:00 PM 2:15 PM 1:15 PM 12:15 PM 2:00 PM

Volume 8 6 354 2 18 1 371

Day Total 26 15 3597 7 108 4 3757

Percentage 0.69% 0.40% 95.74% 0.19% 2.87% 0.11%

Green Street  
north of Pitman Road  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: TBA



PDI File #: 228589 ATR-B

Count Date: Saturday, May 21, 2022  
Direction: SB

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

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total	PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	8	0	0	0	8	12:00 PM	0	1	58	0	3	0	62
12:15 AM	0	0	3	0	0	0	3	12:15 PM	3	0	44	0	1	0	48
12:30 AM	0	0	4	0	0	0	4	12:30 PM	0	2	62	0	1	0	65
12:45 AM	0	0	2	0	0	0	2	12:45 PM	0	0	43	0	1	0	44
1:00 AM	0	0	1	0	0	0	1	1:00 PM	1	0	92	0	4	0	97
1:15 AM	0	0	3	0	0	0	3	1:15 PM	6	0	91	0	2	0	99
1:30 AM	0	0	2	0	0	0	2	1:30 PM	1	0	89	0	1	0	91
1:45 AM	0	0	1	0	0	0	1	1:45 PM	0	1	107	0	0	0	108
2:00 AM	0	0	1	0	0	0	1	2:00 PM	1	0	86	0	0	0	87
2:15 AM	0	0	0	0	0	0	0	2:15 PM	1	0	86	0	0	0	87
2:30 AM	0	0	1	0	0	0	1	2:30 PM	1	0	111	0	1	0	113
2:45 AM	0	0	0	0	0	0	0	2:45 PM	1	1	107	0	3	0	112
3:00 AM	0	0	0	0	0	0	0	3:00 PM	0	0	105	0	0	0	105
3:15 AM	0	0	0	0	0	0	0	3:15 PM	0	0	85	0	1	0	86
3:30 AM	0	0	1	0	0	0	1	3:30 PM	1	1	61	0	4	0	67
3:45 AM	0	0	1	0	0	0	1	3:45 PM	1	1	42	0	2	0	46
4:00 AM	0	0	1	0	0	0	1	4:00 PM	8	0	47	0	0	0	55
4:15 AM	0	0	1	0	0	0	1	4:15 PM	1	0	54	0	1	0	56
4:30 AM	0	0	0	0	0	0	0	4:30 PM	0	0	50	0	0	0	50
4:45 AM	0	0	4	0	0	0	4	4:45 PM	0	0	48	0	1	0	49
5:00 AM	0	0	4	0	0	0	4	5:00 PM	1	0	45	0	1	0	47
5:15 AM	0	0	3	0	0	0	3	5:15 PM	1	0	36	0	0	0	37
5:30 AM	1	0	3	0	0	0	4	5:30 PM	0	2	36	0	0	0	38
5:45 AM	0	0	6	0	0	0	6	5:45 PM	0	1	51	0	0	0	52
6:00 AM	0	1	4	0	0	0	5	6:00 PM	0	1	43	0	0	0	44
6:15 AM	0	0	6	0	0	0	6	6:15 PM	0	1	43	0	0	0	44
6:30 AM	0	0	8	0	0	0	8	6:30 PM	2	0	26	0	0	0	28
6:45 AM	0	0	13	0	0	0	13	6:45 PM	0	0	29	0	0	0	29
7:00 AM	0	0	9	0	0	0	9	7:00 PM	2	0	32	0	0	0	34
7:15 AM	0	0	17	0	1	0	18	7:15 PM	0	0	41	0	0	0	41
7:30 AM	1	0	27	0	0	0	28	7:30 PM	0	1	36	0	0	0	37
7:45 AM	0	0	36	0	0	0	36	7:45 PM	6	2	30	0	0	0	38
8:00 AM	0	0	52	0	0	0	52	8:00 PM	0	0	19	0	0	0	19
8:15 AM	1	0	49	0	3	0	53	8:15 PM	0	0	29	0	0	0	29
8:30 AM	2	0	53	0	2	0	57	8:30 PM	1	0	24	0	0	0	25
8:45 AM	1	0	66	0	1	0	68	8:45 PM	0	0	24	0	0	0	24
9:00 AM	0	0	64	0	3	0	67	9:00 PM	0	0	15	0	0	0	15
9:15 AM	0	2	61	0	1	0	64	9:15 PM	0	0	19	0	0	0	19
9:30 AM	0	0	80	0	1	0	81	9:30 PM	1	0	19	0	0	0	20
9:45 AM	2	0	77	0	1	0	80	9:45 PM	0	0	13	0	0	0	13
10:00 AM	2	0	85	0	1	0	88	10:00 PM	0	0	17	0	0	0	17
10:15 AM	2	0	87	0	1	0	90	10:15 PM	0	0	15	0	0	0	15
10:30 AM	0	0	117	0	0	0	117	10:30 PM	0	0	18	0	0	0	18
10:45 AM	3	0	96	0	3	0	102	10:45 PM	2	0	9	0	0	0	11
11:00 AM	3	0	103	0	2	0	108	11:00 PM	0	0	11	0	0	0	11
11:15 AM	1	0	101	0	1	0	103	11:15 PM	0	0	14	0	0	0	14
11:30 AM	2	0	90	0	0	0	92	11:30 PM	0	0	9	0	0	0	9
11:45 AM	0	1	94	0	1	0	96	11:45 PM	0	0	6	0	0	0	6

AM Total 21 4 1445 0 22 0 1492

Percentage 1.41% 0.27% 96.85% 0.00% 1.47% 0.00%

AM Peak 10:45 AM 8:30 AM 10:30 AM 12:00 AM 8:15 AM 12:00 AM 10:30 AM

Volume 9 2 417 0 9 0 430

PM Total 42 15 2177 0 27 0 2261

Percentage 1.86% 0.66% 96.28% 0.00% 1.19% 0.00%

PM Peak 3:30 PM 5:30 PM 2:15 PM 12:00 PM 12:30 PM 12:00 PM 2:15 PM

Volume 11 5 409 0 8 0 417

Day Total 63 19 3622 0 49 0 3753

Percentage 1.68% 0.51% 96.51% 0.00% 1.31% 0.00%

**Green Street  
north of Pitman Road  
City, State: Marblehead, MA  
Client: VHB / V. Kalikiri  
Site Code: TBA**



PDI File # 228589 ATR-B

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

**Direction:**

## **Weekly Report**

**Green Street  
north of Pitman Road  
City, State: Marblehead, MA  
Client: VHB / V. Kalikiri  
Site Code: TBA**



PDI File # 228589 ATR-B

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

**Direction:**

## **Weekly Report**

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Thursday, May 19, 2022  
Direction: EB (Enter)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	0	0	0
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	0	1	0	1
1:00 AM	0	0	0	0	1:00 PM	24	6	0	30
1:15 AM	0	0	0	0	1:15 PM	20	3	0	23
1:30 AM	0	0	0	0	1:30 PM	21	2	0	23
1:45 AM	0	0	0	0	1:45 PM	26	2	0	28
2:00 AM	0	0	0	0	2:00 PM	30	2	0	32
2:15 AM	0	0	0	0	2:15 PM	31	0	0	31
2:30 AM	0	0	0	0	2:30 PM	26	0	0	26
2:45 AM	0	0	0	0	2:45 PM	21	3	0	24
3:00 AM	0	0	0	0	3:00 PM	18	1	0	19
3:15 AM	0	0	0	0	3:15 PM	12	1	0	13
3:30 AM	0	0	0	0	3:30 PM	1	1	0	2
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	0	1	0	1
4:15 AM	0	1	0	1	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	0	0	0	0	6:45 PM	0	0	0	0
7:00 AM	1	0	0	1	7:00 PM	0	0	0	0
7:15 AM	5	0	0	5	7:15 PM	0	0	0	0
7:30 AM	18	0	0	18	7:30 PM	0	0	0	0
7:45 AM	15	0	0	15	7:45 PM	0	0	0	0
8:00 AM	18	7	0	25	8:00 PM	0	0	0	0
8:15 AM	16	6	0	22	8:15 PM	0	0	0	0
8:30 AM	23	4	0	27	8:30 PM	0	0	0	0
8:45 AM	19	7	0	26	8:45 PM	0	0	0	0
9:00 AM	16	7	0	23	9:00 PM	0	0	0	0
9:15 AM	18	7	0	25	9:15 PM	0	0	0	0
9:30 AM	24	4	0	28	9:30 PM	0	0	0	0
9:45 AM	25	2	0	27	9:45 PM	1	0	0	1
10:00 AM	15	2	0	17	10:00 PM	0	0	0	0
10:15 AM	20	3	0	23	10:15 PM	0	0	0	0
10:30 AM	20	8	1	29	10:30 PM	0	0	0	0
10:45 AM	25	5	0	30	10:45 PM	0	0	0	0
11:00 AM	21	1	0	22	11:00 PM	0	0	0	0
11:15 AM	21	8	0	29	11:15 PM	0	0	0	0
11:30 AM	22	1	0	23	11:30 PM	0	0	0	0
11:45 AM	11	0	0	11	11:45 PM	0	0	0	0

AM Total 353 73 1 427

Percentage 82.67% 17.10% 0.23%

AM Peak 10:45 AM 8:30 AM 9:45 AM 10:30 AM

Volume 89 25 1 110

PM Total 231 23 0 254

Percentage 90.94% 9.06% 0.00%

PM Peak 1:45 PM 1:00 PM 12:00 PM 1:45 PM

Volume 113 13 0 117

Day Total 584 96 1 681

Percentage 85.76% 14.10% 0.15%

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Friday, May 20, 2022  
Direction: EB (Enter)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	0	0	0
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	0	0	0	0
1:00 AM	0	0	0	0	1:00 PM	41	3	0	44
1:15 AM	0	0	0	0	1:15 PM	40	3	0	43
1:30 AM	0	0	0	0	1:30 PM	33	9	0	42
1:45 AM	0	0	0	0	1:45 PM	40	0	0	40
2:00 AM	0	0	0	0	2:00 PM	36	1	0	37
2:15 AM	0	0	0	0	2:15 PM	45	2	0	47
2:30 AM	0	0	0	0	2:30 PM	39	2	0	41
2:45 AM	0	0	0	0	2:45 PM	42	2	0	44
3:00 AM	0	0	0	0	3:00 PM	38	0	0	38
3:15 AM	0	0	0	0	3:15 PM	13	1	0	14
3:30 AM	0	0	0	0	3:30 PM	0	1	0	1
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	1	0	0	1
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	0	0	0	0	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	0	0	0	0	7:15 PM	0	0	0	0
7:30 AM	20	1	0	21	7:30 PM	0	0	0	0
7:45 AM	12	0	0	12	7:45 PM	0	0	0	0
8:00 AM	19	1	0	20	8:00 PM	0	0	0	0
8:15 AM	14	3	0	17	8:15 PM	0	0	0	0
8:30 AM	22	3	0	25	8:30 PM	0	0	0	0
8:45 AM	26	3	0	29	8:45 PM	0	0	0	0
9:00 AM	21	2	0	23	9:00 PM	0	0	0	0
9:15 AM	22	0	0	22	9:15 PM	0	0	0	0
9:30 AM	30	7	0	37	9:30 PM	0	0	0	0
9:45 AM	36	2	0	38	9:45 PM	0	0	0	0
10:00 AM	23	0	0	23	10:00 PM	0	0	0	0
10:15 AM	30	0	0	30	10:15 PM	0	0	0	0
10:30 AM	28	0	0	28	10:30 PM	0	0	0	0
10:45 AM	25	4	0	29	10:45 PM	0	0	0	0
11:00 AM	25	4	0	29	11:00 PM	0	0	0	0
11:15 AM	25	4	0	29	11:15 PM	0	0	0	0
11:30 AM	24	3	0	27	11:30 PM	0	0	0	0
11:45 AM	13	2	0	15	11:45 PM	0	0	0	0

AM Total	415	39	0	454	PM Total	368	24	0	392
Percentage	91.41%	8.59%	0.00%		Percentage	93.88%	6.12%	0.00%	
AM Peak Volume	9:30 AM	10:45 AM	12:00 AM	9:30 AM	PM Peak Volume	2:15 PM	12:45 PM	12:00 PM	2:15 PM
	119	15	0	128		164	15	0	170
					Day Total	783	63	0	846
					Percentage	92.55%	7.45%	0.00%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Saturday, May 21, 2022  
Direction: EB (Enter)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	1	0	0	1
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	1	0	0	1
12:45 AM	0	0	0	0	12:45 PM	23	2	0	25
1:00 AM	0	0	0	0	1:00 PM	47	1	0	48
1:15 AM	0	0	0	0	1:15 PM	66	1	0	67
1:30 AM	0	0	0	0	1:30 PM	65	0	0	65
1:45 AM	0	0	0	0	1:45 PM	54	0	0	54
2:00 AM	0	0	0	0	2:00 PM	43	0	0	43
2:15 AM	0	0	0	0	2:15 PM	59	0	0	59
2:30 AM	0	0	0	0	2:30 PM	58	1	0	59
2:45 AM	0	0	0	0	2:45 PM	58	0	0	58
3:00 AM	0	0	0	0	3:00 PM	60	0	0	60
3:15 AM	0	0	0	0	3:15 PM	17	0	0	17
3:30 AM	0	0	0	0	3:30 PM	0	0	0	0
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	0	0	0	0
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	1	0	0	1	6:30 PM	0	0	0	0
6:45 AM	1	0	0	1	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	1	0	0	1	7:15 PM	0	0	0	0
7:30 AM	26	2	0	28	7:30 PM	0	0	0	0
7:45 AM	21	1	0	22	7:45 PM	0	0	0	0
8:00 AM	27	4	0	31	8:00 PM	0	0	0	0
8:15 AM	30	2	0	32	8:15 PM	0	0	0	0
8:30 AM	31	3	0	34	8:30 PM	0	0	0	0
8:45 AM	27	5	0	32	8:45 PM	0	0	0	0
9:00 AM	39	3	1	43	9:00 PM	0	0	0	0
9:15 AM	31	2	0	33	9:15 PM	0	0	0	0
9:30 AM	48	3	0	51	9:30 PM	0	0	0	0
9:45 AM	53	0	0	53	9:45 PM	0	0	0	0
10:00 AM	65	1	0	66	10:00 PM	0	0	0	0
10:15 AM	68	3	0	71	10:15 PM	0	0	0	0
10:30 AM	74	3	0	77	10:30 PM	0	0	0	0
10:45 AM	62	4	0	66	10:45 PM	0	0	0	0
11:00 AM	62	1	0	63	11:00 PM	0	0	0	0
11:15 AM	56	0	0	56	11:15 PM	0	0	0	0
11:30 AM	53	0	0	53	11:30 PM	0	0	0	0
11:45 AM	27	0	0	27	11:45 PM	0	0	0	0

AM Total	803	37	1	841	PM Total	552	5	0	557
Percentage	95.48%	4.40%	0.12%		Percentage	99.10%	0.90%	0.00%	
AM Peak Volume	10:00 AM	8:00 AM	8:15 AM	10:00 AM	PM Peak Volume	2:15 PM	12:30 PM	12:00 PM	2:15 PM
	269	14	1	280		235	4	0	236

Day Total	1355	42	1	1398
Percentage	96.92%	3.00%	0.07%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Monday, May 23, 2022  
Direction: EB (Enter)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	1	0	1
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	0	0	0	0
1:00 AM	0	0	0	0	1:00 PM	50	2	0	52
1:15 AM	0	0	0	0	1:15 PM	41	4	0	45
1:30 AM	0	0	0	0	1:30 PM	33	2	0	35
1:45 AM	0	0	0	0	1:45 PM	48	4	0	52
2:00 AM	0	0	0	0	2:00 PM	38	5	0	43
2:15 AM	0	0	0	0	2:15 PM	40	3	0	43
2:30 AM	0	0	0	0	2:30 PM	48	3	0	51
2:45 AM	0	0	0	0	2:45 PM	36	4	0	40
3:00 AM	0	0	0	0	3:00 PM	35	3	0	38
3:15 AM	0	0	0	0	3:15 PM	19	0	0	19
3:30 AM	0	0	0	0	3:30 PM	0	0	0	0
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	0	0	0	0
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	1	0	1	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	1	0	0	1	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	9	1	0	10	7:15 PM	0	0	0	0
7:30 AM	30	9	0	39	7:30 PM	0	0	0	0
7:45 AM	39	1	0	40	7:45 PM	0	0	0	0
8:00 AM	27	1	0	28	8:00 PM	0	0	0	0
8:15 AM	24	1	0	25	8:15 PM	0	0	0	0
8:30 AM	25	2	0	27	8:30 PM	0	0	0	0
8:45 AM	38	6	0	44	8:45 PM	0	0	0	0
9:00 AM	32	3	0	35	9:00 PM	0	0	0	0
9:15 AM	34	3	0	37	9:15 PM	0	0	0	0
9:30 AM	37	4	0	41	9:30 PM	0	0	0	0
9:45 AM	41	2	0	43	9:45 PM	0	0	0	0
10:00 AM	47	1	0	48	10:00 PM	0	0	0	0
10:15 AM	30	4	0	34	10:15 PM	0	0	0	0
10:30 AM	30	4	0	34	10:30 PM	0	0	0	0
10:45 AM	48	8	0	56	10:45 PM	0	0	0	0
11:00 AM	38	2	0	40	11:00 PM	0	0	0	0
11:15 AM	36	2	0	38	11:15 PM	0	0	0	0
11:30 AM	45	2	0	47	11:30 PM	0	0	0	0
11:45 AM	11	0	0	11	11:45 PM	0	0	0	0

