



To: NOVO Riverside Commons, LLC
Two International Place, Suite 2710
Boston, MA 02109

Date: January 2, 2024

Memorandum

Project #: 15630.00

From: Randall C. Hart, Principal
Ashley Domogala, EIT, Project Consultant

Re: Traffic Impact Assessment – Revised
NOVO Riverside Commons
292 & 294 Baker Avenue
Concord, Massachusetts

Introduction

Vanasse Hangen Brustlin, Inc. (VHB) on behalf of NOVO Riverside Commons, LLC (the “Proponent”) has evaluated the potential impacts of the proposed NOVO Riverside Commons 40B apartment community (the “Project”) to be located at 292 & 294 Baker Avenue in Concord, Massachusetts (the “Site”). The apartment community will be located on an approximate 10.2-acre portion of the existing 64.97-acre property now known as 300/310 Baker Avenue with primary access proposed via the existing Concord Meadows Corporate Center driveway on Baker Avenue and secondary access provided through the Concord Meadows to Baker Avenue Extension. The proposed 40B apartment community includes 201 residential units.

The Site is located in close proximity to, and within walking distance of, the West Concord MBTA Commuter Rail Station. There is currently a sidewalk from the Site all the way to the West Concord MBTA Commuter Rail Station. The Project will also include improvements designed to connect to the future Assabet Pedestrian Bridge & Trail Project to provide more direct pedestrian and bicycle access to the West Concord MBTA Commuter Rail Station.

This memorandum includes an evaluation of the existing traffic operations and safety; an assessment of future conditions without and with the Project; an estimate of projected traffic volumes for the Project and its potential impact on future traffic operations in the area; and conclusions and recommendations. As detailed herein, the proposed redevelopment is expected to have minimal impacts on traffic operations within the study area.

Study Methodology

VHB prepared the traffic assessment in three stages. The first stage involved an assessment of existing traffic conditions within the Project study area, including an inventory of existing roadway geometry; observations of traffic flow, including daily and peak period traffic counts; and a review of vehicular crash data.

The second stage of the study established the framework for evaluating the transportation impacts of the proposed Project. Specific travel demand forecasts for the Project were assessed along with future traffic demands on the study area roadways due to projected background traffic growth and other proposed area developments that may occur independent of the proposed development. The year 2030, a seven-year time horizon, was selected as the design year for analysis for the preparation of this traffic impact and access assessment in accordance with the MassDOT Traffic Impact Assessment (TIA) guidelines.

The third and final stage involved conducting traffic analyses to identify both existing and projected future roadway capacities and demands. This analysis was used as the basis for identifying impacts on local traffic operations related to the Project.

Project Description and Site Location

The Project Site is located at 292 & 294 Baker Avenue in Concord, Massachusetts. The Project includes the redevelopment of a 10.2-acre portion of the Concord Meadows Corporate Center, including a proposed parking lot, drive aisles and other improvements associated with two apartment buildings collectively comprising a total of 201 rental apartment units.

The Site will primarily be accessed via the existing Concord Meadows Corporate Center driveway on Baker Avenue, which will be shifted slightly to the north. Figure 1 showing the Project Site in relation to the surrounding area as well as the study area is included in the Attachments. Secondary access is proposed through Concord Meadows to an existing access driveway on Baker Avenue Extension.

Existing Conditions

The existing conditions analysis consists of an inventory of the traffic control, roadway, and intersection geometry in the study area, the collection of daily and peak hour traffic volumes, a summary of public transit options in the area, and a review of recent crash history.

Study Area

Based on an understanding of the current traffic operations in the region, the following intersections were selected for review:

- › Main Street (Route 62) at Baker Avenue/Cottage Street – *signalized*
- › Main Street (Route 62) at Old Bridge Road/TD Bank Driveway – *unsignalized*
- › Baker Avenue at Concord Meadows Driveway – *unsignalized*
- › Baker Avenue Extension at Concord Meadows Driveway – *unsignalized*
- › Concord Turnpike (Route 2) at Baker Avenue Extension – *signalized*

Figure 2 showing the existing intersection lane geometry and traffic control at each study area intersection is included in the Attachments.

Study Area Roadways

Baker Avenue

Baker Avenue is a two-lane roadway running in a northeast-southwest direction between Route 62 and Baker Avenue Extension. It falls under local jurisdiction and is classified as a local roadway. Baker Avenue has a speed limit of 25 miles per hour (mph). A sidewalk is provided along the entire west side of the roadway and along the east side of the roadway between Route 62 and the residential development on Courtland Avenue. No formal bicycle accommodations are provided. Land uses along Baker Avenue mainly consist of office buildings to the northwest and multifamily residential uses to the southeast.

Baker Avenue Extension

Baker Avenue Extension is a two-lane roadway running in a northwest-southeast direction between Baker Avenue and Route 2. It falls under local jurisdiction and is classified as a local roadway. No formal bicycle or pedestrian

accommodations are provided. Baker Avenue Extension has a speed limit of 25 mph. Land uses along Baker Avenue Extension mainly consist of office buildings.

Main Street (Route 62)

Main Street (Route 62) is a two-lane roadway running in an east-west direction. Main Street falls under local jurisdiction and is classified as a principal arterial. A sidewalk is provided on both sides of the roadway in the study area. No formal bicycle accommodations are provided. Main Street has a posted speed limit of 30 mph in the study area. Land uses along Main Street consist of commercial and residential uses in the study area.

Concord Turnpike (Route 2)

Concord Turnpike (Route 2) is a four-lane roadway running in an east-west direction. Route 2 falls under MassDOT jurisdiction and is classified as a principal arterial. No bicycle or pedestrian accommodations are provided. Route 2 has a posted speed limit of 40 mph in the study area. There are no land uses along Route 2 in the study area due to its limited access.

Study Area Intersections

Main Street (Route 62) at Baker Avenue/Cottage Street

Main Street runs in an east-west direction and is intersected by Baker Avenue from the north and Cottage Street from the south to form a four-legged signalized intersection. The Main Street eastbound approach consists of a short left-turn lane and a shared through/right-turn lane. The Main Street westbound approach consists of one general-purpose lane. The Cottage Street northbound approach consists of one general-purpose lane. The Baker Avenue southbound approach consists of a short left-turn lane and a shared through/right-turn lane. Crosswalks are provided across all approaches. No formal bicycle accommodations are provided.

Main Street (Route 62) at Old Bridge Road/TD Bank Driveway

Main Street runs in an east-west direction and is intersected by Old Bridge Road from the south and a TD Bank driveway from the east to form a four-legged unsignalized intersection. The Old Bridge Road and TD Bank driveway approaches are under stop control. All approaches consist of one general-purpose lane. Sidewalks are provided along both sides of Main Street. A crosswalk is striped across Old Bridge Road, but no crosswalk is striped across the TD Bank driveway although sidewalk ramps are provided. No formal bicycle accommodations are provided.

Baker Avenue at Concord Meadows Driveway

Baker Avenue runs in a northeast-southwest direction and is intersected by the Concord Meadows driveway from the west and a commercial driveway from the east to form a four-legged unsignalized intersection. The Concord Meadows driveway is under stop control, and there is no signage on the commercial driveway approach. All approaches consist of one general-purpose lane. A sidewalk is provided along the west side of Baker Avenue. No crosswalks or formal bicycle accommodations are provided.

Baker Avenue Extension at Concord Meadows Driveway

Baker Avenue Extension runs in a northwest-southeast direction and is intersected by the Concord Meadows driveway from the south to form a three-legged unsignalized intersection. The Concord Meadows driveway is under stop control. All approaches consist of one general-purpose lane. No sidewalks are provided in this area.

Concord Turnpike (Route 2) at Baker Avenue Extension

Route 2 runs in an east-west direction and is intersected by Elm Street from the north and Baker Avenue Extension from the south to form a four-legged signalized intersection. The Route 2 eastbound approach consists of a left-turn lane, a through lane, and a shared through/right-turn lane with a channelized right turn. The Route 2 westbound approach consists of two through lanes and a channelized right-turn lane. The Baker Avenue Extension northbound approach consists of a left-turn lane, a through lane, and a right-turn lane. The Elm Street southbound approach consists of a left-turn lane and a through lane. No bicycle or pedestrian accommodations are provided.

Traffic Volume Data

To identify current traffic flow characteristics along the primary roadway serving the Project study area, VHB conducted traffic counts next to the Project Site. VHB's traffic data collection involved turning movement counts (TMCs) at the study area intersections, as well as measuring daily traffic volumes on Baker Avenue and Baker Avenue Extension using automated traffic recorders (ATRs).

Count Data

The original data collection effort was conducted in February 2022 at the original study area intersections of Main Street (Route 62) at Baker Avenue/Cottage Street, Baker Avenue at Concord Meadows Driveway, and Concord Turnpike (Route 2) at Baker Avenue Extension. The TMCs were conducted on Thursday, February 17, 2022 during the weekday morning peak period from 7:00 AM to 9:00 AM and during the weekday evening peak period from 4:00 PM to 6:00 PM. Based on a review of the count data, the weekday morning and weekday evening peak hours of vehicular activity were determined to be 7:30 AM to 8:30 AM and 4:30 PM to 5:30 PM, respectively. An ATR on Baker Avenue collected data concurrently, from Wednesday, February 16, 2022 through Thursday, February 17, 2022.

As requested by a peer reviewer, the additional study area intersections of Main Street (Route 62) at Crest Street/Old Bridge Road and Baker Avenue Extension at Concord Meadows Driveway were added in November 2023. The study area intersections of Main Street (Route 62) at Baker Avenue/Cottage Street and Baker Avenue at Concord Meadows Driveway were also recounted. The TMCs were conducted on Thursday, November 16, 2023 during the weekday morning peak period from 7:00 AM to 9:00 AM and during the weekday evening peak period from 4:00 PM to 6:00 PM. Based on a review of the count data, the weekday morning and weekday evening peak hours of vehicular activity were determined to be 8:00 AM to 9:00 AM and 4:30 PM to 5:30 PM, respectively. ATRs on Baker Avenue and Baker Avenue Extension collected data concurrently for a 24-hour period.

All count data is included in the Attachments.

Count Adjustments

Adjustments to the 2022 counts were considered for COVID-19 pandemic impacts and growth to 2023 as well as seasonal variations. The latest MassDOT Guidance¹ states that starting in March 2022, volumes may be considered existing without adjustment in most cases. Therefore, February 2022 weekday volumes were compared to February 2023 weekday volumes at the nearest permanent MassDOT count station located on Route 2 east of Reformatory Circle. The February 2023 volumes were slightly higher. To account for COVID-19 impacts and adjust to 2023, the

¹ Traffic and Safety Engineering 25% Design Submission Guidelines; MassDOT; Revised May 31, 2022.

February 2022 weekday morning volumes were adjusted by a factor of 1.02 to the average February 2023 weekday morning volumes, and the February 2022 weekday evening volumes were adjusted by a factor of 1.07 to the average February 2023 weekday evening volumes. Based on seasonal adjustment factors published by MassDOT as well as monthly traffic patterns at the nearest permanent MassDOT count station, an additional factor of 1.03 was applied to 2022 counts to account for seasonal adjustments. The count adjustment data is included in the Attachments.

Adjustments to the 2023 counts were considered for seasonal variations. Based on seasonal adjustment factors published by MassDOT as well as monthly traffic patterns at the nearest permanent MassDOT count station, no seasonal adjustment factor was applied to 2023 counts.

The count adjustment data is included in the Attachments.

Count Comparison

When comparing the adjusted 2022 and raw 2023 count data, the intersections of Main Street (Route 62) at Baker Avenue/Cottage Street and Baker Avenue at Concord Meadows Driveway had similar volumes. Therefore, the November 2023 count data was used to follow the latest MassDOT Guidance² stating that starting in March 2022, volumes may be considered existing without adjustment in most cases.

May 2023 counts at Concord Turnpike (Route 2) at Baker Avenue Extension were available via the traffic impact study for 798 Elm Street, and showed the adjusted 2022 counts for that location were similar and somewhat conservative (in particular, the eastbound left-turn in the weekday morning peak and northbound left-turn in weekday evening peak were higher in the 2022 counts). Therefore, the analysis uses the adjusted 2022 count data for a more conservative analysis.

A detailed count comparison is included in the Attachments.

Existing Volumes

Table 1 displays the observed weekday daily traffic volumes on Baker Avenue and Baker Avenue Extension adjacent to the Site driveways.

² Traffic and Safety Engineering 25% Design Submission Guidelines; MassDOT; Revised May 31, 2022.

Table 1 Existing Traffic Volume Summary

Location	ADT ^a	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		Volume	K Factor ^b	Dir. Dist. ^c	Volume	K Factor	Dir. Dist.
Baker Avenue, south of Site driveway (2022 adjusted) ^d	4,100	400	9.8%	74% NB	385	9.4%	58% SB
Baker Avenue, south of Site driveway (2023) ^e	4,600	425	9.2%	66% NB	460	10.0%	57% SB
Baker Avenue Extension, south of Site driveway (2023) ^e	4,100	370	9.1%	62% SB	425	10.5%	65% NB

- a Average Daily Traffic volume expressed in vehicles per day.
 - b Represents the percent of daily traffic that occurs during the peak hour.
 - c Directional distribution of peak hour traffic.
 - d VHB based on ATR conducted in February 2022, all time periods seasonally adjusted by 1.03, and daily, morning, and evening adjusted for COVID by 1.06, 1.02, and 1.07, respectively.
 - e VHB based on ATR conducted in November 2023.
- Note: Peak hours do not necessarily coincide with the peak hours of the intersection turning movement counts.

As shown in Table 1, Baker Avenue carries approximately 4,600 vehicles per day on a typical weekday, with approximately 9.2-percent of all daily traffic occurring during the weekday morning peak hour and approximately 10-percent occurring during the weekday evening peak hour. The directionality of peak hour traffic flow on Baker Avenue is heavier in the northbound direction during the weekday morning peak period and slightly heavier in the southbound direction during the weekday evening peak period.

Baker Avenue Extension carries approximately 4,100 vehicles per day on a typical weekday, with approximately 9.1-percent of all daily traffic occurring during the weekday morning peak hour and approximately 10.5-percent occurring during the weekday evening peak hour. The directionality of peak hour traffic flow on Baker Avenue Extension is heavier in the southbound direction during the weekday morning peak period and heavier in the northbound direction during the weekday evening peak period.

The 2023 Existing traffic volume networks for the weekday morning and weekday evening peak hours are provided as Figure 3 in the Attachments.

Public Transportation

Public Transportation in Concord is provided by the MBTA Fitchburg Line Commuter Rail. The West Concord station is currently located within a half-mile walking distance from the Site, although the walking distance will be considerably shortened by the future Assabet Pedestrian Bridge & Trail Project.

The MBTA Fitchburg Line stops at the West Concord station approximately hourly on weekdays (with less frequent service at night) from approximately 5:15 AM to 11:45 PM inbound and 6:15 AM to 12:30 AM outbound. It stops approximately every 2-3 hours on weekends from approximately 5:45 AM to 9:45 PM inbound and 8:30 AM to 12:30 AM outbound. The detailed Fitchburg Line schedule is included in the Attachments.

Crash Summary

A detailed crash analysis was conducted to identify potential vehicle crash trends and/or roadway deficiencies in the traffic study area. The vehicle crash data for the study area intersections was obtained from MassDOT for the years



2015 to 2020. The years 2015 to 2019 were used for the crash data analysis due to COVID-19 affecting travel patterns in 2020. The 2020 crash data, which included five crashes at the Route 62 intersections and eight crashes at the Route 2 intersection, is not included in this memo but is included in the Attachments. The MassDOT database is comprised of crash data from the Massachusetts Registry of Motor Vehicles (RMV) Division primarily for use in traffic studies and safety evaluations. Data files are provided for an entire city or town for an entire year, though it is possible that some crash records may be omitted either due to individual crashes not being reported, or the municipal crash records not being provided in a compatible format for RMV use.

Crash rates are calculated based on the number of crashes at an intersection and the volume of traffic traveling through that intersection on a daily basis. Rates that exceed MassDOT's average for crashes at intersections in the MassDOT district in which the town or city is located could indicate safety or geometric issues for a particular intersection. For the Project study area, the calculated crash rates for the study area intersections were compared to MassDOT's District 4 (the MassDOT district for Concord) average. The current MassDOT average crash rates for signalized and unsignalized intersections in District 4 is 0.73 and 0.57 crashes per million entering vehicles, respectively. In other words, on average, 0.73 crashes occurred per million vehicles entering signalized intersections throughout District 4 and 0.57 crashes occurred per million vehicles entering unsignalized intersections throughout District 4. The statewide crash rates are similarly 0.78 and 0.57 crashes per million entering vehicles for signalized and unsignalized intersections, respectively.

A summary of the vehicle crash history at the study area intersections based on the available RMV data is presented in Table 2 and the detailed crash data is provided in the Attachments.

Table 2 Vehicular Crash Data (2015 - 2019)

	Main St (Route 62) at Baker Ave/Cottage St	Main St (Route 62) at Crest St/Old Bridge Rd	Baker Ave at Concord Meadows Driveway
Signalized?	Yes	No	No
MassDOT Statewide Crash Rate	0.78	0.57	0.57
MassDOT District 4 Average Crash Rate	0.73	0.57	0.57
Calculated Crash Rate	0.50	0.27	0.24
Exceeds Average?	No	No	No
Year			
2015	7	2	0
2016	2	0	0
2017	2	0	0
2018	5	1	1
<u>2019</u>	<u>1</u>	<u>4</u>	<u>1</u>
Total	17	7	2
Collision Type	5	3	
Angle	1	0	1
Head-on	8	4	0
Rear-end	0	0	1
Rear-to-rear	1	0	0
Sideswipe, opposite direction	2	0	0
Sideswipe, same direction	0	0	0
Single Vehicle Crash	0	0	0
Severity			
Fatal Injury	0	0	0
Non-Fatal Injury	5	3	2
Property Damage Only	12	4	0
Not reported	0	0	0
Time of day			
Weekday, 7:00 AM - 9:00 AM	4	2	1
Weekday, 4:00 – 6:00 PM	3	2	0
Saturday, 11:00 AM – 2:00 PM	0	0	0
Weekday, other time	8	3	1
Weekend, other time	2	0	0
Pavement Conditions			
Dry	16	5	2
Wet	1	1	0
Snow/Ice/Slush	0	1	0
Not reported	0	0	0
Non-Motorist (Bike, Pedestrian)	0	0	0

Source: MassDOT IMPACT Portal, accessed November 2023.

Table 2 Vehicular Crash Data (2015 - 2019) (continued)

	Baker Avenue Extension at Concord Meadows Driveway	Concord Turnpike (Route 2) at Baker Avenue Extension
Signalized?	No	Yes
MassDOT Statewide Crash Rate	0.57	0.78
MassDOT District 4 Average Crash Rate	0.57	0.73
Calculated Crash Rate	0.00	0.81
Exceeds Average?	No	Yes
Year		
2015	0	6
2016	0	5
2017	0	17
2018	0	10
<u>2019</u>	<u>0</u>	<u>12</u>
Total	0	50
Collision Type		
Angle	0	16
Head-on	0	1
Rear-end	0	22
Rear-to-rear	0	1
Sideswipe, opposite direction	0	1
Sideswipe, same direction	0	7
Single Vehicle Crash	0	2
Severity		
Fatal Injury	0	0
Non-Fatal Injury	0	20
Property Damage Only	0	30
Not reported	0	0
Time of day		
Weekday, 7:00 AM - 9:00 AM	0	6
Weekday, 4:00 – 6:00 PM	0	5
Saturday, 11:00 AM – 2:00 PM	0	0
Weekday, other time	0	35
Weekend, other time	0	4
Pavement Conditions		
Dry	0	44
Wet	0	4
Snow/Ice/Slush	0	1
Not reported	0	1
Non-Motorist (Bike, Pedestrian)	0	0

Source: MassDOT IMPACT Portal, accessed November 2023.

As shown in Table 2, the 2015-2019 calculated crash rate at the study area intersection of Concord Turnpike (Route 2) at Baker Avenue Extension exceeds the MassDOT average crash rate for signalized intersections. Over the five-year period, a total of 76 crashes were reported at the study area intersections, the majority of which were rear-end or angle crashes. No fatalities were reported at any of the study area locations. Most crashes occurred during non-peak periods. No crashes were reported to involve a non-motorist such as a bicyclist or pedestrian.

Highway Safety Improvement Program

In addition to calculating the crash rate, study area intersections were also reviewed in MassDOT's Highway Safety Improvement Program (HSIP) database. An HSIP-eligible cluster is one in which the total number of "equivalent property damage only"³ crashes in the area is within the top five percent of all clusters in that region. Being HSIP-eligible makes the location eligible for FHWA and MassDOT funds to address the identified safety issues at these locations. As part of this effort, VHB reviewed this database and found that the intersection of Concord Turnpike (Route 2) at Baker Avenue Extension is listed as a 2018-2020 HSIP cluster.

Road Safety Audit

A Road Safety Audit (RSA) was conducted in February 2020 for the intersection of Concord Turnpike (Route 2) at Baker Avenue Extension⁴. One of the primary safety issues was confusion about westbound left turns, as some drivers are unaware that they must use the westbound jughandle. The jughandle design itself does not offset U-turns from Elm Street eastbound vehicles and provides short storage lengths. Baker Avenue Extension and the jughandle run in same phase with permissive left turns despite slope on jughandle and vertical sight distance issues. It was noted that signage and signal heads can be improved, and that the intersection may need additional lighting due to many crashes during dark conditions. Finally, it was noted that the community desires a safe crossing across Route 2, although no pedestrian or bicycle accommodations are provided at the intersection.

Potential short-term safety enhancements identified in the RSA include signal timing adjustments and improved signage and pavement markings. Mid-term and long-term recommendations identified in the RSA include considering geometric improvements, signal equipment improvements, pedestrian and bicycle accommodations, and additional lighting. The RSA Report is included in the Attachments.

No-Build Conditions

To determine the impacts of the site-generated traffic volumes in the vicinity of the Site, future traffic conditions were evaluated. A seven-year horizon (2030) was used for the evaluation consistent with MassDOT Transportation Impact and Access (TIA) study requirements.

Traffic growth on area roadways is a function of the expected land development, environmental activity, and changes in demographics. A frequently used procedure is to identify estimated traffic generated by planned developments that would be expected to affect the project study area roadways. An alternative procedure is to estimate an annual percentage increase and apply that increase to study area traffic volumes. For this evaluation, both procedures were used. The following summarizes this traffic forecasting process.

³ Equivalent property damage only" is a method of combining the number of crashes with the severity of the crashes based on a weighted scale. Crashes involving property damage only are reported at a minimal level of importance, while collisions involving personal injury (or fatalities) are weighted more heavily.

⁴ Road Safety Audit: Route 2 at Baker Avenue Extension & Elm Street, Town of Concord; VHB (Watertown, MA); February 4, 2020.

Historical Growth

Traffic growth on area roadways is a function of the expected land development, environmental activity, and changes in demographics. To provide a conservative analysis and remain consistent with other traffic studies in the area, a background growth rate of 1 percent per year was applied.

Planned Developments

In addition to accounting for background growth, the traffic associated with other planned and/or approved developments near the Site was considered. Based on discussions with the Town of Concord and information available on the Town website, it was determined that the following planned development projects in the vicinity of the Site may influence traffic conditions:

- › **768 Elm Street:** Proposed 15,000 sf building including a coffee shop, fast casual restaurant, walk-in bank with ATM, and urgent care facility to replace the existing Papa Razzi restaurant. Traffic volumes associated with the development were based on the traffic study⁵ for this project.
- › **794 Elm Street:** Proposed coffee shop without drive-through. Traffic volumes associated with the development were based on the traffic study⁶ for this project.
- › **13B Commonwealth Avenue:** Mixed-use development that has a special permit for 5,250 sf retail and 8 units. Trips to be generated by this project were added to the roadway network based on data from the Institute of Transportation Engineers (ITE).
- › **166 Commonwealth Avenue:** Mixed-use development that will remove the existing gas station and service bays and replace them with 10 residential units, a restaurant, and a small retail space. Traffic volumes associated with the development were based on the traffic study⁷ for this project.

Planned Projects

Based on discussions with the Town of Concord, two improvement projects are planned in the vicinity of the Site:

- › **Assabet River Pedestrian Trail and Bridge Project:** GPI is working with the Town of Concord and MassDOT to prepare a 25% design submission. This project has been approved for TIP funding.
- › **Main Street (Route 62) at Baker Avenue/Cottage Street:** The Town of Concord has engaged a design engineer and is proposing significant safety and operational improvements at this intersection. Improvements may include:
 - Upgrade the traffic signal with new equipment, pre-emption, crosswalks, and sidewalks;
 - Add bike accommodation in-street eastbound on Main Street; and
 - Modify Old Bridge Road/Crest Street to intersect Main Street at a 90-degree angle across from the TD Bank driveway to create a four-legged unsignalized intersection that is not included in the signal.

DPW suggested that the plan is to implement these improvements next year.

⁵ Proposed Commercial Development, 768 Elm Street, Concord, Massachusetts; Bayside Engineering (Woburn, MA); July 28, 2023.

⁶ Proposed Coffee Shop without Drive-Thru, 794 Elm Street, Concord, Massachusetts; MDM Transportation Consultants, Inc. (Marlborough, MA); February 9, 2023.

⁷ Proposed Redevelopment, 166 Commonwealth Avenue, Traffic Impact and Access Study, Concord, Massachusetts; VHB (Watertown, MA); May 22, 2023.

No-Build Traffic Volumes

The 2030 No-Build traffic volumes were generated by consideration of the above-described factors. The resulting 2030 No-Build peak hour traffic volume networks for the weekday morning and weekday evening peak periods are provided as Figure 4 in the Attachments.

Trip Generation

To estimate the number of vehicle trips to be generated by the proposed redevelopment, traffic generation projections were prepared based on Institute of Transportation Engineers (ITE) *Trip Generation Manual*⁸ data for Land Use Code (LUC) 221 (Mid-Rise Multifamily Housing). Detailed trip generation calculations are included in the Attachments.

Unadjusted Project-Generated Traffic

Table 3 presents the Project-generated vehicle trips based on ITE data.

Table 3 Unadjusted ITE Vehicle Trips

Time Period	<u>Residential</u> ¹
Weekday Daily	
Enter	456
<u>Exit</u>	<u>456</u>
Total	912
Weekday Morning Peak Hour	
Enter	18
<u>Exit</u>	<u>59</u>
Total	77
Weekday Evening Peak Hour	
Enter	48
<u>Exit</u>	<u>31</u>
Total	79

¹ Based on ITE LUC 220 (Mid-Rise Multifamily Housing) for 201 units.

Person Trips

The unadjusted vehicle trips using the ITE data were converted into person trips by applying the average vehicle occupancy (AVO) of 1.18 for residential trips, as outlined by the U.S. Department of Transportation⁹. The national rates

⁸ Trip Generation Manual, 11th Edition; Institute of Transportation Engineers (Washington, D.C.); 2021.

⁹ Summary of Travel Trends: 2017 National Household Survey, US Department of Transportation, Federal Highway Administration, Washington D.C., 2017.

are applied when converting to person trips to be consistent with ITE data, which is also based on national data. The unadjusted vehicle trips were converted into person trips in order to apply mode share, as described below. The person trips are presented in Table 4.

Table 4 Person Trips

Time Period	<u>Residential</u>
Weekday Daily	
Enter	538
<u>Exit</u>	<u>538</u>
Total	1,076
Weekday Morning Peak Hour	
Enter	21
<u>Exit</u>	<u>70</u>
Total	91
Weekday Evening Peak Hour	
Enter	57
<u>Exit</u>	<u>37</u>
Total	94

Mode Share

The Site is located in close proximity to the West Concord Commuter Rail Station and as a result the expectation is that some residents of the proposed development would likely use the commuter rail to travel to and from work. Mode shares were applied to distinguish between vehicular, transit, bike/walk, and work-from-home trips to and from the Site. The residential mode share was based on 2016-2020 American Community Survey 5-Year Estimates¹⁰. The assumed mode share is presented in Table 5.

Table 5 Mode Share

Land Use	<u>Vehicle</u>	<u>Transit</u>	<u>Bike/Walk</u>	<u>WFH</u>	<u>Total</u>
Residential	80%	10%	neg.	10%	100%

Note: Based on 2016-2020 American Community Survey 5-Year Estimates.
 neg = Negligible

Project-generated Trips

The mode shares discussed above and presented in Table 5 were applied to the person trips shown in Table 4 to generate the adjusted person trips by mode. To reflect the number of vehicle trips generated by the Site, the adjusted

¹⁰ U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Census Tract 3611, Census Block Group 3.

person trips are converted back to vehicle trips by applying the local average vehicle occupancy rates (VOR). Based on 2016-2020 U.S. Census Data¹¹, a local VOR of 1.00 for residential use was determined. Table 6 summarizes the new trips by mode.

Table 6 New Trips by Mode

Time Period	Vehicle	Transit	Bike/Walk	WFH
Weekday Daily				
Enter	430	54	0	54
Exit	<u>430</u>	<u>54</u>	<u>0</u>	<u>54</u>
Total	860	108	0	108
Weekday Morning Peak Hour				
Enter	17	2	0	2
Exit	<u>56</u>	<u>7</u>	<u>0</u>	<u>7</u>
Total	73	9	0	9
Weekday Evening Peak Hour				
Enter	46	6	0	6
Exit	<u>30</u>	<u>4</u>	<u>0</u>	<u>4</u>
Total	76	10	0	10

As shown in Table 6, the project is expected to generate approximately 860 vehicle trips (430 entering/ 430 exiting) in a typical weekday, with 73 vehicle trips (17 entering/ 56 exiting) during the weekday morning peak hour and 76 vehicle trips (46 entering/ 30 exiting) during the weekday evening peak hour.

Trip Distribution

The directional distribution of traffic approaching and departing the Site is a function of several variables. These include population densities, existing travel patterns, the efficiency of the roadways leading to and from the Site, and the distance from nearby land uses.

The trip distribution patterns for the Project were derived from U.S. Census journey-to-work data. The trip distribution is presented in Table 7 and provided as Figure 5 in the Attachments.

¹¹ U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Census Tract 3612, Census Block Groups 2 & 4.

Table 7 Trip Distribution

Travel Route	Direction (from/to)	Trip Distribution
Route 2	Northwest	10%
Elm Street	East	10%
Route 62	East	55%
Old Bridge Road	Southeast	5%
Cottage Street	South	5%
<u>Route 62</u>	<u>West</u>	<u>15%</u>
Total		100%

Source: Based on 2012-2016 JTW Census data from CTPP.

As shown in Table 7, the majority of site-generated traffic is expected to be oriented to/from the east via Route 62, which connects to Route 2 eastbound.

Build Conditions

The new project-related traffic volumes shown in Table 6 are assigned to the study area roadway network based on the trip distribution patterns shown in Table 7 and added to the 2030 No-Build peak hour traffic volume networks to develop the 2030 Build peak hour traffic volume networks. The Site-generated traffic volume networks and 2030 Build peak hour traffic volume networks are provided as Figures 6 and 7 in the Attachments.

By-Right Trip Generation Comparison

For the purposes of comparing projected vehicle trips to be generated by the proposed residential project and a proposed project for a commercial use allowable under the current zoning bylaw, VHB examined the following proposed commercial use. Specifically, the by-right development could include 90,000 SF of R&D/Light Manufacturing. For comparison purposes, trip generation for the by-right R&D development is compared to the proposed residential development in Table 8.

Table 8 By-Right Trip Generation Comparison (Unadjusted ITE Vehicle Trips)

Time Period	<u>By-Right R&D</u> ¹	<u>Proposed Residential</u> ²	<u>Difference</u>
Weekday Daily			
Enter	560	456	-104
<u>Exit</u>	<u>560</u>	<u>456</u>	<u>-104</u>
Total	1,120	912	-208
Weekday Morning Peak Hour			
Enter	86	18	-68
<u>Exit</u>	<u>19</u>	<u>59</u>	<u>+40</u>
Total	105	77	-28
Weekday Evening Peak Hour			
Enter	16	48	+32
<u>Exit</u>	<u>85</u>	<u>31</u>	<u>-54</u>
Total	101	79	-22

1 Based on ITE LUC 760 (Research and Development Center) for 90,000 SF.
 2 Based on ITE LUC 220 (Mid-Rise Multifamily Housing) for 201 units.

As shown in Table 8, the proposed residential development is expected to generate less traffic than the by-right R&D development. In addition, it can be noted that the residential development has opposite peak traffic flows to the office uses in the area, as residential peak traffic flows are generally exiting in the morning and entering in the evening.

Traffic Operations Analysis

To assess quality of flow, intersection capacity analyses were conducted with respect to 2023 Existing, 2030 No-Build, and 2030 Build conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them. Roadway operating conditions are classified by calculated levels-of-service.

Level of Service Criteria

The evaluation criteria used to analyze area intersections in this traffic study are based on the percentile delay method for signalized intersections and the Highway Capacity Manual (HCM), 6th Edition¹² for unsignalized intersections.

Level-of-service (LOS) is the term used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure that considers a number of factors including roadway geometry, speed, travel delay, freedom to maneuver, and safety. Level-of-service provides an index based on operational qualities of a roadway segment or an intersection. Level-of-service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

¹² Highway Capacity Manual, 6th Edition, Transportation Research Board, Washington, D.C., 2016.

In addition to LOS, two other measures of effectiveness (MOEs) are typically used to quantify the traffic operations at intersections; volume-to-capacity ratio (v/c) and delay (expressed in seconds per vehicle). For example, an existing v/c ratio of 0.90 for an intersection indicates that the intersection is operating at 90-percent of its available capacity. A delay of 15 seconds for a particular vehicular movement or approach indicates that vehicles on the movement or approach will experience an average additional travel time of 15 seconds. For a given LOS letter designation there may be a wide range of values for both v/c ratios and delay. Comparison of intersection capacity results therefore requires that, in addition to the LOS, the other MOEs should also be considered.

The LOS designations, which are based on delay, are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection and the LOS designation is for overall conditions at the intersection. For unsignalized intersections, however, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. Thus, the LOS designation is for the critical movement exiting the side street, which is generally the left turn out of the side street or Site driveway.

It should be noted that the analytical methodologies typically used for the analysis of unsignalized intersections use conservative analysis parameters, such as long critical gaps. Actual field observations indicate that drivers on minor streets generally accept shorter gaps in traffic than those used in the analysis procedures and therefore experience less delay than reported by the analysis software. The analysis methodologies also do not fully take into account the beneficial grouping effects caused by nearby signalized intersections. The net effect of these analysis procedures is the over-estimation of calculated delays at unsignalized intersections in the study area. Cautious judgment should therefore be exercised when interpreting the capacity analysis results at unsignalized intersections.

Intersection Capacity Analysis

Levels-of-service analyses were conducted for the 2023 Existing, 2030 No-Build, and 2030 Build conditions for the study area intersections. Tables 9 and 10 summarize the capacity analyses for the signalized and unsignalized intersections, respectively. The capacity analyses worksheets are included in the Attachments.

As part of No-Build conditions, it was assumed that the timings at the intersection of Main Street (Route 62) at Baker Avenue/Cottage Street will be optimized as part of the traffic signal upgrade.