AM Total	622	57	0	679	PM Total	388	31	0	419
Percentage	91.61%	8.39%	0.00%		Percentage	92.60%	7.40%	0.00%	
AM Peak Volume	10:45 AM	10:15 AM	12:00 AM	10:45 AM	PM Peak Volume	1:45 PM	1:15 PM	12:00 PM	1:45 PM
	167	18	0	181		174	15	0	189
Day Total					Day Total	1010	88	0	1098
Percentage					Percentage	91.99%	8.01%	0.00%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Tuesday, May 24, 2022  
Direction: EB (Enter)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	0	0	0
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	1	0	1
12:45 AM	0	0	0	0	12:45 PM	8	0	0	8
1:00 AM	0	0	0	0	1:00 PM	47	1	0	48
1:15 AM	0	0	0	0	1:15 PM	28	2	0	30
1:30 AM	0	0	0	0	1:30 PM	31	2	0	33
1:45 AM	0	0	0	0	1:45 PM	37	2	0	39
2:00 AM	0	0	0	0	2:00 PM	27	2	0	29
2:15 AM	0	0	0	0	2:15 PM	39	8	0	47
2:30 AM	0	0	0	0	2:30 PM	26	5	0	31
2:45 AM	0	0	0	0	2:45 PM	38	6	0	44
3:00 AM	0	0	0	0	3:00 PM	24	2	0	26
3:15 AM	0	0	0	0	3:15 PM	11	0	0	11
3:30 AM	0	0	0	0	3:30 PM	0	0	0	0
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	0	0	0	0
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	1	0	0	1	6:15 PM	0	0	0	0
6:30 AM	1	1	0	2	6:30 PM	0	0	0	0
6:45 AM	0	0	1	1	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	3	0	0	3	7:15 PM	0	0	0	0
7:30 AM	27	6	0	33	7:30 PM	0	0	0	0
7:45 AM	15	2	0	17	7:45 PM	0	0	0	0
8:00 AM	13	1	0	14	8:00 PM	0	0	0	0
8:15 AM	28	0	0	28	8:15 PM	0	0	0	0
8:30 AM	18	2	0	20	8:30 PM	0	0	0	0
8:45 AM	12	2	0	14	8:45 PM	0	0	0	0
9:00 AM	17	3	0	20	9:00 PM	0	0	0	0
9:15 AM	22	0	0	22	9:15 PM	0	0	0	0
9:30 AM	12	0	0	12	9:30 PM	0	0	0	0
9:45 AM	33	2	0	35	9:45 PM	0	0	0	0
10:00 AM	15	3	0	18	10:00 PM	0	0	0	0
10:15 AM	23	10	0	33	10:15 PM	0	0	0	0
10:30 AM	24	9	0	33	10:30 PM	0	0	0	0
10:45 AM	30	4	0	34	10:45 PM	0	0	0	0
11:00 AM	26	1	0	27	11:00 PM	0	0	0	0
11:15 AM	34	1	0	35	11:15 PM	0	0	0	0
11:30 AM	30	1	0	31	11:30 PM	0	0	0	0
11:45 AM	4	0	0	4	11:45 PM	0	0	0	0

AM Total	388	48	1	437	PM Total	316	31	0	347
Percentage	88.79%	10.98%	0.23%		Percentage	91.07%	8.93%	0.00%	
AM Peak Volume	10:45 AM	10:00 AM	6:00 AM	10:30 AM	PM Peak Volume	1:00 PM	2:00 PM	12:00 PM	2:00 PM
	120	26	1	129		143	21	0	151

Day Total	704	79	1	784
Percentage	89.80%	10.08%	0.13%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date:  
Direction:

Wednesday, May 25, 2022  
EB (Enter)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	1	0	1
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	7	2	0	9
1:00 AM	0	0	0	0	1:00 PM	36	6	1	43
1:15 AM	0	0	0	0	1:15 PM	35	3	0	38
1:30 AM	0	0	0	0	1:30 PM	41	1	0	42
1:45 AM	0	0	0	0	1:45 PM	30	1	0	31
2:00 AM	0	0	0	0	2:00 PM	25	1	0	26
2:15 AM	0	0	0	0	2:15 PM	37	0	0	37
2:30 AM	0	0	0	0	2:30 PM	30	5	0	35
2:45 AM	0	0	0	0	2:45 PM	34	2	0	36
3:00 AM	0	0	0	0	3:00 PM	31	0	0	31
3:15 AM	0	0	0	0	3:15 PM	5	0	0	5
3:30 AM	0	0	0	0	3:30 PM	0	0	0	0
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	1	0	0	1
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	1	0	0	1	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	0	0	0	0	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	1	0	0	1	7:15 PM	0	0	0	0
7:30 AM	22	4	0	26	7:30 PM	0	0	0	0
7:45 AM	18	4	0	22	7:45 PM	0	0	0	0
8:00 AM	28	1	0	29	8:00 PM	0	0	0	0
8:15 AM	18	2	0	20	8:15 PM	0	0	0	0
8:30 AM	23	3	0	26	8:30 PM	0	0	0	0
8:45 AM	26	4	0	30	8:45 PM	0	0	0	0
9:00 AM	25	1	0	26	9:00 PM	0	0	0	0
9:15 AM	22	1	0	23	9:15 PM	0	0	0	0
9:30 AM	22	0	1	23	9:30 PM	0	0	0	0
9:45 AM	25	2	0	27	9:45 PM	0	0	0	0
10:00 AM	28	4	0	32	10:00 PM	0	0	0	0
10:15 AM	25	4	0	29	10:15 PM	0	0	0	0
10:30 AM	29	1	0	30	10:30 PM	0	0	0	0
10:45 AM	27	10	0	37	10:45 PM	0	0	0	0
11:00 AM	40	4	0	44	11:00 PM	0	0	0	0
11:15 AM	22	3	0	25	11:15 PM	0	0	0	0
11:30 AM	29	1	0	30	11:30 PM	0	0	0	0
11:45 AM	13	0	0	13	11:45 PM	0	0	0	0

AM Total	444	49	1	494	PM Total	312	22	1	335
Percentage	89.88%	9.92%	0.20%		Percentage	93.13%	6.57%	0.30%	
AM Peak Volume	10:15 AM	10:00 AM	8:45 AM	10:15 AM	PM Peak Volume	1:00 PM	12:45 PM	12:15 PM	1:00 PM
	121	19	1	140		142	12	1	154
					Day Total	756	71	2	829
					Percentage	91.19%	8.56%	0.24%	

**Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454**



PDI File # 228589 ATR-C

228589 ATR-C

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

**Count Date:**

EB (Enter)

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

**AM Total** 0 0 0 0

Percentage #DIV/0! #DIV/0! #DIV/0!

**AM Peak**                  **12:00 AM**                  **12:00 AM**                  **12:00 AM** **12:00 AM**

**Volume** 0 0 0 0

**PM Total** 0 0 0 0

Percentage #DIV/0! #DIV/0! #DIV/0!

**PM Peak**                  **12:00 PM**                  **12:00 PM**                  **12:00 PM** **12:00 PM**

Volume 0 0 0 0

**Day Total**                    0                    0                    0                    0

Percentage #DIV/0! #DIV/0! #DIV/0!

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date:  
Direction:

Thursday, May 19, 2022  
WB (Exit)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	0	0	0
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	0	0	0	0
1:00 AM	0	0	0	0	1:00 PM	6	6	0	12
1:15 AM	0	0	0	0	1:15 PM	28	4	0	32
1:30 AM	0	0	0	0	1:30 PM	18	5	0	23
1:45 AM	0	0	0	0	1:45 PM	32	1	0	33
2:00 AM	0	0	0	0	2:00 PM	20	3	0	23
2:15 AM	0	0	0	0	2:15 PM	39	0	0	39
2:30 AM	0	0	0	0	2:30 PM	26	0	0	26
2:45 AM	0	0	0	0	2:45 PM	22	1	0	23
3:00 AM	0	0	0	0	3:00 PM	20	3	0	23
3:15 AM	0	0	0	0	3:15 PM	21	0	0	21
3:30 AM	0	0	0	0	3:30 PM	1	1	0	2
3:45 AM	0	0	0	0	3:45 PM	0	1	0	1
4:00 AM	0	0	0	0	4:00 PM	0	0	0	0
4:15 AM	0	0	0	0	4:15 PM	0	1	0	1
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	0	0	0	0	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	2	0	0	2	7:15 PM	0	0	0	0
7:30 AM	17	0	0	17	7:30 PM	0	0	0	0
7:45 AM	16	1	0	17	7:45 PM	0	0	0	0
8:00 AM	16	5	0	21	8:00 PM	0	0	0	0
8:15 AM	22	6	0	28	8:15 PM	0	0	0	0
8:30 AM	17	3	0	20	8:30 PM	0	0	0	0
8:45 AM	22	6	0	28	8:45 PM	0	0	0	0
9:00 AM	16	7	0	23	9:00 PM	0	0	0	0
9:15 AM	18	12	0	30	9:15 PM	0	0	0	0
9:30 AM	19	5	0	24	9:30 PM	0	0	0	0
9:45 AM	27	1	0	28	9:45 PM	1	0	0	1
10:00 AM	18	3	0	21	10:00 PM	0	0	0	0
10:15 AM	13	1	0	14	10:15 PM	0	0	0	0
10:30 AM	22	6	0	28	10:30 PM	0	0	0	0
10:45 AM	25	7	1	33	10:45 PM	0	0	0	0
11:00 AM	23	3	0	26	11:00 PM	0	0	0	0
11:15 AM	21	8	0	29	11:15 PM	0	0	0	0
11:30 AM	22	3	0	25	11:30 PM	0	0	0	0
11:45 AM	19	0	0	19	11:45 PM	0	0	0	0

AM Total	355	77	1	433	PM Total	234	26	0	260
Percentage	81.99%	17.78%	0.23%		Percentage	90.00%	10.00%	0.00%	
AM Peak Volume	10:30 AM	8:45 AM	10:00 AM	10:30 AM	PM Peak Volume	1:45 PM	1:00 PM	12:00 PM	1:45 PM
	91	30	1	116		117	16	0	121

Day Total	589	103	1	693
Percentage	84.99%	14.86%	0.14%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Friday, May 20, 2022  
Direction: WB (Exit)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	0	0	0
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	0	0	0	0
1:00 AM	0	0	0	0	1:00 PM	19	3	0	22
1:15 AM	0	0	0	0	1:15 PM	44	4	0	48
1:30 AM	0	0	0	0	1:30 PM	29	6	0	35
1:45 AM	0	0	0	0	1:45 PM	45	0	0	45
2:00 AM	0	0	0	0	2:00 PM	34	3	0	37
2:15 AM	0	0	0	0	2:15 PM	46	1	0	47
2:30 AM	0	0	0	0	2:30 PM	41	2	0	43
2:45 AM	0	0	0	0	2:45 PM	38	2	0	40
3:00 AM	0	0	0	0	3:00 PM	43	1	0	44
3:15 AM	0	0	0	0	3:15 PM	32	0	0	32
3:30 AM	0	0	0	0	3:30 PM	1	1	0	2
3:45 AM	0	0	0	0	3:45 PM	1	1	0	2
4:00 AM	0	0	0	0	4:00 PM	0	0	0	0
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	0	0	0	0	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	0	0	0	0	7:15 PM	0	0	0	0
7:30 AM	13	2	0	15	7:30 PM	0	0	0	0
7:45 AM	13	0	0	13	7:45 PM	0	0	0	0
8:00 AM	15	3	0	18	8:00 PM	0	0	0	0
8:15 AM	15	1	0	16	8:15 PM	0	0	0	0
8:30 AM	18	4	0	22	8:30 PM	0	0	0	0
8:45 AM	33	3	0	36	8:45 PM	0	0	0	0
9:00 AM	18	4	0	22	9:00 PM	0	0	0	0
9:15 AM	22	0	0	22	9:15 PM	0	0	0	0
9:30 AM	28	5	0	33	9:30 PM	0	0	0	0
9:45 AM	24	5	0	29	9:45 PM	0	0	0	0
10:00 AM	33	0	0	33	10:00 PM	0	0	0	0
10:15 AM	27	1	0	28	10:15 PM	0	0	0	0
10:30 AM	36	0	0	36	10:30 PM	0	0	0	0
10:45 AM	16	3	0	19	10:45 PM	0	0	0	0
11:00 AM	22	4	0	26	11:00 PM	0	0	0	0
11:15 AM	22	2	0	24	11:15 PM	0	0	0	0
11:30 AM	21	2	0	23	11:30 PM	0	0	0	0
11:45 AM	26	3	0	29	11:45 PM	0	0	0	0

AM Total 402 42 0 444

Percentage 90.54% 9.46% 0.00%

AM Peak Volume 9:45 AM 9:00 AM 12:00 AM 9:45 AM

12:00 AM 14 0 126

PM Total 373 24 0 397

Percentage 93.95% 6.05% 0.00%

PM Peak Volume 2:15 PM 12:45 PM 12:00 PM 2:15 PM

168 13 0 174

Day Total 775 66 0 841

Percentage 92.15% 7.85% 0.00%

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Saturday, May 21, 2022  
Direction: WB (Exit)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	2	0	0	2
12:15 AM	0	0	0	0	12:15 PM	1	0	0	1
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	1	1	0	2
1:00 AM	0	0	0	0	1:00 PM	47	3	0	50
1:15 AM	0	0	0	0	1:15 PM	52	1	0	53
1:30 AM	0	0	0	0	1:30 PM	63	0	0	63
1:45 AM	0	0	0	0	1:45 PM	70	0	0	70
2:00 AM	0	0	0	0	2:00 PM	47	0	0	47
2:15 AM	0	0	0	0	2:15 PM	48	0	0	48
2:30 AM	0	0	0	0	2:30 PM	61	1	0	62
2:45 AM	0	0	0	0	2:45 PM	58	0	0	58
3:00 AM	0	0	0	0	3:00 PM	61	1	0	62
3:15 AM	0	0	0	0	3:15 PM	40	0	0	40
3:30 AM	0	0	0	0	3:30 PM	2	0	0	2
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	0	0	0	0
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	0	0	0	0	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	0	0	0	0	7:15 PM	0	0	0	0
7:30 AM	12	1	0	13	7:30 PM	0	0	0	0
7:45 AM	20	1	0	21	7:45 PM	0	0	0	0
8:00 AM	29	2	0	31	8:00 PM	0	0	0	0
8:15 AM	27	4	0	31	8:15 PM	0	0	0	0
8:30 AM	30	3	0	33	8:30 PM	0	0	0	0
8:45 AM	29	4	0	33	8:45 PM	0	0	0	0
9:00 AM	35	4	0	39	9:00 PM	0	0	0	0
9:15 AM	28	2	1	31	9:15 PM	0	0	0	0
9:30 AM	40	4	0	44	9:30 PM	0	0	0	0
9:45 AM	45	0	0	45	9:45 PM	0	0	0	0
10:00 AM	60	0	0	60	10:00 PM	0	0	0	0
10:15 AM	46	4	0	50	10:15 PM	0	0	0	0
10:30 AM	88	2	0	90	10:30 PM	0	0	0	0
10:45 AM	70	4	0	74	10:45 PM	0	0	0	0
11:00 AM	68	2	0	70	11:00 PM	0	0	0	0
11:15 AM	63	0	0	63	11:15 PM	0	0	0	0
11:30 AM	60	0	0	60	11:30 PM	0	0	0	0
11:45 AM	50	0	0	50	11:45 PM	0	0	0	0

AM Total	800	37	1	838	PM Total	553	7	0	560
Percentage	95.47%	4.42%	0.12%		Percentage	98.75%	1.25%	0.00%	
AM Peak Volume	10:30 AM	8:15 AM	8:30 AM	10:30 AM	PM Peak Volume	1:00 PM	12:30 PM	12:00 PM	1:00 PM
	289	15	1	297		232	5	0	236
Day Total					Day Total	1353	44	1	1398
Percentage					Percentage	96.78%	3.15%	0.07%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Monday, May 23, 2022  
Direction: WB (Exit)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	5	0	0	5
12:15 AM	0	0	0	0	12:15 PM	0	1	0	1
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	0	0	0	0
1:00 AM	0	0	0	0	1:00 PM	17	3	0	20
1:15 AM	0	0	0	0	1:15 PM	49	4	0	53
1:30 AM	0	0	0	0	1:30 PM	44	3	0	47
1:45 AM	0	0	0	0	1:45 PM	40	2	0	42
2:00 AM	0	0	0	0	2:00 PM	38	5	0	43
2:15 AM	0	0	0	0	2:15 PM	43	4	0	47
2:30 AM	0	0	0	0	2:30 PM	43	1	0	44
2:45 AM	0	0	0	0	2:45 PM	43	6	0	49
3:00 AM	0	0	0	0	3:00 PM	41	4	0	45
3:15 AM	0	0	0	0	3:15 PM	31	0	0	31
3:30 AM	0	0	0	0	3:30 PM	2	0	0	2
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	1	0	0	1
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	0	1	0	1	6:30 PM	0	0	0	0
6:45 AM	1	0	0	1	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	0	0	0	0	7:15 PM	0	0	0	0
7:30 AM	25	6	0	31	7:30 PM	0	0	0	0
7:45 AM	37	2	0	39	7:45 PM	0	0	0	0
8:00 AM	32	4	0	36	8:00 PM	0	0	0	0
8:15 AM	29	0	0	29	8:15 PM	0	0	0	0
8:30 AM	25	2	0	27	8:30 PM	0	0	0	0
8:45 AM	29	5	0	34	8:45 PM	0	0	0	0
9:00 AM	33	4	2	39	9:00 PM	0	0	0	0
9:15 AM	31	5	0	36	9:15 PM	0	0	0	0
9:30 AM	33	5	0	38	9:30 PM	0	0	0	0
9:45 AM	48	1	0	49	9:45 PM	0	0	0	0
10:00 AM	38	2	0	40	10:00 PM	0	0	0	0
10:15 AM	39	3	0	42	10:15 PM	0	0	0	0
10:30 AM	28	5	0	33	10:30 PM	0	0	0	0
10:45 AM	32	9	0	41	10:45 PM	0	0	0	0
11:00 AM	46	0	0	46	11:00 PM	0	0	0	0
11:15 AM	32	5	0	37	11:15 PM	0	0	0	0
11:30 AM	45	2	0	47	11:30 PM	0	0	0	0
11:45 AM	26	2	0	28	11:45 PM	0	0	0	0

AM Total	609	63	2	674	PM Total	397	33	0	430
Percentage	90.36%	9.35%	0.30%		Percentage	92.33%	7.67%	0.00%	
AM Peak Volume	9:30 AM	8:45 AM	8:15 AM	10:45 AM	PM Peak Volume	1:15 PM	2:00 PM	12:00 PM	1:15 PM
	158	19	2	171		171	16	0	185

Day Total	1006	96	2	1104
Percentage	91.12%	8.70%	0.18%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Tuesday, May 24, 2022  
Direction: WB (Exit)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	3	0	0	3
12:15 AM	0	0	0	0	12:15 PM	0	0	0	0
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	0	1	0	1
1:00 AM	0	0	0	0	1:00 PM	34	3	0	37
1:15 AM	0	0	0	0	1:15 PM	35	2	0	37
1:30 AM	0	0	0	0	1:30 PM	32	3	0	35
1:45 AM	0	0	0	0	1:45 PM	34	3	0	37
2:00 AM	0	0	0	0	2:00 PM	31	3	0	34
2:15 AM	0	0	0	0	2:15 PM	34	7	0	41
2:30 AM	0	0	0	0	2:30 PM	31	8	0	39
2:45 AM	0	0	0	0	2:45 PM	36	5	0	41
3:00 AM	0	0	0	0	3:00 PM	23	2	0	25
3:15 AM	0	0	0	0	3:15 PM	25	3	0	28
3:30 AM	0	0	0	0	3:30 PM	3	0	0	3
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	1	0	0	1
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	1	0	0	1	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	1	0	0	1	6:45 PM	0	0	0	0
7:00 AM	0	1	1	2	7:00 PM	0	0	0	0
7:15 AM	0	0	0	0	7:15 PM	0	0	0	0
7:30 AM	23	3	0	26	7:30 PM	0	0	0	0
7:45 AM	17	4	0	21	7:45 PM	0	0	0	0
8:00 AM	14	2	0	16	8:00 PM	0	0	0	0
8:15 AM	23	1	0	24	8:15 PM	0	0	0	0
8:30 AM	21	2	0	23	8:30 PM	0	0	0	0
8:45 AM	15	4	0	19	8:45 PM	0	0	0	0
9:00 AM	13	0	0	13	9:00 PM	0	0	0	0
9:15 AM	21	1	0	22	9:15 PM	0	0	0	0
9:30 AM	13	0	0	13	9:30 PM	0	0	0	0
9:45 AM	32	3	0	35	9:45 PM	0	0	0	0
10:00 AM	18	2	0	20	10:00 PM	0	0	0	0
10:15 AM	21	9	0	30	10:15 PM	0	0	0	0
10:30 AM	21	11	0	32	10:30 PM	0	0	0	0
10:45 AM	25	5	0	30	10:45 PM	0	0	0	0
11:00 AM	25	3	0	28	11:00 PM	0	0	0	0
11:15 AM	30	1	0	31	11:15 PM	0	0	0	0
11:30 AM	42	1	0	43	11:30 PM	0	0	0	0
11:45 AM	13	0	0	13	11:45 PM	0	0	0	0

AM Total	389	53	1	443	PM Total	322	40	0	362
Percentage	87.81%	11.96%	0.23%		Percentage	88.95%	11.05%	0.00%	
AM Peak Volume	10:45 AM	10:15 AM	6:15 AM	10:45 AM	PM Peak Volume	1:00 PM	2:00 PM	12:00 PM	2:00 PM
	122	28	1	132		135	23	0	155

Day Total	711	93	1	805
Percentage	88.32%	11.55%	0.12%	

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

Count Date: Wednesday, May 25, 2022  
Direction: WB (Exit)

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

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total	PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	12:00 PM	0	0	0	0
12:15 AM	0	0	0	0	12:15 PM	0	2	0	2
12:30 AM	0	0	0	0	12:30 PM	0	0	0	0
12:45 AM	0	0	0	0	12:45 PM	1	0	0	1
1:00 AM	0	0	0	0	1:00 PM	32	6	0	38
1:15 AM	0	0	0	0	1:15 PM	31	6	0	37
1:30 AM	0	0	0	0	1:30 PM	38	1	0	39
1:45 AM	0	0	0	0	1:45 PM	32	2	0	34
2:00 AM	0	0	0	0	2:00 PM	30	3	0	33
2:15 AM	0	0	0	0	2:15 PM	37	0	0	37
2:30 AM	0	0	0	0	2:30 PM	26	3	0	29
2:45 AM	0	0	0	0	2:45 PM	35	5	0	40
3:00 AM	0	0	0	0	3:00 PM	31	0	0	31
3:15 AM	0	0	0	0	3:15 PM	23	0	0	23
3:30 AM	0	0	0	0	3:30 PM	0	0	0	0
3:45 AM	0	0	0	0	3:45 PM	0	0	0	0
4:00 AM	0	0	0	0	4:00 PM	2	0	0	2
4:15 AM	0	0	0	0	4:15 PM	0	0	0	0
4:30 AM	0	0	0	0	4:30 PM	0	0	0	0
4:45 AM	0	0	0	0	4:45 PM	0	0	0	0
5:00 AM	0	0	0	0	5:00 PM	0	0	0	0
5:15 AM	0	0	0	0	5:15 PM	0	0	0	0
5:30 AM	0	0	0	0	5:30 PM	0	0	0	0
5:45 AM	0	0	0	0	5:45 PM	0	0	0	0
6:00 AM	0	0	0	0	6:00 PM	0	0	0	0
6:15 AM	0	0	0	0	6:15 PM	0	0	0	0
6:30 AM	0	0	0	0	6:30 PM	0	0	0	0
6:45 AM	0	0	0	0	6:45 PM	0	0	0	0
7:00 AM	0	0	0	0	7:00 PM	0	0	0	0
7:15 AM	0	0	0	0	7:15 PM	0	0	0	0
7:30 AM	13	4	0	17	7:30 PM	0	0	0	0
7:45 AM	19	4	0	23	7:45 PM	0	0	0	0
8:00 AM	27	2	0	29	8:00 PM	0	0	0	0
8:15 AM	20	1	0	21	8:15 PM	0	0	0	0
8:30 AM	24	2	0	26	8:30 PM	0	0	0	0
8:45 AM	24	5	0	29	8:45 PM	0	0	0	0
9:00 AM	28	2	0	30	9:00 PM	0	0	0	0
9:15 AM	22	2	0	24	9:15 PM	0	0	0	0
9:30 AM	16	0	0	16	9:30 PM	0	0	0	0
9:45 AM	24	1	1	26	9:45 PM	0	0	0	0
10:00 AM	27	4	0	31	10:00 PM	0	0	0	0
10:15 AM	22	2	0	24	10:15 PM	0	0	0	0
10:30 AM	27	1	0	28	10:30 PM	0	0	0	0
10:45 AM	25	10	0	35	10:45 PM	0	0	0	0
11:00 AM	34	7	0	41	11:00 PM	0	0	0	0
11:15 AM	33	3	0	36	11:15 PM	0	0	0	0
11:30 AM	32	1	0	33	11:30 PM	0	0	0	0
11:45 AM	28	1	0	29	11:45 PM	0	0	0	0

AM Total 445 52 1 498  
Percentage 89.36% 10.44% 0.20%

AM Peak Volume 11:00 AM 10:30 AM 9:00 AM 10:45 AM 1 145

PM Total 318 28 0 346  
Percentage 91.91% 8.09% 0.00%

PM Peak Volume 1:30 PM 1:00 PM 12:00 PM 1:00 PM 137 15 0 148

Day Total 763 80 1 844  
Percentage 90.40% 9.48% 0.12%

**Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB/ V. Kalikiri  
Site Code: T0454**



PDI File # 228589 ATR-C

228589 ATR-C

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

**Count Date:**

WB (Exit)

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

**AM Total** 0 0 0 0

**PM Total** 0 0 0 0

Percentage      #DIV/0!      #DIV/0!      #DIV/0!

Percentage      #DIV/0!      #DIV/0!      #DIV/0!

**AM Peak**                   **12:00 AM**                   **12:00 AM**                   **12:00 AM** **12:00 AM**

**PM Peak**                  12:00 PM                  12:00 PM                  12:00 PM  12:00 PM

Volume 0 0 0 0

Volume 0 0 0 0

**Day Total**                    0                    0                    0                    0

Percentage #DIV/0! #DIV/0! #DIV/0!

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB / V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

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

Direction: EB (Enter)

**Weekly Report**

Day	Thursday 05/19/22		Friday 05/20/22		Saturday 05/21/22		Monday 05/23/22		Tuesday 05/24/22		Wednesday 05/25/22				Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
12:45	0	1	0	0	0	25	0	0	0	8	0	9	0	0	0	7
1:00	0	30	0	44	0	48	0	52	0	48	0	43	0	0	0	44
1:15	0	23	0	43	0	67	0	45	0	30	0	38	0	0	0	41
1:30	0	23	0	42	0	65	0	35	0	33	0	42	0	0	0	40
1:45	0	28	0	40	0	54	0	52	0	39	0	31	0	0	0	41
2:00	0	32	0	37	0	43	0	43	0	29	0	26	0	0	0	35
2:15	0	31	0	47	0	59	0	43	0	47	0	37	0	0	0	44
2:30	0	26	0	41	0	59	0	51	0	31	0	35	0	0	0	41
2:45	0	24	0	44	0	58	0	40	0	44	0	36	0	0	0	41
3:00	0	19	0	38	0	60	0	38	0	26	0	31	0	0	0	35
3:15	0	13	0	14	0	17	0	19	0	11	0	5	0	0	0	13
3:30	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1
4:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0
6:30	0	0	0	0	1	0	0	0	2	0	0	0	0	0	1	0
6:45	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	0
7:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	5	0	0	0	1	0	10	0	3	0	1	0	0	0	3	0
7:30	18	0	21	0	28	0	39	0	33	0	26	0	0	0	28	0
7:45	15	0	12	0	22	0	40	0	17	0	22	0	0	0	21	0
8:00	25	0	20	0	31	0	28	0	14	0	29	0	0	0	25	0
8:15	22	0	17	0	32	0	25	0	28	0	20	0	0	0	24	0
8:30	27	0	25	0	34	0	27	0	20	0	26	0	0	0	27	0
8:45	26	0	29	0	32	0	44	0	14	0	30	0	0	0	29	0
9:00	23	0	23	0	43	0	35	0	20	0	26	0	0	0	28	0
9:15	25	0	22	0	33	0	37	0	22	0	23	0	0	0	27	0
9:30	28	0	37	0	51	0	41	0	12	0	23	0	0	0	32	0
9:45	27	1	38	0	53	0	43	0	35	0	27	0	0	0	37	0
10:00	17	0	23	0	66	0	48	0	18	0	32	0	0	0	34	0
10:15	23	0	30	0	71	0	34	0	33	0	29	0	0	0	37	0
10:30	29	0	28	0	77	0	34	0	33	0	30	0	0	0	39	0
10:45	30	0	29	0	66	0	56	0	34	0	37	0	0	0	42	0
11:00	22	0	29	0	63	0	40	0	27	0	44	0	0	0	38	0
11:15	29	0	29	0	56	0	38	0	35	0	25	0	0	0	35	0
11:30	23	0	27	0	53	0	47	0	31	0	30	0	0	0	35	0
11:45	11	0	15	0	27	0	11	0	4	0	13	0	0	0	14	0
Total	427	254	454	392	841	557	679	419	437	347	494	335	0	0	555	384
Day Total	681		846		1398		1098		784		829		0		939	
Peak HR	10:30 AM	1:45 PM	9:30 AM	2:15 PM	10:00 AM	2:15 PM	10:45 AM	1:45 PM	10:30 AM	2:00 PM	10:15 AM	1:00 PM	12:00 AM	12:00 PM	10:15 AM	1:00 PM
Volume	110	117	128	170	280	236	181	189	129	151	140	154	0	0	155	166

Transfer Station Gates  
at end of Woodfin Terrace  
City, State: Marblehead, MA  
Client: VHB / V. Kalikiri  
Site Code: T0454



PDI File # 228589 ATR-C

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

Direction: WB (Exit)

**Weekly Report**

Day Date	Thursday 05/19/22		Friday 05/20/22		Saturday 05/21/22		Monday 05/23/22		Tuesday 05/24/22		Wednesday 05/25/22				Week Ave		
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
12:00	0	0	0	0	0	2	0	5	0	3	0	0	0	0	0	0	2
12:15	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	0	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	2	0	0	0	1	0	1	0	0	0	0	1
1:00	0	12	0	22	0	50	0	20	0	37	0	38	0	0	0	0	30
1:15	0	32	0	48	0	53	0	53	0	37	0	37	0	0	0	0	43
1:30	0	23	0	35	0	63	0	47	0	35	0	39	0	0	0	0	40
1:45	0	33	0	45	0	70	0	42	0	37	0	34	0	0	0	0	44
2:00	0	23	0	37	0	47	0	43	0	34	0	33	0	0	0	0	36
2:15	0	39	0	47	0	48	0	47	0	41	0	37	0	0	0	0	43
2:30	0	26	0	43	0	62	0	44	0	39	0	29	0	0	0	0	41
2:45	0	23	0	40	0	58	0	49	0	41	0	40	0	0	0	0	42
3:00	0	23	0	44	0	62	0	45	0	25	0	31	0	0	0	0	38
3:15	0	21	0	32	0	40	0	31	0	28	0	23	0	0	0	0	29
3:30	0	2	0	2	0	2	0	2	0	3	0	0	0	0	0	0	2
3:45	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	1
4:15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
7:15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	17	0	15	0	13	0	31	0	26	0	17	0	0	0	0	20	0
7:45	17	0	13	0	21	0	39	0	21	0	23	0	0	0	0	22	0
8:00	21	0	18	0	31	0	36	0	16	0	29	0	0	0	0	25	0
8:15	28	0	16	0	31	0	29	0	24	0	21	0	0	0	0	25	0
8:30	20	0	22	0	33	0	27	0	23	0	26	0	0	0	0	25	0
8:45	28	0	36	0	33	0	34	0	19	0	29	0	0	0	0	30	0
9:00	23	0	22	0	39	0	39	0	13	0	30	0	0	0	0	28	0
9:15	30	0	22	0	31	0	36	0	22	0	24	0	0	0	0	28	0
9:30	24	0	33	0	44	0	38	0	13	0	16	0	0	0	0	28	0
9:45	28	1	29	0	45	0	49	0	35	0	26	0	0	0	0	35	0
10:00	21	0	33	0	60	0	40	0	20	0	31	0	0	0	0	34	0
10:15	14	0	28	0	50	0	42	0	30	0	24	0	0	0	0	31	0
10:30	28	0	36	0	90	0	33	0	32	0	28	0	0	0	0	41	0
10:45	33	0	19	0	74	0	41	0	30	0	35	0	0	0	0	39	0
11:00	26	0	26	0	70	0	46	0	28	0	41	0	0	0	0	40	0
11:15	29	0	24	0	63	0	37	0	31	0	36	0	0	0	0	37	0
11:30	25	0	23	0	60	0	47	0	43	0	33	0	0	0	0	39	0
11:45	19	0	29	0	50	0	28	0	13	0	29	0	0	0	0	28	0
Total	433	260	444	397	838	560	674	430	443	362	498	346	0	0	555	393	
Day Total	693		841		1398		1104		805		844		0		948		
Peak HR	10:30 AM	1:45 PM	9:45 AM	2:15 PM	10:30 AM	1:00 PM	10:45 AM	1:15 PM	10:45 AM	2:00 PM	10:45 AM	1:00 PM	12:00 AM	12:00 PM	10:30 AM	2:15 PM	
Volume	116	121	126	174	297	236	171	185	132	155	145	148	0	0	156	164	

## Commercial Weigh Scale Data

## Commercial Scale Activity Summary

Date	# of Transactions per day	Average weight of Vehicle	% of Vehicle Either Class 1 or Class 2
Monday, May 3, 2021	69	6542	96%
Tuesday, May 4, 2021	34	6950	100%
Wednesday, May 5, 2021	67	7311	96%
Thursday, May 6, 2021	53	7398	91%
Friday, May 7, 2021	77	6878	97%
Saturday, May 8, 2021	51	7637	86%
Monday, May 10, 2021	53	6711	94%
Tuesday, May 11, 2021	46	6956	93%
Wednesday, May 12, 2021	77	7438	90%
Thursday, May 13, 2021	77	7015	96%
Friday, May 14, 2021	66	6466	97%
Saturday, May 15, 2021	92	6386	96%

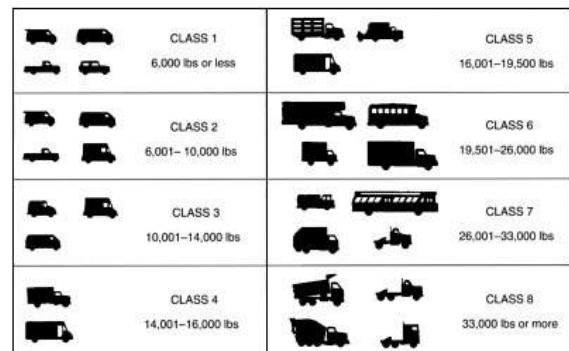
Average	64	6974	94%
61.44444444			

Average Number of Vehicles dumping per hour (5/3/21-5/15/21)	
7:00-8:00 AM	4
8:00-9:00 AM	9
9:00-10:00 AM	9
10:00-11:00 AM	11
11:00-12:00PM	9
12:00-1:00 PM	0
1:00-2:00 PM	10
2:00-3:00 PM	8
3:00-4:00 PM	2
4:00-5:00 PM	0