Table 9 Signalized Intersection Capacity Analysis

Location / Movement	2023 Existing Conditions					2030 No-Build Conditions					2030 Build Conditions				
	v/c ^a	Del ^b	LOS ^c	50 Q ^d	95 Q ^e	v/c	Del	LOS	50 Q	95 Q	v/c	Del	LOS	50 Q	95 Q
Main Street (Route 62) at Baker Avenue/Cottage Street															
<i>Weekday Morning</i>															
EB L	0.20	7	A	13	39	0.22	7	A	16	46	0.23	7	A	16	48
EB T/R	0.55	9	A	90	200	0.60	10	B	112	254	0.60	10	B	112	254
WB L/T/R	0.42	7	A	55	115	0.41	7	A	57	133	0.42	7	A	58	136
NB L/T/R	0.41	20	B	32	102	0.42	20	C	37	104	0.42	21	C	37	104
SB L	0.11	16	B	7	26	0.09	17	B	6	28	0.18	18	B	14	49
SB T/R	0.27	10	A	9	34	0.23	10	A	8	46	0.26	10	A	10	50
Overall		10	A				10	B				10	B		
<i>Weekday Evening</i>															
EB L	0.29	12	B	7	30	0.33	13	B	8	32	0.41	17	B	10	42
EB T/R	0.57	11	B	91	187	0.56	10	A	104	180	0.55	10	A	107	180
WB L/T/R	0.82	19	B	165	#438	0.84	19	B	206	#403	0.86	20	C	226	#476
NB L/T/R	0.55	25	C	41	91	0.61	31	C	47	#117	0.64	34	C	50	#120
SB L	0.20	17	B	16	43	0.22	20	B	19	49	0.27	21	C	25	58
SB T/R	0.46	10	A	21	68	0.48	11	B	23	77	0.49	11	B	26	80
Overall		16	B				16	B				17	B		
Concord Turnpike (Route 2) at Baker Avenue Extension															
<i>Weekday Morning</i>															
EB L	0.83	54	D	250	#449	1.20	>120	F	~522	#801	>1.20	>120	F	~523	#801
EB T/R	0.67	9	A	255	428	0.73	12	B	338	513	0.73	12	B	340	513
WB T	0.76	31	C	366	470	0.86	38	D	393	488	0.86	38	D	393	488
WB R	0.13	5	A	0	32	0.30	4	A	3	50	0.30	4	A	3	50
NB L	0.76	75	E	75	94	0.51	50	D	56	103	0.53	52	D	59	108
NB T	0.14	39	D	22	37	0.09	36	D	16	39	0.10	36	D	20	45
NB R	0.07	1	A	0	0	0.05	0	A	0	0	0.05	0	A	0	0
SB L	0.07	38	D	7	22	0.76	66	E	103	167	0.76	67	E	102	168
SB T	0.51	49	D	92	144	0.47	45	D	97	152	0.47	44	D	97	152
Overall		24	C				42	D				42	D		
<i>Weekday Evening</i>															
EB L	0.75	73	E	121	#235	0.75	63	E	185	#401	0.76	64	E	187	#401
EB T/R	0.57	13	B	272	396	0.61	14	B	298	447	0.61	14	B	306	450
WB T	0.72	29	C	415	540	0.89	40	D	503	608	0.89	40	D	503	608
WB R	0.04	0	A	0	1	0.12	7	A	8	39	0.12	7	A	8	39
NB L	0.84	64	E	201	258	0.82	63	E	196	274	0.83	64	E	200	281
NB T	0.17	34	C	47	75	0.17	35	C	47	81	0.18	35	C	50	86
NB R	0.14	7	A	0	24	0.15	7	A	0	28	0.15	7	A	0	28
SB L	0.05	32	C	9	18	0.24	37	D	48	84	0.24	36	D	47	84
SB T	0.17	34	C	48	57	0.13	34	C	37	67	0.14	34	C	40	71
Overall		27	C				31	C				32	C		

Note: Any improvements from 2023 Existing Conditions to 2030 No Build Conditions are due to using a universal peak hour factor of 0.92 under future conditions, as specified in the MassDOT TIA guidelines.

- a Volume to capacity ratio.
- b Average total delay, in seconds per vehicle.
- c Level-of-service.
- d 50th percentile queue, in feet.
- e 95th percentile queue, in feet.
- ~ Volume exceeds capacity, queue is theoretically infinite
- # 95th percentile volume exceeds capacity, queue may be longer

Table 10 Unsignalized Intersection Capacity Analysis

Location / Movement	2023 Existing Conditions					2030 No-Build Conditions					2030 Build Conditions				
	D ^a	v/c ^b	Del ^c	LOS ^d	95 Q ^e	D	v/c	Del	LOS	95 Q	D	v/c	Del	LOS	95 Q
Main Street at Old Bridge Road/TD Bank Driveway															
<i>Weekday Morning</i>															
EB L	2	0.00	8	A	0	2	0.00	8	A	0	2	0.00	8	A	0
WB L*	2	0.00	9	A	0	5	0.01	9	A	0	5	0.01	9	A	0
NB L/T/R	15	0.10	25	C	8	15	0.09	26	D	8	15	0.09	28	D	8
SB L/T/R	0	0.00	0	A	0	0	0.00	0	A	0	0	0.00	0	A	0
<i>Weekday Evening</i>															
EB L	1	0.00	9	A	0	1	0.00	9	A	0	1	0.00	9	A	0
WB L*	0	0.00	0	A	0	5	0.01	9	A	0	5	0.01	9	A	0
NB L/T/R	105	0.86	103	F	143	110	0.95	>120	F	158	110	1.03	>120	F	173
SB L/T/R	3	0.03	20	C	3	3	0.02	22	C	0	3	0.02	23	C	0
Baker Avenue at Concord Meadows Driveway/Trashology Driveway															
<i>Weekday Morning</i>															
EB L/T/R	27	0.04	9	A	3	27	0.03	9	A	3	72	0.09	9	A	8
WB L/T/R	1	0.01	11	B	0	1	0.00	11	B	0	1	0.00	11	B	0
NB L	105	0.09	8	A	8	105	0.08	8	A	5	120	0.09	8	A	8
SB L	0	0.00	0	A	0	0	0.00	0	A	0	0	0.00	0	A	0
<i>Weekday Evening</i>															
EB L/T/R	86	0.12	10	B	10	86	0.11	10	A	10	111	0.15	10	B	13
WB L/T/R	0	0.00	0	A	0	0	0.00	0	A	0	0	0.00	0	A	0
NB L	20	0.02	8	A	3	20	0.02	8	A	0	55	0.04	8	A	3
SB L	0	0.00	0	A	0	0	0.00	0	A	0	0	0.00	0	A	0
Baker Avenue Extension at Concord Meadows Driveway															
<i>Weekday Morning</i>															
EB L/R	70	0.17	13	B	15	70	0.14	13	B	13	80	0.16	13	B	15
NB L	15	0.02	9	A	3	15	0.02	9	A	0	15	0.02	9	A	0
<i>Weekday Evening</i>															
EB L/R	185	0.42	15	C	50	185	0.31	13	B	33	190	0.32	13	B	35
NB L	10	0.01	8	A	0	10	0.01	8	A	0	10	0.01	8	A	0

Note: Any improvements from 2023 Existing Conditions to 2030 No Build Conditions are due to using a universal peak hour factor of 0.92 under future conditions, as specified in the MassDOT TIA guidelines.

- a Demand
- b Volume to capacity ratio.
- c Average total delay, in seconds per vehicle.
- d Level-of-service.
- e 95th percentile queue, in feet.
- * Not legal under existing conditions

As shown in Tables 9 and 10, the Project is expected to have minimal impacts on traffic operations within the study area. The signalized intersection of Main Street (Route 62) at Baker Avenue/Cottage Street is expected to maintain operations of LOS B or better during both peak hours for all conditions. The signalized intersection of Concord Turnpike (Route 2) at Baker Avenue Extension is expected to degrade from LOS C to LOS D during the weekday morning peak hour under both future conditions and maintain operations of LOS C during the weekday evening peak hour for all conditions. The Old Bridge Road northbound approach at the unsignalized intersection of Main Street (Route 62) at Old Bridge Road/TD Bank Driveway is expected to degrade from LOS C to LOS D during the weekday morning peak hour under both future conditions and maintain operations of LOS F during the weekday evening peak hour for all conditions. The Site driveways are expected to operate at LOS B or better during both peak hours under both future conditions, with very minor increases in delay of no more than one second from 2030 No-Build to 2030 Build conditions. The Site driveways are expected to maintain 95th percentile queue lengths of two vehicles or less.

Sight Distance Analysis

VHB conducted a sight distance analysis, conforming to guidelines of the American Association of State Highway and Transportation Officials (AASHTO), at the proposed full access south Site driveway along Commonwealth Avenue. Sight distance is 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.

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 speed limit on Baker Avenue and Baker Avenue Extension is 25 mph. However, 24-hour speed data was collected in November 2023 that indicated that the 85th percentile speeds are 32 mph on Baker Avenue northbound, 31 mph on Baker Avenue southbound, 35 mph on Baker Avenue Extension northbound, and 36 mph on Baker Avenue Extension southbound. Table 12 summarizes the sight distance analysis, and the sight distance worksheets are included in the Attachments to this memorandum.

Table 12 Sight Distance Analysis Summary

Location	Traveling	Stopping Sight Distance (ft)		Looking	Intersection Sight Distance (ft)	
		Required ¹	Measured		Desired ¹	Measured
Baker Avenue at Site driveway (proposed location)	Northbound	215	480	Right	355	>500
	Southbound	220	380	Left	355	>500
Baker Avenue Extension at Site driveway	Northbound	265	>500	Right	400	320
	Southbound	255	430	Left	400	440

¹ Based on guidelines established in A Policy on the Geometric Design of Highways and Streets, 7th Edition, AASHTO, 2018 for the 85th percentile speeds collected in November 2023 and approach grades estimated by Nearmap data.

As shown in Table 12, the required SSD is met at both driveways.

The ISD is also met at the Baker Avenue driveway. However, it should be noted that there is a hedge to the north of the Site driveway that has the potential to impede sight distance. It is recommended that it is trimmed further back or removed when the driveway and adjacent sidewalk is reconstructed.

While the ISD looking left at the Baker Avenue Extension driveway is met, the ISD looking right at the Baker Avenue Extension driveway is limited by the Concord Meadows and leasing signs. However, it was noted that many vehicles pull up closer to the roadway (approximately 10 feet from the path of travel instead of the standard 14.5 feet) to achieve an ISD looking right of >500 feet.

Parking Analysis

The project is proposing 284 parking spaces, including 157 basement podium parking spaces and 127 surface parking spaces, providing an average of 1.41 parking spaces per unit.

This is below the Town of Concord’s current requirement of “two (2) spaces per dwelling unit or one and one-half (1-1/2) spaces per dwelling unit for subsidized low and moderate income housing or elderly housing developments.” However, according to the latest data available from ITE in the ITE Parking Generation Manual 6th Edition¹³, this is nearly consistent with the average parking supply of 1.5 spaces per dwelling unit for mid-rise multifamily housing in a general urban/suburban setting (although utilization for these sites was 74%). It is also consistent with TEC’s parking supply recommendation¹⁴ of approximately 1.5 spaces per dwelling unit for multifamily housing for the Town of Concord.

For reference, the parking demands reported for multifamily housing in the ITE Parking Generation Manual and in the MAPC WestMetro Parking Utilization Study¹⁵ are summarized below. The proposed parking supply is well above the anticipated parking demand.

Table 13 Parking Demand

	ITE Average ¹	ITE 85 th Percentile ¹	WestMetro Average – Consortium Communities ²	WestMetro Average – Concord ²
Spaces per Unit	1.14	1.42	1.00	1.05
Spaces for 201 Units	229	285	201	211
Difference from proposed 304 spaces	55 fewer than proposed	1 more than proposed	83 fewer than proposed	73 fewer than proposed

1 ITE Parking Generation Manual, 6th Edition; Institute of Transportation Engineers, (Washington, D.C.); 2023. Based on LUC 221 – Multifamily Housing – 2+ BR (Mid-Rise) – Close to Rail Transit.

2 WestMetro Parking Utilization Study, Perfect Fit Parking Initiative, Phase 4; Metropolitan Area Planning Council; July 2023.

¹³ Parking Generation Manual, 6th Edition; Institute of Transportation Engineers (Washington, D.C.); 2023.

¹⁴ Town of Concord, MA Zoning Bylaw Recommendation Informational Sheet, Subject: Off-Street Parking Table IV – Residential Uses; he Engineering Corp (Lawrence, MA); 2023.

¹⁵ WestMetro Parking Utilization Study, Perfect Fit Parking Initiative, Phase 4; Metropolitan Area Planning Council; July 2023.

Conclusion

This traffic impact assessment has evaluated the potential impacts of the proposed NOVO Riverside Commons 40B 201-unit apartment community at 292 & 294 Baker Avenue in Concord, Massachusetts. The Site will be accessed via the existing Concord Meadows Corporate Center driveway on Baker Avenue, which will be shifted slightly to the north, and will maintain rights for secondary access via Concord Meadows to Baker Avenue Extension.

One of the study area intersections, Concord Turnpike (Route 2) at Baker Avenue Extension, is listed as a 2018-2020 HSIP cluster and had a Road Safety Audit (RSA) performed in February 2020.

As demonstrated, the project is expected to generate approximately 860 vehicle trips (430 entering/ 430 exiting) in a typical weekday, with 73 vehicle trips (17 entering/ 56 exiting) during the weekday morning peak hour and 76 vehicle trips (46 entering/ 30 exiting) during the weekday evening peak hour. This is expected to result in minimal impacts on traffic operations within the study area.

Review of the proposed residential development and access plan shows that in relation to roadway capacity traffic of the surrounding roadway network, the proposed development will have a minimal impact on existing traffic conditions. With the proposed access, in conjunction with the mitigation measures described below and maintaining sight distances from the driveways (clear sight lines along the Baker Avenue frontage), safe and efficient vehicular and pedestrian access can be provided to the tenants of the proposed residential development and to the bicycling and motoring public within the Site and within the study area.

Recommendations

A detailed transportation improvement program has been developed that is designed to provide safe and efficient access to and from the Project Site. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

- › Signs and landscaping to be installed as a part of the Project within the intersection sight triangle areas of the Project Site driveway should be designed and maintained so as not to restrict lines of sight.
- › The Baker Avenue driveway will be shifted approximately 33 feet to the north as part of this project. Today there are significant left turns into the Site including 105 in the AM and 20 in the PM commuter hours. The expectation is that will continue in the future and therefore we suggest an adjustment to the striping on Baker Avenue be made to provide a break in the separated double yellow line to direct motorists to the proper lane of the Site driveway. The latest Layout and Materials Site Plan, revised December 18, 2023, by Beals and Thomas illustrating this recommendation and other entrance improvements is included in the Attachments.
- › Existing trees and vegetation located within the sight triangle areas of the Project Site driveway should be selectively trimmed or removed and maintained so as to provide the necessary sight lines for the driveway to operate in a safe manner.
- › Snow accumulations (windrows) within sight triangle areas should be promptly removed where such accumulations would impede sight lines.
- › Secure bicycle parking will be provided proximate to the residential building.



- › Transportation Demand Management (TDM) measures will be implemented in an effort to reduce the overall number of vehicle trips to the Project. The following measures will be implemented:
 - The property manager will be assigned as the on-site Transportation Coordinator (TC) to coordinate TDM strategies and be a resource for the tenants of the Project;
 - The TC will post information regarding public transportation services, maps, schedules and fares in common areas within the Project;
 - Provide residents information relative to available public transportation services, bicycle and walking alternatives, and commuter options (MassRIDES and the NuRide program which rewards individuals that choose to walk, bicycle, carpool, vanpool or that use public transportation to travel to and from work);
 - Incorporate a mail drop within each residential building at a central location; and
 - Provide educational information that encourages cycling as a healthy living lifestyle and environmentally friendly mode of transportation in tenant newsletters/bulletins. Include information on bicycle commuting events and services offered by the Town.

Attachments

- › Figures
- › Count Data
- › Count Adjustments
- › Count Comparison
- › MBTA Fitchburg Line Schedule
- › Crash Data
- › Road Safety Audit
- › Historical Traffic Growth
- › Background Developments
- › Trip Generation
- › Trip Distribution
- › Synchro Capacity Analyses
- › Sight Distance Analysis
- › Parking Analysis
- › Site Plan

Figures

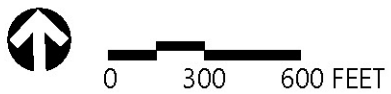
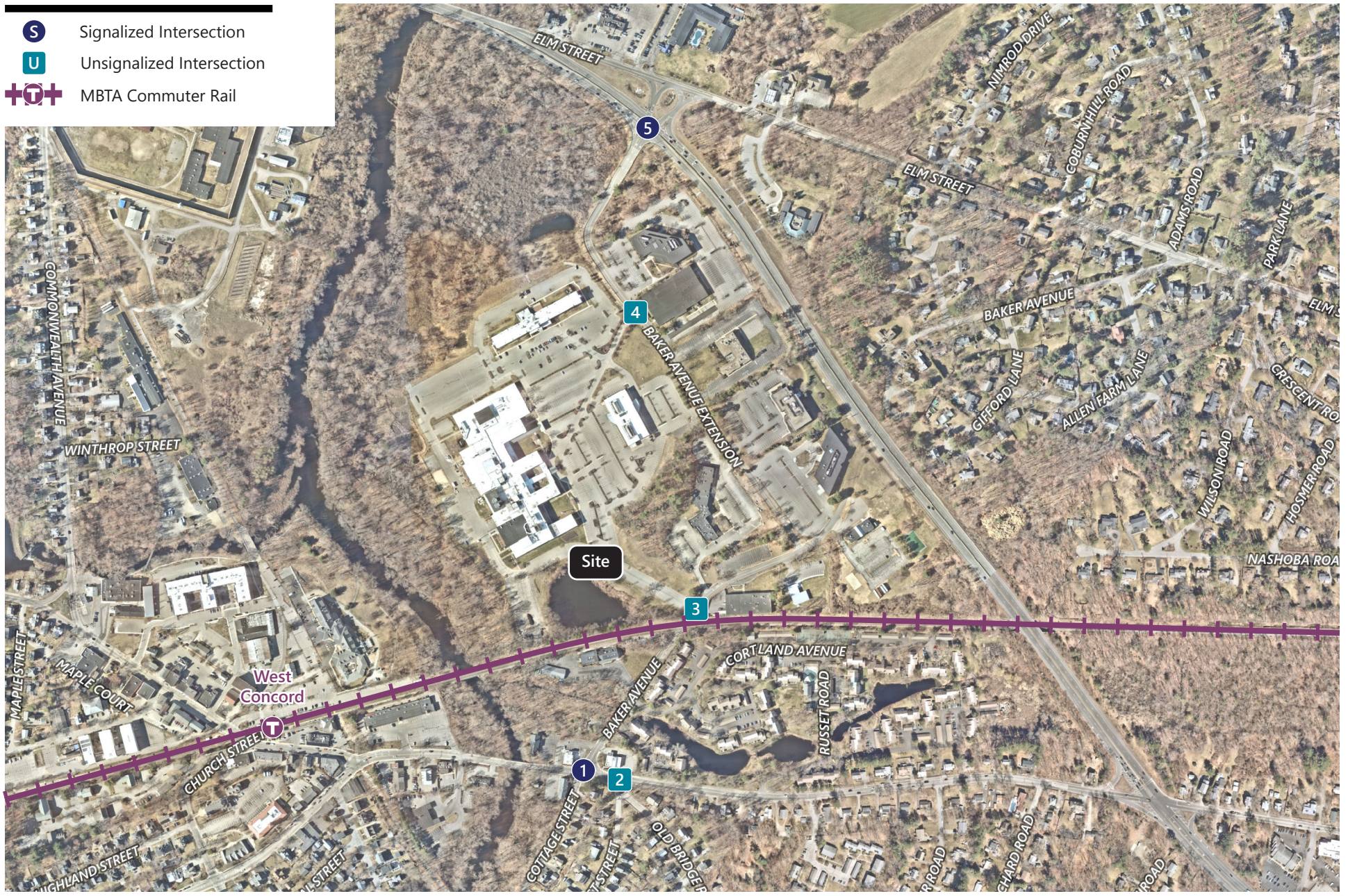
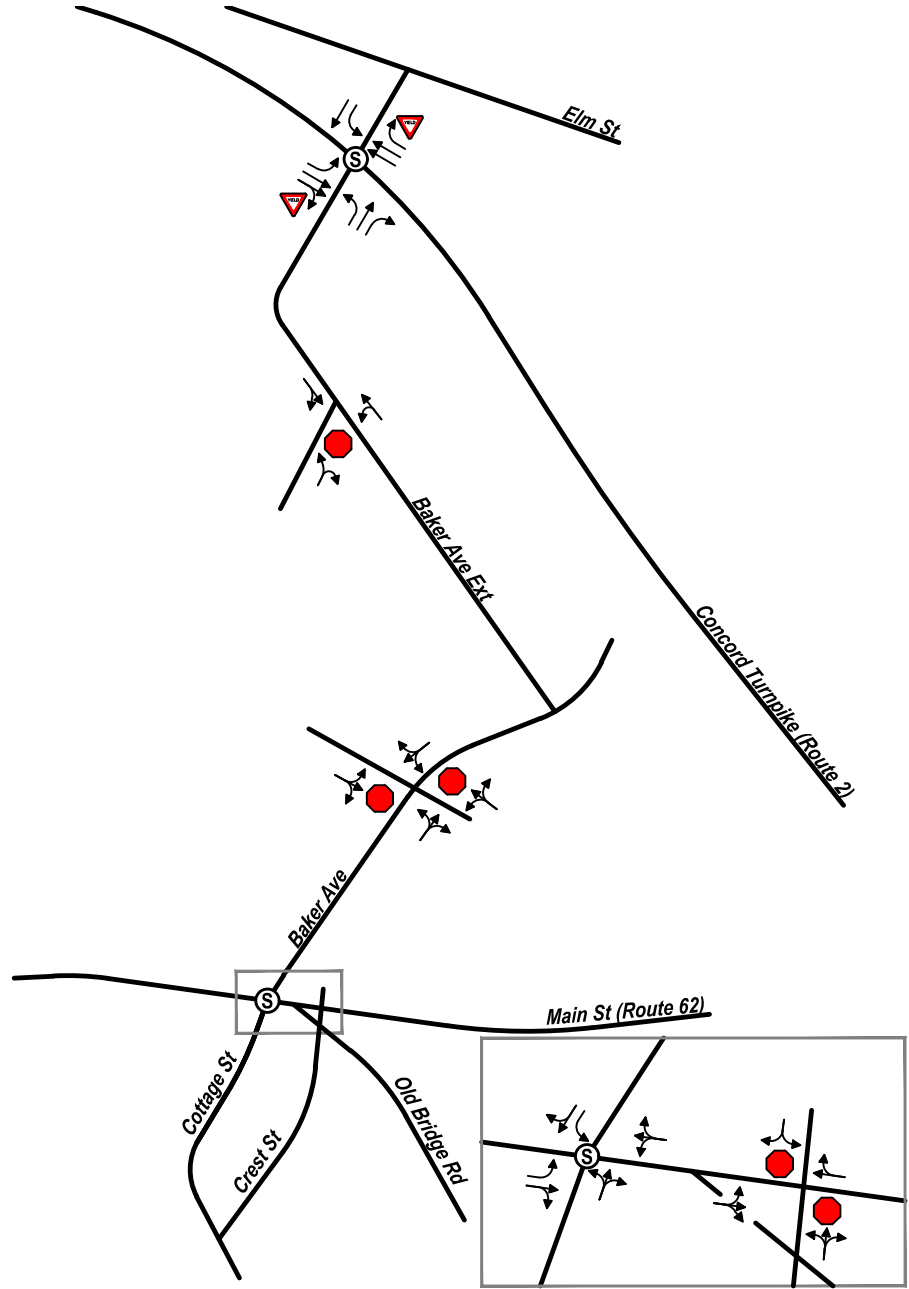


Figure 1
Site Location and Study Area

**292 & 294 Baker Avenue
Concord, Massachusetts**

- Ⓢ Signalized Intersection
- Stop-Controlled Movement
- ▽ Yield-Controlled Movement



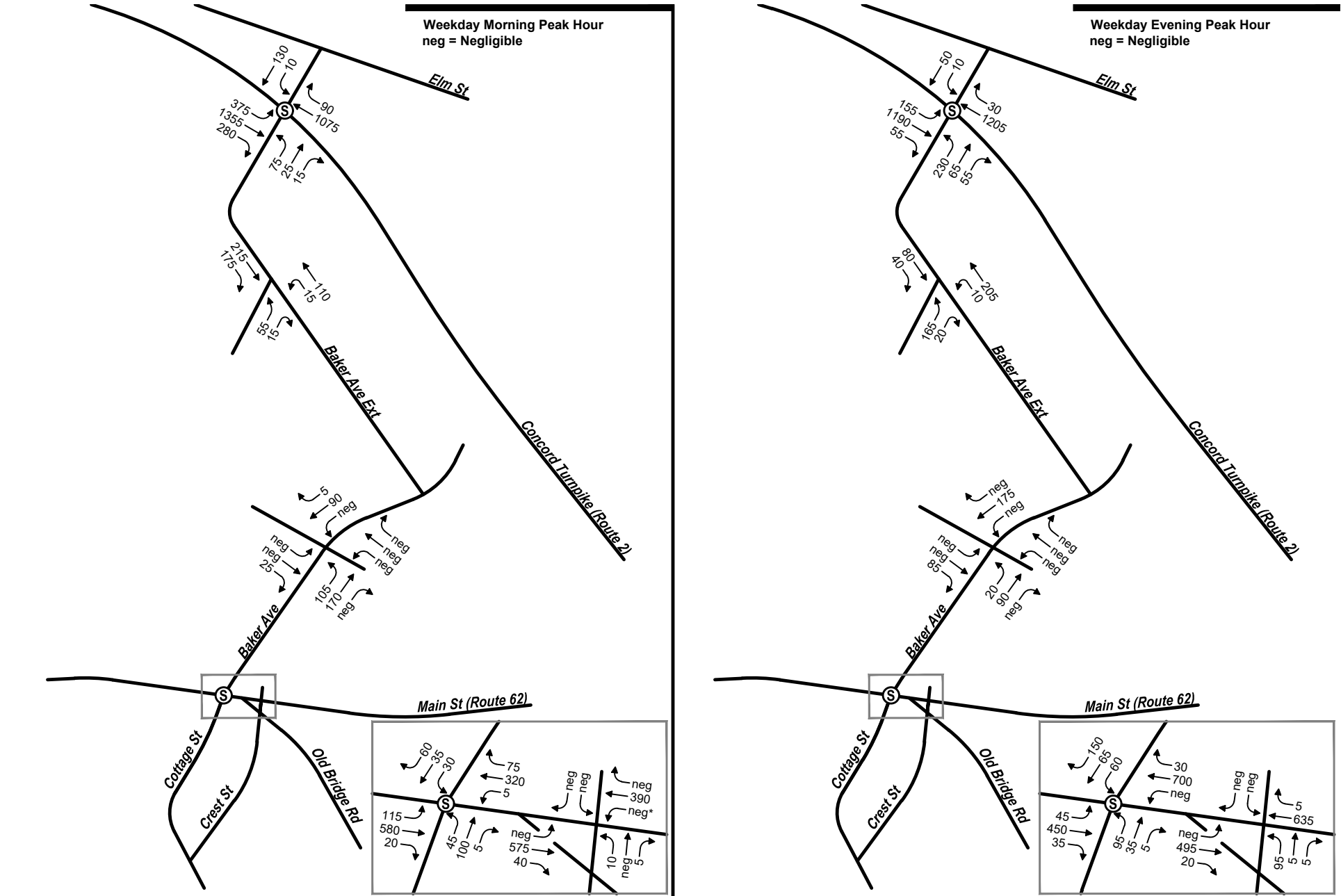
↑ Not to Scale



Figure 2

Intersection Lane Geometry and Traffic Control

**292 & 294 Baker Avenue
Concord, Massachusetts**

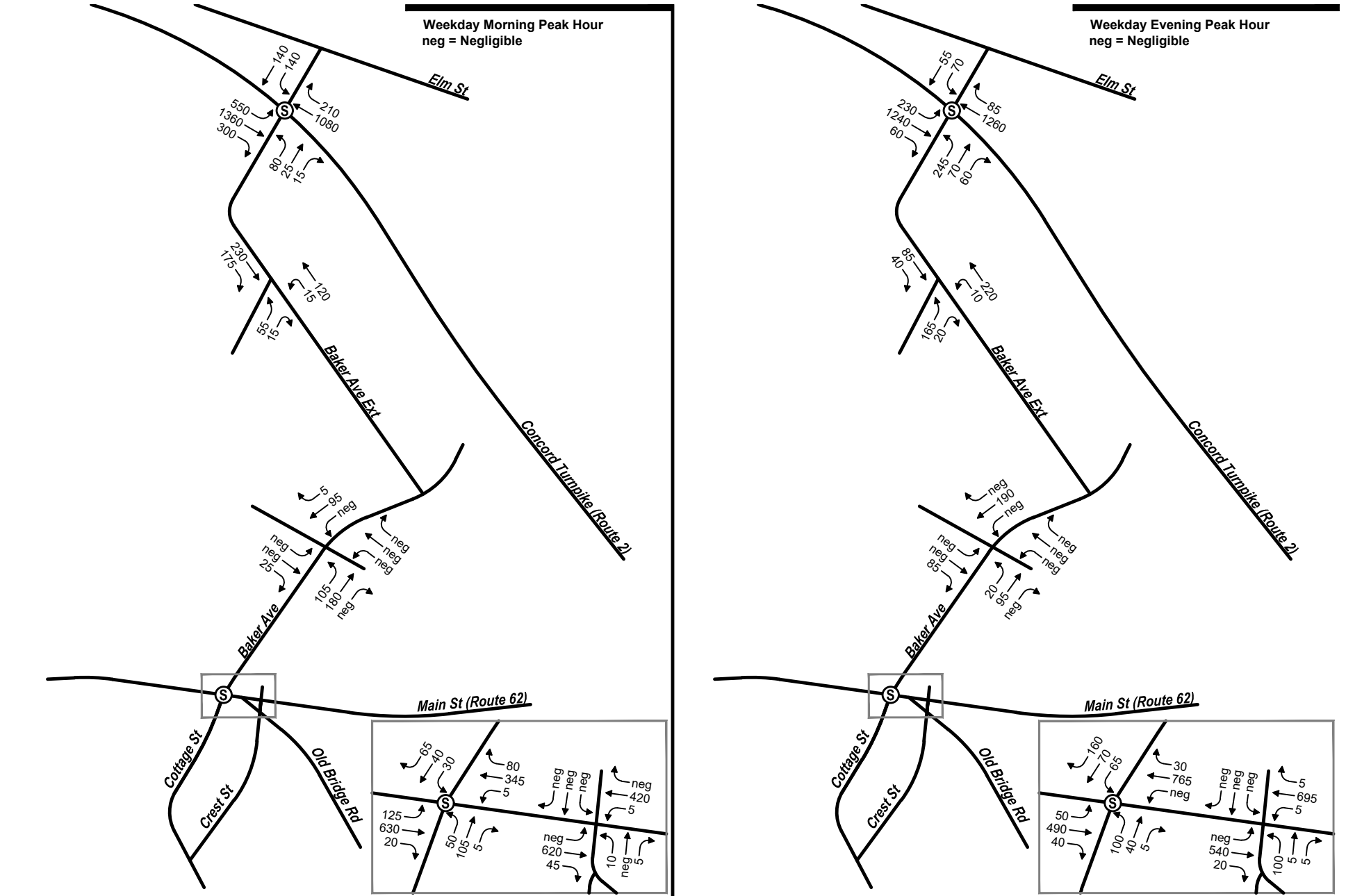


*Prohibited movement under existing conditions

↑ Not to Scale



Figure 3
2023 Existing Conditions
Weekday Peak Hour Traffic Volumes
292 & 294 Baker Avenue
Concord, Massachusetts

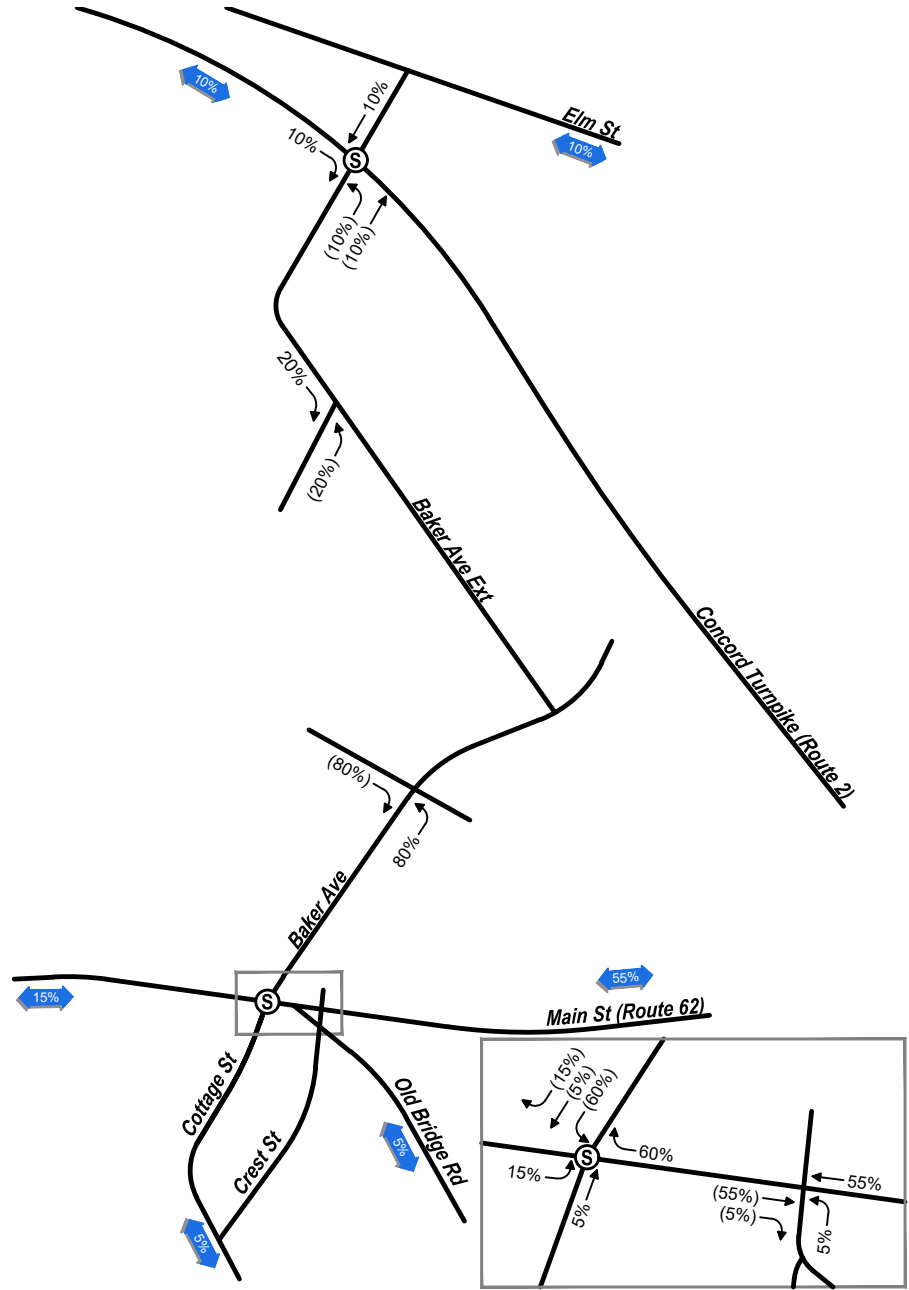


↑ Not to Scale



Figure 4
2030 No-Build Conditions
Weekday Peak Hour Traffic Volumes
292 & 294 Baker Avenue
Concord, Massachusetts