Marblehead Transfer Station Slips Summary

Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification	
5/3/2021	9:12 AM	9420	960	Class 2 Light duty Truck	7:00-8:00 AM
5/3/2021	9:15 AM	7340	440	Class 2 Light duty Truck	8:00-9:00 AM
5/3/2021	9:18 AM	3740	240	Class 1 Personal Vehicle	9:00-10:00 AM
5/3/2021	9:29 AM	5740	180	Class 1 Personal Vehicle	10:00-11:00 AM
5/3/2021	9:32 AM	5300	260	Class 1 Personal Vehicle	11:00-12:00PM
5/3/2021	9:46 AM	5920	320	Class 1 Personal Vehicle	12:00-1:00 PM
5/3/2021	9:49 AM	4660	600	Class 1 Personal Vehicle	1:00-2:00 PM
5/3/2021	9:52 AM	5720	420	Class 1 Personal Vehicle	2:00-3:00 PM
5/3/2021	9:54 AM	6900	460	Class 2 Light duty Truck	3:00-4:00 PM
5/3/2021	9:56 AM	5140	40	Class 1 Personal Vehicle	4:00-5:00 PM
5/3/2021	9:57 AM	8660	400	Class 2 Light duty Truck	
5/3/2021	10:02 AM	8560	640	Class 2 Light duty Truck	
5/3/2021	10:04 AM	5820	80	Class 1 Personal Vehicle	
5/3/2021	10:07 AM	5780	600	Class 1 Personal Vehicle	
5/3/2021	10:09 AM	7340	580	Class 2 Light duty Truck	
5/3/2021	10:12 AM	9460	300	Class 2 Light duty Truck	
5/3/2021	10:18 AM	8320	680	Class 2 Light duty Truck	
5/3/2021	10:22 AM	7760	240	Class 2 Light duty Truck	
5/3/2021	10:24 AM	4520	300	Class 1 Personal Vehicle	
5/3/2021	10:29 AM	6040	240	Class 2 Light duty Truck	
5/3/2021	10:31 AM	6400	760	Class 2 Light duty Truck	
5/3/2021	10:38 AM	5280	460	Class 1 Personal Vehicle	
5/3/2021	10:40 AM	4240	480	Class 1 Personal Vehicle	
5/3/2021	10:45 AM	8160	1000	Class 2 Light duty Truck	
5/3/2021	10:48 AM	5780	220	Class 1 Personal Vehicle	
5/3/2021	10:54 AM	6600	1240	Class 2 Light duty Truck	
5/3/2021	10:57 AM	6280	300	Class 2 Light duty Truck	
5/3/2021	11:00 AM	5820	380	Class 1 Personal Vehicle	
5/3/2021	11:02 AM	6160	540	Class 2 Light duty Truck	
5/3/2021	11:06 AM	12000	3420	Class 3 Medium duty Truck	
5/3/2021	11:11 AM	4580	260	Class 1 Personal Vehicle	
5/3/2021	11:17 AM	6280	660	Class 2 Light duty Truck	
5/3/2021	11:23 AM	6440	580	Class 2 Light duty Truck	
5/3/2021	11:24 AM	3440	180	Class 1 Personal Vehicle	
5/3/2021	11:29 AM	4740	240	Class 1 Personal Vehicle	
5/3/2021	11:31 AM	9400	1140	Class 2 Light duty Truck	
5/3/2021	11:34 AM	5640	120	Class 1 Personal Vehicle	
5/3/2021	11:42 AM	7300	260	Class 2 Light duty Truck	
5/3/2021	11:49 AM	4980	160	Class 1 Personal Vehicle	
5/3/2021	11:52 AM	5320	360	Class 1 Personal Vehicle	
5/3/2021	1:08 PM	9220	600	Class 2 Light duty Truck	
5/3/2021	1:14 PM	4780	440	Class 1 Personal Vehicle	
5/3/2021	1:21 PM	6340	40	Class 2 Light duty Truck	
5/3/2021	1:21 PM	6440	560	Class 2 Light duty Truck	
5/3/2021	1:27 PM	10800	460	Class 3 Medium duty Truck	
5/3/2021	1:29 PM	4260	600	Class 1 Personal Vehicle	
5/3/2021	1:33 PM	6280	240	Class 2 Light duty Truck	
5/3/2021	1:37 PM	7980	360	Class 2 Light duty Truck	
5/3/2021	1:39 PM	3640	140	Class 1 Personal Vehicle	
5/3/2021	1:54 PM	10040	3580	Class 3 Medium duty Truck	
5/3/2021	1:56 PM	7320	220	Class 2 Light duty Truck	
5/3/2021	1:58 PM	4200	140	Class 1 Personal Vehicle	
5/3/2021	2:01 PM	3480	200	Class 1 Personal Vehicle	
5/3/2021	2:19 PM	8720	1400	Class 2 Light duty Truck	
5/3/2021	2:24 PM	7580	920	Class 2 Light duty Truck	
5/3/2021	2:27 PM	6000	180	Class 2 Light duty Truck	
5/3/2021	2:30 PM	4740	100	Class 1 Personal Vehicle	
5/3/2021	2:34 PM	4500	1360	Class 1 Personal Vehicle	
5/3/2021	2:37 PM	5680	340	Class 1 Personal Vehicle	
5/3/2021	2:43 PM	9340	1220	Class 2 Light duty Truck	
5/3/2021	2:46 PM	9480	320	Class 2 Light duty Truck	
5/3/2021	2:49 PM	6000	440	Class 2 Light duty Truck	
5/3/2021	2:51 PM	9240	1820	Class 2 Light duty Truck	
5/3/2021	2:57 PM	6000	140	Class 2 Light duty Truck	
5/3/2021	3:02 PM	8480	1800	Class 2 Light duty Truck	
5/3/2021	3:08 PM	6420	680	Class 2 Light duty Truck	
5/3/2021	3:14 PM	7480	620	Class 2 Light duty Truck	
5/3/2021	3:19 PM	4720	120	Class 1 Personal Vehicle	
5/3/2021	3:21 PM	5260	880	Class 1 Personal Vehicle	

<https://afdc.energy.gov/data/10380>



Summary	
Class 1 Personal Vehicle	30
Class 2 Light Duty Truck	36
Class 3 Medium Duty Truck	3
Total Waste Dumped	40660
Average Waste dumped per car	589
Average Size of Vehicle	6542

Marblehead Transfer Station Slips Summary						
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/4/2021	7:37 AM	6860	160	Class 2 Light duty Truck	7:00-8:00 AM	5
5/4/2021	7:44 AM	7520	740	Class 2 Light duty Truck	8:00-9:00 AM	1
5/4/2021	7:49 AM	4500	1420	Class 1 Personal Vehicle	9:00-10:00 AM	5
5/4/2021	7:51 AM	4560	220	Class 1 Personal Vehicle	10:00-11:00 AM	7
5/4/2021	7:54 AM	9380	1940	Class 2 Light duty Truck	11:00-12:00PM	12
5/4/2021	8:02 AM	8680	220	Class 2 Light duty Truck	12:00-1:00 PM	0
5/4/2021	9:34 AM	5900	540	Class 1 Personal Vehicle	1:00-2:00 PM	3
5/4/2021	9:36 AM	6400	620	Class 2 Light duty Truck	2:00-3:00 PM	1
5/4/2021	9:41 AM	5000	400	Class 1 Personal Vehicle	3:00-4:00 PM	0
5/4/2021	9:44 AM	9420	360	Class 2 Light duty Truck	4:00-5:00 PM	0
5/4/2021	9:48 AM	8780	1240	Class 2 Light duty Truck		
5/4/2021	10:00 AM	6320	280	Class 2 Light duty Truck		
5/4/2021	10:03 AM	3780	120	Class 1 Personal Vehicle		
5/4/2021	10:25 AM	6140	1100	Class 2 Light duty Truck		
5/4/2021	10:34 AM	6900	720	Class 2 Light duty Truck		
5/4/2021	10:48 AM	6200	1220	Class 2 Light duty Truck		
5/4/2021	10:51 AM	7000	180	Class 2 Light duty Truck		
5/4/2021	10:58 AM	4780	230	Class 1 Personal Vehicle		
5/4/2021	11:00 AM	6220	80	Class 2 Light duty Truck		
5/4/2021	11:06 AM	4930	480	Class 1 Personal Vehicle		
5/4/2021	11:08 AM	4520	460	Class 1 Personal Vehicle		
5/4/2021	11:10 AM	3640	160	Class 1 Personal Vehicle		
5/4/2021	11:15 AM	8780	2680	Class 2 Light duty Truck		
5/4/2021	11:21 AM	8380	320	Class 2 Light duty Truck		
5/4/2021	11:27 AM	6380	740	Class 2 Light duty Truck		
5/4/2021	11:29 AM	6160	260	Class 2 Light duty Truck		
5/4/2021	11:39 AM	8540	560	Class 2 Light duty Truck		
5/4/2021	11:45 AM	8140	480	Class 2 Light duty Truck		
5/4/2021	11:48 AM	7460	1780	Class 2 Light duty Truck		
5/4/2021	11:51 AM	9360	1060	Class 2 Light duty Truck		
5/4/2021	1:07 PM	8540	700	Class 2 Light duty Truck		
5/4/2021	1:10 PM	9200	360	Class 2 Light duty Truck		
5/4/2021	1:35 PM	8140	2380	Class 2 Light duty Truck		
5/4/2021	2:08 PM	9780	2740	Class 2 Light duty Truck		

<https://afdc.energy.gov/data/10380>

		CLASS 1			CLASS 5
		6,000 lbs or less			16,001–19,500 lbs
		CLASS 2			CLASS 6
		6,001– 10,000 lbs			19,501–26,000 lbs
		CLASS 3			CLASS 7
		10,001–14,000 lbs			26,001–33,000 lbs
		CLASS 4			CLASS 8
		14,001–16,000 lbs			33,000 lbs or more

Summary	
Class 1 Personal Vehicle	9
Class 2 Light Duty Truck	25
Class 3 Medium Duty Truck	0
Class 4 Heavy duty Truck	0
Total Waste Dumped	26950
Average Waste dumped per car	793
Average Size of Vehicle	6950

Marblehead Transfer Station Slips Summary

Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/5/2021	7:34 AM	8660	340	Class 2 Light duty Truck	7:00-8:00 AM	5
5/5/2021	7:38 AM	9360	840	Class 2 Light duty Truck	8:00-9:00 AM	13
5/5/2021	7:43 AM	7440	3160	Class 2 Light duty Truck	9:00-10:00 AM	9
5/5/2021	7:50 AM	6300	340	Class 2 Light duty Truck	10:00-11:00 AM	5
5/5/2021	7:52 AM	4500	180	Class 1 Personal Vehicle	11:00-12:00PM	5
5/5/2021	8:06 AM	9760	2960	Class 2 Light duty Truck	12:00-1:00 PM	8
5/5/2021	8:12 AM	8020	1880	Class 2 Light duty Truck	1:00-2:00 PM	16
5/5/2021	8:17 AM	4940	80	Class 1 Personal Vehicle	2:00-3:00 PM	11
5/5/2021	8:20 AM	7680	420	Class 2 Light duty Truck	3:00-4:00 PM	3
5/5/2021	8:24 AM	6200	880	Class 2 Light duty Truck	4:00-5:00 PM	8
5/5/2021	8:26 AM	7980	720	Class 2 Light duty Truck		
5/5/2021	8:34 AM	9320	260	Class 2 Light duty Truck		
5/5/2021	8:35 AM	6960	100	Class 2 Light duty Truck		
5/5/2021	8:39 AM	4520	80	Class 1 Personal Vehicle		
5/5/2021	8:41 AM	9200	1060	Class 2 Light duty Truck		
5/5/2021	8:46 AM	4660	80	Class 1 Personal Vehicle		
5/5/2021	8:49 AM	6220	520	Class 2 Light duty Truck		
5/5/2021	8:54 AM	6200	820	Class 2 Light duty Truck		
5/5/2021	9:08 AM	5920	560	Class 1 Personal Vehicle		
5/5/2021	9:10 AM	8600	160	Class 2 Light duty Truck		
5/5/2021	9:16 AM	11420	1120	Class 3 Medium duty Truck		
5/5/2021	9:21 AM	6100	140	Class 2 Light duty Truck		
5/5/2021	9:25 AM	8400	200	Class 2 Light duty Truck		
5/5/2021	9:32 AM	6300	840	Class 2 Light duty Truck		
5/5/2021	9:46 AM	7320	720	Class 2 Light duty Truck		
5/5/2021	9:51 AM	5580	460	Class 1 Personal Vehicle		
5/5/2021	9:58 AM	7400	2740	Class 2 Light duty Truck		
5/5/2021	10:22 AM	12200	2520	Class 3 Medium duty Truck		
5/5/2021	10:27 AM	7200	680	Class 2 Light duty Truck		
5/5/2021	10:54 AM	8760	180	Class 2 Light duty Truck		
5/5/2021	10:55 AM	7600	2520	Class 2 Light duty Truck		
5/5/2021	10:58 AM	4760	180	Class 1 Personal Vehicle		
5/5/2021	11:02 AM	5960	1620	Class 1 Personal Vehicle		
5/5/2021	11:19 AM	8940	60	Class 2 Light duty Truck		
5/5/2021	11:34 AM	5380	660	Class 1 Personal Vehicle		
5/5/2021	11:49 AM	7740	320	Class 2 Light duty Truck		
5/5/2021	11:52 AM	5200	120	Class 1 Personal Vehicle		
5/5/2021	1:09 PM	9940	380	Class 2 Light duty Truck		
5/5/2021	1:11 PM	4900	60	Class 1 Personal Vehicle		
5/5/2021	1:12 PM	9180	740	Class 2 Light duty Truck		
5/5/2021	1:15 PM	9300	1520	Class 2 Light duty Truck		
5/5/2021	1:19 PM	6820	280	Class 2 Light duty Truck		
5/5/2021	1:20 PM	7640	2440	Class 2 Light duty Truck		
5/5/2021	1:24 PM	5800	400	Class 1 Personal Vehicle		
5/5/2021	1:27 PM	4560	800	Class 1 Personal Vehicle		
5/5/2021	1:33 PM	9060	4080	Class 2 Light duty Truck		
5/5/2021	1:42 PM	6320	600	Class 2 Light duty Truck		
5/5/2021	1:44 PM	6380	140	Class 2 Light duty Truck		
5/5/2021	1:48 PM	7960	280	Class 2 Light duty Truck		
5/5/2021	1:53 PM	10800	1460	Class 3 Medium duty Truck		
5/5/2021	1:56 PM	5800	80	Class 1 Personal Vehicle		
5/5/2021	1:57 PM	9720	840	Class 2 Light duty Truck		
5/5/2021	1:59 PM	5020	60	Class 1 Personal Vehicle		
5/5/2021	2:03 PM	8900	2580	Class 2 Light duty Truck		
5/5/2021	2:08 PM	6100	600	Class 2 Light duty Truck		
5/5/2021	2:13 PM	7060	280	Class 2 Light duty Truck		
5/5/2021	2:18 PM	8020	300	Class 2 Light duty Truck		
5/5/2021	2:23 PM	5660	400	Class 1 Personal Vehicle		
5/5/2021	2:28 PM	7920	100	Class 2 Light duty Truck		
5/5/2021	2:33 PM	6620	200	Class 2 Light duty Truck		
5/5/2021	2:45 PM	8620	2500	Class 2 Light duty Truck		
5/5/2021	2:49 PM	8780	1380	Class 2 Light duty Truck		
5/5/2021	2:54 PM	6240	160	Class 2 Light duty Truck		
5/5/2021	2:58 PM	8800	1700	Class 2 Light duty Truck		
5/5/2021	3:02 PM	5680	460	Class 1 Personal Vehicle		
5/5/2021	3:05 PM	8240	2000	Class 2 Light duty Truck		
5/5/2021	3:11 PM	5420	540	Class 1 Personal Vehicle		

<https://afdc.energy.gov/data/10380>

		CLASS 1	
		6,000 lbs or less	
		CLASS 5	
		16,001–19,500 lbs	
		CLASS 2	
		6,001– 10,000 lbs	
		CLASS 6	
		19,501–26,000 lbs	
		CLASS 3	
		10,001–14,000 lbs	
		CLASS 7	
		26,001–33,000 lbs	
		CLASS 4	
		14,001–16,000 lbs	
		CLASS 8	
		33,000 lbs or more	

Summary	
Class 1 Personal Vehicle	18
Class 2 Light Duty Truck	46
Class 3 Medium Duty Truck	3
Class 4 Heavy duty Truck	0
Total Waste Dumped	57880
Average Waste dumped per car	864
Average Size of Vehicle	7311