X% Regional Trip Distribution
xx = Entering Trips
(xx) = Exiting Trips




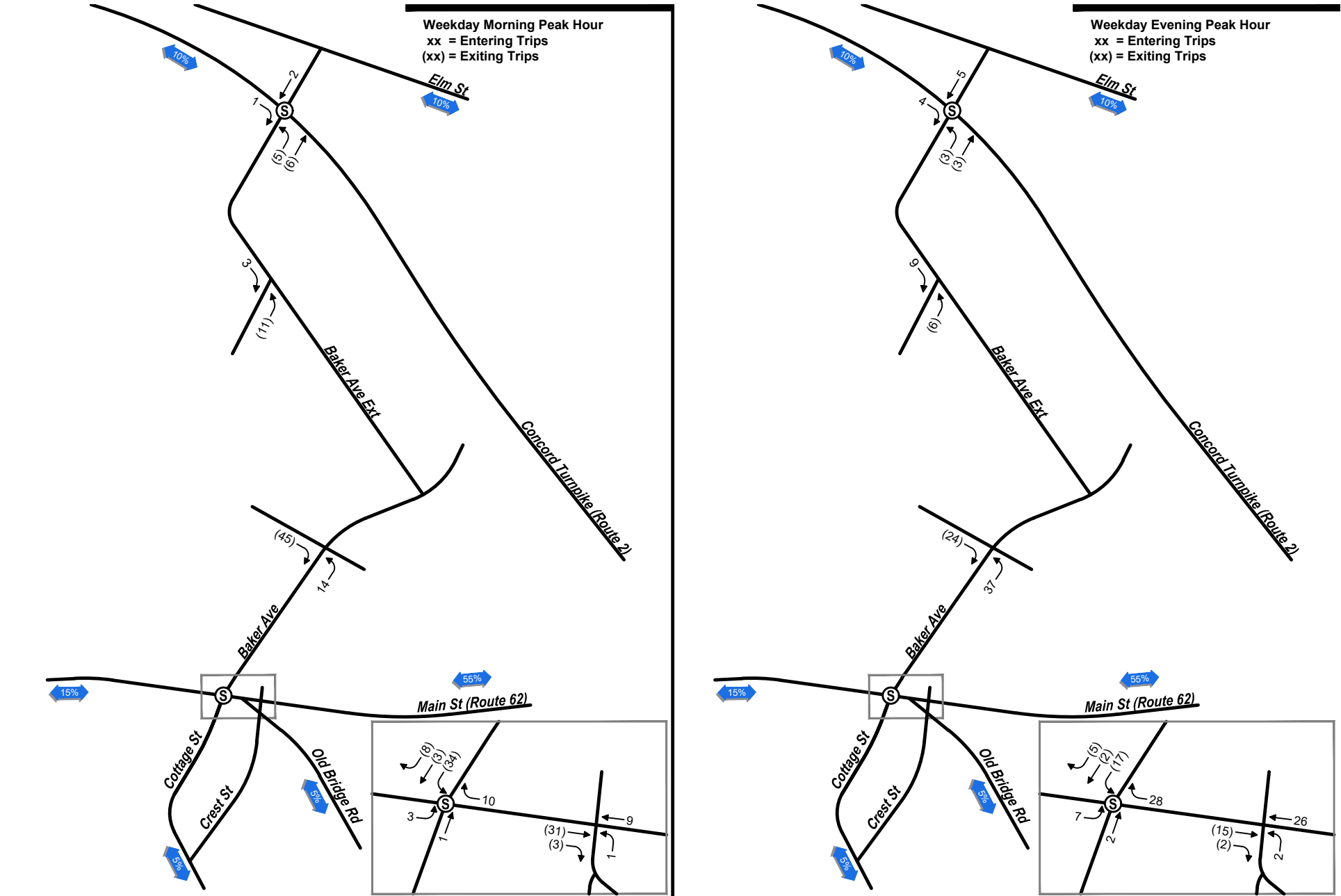
 Not to Scale



Figure 5
 Trip Distribution

292 & 294 Baker Avenue
Concord, Massachusetts

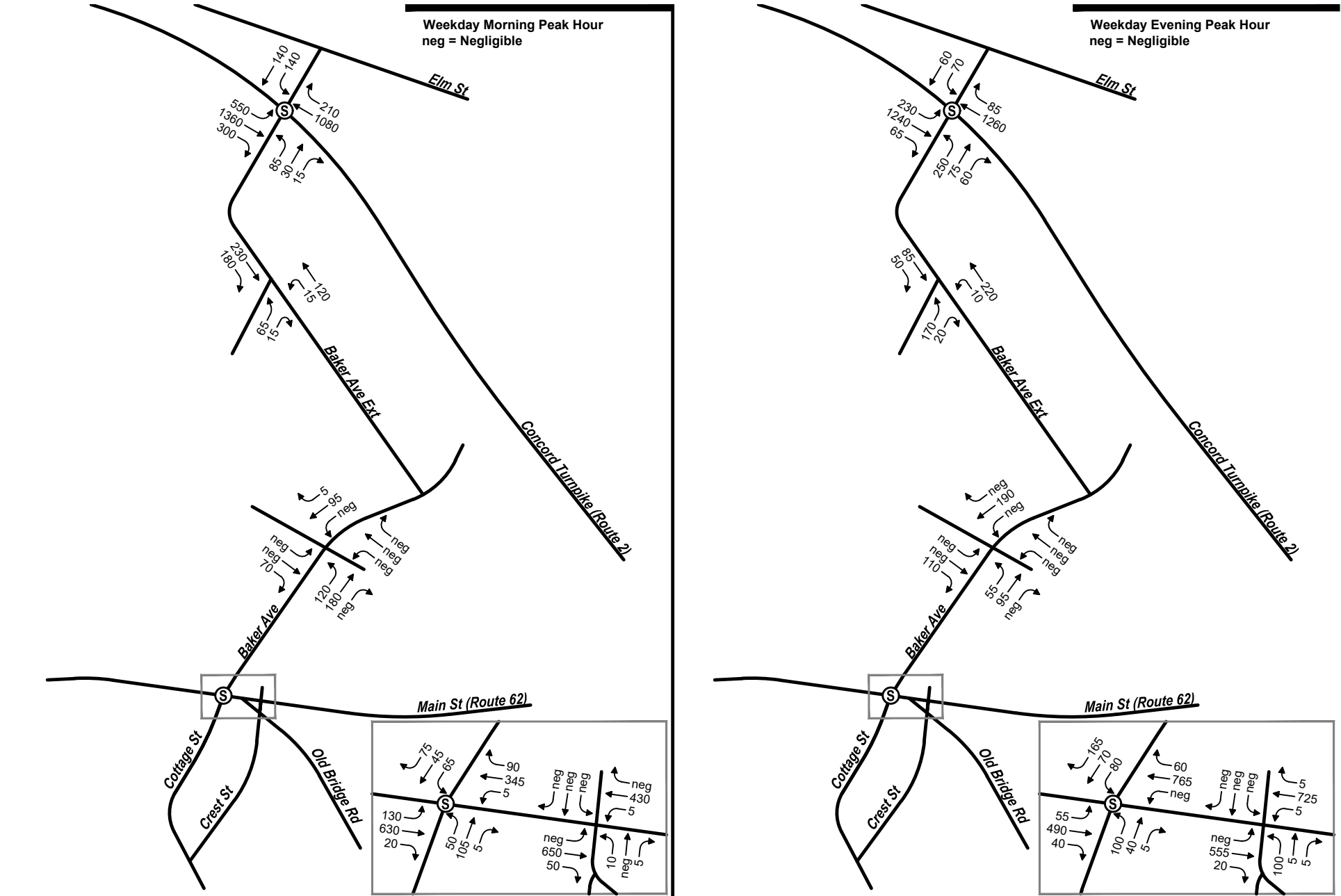


↑ Not to Scale



Figure 6
 Site-Generated Traffic Volumes

292 & 294 Baker Avenue
Concord, Massachusetts



↑ Not to Scale



Figure 7
2030 Build Conditions
Weekday Peak Hour Traffic Volumes
292 & 294 Baker Avenue
Concord, Massachusetts

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



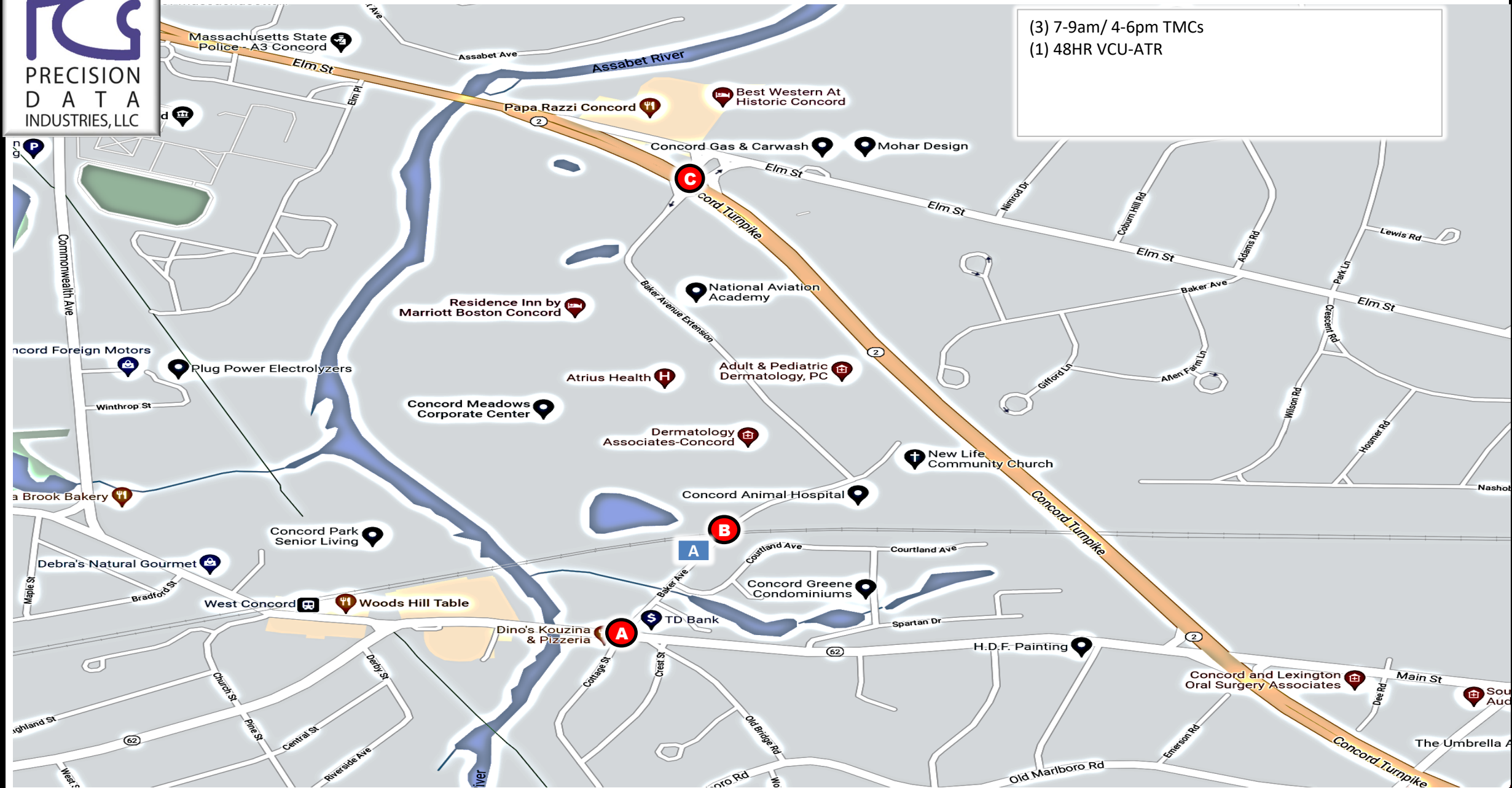
Count Data



Location Map: 228427 Concord, MA

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

(3) 7-9am/ 4-6pm TMCs
(1) 48HR VCU-ATR



Client: VHB	Engineer: A. Domogala	Site Code: 81839.22	Date: Wed 2/16 thru Thurs 2/17/2022	PDI Job # 228427	City, State: Concord, MA
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Baker Avenue
 at Rail Road Crossing
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 81839.22



PRECISION
 DATA
 INDUSTRIES, LLC

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

PDI File # 228427 ATR-A

Count Date: Wednesday, February 16, 2022
 Direction: NB

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	28	3	0	31
12:15 AM	0	0	0	0	12:15 PM	41	0	0	41
12:30 AM	0	0	0	0	12:30 PM	38	1	0	39
12:45 AM	0	0	0	0	12:45 PM	54	2	0	56
1:00 AM	0	0	0	0	1:00 PM	32	0	0	32
1:15 AM	0	0	0	0	1:15 PM	51	3	0	54
1:30 AM	0	0	0	0	1:30 PM	42	1	0	43
1:45 AM	0	0	0	0	1:45 PM	52	2	0	54
2:00 AM	0	0	0	0	2:00 PM	32	1	0	33
2:15 AM	0	0	0	0	2:15 PM	45	1	0	46
2:30 AM	0	0	0	0	2:30 PM	37	1	0	38
2:45 AM	0	0	0	0	2:45 PM	45	2	0	47
3:00 AM	0	0	0	0	3:00 PM	29	1	0	30
3:15 AM	0	0	0	0	3:15 PM	44	1	0	45
3:30 AM	0	0	0	0	3:30 PM	38	0	0	38
3:45 AM	0	0	0	0	3:45 PM	28	0	0	28
4:00 AM	0	0	0	0	4:00 PM	30	0	0	30
4:15 AM	0	0	0	0	4:15 PM	29	0	0	29
4:30 AM	0	0	0	0	4:30 PM	18	0	0	18
4:45 AM	1	0	0	1	4:45 PM	29	0	0	29
5:00 AM	0	0	0	0	5:00 PM	21	0	0	21
5:15 AM	0	0	0	0	5:15 PM	22	1	0	23
5:30 AM	2	0	0	2	5:30 PM	15	0	0	15
5:45 AM	4	0	0	4	5:45 PM	15	0	0	15
6:00 AM	5	0	0	5	6:00 PM	15	1	0	16
6:15 AM	7	0	0	7	6:15 PM	16	0	0	16
6:30 AM	10	0	0	10	6:30 PM	11	0	0	11
6:45 AM	12	1	0	13	6:45 PM	10	0	0	10
7:00 AM	20	0	0	20	7:00 PM	6	0	0	6
7:15 AM	41	1	0	42	7:15 PM	8	0	0	8
7:30 AM	50	0	0	50	7:30 PM	3	0	0	3
7:45 AM	86	0	0	86	7:45 PM	6	0	0	6
8:00 AM	55	0	0	55	8:00 PM	2	0	0	2
8:15 AM	72	2	0	74	8:15 PM	5	0	0	5
8:30 AM	78	1	0	79	8:30 PM	5	0	0	5
8:45 AM	77	2	0	79	8:45 PM	2	0	0	2
9:00 AM	51	1	0	52	9:00 PM	2	0	0	2
9:15 AM	53	3	0	56	9:15 PM	4	0	0	4
9:30 AM	35	1	0	36	9:30 PM	4	0	0	4
9:45 AM	57	1	0	58	9:45 PM	1	0	0	1
10:00 AM	29	2	1	32	10:00 PM	1	0	0	1
10:15 AM	39	1	0	40	10:15 PM	1	0	0	1
10:30 AM	41	1	0	42	10:30 PM	1	0	0	1
10:45 AM	46	1	1	48	10:45 PM	2	0	0	2
11:00 AM	26	0	0	26	11:00 PM	0	0	0	0
11:15 AM	50	5	0	55	11:15 PM	0	0	0	0
11:30 AM	32	1	0	33	11:30 PM	1	0	0	1
11:45 AM	46	0	0	46	11:45 PM	0	0	0	0

AM Total	1025	24	2	1051	PM Total	921	21	0	942
Percentage	97.53%	2.28%	0.19%		Percentage	97.77%	2.23%	0.00%	
AM Peak	7:45 AM	8:30 AM	10:00 AM	7:45 AM	PM Peak	12:45 PM	1:15 PM	12:00 PM	12:45 PM
Volume	291	7	2	294	Volume	179	7	0	185
					Day Total	1946	45	2	1993
					Percentage	97.64%	2.26%	0.10%	

Baker Avenue
 at Rail Road Crossing
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 81839.22



PRECISION
 DATA
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PDI File # 228427 ATR-A

Count Date: Thursday, February 17, 2022
 Direction: NB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	2	0	0	2
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	1	0	0	1
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	1	1	0	2
5:00 AM	1	0	0	1
5:15 AM	1	0	0	1
5:30 AM	2	0	0	2
5:45 AM	4	0	0	4
6:00 AM	3	0	0	3
6:15 AM	9	0	0	9
6:30 AM	10	0	0	10
6:45 AM	15	0	0	15
7:00 AM	17	0	0	17
7:15 AM	54	1	0	55
7:30 AM	53	0	0	53
7:45 AM	77	0	0	77
8:00 AM	60	2	0	62
8:15 AM	83	1	0	84
8:30 AM	54	0	1	55
8:45 AM	79	2	0	81
9:00 AM	47	2	0	49
9:15 AM	53	0	0	53
9:30 AM	42	2	0	44
9:45 AM	48	2	0	50
10:00 AM	33	1	0	34
10:15 AM	32	2	0	34
10:30 AM	41	1	0	42
10:45 AM	59	2	0	61
11:00 AM	35	2	0	37
11:15 AM	38	1	0	39
11:30 AM	34	2	0	36
11:45 AM	34	2	0	36

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	24	0	0	24
12:15 PM	41	3	0	44
12:30 PM	49	1	0	50
12:45 PM	56	0	0	56
1:00 PM	35	2	0	37
1:15 PM	55	3	0	58
1:30 PM	45	0	0	45
1:45 PM	52	1	0	53
2:00 PM	31	1	0	32
2:15 PM	39	0	0	39
2:30 PM	41	0	0	41
2:45 PM	49	2	0	51
3:00 PM	33	1	0	34
3:15 PM	39	1	0	40
3:30 PM	37	0	0	37
3:45 PM	41	0	0	41
4:00 PM	32	0	0	32
4:15 PM	20	0	0	20
4:30 PM	30	0	0	30
4:45 PM	27	0	0	27
5:00 PM	11	0	0	11
5:15 PM	23	1	0	24
5:30 PM	17	0	0	17
5:45 PM	8	0	0	8
6:00 PM	18	0	0	18
6:15 PM	13	0	0	13
6:30 PM	15	0	0	15
6:45 PM	12	0	0	12
7:00 PM	6	0	0	6
7:15 PM	11	0	0	11
7:30 PM	7	0	0	7
7:45 PM	6	0	0	6
8:00 PM	3	0	0	3
8:15 PM	2	0	0	2
8:30 PM	4	0	0	4
8:45 PM	7	0	0	7
9:00 PM	4	0	0	4
9:15 PM	0	0	0	0
9:30 PM	4	0	0	4
9:45 PM	5	0	0	5
10:00 PM	2	0	0	2
10:15 PM	1	0	0	1
10:30 PM	1	0	0	1
10:45 PM	2	0	0	2
11:00 PM	0	0	0	0
11:15 PM	2	0	0	2
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0

AM Total 1022 26 1 1049
 Percentage 97.43% 2.48% 0.10%
 AM Peak 8:00 AM 9:30 AM 7:45 AM 8:00 AM
 Volume 276 7 1 282

PM Total 960 16 0 976
 Percentage 98.36% 1.64% 0.00%
 PM Peak 12:30 PM 12:15 PM 12:00 PM 12:30 PM
 Volume 195 6 0 201

Day Total 1982 42 1 2025
 Percentage 97.88% 2.07% 0.05%

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 at Rail Road Crossing
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 Site Code: 81839.22



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Count Date: Wednesday, February 16, 2022
 Direction: SB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	1	0	0	1
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	1	0	0	1
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	1	0	0	1
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	1	0	0	1
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	3	0	0	3
6:00 AM	3	1	0	4
6:15 AM	0	0	0	0
6:30 AM	9	0	0	9
6:45 AM	2	0	0	2
7:00 AM	4	0	0	4
7:15 AM	10	0	0	10
7:30 AM	9	0	0	9
7:45 AM	14	1	0	15
8:00 AM	21	0	0	21
8:15 AM	21	0	0	21
8:30 AM	16	0	0	16
8:45 AM	35	1	0	36
9:00 AM	18	0	0	18
9:15 AM	27	1	0	28
9:30 AM	28	4	0	32
9:45 AM	27	2	0	29
10:00 AM	27	0	0	27
10:15 AM	31	1	0	32
10:30 AM	17	1	0	18
10:45 AM	25	1	0	26
11:00 AM	33	1	0	34
11:15 AM	69	2	0	71
11:30 AM	44	2	1	47
11:45 AM	45	0	0	45

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	55	1	0	56
12:15 PM	46	0	1	47
12:30 PM	43	1	0	44
12:45 PM	34	2	0	36
1:00 PM	29	2	0	31
1:15 PM	30	1	0	31
1:30 PM	41	0	0	41
1:45 PM	17	1	0	18
2:00 PM	33	1	0	34
2:15 PM	28	1	0	29
2:30 PM	29	2	0	31
2:45 PM	36	1	0	37
3:00 PM	42	0	0	42
3:15 PM	48	1	0	49
3:30 PM	60	0	0	60
3:45 PM	53	4	0	57
4:00 PM	46	0	0	46
4:15 PM	52	0	0	52
4:30 PM	37	0	0	37
4:45 PM	39	1	0	40
5:00 PM	46	0	0	46
5:15 PM	43	0	0	43
5:30 PM	37	0	0	37
5:45 PM	21	0	0	21
6:00 PM	19	2	0	21
6:15 PM	22	0	0	22
6:30 PM	4	0	0	4
6:45 PM	10	0	0	10
7:00 PM	5	0	0	5
7:15 PM	9	0	0	9
7:30 PM	7	0	0	7
7:45 PM	5	0	0	5
8:00 PM	3	0	0	3
8:15 PM	10	0	0	10
8:30 PM	5	0	0	5
8:45 PM	11	0	0	11
9:00 PM	3	0	0	3
9:15 PM	6	0	0	6
9:30 PM	3	0	0	3
9:45 PM	6	0	0	6
10:00 PM	4	0	0	4
10:15 PM	0	0	0	0
10:30 PM	3	0	0	3
10:45 PM	3	0	0	3
11:00 PM	1	0	0	1
11:15 PM	0	0	0	0
11:30 PM	1	0	0	1
11:45 PM	0	0	0	0

AM Total 542 18 1 561
 Percentage 96.61% 3.21% 0.18%
 AM Peak 11:00 AM 9:00 AM 10:45 AM 11:00 AM
 Volume 191 7 1 197

PM Total 1085 21 1 1107
 Percentage 98.01% 1.90% 0.09%
 PM Peak 3:30 PM 12:30 PM 12:00 PM 3:30 PM
 Volume 211 6 1 215

Day Total 1627 39 2 1668
 Percentage 97.54% 2.34% 0.12%

Baker Avenue
 at Rail Road Crossing
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 Client: VHB/ A. Domogala
 Site Code: 81839.22



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PDI File # 228427 ATR-A

Count Date: Thursday, February 17, 2022
 Direction: SB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	1	0	0	1
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	1	0	0	1
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	1	0	0	1
3:15 AM	0	0	0	0
3:30 AM	1	0	0	1
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	1	0	0	1
5:00 AM	0	0	0	0
5:15 AM	1	0	0	1
5:30 AM	1	0	0	1
5:45 AM	0	0	0	0
6:00 AM	1	0	0	1
6:15 AM	0	0	0	0
6:30 AM	2	0	0	2
6:45 AM	2	0	0	2
7:00 AM	5	0	0	5
7:15 AM	9	0	0	9
7:30 AM	8	0	0	8
7:45 AM	9	2	0	11
8:00 AM	20	0	0	20
8:15 AM	31	0	0	31
8:30 AM	24	1	0	25
8:45 AM	23	0	2	25
9:00 AM	28	0	0	28
9:15 AM	27	1	0	28
9:30 AM	41	1	0	42
9:45 AM	43	4	0	47
10:00 AM	48	1	0	49
10:15 AM	29	1	0	30
10:30 AM	25	1	0	26
10:45 AM	40	1	0	41
11:00 AM	48	0	0	48
11:15 AM	51	0	0	51
11:30 AM	50	1	0	51
11:45 AM	50	1	0	51

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	44	0	0	44
12:15 PM	37	0	0	37
12:30 PM	38	0	0	38
12:45 PM	27	0	0	27
1:00 PM	24	0	0	24
1:15 PM	30	0	0	30
1:30 PM	34	3	0	37
1:45 PM	22	2	0	24
2:00 PM	39	3	0	42
2:15 PM	40	0	0	40
2:30 PM	35	0	0	35
2:45 PM	48	0	0	48
3:00 PM	43	1	0	44
3:15 PM	40	0	0	40
3:30 PM	51	0	0	51
3:45 PM	39	1	0	40
4:00 PM	63	3	0	66
4:15 PM	54	1	0	55
4:30 PM	78	0	0	78
4:45 PM	49	0	0	49
5:00 PM	42	0	0	42
5:15 PM	43	0	0	43
5:30 PM	29	0	0	29
5:45 PM	19	0	0	19
6:00 PM	24	1	0	25
6:15 PM	31	1	0	32
6:30 PM	21	0	0	21
6:45 PM	11	0	0	11
7:00 PM	20	0	0	20
7:15 PM	11	0	0	11
7:30 PM	10	0	0	10
7:45 PM	10	0	0	10
8:00 PM	7	0	0	7
8:15 PM	6	0	0	6
8:30 PM	4	0	0	4
8:45 PM	2	0	0	2
9:00 PM	0	0	0	0
9:15 PM	0	0	0	0
9:30 PM	2	0	0	2
9:45 PM	4	0	0	4
10:00 PM	2	0	0	2
10:15 PM	3	0	0	3
10:30 PM	3	0	0	3
10:45 PM	1	0	0	1
11:00 PM	1	0	0	1
11:15 PM	2	0	0	2
11:30 PM	1	0	0	1
11:45 PM	0	0	0	0

AM Total 621 15 2 638
 Percentage 97.34% 2.35% 0.31%
 AM Peak 11:00 AM 9:15 AM 8:00 AM 11:00 AM
 Volume 199 7 2 201

PM Total 1144 16 0 1160
 Percentage 98.62% 1.38% 0.00%
 PM Peak 4:00 PM 1:15 PM 12:00 PM 4:00 PM
 Volume 244 8 0 248

Day Total 1765 31 2 1798
 Percentage 98.16% 1.72% 0.11%

Baker Avenue
 at Rail Road Crossing
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 Site Code: 81839.22



PRECISION
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PDI File # 228427 ATR-A

Direction: NB

Weekly Report

Day Date	Wednesday 02/16/22		Thursday 02/17/22												Week Ave			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
12:00	0	31	0	24	0	0	0	0	0	0	0	0	0	0	0	28		
12:15	0	41	0	44	0	0	0	0	0	0	0	0	0	0	0	43		
12:30	0	39	0	50	0	0	0	0	0	0	0	0	0	0	0	45		
12:45	0	56	2	56	0	0	0	0	0	0	0	0	0	0	1	56		
1:00	0	32	0	37	0	0	0	0	0	0	0	0	0	0	0	35		
1:15	0	54	0	58	0	0	0	0	0	0	0	0	0	0	0	56		
1:30	0	43	1	45	0	0	0	0	0	0	0	0	0	0	1	44		
1:45	0	54	0	53	0	0	0	0	0	0	0	0	0	0	0	54		
2:00	0	33	0	32	0	0	0	0	0	0	0	0	0	0	0	33		
2:15	0	46	0	39	0	0	0	0	0	0	0	0	0	0	0	43		
2:30	0	38	0	41	0	0	0	0	0	0	0	0	0	0	0	40		
2:45	0	47	0	51	0	0	0	0	0	0	0	0	0	0	0	49		
3:00	0	30	0	34	0	0	0	0	0	0	0	0	0	0	0	32		
3:15	0	45	0	40	0	0	0	0	0	0	0	0	0	0	0	43		
3:30	0	38	0	37	0	0	0	0	0	0	0	0	0	0	0	38		
3:45	0	28	0	41	0	0	0	0	0	0	0	0	0	0	0	35		
4:00	0	30	0	32	0	0	0	0	0	0	0	0	0	0	0	31		
4:15	0	29	0	20	0	0	0	0	0	0	0	0	0	0	0	25		
4:30	0	18	0	30	0	0	0	0	0	0	0	0	0	0	0	24		
4:45	1	29	2	27	0	0	0	0	0	0	0	0	0	0	2	28		
5:00	0	21	1	11	0	0	0	0	0	0	0	0	0	0	1	16		
5:15	0	23	1	24	0	0	0	0	0	0	0	0	0	0	1	24		
5:30	2	15	2	17	0	0	0	0	0	0	0	0	0	0	2	16		
5:45	4	15	4	8	0	0	0	0	0	0	0	0	0	0	4	12		
6:00	5	16	3	18	0	0	0	0	0	0	0	0	0	0	4	17		
6:15	7	16	9	13	0	0	0	0	0	0	0	0	0	0	8	15		
6:30	10	11	10	15	0	0	0	0	0	0	0	0	0	0	10	13		
6:45	13	10	15	12	0	0	0	0	0	0	0	0	0	0	14	11		
7:00	20	6	17	6	0	0	0	0	0	0	0	0	0	0	19	6		
7:15	42	8	55	11	0	0	0	0	0	0	0	0	0	0	49	10		
7:30	50	3	53	7	0	0	0	0	0	0	0	0	0	0	52	5		
7:45	86	6	77	6	0	0	0	0	0	0	0	0	0	0	82	6		
8:00	55	2	62	3	0	0	0	0	0	0	0	0	0	0	59	3		
8:15	74	5	84	2	0	0	0	0	0	0	0	0	0	0	79	4		
8:30	79	5	55	4	0	0	0	0	0	0	0	0	0	0	67	5		
8:45	79	2	81	7	0	0	0	0	0	0	0	0	0	0	80	5		
9:00	52	2	49	4	0	0	0	0	0	0	0	0	0	0	51	3		
9:15	56	4	53	0	0	0	0	0	0	0	0	0	0	0	55	2		
9:30	36	4	44	4	0	0	0	0	0	0	0	0	0	0	40	4		
9:45	58	1	50	5	0	0	0	0	0	0	0	0	0	0	54	3		
10:00	32	1	34	2	0	0	0	0	0	0	0	0	0	0	33	2		
10:15	40	1	34	1	0	0	0	0	0	0	0	0	0	0	37	1		
10:30	42	1	42	1	0	0	0	0	0	0	0	0	0	0	42	1		
10:45	48	2	61	2	0	0	0	0	0	0	0	0	0	0	55	2		
11:00	26	0	37	0	0	0	0	0	0	0	0	0	0	0	32	0		
11:15	55	0	39	2	0	0	0	0	0	0	0	0	0	0	47	1		
11:30	33	1	36	0	0	0	0	0	0	0	0	0	0	0	35	1		
11:45	46	0	36	0	0	0	0	0	0	0	0	0	0	0	41	0		
Total	1051	942	1049	976	0	0	0	0	0	0	0	0	0	0	1050	959		
Day Total	1993		2025		0		0		0		0		0		2009			
Peak HR	7:45 AM	12:45 PM	8:00 AM	12:30 PM													7:45 AM	12:30 PM
Volume	294	185	282	201													286	191

Baker Avenue
 at Rail Road Crossing
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 81839.22



PRECISION
 DATA
 INDUSTRIES, LLC

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

PDI File # 228427 ATR-A

Direction: SB

Weekly Report

Day Date	Wednesday 02/16/22		Thursday 02/17/22												Week Ave	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
12:00	0	56	1	44	0	0	0	0	0	0	0	0	0	0	1	50
12:15	1	47	0	37	0	0	0	0	0	0	0	0	0	0	1	42
12:30	0	44	0	38	0	0	0	0	0	0	0	0	0	0	0	41
12:45	0	36	0	27	0	0	0	0	0	0	0	0	0	0	0	32
1:00	0	31	1	24	0	0	0	0	0	0	0	0	0	0	1	28
1:15	0	31	0	30	0	0	0	0	0	0	0	0	0	0	0	31
1:30	1	41	0	37	0	0	0	0	0	0	0	0	0	0	1	39
1:45	0	18	0	24	0	0	0	0	0	0	0	0	0	0	0	21
2:00	0	34	0	42	0	0	0	0	0	0	0	0	0	0	0	38
2:15	1	29	0	40	0	0	0	0	0	0	0	0	0	0	1	35
2:30	0	31	0	35	0	0	0	0	0	0	0	0	0	0	0	33
2:45	0	37	0	48	0	0	0	0	0	0	0	0	0	0	0	43
3:00	0	42	1	44	0	0	0	0	0	0	0	0	0	0	1	43
3:15	0	49	0	40	0	0	0	0	0	0	0	0	0	0	0	45
3:30	0	60	1	51	0	0	0	0	0	0	0	0	0	0	1	56
3:45	0	57	0	40	0	0	0	0	0	0	0	0	0	0	0	49
4:00	0	46	0	66	0	0	0	0	0	0	0	0	0	0	0	56
4:15	1	52	0	55	0	0	0	0	0	0	0	0	0	0	1	54
4:30	0	37	0	78	0	0	0	0	0	0	0	0	0	0	0	58
4:45	0	40	1	49	0	0	0	0	0	0	0	0	0	0	1	45
5:00	0	46	0	42	0	0	0	0	0	0	0	0	0	0	0	44
5:15	0	43	1	43	0	0	0	0	0	0	0	0	0	0	1	43
5:30	0	37	1	29	0	0	0	0	0	0	0	0	0	0	1	33
5:45	3	21	0	19	0	0	0	0	0	0	0	0	0	0	2	20
6:00	4	21	1	25	0	0	0	0	0	0	0	0	0	0	3	23
6:15	0	22	0	32	0	0	0	0	0	0	0	0	0	0	0	27
6:30	9	4	2	21	0	0	0	0	0	0	0	0	0	0	6	13
6:45	2	10	2	11	0	0	0	0	0	0	0	0	0	0	2	11
7:00	4	5	5	20	0	0	0	0	0	0	0	0	0	0	5	13
7:15	10	9	9	11	0	0	0	0	0	0	0	0	0	0	10	10
7:30	9	7	8	10	0	0	0	0	0	0	0	0	0	0	9	9
7:45	15	5	11	10	0	0	0	0	0	0	0	0	0	0	13	8
8:00	21	3	20	7	0	0	0	0	0	0	0	0	0	0	21	5
8:15	21	10	31	6	0	0	0	0	0	0	0	0	0	0	26	8
8:30	16	5	25	4	0	0	0	0	0	0	0	0	0	0	21	5
8:45	36	11	25	2	0	0	0	0	0	0	0	0	0	0	31	7
9:00	18	3	28	0	0	0	0	0	0	0	0	0	0	0	23	2
9:15	28	6	28	0	0	0	0	0	0	0	0	0	0	0	28	3
9:30	32	3	42	2	0	0	0	0	0	0	0	0	0	0	37	3
9:45	29	6	47	4	0	0	0	0	0	0	0	0	0	0	38	5
10:00	27	4	49	2	0	0	0	0	0	0	0	0	0	0	38	3
10:15	32	0	30	3	0	0	0	0	0	0	0	0	0	0	31	2
10:30	18	3	26	3	0	0	0	0	0	0	0	0	0	0	22	3
10:45	26	3	41	1	0	0	0	0	0	0	0	0	0	0	34	2
11:00	34	1	48	1	0	0	0	0	0	0	0	0	0	0	41	1
11:15	71	0	51	2	0	0	0	0	0	0	0	0	0	0	61	1
11:30	47	1	51	1	0	0	0	0	0	0	0	0	0	0	49	1
11:45	45	0	51	0	0	0	0	0	0	0	0	0	0	0	48	0
Total	561	1107	638	1160	0	0	0	0	0	0	0	0	0	0	600	1134
Day Total	1668		1798		0		0		0		0		0		1733	
Peak HR	11:00 AM	3:30 PM	11:00 AM	4:00 PM												
Volume	197	215	201	248												
															11:00 AM	3:45 PM
															199	216

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	4	3	4	0	11	9	62	1	0	72	0	4	3	0	7	9	153	8	0	170	260
7:15 AM	1	4	2	0	7	17	54	0	0	71	2	12	4	0	18	8	184	22	0	214	310
7:30 AM	5	4	1	0	10	10	51	0	0	61	1	15	10	0	26	11	151	32	0	194	291
7:45 AM	4	7	2	0	13	20	71	2	0	93	3	25	9	0	37	12	156	37	0	205	348
Total	14	18	9	0	41	56	238	3	0	297	6	56	26	0	88	40	644	99	0	783	1209
8:00 AM	11	7	3	0	21	26	75	0	0	101	0	33	19	0	52	6	144	22	0	172	346
8:15 AM	13	17	2	0	32	10	50	3	0	63	2	27	8	0	37	11	144	28	0	183	315
8:30 AM	13	11	6	0	30	12	64	1	0	77	1	14	16	0	31	8	142	29	0	179	317
8:45 AM	14	9	7	0	30	23	97	1	0	121	2	26	17	0	45	5	160	40	0	205	401
Total	51	44	18	0	113	71	286	5	0	362	5	100	60	0	165	30	590	119	0	739	1379
Grand Total	65	62	27	0	154	127	524	8	0	659	11	156	86	0	253	70	1234	218	0	1522	2588
Approach %	42.2	40.3	17.5	0.0		19.3	79.5	1.2	0.0		4.3	61.7	34.0	0.0		4.6	81.1	14.3	0.0		
Total %	2.5	2.4	1.0	0.0	6.0	4.9	20.2	0.3	0.0	25.5	0.4	6.0	3.3	0.0	9.8	2.7	47.7	8.4	0.0	58.8	
Exiting Leg Total	501					1272					140					675					2588
Cars	65	60	26	0	151	126	500	6	0	632	8	153	81	0	242	69	1183	216	0	1468	2493
% Cars	100.0	96.8	96.3	0.0	98.1	99.2	95.4	75.0	0.0	95.9	72.7	98.1	94.2	0.0	95.7	98.6	95.9	99.1	0.0	96.5	96.3
Exiting Leg Total	495					1217					135					646					2493
Heavy Vehicles	0	2	1	0	3	1	24	2	0	27	3	3	5	0	11	1	51	2	0	54	95
% Heavy Vehicles	0.0	3.2	3.7	0.0	1.9	0.8	4.6	25.0	0.0	4.1	27.3	1.9	5.8	0.0	4.3	1.4	4.1	0.9	0.0	3.5	3.7
Exiting Leg Total	6					55					5					29					95