Marblehead Transfer Station Slips Summary						
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/6/2021	7:49 AM	5780	360	Class 1 Personal Vehicle	7:00-8:00 AM	2
5/6/2021	7:57 AM	7940	800	Class 2 Light duty Truck	8:00-9:00 AM	7
5/6/2021	8:00 AM	7360	1660	Class 2 Light duty Truck	9:00-10:00 AM	8
5/6/2021	8:11 AM	6080	120	Class 2 Light duty Truck	10:00-11:00 AM	9
5/6/2021	8:16 AM	7120	360	Class 2 Light duty Truck	11:00-12:00PM	3
5/6/2021	8:21 AM	6440	280	Class 2 Light duty Truck	12:00-1:00 PM	0
5/6/2021	8:41 AM	6220	160	Class 2 Light duty Truck	1:00-2:00 PM	12
5/6/2021	8:42 AM	5280	40	Class 1 Personal Vehicle	2:00-3:00 PM	12
5/6/2021	8:53 AM	8180	80	Class 2 Light duty Truck	3:00-4:00 PM	0
5/6/2021	9:01 AM	4940	200	Class 1 Personal Vehicle	4:00-5:00 PM	0
5/6/2021	9:26 AM	9940	2120	Class 2 Light duty Truck		
5/6/2021	9:27 AM	5880	60	Class 1 Personal Vehicle		
5/6/2021	9:28 AM	20520	900	Class 6 Dump Truck		
5/6/2021	9:34 AM	38800	60	Class 1 Personal Vehicle		
5/6/2021	9:43 AM	7480	280	Class 2 Light duty Truck		
5/6/2021	9:46 AM	6300	360	Class 2 Light duty Truck		
5/6/2021	9:47 AM	8720	1620	Class 2 Light duty Truck		
5/6/2021	10:19 AM	7980	940	Class 2 Light duty Truck		
5/6/2021	10:21 AM	6160	300	Class 2 Light duty Truck		
5/6/2021	10:26 AM	12160	780	Class 3 Medium duty Truck		
5/6/2021	10:35 AM	7680	540	Class 2 Light duty Truck		
5/6/2021	10:43 AM	9760	380	Class 2 Light duty Truck		
5/6/2021	10:45 AM	5160	160	Class 1 Personal Vehicle		
5/6/2021	10:48 AM	3480	140	Class 1 Personal Vehicle		
5/6/2021	10:54 AM	6280	520	Class 2 Light duty Truck		
5/6/2021	10:57 AM	12020	640	Class 3 Medium duty Truck		
5/6/2021	11:23 AM	9440	1440	Class 2 Light duty Truck		
5/6/2021	11:33 AM	4100	80	Class 1 Personal Vehicle		
5/6/2021	11:48 AM	5860	1040	Class 1 Personal Vehicle		
5/6/2021	1:05 PM	6220	140	Class 2 Light duty Truck		
5/6/2021	1:08 PM	9400	1500	Class 2 Light duty Truck		
5/6/2021	1:13 PM	6920	1240	Class 2 Light duty Truck		
5/6/2021	1:25 PM	8740	1640	Class 2 Light duty Truck		
5/6/2021	1:28 PM	5280	560	Class 1 Personal Vehicle		
5/6/2021	1:30 PM	9800	440	Class 2 Light duty Truck		
5/6/2021	1:31 PM	5600	240	Class 1 Personal Vehicle		
5/6/2021	1:39 PM	9220	1080	Class 2 Light duty Truck		
5/6/2021	1:43 PM	6680	280	Class 2 Light duty Truck		
5/6/2021	1:50 PM	8080	340	Class 2 Light duty Truck		
5/6/2021	1:54 PM	5880	700	Class 1 Personal Vehicle		
5/6/2021	1:56 PM	6200	180	Class 2 Light duty Truck		
5/6/2021	2:02 PM	7260	660	Class 2 Light duty Truck		
5/6/2021	2:02 PM	4640	60	Class 1 Personal Vehicle		
5/6/2021	2:05 PM	7340	2420	Class 2 Light duty Truck		
5/6/2021	2:21 PM	6420	100	Class 2 Light duty Truck		
5/6/2021	2:32 PM	7860	660	Class 2 Light duty Truck		
5/6/2021	2:37 PM	8440	540	Class 2 Light duty Truck		
5/6/2021	2:40 PM	5040	140	Class 1 Personal Vehicle		
5/6/2021	2:48 PM	10060	1820	Class 3 Medium duty Truck		
5/6/2021	2:51 PM	6900	200	Class 2 Light duty Truck		
5/6/2021	2:54 PM	3320	300	Class 1 Personal Vehicle		
5/6/2021	2:55 PM	10500	1520	Class 3 Medium duty Truck		
5/6/2021	2:58 PM	8220	1960	Class 2 Light duty Truck		

<https://afdc.energy.gov/data/10380>

	CLASS 1			CLASS 5
	6,000 lbs or less			16,001–19,500 lbs
	CLASS 2			CLASS 6
	6,001– 10,000 lbs			19,501–26,000 lbs
	CLASS 3			CLASS 7
	10,001–14,000 lbs			26,001–33,000 lbs
	CLASS 4			CLASS 8
	14,001–16,000 lbs			33,000 lbs or more

Summary	
Class 1 Personal Vehicle	15
Class 2 Light Duty Truck	33
Class 3 Medium Duty Truck	4
Class 4 Heavy duty Truck	0
Class 6 Dump Truck	1
Total Waste Dumped	35140
Average Waste dumped per car	676
Average Size of Vehicle	7398

Marblehead Transfer Station Slips Summary						
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/7/2021	7:34 AM	5780	280	Class 1 Personal Vehicle	7:00-8:00 AM	6
5/7/2021	7:39 AM	6880	80	Class 2 Light duty Truck	8:00-9:00 AM	11
5/7/2021	7:39 AM	9960	1140	Class 2 Light duty Truck	9:00-10:00 AM	11
5/7/2021	7:41 AM	6020	120	Class 2 Light duty Truck	10:00-11:00 AM	12
5/7/2021	7:44 AM	8660	160	Class 2 Light duty Truck	11:00-12:00PM	10
5/7/2021	7:51 AM	8220	1540	Class 2 Light duty Truck	12:00-1:00 PM	8
5/7/2021	8:14 AM	7240	260	Class 2 Light duty Truck	1:00-2:00 PM	15
5/7/2021	8:19 AM	7860	440	Class 2 Light duty Truck	2:00-3:00 PM	8
5/7/2021	8:24 AM	9420	1000	Class 2 Light duty Truck	3:00-4:00 PM	4
5/7/2021	8:25 AM	9360	680	Class 2 Light duty Truck	4:00-5:00 PM	0
5/7/2021	8:29 AM	6420	260	Class 2 Light duty Truck		
5/7/2021	8:33 AM	9300	2460	Class 2 Light duty Truck		
5/7/2021	8:34 AM	6540	200	Class 2 Light duty Truck		
5/7/2021	8:41 AM	8860	520	Class 2 Light duty Truck		
5/7/2021	8:42 AM	4660	120	Class 1 Personal Vehicle		
5/7/2021	8:45 AM	10260	780	Class 3 Medium duty Truck		
5/7/2021	8:49 AM	4980	240	Class 1 Personal Vehicle		
5/7/2021	9:04 AM	9360	520	Class 2 Light duty Truck		
5/7/2021	9:20 AM	8140	2280	Class 2 Light duty Truck		
5/7/2021	9:23 AM	4700	300	Class 1 Personal Vehicle		
5/7/2021	9:27 AM	6400	320	Class 2 Light duty Truck		
5/7/2021	9:37 AM	4700	340	Class 1 Personal Vehicle		
5/7/2021	9:43 AM	7280	540	Class 2 Light duty Truck		
5/7/2021	9:44 AM	5760	40	Class 1 Personal Vehicle		
5/7/2021	9:48 AM	5700	680	Class 1 Personal Vehicle		
5/7/2021	9:51 AM	9360	840	Class 2 Light duty Truck		
5/7/2021	9:54 AM	8660	240	Class 2 Light duty Truck		
5/7/2021	9:59 AM	4800	120	Class 1 Personal Vehicle		
5/7/2021	10:01 AM	4340	600	Class 1 Personal Vehicle		
5/7/2021	10:10 AM	5640	1140	Class 1 Personal Vehicle		
5/7/2021	10:12 AM	7060	100	Class 2 Light duty Truck		
5/7/2021	10:14 AM	4700	300	Class 1 Personal Vehicle		
5/7/2021	10:17 AM	7740	860	Class 2 Light duty Truck		
5/7/2021	10:18 AM	4280	80	Class 1 Personal Vehicle		
5/7/2021	10:20 AM	8300	160	Class 2 Light duty Truck		
5/7/2021	10:23 AM	5920	180	Class 1 Personal Vehicle		
5/7/2021	10:29 AM	3700	140	Class 1 Personal Vehicle		
5/7/2021	10:31 AM	6420	720	Class 2 Light duty Truck		
5/7/2021	10:42 AM	4680	260	Class 1 Personal Vehicle		
5/7/2021	10:50 AM	6620	600	Class 2 Light duty Truck		
5/7/2021	11:10 AM	9220	1220	Class 2 Light duty Truck		
5/7/2021	11:12 AM	4700	180	Class 1 Personal Vehicle		
5/7/2021	11:24 AM	8180	2120	Class 2 Light duty Truck		
5/7/2021	11:28 AM	6780	340	Class 2 Light duty Truck		
5/7/2021	11:29 AM	9600	500	Class 2 Light duty Truck		
5/7/2021	11:32 AM	5700	240	Class 1 Personal Vehicle		
5/7/2021	11:35 AM	7680	1960	Class 2 Light duty Truck		
5/7/2021	11:37 AM	5600	340	Class 1 Personal Vehicle		
5/7/2021	11:40 AM	5740	220	Class 1 Personal Vehicle		
5/7/2021	11:44 AM	6400	800	Class 2 Light duty Truck		
5/7/2021	1:07 PM	9340	1200	Class 2 Light duty Truck		
5/7/2021	1:18 PM	7460	1580	Class 2 Light duty Truck		
5/7/2021	1:20 PM	7920	240	Class 2 Light duty Truck		
5/7/2021	1:25 PM	5760	560	Class 1 Personal Vehicle		
5/7/2021	1:27 PM	8200	1600	Class 2 Light duty Truck		
5/7/2021	1:28 PM	8640	440	Class 2 Light duty Truck		
5/7/2021	1:30 PM	10280	160	Class 3 Medium duty Truck		
5/7/2021	1:33 PM	7380	520	Class 2 Light duty Truck		
5/7/2021	1:42 PM	5640	680	Class 1 Personal Vehicle		
5/7/2021	1:45 PM	6400	720	Class 2 Light duty Truck		
5/7/2021	1:46 PM	9760	1980	Class 2 Light duty Truck		
5/7/2021	1:48 PM	7940	620	Class 2 Light duty Truck		
5/7/2021	1:51 PM	4540	200	Class 1 Personal Vehicle		
5/7/2021	1:55 PM	7700	560	Class 2 Light duty Truck		
5/7/2021	1:59 PM	5540	0:00	Class 1 Personal Vehicle		
5/7/2021	2:08 PM	4880	100	Class 1 Personal Vehicle		
5/7/2021	2:10 PM	4580	200	Class 1 Personal Vehicle		
5/7/2021	2:11 PM	5920	440	Class 1 Personal Vehicle		
5/7/2021	2:15 PM	3440	220	Class 1 Personal Vehicle		
5/7/2021	2:20 PM	6120	140	Class 2 Light duty Truck		
5/7/2021	2:49 PM	8720	1880	Class 2 Light duty Truck		
5/7/2021	2:52 PM	4800	340	Class 1 Personal Vehicle		
5/7/2021	2:58 PM	7700	680	Class 2 Light duty Truck		
5/7/2021	3:04 PM	4780	260	Class 1 Personal Vehicle		
5/7/2021	3:08 PM	8680	1380	Class 2 Light duty Truck		
5/7/2021	3:16 PM	8440	1220	Class 2 Light duty Truck		
5/7/2021	3:23 PM	4940	280	Class 1 Personal Vehicle		

<https://afdc.energy.gov/data/10380>

	CLASS 1			CLASS 5	
	6,000 lbs or less			16,001-19,500 lbs	
	CLASS 2			CLASS 6	
	6,001- 10,000 lbs			19,501-26,000 lbs	
	CLASS 3			CLASS 7	
	10,001-14,000 lbs			26,001-33,000 lbs	
	CLASS 4			CLASS 8	
	14,001-16,000 lbs			33,000 lbs or more	

Summary	
Class 1 Personal Vehicle	30
Class 2 Light Duty Truck	45
Class 3 Medium Duty Truck	2
Class 4 Heavy duty Truck	0
Class 6 Dump Truck	0
Total Waste Dumped	48440
Average Waste dumped per car	629
Average Size of Vehicle	6878

Marblehead Transfer Station Slips Summary

Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/8/2021	7:39 AM	9260	640	Class 2 Light duty Truck	7:00-8:00 AM	6
5/8/2021	7:41 AM	7520	1700	Class 2 Light duty Truck	8:00-9:00 AM	8
5/8/2021	7:46 AM	6640	480	Class 2 Light duty Truck	9:00-10:00 AM	14
5/8/2021	7:53 AM	9020	1560	Class 2 Light duty Truck	10:00-11:00 AM	10
5/8/2021	7:55 AM	5620	100	Class 1 Personal Vehicle	11:00-12:00PM	5
5/8/2021	7:58 AM	9340	440	Class 2 Light duty Truck	12:00-1:00 PM	0
5/8/2021	8:14 AM	8680	1420	Class 2 Light duty Truck	1:00-2:00 PM	3
5/8/2021	8:18 AM	5980	260	Class 1 Personal Vehicle	2:00-3:00 PM	5
5/8/2021	8:23 AM	8900	960	Class 2 Light duty Truck	3:00-4:00 PM	0
5/8/2021	8:28 AM	7060	400	Class 2 Light duty Truck	4:00-5:00 PM	0
5/8/2021	8:31 AM	8400	500	Class 2 Light duty Truck		
5/8/2021	8:42 AM	8580	140	Class 2 Light duty Truck		
5/8/2021	8:45 AM	3440	140	Class 1 Personal Vehicle		
5/8/2021	8:51 AM	17120	5000	Class 4 Heavy duty Truck		
5/8/2021	9:02 AM	5660	1140	Class 1 Personal Vehicle		
5/8/2021	9:04 AM	8200	1400	Class 2 Light duty Truck		
5/8/2021	9:05 AM	3760	60	Class 1 Personal Vehicle		
5/8/2021	9:11 AM	6380	980	Class 2 Light duty Truck		
5/8/2021	9:13 AM	7400	160	Class 2 Light duty Truck		
5/8/2021	9:14 AM	8920	540	Class 2 Light duty Truck		
5/8/2021	9:21 AM	10260	1160	Class 3 Medium duty Truck		
5/8/2021	9:23 AM	10540	1300	Class 3 Medium duty Truck		
5/8/2021	9:28 AM	9840	2940	Class 2 Light duty Truck		
5/8/2021	9:32 AM	8660	700	Class 2 Light duty Truck		
5/8/2021	9:41 AM	8300	1760	Class 2 Light duty Truck		
5/8/2021	9:44 AM	6800	240	Class 2 Light duty Truck		
5/8/2021	9:47 AM	5100	60	Class 1 Personal Vehicle		
5/8/2021	9:49 AM	6380	420	Class 2 Light duty Truck		
5/8/2021	10:00 AM	11040	900	Class 3 Medium duty Truck		
5/8/2021	10:10 AM	5340	1620	Class 1 Personal Vehicle		
5/8/2021	10:14 AM	7280	280	Class 2 Light duty Truck		
5/8/2021	10:27 AM	8240	2140	Class 2 Light duty Truck		
5/8/2021	10:29 AM	6140	240	Class 2 Light duty Truck		
5/8/2021	10:31 AM	6420	1320	Class 2 Light duty Truck		
5/8/2021	10:33 AM	11780	740	Class 3 Medium duty Truck		
5/8/2021	10:40 AM	14400	5980	Class 4 Heavy duty Truck		
5/8/2021	10:45 AM	7240	1180	Class 2 Light duty Truck		
5/8/2021	10:48 AM	7520	180	Class 2 Light duty Truck		
5/8/2021	11:32 AM	9720	640	Class 2 Light duty Truck		
5/8/2021	11:35 AM	5000	100	Class 1 Personal Vehicle		
5/8/2021	11:39 AM	6060	160	Class 2 Light duty Truck		
5/8/2021	11:51 AM	10220	2080	Class 3 Medium duty Truck		
5/8/2021	11:53 AM	8080	880	Class 2 Light duty Truck		
5/8/2021	1:21 PM	8360	260	Class 2 Light duty Truck		
5/8/2021	1:28 PM	5060	100	Class 1 Personal Vehicle		
5/8/2021	1:38 PM	6940	560	Class 2 Light duty Truck		
5/8/2021	2:10 PM	3480	160	Class 1 Personal Vehicle		
5/8/2021	2:13 PM	4980	220	Class 1 Personal Vehicle		
5/8/2021	2:35 PM	5280	780	Class 1 Personal Vehicle		
5/8/2021	2:37 PM	4980	420	Class 1 Personal Vehicle		
5/8/2021	2:51 PM	4260	320	Class 1 Personal Vehicle		

<https://afdc.energy.gov/data/10380>

	CLASS 1			CLASS 5
	6,000 lbs or less			16,001-19,500 lbs
	CLASS 2			CLASS 6
	6,001- 10,000 lbs			19,501-26,000 lbs
	CLASS 3			CLASS 7
	10,001-14,000 lbs			26,001-33,000 lbs
	CLASS 4			CLASS 8
	14,001-16,000 lbs			33,000 lbs or more

Summary

Class 1 Personal Vehicle	14
Class 2 Light Duty Truck	30
Class 3 Medium Duty Truck	5
Class 4 Heavy duty Truck	2
Class 6 Dump Truck	0
Total Waste Dumped	47860
Average Waste dumped per car	938
Average Size of Vehicle	7637

Marblehead Transfer Station Slips Summary

Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/11/2021	7:37 AM	5980	460	Class 1 Personal Vehicle	7:00-8:00 AM	2
5/11/2021	7:49 AM	6860	2080	Class 2 Light duty Truck	8:00-9:00 AM	9
5/11/2021	8:01 AM	5840	780	Class 1 Personal Vehicle	9:00-10:00 AM	7
5/11/2021	8:04 AM	5780	260	Class 1 Personal Vehicle	10:00-11:00 AM	8
5/11/2021	8:07 AM	9300	1160	Class 2 Light duty Truck	11:00-12:00PM	9
5/11/2021	8:09 AM	10480	220	Class 3 Medium duty Truck	12:00-1:00 PM	0
5/11/2021	8:11 AM	6940	220	Class 2 Light duty Truck	1:00-2:00 PM	2
5/11/2021	8:16 AM	6100	460	Class 2 Light duty Truck	2:00-3:00 PM	4
5/11/2021	8:24 AM	7980	1540	Class 2 Light duty Truck	3:00-4:00 PM	5
5/11/2021	8:25 AM	4500	160	Class 1 Personal Vehicle	4:00-5:00 PM	0
5/11/2021	8:53 AM	4920	320	Class 1 Personal Vehicle		
5/11/2021	9:00 AM	6540	1240	Class 2 Light duty Truck		
5/11/2021	9:36 AM	9000	2480	Class 2 Light duty Truck		
5/11/2021	9:39 AM	4860	260	Class 1 Personal Vehicle		
5/11/2021	9:42 AM	4740	240	Class 1 Personal Vehicle		
5/11/2021	9:46 AM	7440	2780	Class 2 Light duty Truck		
5/11/2021	9:50 AM	9400	1520	Class 2 Light duty Truck		
5/11/2021	9:54 AM	9380	260	Class 2 Light duty Truck		
5/11/2021	10:18 AM	9760	740	Class 2 Light duty Truck		
5/11/2021	10:26 AM	5400	400	Class 1 Personal Vehicle		
5/11/2021	10:33 AM	9320	2640	Class 2 Light duty Truck		
5/11/2021	10:38 AM	6420	540	Class 2 Light duty Truck		
5/11/2021	10:41 AM	3240	140	Class 1 Personal Vehicle		
5/11/2021	10:49 AM	5380	200	Class 1 Personal Vehicle		
5/11/2021	10:53 AM	4480	200	Class 1 Personal Vehicle		
5/11/2021	10:55 AM	9280	660	Class 2 Light duty Truck		
5/11/2021	11:02 AM	3840	60	Class 1 Personal Vehicle		
5/11/2021	11:07 AM	9000	1880	Class 2 Light duty Truck		
5/11/2021	11:20 AM	4720	320	Class 1 Personal Vehicle		
5/11/2021	11:24 AM	8000	1500	Class 2 Light duty Truck		
5/11/2021	11:28 AM	5760	280	Class 1 Personal Vehicle		
5/11/2021	11:37 AM	10100	880	Class 3 Medium duty Truck		
5/11/2021	11:40 AM	9280	1420	Class 2 Light duty Truck		
5/11/2021	11:42 AM	7660	1900	Class 2 Light duty Truck		
5/11/2021	11:45 AM	6100	440	Class 2 Light duty Truck		
5/11/2021	11:16 PM	6400	460	Class 2 Light duty Truck		
5/11/2021	1:18 PM	9260	340	Class 2 Light duty Truck		
5/11/2021	2:48 PM	8740	1140	Class 2 Light duty Truck		
5/11/2021	2:52 PM	6700	460	Class 2 Light duty Truck		
5/11/2021	2:58 PM	3380	200	Class 1 Personal Vehicle		
5/11/2021	2:59 PM	6100	280	Class 2 Light duty Truck		
5/11/2021	3:01 PM	3920	140	Class 1 Personal Vehicle		
5/11/2021	3:05 PM	9740	1400	Class 2 Light duty Truck		
5/11/2021	3:12 PM	10500	360	Class 3 Medium duty Truck		
5/11/2021	3:14 PM	5840	320	Class 1 Personal Vehicle		
5/11/2021	3:20 PM	5600	720	Class 1 Personal Vehicle		