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	11	7	3	0	21	26	75	0	0	101	0	33	19	0	52	6	144	22	0	172	346
8:15 AM	13	17	2	0	32	10	50	3	0	63	2	27	8	0	37	11	144	28	0	183	315
8:30 AM	13	11	6	0	30	12	64	1	0	77	1	14	16	0	31	8	142	29	0	179	317
8:45 AM	14	9	7	0	30	23	97	1	0	121	2	26	17	0	45	5	160	40	0	205	401
Total Volume	51	44	18	0	113	71	286	5	0	362	5	100	60	0	165	30	590	119	0	739	1379
% Approach Total	45.1	38.9	15.9	0.0		19.6	79.0	1.4	0.0		3.0	60.6	36.4	0.0		4.1	79.8	16.1	0.0		
PHF	0.911	0.647	0.643	0.000	0.883	0.683	0.737	0.417	0.000	0.748	0.625	0.758	0.789	0.000	0.793	0.682	0.922	0.744	0.000	0.901	0.860
Cars	51	44	17	0	112	70	273	4	0	347	3	98	57	0	158	29	568	117	0	714	1331
Cars %	100.0	100.0	94.4	0.0	99.1	98.6	95.5	80.0	0.0	95.9	60.0	98.0	95.0	0.0	95.8	96.7	96.3	98.3	0.0	96.6	96.5
Heavy Vehicles	0	0	1	0	1	1	13	1	0	15	2	2	3	0	7	1	22	2	0	25	48
Heavy Vehicles %	0.0	0.0	5.6	0.0	0.9	1.4	4.5	20.0	0.0	4.1	40.0	2.0	5.0	0.0	4.2	3.3	3.7	1.7	0.0	3.4	3.5
Cars Enter Leg	51	44	17	0	112	70	273	4	0	347	3	98	57	0	158	29	568	117	0	714	1331
Heavy Enter Leg	0	0	1	0	1	1	13	1	0	15	2	2	3	0	7	1	22	2	0	25	48
Total Entering Leg	51	44	18	0	113	71	286	5	0	362	5	100	60	0	165	30	590	119	0	739	1379
Cars Exiting Leg	285					588					77					381					1331
Heavy Exiting Leg	5					25					2					16					48
Total Exiting Leg	290					613					79					397					1379

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	4	3	4	0	11	9	61	1	0	71	0	4	3	0	7	9	137	8	0	154	243					
7:15 AM	1	4	2	0	7	17	51	0	0	68	1	11	4	0	16	8	174	22	0	204	295					
7:30 AM	5	4	1	0	10	10	48	0	0	58	1	15	10	0	26	11	150	32	0	193	287					
7:45 AM	4	5	2	0	11	20	67	1	0	88	3	25	7	0	35	12	154	37	0	203	337					
Total	14	16	9	0	39	56	227	2	0	285	5	55	24	0	84	40	615	99	0	754	1162					
8:00 AM	11	7	3	0	21	25	71	0	0	96	0	32	17	0	49	6	138	22	0	166	332					
8:15 AM	13	17	2	0	32	10	49	2	0	61	1	27	8	0	36	10	140	28	0	178	307					
8:30 AM	13	11	6	0	30	12	60	1	0	73	1	14	15	0	30	8	135	28	0	171	304					
8:45 AM	14	9	6	0	29	23	93	1	0	117	1	25	17	0	43	5	155	39	0	199	388					
Total	51	44	17	0	112	70	273	4	0	347	3	98	57	0	158	29	568	117	0	714	1331					
Grand Total	65	60	26	0	151	126	500	6	0	632	8	153	81	0	242	69	1183	216	0	1468	2493					
Approach %	43.0	39.7	17.2	0.0		19.9	79.1	0.9	0.0		3.3	63.2	33.5	0.0		4.7	80.6	14.7	0.0							
Total %	2.6	2.4	1.0	0.0	6.1	5.1	20.1	0.2	0.0	25.4	0.3	6.1	3.2	0.0	9.7	2.8	47.5	8.7	0.0	58.9						
Exiting Leg Total						495					1217					135					646					2493

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	11	7	3	0	21	25	71	0	0	96	0	32	17	0	49	6	138	22	0	166	332					
8:15 AM	13	17	2	0	32	10	49	2	0	61	1	27	8	0	36	10	140	28	0	178	307					
8:30 AM	13	11	6	0	30	12	60	1	0	73	1	14	15	0	30	8	135	28	0	171	304					
8:45 AM	14	9	6	0	29	23	93	1	0	117	1	25	17	0	43	5	155	39	0	199	388					
Total Volume	51	44	17	0	112	70	273	4	0	347	3	98	57	0	158	29	568	117	0	714	1331					
% Approach Total	45.5	39.3	15.2	0.0		20.2	78.7	1.2	0.0		1.9	62.0	36.1	0.0		4.1	79.6	16.4	0.0							
PHF	0.911	0.647	0.708	0.000	0.875	0.700	0.734	0.500	0.000	0.741	0.750	0.766	0.838	0.000	0.806	0.725	0.916	0.750	0.000	0.897	0.858					
Entering Leg	51	44	17	0	112	70	273	4	0	347	3	98	57	0	158	29	568	117	0	714	1331					
Exiting Leg						285					588					77					381					1331
Total						397					935					235					1095					2662

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	1	0	0	1	0	0	0	0	0	0	16	0	0	16	17
7:15 AM	0	0	0	0	0	0	3	0	0	3	1	1	0	0	2	0	10	0	0	10	15
7:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
7:45 AM	0	2	0	0	2	0	4	1	0	5	0	0	2	0	2	0	2	0	0	2	11
Total	0	2	0	0	2	0	11	1	0	12	1	1	2	0	4	0	29	0	0	29	47
8:00 AM	0	0	0	0	0	1	4	0	0	5	0	1	2	0	3	0	6	0	0	6	14
8:15 AM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	1	4	0	0	5	8
8:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	7	1	0	8	13
8:45 AM	0	0	1	0	1	0	4	0	0	4	1	1	0	0	2	0	5	1	0	6	13
Total	0	0	1	0	1	1	13	1	0	15	2	2	3	0	7	1	22	2	0	25	48
Grand Total	0	2	1	0	3	1	24	2	0	27	3	3	5	0	11	1	51	2	0	54	95
Approach %	0.0	66.7	33.3	0.0		3.7	88.9	7.4	0.0		27.3	27.3	45.5	0.0		1.9	94.4	3.7	0.0		
Total %	0.0	2.1	1.1	0.0	3.2	1.1	25.3	2.1	0.0	28.4	3.2	3.2	5.3	0.0	11.6	1.1	53.7	2.1	0.0	56.8	
Exiting Leg Total	6					55					5					29					95
Buses	0	1	0	0	1	0	7	0	0	7	2	1	1	0	4	0	13	0	0	13	25
% Buses	0.0	50.0	0.0	0.0	33.3	0.0	29.2	0.0	0.0	25.9	66.7	33.3	20.0	0.0	36.4	0.0	25.5	0.0	0.0	24.1	26.3
Exiting Leg Total	1					15					1					8					25
Single-Unit Trucks	0	1	0	0	1	1	15	2	0	18	1	2	3	0	6	1	32	1	0	34	59
% Single-Unit	0.0	50.0	0.0	0.0	33.3	100.0	62.5	100.0	0.0	66.7	33.3	66.7	60.0	0.0	54.5	100.0	62.7	50.0	0.0	63.0	62.1
Exiting Leg Total	4					33					4					18					59
Articulated Trucks	0	0	1	0	1	0	2	0	0	2	0	0	1	0	1	0	6	1	0	7	11
% Articulated	0.0	0.0	100.0	0.0	33.3	0.0	8.3	0.0	0.0	7.4	0.0	0.0	20.0	0.0	9.1	0.0	11.8	50.0	0.0	13.0	11.6
Exiting Leg Total	1					7					0					3					11

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

8:00 AM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	1	4	0	0	5	0	1	2	0	3	0	6	0	0	6	14
8:15 AM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	1	4	0	0	5	8
8:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	7	1	0	8	13
8:45 AM	0	0	1	0	1	0	4	0	0	4	1	1	0	0	2	0	5	1	0	6	13
Total Volume	0	0	1	0	1	1	13	1	0	15	2	2	3	0	7	1	22	2	0	25	48
% Approach Total	0.0	0.0	100.0	0.0		6.7	86.7	6.7	0.0		28.6	28.6	42.9	0.0		4.0	88.0	8.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.250	0.813	0.250	0.000	0.750	0.500	0.500	0.375	0.000	0.583	0.250	0.786	0.500	0.000	0.781	0.857
Buses	0	0	0	0	0	0	3	0	0	3	1	0	1	0	2	0	2	0	0	2	7
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	23.1	0.0	0.0	20.0	50.0	0.0	33.3	0.0	28.6	0.0	9.1	0.0	0.0	8.0	14.6
Single-Unit Trucks	0	0	0	0	0	1	9	1	0	11	1	2	2	0	5	1	16	1	0	18	34
Single-Unit %	0.0	0.0	0.0	0.0	0.0	100.0	69.2	100.0	0.0	73.3	50.0	100.0	66.7	0.0	71.4	100.0	72.7	50.0	0.0	72.0	70.8
Articulated Trucks	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	4	1	0	5	7
Articulated %	0.0	0.0	100.0	0.0	100.0	0.0	7.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	18.2	50.0	0.0	20.0	14.6
Buses	0	0	0	0	0	0	3	0	0	3	1	0	1	0	2	0	2	0	0	2	7
Single-Unit Trucks	0	0	0	0	0	1	9	1	0	11	1	2	2	0	5	1	16	1	0	18	34
Articulated Trucks	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	4	1	0	5	7
Total Entering Leg	0	0	1	0	1	1	13	1	0	15	2	2	3	0	7	1	22	2	0	25	48
Buses	0					3					0					4					7
Single-Unit Trucks	4					17					2					11					34
Articulated Trucks	1					5					0					1					7
Total Exiting Leg	5					25					2					16					48

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	6	0	0	6	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	4	0	0	4	6
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
Total	0	1	0	0	1	0	4	0	0	4	1	1	0	0	2	0	11	0	0	11	18
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	3	0	0	3	1	0	1	0	2	0	2	0	0	2	7
Grand Total	0	1	0	0	1	0	7	0	0	7	2	1	1	0	4	0	13	0	0	13	25
Approach %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	25.0	25.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	4.0	0.0	0.0	4.0	0.0	28.0	0.0	0.0	28.0	8.0	4.0	4.0	0.0	16.0	0.0	52.0	0.0	0.0	52.0	
Exiting Leg Total	1					15					1					8					25

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	6	0	0	6	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	4	0	0	4	6
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
7:45 AM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	1	0	0	1	0	4	0	0	4	1	1	0	0	2	0	11	0	0	11	18
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.333	0.000	0.000	0.333	0.250	0.250	0.000	0.000	0.250	0.000	0.458	0.000	0.000	0.458	0.750
Entering Leg	0	1	0	0	1	0	4	0	0	4	1	1	0	0	2	0	11	0	0	11	18
Exiting Leg	1					12					1					4					18
Total	2					16					3					15					36

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	1	0	0	1	0	0	0	0	0	0	9	0	0	9	10	
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	7	
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
7:45 AM	0	1	0	0	1	0	1	1	0	2	0	0	1	0	1	0	2	0	0	2	6	
Total	0	1	0	0	1	0	6	1	0	7	0	0	1	0	1	0	16	0	0	16	25	
8:00 AM	0	0	0	0	0	1	2	0	0	3	0	1	1	0	2	0	3	0	0	3	8	
8:15 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	1	3	0	0	4	6	
8:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	5	0	0	5	9	
8:45 AM	0	0	0	0	0	0	3	0	0	3	1	1	0	0	2	0	5	1	0	6	11	
Total	0	0	0	0	0	1	9	1	0	11	1	2	2	0	5	1	16	1	0	18	34	
Grand Total	0	1	0	0	1	1	15	2	0	18	1	2	3	0	6	1	32	1	0	34	59	
Approach %	0.0	100.0	0.0	0.0		5.6	83.3	11.1	0.0		16.7	33.3	50.0	0.0		2.9	94.1	2.9	0.0			
Total %	0.0	1.7	0.0	0.0	1.7	1.7	25.4	3.4	0.0	30.5	1.7	3.4	5.1	0.0	10.2	1.7	54.2	1.7	0.0	57.6		
Exiting Leg Total						4					33					4					18	59

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	1	2	0	0	3	0	1	1	0	2	0	3	0	0	3	8
8:15 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	1	3	0	0	4	6
8:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	5	0	0	5	9
8:45 AM	0	0	0	0	0	0	3	0	0	3	1	1	0	0	2	0	5	1	0	6	11
Total Volume	0	0	0	0	0	1	9	1	0	11	1	2	2	0	5	1	16	1	0	18	34
% Approach Total	0.0	0.0	0.0	0.0		9.1	81.8	9.1	0.0		20.0	40.0	40.0	0.0		5.6	88.9	5.6	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.250	0.000	0.917	0.250	0.500	0.500	0.000	0.625	0.250	0.800	0.250	0.000	0.750	0.773
Entering Leg	0					1					1					1					34
Exiting Leg	4					17					2					11					34
Total	4					28					7					29					68

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	1	0	0	1	1	
7:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	
Total	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	4	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3	
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	1	0	0	1	0	0	0	0	0	0	1	1	0	2	3	
8:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	4	1	0	5	7	
Grand Total	0	0	1	0	1	0	2	0	0	2	0	0	1	0	1	0	6	1	0	7	11	
Approach %	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	85.7	14.3	0.0			
Total %	0.0	0.0	9.1	0.0	9.1	0.0	18.2	0.0	0.0	18.2	0.0	0.0	9.1	0.0	9.1	0.0	54.5	9.1	0.0	63.6		
Exiting Leg Total						1					7					0					3	11

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	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	3	0	0	3	3	
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	1	0	0	1	0	0	0	0	0	0	1	1	0	2	3	
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	4	1	0	5	7	
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	4	1	0	5	7	
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	80.0	20.0	0.0			
PHF	0.000	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	0.250	0.000	0.333	0.250	0.000	0.417	0.583	
Entering Leg	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	4	1	0	5	7	
Exiting Leg						1					4					0					2	7
Total						1					5					1					7	14

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Baker Avenue							Main Street (Route 62)							Cottage Street							Main Street (Route 62)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	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	
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	
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	
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	2	2	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	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	1	
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3		
Grand Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3	3		
Approach %	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	66.7		
Exiting Leg Total	0							2							0							1							3

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

	Baker Avenue							Main Street (Route 62)							Cottage Street							Main Street (Route 62)							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	
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		
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	2	0	2		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
Total Volume	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3	3		
% Approach Total	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	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375			
Entering Leg	0							1							0							2							3
Exiting Leg	0							2							0							1							3
Total	0							3							0							3							6

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	
7:30 AM	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	0	0	1		
7:45 AM	0	0	0	0	1	1	2	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	
Total	0	0	0	0	1	2	3	0	0	0	0	0	2	2	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	7		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
8:30 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	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	4	
Total	0	0	0	0	1	2	3	0	0	0	0	0	1	1	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	7		
Grand Total	0	0	0	0	2	4	6	0	0	0	0	0	3	3	0	0	0	0	4	1	5	0	0	0	0	0	0	0	0	0	14		
Approach %	0	0	0	0	33.3	66.7		0	0	0	0	0	100		0	0	0	0	80	20		0	0	0	0	0	0	0					
Total %	0	0	0	0	14.3	28.6	42.9	0	0	0	0	0	21.4	21.4	0	0	0	0	28.6	7.14	35.7	0	0	0	0	0	0	0					
Exiting Leg Total	6							3							5							0							14				

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

	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	
7:30 AM	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	0	0	1		
7:45 AM	0	0	0	0	1	1	2	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	
Total Volume	0	0	0	0	1	2	3	0	0	0	0	0	2	2	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	7		
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	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	0.0					
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.375	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875				
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	0	2	2	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	7		
Exiting Leg	3							2							2							0							7				
Total	6							4							4							0							14				

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	45	13	18	0	76	7	182	2	0	191	1	6	27	0	34	3	99	19	0	121	422
4:15 PM	29	11	11	0	51	5	117	2	0	124	0	2	21	0	23	6	87	14	0	107	305
4:30 PM	41	12	24	0	77	11	170	2	0	183	0	15	44	0	59	9	100	4	0	113	432
4:45 PM	35	10	19	0	64	9	165	0	0	174	2	10	34	0	46	8	92	13	0	113	397
Total	150	46	72	0	268	32	634	6	0	672	3	33	126	0	162	26	378	50	0	454	1556
5:00 PM	22	16	24	0	62	3	140	0	0	143	2	4	40	0	46	9	129	7	0	145	396
5:15 PM	36	12	16	0	64	2	139	3	0	144	2	6	31	0	39	2	93	11	0	106	353
5:30 PM	17	17	11	0	45	5	127	0	0	132	0	3	25	0	28	12	98	9	0	119	324
5:45 PM	15	4	8	0	27	4	145	0	0	149	0	4	17	0	21	4	114	5	0	123	320
Total	90	49	59	0	198	14	551	3	0	568	4	17	113	0	134	27	434	32	0	493	1393
Grand Total	240	95	131	0	466	46	1185	9	0	1240	7	50	239	0	296	53	812	82	0	947	2949
Approach %	51.5	20.4	28.1	0.0		3.7	95.6	0.7	0.0		2.4	16.9	80.7	0.0		5.6	85.7	8.7	0.0		
Total %	8.1	3.2	4.4	0.0	15.8	1.6	40.2	0.3	0.0	42.0	0.2	1.7	8.1	0.0	10.0	1.8	27.5	2.8	0.0	32.1	
Exiting Leg Total	178					950					157					1664					2949
Cars	235	95	131	0	461	46	1174	9	0	1229	6	49	233	0	288	53	799	82	0	934	2912
% Cars	97.9	100.0	100.0	0.0	98.9	100.0	99.1	100.0	0.0	99.1	85.7	98.0	97.5	0.0	97.3	100.0	98.4	100.0	0.0	98.6	98.7
Exiting Leg Total	177					936					157					1642					2912
Heavy Vehicles	5	0	0	0	5	0	11	0	0	11	1	1	6	0	8	0	13	0	0	13	37
% Heavy Vehicles	2.1	0.0	0.0	0.0	1.1	0.0	0.9	0.0	0.0	0.9	14.3	2.0	2.5	0.0	2.7	0.0	1.6	0.0	0.0	1.4	1.3
Exiting Leg Total	1					14					0					22					37

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	41	12	24	0	77	11	170	2	0	183	0	15	44	0	59	9	100	4	0	113	432
4:45 PM	35	10	19	0	64	9	165	0	0	174	2	10	34	0	46	8	92	13	0	113	397
5:00 PM	22	16	24	0	62	3	140	0	0	143	2	4	40	0	46	9	129	7	0	145	396
5:15 PM	36	12	16	0	64	2	139	3	0	144	2	6	31	0	39	2	93	11	0	106	353
Total Volume	134	50	83	0	267	25	614	5	0	644	6	35	149	0	190	28	414	35	0	477	1578
% Approach Total	50.2	18.7	31.1	0.0		3.9	95.3	0.8	0.0		3.2	18.4	78.4	0.0		5.9	86.8	7.3	0.0		
PHF	0.817	0.781	0.865	0.000	0.867	0.568	0.903	0.417	0.000	0.880	0.750	0.583	0.847	0.000	0.805	0.778	0.802	0.673	0.000	0.822	0.913
Cars	133	50	83	0	266	25	611	5	0	641	6	34	144	0	184	28	406	35	0	469	1560
Cars %	99.3	100.0	100.0	0.0	99.6	100.0	99.5	100.0	0.0	99.5	100.0	97.1	96.6	0.0	96.8	100.0	98.1	100.0	0.0	98.3	98.9
Heavy Vehicles	1	0	0	0	1	0	3	0	0	3	0	1	5	0	6	0	8	0	0	8	18
Heavy Vehicles %	0.7	0.0	0.0	0.0	0.4	0.0	0.5	0.0	0.0	0.5	0.0	2.9	3.4	0.0	3.2	0.0	1.9	0.0	0.0	1.7	1.1
Cars Enter Leg	133	50	83	0	266	25	611	5	0	641	6	34	144	0	184	28	406	35	0	469	1560
Heavy Enter Leg	1	0	0	0	1	0	3	0	0	3	0	1	5	0	6	0	8	0	0	8	18
Total Entering Leg	134	50	83	0	267	25	614	5	0	644	6	35	149	0	190	28	414	35	0	477	1578
Cars Exiting Leg	94					495					83					888					1560
Heavy Exiting Leg	1					8					0					9					18
Total Exiting Leg	95					503					83					897					1578

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class: **Cars**



	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	42	13	18	0	73	7	179	2	0	188	0	6	26	0	32	3	95	19	0	117	410
4:15 PM	28	11	11	0	50	5	115	2	0	122	0	2	21	0	23	6	86	14	0	106	301
4:30 PM	40	12	24	0	76	11	168	2	0	181	0	15	42	0	57	9	96	4	0	109	423
4:45 PM	35	10	19	0	64	9	165	0	0	174	2	10	33	0	45	8	92	13	0	113	396
Total	145	46	72	0	263	32	627	6	0	665	2	33	122	0	157	26	369	50	0	445	1530
5:00 PM	22	16	24	0	62	3	139	0	0	142	2	4	39	0	45	9	127	7	0	143	392
5:15 PM	36	12	16	0	64	2	139	3	0	144	2	5	30	0	37	2	91	11	0	104	349
5:30 PM	17	17	11	0	45	5	126	0	0	131	0	3	25	0	28	12	98	9	0	119	323
5:45 PM	15	4	8	0	27	4	143	0	0	147	0	4	17	0	21	4	114	5	0	123	318
Total	90	49	59	0	198	14	547	3	0	564	4	16	111	0	131	27	430	32	0	489	1382
Grand Total	235	95	131	0	461	46	1174	9	0	1229	6	49	233	0	288	53	799	82	0	934	2912
Approach %	51.0	20.6	28.4	0.0		3.7	95.5	0.7	0.0		2.1	17.0	80.9	0.0		5.7	85.5	8.8	0.0		
Total %	8.1	3.3	4.5	0.0	15.8	1.6	40.3	0.3	0.0	42.2	0.2	1.7	8.0	0.0	9.9	1.8	27.4	2.8	0.0	32.1	
Exiting Leg Total	177					936					157					1642					2912

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	40	12	24	0	76	11	168	2	0	181	0	15	42	0	57	9	96	4	0	109	423
4:45 PM	35	10	19	0	64	9	165	0	0	174	2	10	33	0	45	8	92	13	0	113	396
5:00 PM	22	16	24	0	62	3	139	0	0	142	2	4	39	0	45	9	127	7	0	143	392
5:15 PM	36	12	16	0	64	2	139	3	0	144	2	5	30	0	37	2	91	11	0	104	349
Total Volume	133	50	83	0	266	25	611	5	0	641	6	34	144	0	184	28	406	35	0	469	1560
% Approach Total	50.0	18.8	31.2	0.0		3.9	95.3	0.8	0.0		3.3	18.5	78.3	0.0		6.0	86.6	7.5	0.0		
PHF	0.831	0.781	0.865	0.000	0.875	0.568	0.909	0.417	0.000	0.885	0.750	0.567	0.857	0.000	0.807	0.778	0.799	0.673	0.000	0.820	0.922
Entering Leg	133	50	83	0	266	25	611	5	0	641	6	34	144	0	184	28	406	35	0	469	1560
Exiting Leg	94					495					83					888					1560
Total	360					1136					267					1357					3120

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	3	0	0	0	3	0	3	0	0	3	1	0	1	0	2	0	4	0	0	4	12
4:15 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	2	0	2	0	4	0	0	4	9
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	5	0	0	0	5	0	7	0	0	7	1	0	4	0	5	0	9	0	0	9	26
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	0	0	2	4
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	4	0	0	4	0	1	2	0	3	0	4	0	0	4	11
Grand Total	5	0	0	0	5	0	11	0	0	11	1	1	6	0	8	0	13	0	0	13	37
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		12.5	12.5	75.0	0.0		0.0	100.0	0.0	0.0		
Total %	13.5	0.0	0.0	0.0	13.5	0.0	29.7	0.0	0.0	29.7	2.7	2.7	16.2	0.0	21.6	0.0	35.1	0.0	0.0	35.1	
Exiting Leg Total					1					14					0					22	37
Buses	2	0	0	0	2	0	6	0	0	6	1	0	0	0	1	0	1	0	0	1	10
% Buses	40.0	0.0	0.0	0.0	40.0	0.0	54.5	0.0	0.0	54.5	100.0	0.0	0.0	0.0	12.5	0.0	7.7	0.0	0.0	7.7	27.0
Exiting Leg Total					0					2					0					8	10
Single-Unit Trucks	3	0	0	0	3	0	3	0	0	3	0	1	6	0	7	0	12	0	0	12	25
% Single-Unit	60.0	0.0	0.0	0.0	60.0	0.0	27.3	0.0	0.0	27.3	0.0	100.0	100.0	0.0	87.5	0.0	92.3	0.0	0.0	92.3	67.6
Exiting Leg Total					1					12					0					12	25
Articulated Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
Exiting Leg Total					0					0					0					2	2

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

4:00 PM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	3	0	0	0	3	0	3	0	0	3	1	0	1	0	2	0	4	0	0	4	12
4:15 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	2	0	2	0	4	0	0	4	9
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total Volume	5	0	0	0	5	0	7	0	0	7	1	0	4	0	5	0	9	0	0	9	26
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		20.0	0.0	80.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.417	0.000	0.000	0.000	0.417	0.000	0.583	0.000	0.000	0.583	0.250	0.000	0.500	0.000	0.625	0.000	0.563	0.000	0.000	0.563	0.542
Buses	2	0	0	0	2	0	5	0	0	5	1	0	0	0	1	0	1	0	0	1	9
Buses %	40.0	0.0	0.0	0.0	40.0	0.0	71.4	0.0	0.0	71.4	100.0	0.0	0.0	0.0	20.0	0.0	11.1	0.0	0.0	11.1	34.6
Single-Unit Trucks	3	0	0	0	3	0	2	0	0	2	0	0	4	0	4	0	8	0	0	8	17
Single-Unit %	60.0	0.0	0.0	0.0	60.0	0.0	28.6	0.0	0.0	28.6	0.0	0.0	100.0	0.0	80.0	0.0	88.9	0.0	0.0	88.9	65.4
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	2	0	0	0	2	0	5	0	0	5	1	0	0	0	1	0	1	0	0	1	9
Single-Unit Trucks	3	0	0	0	3	0	2	0	0	2	0	0	4	0	4	0	8	0	0	8	17
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	5	0	0	0	5	0	7	0	0	7	1	0	4	0	5	0	9	0	0	9	26
Buses					0					2					0					7	9
Single-Unit Trucks					0					8					0					9	17
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					10					0					16	26

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	2	0	0	0	2	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0	6
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	2	0	5	0	0	5	1	0	0	0	1	0	1	0	0	1	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	2	0	0	0	2	0	6	0	0	6	1	0	0	0	1	0	1	0	0	1	10
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	20.0	0.0	0.0	0.0	20.0	0.0	60.0	0.0	0.0	60.0	10.0	0.0	0.0	0.0	10.0	0.0	10.0	0.0	0.0	10.0	
Exiting Leg Total	0					2					0					8					10

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	2	0	0	0	2	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0	6
4:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	0	2	0	5	0	0	5	1	0	0	0	1	0	1	0	0	1	9
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.417	0.000	0.000	0.417	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.375
Entering Leg	2	0	0	0	2	0	5	0	0	5	1	0	0	0	1	0	1	0	0	1	9
Exiting Leg	0					2					0					7					9
Total	2					7					1					8					18

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	6
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	2	0	2	0	3	0	0	3	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	3	0	0	0	3	0	2	0	0	2	0	0	4	0	4	0	8	0	0	8	17
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	0	0	2	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	1	2	0	3	0	4	0	0	4	8
Grand Total	3	0	0	0	3	0	3	0	0	3	0	1	6	0	7	0	12	0	0	12	25
Approach %	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	14.3	85.7	0.0		0.0	100.0	0.0	0.0		
Total %	12.0	0.0	0.0	0.0	12.0	0.0	12.0	0.0	0.0	12.0	0.0	4.0	24.0	0.0	28.0	0.0	48.0	0.0	0.0	48.0	
Exiting Leg Total	1					12					0					12					25

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

4:00 PM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	6
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	2	0	2	0	3	0	0	3	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total Volume	3	0	0	0	3	0	2	0	0	2	0	0	4	0	4	0	8	0	0	8	17
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.750	0.000	0.000	0.000	0.750	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.500	0.000	0.500	0.000	0.500	0.000	0.000	0.500	0.531
Entering Leg	3	0	0	0	3	0	2	0	0	2	0	0	4	0	4	0	8	0	0	8	17
Exiting Leg	0					8					0					9					17
Total	3					10					4					17					34

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Approach %	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	0.0	0.0	0.0	0.0	0.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					2					2

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

4:45 PM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	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	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg	0					0					0					2					2
Total	0					2					0					2					4

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Baker Avenue							Main Street (Route 62)							Cottage Street							Main Street (Route 62)							Total			
	from North							from East							from South							from West										
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
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	1	1	0	0	0	0	2	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4	
Grand Total	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	4	6	
Approach %	0.0	100.0	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	0.0	0.0		0.0	50.0	50.0	0.0	0.0	0.0				
Total %	0.0	16.7	0.0	0.0	0.0	0.0	16.7	0.0	16.7	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	33.3	33.3	0.0	0.0	0.0		66.7			
Exiting Leg Total	2							2							1							1							6			

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

4:45 PM	Baker Avenue							Main Street (Route 62)							Cottage Street							Main Street (Route 62)							Total			
	from North							from East							from South							from West										
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total				
4:45 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	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total Volume	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	4
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	33.3	66.7	0.0	0.0	0.0				
PHF	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.250	0.500	0.000	0.000	0.000	0.750	0.500		
Entering Leg	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	4
Exiting Leg	2							1							1							0							4			
Total	3							1							1							3							8			

PDI File #: **228427 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Baker Avenue							Main Street (Route 62)							Cottage Street							Main Street (Route 62)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	5
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	1	0	1	6
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	6
Total	0	0	0	0	5	2	7	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	2	3	5	19
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	3	0	3	8
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	7	9	0	0	0	0	3	1	4	15
Grand Total	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	6	10	16	0	0	0	0	5	4	9	34
Approach %	0	0	0	0	55.6	44.4		0	0	0	0	0	0	0	0	0	0	0	37.5	62.5		0	0	0	0	55.6	44.4		
Total %	0	0	0	0	14.7	11.8	26.5	0	0	0	0	0	0	0	0	0	0	0	17.6	29.4	47.1	0	0	0	0	14.7	11.8	26.5	
Exiting Leg Total	9							0							16							9							34

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

4:00 PM	Baker Avenue							Main Street (Route 62)							Cottage Street							Main Street (Route 62)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	5
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	1	0	1	6
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	6
Total Volume	0	0	0	0	5	2	7	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	2	3	5	19
% Approach Total	0.0	0.0	0.0	0.0	71.4	28.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.1	42.9		0.0	0.0	0.0	0.0	40.0	60.0		
PHF	0.000	0.000	0.000	0.000	0.625	0.500	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.375	0.438	0.000	0.000	0.000	0.000	0.500	0.250	0.313	0.792
Entering Leg	0	0	0	0	5	2	7	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	2	3	5	19
Exiting Leg	7							0							7							5							19
Total	14							0							14							10							38

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					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	5	0	0	5	0	0	0	0	0	0	11	5	0	16	2	0	0	0	2	23
7:15 AM	0	7	0	0	7	0	0	0	0	0	0	35	19	0	54	2	0	0	0	2	63
7:30 AM	1	7	0	0	8	0	0	0	0	0	0	33	19	0	52	1	0	0	0	1	61
7:45 AM	1	11	0	0	12	0	0	0	0	0	0	47	28	0	75	3	0	0	0	3	90
Total	2	30	0	0	32	0	0	0	0	0	0	126	71	0	197	8	0	0	0	8	237
8:00 AM	0	14	0	0	14	0	0	0	0	0	0	47	15	0	62	6	0	0	0	6	82
8:15 AM	1	27	0	0	28	0	0	0	0	0	0	63	19	0	82	5	0	1	0	6	116
8:30 AM	1	18	1	0	20	0	0	1	0	1	0	33	23	0	56	12	0	2	0	14	91
8:45 AM	1	20	0	0	21	0	0	1	0	1	0	45	34	0	79	6	0	1	0	7	108
Total	3	79	1	0	83	0	0	2	0	2	0	188	91	0	279	29	0	4	0	33	397
Grand Total	5	109	1	0	115	0	0	2	0	2	0	314	162	0	476	37	0	4	0	41	634
Approach %	4.3	94.8	0.9	0.0		0.0	0.0	100.0	0.0		0.0	66.0	34.0	0.0		90.2	0.0	9.8	0.0		
Total %	0.8	17.2	0.2	0.0	18.1	0.0	0.0	0.3	0.0	0.3	0.0	49.5	25.6	0.0	75.1	5.8	0.0	0.6	0.0	6.5	
Exiting Leg Total	318					1					148					167					634
Cars	5	107	0	0	112	0	0	0	0	0	0	307	162	0	469	37	0	4	0	41	622
% Cars	100.0	98.2	0.0	0.0	97.4	0.0	0.0	0.0	0.0	0.0	0.0	97.8	100.0	0.0	98.5	100.0	0.0	100.0	0.0	100.0	98.1
Exiting Leg Total	311					0					144					167					622
Heavy Vehicles	0	2	1	0	3	0	0	2	0	2	0	7	0	0	7	0	0	0	0	0	12
% Heavy Vehicles	0.0	1.8	100.0	0.0	2.6	0.0	0.0	100.0	0.0	100.0	0.0	2.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.9
Exiting Leg Total	7					1					4					0					12

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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					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	14	0	0	14	0	0	0	0	0	0	47	15	0	62	6	0	0	0	6	82
8:15 AM	1	27	0	0	28	0	0	0	0	0	0	63	19	0	82	5	0	1	0	6	116
8:30 AM	1	18	1	0	20	0	0	1	0	1	0	33	23	0	56	12	0	2	0	14	91
8:45 AM	1	20	0	0	21	0	0	1	0	1	0	45	34	0	79	6	0	1	0	7	108
Total Volume	3	79	1	0	83	0	0	2	0	2	0	188	91	0	279	29	0	4	0	33	397
% Approach Total	3.6	95.2	1.2	0.0		0.0	0.0	100.0	0.0		0.0	67.4	32.6	0.0		87.9	0.0	12.1	0.0		
PHF	0.750	0.731	0.250	0.000	0.741	0.000	0.000	0.500	0.000	0.500	0.000	0.746	0.669	0.000	0.851	0.604	0.000	0.500	0.000	0.589	0.856
Cars	3	79	0	0	82	0	0	0	0	0	0	182	91	0	273	29	0	4	0	33	388
Cars %	100.0	100.0	0.0	0.0	98.8	0.0	0.0	0.0	0.0	0.0	0.0	96.8	100.0	0.0	97.8	100.0	0.0	100.0	0.0	100.0	97.7
Heavy Vehicles	0	0	1	0	1	0	0	2	0	2	0	6	0	0	6	0	0	0	0	0	9
Heavy Vehicles %	0.0	0.0	100.0	0.0	1.2	0.0	0.0	100.0	0.0	100.0	0.0	3.2	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	2.3
Cars Enter Leg	3	79	0	0	82	0	0	0	0	0	0	182	91	0	273	29	0	4	0	33	388
Heavy Enter Leg	0	0	1	0	1	0	0	2	0	2	0	6	0	0	6	0	0	0	0	0	9
Total Entering Leg	3	79	1	0	83	0	0	2	0	2	0	188	91	0	279	29	0	4	0	33	397
Cars Exiting Leg	186					0					108					94					388
Heavy Exiting Leg	6					1					2					0					9
Total Exiting Leg	192					1					110					94					397

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					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	5	0	0	5	0	0	0	0	0	0	11	5	0	16	2	0	0	0	2	23
7:15 AM	0	7	0	0	7	0	0	0	0	0	0	34	19	0	53	2	0	0	0	2	62
7:30 AM	1	7	0	0	8	0	0	0	0	0	0	33	19	0	52	1	0	0	0	1	61
7:45 AM	1	9	0	0	10	0	0	0	0	0	0	47	28	0	75	3	0	0	0	3	88
Total	2	28	0	0	30	0	0	0	0	0	0	125	71	0	196	8	0	0	0	8	234
8:00 AM	0	14	0	0	14	0	0	0	0	0	0	45	15	0	60	6	0	0	0	6	80
8:15 AM	1	27	0	0	28	0	0	0	0	0	0	62	19	0	81	5	0	1	0	6	115
8:30 AM	1	18	0	0	19	0	0	0	0	0	0	32	23	0	55	12	0	2	0	14	88
8:45 AM	1	20	0	0	21	0	0	0	0	0	0	43	34	0	77	6	0	1	0	7	105
Total	3	79	0	0	82	0	0	0	0	0	0	182	91	0	273	29	0	4	0	33	388
Grand Total	5	107	0	0	112	0	0	0	0	0	0	307	162	0	469	37	0	4	0	41	622
Approach %	4.5	95.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	65.5	34.5	0.0		90.2	0.0	9.8	0.0		
Total %	0.8	17.2	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	49.4	26.0	0.0	75.4	5.9	0.0	0.6	0.0	6.6	
Exiting Leg Total	311					0					144					167					622

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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					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	14	0	0	14	0	0	0	0	0	0	45	15	0	60	6	0	0	0	6	80
8:15 AM	1	27	0	0	28	0	0	0	0	0	0	62	19	0	81	5	0	1	0	6	115
8:30 AM	1	18	0	0	19	0	0	0	0	0	0	32	23	0	55	12	0	2	0	14	88
8:45 AM	1	20	0	0	21	0	0	0	0	0	0	43	34	0	77	6	0	1	0	7	105
Total Volume	3	79	0	0	82	0	0	0	0	0	0	182	91	0	273	29	0	4	0	33	388
% Approach Total	3.7	96.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	66.7	33.3	0.0		87.9	0.0	12.1	0.0		
PHF	0.750	0.731	0.000	0.000	0.732	0.000	0.000	0.000	0.000	0.000	0.000	0.734	0.669	0.000	0.843	0.604	0.000	0.500	0.000	0.589	0.843
Entering Leg	3	79	0	0	82	0	0	0	0	0	0	182	91	0	273	29	0	4	0	33	388
Exiting Leg	186					0					108					94					388
Total	268					0					381					127					776

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0
Total	0	0	1	0	1	0	0	2	0	2	0	6	0	0	6	0	0	0	0	0	0
Grand Total	0	2	1	0	3	0	0	2	0	2	0	7	0	0	7	0	0	0	0	0	0
Approach %	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		
Total %	0.0	16.7	8.3	0.0	25.0	0.0	0.0	16.7	0.0	16.7	0.0	58.3	0.0	0.0	58.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	7					1					4					0					12
Buses	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
% Buses	0.0	50.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	1					0					1					0					2
Single-Unit Trucks	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0
% Single-Unit	0.0	50.0	0.0	0.0	33.3	0.0	0.0	50.0	0.0	50.0	0.0	71.4	0.0	0.0	71.4	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	5					0					2					0					7
Articulated Trucks	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0
% Articulated	0.0	0.0	100.0	0.0	33.3	0.0	0.0	50.0	0.0	50.0	0.0	14.3	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	1					1					1					0					3

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

8:00 AM	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
8:30 AM	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0
Total Volume	0	0	1	0	1	0	0	2	0	2	0	6	0	0	6	0	0	0	0	0	0
% Approach Total	0.0	0.0	100.0	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		
PHF	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.500	0.000	0.500	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.750
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	0	0	0	0	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	83.3	0.0	0.0	83.3	0.0	0.0	0.0	0.0	0.0	66.7
Articulated Trucks	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0
Articulated %	0.0	0.0	100.0	0.0	100.0	0.0	0.0	50.0	0.0	50.0	0.0	16.7	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	33.3
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	0	0	0	0	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0
Articulated Trucks	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0
Total Entering Leg	0	0	1	0	1	0	0	2	0	2	0	6	0	0	6	0	0	0	0	0	0
Buses	0					0					0					0					0
Single-Unit Trucks	5					0					1					0					6
Articulated Trucks	1					1					1					0					3
Total Exiting Leg	6					1					2					0					9

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					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	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	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
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
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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	100.0	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	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	
Exiting Leg Total						1						0						1						0	2	

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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					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	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	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	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg						1						0						1						0	2	
Total						2						0						2						0	4	

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					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	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	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	0	0	0	0	0	1
8:30 AM	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	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	6
Grand Total	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	7
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	14.3	0.0	0.0	14.3	0.0	0.0	14.3	0.0	14.3	0.0	71.4	0.0	0.0	71.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						5					0					2					0	7				

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

8:00 AM	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	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	0	0	0	0	0	1
8:30 AM	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	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	6
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	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	0.250	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	
Entering Leg	0					0					0					0					6					
Exiting Leg	5					0					1					0					6					
Total	5					1					6					0					12					

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	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
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	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3
Grand Total	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3
Approach %	0.0	0.0	100.0	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		
Total %	0.0	0.0	33.3	0.0	33.3	0.0	0.0	33.3	0.0	33.3	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	1					1					1					0					3

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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	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	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3
% Approach Total	0.0	0.0	100.0	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		
PHF	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3
Exiting Leg	1					1					1					0					3
Total	2					2					2					0					6

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Baker Avenue							driveway							Baker Avenue							#300 Baker Ave driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0							0							0							0							0

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

7:00 AM	Baker Avenue							driveway							Baker Avenue							#300 Baker Ave driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	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	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Baker Avenue							driveway							Baker Avenue							#300 Baker Ave driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1	0	1	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	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	1	0	1	0	1	1	
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	
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	1	0	1	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	
Total	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	0	1	1	
Grand Total	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	0	2	2	
Approach %	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	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	0	100	0	
Exiting Leg Total	0							0							0							2							2

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

	Baker Avenue							driveway							Baker Avenue							#300 Baker Ave driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	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	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1	0	1	0	1	1	
Total Volume	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	0	2	2	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.500		
Entering Leg	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	0	2	2	
Exiting Leg	0							0							0							2							2
Total	0							0							0							4							4

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	2	36	0	0	38	0	0	0	0	0	0	22	9	0	31	29	0	1	0	30	99
4:15 PM	0	32	0	0	32	0	0	0	0	0	0	17	1	0	18	24	0	0	0	24	74
4:30 PM	1	47	0	0	48	0	0	0	0	0	0	19	11	0	30	31	0	0	0	31	109
4:45 PM	1	35	0	0	36	0	0	0	0	0	0	20	8	0	28	14	0	0	0	14	78
Total	4	150	0	0	154	0	0	0	0	0	0	78	29	0	107	98	0	1	0	99	360
5:00 PM	1	30	0	0	31	0	0	0	0	0	0	9	2	0	11	27	0	0	0	27	69
5:15 PM	0	38	0	0	38	0	0	0	0	0	0	15	9	0	24	15	0	0	0	15	77
5:30 PM	0	21	0	0	21	0	0	0	0	0	0	13	4	0	17	17	0	1	0	18	56
5:45 PM	0	14	0	0	14	0	0	0	0	0	0	4	4	0	8	9	0	1	0	10	32
Total	1	103	0	0	104	0	0	0	0	0	0	41	19	0	60	68	0	2	0	70	234
Grand Total	5	253	0	0	258	0	0	0	0	0	0	119	48	0	167	166	0	3	0	169	594
Approach %	1.9	98.1	0.0	0.0		0.0	0.0	0.0	0.0		0.0	71.3	28.7	0.0		98.2	0.0	1.8	0.0		
Total %	0.8	42.6	0.0	0.0	43.4	0.0	0.0	0.0	0.0	0.0	0.0	20.0	8.1	0.0	28.1	27.9	0.0	0.5	0.0	28.5	
Exiting Leg Total					122					0					419					53	594
Cars	5	250	0	0	255	0	0	0	0	0	0	118	48	0	166	165	0	2	0	167	588
% Cars	100.0	98.8	0.0	0.0	98.8	0.0	0.0	0.0	0.0	0.0	0.0	99.2	100.0	0.0	99.4	99.4	0.0	66.7	0.0	98.8	99.0
Exiting Leg Total					120					0					415					53	588
Heavy Vehicles	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	6
% Heavy Vehicles	0.0	1.2	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.6	0.6	0.0	33.3	0.0	1.2	1.0
Exiting Leg Total					2					0					4					0	6

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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	2	36	0	0	38	0	0	0	0	0	0	22	9	0	31	29	0	1	0	30	99
4:15 PM	0	32	0	0	32	0	0	0	0	0	0	17	1	0	18	24	0	0	0	24	74
4:30 PM	1	47	0	0	48	0	0	0	0	0	0	19	11	0	30	31	0	0	0	31	109
4:45 PM	1	35	0	0	36	0	0	0	0	0	0	20	8	0	28	14	0	0	0	14	78
Total Volume	4	150	0	0	154	0	0	0	0	0	0	78	29	0	107	98	0	1	0	99	360
% Approach Total	2.6	97.4	0.0	0.0		0.0	0.0	0.0	0.0		0.0	72.9	27.1	0.0		99.0	0.0	1.0	0.0		
PHF	0.500	0.798	0.000	0.000	0.802	0.000	0.000	0.000	0.000	0.000	0.000	0.886	0.659	0.000	0.863	0.790	0.000	0.250	0.000	0.798	0.826
Cars	4	147	0	0	151	0	0	0	0	0	0	78	29	0	107	97	0	1	0	98	356
Cars %	100.0	98.0	0.0	0.0	98.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	99.0	0.0	100.0	0.0	99.0	98.9
Heavy Vehicles	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
Heavy Vehicles %	0.0	2.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	1.1
Cars Enter Leg	4	147	0	0	151	0	0	0	0	0	0	78	29	0	107	97	0	1	0	98	356
Heavy Enter Leg	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
Total Entering Leg	4	150	0	0	154	0	0	0	0	0	0	78	29	0	107	98	0	1	0	99	360
Cars Exiting Leg					79					0					244					33	356
Heavy Exiting Leg					0					0					4					0	4
Total Exiting Leg					79					0					248					33	360

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	2	34	0	0	36	0	0	0	0	0	0	22	9	0	31	28	0	1	0	29	96	
4:15 PM	0	31	0	0	31	0	0	0	0	0	0	17	1	0	18	24	0	0	0	24	73	
4:30 PM	1	47	0	0	48	0	0	0	0	0	0	19	11	0	30	31	0	0	0	31	109	
4:45 PM	1	35	0	0	36	0	0	0	0	0	0	20	8	0	28	14	0	0	0	14	78	
Total	4	147	0	0	151	0	0	0	0	0	0	78	29	0	107	97	0	1	0	98	356	
5:00 PM	1	30	0	0	31	0	0	0	0	0	0	9	2	0	11	27	0	0	0	27	69	
5:15 PM	0	38	0	0	38	0	0	0	0	0	0	14	9	0	23	15	0	0	0	15	76	
5:30 PM	0	21	0	0	21	0	0	0	0	0	0	13	4	0	17	17	0	1	0	18	56	
5:45 PM	0	14	0	0	14	0	0	0	0	0	0	4	4	0	8	9	0	0	0	9	31	
Total	1	103	0	0	104	0	0	0	0	0	0	40	19	0	59	68	0	1	0	69	232	
Grand Total	5	250	0	0	255	0	0	0	0	0	0	118	48	0	166	165	0	2	0	167	588	
Approach %	2.0	98.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	71.1	28.9	0.0		98.8	0.0	1.2	0.0			
Total %	0.9	42.5	0.0	0.0	43.4	0.0	0.0	0.0	0.0	0.0	0.0	20.1	8.2	0.0	28.2	28.1	0.0	0.3	0.0		28.4	
Exiting Leg Total					120					0					415						53	588

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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	2	34	0	0	36	0	0	0	0	0	0	22	9	0	31	28	0	1	0	29	96
4:15 PM	0	31	0	0	31	0	0	0	0	0	0	17	1	0	18	24	0	0	0	24	73
4:30 PM	1	47	0	0	48	0	0	0	0	0	0	19	11	0	30	31	0	0	0	31	109
4:45 PM	1	35	0	0	36	0	0	0	0	0	0	20	8	0	28	14	0	0	0	14	78
Total Volume	4	147	0	0	151	0	0	0	0	0	0	78	29	0	107	97	0	1	0	98	356
% Approach Total	2.6	97.4	0.0	0.0		0.0	0.0	0.0	0.0		0.0	72.9	27.1	0.0		99.0	0.0	1.0	0.0		
PHF	0.500	0.782	0.000	0.000	0.786	0.000	0.000	0.000	0.000	0.000	0.000	0.886	0.659	0.000	0.863	0.782	0.000	0.250	0.000	0.790	0.817
Entering Leg	4	147	0	0	151	0	0	0	0	0	0	78	29	0	107	97	0	1	0	98	356
Exiting Leg					79					0					244					33	356
Total					230					0					351					131	712

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
Grand Total	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	6
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	16.7	16.7	0.0	16.7	0.0	33.3	
Exiting Leg Total	2					0					4					0					6
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
% Buses	0.0	33.3	0.0	0.0	33.3	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	50.0	33.3
Exiting Leg Total	0					0					2					0					2
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	4
% Single-Unit	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	50.0	66.7
Exiting Leg Total	2					0					2					0					4
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 04:00 PM to 06:00 PM begins at:

4:00 PM	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
% Approach Total	0.0	100.0	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		
PHF	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.333
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Buses %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	50.0
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Single-Unit %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Single-Unit Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
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	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
Buses	0					0					2					0					2
Single-Unit Trucks	0					0					2					0					2
Articulated Trucks	0					0					0					0					0
Total Exiting Leg	0					0					4					0					4

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Approach %	0.0	100.0	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		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	
Exiting Leg Total	0					0					2					0					2

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

4:00 PM	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
% Approach Total	0.0	100.0	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		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Exiting Leg	0					0					2					0					2
Total	1					0					2					1					4

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	2
Grand Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	4
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	25.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	0.0	25.0	0.0	25.0	0.0	0.0	25.0	0.0	25.0	
Exiting Leg Total	2					0					2					0					4					

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

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	
Entering Leg	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg	0					0					2					0					2					
Total	2					0					2					0					4					

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0	

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

4:00 PM	Baker Avenue					driveway					Baker Avenue					#300 Baker Ave driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0	
Total	0					0					0					0					0	

PDI File #: **228427 B**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: driveway W: #300 Baker Ave driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Baker Avenue							driveway							Baker Avenue							#300 Baker Ave driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
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	1	4	5	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	80		
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	20	80	100	
Exiting Leg Total	0							0							0							5	5						

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

	Baker Avenue							driveway							Baker Avenue							#300 Baker Ave driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	20.0	80.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.625	0.625
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5
Exiting Leg	0							0							0							5	5						
Total	0							0							0							10	10						

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	20	3	0	23	19	240	0	0	259	0	1	1	0	2	43	351	79	0	473	757
7:15 AM	0	29	1	0	30	21	268	0	0	289	2	3	4	0	9	39	353	91	0	483	811
7:30 AM	0	27	1	0	28	21	276	0	0	297	1	6	4	0	11	74	318	104	0	496	832
7:45 AM	0	33	2	0	35	23	265	0	0	288	3	6	15	0	24	78	327	95	0	500	847
Total	0	109	7	0	116	84	1049	0	0	1133	6	16	24	0	46	234	1349	369	0	1952	3247
8:00 AM	0	33	3	0	36	24	236	0	0	260	4	6	26	0	36	54	322	80	1	457	789
8:15 AM	0	32	3	0	35	20	246	0	0	266	7	7	26	0	40	59	322	78	0	459	800
8:30 AM	0	32	6	0	38	22	239	0	0	261	10	5	20	0	35	50	317	52	0	419	753
8:45 AM	0	27	3	0	30	20	225	0	0	245	3	10	21	0	34	43	362	67	0	472	781
Total	0	124	15	0	139	86	946	0	0	1032	24	28	93	0	145	206	1323	277	1	1807	3123
Grand Total	0	233	22	0	255	170	1995	0	0	2165	30	44	117	0	191	440	2672	646	1	3759	6370
Approach %	0.0	91.4	8.6	0.0		7.9	92.1	0.0	0.0		15.7	23.0	61.3	0.0		11.7	71.1	17.2	0.0		
Total %	0.0	3.7	0.3	0.0	4.0	2.7	31.3	0.0	0.0	34.0	0.5	0.7	1.8	0.0	3.0	6.9	41.9	10.1	0.0	59.0	
Exiting Leg Total					860					2724					673					2113	6370
Cars	0	231	19	0	250	167	1898	0	0	2065	30	41	114	0	185	435	2555	632	1	3623	6123
% Cars	0.0	99.1	86.4	0.0	98.0	98.2	95.1	0.0	0.0	95.4	100.0	93.2	97.4	0.0	96.9	98.9	95.6	97.8	100.0	96.4	96.1
Exiting Leg Total					840					2604					666					2013	6123
Heavy Vehicles	0	2	3	0	5	3	97	0	0	100	0	3	3	0	6	5	117	14	0	136	247
% Heavy Vehicles	0.0	0.9	13.6	0.0	2.0	1.8	4.9	0.0	0.0	4.6	0.0	6.8	2.6	0.0	3.1	1.1	4.4	2.2	0.0	3.6	3.9
Exiting Leg Total					20					120					7					100	247

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
7:15 AM	0	29	1	0	30	21	268	0	0	289	2	3	4	0	9	39	353	91	0	483	811
7:30 AM	0	27	1	0	28	21	276	0	0	297	1	6	4	0	11	74	318	104	0	496	832
7:45 AM	0	33	2	0	35	23	265	0	0	288	3	6	15	0	24	78	327	95	0	500	847
8:00 AM	0	33	3	0	36	24	236	0	0	260	4	6	26	0	36	54	322	80	1	457	789
Total Volume	0	122	7	0	129	89	1045	0	0	1134	10	21	49	0	80	245	1320	370	1	1936	3279
% Approach Total	0.0	94.6	5.4	0.0		7.8	92.2	0.0	0.0		12.5	26.3	61.3	0.0		12.7	68.2	19.1	0.1		
PHF	0.000	0.924	0.583	0.000	0.896	0.927	0.947	0.000	0.000	0.955	0.625	0.875	0.471	0.000	0.556	0.785	0.935	0.889	0.250	0.968	0.968
Cars	0	121	6	0	127	88	997	0	0	1085	10	19	46	0	75	242	1267	363	1	1873	3160
Cars %	0.0	99.2	85.7	0.0	98.4	98.9	95.4	0.0	0.0	95.7	100.0	90.5	93.9	0.0	93.8	98.8	96.0	98.1	100.0	96.7	96.4
Heavy Vehicles	0	1	1	0	2	1	48	0	0	49	0	2	3	0	5	3	53	7	0	63	119
Heavy Vehicles %	0.0	0.8	14.3	0.0	1.6	1.1	4.6	0.0	0.0	4.3	0.0	9.5	6.1	0.0	6.3	1.2	4.0	1.9	0.0	3.3	3.6
Cars Enter Leg	0	121	6	0	127	88	997	0	0	1085	10	19	46	0	75	242	1267	363	1	1873	3160
Heavy Enter Leg	0	1	1	0	2	1	48	0	0	49	0	2	3	0	5	3	53	7	0	63	119
Total Entering Leg	0	122	7	0	129	89	1045	0	0	1134	10	21	49	0	80	245	1320	370	1	1936	3279
Cars Exiting Leg					470					1283					363					1044	3160
Heavy Exiting Leg					10					54					4					51	119
Total Exiting Leg					480					1337					367					1095	3279

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	19	2	0	21	19	232	0	0	251	0	1	1	0	2	43	339	75	0	457	731
7:15 AM	0	29	1	0	30	21	262	0	0	283	2	2	4	0	8	39	346	90	0	475	796
7:30 AM	0	26	1	0	27	21	266	0	0	287	1	6	4	0	11	73	309	102	0	484	809
7:45 AM	0	33	2	0	35	23	245	0	0	268	3	6	14	0	23	78	306	93	0	477	803
Total	0	107	6	0	113	84	1005	0	0	1089	6	15	23	0	44	233	1300	360	0	1893	3139
8:00 AM	0	33	2	0	35	23	224	0	0	247	4	5	24	0	33	52	306	78	1	437	752
8:15 AM	0	32	2	0	34	18	231	0	0	249	7	7	26	0	40	59	303	76	0	438	761
8:30 AM	0	32	6	0	38	22	228	0	0	250	10	5	20	0	35	49	300	52	0	401	724
8:45 AM	0	27	3	0	30	20	210	0	0	230	3	9	21	0	33	42	346	66	0	454	747
Total	0	124	13	0	137	83	893	0	0	976	24	26	91	0	141	202	1255	272	1	1730	2984
Grand Total	0	231	19	0	250	167	1898	0	0	2065	30	41	114	0	185	435	2555	632	1	3623	6123
Approach %	0.0	92.4	7.6	0.0		8.1	91.9	0.0	0.0		16.2	22.2	61.6	0.0		12.0	70.5	17.4	0.0		
Total %	0.0	3.8	0.3	0.0	4.1	2.7	31.0	0.0	0.0	33.7	0.5	0.7	1.9	0.0	3.0	7.1	41.7	10.3	0.0	59.2	
Exiting Leg Total	840					2604					666					2013					6123

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
7:15 AM	0	29	1	0	30	21	262	0	0	283	2	2	4	0	8	39	346	90	0	475	796
7:30 AM	0	26	1	0	27	21	266	0	0	287	1	6	4	0	11	73	309	102	0	484	809
7:45 AM	0	33	2	0	35	23	245	0	0	268	3	6	14	0	23	78	306	93	0	477	803
8:00 AM	0	33	2	0	35	23	224	0	0	247	4	5	24	0	33	52	306	78	1	437	752
Total Volume	0	121	6	0	127	88	997	0	0	1085	10	19	46	0	75	242	1267	363	1	1873	3160
% Approach Total	0.0	95.3	4.7	0.0		8.1	91.9	0.0	0.0		13.3	25.3	61.3	0.0		12.9	67.6	19.4	0.1		
PHF	0.000	0.917	0.750	0.000	0.907	0.957	0.937	0.000	0.000	0.945	0.625	0.792	0.479	0.000	0.568	0.776	0.915	0.890	0.250	0.967	0.977
Entering Leg	0	121	6	0	127	88	997	0	0	1085	10	19	46	0	75	242	1267	363	1	1873	3160
Exiting Leg	470					1283					363					1044					3160
Total	597					2368					438					2917					6320

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	1	1	0	2	0	8	0	0	8	0	0	0	0	0	0	12	4	0	16	26
7:15 AM	0	0	0	0	0	0	6	0	0	6	0	1	0	0	1	0	7	1	0	8	15
7:30 AM	0	1	0	0	1	0	10	0	0	10	0	0	0	0	0	1	9	2	0	12	23
7:45 AM	0	0	0	0	0	0	20	0	0	20	0	0	1	0	1	0	21	2	0	23	44
Total	0	2	1	0	3	0	44	0	0	44	0	1	1	0	2	1	49	9	0	59	108
8:00 AM	0	0	1	0	1	1	12	0	0	13	0	1	2	0	3	2	16	2	0	20	37
8:15 AM	0	0	1	0	1	2	15	0	0	17	0	0	0	0	0	0	19	2	0	21	39
8:30 AM	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	1	17	0	0	18	29
8:45 AM	0	0	0	0	0	0	15	0	0	15	0	1	0	0	1	1	16	1	0	18	34
Total	0	0	2	0	2	3	53	0	0	56	0	2	2	0	4	4	68	5	0	77	139
Grand Total	0	2	3	0	5	3	97	0	0	100	0	3	3	0	6	5	117	14	0	136	247
Approach %	0.0	40.0	60.0	0.0		3.0	97.0	0.0	0.0		0.0	50.0	50.0	0.0		3.7	86.0	10.3	0.0		
Total %	0.0	0.8	1.2	0.0	2.0	1.2	39.3	0.0	0.0	40.5	0.0	1.2	1.2	0.0	2.4	2.0	47.4	5.7	0.0	55.1	
Exiting Leg Total	20					120					7					100					247
Buses	0	0	0	0	0	0	7	0	0	7	0	1	2	0	3	4	6	2	0	12	22
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	7.0	0.0	33.3	66.7	0.0	50.0	80.0	5.1	14.3	0.0	8.8	8.9
Exiting Leg Total	3					6					4					9					22
Single-Unit Trucks	0	2	3	0	5	2	64	0	0	66	0	2	1	0	3	1	84	12	0	97	171
% Single-Unit	0.0	100.0	100.0	0.0	100.0	66.7	66.0	0.0	0.0	66.0	0.0	66.7	33.3	0.0	50.0	20.0	71.8	85.7	0.0	71.3	69.2
Exiting Leg Total	16					87					3					65					171
Articulated Trucks	0	0	0	0	0	1	26	0	0	27	0	0	0	0	0	0	27	0	0	27	54
% Articulated	0.0	0.0	0.0	0.0	0.0	33.3	26.8	0.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1	0.0	0.0	19.9	21.9
Exiting Leg Total	1					27					0					26					54

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
7:45 AM	0	0	0	0	0	0	20	0	0	20	0	0	1	0	1	0	21	2	0	23	44
8:00 AM	0	0	1	0	1	1	12	0	0	13	0	1	2	0	3	2	16	2	0	20	37
8:15 AM	0	0	1	0	1	2	15	0	0	17	0	0	0	0	0	0	19	2	0	21	39
8:30 AM	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	1	17	0	0	18	29
Total Volume	0	0	2	0	2	3	58	0	0	61	0	1	3	0	4	3	73	6	0	82	149
% Approach Total	0.0	0.0	100.0	0.0		4.9	95.1	0.0	0.0		0.0	25.0	75.0	0.0		3.7	89.0	7.3	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.375	0.725	0.000	0.000	0.763	0.000	0.250	0.375	0.000	0.333	0.375	0.869	0.750	0.000	0.891	0.847
Buses	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	3	4	0	0	7	14
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	8.2	0.0	0.0	66.7	0.0	50.0	100.0	5.5	0.0	0.0	8.5	9.4
Single-Unit Trucks	0	0	2	0	2	2	33	0	0	35	0	1	1	0	2	0	58	6	0	64	103
Single-Unit %	0.0	0.0	100.0	0.0	100.0	66.7	56.9	0.0	0.0	57.4	0.0	100.0	33.3	0.0	50.0	0.0	79.5	100.0	0.0	78.0	69.1
Articulated Trucks	0	0	0	0	0	1	20	0	0	21	0	0	0	0	0	0	11	0	0	11	32
Articulated %	0.0	0.0	0.0	0.0	0.0	33.3	34.5	0.0	0.0	34.4	0.0	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0	13.4	21.5
Buses	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	3	4	0	0	7	14
Single-Unit Trucks	0	0	2	0	2	2	33	0	0	35	0	1	1	0	2	0	58	6	0	64	103
Articulated Trucks	0	0	0	0	0	1	20	0	0	21	0	0	0	0	0	0	11	0	0	11	32
Total Entering Leg	0	0	2	0	2	3	58	0	0	61	0	1	3	0	4	3	73	6	0	82	149
Buses	0					4					3					7					14
Single-Unit Trucks	9					60					0					34					103
Articulated Trucks	1					11					0					20					32
Total Exiting Leg	10					75					3					61					149

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	1	0	0	1	0	0	0	0	0	0	0	2	0	2	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
Total	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	0	2	2	0	4	10
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	2	1	0	0	3	6
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	3
Total	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4	4	0	0	8	12
Grand Total	0	0	0	0	0	0	7	0	0	7	0	1	2	0	3	4	6	2	0	12	22
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	33.3	66.7	0.0	0.0	33.3	50.0	16.7	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	31.8	0.0	0.0	31.8	0.0	4.5	9.1	0.0	13.6	18.2	27.3	9.1	0.0	54.5	
Exiting Leg Total	3					6					4					9					22

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
7:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	2	1	0	0	3	6
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
Total Volume	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	3	4	0	0	7	14
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	42.9	57.1	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.417	0.000	0.000	0.250	0.000	0.250	0.375	0.500	0.000	0.000	0.583	0.583
Entering Leg	0	0	0	0	0	0	5	0	0	5	0	0	2	0	2	3	4	0	0	7	14
Exiting Leg	0					4					3					7					14
Total	0					9					5					14					28

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Single-Unit Trucks

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	1	1	0	2	0	6	0	0	6	0	0	0	0	0	0	7	2	0	9	17
7:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	1	0	5	9
7:30 AM	0	1	0	0	1	0	8	0	0	8	0	0	0	0	0	1	6	2	0	9	18
7:45 AM	0	0	0	0	0	0	12	0	0	12	0	0	1	0	1	0	16	2	0	18	31
Total	0	2	1	0	3	0	30	0	0	30	0	0	1	0	1	1	33	7	0	41	75
8:00 AM	0	0	1	0	1	1	6	0	0	7	0	1	0	0	1	0	14	2	0	16	25
8:15 AM	0	0	1	0	1	1	9	0	0	10	0	0	0	0	0	0	15	2	0	17	28
8:30 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	13	0	0	13	19
8:45 AM	0	0	0	0	0	0	13	0	0	13	0	1	0	0	1	0	9	1	0	10	24
Total	0	0	2	0	2	2	34	0	0	36	0	2	0	0	2	0	51	5	0	56	96
Grand Total	0	2	3	0	5	2	64	0	0	66	0	2	1	0	3	1	84	12	0	97	171
Approach %	0.0	40.0	60.0	0.0		3.0	97.0	0.0	0.0		0.0	66.7	33.3	0.0		1.0	86.6	12.4	0.0		
Total %	0.0	1.2	1.8	0.0	2.9	1.2	37.4	0.0	0.0	38.6	0.0	1.2	0.6	0.0	1.8	0.6	49.1	7.0	0.0	56.7	
Exiting Leg Total	16					87					3					65					171

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
7:45 AM	0	0	0	0	0	0	12	0	0	12	0	0	1	0	1	0	16	2	0	18	31
7:45 AM	0	0	0	0	0	0	12	0	0	12	0	0	1	0	1	0	16	2	0	18	31
8:00 AM	0	0	1	0	1	1	6	0	0	7	0	1	0	0	1	0	14	2	0	16	25
8:15 AM	0	0	1	0	1	1	9	0	0	10	0	0	0	0	0	0	15	2	0	17	28
8:30 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	13	0	0	13	19
Total Volume	0	0	2	0	2	2	33	0	0	35	0	1	1	0	2	0	58	6	0	64	103
% Approach Total	0.0	0.0	100.0	0.0		5.7	94.3	0.0	0.0		0.0	50.0	50.0	0.0		0.0	90.6	9.4	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.500	0.688	0.000	0.000	0.729	0.000	0.250	0.250	0.000	0.500	0.000	0.906	0.750	0.000	0.889	0.831
Entering Leg	0	0	2	0	2	2	33	0	0	35	0	1	1	0	2	0	58	6	0	64	103
Exiting Leg	9					60					0					34					103
Total	11					95					2					98					206

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Articulated Trucks

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	1	0	0	1	0	0	0	0	0	0	5	0	0	5	6
7:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
7:45 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Total	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	14	0	0	14	23
8:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
8:15 AM	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	4	0	0	4	10
8:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
8:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	7
Total	0	0	0	0	0	1	17	0	0	18	0	0	0	0	0	0	13	0	0	13	31
Grand Total	0	0	0	0	0	1	26	0	0	27	0	0	0	0	0	0	27	0	0	27	54
Approach %	0.0	0.0	0.0	0.0	0.0	3.7	96.3	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	
Total %	0.0	0.0	0.0	0.0	0.0	1.9	48.1	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	
Exiting Leg Total						1											0	26	54		

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
7:45 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
7:45 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
8:00 AM	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	4	0	0	4	10
8:15 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
8:30 AM	0	0	0	0	0	1	20	0	0	21	0	0	0	0	0	0	11	0	0	11	32
Total Volume	0	0	0	0	0	1	20	0	0	21	0	0	0	0	0	0	11	0	0	11	32
% Approach Total	0.0	0.0	0.0	0.0	0.0	4.8	95.2	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	
PHF	0.000	0.000	0.000	0.000	0.000	0.250	1.000	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.688	0.000	0.000	0.688	0.800
Entering Leg	0	0	0	0	0	1	20	0	0	21	0	0	0	0	0	0	11	0	0	11	32
Exiting Leg						1											0	20	32		
Total						1											0	31	64		

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	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	
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	
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	
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	
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	
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	
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	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0							0							0							0							0

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

7:00 AM	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	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	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
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		
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		
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		
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		
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		
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		
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		
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		
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		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
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		
Exiting Leg Total	0							0							0							0							0

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

7:00 AM	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
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		
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		
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		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	13	8	0	21	13	255	0	0	268	11	13	56	0	80	8	215	29	0	252	621
4:15 PM	0	10	2	0	12	9	251	0	0	260	14	12	46	0	72	18	274	22	0	314	658
4:30 PM	2	16	4	0	22	3	262	0	0	265	14	12	57	1	84	8	301	26	0	335	706
4:45 PM	0	9	3	0	12	9	263	0	0	272	12	15	41	0	68	13	252	26	0	291	643
Total	2	48	17	0	67	34	1031	0	0	1065	51	52	200	1	304	47	1042	103	0	1192	2628
5:00 PM	0	8	0	0	8	11	286	0	0	297	16	15	64	0	95	11	252	49	0	312	712
5:15 PM	0	11	3	0	14	6	283	0	0	289	10	17	47	0	74	17	275	41	0	333	710
5:30 PM	1	6	5	0	12	4	303	0	0	307	18	5	27	0	50	9	278	47	0	334	703
5:45 PM	0	8	8	0	16	7	384	0	0	391	4	8	15	0	27	4	248	38	0	290	724
Total	1	33	16	0	50	28	1256	0	0	1284	48	45	153	0	246	41	1053	175	0	1269	2849
Grand Total	3	81	33	0	117	62	2287	0	0	2349	99	97	353	1	550	88	2095	278	0	2461	5477
Approach %	2.6	69.2	28.2	0.0		2.6	97.4	0.0	0.0		18.0	17.6	64.2	0.2		3.6	85.1	11.3	0.0		
Total %	0.1	1.5	0.6	0.0	2.1	1.1	41.8	0.0	0.0	42.9	1.8	1.8	6.4	0.0	10.0	1.6	38.3	5.1	0.0	44.9	
Exiting Leg Total	437					2227					170					2643					5477
Cars	3	79	32	0	114	62	2252	0	0	2314	99	96	353	1	549	88	2049	276	0	2413	5390
% Cars	100.0	97.5	97.0	0.0	97.4	100.0	98.5	0.0	0.0	98.5	100.0	99.0	100.0	100.0	99.8	100.0	97.8	99.3	0.0	98.0	98.4
Exiting Leg Total	434					2180					168					2608					5390
Heavy Vehicles	0	2	1	0	3	0	35	0	0	35	0	1	0	0	1	0	46	2	0	48	87
% Heavy Vehicles	0.0	2.5	3.0	0.0	2.6	0.0	1.5	0.0	0.0	1.5	0.0	1.0	0.0	0.0	0.2	0.0	2.2	0.7	0.0	2.0	1.6
Exiting Leg Total	3					47					2					35					87

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

5:00 PM	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
5:00 PM	0	8	0	0	8	11	286	0	0	297	16	15	64	0	95	11	252	49	0	312	712
5:15 PM	0	11	3	0	14	6	283	0	0	289	10	17	47	0	74	17	275	41	0	333	710
5:30 PM	1	6	5	0	12	4	303	0	0	307	18	5	27	0	50	9	278	47	0	334	703
5:45 PM	0	8	8	0	16	7	384	0	0	391	4	8	15	0	27	4	248	38	0	290	724
Total Volume	1	33	16	0	50	28	1256	0	0	1284	48	45	153	0	246	41	1053	175	0	1269	2849
% Approach Total	2.0	66.0	32.0	0.0		2.2	97.8	0.0	0.0		19.5	18.3	62.2	0.0		3.2	83.0	13.8	0.0		
PHF	0.250	0.750	0.500	0.000	0.781	0.636	0.818	0.000	0.000	0.821	0.667	0.662	0.598	0.000	0.647	0.603	0.947	0.893	0.000	0.950	0.984
Cars	1	33	16	0	50	28	1243	0	0	1271	48	44	153	0	245	41	1033	174	0	1248	2814
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	99.0	0.0	0.0	99.0	100.0	97.8	100.0	0.0	99.6	100.0	98.1	99.4	0.0	98.3	98.8
Heavy Vehicles	0	0	0	0	0	0	13	0	0	13	0	1	0	0	1	0	20	1	0	21	35
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	2.2	0.0	0.0	0.4	0.0	1.9	0.6	0.0	1.7	1.2
Cars Enter Leg	1	33	16	0	50	28	1243	0	0	1271	48	44	153	0	245	41	1033	174	0	1248	2814
Heavy Enter Leg	0	0	0	0	0	0	13	0	0	13	0	1	0	0	1	0	20	1	0	21	35
Total Entering Leg	1	33	16	0	50	28	1256	0	0	1284	48	45	153	0	246	41	1053	175	0	1269	2849
Cars Exiting Leg	246					1097					74					1397					2814
Heavy Exiting Leg	2					20					0					13					35
Total Exiting Leg	248					1117					74					1410					2849