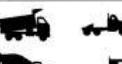
<https://afdc.energy.gov/data/10380>

	CLASS 1			CLASS 5
	6,000 lbs or less			16,001-19,500 lbs
	CLASS 2			CLASS 6
	6,001- 10,000 lbs			19,501-26,000 lbs
	CLASS 3			CLASS 7
	10,001-14,000 lbs			26,001-33,000 lbs
	CLASS 4			CLASS 8
	14,001-16,000 lbs			33,000 lbs or more

Summary	
Class 1 Personal Vehicle	18
Class 2 Light Duty Truck	25
Class 3 Medium Duty Truck	3
Total Waste Dumped	36400
Average Waste dumped per car	791
Average Size of Vehicle	6956

Marblehead Transfer Station Slips Summary				
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification
5/10/2021	9:08 AM	8200	280	Class 2 Light duty Truck
5/10/2021	9:13 AM	6700	900	Class 2 Light duty Truck
5/10/2021	9:15 AM	7140	460	Class 2 Light duty Truck
5/10/2021	9:18 AM	6920	140	Class 2 Light duty Truck
5/10/2021	9:20 AM	9400	1020	Class 2 Light duty Truck
5/10/2021	9:23 AM	7420	2600	Class 2 Light duty Truck
5/10/2021	9:25 AM	4100	160	Class 1 Personal Vehicle
5/10/2021	9:30 AM	5040	480	Class 1 Personal Vehicle
5/10/2021	9:35 AM	5800	500	Class 1 Personal Vehicle
5/10/2021	9:38 AM	5320	300	Class 1 Personal Vehicle
5/10/2021	9:41 AM	4300	240	Class 1 Personal Vehicle
5/10/2021	9:48 AM	8300	820	Class 2 Light duty Truck
5/10/2021	9:58 AM	5780	780	Class 1 Personal Vehicle
5/10/2021	10:05 AM	7660	640	Class 2 Light duty Truck
5/10/2021	10:08 AM	7340	460	Class 2 Light duty Truck
5/10/2021	10:11 AM	5980	280	Class 1 Personal Vehicle
5/10/2021	10:14 AM	9380	620	Class 2 Light duty Truck
5/10/2021	10:18 AM	6220	2080	Class 2 Light duty Truck
5/10/2021	10:22 AM	9100	2080	Class 2 Light duty Truck
5/10/2021	10:25 AM	6140	260	Class 2 Light duty Truck
5/10/2021	10:27 AM	11560	540	Class 3 Medium duty Truck
5/10/2021	10:31 AM	6380	980	Class 2 Light duty Truck
5/10/2021	10:37 AM	4660	800	Class 1 Personal Vehicle
5/10/2021	10:40 AM	8700	200	Class 2 Light duty Truck
5/10/2021	10:43 AM	9300	1420	Class 2 Light duty Truck
5/10/2021	10:46 AM	5040	60	Class 1 Personal Vehicle
5/10/2021	10:54 AM	5740	560	Class 1 Personal Vehicle
5/10/2021	10:57 AM	5860	160	Class 1 Personal Vehicle
5/10/2021	10:59 AM	5860	120	Class 1 Personal Vehicle
5/10/2021	11:09 AM	6020	320	Class 2 Light duty Truck
5/10/2021	11:13 AM	7260	180	Class 2 Light duty Truck
5/10/2021	11:22 AM	6660	540	Class 2 Light duty Truck
5/10/2021	11:22 AM	3860	80	Class 1 Personal Vehicle
5/10/2021	11:41 AM	10740	440	Class 3 Medium duty Truck
5/10/2021	11:44 AM	6180	340	Class 2 Light duty Truck
5/10/2021	11:46 AM	7780	1080	Class 2 Light duty Truck
5/10/2021	1:14 PM	9140	1160	Class 2 Light duty Truck
5/10/2021	1:38 PM	9480	580	Class 2 Light duty Truck
5/10/2021	2:22 PM	4100	20	Class 1 Personal Vehicle
5/10/2021	2:31 PM	4980	1080	Class 1 Personal Vehicle
5/10/2021	2:38 PM	3640	80	Class 1 Personal Vehicle
5/10/2021	2:42 PM	5280	1060	Class 1 Personal Vehicle
5/10/2021	2:44 PM	5160	220	Class 1 Personal Vehicle
5/10/2021	2:53 PM	9340	860	Class 2 Light duty Truck
5/10/2021	2:55 PM	6280	900	Class 2 Light duty Truck
5/10/2021	2:59 PM	4900	440	Class 1 Personal Vehicle
5/10/2021	3:02 PM	10680	840	Class 3 Medium duty Truck
5/10/2021	3:04 PM	5140	80	Class 1 Personal Vehicle
5/10/2021	3:06 PM	5960	160	Class 1 Personal Vehicle
5/10/2021	3:08 PM	5200	140	Class 1 Personal Vehicle
5/10/2021	3:11 PM	6200	360	Class 2 Light duty Truck
5/10/2021	3:16 PM	8780	1500	Class 2 Light duty Truck
5/10/2021	3:20 PM	3600	280	Class 1 Personal Vehicle

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	CLASS 1 6,000 lbs or less		CLASS 5 16,001–19,500 lbs
	CLASS 2 6,001–10,000 lbs		CLASS 6 19,501–26,000 lbs
	CLASS 3 10,001–14,000 lbs		CLASS 7 26,001–33,000 lbs
	CLASS 4 14,001–16,000 lbs		CLASS 8 33,000 lbs or more

Summary	
Class 1 Personal Vehicle	23
Class 2 Light Duty Truck	27
Class 3 Medium Duty Truck	3
Total Waste Dumped	32680
Average Waste dumped per car	617
Average Size of Vehicle	6711

Marblehead Transfer Station Slips Summary						
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/12/2021	7:35 AM	8080	180	Class 2 Light duty Truck	7:00-8:00 AM	7
5/12/2021	7:38 AM	3300	60	Class 1 Personal Vehicle	8:00-9:00 AM	11
5/12/2021	7:42 AM	8820	660	Class 2 Light duty Truck	9:00-10:00 AM	10
5/12/2021	7:49 AM	8700	460	Class 2 Light duty Truck	10:00-11:00 AM	18
5/12/2021	7:50 AM	4480	260	Class 1 Personal Vehicle	11:00-12:00PM	13
5/12/2021	7:52 AM	9320	760	Class 2 Light duty Truck	12:00-1:00 PM	0
5/12/2021	7:56 AM	7280	340	Class 2 Light duty Truck	1:00-2:00 PM	6
5/12/2021	8:01 AM	8080	1660	Class 2 Light duty Truck	2:00-3:00 PM	10
5/12/2021	8:09 AM	6440	1320	Class 2 Light duty Truck	3:00-4:00 PM	2
5/12/2021	8:11 AM	6300	140	Class 2 Light duty Truck	4:00-5:00 PM	0
5/12/2021	8:15 AM	4880	200	Class 1 Personal Vehicle		
5/12/2021	8:22 AM	6340	320	Class 2 Light duty Truck		
5/12/2021	8:23 AM	10280	2300	Class 3 Medium duty Truck		
5/12/2021	8:26 AM	7380	840	Class 2 Light duty Truck		
5/12/2021	8:29 AM	4800	240	Class 1 Personal Vehicle		
5/12/2021	8:41 AM	8720	540	Class 2 Light duty Truck		
5/12/2021	8:44 AM	7600	520	Class 2 Light duty Truck		
5/12/2021	8:57 AM	7780	540	Class 2 Light duty Truck		
5/12/2021	9:01 AM	9180	2080	Class 2 Light duty Truck		
5/12/2021	9:06 AM	4860	220	Class 1 Personal Vehicle		
5/12/2021	9:21 AM	4520	220	Class 1 Personal Vehicle		
5/12/2021	9:25 AM	7640	260	Class 2 Light duty Truck		
5/12/2021	9:31 AM	4920	700	Class 1 Personal Vehicle		
5/12/2021	9:34 AM	14120	3620	Class 4 Heavy duty Truck		
5/12/2021	9:37 AM	7440	680	Class 2 Light duty Truck		
5/12/2021	9:43 AM	6240	300	Class 2 Light duty Truck		
5/12/2021	9:56 AM	11080	2900	Class 3 Medium duty Truck		
5/12/2021	9:58 AM	7260	560	Class 2 Light duty Truck		
5/12/2021	10:00 AM	9220	940	Class 2 Light duty Truck		
5/12/2021	10:09 AM	7780	540	Class 2 Light duty Truck		
5/12/2021	10:11 AM	6240	160	Class 2 Light duty Truck		
5/12/2021	10:16 AM	10420	1020	Class 3 Medium duty Truck		
5/12/2021	10:19 AM	14560	140	Class 4 Heavy duty Truck		
5/12/2021	10:20 AM	5840	700	Class 1 Personal Vehicle		
5/12/2021	10:28 AM	6080	460	Class 2 Light duty Truck		
5/12/2021	10:32 AM	12160	1900	Class 3 Medium duty Truck		
5/12/2021	10:35 AM	6160	800	Class 2 Light duty Truck		
5/12/2021	10:38 AM	6220	360	Class 2 Light duty Truck		
5/12/2021	10:41 AM	9320	660	Class 2 Light duty Truck		
5/12/2021	10:43 AM	6020	120	Class 2 Light duty Truck		
5/12/2021	10:45 AM	6780	260	Class 2 Light duty Truck		
5/12/2021	10:48 AM	10180	820	Class 3 Medium duty Truck		
5/12/2021	10:49 AM	6200	240	Class 2 Light duty Truck		
5/12/2021	10:52 AM	6320	140	Class 2 Light duty Truck		
5/12/2021	10:56 AM	5000	980	Class 1 Personal Vehicle		
5/12/2021	10:59 AM	5540	180	Class 1 Personal Vehicle		
5/12/2021	11:09 AM	6140	620	Class 2 Light duty Truck		
5/12/2021	11:12 AM	3700	40	Class 1 Personal Vehicle		
5/12/2021	11:17 AM	6160	3860	Class 2 Light duty Truck		
5/12/2021	11:21 AM	9320	380	Class 2 Light duty Truck		
5/12/2021	11:26 AM	6140	1020	Class 2 Light duty Truck		
5/12/2021	11:33 AM	7100	560	Class 2 Light duty Truck		
5/12/2021	11:34 AM	7800	200	Class 2 Light duty Truck		
5/12/2021	11:39 AM	6340	80	Class 2 Light duty Truck		
5/12/2021	11:42 AM	9180	3200	Class 2 Light duty Truck		
5/12/2021	11:45 AM	8940	2080	Class 2 Light duty Truck		
5/12/2021	11:47 AM	7360	1260	Class 2 Light duty Truck		
5/12/2021	11:49 AM	9320	960	Class 2 Light duty Truck		
5/12/2021	11:53 AM	7160	680	Class 2 Light duty Truck		
5/12/2021	1:10 PM	9160	400	Class 2 Light duty Truck		
5/12/2021	1:14 PM	9140	500	Class 2 Light duty Truck		
5/12/2021	1:17 PM	7900	520	Class 2 Light duty Truck		
5/12/2021	1:24 PM	6940	1060	Class 2 Light duty Truck		
5/12/2021	1:27 PM	7240	160	Class 2 Light duty Truck		
5/12/2021	1:31 PM	6140	660	Class 2 Light duty Truck		
5/12/2021	2:17 PM	9220	1920	Class 2 Light duty Truck		
5/12/2021	2:24 PM	4860	460	Class 1 Personal Vehicle		
5/12/2021	2:33 PM	10340	800	Class 3 Medium duty Truck		
5/12/2021	2:37 PM	6740	640	Class 2 Light duty Truck		
5/12/2021	2:42 PM	8380	680	Class 2 Light duty Truck		
5/12/2021	2:42 PM	6600	140	Class 2 Light duty Truck		
5/12/2021	2:45 PM	6820	180	Class 2 Light duty Truck		
5/12/2021	2:50 PM	5740	680	Class 1 Personal Vehicle		
5/12/2021	2:56 PM	6140	440	Class 2 Light duty Truck		
5/12/2021	2:59 PM	5680	480	Class 1 Personal Vehicle		
5/12/2021	3:08 PM	9420	1720	Class 2 Light duty Truck		
5/12/2021	3:10 PM	5720	100	Class 1 Personal Vehicle		

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	CLASS 1			CLASS 5
	6,000 lbs or less			16,001-19,500 lbs
	CLASS 2			CLASS 6
	6,001- 10,000 lbs			19,501-26,000 lbs
	CLASS 3			CLASS 7
	10,001-14,000 lbs			26,001-33,000 lbs
	CLASS 4			CLASS 8
	14,001-16,000 lbs			33,000 lbs or more

Summary	
Class 1 Personal Vehicle	15
Class 2 Light Duty Truck	54
Class 3 Medium duty Truck	6
Class 4 Heavy duty Truck	2
Total Waste Dumped	59780
Average Waste dumped per car	776
Average Size of Vehicle	7438

Marblehead Transfer Station Slips Summary						
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/13/2021	7:34 AM	5760	140	Class 1 Personal Vehicle	7:00-8:00 AM	7
5/13/2021	7:36 AM	8640	500	Class 2 Light duty Truck	8:00-9:00 AM	15
5/13/2021	7:38 AM	7500	420	Class 2 Light duty Truck	9:00-10:00 AM	8
5/13/2021	7:43 AM	9640	780	Class 2 Light duty Truck	10:00-11:00 AM	10
5/13/2021	7:45 AM	8100	360	Class 2 Light duty Truck	11:00-12:00PM	13
5/13/2021	7:56 AM	8180	1300	Class 2 Light duty Truck	12:00-1:00 PM	0
5/13/2021	7:59 AM	6900	220	Class 2 Light duty Truck	1:00-2:00 PM	13
5/13/2021	8:05 AM	4820	240	Class 1 Personal Vehicle	2:00-3:00 PM	8
5/13/2021	8:06 AM	7540	400	Class 2 Light duty Truck	3:00-4:00 PM	3
5/13/2021	8:10 AM	9500	580	Class 2 Light duty Truck	4:00-5:00 PM	0
5/13/2021	8:15 AM	8720	3500	Class 2 Light duty Truck		
5/13/2021	8:19 AM	11880	2640	Class 3 Medium duty Truck		
5/13/2021	8:21 AM	6480	400	Class 2 Light duty Truck		
5/13/2021	8:22 AM	6140	140	Class 2 Light duty Truck		
5/13/2021	8:25 AM	5800	420	Class 1 Personal Vehicle		
5/13/2021	8:27 AM	9680	3360	Class 2 Light duty Truck		
5/13/2021	8:31 AM	5340	480	Class 1 Personal Vehicle		
5/13/2021	8:37 AM	7600	120	Class 2 Light duty Truck		
5/13/2021	8:39 AM	6420	100	Class 2 Light duty Truck		
5/13/2021	8:42 AM	6300	200	Class 2 Light duty Truck		
5/13/2021	8:45 AM	10600	1520	Class 3 Medium duty Truck		
5/13/2021	8:48 AM	9300	1860	Class 2 Light duty Truck		
5/13/2021	9:00 AM	8920	460	Class 2 Light duty Truck		
5/13/2021	9:08 AM	6740	840	Class 2 Light duty Truck		
5/13/2021	9:10 AM	5120	280	Class 1 Personal Vehicle		
5/13/2021	9:17 AM	7240	500	Class 2 Light duty Truck		
5/13/2021	9:19 AM	6300	60	Class 2 Light duty Truck		
5/13/2021	9:21 AM	6480	540	Class 2 Light duty Truck		
5/13/2021	9:41 AM	8640	320	Class 2 Light duty Truck		
5/13/2021	9:48 AM	6300	640	Class 2 Light duty Truck		
5/13/2021	10:00 AM	6480	200	Class 2 Light duty Truck		
5/13/2021	10:15 AM	7500	1760	Class 2 Light duty Truck		
5/13/2021	10:20 AM	7380	300	Class 2 Light duty Truck		
5/13/2021	10:28 AM	6400	360	Class 2 Light duty Truck		
5/13/2021	10:34 AM	5280	260	Class 1 Personal Vehicle		
5/13/2021	10:42 AM	6720	880	Class 2 Light duty Truck		
5/13/2021	10:43 AM	5240	60	Class 1 Personal Vehicle		
5/13/2021	10:48 AM	7980	880	Class 2 Light duty Truck		
5/13/2021	10:51 AM	5720	280	Class 1 Personal Vehicle		
5/13/2021	10:56 AM	6060	640	Class 2 Light duty Truck		
5/13/2021	11:02 AM	9380	1760	Class 2 Light duty Truck		
5/13/2021	11:07 AM	6200	140	Class 2 Light duty Truck		
5/13/2021	11:10 AM	5060	140	Class 1 Personal Vehicle		
5/13/2021	11:12 AM	6480	460	Class 2 Light duty Truck		
5/13/2021	11:16 AM	5340	500	Class 1 Personal Vehicle		
5/13/2021	11:19 AM	8720	240	Class 2 Light duty Truck		
5/13/2021	11:22 AM	9600	680	Class 2 Light duty Truck		
5/13/2021	11:30 AM	3280	240	Class 1 Personal Vehicle		
5/13/2021	11:32 AM	3360	180	Class 1 Personal Vehicle		
5/13/2021	11:34 AM	6940	140	Class 2 Light duty Truck		
5/13/2021	11:37 AM	6500	380	Class 2 Light duty Truck		
5/13/2021	11:42 AM	3640	60	Class 1 Personal Vehicle		
5/13/2021	11:52 AM	8940	2300	Class 2 Light duty Truck		
5/13/2021	1:05 PM	9100	2220	Class 2 Light duty Truck		
5/13/2021	1:08 PM	7880	540	Class 2 Light duty Truck		
5/13/2021	1:13 PM	8680	2260	Class 2 Light duty Truck		
5/13/2021	1:17 PM	4100	440	Class 1 Personal Vehicle		
5/13/2021	1:20 PM	6120	500	Class 2 Light duty Truck		
5/13/2021	1:26 PM	8620	340	Class 2 Light duty Truck		
5/13/2021	1:28 PM	6220	380	Class 2 Light duty Truck		
5/13/2021	1:30 PM	5220	200	Class 1 Personal Vehicle		
5/13/2021	1:33 PM	3220	140	Class 1 Personal Vehicle		
5/13/2021	1:34 PM	4560	40	Class 1 Personal Vehicle		
5/13/2021	1:39 PM	6780	80	Class 2 Light duty Truck		
5/13/2021	1:45 PM	7800	320	Class 2 Light duty Truck		
5/13/2021	1:55 PM	8680	2660	Class 2 Light duty Truck		
5/13/2021	2:10 PM	5540	800	Class 1 Personal Vehicle		
5/13/2021	2:21 PM	9060	1040	Class 2 Light duty Truck		
5/13/2021	2:26 PM	5720	80	Class 1 Personal Vehicle		
5/13/2021	2:32 PM	9240	160	Class 2 Light duty Truck		
5/13/2021	2:36 PM	7540	1360	Class 2 Light duty Truck		
5/13/2021	2:40 PM	10980	300	Class 3 Medium duty Truck		
5/13/2021	2:47 PM	7540	1140	Class 2 Light duty Truck		
5/13/2021	2:57 PM	6740	680	Class 2 Light duty Truck		
5/13/2021	3:02 PM	8500	3520	Class 2 Light duty Truck		
5/13/2021	3:07 PM	6920	800	Class 2 Light duty Truck		
5/13/2021	3:09 PM	5060	200	Class 1 Personal Vehicle		
5/13/2021	3:11 PM	5300	60	Class 1 Personal Vehicle		
5/13/2021	3:22 PM	4260	140	Class 1 Personal Vehicle		