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	11	7	0	18	13	246	0	0	259	11	13	56	0	80	8	206	29	0	243	600					
4:15 PM	0	10	2	0	12	9	246	0	0	255	14	12	46	0	72	18	268	22	0	308	647					
4:30 PM	2	16	4	0	22	3	259	0	0	262	14	12	57	1	84	8	295	25	0	328	696					
4:45 PM	0	9	3	0	12	9	258	0	0	267	12	15	41	0	68	13	247	26	0	286	633					
Total	2	46	16	0	64	34	1009	0	0	1043	51	52	200	1	304	47	1016	102	0	1165	2576					
5:00 PM	0	8	0	0	8	11	283	0	0	294	16	15	64	0	95	11	245	48	0	304	701					
5:15 PM	0	11	3	0	14	6	280	0	0	286	10	17	47	0	74	17	274	41	0	332	706					
5:30 PM	1	6	5	0	12	4	301	0	0	305	18	4	27	0	49	9	272	47	0	328	694					
5:45 PM	0	8	8	0	16	7	379	0	0	386	4	8	15	0	27	4	242	38	0	284	713					
Total	1	33	16	0	50	28	1243	0	0	1271	48	44	153	0	245	41	1033	174	0	1248	2814					
Grand Total	3	79	32	0	114	62	2252	0	0	2314	99	96	353	1	549	88	2049	276	0	2413	5390					
Approach %	2.6	69.3	28.1	0.0		2.7	97.3	0.0	0.0		18.0	17.5	64.3	0.2		3.6	84.9	11.4	0.0							
Total %	0.1	1.5	0.6	0.0	2.1	1.2	41.8	0.0	0.0	42.9	1.8	1.8	6.5	0.0	10.2	1.6	38.0	5.1	0.0	44.8						
Exiting Leg Total						434					2180					168					2608					5390

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
5:00 PM	0	8	0	0	8	11	283	0	0	294	16	15	64	0	95	11	245	48	0	304	701
5:15 PM	0	11	3	0	14	6	280	0	0	286	10	17	47	0	74	17	274	41	0	332	706
5:30 PM	1	6	5	0	12	4	301	0	0	305	18	4	27	0	49	9	272	47	0	328	694
5:45 PM	0	8	8	0	16	7	379	0	0	386	4	8	15	0	27	4	242	38	0	284	713
Total Volume	1	33	16	0	50	28	1243	0	0	1271	48	44	153	0	245	41	1033	174	0	1248	2814
% Approach Total	2.0	66.0	32.0	0.0		2.2	97.8	0.0	0.0		19.6	18.0	62.4	0.0		3.3	82.8	13.9	0.0		
PHF	0.250	0.750	0.500	0.000	0.781	0.636	0.820	0.000	0.000	0.823	0.667	0.647	0.598	0.000	0.645	0.603	0.943	0.906	0.000	0.940	0.987
Entering Leg	1	33	16	0	50	28	1243	0	0	1271	48	44	153	0	245	41	1033	174	0	1248	2814
Exiting Leg						246					74					1397					2814
Total	296					2368					319					2645					5628

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	1	0	3	0	9	0	0	9	0	0	0	0	0	0	9	0	0	9	21
4:15 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	11
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	1	0	7	10
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
Total	0	2	1	0	3	0	22	0	0	22	0	0	0	0	0	0	26	1	0	27	52
5:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	1	0	8	11
5:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
5:30 PM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	6	0	0	6	9
5:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	11
Total	0	0	0	0	0	0	13	0	0	13	0	1	0	0	1	0	20	1	0	21	35
Grand Total	0	2	1	0	3	0	35	0	0	35	0	1	0	0	1	0	46	2	0	48	87
Approach %	0.0	66.7	33.3	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	95.8	4.2	0.0		
Total %	0.0	2.3	1.1	0.0	3.4	0.0	40.2	0.0	0.0	40.2	0.0	1.1	0.0	0.0	1.1	0.0	52.9	2.3	0.0	55.2	
Exiting Leg Total	3					47					2					35					87
Buses	0	1	1	0	2	0	4	0	0	4	0	1	0	0	1	0	5	1	0	6	13
% Buses	0.0	50.0	100.0	0.0	66.7	0.0	11.4	0.0	0.0	11.4	0.0	100.0	0.0	0.0	100.0	0.0	10.9	50.0	0.0	12.5	14.9
Exiting Leg Total	2					6					1					4					13
Single-Unit Trucks	0	1	0	0	1	0	26	0	0	26	0	0	0	0	0	0	33	1	0	34	61
% Single-Unit	0.0	50.0	0.0	0.0	33.3	0.0	74.3	0.0	0.0	74.3	0.0	0.0	0.0	0.0	0.0	0.0	71.7	50.0	0.0	70.8	70.1
Exiting Leg Total	1					33					1					26					61
Articulated Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	13
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	16.7	14.9
Exiting Leg Total	0					8					0					5					13

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

4:00 PM	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	1	0	3	0	9	0	0	9	0	0	0	0	0	0	9	0	0	9	21
4:15 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	11
4:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	1	0	7	10
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
Total Volume	0	2	1	0	3	0	22	0	0	22	0	0	0	0	0	0	26	1	0	27	52
% Approach Total	0.0	66.7	33.3	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	96.3	3.7	0.0		
PHF	0.000	0.250	0.250	0.000	0.250	0.000	0.611	0.000	0.000	0.611	0.000	0.000	0.000	0.000	0.000	0.000	0.722	0.250	0.000	0.750	0.619
Buses	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	6
Buses %	0.0	50.0	100.0	0.0	66.7	0.0	4.5	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	11.5	0.0	0.0	11.1	11.5
Single-Unit Trucks	0	1	0	0	1	0	16	0	0	16	0	0	0	0	0	0	19	1	0	20	37
Single-Unit %	0.0	50.0	0.0	0.0	33.3	0.0	72.7	0.0	0.0	72.7	0.0	0.0	0.0	0.0	0.0	0.0	73.1	100.0	0.0	74.1	71.2
Articulated Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	22.7	0.0	0.0	22.7	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	14.8	17.3
Buses	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	6
Single-Unit Trucks	0	1	0	0	1	0	16	0	0	16	0	0	0	0	0	0	19	1	0	20	37
Articulated Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
Total Entering Leg	0	2	1	0	3	0	22	0	0	22	0	0	0	0	0	0	26	1	0	27	52
Buses	0					4					1					1					6
Single-Unit Trucks	1					19					1					16					37
Articulated Trucks	0					4					0					5					9
Total Exiting Leg	1					27					2					22					52

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	6
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	2	1	0	3	7
Grand Total	0	1	1	0	2	0	4	0	0	4	0	1	0	0	1	0	5	1	0	6	13
Approach %	0.0	50.0	50.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	83.3	16.7	0.0		
Total %	0.0	7.7	7.7	0.0	15.4	0.0	30.8	0.0	0.0	30.8	0.0	7.7	0.0	0.0	7.7	0.0	38.5	7.7	0.0	46.2	
Exiting Leg Total	2					6					1					4					13

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					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	
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
5:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	2	1	0	3	7
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	66.7	33.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.250	0.000	0.375	0.583
Entering Leg	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	2	1	0	3	7
Exiting Leg	2					2					0					3					7
Total	2					5					1					6					14

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	13
4:15 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	1	0	6	7
4:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Total	0	1	0	0	1	0	16	0	0	16	0	0	0	0	0	0	19	1	0	20	37
5:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	8
5:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
5:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
5:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
Total	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	14	0	0	14	24
Grand Total	0	1	0	0	1	0	26	0	0	26	0	0	0	0	0	0	33	1	0	34	61
Approach %	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	97.1	2.9	0.0		
Total %	0.0	1.6	0.0	0.0	1.6	0.0	42.6	0.0	0.0	42.6	0.0	0.0	0.0	0.0	0.0	0.0	54.1	1.6	0.0	55.7	
Exiting Leg Total	1					33					1					26					61

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	13
4:15 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	1	0	6	7
4:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
Total Volume	0	1	0	0	1	0	16	0	0	16	0	0	0	0	0	0	19	1	0	20	37
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	95.0	5.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.792	0.250	0.000	0.833	0.712
Entering Leg	0	1	0	0	1	0	16	0	0	16	0	0	0	0	0	0	19	1	0	20	37
Exiting Leg	1					19					1					16					37
Total	2					35					1					36					74

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
Grand Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	13
Approach %	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	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	38.5	0.0	0.0	38.5	0.0	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	61.5	
Exiting Leg Total	0					8					0					5					13

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

	Elm Street					Concord Turnpike (Route 2)					Baker Avenue Extension					Concord Turnpike (Route 2)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
% Approach Total	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	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.563
Entering Leg	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
Exiting Leg	0					4					0					5					9
Total	0					9					0					9					18

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
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	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Grand Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Approach %	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	100.0	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	50.0	0.0	0.0	0.0	0.0	50.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	1							0							1							0							2

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

	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
Exiting Leg	1							0							0							0							1
Total	1							0							1							0							2

PDI File #: **228427 C**
 Location: **N: Elm Street S: Baker Avenue Extension**
 Location: **E: Concord Turnpike (Route 2) W: Concord Turnpike (Route 2)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **81839.22**
 Count Date: **Thursday, February 17, 2022**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total	0							0							0							0							0

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

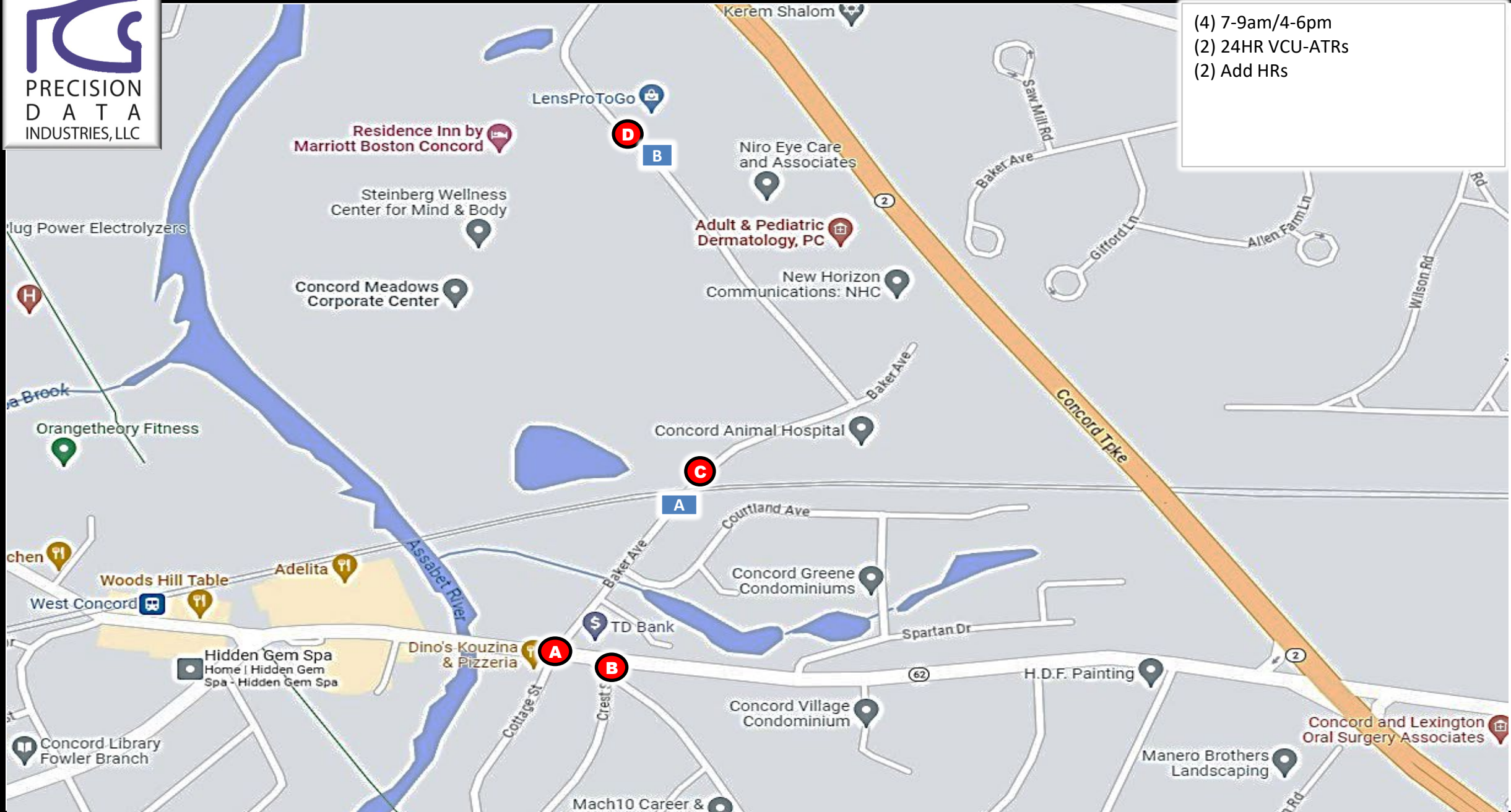
4:00 PM	Elm Street							Concord Turnpike (Route 2)							Baker Avenue Extension							Concord Turnpike (Route 2)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0



Location Map: 239716 Concord, MA

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

(4) 7-9am/4-6pm
(2) 24HR VCU-ATRs
(2) Add HRs



Client: VHB	Engineer: A. Domogala	Site Code: 15630.00	Date: Thur 11/16/23	PDI Job # 239716	City, State: Concord, MA
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Baker Avenue
south of #300 Driveway
City, State: Concord, MA
Client: VHB/ A. Domogala
Site Code: 15630



PDI File #: 239716 ATR-A

Count Date: Thursday, November 16, 2023
Direction: NB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	0	0	0	1
12:15 AM	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0
1:30 AM	0	0	1	0	0	0	1
1:45 AM	0	0	0	0	0	0	0
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	1	0	0	0	1
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	1	0	0	0	1
3:30 AM	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0
4:00 AM	0	0	1	0	0	0	1
4:15 AM	0	0	2	0	0	0	2
4:30 AM	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0
5:00 AM	0	0	1	0	0	0	1
5:15 AM	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0
5:45 AM	0	0	3	0	0	0	3
6:00 AM	0	0	3	0	0	0	3
6:15 AM	0	0	5	0	0	0	5
6:30 AM	0	0	18	0	0	0	18
6:45 AM	0	0	36	0	1	0	37
7:00 AM	0	0	23	1	0	0	24
7:15 AM	0	0	69	1	1	0	71
7:30 AM	0	0	73	0	1	0	74
7:45 AM	0	0	101	0	0	0	101
8:00 AM	0	0	59	1	0	1	61
8:15 AM	0	0	66	1	1	0	68
8:30 AM	1	0	61	2	1	0	65
8:45 AM	0	0	81	0	1	0	82
9:00 AM	0	0	66	1	0	0	67
9:15 AM	1	0	56	0	0	0	57
9:30 AM	0	0	53	1	0	1	55
9:45 AM	0	0	77	0	1	0	78
10:00 AM	0	0	54	0	2	0	56
10:15 AM	0	0	45	0	0	0	45
10:30 AM	0	0	58	0	1	0	59
10:45 AM	1	0	58	1	5	0	65
11:00 AM	0	0	33	1	0	0	34
11:15 AM	0	0	36	0	1	0	37
11:30 AM	0	0	34	0	0	1	35
11:45 AM	0	0	59	1	0	0	60

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	1	32	0	1	0	34
12:15 PM	0	1	45	2	0	0	48
12:30 PM	2	0	41	0	0	0	43
12:45 PM	0	0	57	1	1	0	59
1:00 PM	0	0	46	0	0	0	46
1:15 PM	0	0	44	0	0	0	44
1:30 PM	0	0	46	0	0	0	46
1:45 PM	1	0	63	0	1	0	65
2:00 PM	0	0	43	0	0	0	43
2:15 PM	1	0	41	0	0	0	42
2:30 PM	0	0	48	0	0	0	48
2:45 PM	1	0	54	1	0	0	56
3:00 PM	0	0	54	0	1	0	55
3:15 PM	0	0	43	0	0	0	43
3:30 PM	0	0	36	0	0	0	36
3:45 PM	0	0	61	1	0	0	62
4:00 PM	0	0	34	0	0	0	34
4:15 PM	0	0	36	0	0	0	36
4:30 PM	0	0	33	0	0	0	33
4:45 PM	0	0	24	0	1	0	25
5:00 PM	0	0	29	0	0	0	29
5:15 PM	0	0	25	0	0	0	25
5:30 PM	0	0	30	0	0	0	30
5:45 PM	0	0	17	0	0	0	17
6:00 PM	0	0	17	0	1	0	18
6:15 PM	1	0	15	0	0	0	16
6:30 PM	0	0	11	0	0	0	11
6:45 PM	0	0	12	0	0	0	12
7:00 PM	0	0	13	0	0	0	13
7:15 PM	0	0	9	0	0	0	9
7:30 PM	0	0	6	0	0	0	6
7:45 PM	0	0	3	0	0	0	3
8:00 PM	0	0	10	0	0	0	10
8:15 PM	0	0	3	0	0	0	3
8:30 PM	0	0	5	0	0	0	5
8:45 PM	0	0	8	0	0	0	8
9:00 PM	0	0	8	0	0	0	8
9:15 PM	0	0	1	0	0	0	1
9:30 PM	0	0	1	0	0	0	1
9:45 PM	0	0	6	0	1	0	7
10:00 PM	0	0	1	0	0	0	1
10:15 PM	0	0	4	0	0	0	4
10:30 PM	0	0	1	0	0	0	1
10:45 PM	0	0	3	0	0	0	3
11:00 PM	0	0	1	0	0	0	1
11:15 PM	0	0	1	0	0	0	1
11:30 PM	0	0	2	0	0	0	2
11:45 PM	0	0	1	0	0	0	1

AM Total	3	0	1235	11	16	3	1268
Percentage	0.24%	0.00%	97.40%	0.87%	1.26%	0.24%	
AM Peak	8:30 AM	12:00 AM	7:15 AM	7:45 AM	10:00 AM	7:15 AM	7:15 AM
Volume	2	0	302	4	8	1	307

PM Total	6	2	1124	5	7	0	1144
Percentage	0.52%	0.17%	98.25%	0.44%	0.61%	0.00%	
PM Peak	12:00 PM	12:00 PM	1:00 PM	12:00 PM	12:00 PM	12:00 PM	2:30 PM
Volume	2	2	199	3	2	0	202

Day Total	9	2	2359	16	23	3	2412
Percentage	0.37%	0.08%	97.80%	0.66%	0.95%	0.12%	

Baker Avenue
 south of #300 Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630



PDI File #: 239716 ATR-A

Count Date: Thursday, November 16, 2023
 Direction: SB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	1	0	0	0	1
12:15 AM	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0
1:15 AM	0	0	1	0	0	0	1
1:30 AM	0	0	1	0	0	0	1
1:45 AM	0	0	0	0	0	0	0
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	1	0	1	0	2
3:45 AM	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0
4:15 AM	0	0	2	0	0	0	2
4:30 AM	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0
5:00 AM	0	0	1	0	0	0	1
5:15 AM	0	0	0	0	0	0	0
5:30 AM	0	0	2	0	0	0	2
5:45 AM	0	0	2	0	0	0	2
6:00 AM	0	0	0	0	0	0	0
6:15 AM	0	0	3	0	0	0	3
6:30 AM	0	0	5	0	0	0	5
6:45 AM	0	0	8	0	0	0	8
7:00 AM	0	0	8	0	0	0	8
7:15 AM	0	0	12	0	1	0	13
7:30 AM	0	0	13	0	0	0	13
7:45 AM	0	0	12	1	0	0	13
8:00 AM	0	0	22	0	0	0	22
8:15 AM	0	0	28	1	0	0	29
8:30 AM	0	0	34	0	1	0	35
8:45 AM	0	0	31	2	0	0	33
9:00 AM	0	0	45	0	0	0	45
9:15 AM	0	0	34	1	1	0	36
9:30 AM	0	0	39	0	2	0	41
9:45 AM	0	0	34	0	0	0	34
10:00 AM	0	0	54	2	1	0	57
10:15 AM	0	0	47	1	1	0	49
10:30 AM	0	0	54	0	2	0	56
10:45 AM	0	0	35	0	1	0	36
11:00 AM	0	0	44	0	0	0	44
11:15 AM	0	1	64	1	1	0	67
11:30 AM	2	1	52	0	0	0	55
11:45 AM	0	0	43	0	0	0	43

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	2	0	55	0	1	0	58
12:15 PM	0	1	57	3	1	0	62
12:30 PM	0	0	51	0	2	0	53
12:45 PM	0	0	37	1	2	0	40
1:00 PM	0	0	40	0	1	0	41
1:15 PM	0	0	31	0	1	0	32
1:30 PM	1	0	36	0	0	0	37
1:45 PM	1	0	40	0	0	0	41
2:00 PM	0	0	40	1	1	0	42
2:15 PM	0	0	40	0	3	0	43
2:30 PM	1	0	43	0	0	0	44
2:45 PM	1	0	40	0	1	0	42
3:00 PM	1	0	64	3	1	0	69
3:15 PM	0	0	68	0	0	0	68
3:30 PM	0	0	60	0	0	0	60
3:45 PM	0	0	67	1	0	0	68
4:00 PM	4	0	75	1	0	0	80
4:15 PM	0	0	43	0	0	0	43
4:30 PM	0	0	74	0	0	0	74
4:45 PM	3	0	65	0	0	0	68
5:00 PM	0	0	63	0	0	0	63
5:15 PM	1	0	60	0	0	0	61
5:30 PM	0	0	36	0	0	0	36
5:45 PM	0	0	41	0	0	0	41
6:00 PM	0	0	24	0	0	0	24
6:15 PM	0	0	20	0	0	0	20
6:30 PM	0	0	25	0	0	0	25
6:45 PM	0	0	12	0	0	0	12
7:00 PM	0	0	18	0	0	0	18
7:15 PM	0	0	8	0	0	0	8
7:30 PM	0	0	6	0	0	0	6
7:45 PM	0	0	10	0	0	0	10
8:00 PM	0	0	11	0	0	0	11
8:15 PM	0	0	10	0	0	0	10
8:30 PM	0	0	4	0	0	0	4
8:45 PM	0	0	5	0	0	0	5
9:00 PM	0	0	4	0	0	0	4
9:15 PM	0	0	7	0	0	0	7
9:30 PM	0	0	5	0	0	0	5
9:45 PM	0	0	8	0	0	0	8
10:00 PM	0	0	6	0	0	0	6
10:15 PM	0	0	4	0	1	0	5
10:30 PM	0	0	3	0	0	0	3
10:45 PM	0	0	2	0	0	0	2
11:00 PM	0	0	4	0	0	0	4
11:15 PM	0	0	2	0	0	0	2
11:30 PM	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0

AM Total	2	2	732	9	12	0	757
Percentage	0.26%	0.26%	96.70%	1.19%	1.59%	0.00%	
AM Peak	10:45 AM	10:45 AM	11:00 AM	8:00 AM	10:00 AM	12:00 AM	11:00 AM
Volume	2	2	203	3	5	0	209

PM Total	15	1	1424	10	15	0	1465
Percentage	1.02%	0.07%	97.20%	0.68%	1.02%	0.00%	
PM Peak	4:00 PM	12:00 PM	3:15 PM	12:00 PM	12:00 PM	12:00 PM	3:15 PM
Volume	7	1	270	4	6	0	276

Day Total	17	3	2156	19	27	0	2222
Percentage	0.77%	0.14%	97.03%	0.86%	1.22%	0.00%	

Baker Avenue
 south of #300 Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00



PDI File #: 239716 ATR-A (Speed)

Count Date
 Thursday, November 16, 2023

Speed (60-minute)

NB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	3	0	4	0	0	0	0	0	0	0	7	37.0	32.0
1:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	22.0	22.0
2:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	25.0	25.0
3:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	27.0	27.0
4:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	3	28.3	24.0
5:00 AM	0	0	2	3	0	1	0	0	0	0	0	0	0	6	30.5	27.0
6:00 AM	0	0	8	27	23	5	0	0	0	0	0	0	0	63	33.0	29.1
7:00 AM	5	9	42	129	81	11	0	2	0	3	0	0	0	282	32.0	27.9
8:00 AM	6	6	48	114	71	14	1	0	0	0	0	0	0	260	32.0	27.4
9:00 AM	6	14	63	102	65	13	2	0	0	0	0	0	0	265	32.0	26.7
10:00 AM	9	15	71	108	26	5	0	0	0	0	0	0	0	234	29.0	25.0
11:00 AM	3	9	52	67	29	15	1	0	0	0	0	0	0	176	31.8	26.5
12:00 PM	2	12	37	91	40	3	1	1	0	0	0	0	0	187	31.0	26.6
1:00 PM	6	16	52	82	32	7	0	1	1	0	0	0	0	197	30.6	25.8
2:00 PM	4	10	52	89	30	4	2	0	0	0	0	0	0	191	30.0	26.0
3:00 PM	3	4	46	86	43	8	2	3	0	0	0	0	0	195	32.0	27.3
4:00 PM	2	2	23	56	33	4	2	1	0	0	0	0	0	123	32.0	27.8
5:00 PM	2	9	28	47	15	4	2	1	0	0	0	0	0	108	31.0	25.9
6:00 PM	4	1	16	35	5	5	8	0	0	0	0	0	0	74	38.0	27.7
7:00 PM	1	2	5	12	7	2	0	1	0	0	0	0	0	30	33.3	27.2
8:00 PM	0	4	7	14	1	3	0	0	0	0	0	0	0	29	29.0	25.9
9:00 PM	0	0	8	7	0	2	0	0	0	1	0	0	0	18	31.6	27.6
10:00 PM	0	0	2	1	6	4	0	0	0	0	0	0	0	13	36.4	31.4
11:00 PM	0	2	0	0	2	5	0	0	0	0	0	0	0	9	38.0	31.8
Total	53	116	564	1075	510	119	21	10	1	4	0	0	0	2473	32.0	26.8
Percent	2.14%	4.69%	22.81%	43.47%	20.62%	4.81%	0.85%	0.40%	0.04%	0.16%	0.00%	0.00%	0.00%			

AM Peak	10:00 AM	10:00 AM	10:00 AM	7:00 AM	7:00 AM	11:00 AM	9:00 AM	7:00 AM		7:00 AM				7:00 AM
Volume	9	15	71	129	81	15	2	2	0	3	0	0	0	282
PM Peak	1:00 PM	1:00 PM	1:00 PM	12:00 PM	3:00 PM	3:00 PM	6:00 PM	3:00 PM	1:00 PM	9:00 PM				1:00 PM
Volume	6	16	52	91	43	8	8	3	1	1	0	0	0	197

15th Percentile:	22.0 MPH	Average Speed:	26.8 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	27.0 MPH	10 MPH Pace:	22 to 31 MPH	Number of Vehicles > 25 MPH:	1531
85th Percentile:	32.0 MPH	Number in Pace:	1801	Percent of Vehicles > 25 MPH:	61.9%
95th Percentile:	35.0 MPH	Percent in Pace:	72.8%		

Baker Avenue
 south of #300 Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00



PDI File #: 239716 ATR-A (Speed)

Count Date
 Thursday, November 16, 2023

Speed (60-minute)

SB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	1	0	0	0	0	1	0	0	0	0	2	47.4	39.0
1:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	2	28.6	23.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	1	0	1	0	1	0	0	0	0	0	0	3	38.0	31.0
4:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	2	25.7	22.5
5:00 AM	0	1	0	2	1	1	0	0	0	0	0	0	0	5	32.4	27.0
6:00 AM	0	1	4	5	6	2	2	0	0	0	0	0	0	20	36.5	30.2
7:00 AM	0	2	7	25	14	5	2	2	1	0	0	0	0	58	35.0	29.8
8:00 AM	0	1	34	54	34	5	0	2	1	0	0	0	0	131	32.0	27.9
9:00 AM	1	4	46	73	28	8	2	0	0	0	0	0	0	162	31.0	26.9
10:00 AM	0	8	60	86	32	3	3	1	0	0	0	0	0	193	31.0	26.5
11:00 AM	0	1	54	104	45	10	3	0	0	0	0	0	0	217	31.0	27.5
12:00 PM	0	6	71	91	42	4	2	1	0	0	0	0	0	217	31.0	26.4
1:00 PM	0	6	50	60	30	2	1	2	1	0	0	0	0	152	31.0	26.6
2:00 PM	0	11	60	78	18	4	3	0	0	0	0	0	0	174	29.0	25.8
3:00 PM	10	21	81	89	29	12	2	0	0	0	0	0	0	244	30.0	25.1
4:00 PM	0	12	77	107	41	7	1	0	0	0	0	0	0	245	30.0	26.1
5:00 PM	1	4	60	89	35	10	1	0	0	0	0	0	0	200	31.0	26.9
6:00 PM	0	0	25	35	23	1	0	2	0	0	0	0	0	86	32.0	27.6
7:00 PM	0	2	14	10	16	0	3	0	0	0	0	0	0	45	32.4	28.1
8:00 PM	0	3	6	10	8	1	2	1	0	0	0	0	0	31	33.5	28.2
9:00 PM	0	0	4	14	8	0	0	2	0	0	0	0	0	28	32.0	28.9
10:00 PM	0	1	2	4	10	0	0	0	0	0	0	0	0	17	33.0	28.9
11:00 PM	0	0	1	3	3	1	1	0	0	0	0	0	0	9	34.8	30.4
Total	12	86	657	941	425	76	29	13	4	0	0	0	0	2243	31.0	26.8
Percent	0.53%	3.83%	29.29%	41.95%	18.95%	3.39%	1.29%	0.58%	0.18%	0.00%	0.00%	0.00%	0.00%			

AM Peak	9:00 AM	10:00 AM	10:00 AM	11:00 AM	11:00 AM	11:00 AM	10:00 AM	7:00 AM	12:00 AM						11:00 AM
Volume	1	8	60	104	45	10	3	2	1	0	0	0	0	0	217
PM Peak	3:00 PM	3:00 PM	3:00 PM	4:00 PM	12:00 PM	3:00 PM	2:00 PM	1:00 PM	1:00 PM						4:00 PM
Volume	10	21	81	107	42	12	3	2	1	0	0	0	0	245	

15th Percentile:	22.0 MPH	Average Speed:	26.8 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	26.0 MPH	10 MPH Pace:	22 to 31 MPH	Number of Vehicles > 25 MPH:	1302
85th Percentile:	31.0 MPH	Number in Pace:	1662	Percent of Vehicles > 25 MPH:	58.0%
95th Percentile:	35.0 MPH	Percent in Pace:	74.1%		

Baker Avenue
 south of #300 Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00



PDI File #: 239716 ATR-A (Speed)

Count Date
 Thursday, November 16, 2023

Speed (60-minute)
Combined NB and SB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	4	0	4	0	0	1	0	0	0	0	9	37.0	33.6
1:00 AM	0	1	1	0	1	0	0	0	0	0	0	0	0	3	28.3	22.7
2:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	25.0	25.0
3:00 AM	0	0	1	1	1	0	1	0	0	0	0	0	0	4	36.5	30.0
4:00 AM	0	2	1	1	1	0	0	0	0	0	0	0	0	5	28.6	23.4
5:00 AM	0	1	2	5	1	2	0	0	0	0	0	0	0	11	32.5	27.0
6:00 AM	0	1	12	32	29	7	2	0	0	0	0	0	0	83	34.0	29.4
7:00 AM	5	11	49	154	95	16	2	4	1	3	0	0	0	340	33.0	28.3
8:00 AM	6	7	82	168	105	19	1	2	1	0	0	0	0	391	32.0	27.6
9:00 AM	7	18	109	175	93	21	4	0	0	0	0	0	0	427	32.0	26.8
10:00 AM	9	23	131	194	58	8	3	1	0	0	0	0	0	427	30.0	25.7
11:00 AM	3	10	106	171	74	25	4	0	0	0	0	0	0	393	31.0	27.1
12:00 PM	2	18	108	182	82	7	3	2	0	0	0	0	0	404	31.0	26.5
1:00 PM	6	22	102	142	62	9	1	3	2	0	0	0	0	349	31.0	26.1
2:00 PM	4	21	112	167	48	8	5	0	0	0	0	0	0	365	30.0	25.9
3:00 PM	13	25	127	175	72	20	4	3	0	0	0	0	0	439	31.0	26.1
4:00 PM	2	14	100	163	74	11	3	1	0	0	0	0	0	368	31.0	26.7
5:00 PM	3	13	88	136	50	14	3	1	0	0	0	0	0	308	31.0	26.6
6:00 PM	4	1	41	70	28	6	8	2	0	0	0	0	0	160	33.0	27.6
7:00 PM	1	4	19	22	23	2	3	1	0	0	0	0	0	75	32.9	27.7
8:00 PM	0	7	13	24	9	4	2	1	0	0	0	0	0	60	32.2	27.1
9:00 PM	0	0	12	21	8	2	0	2	0	1	0	0	0	46	32.3	28.4
10:00 PM	0	1	4	5	16	4	0	0	0	0	0	0	0	30	33.7	30.0
11:00 PM	0	2	1	3	5	6	1	0	0	0	0	0	0	18	38.0	31.1
Total	65	202	1221	2016	935	195	50	23	5	4	0	0	0	4716	31.0	26.8
Percent	1.38%	4.28%	25.89%	42.75%	19.83%	4.13%	1.06%	0.49%	0.11%	0.08%	0.00%	0.00%	0.00%			

AM Peak	10:00 AM	10:00 AM	10:00 AM	10:00 AM	8:00 AM	11:00 AM	9:00 AM	7:00 AM	12:00 AM	7:00 AM					9:00 AM
Volume	9	23	131	194	105	25	4	4	1	3	0	0	0	427	
PM Peak	3:00 PM	3:00 PM	3:00 PM	12:00 PM	12:00 PM	3:00 PM	6:00 PM	1:00 PM	1:00 PM	9:00 PM				3:00 PM	
Volume	13	25	127	182	82	20	8	3	2	1	0	0	0	439	

15th Percentile:	22.0 MPH	Average Speed:	26.8 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	27.0 MPH	10 MPH Pace:	22 to 31 MPH	Number of Vehicles > 25 MPH:	2833
85th Percentile:	31.0 MPH	Number in Pace:	3463	Percent of Vehicles > 25 MPH:	60.1%
95th Percentile:	35.0 MPH	Percent in Pace:	73.4%		

Baker Avenue Extension
south of #300 Driveway
City, State: Concord, MA
Client: VHB/ A. Domogala
Site Code: 15630



PDI File #: 239716 ATR-B

Count Date: Thursday, November 16, 2023
Direction: NB

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	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0
1:30 AM	0	0	1	0	0	0	1
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	1	0	0	0	1
3:30 AM	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0
4:15 AM	0	0	1	0	0	0	1
4:30 AM	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0
5:45 AM	0	0	1	0	0	0	1
6:00 AM	0	0	1	0	0	0	1
6:15 AM	0	0	1	0	0	0	1
6:30 AM	0	0	6	0	0	0	6
6:45 AM	0	0	5	0	1	0	6
7:00 AM	0	0	8	1	1	0	10
7:15 AM	0	0	20	1	1	0	22
7:30 AM	0	0	20	0	1	1	22
7:45 AM	0	0	29	3	1	0	33
8:00 AM	0	0	25	1	1	0	27
8:15 AM	0	0	28	0	2	1	31
8:30 AM	0	0	25	0	1	0	26
8:45 AM	0	0	38	1	1	0	40
9:00 AM	0	0	42	1	0	0	43
9:15 AM	0	0	43	0	0	0	43
9:30 AM	0	0	37	1	0	0	38
9:45 AM	0	0	49	1	0	0	50
10:00 AM	0	0	31	0	0	0	31
10:15 AM	0	0	41	0	0	0	41
10:30 AM	0	0	41	0	0	0	41
10:45 AM	0	0	45	1	0	0	46
11:00 AM	0	0	37	1	0	0	38
11:15 AM	0	0	52	0	2	0	54
11:30 AM	0	0	44	1	2	0	47
11:45 AM	0	0	42	1	0	0	43

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	44	0	2	0	46
12:15 PM	0	1	39	0	1	0	41
12:30 PM	0	0	27	1	0	0	28
12:45 PM	0	0	37	0	0	0	37
1:00 PM	0	0	36	3	1	0	40
1:15 PM	0	0	35	1	0	0	36
1:30 PM	0	0	43	0	0	1	44
1:45 PM	0	0	42	0	0	0	42
2:00 PM	0	0	30	0	0	0	30
2:15 PM	0	0	49	0	0	0	49
2:30 PM	0	0	41	0	1	0	42
2:45 PM	0	0	58	1	0	0	59
3:00 PM	0	0	127	0	2	0	129
3:15 PM	0	0	44	0	0	0	44
3:30 PM	0	0	46	0	0	0	46
3:45 PM	0	0	56	1	0	0	57
4:00 PM	0	0	46	1	0	0	47
4:15 PM	0	0	51	0	0	0	51
4:30 PM	0	0	69	0	0	0	69
4:45 PM	0	0	48	0	0	0	48
5:00 PM	0	0	56	0	2	0	58
5:15 PM	0	0	40	0	1	0	41
5:30 PM	0	0	47	0	1	0	48
5:45 PM	0	0	31	0	0	0	31
6:00 PM	0	0	28	0	1	0	29
6:15 PM	0	0	24	0	0	0	24
6:30 PM	0	0	14	0	0	0	14
6:45 PM	0	0	14	0	0	0	14
7:00 PM	0	0	13	0	0	0	13
7:15 PM	0	0	9	0	0	0	9
7:30 PM	0	0	3	0	0	0	3
7:45 PM	0	0	4	0	0	0	4
8:00 PM	0	0	11	0	0	0	11
8:15 PM	0	0	4	0	0	0	4
8:30 PM	0	0	5	0	0	0	5
8:45 PM	0	0	7	0	0	0	7
9:00 PM	0	0	6	0	0	0	6
9:15 PM	0	0	2	0	0	0	2
9:30 PM	0	0	10	0	0	0	10
9:45 PM	0	0	22	0	1	0	23
10:00 PM	0	0	5	0	0	0	5
10:15 PM	0	0	2	0	0	0	2
10:30 PM	0	0	3	0	0	0	3
10:45 PM	0	0	1	0	0	0	1
11:00 PM	0	0	3	0	0	0	3
11:15 PM	0	0	1	0	0	0	1
11:30 PM	0	0	2	0	0	0	2
11:45 PM	0	0	1	0	0	0	1

AM Total	0	0	718	14	14	2	748
Percentage	0.00%	0.00%	95.99%	1.87%	1.87%	0.27%	
AM Peak	12:00 AM	12:00 AM	10:45 AM	7:00 AM	7:30 AM	7:30 AM	10:45 AM
Volume	0	0	178	5	5	2	185

PM Total	0	1	1336	8	13	1	1359
Percentage	0.00%	0.07%	98.31%	0.59%	0.96%	0.07%	
PM Peak	12:00 PM	12:00 PM	2:15 PM	12:30 PM	4:45 PM	12:45 PM	2:15 PM
Volume	0	1	275	5	4	1	279

Day Total	0	1	2054	22	27	3	2107
Percentage	0.00%	0.05%	97.48%	1.04%	1.28%	0.14%	

Baker Avenue Extension
south of #300 Driveway
City, State: Concord, MA
Client: VHB/ A. Domogala
Site Code: 15630



PDI File #: 239716 ATR-B

Count Date: Thursday, November 16, 2023
Direction: SB

AM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0
1:00 AM	0	0	1	0	0	0	1
1:15 AM	0	0	0	0	0	0	0
1:30 AM	0	0	1	0	0	0	1
1:45 AM	0	0	0	0	0	0	0
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	1	1
3:45 AM	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0
4:15 AM	0	0	1	0	0	0	1
4:30 AM	0	0	0	0	0	0	0
4:45 AM	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0
5:30 AM	0	0	3	0	0	0	3
5:45 AM	0	0	2	0	0	0	2
6:00 AM	0	0	0	0	0	0	0
6:15 AM	0	0	11	0	0	0	11
6:30 AM	0	0	13	0	0	0	13
6:45 AM	0	0	37	0	0	0	37
7:00 AM	0	0	38	0	1	0	39
7:15 AM	0	0	61	0	1	0	62
7:30 AM	0	0	60	0	0	0	60
7:45 AM	0	0	48	1	0	0	49
8:00 AM	0	0	46	0	0	0	46
8:15 AM	0	0	50	1	1	0	52
8:30 AM	0	0	57	1	0	0	58
8:45 AM	0	0	66	1	0	0	67
9:00 AM	0	0	52	0	0	0	52
9:15 AM	0	0	37	0	1	0	38
9:30 AM	0	0	40	0	1	0	41
9:45 AM	0	0	46	0	0	0	46
10:00 AM	0	0	43	1	1	0	45
10:15 AM	0	0	32	0	0	1	33
10:30 AM	0	0	34	1	1	0	36
10:45 AM	0	0	45	1	0	0	46
11:00 AM	0	0	26	0	1	0	27
11:15 AM	0	1	35	0	2	0	38
11:30 AM	2	1	42	1	0	0	46
11:45 AM	1	0	42	0	0	0	43

PM	Bicycles	Motorcycle	Cars & Light Goods	Buses	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	0	0	44	0	0	0	44
12:15 PM	0	0	27	0	0	0	27
12:30 PM	0	0	36	0	0	0	36
12:45 PM	0	0	42	2	0	0	44
1:00 PM	0	0	39	1	1	1	42
1:15 PM	0	0	31	1	1	0	33
1:30 PM	0	0	38	0	0	0	38
1:45 PM	0	0	35	0	1	0	36
2:00 PM	0	0	30	0	0	0	30
2:15 PM	0	0	36	0	2	1	39
2:30 PM	0	0	43	0	1	0	44
2:45 PM	0	0	49	0	0	0	49
3:00 PM	0	0	40	3	0	0	43
3:15 PM	0	0	39	0	0	0	39
3:30 PM	0	0	34	0	0	0	34
3:45 PM	0	0	33	2	0	0	35
4:00 PM	0	0	33	0	1	0	34
4:15 PM	0	0	26	0	0	0	26
4:30 PM	0	0	36	0	0	0	36
4:45 PM	0	1	24	0	0	0	25
5:00 PM	0	0	24	0	0	0	24
5:15 PM	0	0	15	0	0	0	15
5:30 PM	0	0	19	0	0	0	19
5:45 PM	0	0	13	0	0	0	13
6:00 PM	0	0	16	0	0	0	16
6:15 PM	0	0	14	0	0	0	14
6:30 PM	0	0	18	0	0	0	18
6:45 PM	0	0	20	0	0	0	20
7:00 PM	0	0	18	0	0	0	18
7:15 PM	0	0	4	0	0	0	4
7:30 PM	0	0	3	0	0	0	3
7:45 PM	0	0	10	0	0	0	10
8:00 PM	0	0	8	0	0	0	8
8:15 PM	0	0	5	0	0	0	5
8:30 PM	0	0	3	0	0	0	3
8:45 PM	0	0	3	0	0	0	3
9:00 PM	0	0	2	0	0	0	2
9:15 PM	0	0	10	0	0	0	10
9:30 PM	0	0	1	0	0	0	1
9:45 PM	0	0	0	0	0	0	0
10:00 PM	0	0	2	0	1	0	3
10:15 PM	0	0	0	0	0	0	0
10:30 PM	0	0	4	0	0	0	4
10:45 PM	0	0	1	0	0	0	1
11:00 PM	0	0	2	0	0	0	2
11:15 PM	0	0	2	0	0	0	2
11:30 PM	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0

AM Total	3	2	969	8	10	2	994
Percentage	0.30%	0.20%	97.48%	0.80%	1.01%	0.20%	
AM Peak	11:00 AM	10:45 AM	8:15 AM	7:45 AM	10:30 AM	2:45 AM	8:15 AM
Volume	3	2	225	3	4	1	229

PM Total	0	1	932	9	8	2	952
Percentage	0.00%	0.11%	97.90%	0.95%	0.84%	0.21%	
PM Peak	12:00 PM	4:00 PM	2:30 PM	3:00 PM	1:45 PM	12:15 PM	2:15 PM
Volume	0	1	171	5	4	1	175

Day Total	3	3	1901	17	18	4	1946
Percentage	0.15%	0.15%	97.69%	0.87%	0.92%	0.21%	

Baker Avenue Extension
 south of #300 Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00



PDI File #: 239716 ATR-B (Speed)

Count Date
 Thursday, November 16, 2023

Speed (60-minute)

NB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	2	33.6	32.5
1:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	2	29.6	28.5
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	29.0	29.0
4:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	29.0	29.0
5:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	31.0	31.0
6:00 AM	0	0	0	1	5	7	0	0	0	0	0	0	0	13	38.0	34.5
7:00 AM	2	3	5	14	41	17	6	0	0	0	0	0	0	88	37.0	31.4
8:00 AM	1	9	7	26	47	12	4	0	0	0	0	0	0	106	34.3	29.6
9:00 AM	3	4	17	60	58	26	4	1	2	0	1	0	0	176	35.0	30.1
10:00 AM	0	2	13	49	58	15	4	0	0	0	0	0	0	141	34.0	30.0
11:00 AM	5	13	19	50	60	11	2	0	0	0	0	0	0	160	33.0	28.0
12:00 PM	2	6	13	39	63	19	5	0	0	0	0	0	0	147	35.0	29.8
1:00 PM	0	2	10	48	59	25	2	0	0	0	0	0	0	146	35.0	30.3
2:00 PM	2	11	26	35	61	25	5	0	0	0	0	0	0	165	35.0	29.2
3:00 PM	9	34	33	44	58	24	6	1	0	0	0	0	0	209	34.0	26.9
4:00 PM	2	4	13	51	82	52	8	0	0	0	0	0	0	212	36.0	31.1
5:00 PM	5	5	21	46	71	28	5	2	0	0	0	0	0	183	35.0	29.7
6:00 PM	3	2	8	16	33	17	0	0	1	0	0	0	0	80	35.0	29.9
7:00 PM	0	2	4	6	10	3	1	0	0	0	0	0	0	26	34.5	29.6
8:00 PM	0	1	5	11	10	3	0	0	0	0	0	0	0	30	33.0	28.4
9:00 PM	0	0	2	12	15	8	2	1	0	0	0	0	0	40	36.2	31.7
10:00 PM	1	0	1	3	7	2	1	0	0	0	0	0	0	15	34.9	30.7
11:00 PM	0	1	1	1	1	3	0	0	0	0	0	0	0	7	36.0	30.0
Total	35	99	198	515	743	297	55	5	3	0	1	0	0	1951	35.0	29.6
Percent	1.79%	5.07%	10.15%	26.40%	38.08%	15.22%	2.82%	0.26%	0.15%	0.00%	0.05%	0.00%	0.00%			

AM Peak	11:00 AM	11:00 AM	11:00 AM	9:00 AM	11:00 AM	9:00 AM	7:00 AM	9:00 AM	9:00 AM		9:00 AM			9:00 AM		
Volume	5	13	19	60	60	26	6	1	2	0	1	0	0	176		
PM Peak	3:00 PM	3:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	5:00 PM	6:00 PM					4:00 PM		
Volume	9	34	33	51	82	52	8	2	1	0	0	0	0	212		

15th Percentile:	24.0 MPH	Average Speed:	29.6 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	30.0 MPH	10 MPH Pace:	27 to 36 MPH	Number of Vehicles > 30 MPH:	951
85th Percentile:	35.0 MPH	Number in Pace:	1310	Percent of Vehicles > 30 MPH:	48.7%
95th Percentile:	38.0 MPH	Percent in Pace:	67.1%		

Baker Avenue Extension
 south of #300 Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00



PDI File #: 239716 ATR-B (Speed)

Count Date
 Thursday, November 16, 2023

Speed (60-minute)

SB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
1:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	27.4	26.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	2	30.4	29.0
4:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	2	30.0	27.5
5:00 AM	0	0	0	1	3	0	0	0	0	0	0	0	0	4	33.1	31.3
6:00 AM	0	3	14	8	15	14	4	0	0	0	0	0	0	58	37.0	30.1
7:00 AM	2	7	32	27	56	50	12	1	0	0	0	0	0	187	38.0	30.9
8:00 AM	0	7	24	44	88	48	9	2	1	0	0	0	0	223	36.0	31.2
9:00 AM	0	1	14	35	72	40	7	0	0	0	0	0	0	169	36.8	31.7
10:00 AM	3	2	26	31	70	23	2	0	0	0	0	0	0	157	35.0	29.6
11:00 AM	3	5	27	32	50	22	6	0	0	0	0	0	0	145	36.0	29.2
12:00 PM	3	9	16	35	55	20	2	0	0	0	0	0	0	140	35.0	29.0
1:00 PM	1	4	18	29	56	29	7	0	0	0	0	0	0	144	36.0	30.6
2:00 PM	1	7	27	33	59	27	2	0	0	0	0	0	0	156	35.0	29.6
3:00 PM	0	5	24	29	60	29	1	1	0	0	0	0	0	149	35.0	30.0
4:00 PM	0	6	22	15	55	24	2	0	0	0	0	0	0	124	36.0	30.0
5:00 PM	1	2	5	22	27	12	2	0	0	0	0	0	0	71	35.0	30.2
6:00 PM	0	2	7	17	25	19	1	0	0	0	0	0	0	71	36.0	31.0
7:00 PM	1	1	2	2	14	12	2	1	0	0	0	0	0	35	38.0	32.7
8:00 PM	0	1	0	8	6	5	0	0	0	0	0	0	0	20	37.0	30.9
9:00 PM	0	0	0	1	9	3	0	0	0	0	0	0	0	13	36.2	32.5
10:00 PM	0	0	1	1	3	4	0	0	0	0	0	0	0	9	37.8	32.6
11:00 PM	0	0	0	0	2	2	0	0	0	0	0	0	0	4	35.0	33.3
Total	15	62	261	372	727	383	59	5	1	0	0	0	0	1885	36.0	30.3
Percent	0.80%	3.29%	13.85%	19.73%	38.57%	20.32%	3.13%	0.27%	0.05%	0.00%	0.00%	0.00%	0.00%			

AM Peak	10:00 AM	7:00 AM	7:00 AM	8:00 AM	8:00 AM	7:00 AM	7:00 AM	8:00 AM	8:00 AM							8:00 AM
Volume	3	7	32	44	88	50	12	2	1	0	0	0	0	0	0	223
PM Peak	12:00 PM	12:00 PM	2:00 PM	12:00 PM	3:00 PM	1:00 PM	1:00 PM	3:00 PM								2:00 PM
Volume	3	9	27	35	60	29	7	1	0	0	0	0	0	0	156	

15th Percentile:	24.0 MPH	Average Speed:	30.3 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	31.0 MPH	10 MPH Pace:	28 to 37 MPH	Number of Vehicles > 30 MPH:	1081
85th Percentile:	36.0 MPH	Number in Pace:	1219	Percent of Vehicles > 30 MPH:	57.3%
95th Percentile:	38.0 MPH	Percent in Pace:	64.7%		

Baker Avenue Extension
 south of #300 Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00



PDI File #: 239716 ATR-B (Speed)

Count Date
 Thursday, November 16, 2023

Speed (60-minute)
Combined NB and SB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	2	33.6	32.5
1:00 AM	0	0	1	2	1	0	0	0	0	0	0	0	0	4	29.1	27.3
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	2	1	0	0	0	0	0	0	0	0	3	30.4	29.0
4:00 AM	0	0	1	1	1	0	0	0	0	0	0	0	0	3	30.4	28.0
5:00 AM	0	0	0	1	4	0	0	0	0	0	0	0	0	5	32.8	31.2
6:00 AM	0	3	14	9	20	21	4	0	0	0	0	0	0	71	37.5	30.9
7:00 AM	4	10	37	41	97	67	18	1	0	0	0	0	0	275	37.0	31.0
8:00 AM	1	16	31	70	135	60	13	2	1	0	0	0	0	329	36.0	30.6
9:00 AM	3	5	31	95	130	66	11	1	2	0	1	0	0	345	36.0	30.9
10:00 AM	3	4	39	80	128	38	6	0	0	0	0	0	0	298	34.0	29.8
11:00 AM	8	18	46	82	110	33	8	0	0	0	0	0	0	305	34.0	28.5
12:00 PM	5	15	29	74	118	39	7	0	0	0	0	0	0	287	35.0	29.4
1:00 PM	1	6	28	77	115	54	9	0	0	0	0	0	0	290	35.0	30.4
2:00 PM	3	18	53	68	120	52	7	0	0	0	0	0	0	321	35.0	29.4
3:00 PM	9	39	57	73	118	53	7	2	0	0	0	0	0	358	35.0	28.2
4:00 PM	2	10	35	66	137	76	10	0	0	0	0	0	0	336	36.0	30.7
5:00 PM	6	7	26	68	98	40	7	2	0	0	0	0	0	254	35.0	29.8
6:00 PM	3	4	15	33	58	36	1	0	1	0	0	0	0	151	36.0	30.4
7:00 PM	1	3	6	8	24	15	3	1	0	0	0	0	0	61	37.0	31.4
8:00 PM	0	2	5	19	16	8	0	0	0	0	0	0	0	50	34.7	29.4
9:00 PM	0	0	2	13	24	11	2	1	0	0	0	0	0	53	36.2	31.9
10:00 PM	1	0	2	4	10	6	1	0	0	0	0	0	0	24	37.0	31.4
11:00 PM	0	1	1	1	3	5	0	0	0	0	0	0	0	11	35.5	31.2
Total	50	161	459	887	1470	680	114	10	4	0	1	0	0	3836	36.0	30.0
Percent	1.30%	4.20%	11.97%	23.12%	38.32%	17.73%	2.97%	0.26%	0.10%	0.00%	0.03%	0.00%	0.00%			

AM Peak	11:00 AM	11:00 AM	11:00 AM	9:00 AM	8:00 AM	7:00 AM	7:00 AM	8:00 AM	9:00 AM		9:00 AM			9:00 AM		
Volume	8	18	46	95	135	67	18	2	2	0	1	0	0	345		
PM Peak	3:00 PM	3:00 PM	3:00 PM	1:00 PM	4:00 PM	4:00 PM	4:00 PM	3:00 PM	6:00 PM					3:00 PM		
Volume	9	39	57	77	137	76	10	2	1	0	0	0	0	358		

15th Percentile:	24.0 MPH	Average Speed:	30.0 MPH	Posted Speed Limit:	30 MPH
50th Percentile:	31.0 MPH	10 MPH Pace:	27 to 36 MPH	Number of Vehicles > 30 MPH:	2032
85th Percentile:	36.0 MPH	Number in Pace:	2507	Percent of Vehicles > 30 MPH:	53.0%
95th Percentile:	38.0 MPH	Percent in Pace:	65.4%		

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Cars and Heavy Vehicles (Combined)

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	5	3	2	0	10	9	55	0	0	64	2	6	7	0	15	6	157	21	0	184	273
7:15 AM	7	6	0	0	13	22	53	0	0	75	1	23	6	0	30	12	153	20	0	185	303
7:30 AM	9	5	2	0	16	19	62	1	0	82	2	19	4	0	25	5	167	33	0	205	328
7:45 AM	4	5	4	0	13	19	54	1	0	74	2	35	13	0	50	8	166	50	0	224	361
Total	25	19	8	0	52	69	224	2	0	295	7	83	30	0	120	31	643	124	0	798	1265
8:00 AM	12	9	2	0	23	17	87	2	0	106	2	25	14	0	41	5	162	20	0	187	357
8:15 AM	13	7	3	0	23	16	70	2	0	88	1	26	8	0	35	6	141	29	0	176	322
8:30 AM	16	8	10	0	34	16	74	0	0	90	0	22	8	0	30	4	152	29	0	185	339
8:45 AM	21	10	13	0	44	28	90	1	0	119	2	25	13	0	40	4	127	35	0	166	369
Total	62	34	28	0	124	77	321	5	0	403	5	98	43	0	146	19	582	113	0	714	1387
Grand Total	87	53	36	0	176	146	545	7	0	698	12	181	73	0	266	50	1225	237	0	1512	2652
Approach %	49.4	30.1	20.5	0.0		20.9	78.1	1.0	0.0		4.5	68.0	27.4	0.0		3.3	81.0	15.7	0.0		
Total %	3.3	2.0	1.4	0.0	6.6	5.5	20.6	0.3	0.0	26.3	0.5	6.8	2.8	0.0	10.0	1.9	46.2	8.9	0.0	57.0	
Exiting Leg Total	564					1273					110					705					2652
Cars	83	51	36	0	170	146	517	5	0	668	9	176	71	0	256	49	1174	228	0	1451	2545
% Cars	95.4	96.2	100.0	0.0	96.6	100.0	94.9	71.4	0.0	95.7	75.0	97.2	97.3	0.0	96.2	98.0	95.8	96.2	0.0	96.0	96.0
Exiting Leg Total	550					1219					105					671					2545
Heavy Vehicles	4	2	0	0	6	0	28	2	0	30	3	5	2	0	10	1	51	9	0	61	107
% Heavy Vehicles	4.6	3.8	0.0	0.0	3.4	0.0	5.1	28.6	0.0	4.3	25.0	2.8	2.7	0.0	3.8	2.0	4.2	3.8	0.0	4.0	4.0
Exiting Leg Total	14					54					5					34					107

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

8:00 AM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	12	9	2	0	23	17	87	2	0	106	2	25	14	0	41	5	162	20	0	187	357
8:15 AM	13	7	3	0	23	16	70	2	0	88	1	26	8	0	35	6	141	29	0	176	322
8:30 AM	16	8	10	0	34	16	74	0	0	90	0	22	8	0	30	4	152	29	0	185	339
8:45 AM	21	10	13	0	44	28	90	1	0	119	2	25	13	0	40	4	127	35	0	166	369
Total Volume	62	34	28	0	124	77	321	5	0	403	5	98	43	0	146	19	582	113	0	714	1387
% Approach Total	50.0	27.4	22.6	0.0		19.1	79.7	1.2	0.0		3.4	67.1	29.5	0.0		2.7	81.5	15.8	0.0		
PHF	0.738	0.850	0.538	0.000	0.705	0.688	0.892	0.625	0.000	0.847	0.625	0.942	0.768	0.000	0.890	0.792	0.898	0.807	0.000	0.955	0.940
Cars	59	33	28	0	120	77	307	3	0	387	3	95	41	0	139	19	565	109	0	693	1339
Cars %	95.2	97.1	100.0	0.0	96.8	100.0	95.6	60.0	0.0	96.0	60.0	96.9	95.3	0.0	95.2	100.0	97.1	96.5	0.0	97.1	96.5
Heavy Vehicles	3	1	0	0	4	0	14	2	0	16	2	3	2	0	7	0	17	4	0	21	48
Heavy Vehicles %	4.8	2.9	0.0	0.0	3.2	0.0	4.4	40.0	0.0	4.0	40.0	3.1	4.7	0.0	4.8	0.0	2.9	3.5	0.0	2.9	3.5
Cars Enter Leg	59	33	28	0	120	77	307	3	0	387	3	95	41	0	139	19	565	109	0	693	1339
Heavy Enter Leg	3	1	0	0	4	0	14	2	0	16	2	3	2	0	7	0	17	4	0	21	48
Total Entering Leg	62	34	28	0	124	77	321	5	0	403	5	98	43	0	146	19	582	113	0	714	1387
Cars Exiting Leg	281					596					55					407					1339
Heavy Exiting Leg	7					19					3					19					48
Total Exiting Leg	288					615					58					426					1387

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	5	3	2	0	10	9	53	0	0	62	2	6	7	0	15	6	142	19	0	167	254
7:15 AM	6	6	0	0	12	22	51	0	0	73	0	21	6	0	27	12	146	20	0	178	290
7:30 AM	9	5	2	0	16	19	58	1	0	78	2	19	4	0	25	5	161	31	0	197	316
7:45 AM	4	4	4	0	12	19	48	1	0	68	2	35	13	0	50	7	160	49	0	216	346
Total	24	18	8	0	50	69	210	2	0	281	6	81	30	0	117	30	609	119	0	758	1206
8:00 AM	12	9	2	0	23	17	82	2	0	101	2	24	14	0	40	5	161	20	0	186	350
8:15 AM	12	7	3	0	22	16	67	0	0	83	0	25	8	0	33	6	138	28	0	172	310
8:30 AM	15	8	10	0	33	16	69	0	0	85	0	21	8	0	29	4	144	27	0	175	322
8:45 AM	20	9	13	0	42	28	89	1	0	118	1	25	11	0	37	4	122	34	0	160	357
Total	59	33	28	0	120	77	307	3	0	387	3	95	41	0	139	19	565	109	0	693	1339
Grand Total	83	51	36	0	170	146	517	5	0	668	9	176	71	0	256	49	1174	228	0	1451	2545
Approach %	48.8	30.0	21.2	0.0		21.9	77.4	0.7	0.0		3.5	68.8	27.7	0.0		3.4	80.9	15.7	0.0		
Total %	3.3	2.0	1.4	0.0	6.7	5.7	20.3	0.2	0.0	26.2	0.4	6.9	2.8	0.0	10.1	1.9	46.1	9.0	0.0	57.0	
Exiting Leg Total	550					1219					105					671					2545

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	12	9	2	0	23	17	82	2	0	101	2	24	14	0	40	5	161	20	0	186	350
8:15 AM	12	7	3	0	22	16	67	0	0	83	0	25	8	0	33	6	138	28	0	172	310
8:30 AM	15	8	10	0	33	16	69	0	0	85	0	21	8	0	29	4	144	27	0	175	322
8:45 AM	20	9	13	0	42	28	89	1	0	118	1	25	11	0	37	4	122	34	0	160	357
Total Volume	59	33	28	0	120	77	307	3	0	387	3	95	41	0	139	19	565	109	0	693	1339
% Approach Total	49.2	27.5	23.3	0.0		19.9	79.3	0.8	0.0		2.2	68.3	29.5	0.0		2.7	81.5	15.7	0.0		
PHF	0.738	0.917	0.538	0.000	0.714	0.688	0.862	0.375	0.000	0.820	0.375	0.950	0.732	0.000	0.869	0.792	0.877	0.801	0.000	0.931	0.938
Entering Leg	59	33	28	0	120	77	307	3	0	387	3	95	41	0	139	19	565	109	0	693	1339
Exiting Leg	281					596					55					407					1339
Total	401					983					194					1100					2678

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	15	2	0	17	19
7:15 AM	1	0	0	0	1	0	2	0	0	2	1	2	0	0	3	0	7	0	0	7	13
7:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	2	0	8	12
7:45 AM	0	1	0	0	1	0	6	0	0	6	0	0	0	0	0	1	6	1	0	8	15
Total	1	1	0	0	2	0	14	0	0	14	1	2	0	0	3	1	34	5	0	40	59
8:00 AM	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	0	1	0	0	1	7
8:15 AM	1	0	0	0	1	0	3	2	0	5	1	1	0	0	2	0	3	1	0	4	12
8:30 AM	1	0	0	0	1	0	5	0	0	5	0	1	0	0	1	0	8	2	0	10	17
8:45 AM	1	1	0	0	2	0	1	0	0	1	1	0	2	0	3	0	5	1	0	6	12
Total	3	1	0	0	4	0	14	2	0	16	2	3	2	0	7	0	17	4	0	21	48
Grand Total	4	2	0	0	6	0	28	2	0	30	3	5	2	0	10	1	51	9	0	61	107
Approach %	66.7	33.3	0.0	0.0	66.7	0.0	93.3	6.7	0.0	30.0	30.0	50.0	20.0	0.0	66.7	1.6	83.6	14.8	0.0	33.3	35.5
Total %	3.7	1.9	0.0	0.0	5.6	0.0	26.2	1.9	0.0	28.0	2.8	4.7	1.9	0.0	9.3	0.9	47.7	8.4	0.0	57.0	57.0
Exiting Leg Total	14					54					5					34					107
Buses	2	2	0	0	4	0	9	0	0	9	2	3	0	0	5	0	17	3	0	20	38
% Buses	50.0	100.0	0.0	0.0	66.7	0.0	32.1	0.0	0.0	30.0	66.7	60.0	0.0	0.0	50.0	0.0	33.3	33.3	0.0	32.8	35.5
Exiting Leg Total	6					19					2					11					38
Single-Unit Trucks	2	0	0	0	2	0	15	2	0	17	1	2	1	0	4	1	28	5	0	34	57
% Single-Unit	50.0	0.0	0.0	0.0	33.3	0.0	53.6	100.0	0.0	56.7	33.3	40.0	50.0	0.0	40.0	100.0	54.9	55.6	0.0	55.7	53.3
Exiting Leg Total	7					29					3					18					57
Articulated Trucks	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	6	1	0	7	12
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	13.3	0.0	0.0	50.0	0.0	10.0	0.0	11.8	11.1	0.0	11.5	11.2
Exiting Leg Total	1					6					0					5					12

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	15	2	0	17	19
7:15 AM	1	0	0	0	1	0	2	0	0	2	1	2	0	0	3	0	7	0	0	7	13
7:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	2	0	8	12
7:45 AM	0	1	0	0	1	0	6	0	0	6	0	0	0	0	0	1	6	1	0	8	15
Total Volume	1	1	0	0	2	0	14	0	0	14	1	2	0	0	3	1	34	5	0	40	59
% Approach Total	50.0	50.0	0.0	0.0	66.7	0.0	100.0	0.0	0.0	30.0	33.3	66.7	0.0	0.0	66.7	2.5	85.0	12.5	0.0	33.3	57.0
PHF	0.250	0.250	0.000	0.000	0.500	0.000	0.583	0.000	0.000	0.583	0.250	0.250	0.000	0.000	0.250	0.250	0.567	0.625	0.000	0.588	0.776
Buses	0	1	0	0	1	0	6	0	0	6	1	1	0	0	2	0	14	1	0	15	24
Buses %	0.0	100.0	0.0	0.0	50.0	0.0	42.9	0.0	0.0	42.9	100.0	50.0	0.0	0.0	66.7	0.0	41.2	20.0	0.0	37.5	40.7
Single-Unit Trucks	1	0	0	0	1	0	7	0	0	7	0	1	0	0	1	1	17	3	0	21	30
Single-Unit %	100.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	33.3	100.0	50.0	60.0	0.0	52.5	50.8
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	1	0	4	5
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	8.8	20.0	0.0	10.0	8.5
Buses	0	1	0	0	1	0	6	0	0	6	1	1	0	0	2	0	14	1	0	15	24
Single-Unit Trucks	1	0	0	0	1	0	7	0	0	7	0	1	0	0	1	1	17	3	0	21	30
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	1	0	4	5
Total Entering Leg	1	1	0	0	2	0	14	0	0	14	1	2	0	0	3	1	34	5	0	40	59
Buses	2					15					1					6					24
Single-Unit Trucks	4					17					1					8					30
Articulated Trucks	1					3					0					1					5
Total Exiting Leg	7					35					2					15					59

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Buses

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	7	1	0	8	8		
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	3	0	0	3	5		
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5		
7:45 AM	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	6		
Total	0	1	0	0	1	0	6	0	0	6	1	1	0	0	2	0	14	1	0	15	24		
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	3		
8:15 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	3		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	1	0	4	5		
8:45 AM	1	1	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3		
Total	2	1	0	0	3	0	3	0	0	3	1	2	0	0	3	0	3	2	0	5	14		
Grand Total	2	2	0	0	4	0	9	0	0	9	2	3	0	0	5	0	17	3	0	20	38		
Approach %	50.0	50.0	0.0	0.0		0.0	100.0	0.0	0.0		40.0	60.0	0.0	0.0		0.0	85.0	15.0	0.0				
Total %	5.3	5.3	0.0	0.0	10.5	0.0	23.7	0.0	0.0	23.7	5.3	7.9	0.0	0.0	13.2	0.0	44.7	7.9	0.0	52.6			
Exiting Leg Total						6					19					2					11		38

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	7	1	0	8	8		
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	3	0	0	3	5		
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5		
7:45 AM	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	6		
Total Volume	0	1	0	0	1	0	6	0	0	6	1	1	0	0	2	0	14	1	0	15	24		
% Approach Total	0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	50.0	0.0	0.0		0.0	93.3	6.7	0.0				
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.375	0.000	0.000	0.375	0.250	0.250	0.000	0.000	0.250	0.000	0.500	0.250	0.000	0.469	0.750		
Entering Leg	0	1	0	0	1	0	6	0	0	6	1	1	0	0	2	0	14	1	0	15	24		
Exiting Leg						2					15					1					6		
Total						3					21					3					21		48

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Single-Unit Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	1	0	0	1	0	0	0	0	0	0	8	1	0	9	10	
7:15 AM	1	0	0	0	1	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	6	
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	1	0	4	6	
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	4	1	0	6	8	
Total	1	0	0	0	1	0	7	0	0	7	0	1	0	0	1	1	17	3	0	21	30	
8:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	
8:15 AM	0	0	0	0	0	0	2	2	0	4	0	1	0	0	1	0	3	0	0	3	8	
8:30 AM	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	4	1	0	5	10	
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	3	1	0	4	6	
Total	1	0	0	0	1	0	8	2	0	10	1	1	1	0	3	0	11	2	0	13	27	
Grand Total	2	0	0	0	2	0	15	2	0	17	1	2	1	0	4	1	28	5	0	34	57	
Approach %	100.0	0.0	0.0	0.0		0.0	88.2	11.8	0.0		25.0	50.0	25.0	0.0		2.9	82.4	14.7	0.0			
Total %	3.5	0.0	0.0	0.0	3.5	0.0	26.3	3.5	0.0	29.8	1.8	3.5	1.8	0.0	7.0	1.8	49.1	8.8	0.0	59.6		
Exiting Leg Total						7					29					3					18	57

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

7:00 AM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	1	0	0	1	0	0	0	0	0	0	8	1	0	9	10	
7:15 AM	1	0	0	0	1	0	2	0	0	2	0	1	0	0	1	0	2	0	0	2	6	
7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	1	0	4	6	
7:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	4	1	0	6	8	
Total Volume	1	0	0	0	1	0	7	0	0	7	0	1	0	0	1	1	17	3	0	21	30	
% Approach Total	100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		4.8	81.0	14.3	0.0			
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.875	0.000	0.000	0.875	0.000	0.250	0.000	0.000	0.250	0.250	0.531	0.750	0.000	0.583	0.750	
Entering Leg	1	0	0	0	1	0	7	0	0	7	0	1	0	0	1	1	17	3	0	21	30	
Exiting Leg						4					17					1					8	30
Total						5					24					2					29	60

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Articulated Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					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	1	0	0	1	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	2	0	0	0	2		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	1	0	4	5		
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	2		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	3		
Total	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	7		
Grand Total	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	6	1	0	7	12		
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	85.7	14.3	0.0				
Total %	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	0.0	0.0	8.3	0.0	8.3	0.0	50.0	8.3	0.0	58.3			
Exiting Leg Total						1					6					0					5		12

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

8:00 AM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total		
	from North					from East					from South					from West							
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total			
8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	2		
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	7		
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0				
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.250	0.000	0.250	0.000	0.375	0.000	0.000	0.375	0.583		
Entering Leg	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	7		
Exiting Leg						0					3					0					4		7
Total						0					6					1					7		14

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Bicycles (on Roadway and Crosswalks)

	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1		0	0	0	0	0	0	0	0	0	1	0	0	1	0	2		3	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
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	1	0	0	0	0	1		1	
7:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	
Total	0	0	0	0	0	0	0	0	3	0	0	0	0	3		0	0	0	0	0	0	0	0	0	2	0	0	1	0	3		6	
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	1	0	0	0	0	1		1	
8:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	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	0	0	0		0	0	0	0	0	1	1	1	0	1	0	0	0	0	1		2	
Total	0	0	0	0	0	0	0	0	3	0	0	0	0	3		0	0	0	0	0	1	1	1	0	2	0	0	0	0	2		6	
Grand Total	0	0	0	0	0	0	0	0	6	0	0	0	0	6		0	0	0	0	0	1	1	1	0	4	0	0	1	0	5		12	
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	80.0	0.0	0.0	20.0	0.0						
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	8.3	8.3	0.0	33.3	0.0	0.0	8.3	0.0	41.7					
Exiting Leg Total	0							4							1							7							12				

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

7:00 AM	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1		0	0	0	0	0	0	0	0	0	1	0	0	1	0	2		3	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
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	1	0	0	0	0	1		1	
7:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	
Total Volume	0	0	0	0	0	0	0	0	3	0	0	0	0	3		0	0	0	0	0	0	0	0	0	2	0	0	1	0	3		6	
% 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	0.0	0.0		0.0	66.7	0.0	0.0	33.3	0.0						
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.375	0.500					
Entering Leg	0	0	0	0	0	0	0	0	3	0	0	0	0	3		0	0	0	0	0	0	0	0	0	2	0	0	1	0	3		6	
Exiting Leg	0							2							0							4							6				
Total	0							5							0							7							12				

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Pedestrians

	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	5		
7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1			
7:45 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Total	0	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	1	10			
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
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	0	1		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	1	0	1	1	6			
Total	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	1	0	1	1	8			
Grand Total	0	0	0	0	3	5	8	0	0	0	0	0	0	0	0	0	0	0	4	4	8	0	0	0	0	1	1	2	2	18			
Approach %	0	0	0	0	37.5	62.5		0	0	0	0	0	0	0	0	0	0	0	50	50		0	0	0	0	50	50						
Total %	0	0	0	0	16.7	27.8	44.4	0	0	0	0	0	0	0	0	0	0	0	22.2	22.2	44.4	0	0	0	0	5.56	5.56	11.1	11.1				
Exiting Leg Total	8							0							8							2							18				

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

	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	5		
7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1			
7:45 AM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Total Volume	0	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	1	10			
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0	0.0	100.0					
PHF	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500				
Entering Leg	0	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	1	10			
Exiting Leg	6							0							3							1							10				
Total	12							0							6							2							20				

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Cars and Heavy Vehicles (Combined)