<https://afdc.energy.gov/data/10380>

	CLASS 1			CLASS 5
	6,000 lbs or less			16,001-19,500 lbs
	CLASS 2			CLASS 6
	6,001- 10,000 lbs			19,501-26,000 lbs
	CLASS 3			CLASS 7
	10,001-14,000 lbs			26,001-33,000 lbs
	CLASS 4			CLASS 8
	14,001-16,000 lbs			33,000 lbs or more

Marblehead Transfer Station Slips Summary						
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/14/2021	7:43 AM	6960	1280	Class 2 Light duty Truck	7:00-8:00 AM	2
5/14/2021	7:47 AM	5760	1020	Class 1 Personal Vehicle	8:00-9:00 AM	14
5/14/2021	8:05 AM	9520	1420	Class 2 Light duty Truck	9:00-10:00 AM	8
5/14/2021	8:11 AM	5080	360	Class 1 Personal Vehicle	10:00-11:00 AM	7
5/14/2021	8:15 AM	6680	180	Class 2 Light duty Truck	11:00-12:00PM	10
5/14/2021	8:16 AM	8200	600	Class 2 Light duty Truck	12:00-1:00 PM	0
5/14/2021	8:19 AM	7320	1540	Class 2 Light duty Truck	1:00-2:00 PM	15
5/14/2021	8:27 AM	6760	700	Class 2 Light duty Truck	2:00-3:00 PM	10
5/14/2021	8:32 AM	6920	140	Class 2 Light duty Truck	3:00-4:00 PM	0
5/14/2021	8:35 AM	8840	360	Class 2 Light duty Truck	4:00-5:00 PM	0
5/14/2021	8:39 AM	8240	1620	Class 2 Light duty Truck		
5/14/2021	8:42 AM	4900	200	Class 1 Personal Vehicle		
5/14/2021	8:49 AM	5060	1160	Class 1 Personal Vehicle		
5/14/2021	8:55 AM	7560	280	Class 2 Light duty Truck		
5/14/2021	8:56 AM	4940	40	Class 1 Personal Vehicle		
5/14/2021	8:58 AM	4920	340	Class 1 Personal Vehicle		
5/14/2021	9:00 AM	6260	100	Class 2 Light duty Truck		
5/14/2021	9:12 AM	8840	240	Class 2 Light duty Truck		
5/14/2021	9:19 AM	4580	80	Class 1 Personal Vehicle		
5/14/2021	9:24 AM	9320	540	Class 2 Light duty Truck		
5/14/2021	9:42 AM	7880	300	Class 2 Light duty Truck		
5/14/2021	9:52 AM	3880	260	Class 1 Personal Vehicle		
5/14/2021	9:54 AM	7340	120	Class 2 Light duty Truck		
5/14/2021	9:59 AM	5640	80	Class 1 Personal Vehicle		
5/14/2021	10:02 AM	6440	100	Class 2 Light duty Truck		
5/14/2021	10:08 AM	5820	460	Class 1 Personal Vehicle		
5/14/2021	10:10 AM	4900	60	Class 1 Personal Vehicle		
5/14/2021	10:29 AM	3900	140	Class 1 Personal Vehicle		
5/14/2021	10:30 AM	14560	1040	Class 4 Heavy duty Truck		
5/14/2021	10:32 AM	7460	320	Class 2 Light duty Truck		
5/14/2021	10:54 AM	5900	520	Class 1 Personal Vehicle		
5/14/2021	11:10 AM	5220	180	Class 1 Personal Vehicle		
5/14/2021	11:11 AM	3280	220	Class 1 Personal Vehicle		
5/14/2021	11:13 AM	5100	160	Class 1 Personal Vehicle		
5/14/2021	11:15 AM	5000	60	Class 1 Personal Vehicle		
5/14/2021	11:17 AM	4500	140	Class 1 Personal Vehicle		
5/14/2021	11:33 AM	3260	120	Class 1 Personal Vehicle		
5/14/2021	11:39 AM	5340	220	Class 1 Personal Vehicle		
5/14/2021	11:46 AM	6280	1020	Class 2 Light duty Truck		
5/14/2021	11:53 AM	9020	760	Class 2 Light duty Truck		
5/14/2021	11:55 AM	5100	180	Class 1 Personal Vehicle		
5/14/2021	1:06 PM	6540	580	Class 2 Light duty Truck		
5/14/2021	1:11 PM	3380	200	Class 1 Personal Vehicle		
5/14/2021	1:15 PM	6040	280	Class 2 Light duty Truck		
5/14/2021	1:22 PM	8620	320	Class 2 Light duty Truck		
5/14/2021	1:25 PM	6540	580	Class 2 Light duty Truck		
5/14/2021	1:28 PM	10180	1360	Class 3 Medium duty Truck		
5/14/2021	1:29 PM	6220	200	Class 2 Light duty Truck		
5/14/2021	1:31 PM	6780	180	Class 2 Light duty Truck		
5/14/2021	1:35 PM	9340	1200	Class 2 Light duty Truck		
5/14/2021	1:40 PM	4260	120	Class 1 Personal Vehicle		
5/14/2021	1:45 PM	8900	2380	Class 2 Light duty Truck		
5/14/2021	1:47 PM	6460	580	Class 2 Light duty Truck		
5/14/2021	1:48 PM	3980	280	Class 1 Personal Vehicle		
5/14/2021	1:53 PM	6020	60	Class 2 Light duty Truck		
5/14/2021	1:57 PM	7300	700	Class 2 Light duty Truck		
5/14/2021	2:00 PM	7500	1120	Class 2 Light duty Truck		
5/14/2021	2:10 PM	5540	560	Class 1 Personal Vehicle		
5/14/2021	2:12 PM	5700	180	Class 1 Personal Vehicle		
5/14/2021	2:19 PM	4800	240	Class 1 Personal Vehicle		
5/14/2021	2:30 PM	6480	440	Class 2 Light duty Truck		
5/14/2021	2:32 PM	6200	180	Class 2 Light duty Truck		
5/14/2021	2:39 PM	8420	480	Class 2 Light duty Truck		
5/14/2021	2:41 PM	5780	40	Class 1 Personal Vehicle		
5/14/2021	2:45 PM	5780	740	Class 1 Personal Vehicle		
5/14/2021	2:48 PM	7500	1680	Class 2 Light duty Truck		

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 	CLASS 1	6,000 lbs or less	 	CLASS 5	16,001–19,500 lbs
 	CLASS 2	6,001– 10,000 lbs	 	CLASS 6	19,501–26,000 lbs
 	CLASS 3	10,001–14,000 lbs	 	CLASS 7	26,001–33,000 lbs
 	CLASS 4	14,001–16,000 lbs	 	CLASS 8	33,000 lbs or more

Summary	
Class 1 Personal Vehicle	29
Class 2 Light Duty Truck	35
Class 3 Medium Duty Truck	1
Class 4 Heavy duty Truck	1
Total Waste Dumped	33340
Average Waste dumped per car	505
Average Size of Vehicle	6466

Marblehead Transfer Station Slips Summary						
Date	Time	Tare Weight (lbs)	Net Weight Dropped Off (lbs)	Vehicle Classification		
5/14/2021	7:34 AM	4720	100	Class 1 Personal Vehicle	7:00-8:00 AM	11
5/14/2021	7:35 AM	4400	140	Class 1 Personal Vehicle	8:00-9:00 AM	17
5/14/2021	7:38 AM	6480	280	Class 2 Light duty Truck	9:00-10:00 AM	7
5/14/2021	7:38 AM	6480	280	Class 2 Light duty Truck	10:00-11:00 AM	13
5/14/2021	7:40 AM	4700	340	Class 1 Personal Vehicle	11:00-12:00PM	12
5/14/2021	7:44 AM	5660	200	Class 1 Personal Vehicle	12:00-1:00 PM	0
5/14/2021	7:47 AM	8160	640	Class 2 Light duty Truck	1:00-2:00 PM	16
5/14/2021	7:49 AM	3660	380	Class 1 Personal Vehicle	2:00-3:00 PM	1
5/14/2021	7:51 AM	6820	300	Class 2 Light duty Truck	3:00-4:00 PM	0
5/14/2021	7:53 AM	3160	200	Class 1 Personal Vehicle	4:00-5:00 PM	0
5/14/2021	7:56 AM	8040	420	Class 2 Light duty Truck		
5/14/2021	8:01 AM	5920	920	Class 1 Personal Vehicle		
5/14/2021	8:04 AM	9400	760	Class 2 Light duty Truck		
5/14/2021	8:08 AM	3460	260	Class 1 Personal Vehicle		
5/14/2021	8:13 AM	11120	1360	Class 3 Medium duty Truck		
5/14/2021	8:17 AM	8680	2100	Class 2 Light duty Truck		
5/14/2021	8:26 AM	6420	1760	Class 2 Light duty Truck		
5/14/2021	8:34 AM	8940	1060	Class 2 Light duty Truck		
5/14/2021	8:35 AM	7220	260	Class 2 Light duty Truck		
5/14/2021	8:38 AM	7260	160	Class 2 Light duty Truck		
5/14/2021	8:41 AM	9860	800	Class 2 Light duty Truck		
5/14/2021	8:47 AM	6860	600	Class 2 Light duty Truck		
5/14/2021	8:49 AM	8560	260	Class 2 Light duty Truck		
5/14/2021	8:51 AM	3460	340	Class 1 Personal Vehicle		
5/14/2021	8:55 AM	8040	1800	Class 2 Light duty Truck		
5/14/2021	8:55 AM	5020	60	Class 1 Personal Vehicle		
5/14/2021	8:59 AM	16560	260	Class 4 Heavy duty Truck		
5/14/2021	8:59 AM	16560	260	Class 4 Heavy duty Truck		
5/14/2021	9:01 AM	1600	80	Class 1 Personal Vehicle		
5/14/2021	9:02 AM	5300	120	Class 1 Personal Vehicle		
5/14/2021	9:16 AM	7220	580	Class 2 Light duty Truck		
5/14/2021	9:17 AM	6240	80	Class 2 Light duty Truck		
5/14/2021	9:19 AM	6560	100	Class 2 Light duty Truck		
5/14/2021	9:26 AM	5660	760	Class 1 Personal Vehicle		
5/14/2021	9:37 AM	8480	860	Class 2 Light duty Truck		
5/14/2021	10:04 AM	7260	440	Class 2 Light duty Truck		
5/14/2021	10:06 AM	4960	280	Class 1 Personal Vehicle		
5/14/2021	10:14 AM	6680	440	Class 2 Light duty Truck		
5/14/2021	10:14 AM	6680	440	Class 2 Light duty Truck		
5/14/2021	10:22 AM	5260	380	Class 1 Personal Vehicle		
5/14/2021	10:26 AM	4660	220	Class 1 Personal Vehicle		
5/14/2021	10:29 AM	5800	160	Class 1 Personal Vehicle		
5/14/2021	10:33 AM	6020	520	Class 2 Light duty Truck		
5/14/2021	10:40 AM	7660	380	Class 2 Light duty Truck		
5/14/2021	10:42 AM	3460	300	Class 1 Personal Vehicle		
5/14/2021	10:44 AM	4960	200	Class 1 Personal Vehicle		
5/14/2021	10:54 AM	5640	300	Class 1 Personal Vehicle		
5/14/2021	10:56 AM	3660	220	Class 1 Personal Vehicle		
5/14/2021	11:00 AM	9740	2280	Class 2 Light duty Truck		
5/14/2021	11:00 AM	4060	40	Class 1 Personal Vehicle		
5/14/2021	11:04 AM	9160	400	Class 2 Light duty Truck		
5/14/2021	11:07 AM	3380	100	Class 1 Personal Vehicle		
5/14/2021	11:11 AM	5800	340	Class 1 Personal Vehicle		
5/14/2021	11:18 AM	4300	60	Class 1 Personal Vehicle		
5/14/2021	11:19 AM	5880	60	Class 1 Personal Vehicle		
5/14/2021	11:27 AM	6840	480	Class 2 Light duty Truck		
5/14/2021	11:27 AM	6840	480	Class 2 Light duty Truck		
5/14/2021	11:31 AM	6060	300	Class 2 Light duty Truck		
5/14/2021	11:34 AM	3360	160	Class 1 Personal Vehicle		
5/14/2021	11:39 AM	4660	160	Class 1 Personal Vehicle		
5/14/2021	1:06 PM	6040	800	Class 2 Light duty Truck		
5/14/2021	1:08 PM	4420	100	Class 1 Personal Vehicle		
5/14/2021	1:12 PM	6140	240	Class 2 Light duty Truck		
5/14/2021	1:13 PM	9340	1480	Class 2 Light duty Truck		
5/14/2021	1:14 PM	4700	180	Class 1 Personal Vehicle		
5/14/2021	1:17 PM	4660	340	Class 1 Personal Vehicle		
5/14/2021	1:19 PM	3340	160	Class 1 Personal Vehicle		
5/14/2021	1:24 PM	7880	220	Class 2 Light duty truck		
5/14/2021	1:33 PM	6000	640	Class 2 Light duty Truck		
5/14/2021	1:35 PM	7540	120	Class 2 Light duty Truck		
5/14/2021	1:37 PM	5660	160	Class 1 Personal Vehicle		
5/14/2021	1:39 PM	7660	520	Class 2 Light duty Truck		
5/14/2021	1:41 PM	6500	180	Class 2 Light duty Truck		
5/14/2021	1:46 PM	4700	420	Class 1 Personal Vehicle		
5/14/2021	1:49 PM	6180	160	Class 2 Light duty Truck		
5/14/2021	1:58 PM	4240	280	Class 1 Personal Vehicle		
5/14/2021	2:00 PM	7960	160	Class 2 Light duty Truck		
5/14/2021	2:05 PM	6260	180	Class 2 Light duty Truck		
5/14/2021	2:12 PM	5020	80	Class 1 Personal Vehicle		
5/14/2021	2:14 PM	6880	560	Class 2 Light duty Truck		
5/14/2021	2:17 PM	4120	320	Class 1 Personal Vehicle		
5/14/2021	2:18 PM	6120	220	Class 2 Light duty Truck		
5/14/2021	2:23 PM	6120	640	Class 2 Light duty Truck		
5/14/2021	2:28 PM	6180	280	Class 2 Light duty Truck		
5/14/2021	2:36 PM	8460	240	Class 2 Light duty Truck		
5/14/2021	2:41 PM	4920	60	Class 1 Personal Vehicle		
5/14/2021	2:44 PM	5720	360	Class 1 Personal Vehicle		
5/14/2021	2:51 PM	12140	320	Class 3 Medium duty Truck		
5/14/2021	3:10 PM	4100	300	Class 1 Personal Vehicle		
5/14/2021	3:11 PM	5620	220	Class 1 Personal Vehicle		
5/14/2021	3:16 PM	7620	160	Class 2 Light duty Truck		
5/14/2021	3:17 PM	5840	200	Class 1 Personal Vehicle		

<https://afdc.energy.gov/data/10380>

		CLASS 1	
		6,000 lbs or less	
		CLASS 2	
		6,001– 10,000 lbs	
		CLASS 3	
		10,001–14,000 lbs	
		CLASS 4	
		14,001–16,000 lbs	
		CLASS 5	
		16,001–19,500 lbs	
		CLASS 6	
		19,501–26,000 lbs	
		CLASS 7	
		26,001–33,000 lbs	
		CLASS 8	
		33,000 lbs or more	

## **Motor Vehicle Crash Data**

**Motor Vehicle Crash Data**

NEAR INTERSECTION/LOCATION	Crash Number	Crash Date	Crash Severity	Crash Status	Crash Time	Crash Year	Max Injury Severity Reported	Driver Contributing Circumstances (All Drivers)	First Harmful Event	Light Conditions	Manner of Collision	Road Surface Condition
Beacon St at Woodfin Ter	4458507	10/27/2017	Non-fatal injury	Closed	11:50 AM	2017	Non-fatal injury - Possible	D1: (No improper driving) / D2: (No improper driving)	Collision with parked motor vehicle	Daylight	Sideswipe, same direction	Dry
Beacon St at Woodfin Ter	4496710	12/05/2017	Property damage only (none injur	Closed	10:16 AM	2017	No injury	D1: (Unknown),(Inattention) / D2: (Unknown),(Inattention)	Collision with motor vehicle in traffic	Daylight	Sideswipe, same direction	Dry
Beacon St at Woodfin Ter	4576172	06/04/2018	Property damage only (none injur	Closed	2:26 PM	2018	No injury	D1: (No improper driving),(Unknown) / D2: (Unknown),(Other improper action)	Collision with other	Daylight	Unknown	Wet
Beacon St at Woodfin Ter	4712883	06/05/2019	Property damage only (none injur	Closed	3:16 PM	2019	No injury	D1: (Unknown)	Collision with parked motor vehicle	Daylight	Sideswipe, same direction	Dry
Beacon St at Woodfin Ter	4858007	07/07/2020	Property damage only (none injur	Open	2:28 PM	2020	No Apparent Injury (O)	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Rear to Side	Dry
Beacon St at Woodfin Ter	4867162	08/08/2020	Property damage only (none injur	Open	5:42 PM	2020	No Apparent Injury (O)	D1: (No improper driving) / D2: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Rear to Side	Dry
Beacon St at Woodfin Ter	4963640	05/18/2021	Property damage only (none injur	Open	2:00 PM	2021	No Apparent Injury (O)	D1: (Unknown)	Collision with other	Daylight	Single vehicle crash	Dry
Beacon St at Woodfin Ter	4963643	05/22/2021	Property damage only (none injur	Open	11:15 AM	2021	No Apparent Injury (O)	D1: (Unknown) / D2: (Unknown)	Collision with motor vehicle in traffic	Daylight	Sideswipe, same direction	Dry
Beacon St E of Woodfin Ter	4781221	11/22/2019	Property damage only (none injur	Closed	6:49 PM	2019	No Apparent Injury (O)	D1: (No improper driving) / D2: (No improper driving)	Collision with parked motor vehicle	Dark - unkn	Rear-end	Dry
Green St at Beacon St	4431278	08/18/2017	Non-fatal injury	Closed	9:16 AM	2017	Non-fatal injury - Possible	D1: (Other improper action)	Collision with pedestrian	Daylight	Single vehicle crash	Wet
Green St at Beacon St	5073349	02/05/2022	Property damage only (none injur	Open	7:29 AM	2022	No Apparent Injury (O)	D1: (Inattention) / D2: (No improper driving)	Collision with other	Daylight	Front to Rear	Ice
Green St at W Shore Dr	4489021	11/11/2017	Property damage only (none injur	Closed	9:01 AM	2017	No injury	D1: (No improper driving) / D2: (No improper driving)	Collision with motor vehicle in traffic	Dawn	Rear-end	Dry
Green St at W Shore Dr	4673880	03/06/2019	Property damage only (none injur	Closed	3:08 PM	2019	No injury	D1: (No improper driving) / D2: (No improper driving)	Collision with motor vehicle in traffic	Daylight	Rear-end	Dry
Green St at W Shore Dr	4872878	08/26/2020	Property damage only (none injur	Open	11:17 AM	2020	No Apparent Injury (O)	D1: (Distracted)	Collision with tree	Daylight	Single vehicle crash	Dry
Green St at W Shore Dr	4878705	09/16/2020	Property damage only (none injur	Open	11:56 AM	2020	No Apparent Injury (O)	D1: (Unknown)	Collision with other light pole or other post/support	Daylight	Single vehicle crash	Dry

## Sight Distance Calculations

**Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]**  
**Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004**

<b>Section I</b>		<b>Section III</b>	
<b>Project Information</b>		<b>ISD and SSD Calculations</b> (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]	
Project Number: 15699.00 City/Town, State: Marblehead, MA Location: Green Street		Analyst: VHB Client:	
<b>Street Names and Directions</b>		<b>Street Notes</b>	
Major Street name: Green Street NB/SB Minor Street name: Transfer Station Site Dr EB/WB Minor Street intersects from the: east		Measurements conducted May, 2022.	
The minor street predominantly serves... Passenger Cars Sight distance location intersection is... Existing Total number of lanes on Major Street is... 2			
<b>Grade Information</b> [enter down slope as a negative number]			
Major Street Approach Grade: 0.00% NB 0.00% SB		Minor Street Approach Grade: 0.00% SB 0.00% NB	
<b>Major Street Speed Information</b>			
<i>Posted</i>  NB SB		<i>Observed *</i>  35 35	
<small>* note: off-peak 85th percentile speeds</small>			
<b>Section II</b>		<b>Section IV</b>	
<b>ISD and SSD Observations</b>		<b>AASHTO Guidance</b>	
Instructions on how to observe and measure ISD and SSD are included on subsequent pages.		Refer to AASHTO for specific guidance on SSD and ISD if presented with an unusual/atypical case. Adequate ISD is not needed at signalized intersections, assuming traffic signal heads are visible on all approaches. Any object that would obstruct the driver's view should be removed or lowered, if practical. Such objects include buildings, parked cars, highway structures, hedges/vegetation/trees/bushes/unmowed lawn, walls, fences, and terrain. For ISD, an object should be considered an obstruction if it obstructs the vision of a driver whose eye height is 3.5 feet above the roadway surface and the object to be seen is 3.5 feet above the surface of the intersecting road. Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO).	
<b>Observed ISD:</b> (rounded to nearest 5 feet) 450 looking left [south] 500 looking right [north] None		<b>Limiting Factors:</b> vertical curvature of roadway None	
<b>Observed SSD:</b> (rounded to nearest 5 feet) 450 traveling NB 500 traveling SB		vertical curvature of roadway None	

## Traffic Operations Analysis Worksheets

## Intersection

Int Delay, s/veh 6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	1	5	20	65	5	80	5	170	75	100	180	0
Future Vol, veh/h	1	5	20	65	5	80	5	170	75	100	180	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	79	79	79	72	72	72	86	86	86
Heavy Vehicles, %	0	0	0	10	0	3	0	6	1	4	2	0
Mvmt Flow	2	8	32	82	6	101	7	236	104	116	209	0

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	745	691	209	711	691	236	209	0	-	236	0	0
Stage 1	441	441	-	250	250	-	-	-	-	-	-	-
Stage 2	304	250	-	461	441	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.2	6.5	6.23	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.59	4	3.327	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	333	370	836	338	370	801	1374	-	0	1319	-	-
Stage 1	599	580	-	737	704	-	-	-	0	-	-	-
Stage 2	710	704	-	565	580	-	-	-	0	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	264	331	836	293	331	801	1374	-	-	1319	-	-
Mov Cap-2 Maneuver	264	331	-	293	331	-	-	-	-	-	-	-
Stage 1	595	522	-	733	700	-	-	-	-	-	-	-
Stage 2	611	700	-	482	522	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	19	0.2	2.9
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1374	-	607	445	1319	-	-
HCM Lane V/C Ratio	0.005	-	0.068	0.427	0.088	-	-
HCM Control Delay (s)	7.6	0	11.4	19	8	0	-
HCM Lane LOS	A	A	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	0.2	2.1	0.3	-	-

## Intersection

Int Delay, s/veh 5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	5	5	10	55	5	105	25	205	45	95	225	5
Future Vol, veh/h	5	5	10	55	5	105	25	205	45	95	225	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	91	91	91	91	91	91	90	90	90
Heavy Vehicles, %	0	0	0	5	0	3	0	3	11	1	4	25
Mvmt Flow	6	6	12	60	5	115	27	225	49	106	250	6

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	804	744	253	753	747	225	256	0	-	225	0	0
Stage 1	465	465	-	279	279	-	-	-	-	-	-	-
Stage 2	339	279	-	474	468	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.15	6.5	6.23	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.15	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.15	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.545	4	3.327	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	304	345	791	322	344	812	1321	-	0	1350	-	-
Stage 1	581	566	-	721	683	-	-	-	0	-	-	-
Stage 2	680	683	-	566	565	-	-	-	0	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	235	306	791	285	305	812	1321	-	-	1350	-	-
Mov Cap-2 Maneuver	235	306	-	285	305	-	-	-	-	-	-	-
Stage 1	568	514	-	704	667	-	-	-	-	-	-	-
Stage 2	565	667	-	500	513	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.6	16.7	0.8	2.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1321	-	398	487	1350	-	-
HCM Lane V/C Ratio	0.021	-	0.061	0.372	0.078	-	-
HCM Control Delay (s)	7.8	0	14.6	16.7	7.9	0	-
HCM Lane LOS	A	A	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	0.2	1.7	0.3	-	-

## Intersection

Int Delay, s/veh 5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	5	10	10	40	5	120	10	240	30	120	285	1
Future Vol, veh/h	5	10	10	40	5	120	10	240	30	120	285	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	89	89	89	83	83	83	91	91	91
Heavy Vehicles, %	0	0	0	0	0	1	0	2	0	2	2	0
Mvmt Flow	7	13	13	45	6	135	12	289	36	132	313	1

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	962	891	314	904	891	289	314	0	-	289	0	0
Stage 1	578	578	-	313	313	-	-	-	-	-	-	-
Stage 2	384	313	-	591	578	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.21	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.309	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	237	284	731	260	284	752	1258	-	0	1273	-	-
Stage 1	505	504	-	702	661	-	-	-	0	-	-	-
Stage 2	643	661	-	497	504	-	-	-	0	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	171	245	731	219	245	752	1258	-	-	1273	-	-
Mov Cap-2 Maneuver	171	245	-	219	245	-	-	-	-	-	-	-
Stage 1	499	440	-	694	654	-	-	-	-	-	-	-
Stage 2	517	654	-	414	440	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	18.5	18.2			0.3			2.4		
HCM LOS	C	C								
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Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR			
Capacity (veh/h)	1258	-	299	455	1273	-	-			
HCM Lane V/C Ratio	0.01	-	0.111	0.407	0.104	-	-			
HCM Control Delay (s)	7.9	0	18.5	18.2	8.2	0	-			
HCM Lane LOS	A	A	C	C	A	A	-			
HCM 95th %tile Q(veh)	0	-	0.4	1.9	0.3	-	-			

## Intersection

Int Delay, s/veh 6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	1	5	20	65	5	50	5	110	135	110	180	0
Future Vol, veh/h	1	5	20	65	5	50	5	110	135	110	180	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	79	79	79	72	72	72	86	86	86
Heavy Vehicles, %	0	0	0	10	0	3	0	6	1	4	2	0
Mvmt Flow	2	8	32	82	6	63	7	153	188	128	209	0

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	667	632	209	652	632	153	209	0	-	153	0	0
Stage 1	465	465	-	167	167	-	-	-	-	-	-	-
Stage 2	202	167	-	485	465	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.2	6.5	6.23	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.2	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.59	4	3.327	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	375	400	836	370	400	890	1374	-	0	1415	-	-
Stage 1	581	566	-	817	764	-	-	-	0	-	-	-
Stage 2	805	764	-	549	566	-	-	-	0	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	315	357	836	321	357	890	1374	-	-	1415	-	-
Mov Cap-2 Maneuver	315	357	-	321	357	-	-	-	-	-	-	-
Stage 1	578	508	-	812	759	-	-	-	-	-	-	-
Stage 2	737	759	-	467	508	-	-	-	-	-	-	-

Approach	EB	WB			NB		SB	
HCM Control Delay, s	11.1	17.4			0.3		3	
HCM LOS	B	C						
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Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR	
Capacity (veh/h)	1374	-	633	440	1415	-	-	
HCM Lane V/C Ratio	0.005	-	0.065	0.345	0.09	-	-	
HCM Control Delay (s)	7.6	0	11.1	17.4	7.8	0	-	
HCM Lane LOS	A	A	B	C	A	A	-	
HCM 95th %tile Q(veh)	0	-	0.2	1.5	0.3	-	-	

Intersection

Int Delay, s/veh 1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B	A			
Traffic Vol, veh/h	0	0	120	30	70	180
Future Vol, veh/h	0	0	120	30	70	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	130	33	76	196

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	495	147	0	0	163
Stage 1	147	-	-	-	-
Stage 2	348	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	534	900	-	-	1416
Stage 1	880	-	-	-	-
Stage 2	715	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	502	900	-	-	1416
Mov Cap-2 Maneuver	502	-	-	-	-
Stage 1	880	-	-	-	-
Stage 2	672	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1416	-
HCM Lane V/C Ratio	-	-	-	0.054	-
HCM Control Delay (s)	-	-	0	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.2	-

## Intersection

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	5	5	10	55	5	75	25	145	105	105	225	5
Future Vol, veh/h	5	5	10	55	5	75	25	145	105	105	225	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	91	91	91	91	91	91	90	90	90
Heavy Vehicles, %	0	0	0	5	0	3	0	3	11	1	4	25
Mvmt Flow	6	6	12	60	5	82	27	159	115	117	250	6

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	744	700	253	709	703	159	256	0	-	159	0	0
Stage 1	487	487	-	213	213	-	-	-	-	-	-	-
Stage 2	257	213	-	496	490	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.15	6.5	6.23	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.15	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.15	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.545	4	3.327	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	333	366	791	345	364	884	1321	-	0	1427	-	-
Stage 1	566	554	-	782	730	-	-	-	0	-	-	-
Stage 2	752	730	-	550	552	-	-	-	0	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	272	324	791	305	322	884	1321	-	-	1427	-	-
Mov Cap-2 Maneuver	272	324	-	305	322	-	-	-	-	-	-	-
Stage 1	554	501	-	765	714	-	-	-	-	-	-	-
Stage 2	662	714	-	484	499	-	-	-	-	-	-	-

Approach	EB	WB			NB		SB	
HCM Control Delay, s	13.8	15.8			1.1		2.4	
HCM LOS	B	C						
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Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR	
Capacity (veh/h)	1321	-	431	481	1427	-	-	
HCM Lane V/C Ratio	0.021	-	0.056	0.308	0.082	-	-	
HCM Control Delay (s)	7.8	0	13.8	15.8	7.7	0	-	
HCM Lane LOS	A	A	B	C	A	A	-	
HCM 95th %tile Q(veh)	0.1	-	0.2	1.3	0.3	-	-	

Intersection

Int Delay, s/veh 1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B		A		
Traffic Vol, veh/h	0	0	135	30	70	145
Future Vol, veh/h	0	0	135	30	70	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	147	33	76	158

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	474	164	0	0	180
Stage 1	164	-	-	-	-
Stage 2	310	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	549	881	-	-	1396
Stage 1	865	-	-	-	-
Stage 2	744	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	516	881	-	-	1396
Mov Cap-2 Maneuver	516	-	-	-	-
Stage 1	865	-	-	-	-
Stage 2	699	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	2.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1396	-
HCM Lane V/C Ratio	-	-	-	0.055	-
HCM Control Delay (s)	-	-	0	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	-	0.2	-

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	10	10	40	5	35	10	75	195	150	285	1
Future Vol, veh/h	5	10	10	40	5	35	10	75	195	150	285	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	89	89	89	83	83	83	91	91	91
Heavy Vehicles, %	0	0	0	0	0	1	0	2	0	2	2	0
Mvmt Flow	7	13	13	45	6	39	12	90	235	165	313	1
Major/Minor												
Major/Minor	Minor2	Minor1	Major1	Major2								
Conflicting Flow All	781	758	314	771	758	90	314	0	-	90	0	0
Stage 1	644	644	-	114	114	-	-	-	-	-	-	-
Stage 2	137	114	-	657	644	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.21	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.309	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	315	339	731	320	339	971	1258	-	0	1505	-	-
Stage 1	465	471	-	896	805	-	-	-	0	-	-	-
Stage 2	871	805	-	457	471	-	-	-	0	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	266	291	731	270	291	971	1258	-	-	1505	-	-
Mov Cap-2 Maneuver	266	291	-	270	291	-	-	-	-	-	-	-
Stage 1	460	408	-	887	797	-	-	-	-	-	-	-
Stage 2	822	797	-	376	408	-	-	-	-	-	-	-
Approach												
Approach	EB	WB	NB	SB								
HCM Control Delay, s	15.6	16.7	0.9	2.6								
HCM LOS	C	C										
Minor Lane/Major Mvmt												
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1258	-	374	397	1505	-	-					
HCM Lane V/C Ratio	0.01	-	0.089	0.226	0.11	-	-					
HCM Control Delay (s)	7.9	0	15.6	16.7	7.7	0	-					
HCM Lane LOS	A	A	C	C	A	A	-					
HCM 95th %tile Q(veh)	0	-	0.3	0.9	0.4	-	-					

Intersection						
Int Delay, s/veh	3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y	Y	Y	Y	Y	Y
Traffic Vol, veh/h	0	0	80	85	195	160
Future Vol, veh/h	0	0	80	85	195	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	87	92	212	174
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	731	133	0	0	179	0
Stage 1	133	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	389	916	-	-	1397	-
Stage 1	893	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	324	916	-	-	1397	-
Mov Cap-2 Maneuver	324	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	0	0	4.4			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	-	1397	-	-
HCM Lane V/C Ratio	-	-	-	0.152	-	-
HCM Control Delay (s)	-	-	0	8	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.5	-	-