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	44	19	17	0	80	11	184	2	0	197	1	9	19	0	29	10	97	13	0	120	426
4:15 PM	16	12	16	0	44	12	143	0	0	155	0	7	14	0	21	8	94	17	0	119	339
4:30 PM	46	16	16	0	78	13	155	0	0	168	3	10	25	0	38	8	91	9	0	108	392
4:45 PM	39	21	17	0	77	4	193	0	0	197	1	14	23	0	38	11	105	8	0	124	436
Total	145	68	66	0	279	40	675	2	0	717	5	40	81	0	126	37	387	47	0	471	1593
5:00 PM	34	14	12	0	60	11	191	0	0	202	2	4	20	0	26	7	134	13	0	154	442
5:15 PM	33	12	17	0	62	3	160	0	0	163	0	5	26	0	31	9	119	14	0	142	398
5:30 PM	28	9	11	0	48	10	193	2	0	205	2	10	33	0	45	4	100	12	0	116	414
5:45 PM	27	12	11	0	50	4	186	0	0	190	0	8	23	0	31	11	98	8	0	117	388
Total	122	47	51	0	220	28	730	2	0	760	4	27	102	0	133	31	451	47	0	529	1642
Grand Total	267	115	117	0	499	68	1405	4	0	1477	9	67	183	0	259	68	838	94	0	1000	3235
Approach %	53.5	23.0	23.4	0.0		4.6	95.1	0.3	0.0		3.5	25.9	70.7	0.0		6.8	83.8	9.4	0.0		
Total %	8.3	3.6	3.6	0.0	15.4	2.1	43.4	0.1	0.0	45.7	0.3	2.1	5.7	0.0	8.0	2.1	25.9	2.9	0.0	30.9	
Exiting Leg Total	229					964					187					1855					3235
Cars	265	115	117	0	497	68	1375	3	0	1446	7	66	180	0	253	68	826	94	0	988	3184
% Cars	99.3	100.0	100.0	0.0	99.6	100.0	97.9	75.0	0.0	97.9	77.8	98.5	98.4	0.0	97.7	100.0	98.6	100.0	0.0	98.8	98.4
Exiting Leg Total	228					950					186					1820					3184
Heavy Vehicles	2	0	0	0	2	0	30	1	0	31	2	1	3	0	6	0	12	0	0	12	51
% Heavy Vehicles	0.7	0.0	0.0	0.0	0.4	0.0	2.1	25.0	0.0	2.1	22.2	1.5	1.6	0.0	2.3	0.0	1.4	0.0	0.0	1.2	1.6
Exiting Leg Total	1					14					1					35					51

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

4:45 PM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:45 PM	39	21	17	0	77	4	193	0	0	197	1	14	23	0	38	11	105	8	0	124	436
5:00 PM	34	14	12	0	60	11	191	0	0	202	2	4	20	0	26	7	134	13	0	154	442
5:15 PM	33	12	17	0	62	3	160	0	0	163	0	5	26	0	31	9	119	14	0	142	398
5:30 PM	28	9	11	0	48	10	193	2	0	205	2	10	33	0	45	4	100	12	0	116	414
Total Volume	134	56	57	0	247	28	737	2	0	767	5	33	102	0	140	31	458	47	0	536	1690
% Approach Total	54.3	22.7	23.1	0.0		3.7	96.1	0.3	0.0		3.6	23.6	72.9	0.0		5.8	85.4	8.8	0.0		
PHF	0.859	0.667	0.838	0.000	0.802	0.636	0.955	0.250	0.000	0.935	0.625	0.589	0.773	0.000	0.778	0.705	0.854	0.839	0.000	0.870	0.956
Cars	134	56	57	0	247	28	726	2	0	756	5	32	102	0	139	31	453	47	0	531	1673
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	98.5	100.0	0.0	98.6	100.0	97.0	100.0	0.0	99.3	100.0	98.9	100.0	0.0	99.1	99.0
Heavy Vehicles	0	0	0	0	0	0	11	0	0	11	0	1	0	0	1	0	5	0	0	5	17
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.4	0.0	3.0	0.0	0.0	0.7	0.0	1.1	0.0	0.0	0.9	1.0
Cars Enter Leg	134	56	57	0	247	28	726	2	0	756	5	32	102	0	139	31	453	47	0	531	1673
Heavy Enter Leg	0	0	0	0	0	0	11	0	0	11	0	1	0	0	1	0	5	0	0	5	17
Total Entering Leg	134	56	57	0	247	28	737	2	0	767	5	33	102	0	140	31	458	47	0	536	1690
Cars Exiting Leg	107					515					89					962					1673
Heavy Exiting Leg	1					5					0					11					17
Total Exiting Leg	108					520					89					973					1690

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Cars

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	43	19	17	0	79	11	179	1	0	191	0	9	18	0	27	10	95	13	0	118	415					
4:15 PM	16	12	16	0	44	12	135	0	0	147	0	7	13	0	20	8	91	17	0	116	327					
4:30 PM	45	16	16	0	77	13	151	0	0	164	2	10	24	0	36	8	89	9	0	106	383					
4:45 PM	39	21	17	0	77	4	190	0	0	194	1	13	23	0	37	11	105	8	0	124	432					
Total	143	68	66	0	277	40	655	1	0	696	3	39	78	0	120	37	380	47	0	464	1557					
5:00 PM	34	14	12	0	60	11	189	0	0	200	2	4	20	0	26	7	132	13	0	152	438					
5:15 PM	33	12	17	0	62	3	158	0	0	161	0	5	26	0	31	9	119	14	0	142	396					
5:30 PM	28	9	11	0	48	10	189	2	0	201	2	10	33	0	45	4	97	12	0	113	407					
5:45 PM	27	12	11	0	50	4	184	0	0	188	0	8	23	0	31	11	98	8	0	117	386					
Total	122	47	51	0	220	28	720	2	0	750	4	27	102	0	133	31	446	47	0	524	1627					
Grand Total	265	115	117	0	497	68	1375	3	0	1446	7	66	180	0	253	68	826	94	0	988	3184					
Approach %	53.3	23.1	23.5	0.0		4.7	95.1	0.2	0.0		2.8	26.1	71.1	0.0		6.9	83.6	9.5	0.0							
Total %	8.3	3.6	3.7	0.0	15.6	2.1	43.2	0.1	0.0	45.4	0.2	2.1	5.7	0.0	7.9	2.1	25.9	3.0	0.0	31.0						
Exiting Leg Total						228					950					186					1820					3184

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:45 PM	39	21	17	0	77	4	190	0	0	194	1	13	23	0	37	11	105	8	0	124	432					
5:00 PM	34	14	12	0	60	11	189	0	0	200	2	4	20	0	26	7	132	13	0	152	438					
5:15 PM	33	12	17	0	62	3	158	0	0	161	0	5	26	0	31	9	119	14	0	142	396					
5:30 PM	28	9	11	0	48	10	189	2	0	201	2	10	33	0	45	4	97	12	0	113	407					
Total Volume	134	56	57	0	247	28	726	2	0	756	5	32	102	0	139	31	453	47	0	531	1673					
% Approach Total	54.3	22.7	23.1	0.0		3.7	96.0	0.3	0.0		3.6	23.0	73.4	0.0		5.8	85.3	8.9	0.0							
PHF	0.859	0.667	0.838	0.000	0.802	0.636	0.955	0.250	0.000	0.940	0.625	0.615	0.773	0.000	0.772	0.705	0.858	0.839	0.000	0.873	0.955					
Entering Leg	134	56	57	0	247	28	726	2	0	756	5	32	102	0	139	31	453	47	0	531	1673					
Exiting Leg						107					515					89					962					1673
Total						354					1271					228					1493					3346

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	0	0	1	0	5	1	0	6	1	0	1	0	2	0	2	0	0	2	11
4:15 PM	0	0	0	0	0	0	8	0	0	8	0	0	1	0	1	0	3	0	0	3	12
4:30 PM	1	0	0	0	1	0	4	0	0	4	1	0	1	0	2	0	2	0	0	2	9
4:45 PM	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	4
Total	2	0	0	0	2	0	20	1	0	21	2	1	3	0	6	0	7	0	0	7	36
5:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
5:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	5	0	0	5	15
Grand Total	2	0	0	0	2	0	30	1	0	31	2	1	3	0	6	0	12	0	0	12	51
Approach %	100.0	0.0	0.0	0.0	0.0	0.0	96.8	3.2	0.0	0.0	33.3	16.7	50.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	
Total %	3.9	0.0	0.0	0.0	3.9	0.0	58.8	2.0	0.0	60.8	3.9	2.0	5.9	0.0	11.8	0.0	23.5	0.0	0.0	23.5	
Exiting Leg Total	1					14					1					35					51
Buses	1	0	0	0	1	0	10	1	0	11	2	0	1	0	3	0	2	0	0	2	17
% Buses	50.0	0.0	0.0	0.0	50.0	0.0	33.3	100.0	0.0	35.5	100.0	0.0	33.3	0.0	50.0	0.0	16.7	0.0	0.0	16.7	33.3
Exiting Leg Total	0					4					1					12					17
Single-Unit Trucks	0	0	0	0	0	0	15	0	0	15	0	1	2	0	3	0	9	0	0	9	27
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	48.4	0.0	100.0	66.7	0.0	50.0	0.0	75.0	0.0	0.0	75.0	52.9
Exiting Leg Total	1					9					0					17					27
Articulated Trucks	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	7
% Articulated	50.0	0.0	0.0	0.0	50.0	0.0	16.7	0.0	0.0	16.1	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0	8.3	13.7
Exiting Leg Total	0					1					0					6					7

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

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	0	0	0	1	0	5	1	0	6	1	0	1	0	2	0	2	0	0	2	11
4:15 PM	0	0	0	0	0	0	8	0	0	8	0	0	1	0	1	0	3	0	0	3	12
4:30 PM	1	0	0	0	1	0	4	0	0	4	1	0	1	0	2	0	2	0	0	2	9
4:45 PM	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	4
Total Volume	2	0	0	0	2	0	20	1	0	21	2	1	3	0	6	0	7	0	0	7	36
% Approach Total	100.0	0.0	0.0	0.0	0.0	0.0	95.2	4.8	0.0	0.0	33.3	16.7	50.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	
PHF	0.500	0.000	0.000	0.000	0.500	0.000	0.625	0.250	0.000	0.656	0.500	0.250	0.750	0.000	0.750	0.000	0.583	0.000	0.000	0.583	0.750
Buses	1	0	0	0	1	0	7	1	0	8	2	0	1	0	3	0	1	0	0	1	13
Buses %	50.0	0.0	0.0	0.0	50.0	0.0	35.0	100.0	0.0	38.1	100.0	0.0	33.3	0.0	50.0	0.0	14.3	0.0	0.0	14.3	36.1
Single-Unit Trucks	0	0	0	0	0	0	10	0	0	10	0	1	2	0	3	0	5	0	0	5	18
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	47.6	0.0	100.0	66.7	0.0	50.0	0.0	71.4	0.0	0.0	71.4	50.0
Articulated Trucks	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	5
Articulated %	50.0	0.0	0.0	0.0	50.0	0.0	15.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	14.3	13.9
Buses	1	0	0	0	1	0	7	1	0	8	2	0	1	0	3	0	1	0	0	1	13
Single-Unit Trucks	0	0	0	0	0	0	10	0	0	10	0	1	2	0	3	0	5	0	0	5	18
Articulated Trucks	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	5
Total Entering Leg	2	0	0	0	2	0	20	1	0	21	2	1	3	0	6	0	7	0	0	7	36
Buses	0					3					1					9					13
Single-Unit Trucks	1					5					0					12					18
Articulated Trucks	0					1					0					4					5
Total Exiting Leg	1					9					1					25					36

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Buses

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	1	0	0	0	1	0	2	1	0	3	1	0	0	0	1	0	1	0	0	1	6	
4:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	5	
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
Total	1	0	0	0	1	0	7	1	0	8	2	0	1	0	3	0	1	0	0	1	13	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	
5:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4	
Grand Total	1	0	0	0	1	0	10	1	0	11	2	0	1	0	3	0	2	0	0	2	17	
Approach %	100.0	0.0	0.0	0.0		0.0	90.9	9.1	0.0		66.7	0.0	33.3	0.0		0.0	100.0	0.0	0.0			
Total %	5.9	0.0	0.0	0.0	5.9	0.0	58.8	5.9	0.0	64.7	11.8	0.0	5.9	0.0	17.6	0.0	11.8	0.0	0.0	11.8		
Exiting Leg Total						0					4					1					12	17

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

4:00 PM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	1	0	0	0	1	0	2	1	0	3	1	0	0	0	1	0	1	0	0	1	6					
4:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	5					
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1					
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1					
Total Volume	1	0	0	0	1	0	7	1	0	8	2	0	1	0	3	0	1	0	0	1	13					
% Approach Total	100.0	0.0	0.0	0.0		0.0	87.5	12.5	0.0		66.7	0.0	33.3	0.0		0.0	100.0	0.0	0.0							
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.438	0.250	0.000	0.500	0.500	0.000	0.250	0.000	0.750	0.000	0.250	0.000	0.000	0.250	0.542					
Entering Leg	1	0	0	0	1	0	7	1	0	8	2	0	1	0	3	0	1	0	0	1	13					
Exiting Leg						0					3					1					9	13				
Total						1					11					4					10					26

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Single-Unit Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	1	0	0	1	5
4:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	5
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
Total	0	0	0	0	0	0	10	0	0	10	0	1	2	0	3	0	5	0	0	5	18
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
5:45 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	5	0	0	5	0	0	0	0	0	0	4	0	0	4	9
Grand Total	0	0	0	0	0	0	15	0	0	15	0	1	2	0	3	0	9	0	0	9	27
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	33.3	66.7	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	55.6	0.0	0.0	55.6	0.0	3.7	7.4	0.0	11.1	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total	1					9					0					17					27

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

4:00 PM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	1	0	0	1	5
4:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
4:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	5
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	10	0	0	10	0	1	2	0	3	0	5	0	0	5	18
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	33.3	66.7	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.250	0.500	0.000	0.750	0.000	0.625	0.000	0.000	0.625	0.750
Entering Leg	0	0	0	0	0	0	10	0	0	10	0	1	2	0	3	0	5	0	0	5	18
Exiting Leg	1					5					0					12					18
Total	1					15					3					17					36

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Articulated Trucks

	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	5
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	7
Approach %	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	100.0	0.0	0.0		
Total %	14.3	0.0	0.0	0.0	14.3	0.0	71.4	0.0	0.0	71.4	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	14.3	
Exiting Leg Total	0					1					0					6					7

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

4:15 PM	Baker Avenue					Main Street (Route 62)					Cottage Street					Main Street (Route 62)					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	6
% Approach Total	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	100.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.500
Entering Leg	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	6
Exiting Leg	0					1					0					5					6
Total	1					5					0					6					12

PDI File #: **239716 A**
 Location: **N: Baker Avenue S: Cottage Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62)**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Pedestrians

	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1	3	4				
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2					
4:30 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2	2	6					
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Total	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	2	3	5	12					
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2					
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2					
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
5:45 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3					
Total	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	1	1	7					
Grand Total	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	2	4	6	19					
Approach %	0	0	0	0	66.7	33.3		0	0	0	0	0	0	0	0	0	0	57.1	42.9	0	0	0	0	33.3	66.7								
Total %	0	0	0	0	21.1	10.5	31.6	0	0	0	0	0	0	0	0	0	0	21.1	15.8	36.8	0	0	0	0	10.5	21.1	31.6						
Exiting Leg Total	6							0							7							6	19										

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

	Baker Avenue								Main Street (Route 62)								Cottage Street								Main Street (Route 62)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1	3	4					
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2					
4:30 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2	2	6					
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Total Volume	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	2	3	5	12					
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	40.0	60.0									
PHF	0.000	0.000	0.000	0.000	0.375	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.375	0.417	0.500					
Entering Leg	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	2	3	5	12					
Exiting Leg	3							0							4							5	12										
Total	6							0							8							10	24										

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM
 Class:



Cars and Heavy Vehicles (Combined)

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	62	0	0	0	62	1	0	1	0	0	2	0	1	0	0	0	1	0	12	146	1	0	159	224
7:15 AM	1	0	0	0	0	1	0	70	0	0	0	70	0	0	3	0	0	3	0	0	0	0	0	1	15	138	1	0	155	229	
7:30 AM	0	0	0	0	0	0	0	74	0	0	0	74	2	0	5	0	0	7	1	1	0	3	0	5	2	15	152	0	0	169	255
7:45 AM	0	0	0	0	0	0	0	72	0	0	0	72	4	0	2	0	0	6	0	0	0	2	0	2	1	19	146	0	0	166	246
Total	1	0	0	0	0	1	0	278	0	0	0	278	7	0	11	0	0	18	1	2	0	5	0	8	4	61	582	2	0	649	954
8:00 AM	0	0	0	0	0	0	0	102	0	0	0	102	3	0	1	0	0	4	0	0	0	0	0	0	0	9	159	0	0	168	274
8:15 AM	0	0	0	0	0	0	0	83	0	1	0	84	0	0	1	0	0	1	0	1	0	1	0	2	2	9	129	0	0	140	227
8:30 AM	0	0	0	0	0	0	1	84	0	0	0	85	1	0	4	0	0	5	0	1	0	0	0	1	0	8	152	2	0	162	253
8:45 AM	0	0	0	0	0	0	1	113	0	1	0	115	0	0	5	1	0	6	1	0	0	0	0	1	0	12	126	0	0	138	260
Total	0	0	0	0	0	0	2	382	0	2	0	386	4	0	11	1	0	16	1	2	0	1	0	4	2	38	566	2	0	608	1014
Grand Total	1	0	0	0	0	1	2	660	0	2	0	664	11	0	22	1	0	34	2	4	0	6	0	12	6	99	1148	4	0	1257	1968
Approach %	100.0	0.0	0.0	0.0	0.0		0.3	99.4	0.0	0.3	0.0		32.4	0.0	64.7	2.9	0.0		16.7	33.3	0.0	50.0	0.0		0.5	7.9	91.3	0.3	0.0		
Total %	0.1	0.0	0.0	0.0	0.0	0.1	0.1	33.5	0.0	0.1	0.0	33.7	0.6	0.0	1.1	0.1	0.0	1.7	0.1	0.2	0.0	0.3	0.0	0.6	0.3	5.0	58.3	0.2	0.0	63.9	
Exiting Leg Total	6						1163						103						7						689						1968
Cars	1	0	0	0	0	1	2	638	0	2	0	642	9	0	18	0	0	27	1	4	0	5	0	10	4	95	1103	4	0	1206	1886
% Cars	100.0	0.0	0.0	0.0	0.0	100.0	100.0	96.7	0.0	100.0	0.0	96.7	81.8	0.0	81.8	0.0	0.0	79.4	50.0	100.0	0.0	83.3	0.0	83.3	66.7	96.0	96.1	100.0	0.0	95.9	95.8
Exiting Leg Total	6						1116						98						4						662						1886
Heavy Vehicles	0	0	0	0	0	0	0	22	0	0	0	22	2	0	4	1	0	7	1	0	0	1	0	2	2	4	45	0	0	51	82
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	3.3	18.2	0.0	18.2	100.0	0.0	20.6	50.0	0.0	0.0	16.7	0.0	16.7	33.3	4.0	3.9	0.0	0.0	4.1	4.2
Exiting Leg Total	0						47						5						3						27						82

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

8:00 AM	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	0	102	0	0	0	102	3	0	1	0	0	4	0	0	0	0	0	0	0	9	159	0	0	168	274
8:15 AM	0	0	0	0	0	0	0	83	0	1	0	84	0	0	1	0	0	1	0	1	0	1	0	2	2	9	129	0	0	140	227
8:30 AM	0	0	0	0	0	0	1	84	0	0	0	85	1	0	4	0	0	5	0	1	0	0	0	1	0	8	152	2	0	162	253
8:45 AM	0	0	0	0	0	0	1	113	0	1	0	115	0	0	5	1	0	6	1	0	0	0	0	1	0	12	126	0	0	138	260
Total Volume	0	0	0	0	0	0	2	382	0	2	0	386	4	0	11	1	0	16	1	2	0	1	0	4	2	38	566	2	0	608	1014
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.5	99.0	0.0	0.5	0.0		25.0	0.0	68.8	6.3	0.0		25.0	50.0	0.0	25.0	0.0		0.3	6.3	93.1	0.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.845	0.000	0.500	0.000	0.839	0.333	0.000	0.550	0.250	0.000	0.667	0.250	0.500	0.000	0.250	0.000	0.500	0.250	0.792	0.890	0.250	0.000	0.905	0.925
Cars	0	0	0	0	0	0	2	371	0	2	0	375	3	0	8	0	0	11	0	2	0	0	0	2	1	37	550	2	0	590	978
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	100.0	97.1	0.0	100.0	0.0	97.2	75.0	0.0	72.7	0.0	0.0	68.8	0.0	100.0	0.0	0.0	0.0	50.0	50.0	97.4	97.2	100.0	0.0	97.0	96.4
Heavy Vehicles	0	0	0	0	0	0	0	11	0	0	0	11	1	0	3	1	0	5	1	0	0	1	0	2	1	1	16	0	0	18	36
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.8	25.0	0.0	27.3	100.0	0.0	31.3	100.0	0.0	0.0	100.0	0.0	50.0	50.0	2.6	2.8	0.0	0.0	3.0	3.6
Cars Enter Leg	0	0	0	0	0	0	2	371	0	2	0	375	3	0	8	0	0	11	0	2	0	0	0	2	1	37	550	2	0	590	978
Heavy Enter Leg	0	0	0	0	0	0	0	11	0	0	0	11	1	0	3	1	0	5	1	0	0	1	0	2	1	1	16	0	0	18	36
Total Entering Leg	0	0	0	0	0	0	2	382	0	2	0	386	4	0	11	1	0	16	1	2	0	1	0	4	2	38	566	2	0	608	1014
Cars Exiting Leg	4						555						39						1						379						978
Heavy Exiting Leg	0						17						2						2						15						36
Total Exiting Leg	4						572						41						3						394						1014

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM
 Class:



Cars

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	60	0	0	0	60	1	0	1	0	0	2	0	1	0	0	0	1	0	11	135	1	0	147	210
7:15 AM	1	0	0	0	0	1	0	69	0	0	0	69	0	0	3	0	0	3	0	0	0	0	0	0	1	15	129	1	0	146	219
7:30 AM	0	0	0	0	0	0	0	71	0	0	0	71	2	0	4	0	0	6	1	1	0	3	0	5	1	14	148	0	0	163	245
7:45 AM	0	0	0	0	0	0	0	67	0	0	0	67	3	0	2	0	0	5	0	0	0	2	0	2	1	18	141	0	0	160	234
Total	1	0	0	0	0	1	0	267	0	0	0	267	6	0	10	0	0	16	1	2	0	5	0	8	3	58	553	2	0	616	908
8:00 AM	0	0	0	0	0	0	0	100	0	0	0	100	3	0	0	0	0	3	0	0	0	0	0	0	0	9	157	0	0	166	269
8:15 AM	0	0	0	0	0	0	0	79	0	1	0	80	0	0	1	0	0	1	0	1	0	0	0	1	1	9	126	0	0	136	218
8:30 AM	0	0	0	0	0	0	1	80	0	0	0	81	0	0	3	0	0	3	0	1	0	0	0	1	0	8	146	2	0	156	241
8:45 AM	0	0	0	0	0	0	1	112	0	1	0	114	0	0	4	0	0	4	0	0	0	0	0	0	0	11	121	0	0	132	250
Total	0	0	0	0	0	0	2	371	0	2	0	375	3	0	8	0	0	11	0	2	0	0	0	2	1	37	550	2	0	590	978
Grand Total	1	0	0	0	0	1	2	638	0	2	0	642	9	0	18	0	0	27	1	4	0	5	0	10	4	95	1103	4	0	1206	1886
Approach %	100.0	0.0	0.0	0.0	0.0	0.1	0.3	99.4	0.0	0.3	0.0	33.3	0.0	66.7	0.0	0.0	10.0	10.0	40.0	0.0	50.0	0.0	0.5	0.3	7.9	91.5	0.3	0.0	63.9		
Total %	0.1	0.0	0.0	0.0	0.0	0.1	0.1	33.8	0.0	0.1	0.0	34.0	0.5	0.0	1.0	0.0	0.0	1.4	0.1	0.2	0.0	0.3	0.0	0.5	0.2	5.0	58.5	0.2	0.0	63.9	
Exiting Leg Total						6					1116					98							4						662	1886	

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

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	0	100	0	0	0	100	3	0	0	0	0	3	0	0	0	0	0	0	0	9	157	0	0	166	269
8:15 AM	0	0	0	0	0	0	0	79	0	1	0	80	0	0	1	0	0	1	0	1	0	0	0	1	1	9	126	0	0	136	218
8:30 AM	0	0	0	0	0	0	1	80	0	0	0	81	0	0	3	0	0	3	0	1	0	0	0	1	0	8	146	2	0	156	241
8:45 AM	0	0	0	0	0	0	1	112	0	1	0	114	0	0	4	0	0	4	0	0	0	0	0	0	0	11	121	0	0	132	250
Total Volume	0	0	0	0	0	0	2	371	0	2	0	375	3	0	8	0	0	11	0	2	0	0	0	2	1	37	550	2	0	590	978
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.5	98.9	0.0	0.5	0.0	27.3	0.0	72.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.2	6.3	93.2	0.3	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.828	0.000	0.500	0.000	0.822	0.250	0.000	0.500	0.000	0.000	0.688	0.000	0.500	0.000	0.000	0.000	0.500	0.250	0.841	0.876	0.250	0.000	0.889	0.909
Entering Leg	0	0	0	0	0	0	2	371	0	2	0	375	3	0	8	0	0	11	0	2	0	0	0	2	1	37	550	2	0	590	978
Exiting Leg						4					555						39						1						379	978	
Total						4					930					50							3						969	1956	

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM
 Class:



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

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	0	12	14	
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	10	
7:30 AM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	1	4	0	0	6	10		
7:45 AM	0	0	0	0	0	0	0	5	0	0	0	5	1	0	0	0	0	1	0	0	0	0	0	1	5	0	0	6	12		
Total	0	0	0	0	0	0	0	11	0	0	0	11	1	0	1	0	0	2	0	0	0	0	0	0	3	29	0	0	33	46	
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	5		
8:15 AM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	1	0	1	0	1	3	0	0	4	9		
8:30 AM	0	0	0	0	0	0	0	4	0	0	0	4	1	0	1	0	0	2	0	0	0	0	0	0	6	0	0	6	12		
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	2	1	0	0	0	0	1	5	0	0	6	10		
Total	0	0	0	0	0	0	0	11	0	0	0	11	1	0	3	1	0	5	1	0	0	1	0	2	16	0	0	18	36		
Grand Total	0	0	0	0	0	0	0	22	0	0	0	22	2	0	4	1	0	7	1	0	0	1	0	2	45	0	0	51	82		
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	28.6	0.0	57.1	14.3	0.0	7.3	50.0	0.0	0.0	50.0	0.0	0.0	3.9	7.8	88.2	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.8	0.0	0.0	0.0	26.8	2.4	0.0	4.9	1.2	0.0	8.5	1.2	0.0	0.0	1.2	0.0	2.4	4.9	54.9	0.0	0.0	62.2		
Exiting Leg Total	0						47						5						3						27						82
Buses	0	0	0	0	0	0	0	7	0	0	0	7	2	0	2	0	0	4	0	0	0	0	0	0	2	2	13	0	0	17	28
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.8	0.0	0.0	0.0	31.8	100.0	0.0	50.0	0.0	0.0	57.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	50.0	28.9	0.0	0.0	33.3	34.1
Exiting Leg Total	0						15						2						2						9						28
Single-Unit Trucks	0	0	0	0	0	0	0	13	0	0	0	13	0	0	2	1	0	3	1	0	0	1	0	2	2	25	0	0	27	45	
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.1	0.0	0.0	0.0	59.1	0.0	0.0	50.0	100.0	0.0	42.9	100.0	0.0	0.0	100.0	0.0	100.0	0.0	55.6	0.0	0.0	52.9	54.9	
Exiting Leg Total	0						25						3						1						16						45
Articulated Trucks	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	9		
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	0.0	13.7	11.0		
Exiting Leg Total	0						7						0						0						2						9

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

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	11	0	0	12	14	
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	10	
7:30 AM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	1	4	0	0	6	10		
7:45 AM	0	0	0	0	0	0	0	5	0	0	0	5	1	0	0	0	0	1	0	0	0	0	0	1	5	0	0	6	12		
Total Volume	0	0	0	0	0	0	0	11	0	0	0	11	1	0	1	0	0	2	0	0	0	0	0	0	3	29	0	0	33	46	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	3.0	9.1	87.9	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.550	0.000	0.000	0.000	0.550	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.659	0.000	0.000	0.688	0.821	
Buses	0	0	0	0	0	0	0	5	0	0	0	5	1	0	1	0	0	2	0	0	0	0	0	0	2	12	0	0	15	22	
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	45.5	100.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	41.4	0.0	0.0	45.5	47.8	
Single-Unit Trucks	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	14	0	0	15	20	
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	48.3	0.0	0.0	45.5	43.5	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	4		
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	0.0	0.0	9.1	8.7		
Buses	0	0	0	0	0	0	0	5	0	0	0	5	1	0	1	0	0	2	0	0	0	0	0	0	2	12	0	0	15	22	
Single-Unit Trucks	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	14	0	0	15	20	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	4		
Total Entering Leg	0	0	0	0	0	0	0	11	0	0	0	11	1	0	1	0	0	2	0	0	0	0	0	0	3	29	0	0	33	46	
Buses	0						13						2						1						6						22

PDI File #: **239716 B**
 Location: **N: TD Bank Entrance S: Crest Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



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

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
Single-Unit Trucks	0						14						1						0						5						20
Articulated Trucks	0						3						0						0						1						4
Total Exiting Leg	0						30						3						1						12						46

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM
 Class:



Buses

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear 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	0	0	0	0	0	6	0	0	6	6
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	5	0	0	5	5	
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	3	5	
7:45 AM	0	0	0	0	0	0	0	4	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	6	
Total	0	0	0	0	0	0	0	5	0	0	0	5	1	0	1	0	0	2	0	0	0	0	0	0	1	2	12	0	0	15	22
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	3	
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	0	0	0	0	0	0	0	2	0	0	0	2	1	0	1	0	0	2	0	0	0	0	0	0	1	0	1	0	0	2	6
Grand Total	0	0	0	0	0	0	0	7	0	0	0	7	2	0	2	0	0	4	0	0	0	0	0	0	2	2	13	0	0	17	28
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		50.0	0.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		11.8	11.8	76.5	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	25.0	7.1	0.0	7.1	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	7.1	7.1	46.4	0.0	0.0	60.7	
Exiting Leg Total	0						15						2						2						9						28

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

7:00 AM	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear 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	0	0	0	0	6	0	0	6	6	
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	5	0	0	5	5	
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	3	5	
7:45 AM	0	0	0	0	0	0	0	4	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	6	
Total Volume	0	0	0	0	0	0	0	5	0	0	0	5	1	0	1	0	0	2	0	0	0	0	0	0	1	2	12	0	0	15	22
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		50.0	0.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		6.7	13.3	80.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313	0.000	0.000	0.000	0.313	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.500	0.000	0.000	0.625	0.917	
Entering Leg	0	0	0	0	0	0	0	5	0	0	0	5	1	0	1	0	0	2	0	0	0	0	0	1	2	12	0	0	15	22	
Exiting Leg	0						13						2						1						6						22
Total	0						18						4						1						21						44

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM
 Class:



Single-Unit Trucks

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	7	
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3	
7:30 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5	
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	5		
Total	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	14	0	0	15	20	
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4		
8:15 AM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	2	7		
8:30 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	7		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	0	1	3	0	0	4	7		
Total	0	0	0	0	0	0	0	8	0	0	0	8	0	0	2	1	0	3	1	0	0	1	0	2	0	1	11	0	0	12	25
Grand Total	0	0	0	0	0	0	0	13	0	0	0	13	0	0	2	1	0	3	1	0	0	1	0	2	0	2	25	0	0	27	45
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	66.7	33.3	0.0		50.0	0.0	0.0	50.0	0.0		0.0	7.4	92.6	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.9	0.0	0.0	0.0	28.9	0.0	0.0	4.4	2.2	0.0	6.7	2.2	0.0	0.0	2.2	0.0	4.4	0.0	4.4	55.6	0.0	0.0	60.0	
Exiting Leg Total	0						25						3						1						16						45

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

8:00 AM	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4		
8:15 AM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	2	7	
8:30 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	7		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	0	1	3	0	0	4	7		
Total Volume	0	0	0	0	0	0	0	8	0	0	0	8	0	0	2	1	0	3	1	0	0	1	0	2	0	1	11	0	0	12	25
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	66.7	33.3	0.0		50.0	0.0	0.0	50.0	0.0		0.0	8.3	91.7	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.250	0.000	0.375	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.250	0.688	0.000	0.000	0.750	0.893
Entering Leg	0	0	0	0	0	0	0	8	0	0	0	8	0	0	2	1	0	3	1	0	0	1	0	2	0	1	11	0	0	12	25
Exiting Leg	0						11						2						1						11						25
Total	0						19						5						3						23						50

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM
 Class:



Articulated Trucks

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	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	0	0	0	0	2	0	0	2		
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	1	0	0	1			
Total	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3		
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	1	0	0	1			
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2			
Total	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4			
Grand Total	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7			
Approach %	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.8	0.0	0.0			
Exiting Leg Total	0						7						0						0						2						9

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

8:00 AM	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
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	1	0	0	1			
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2			
Total Volume	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4			
% 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	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	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500			
Entering Leg	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4			
Exiting Leg	0						4						0						0						1						5
Total	0						5						0						0						5						10

PDI File #: **239716 B**
 Location: **N: TD Bank Entrance S: Crest Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	TD Bank Entrance									Main Street (Route 62)									Old Bridge Road									Crest Street									Main Street (Route 62)									Total
	from North									from East									from Southeast									from South									from West									
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SE	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SE	Total						
7:00 AM	0	0	0	0	0	3	2	5	0	0	0	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	1	0	1	7					
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
7:45 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	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					
Total	0	0	0	0	0	4	3	7	0	0	0	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	1	0	1	9						
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
8:15 AM	0	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	0	0	0	0	0	0	0	0	0	1						
8:30 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	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						
8:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3						
Total	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6						
Grand Total	0	0	0	0	0	5	6	11	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	15							
Approach %	0	0	0	0	0	45.5	54.5		0	0	0	0	0	0	0	0	0	0	0	0	50	50		0	0	0	0	0	100	0	0	0	0	0	0	100	0									
Total %	0	0	0	0	0	33.3	40	73.3	0	0	0	0	0	0	0	0	0	0	0	0	6.67	6.67	13.3	0	0	0	0	0	6.67	0	6.67	0	6.67	0	6.67	0	6.67									
Exiting Leg Total								11															2															1	15							

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

	TD Bank Entrance									Main Street (Route 62)									Old Bridge Road									Crest Street									Main Street (Route 62)									Total
	from North									from East									from Southeast									from South									from West									
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SE	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SE	Total						
7:00 AM	0	0	0	0	0	3	2	5	0	0	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	7						
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
7:45 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	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						
Total Volume	0	0	0	0	0	4	3	7	0	0	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	1	0	1	9							
% Approach Total	0.0	0.0	0.0	0.0	0.0	57.1	42.9		0.0	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	0.0	0.0	0.0	0.0	0.0	100.0	0.0										
PHF	0.000	0.000	0.000	0.000	0.000	0.333	0.375	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250		0.321									
Entering Leg	0	0	0	0	0	4	3	7	0	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	1	0	1	9								
Exiting Leg								7															1														1	9								
Total								14															2														2	18								

PDI File #: 239716 B

Location: N: TD Bank Entrance S: Crest Street

Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road

City, State: Concord, MA

Client: VHB/ A. Domogala

Site Code: 15630.00

Count Date: Thursday, November 16, 2023

Start Time: 4:00 PM

End Time: 6:00 PM

Class:



PRECISION
DATA
INDUSTRIES, LLC

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

Cars and Heavy Vehicles (Combined)

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	2	169	0	0	0	171	3	1	22	0	0	26	0	2	0	1	0	3	3	4	108	0	0	115	315
4:15 PM	2	0	0	0	0	2	2	127	0	0	0	129	1	1	19	0	0	21	1	0	0	2	0	3	2	4	97	3	0	106	261
4:30 PM	0	0	0	1	0	1	1	144	0	0	0	145	2	1	27	0	0	30	0	0	0	1	0	1	0	8	101	0	1	110	287
4:45 PM	0	0	0	0	0	0	1	171	0	0	0	172	1	1	23	3	0	28	0	0	0	2	0	2	2	2	117	1	0	122	324
Total	2	0	0	1	0	3	6	611	0	0	0	617	7	4	91	3	0	105	1	2	0	6	0	9	7	18	423	4	1	453	1187
5:00 PM	2	0	0	0	0	2	0	181	0	0	0	181	1	0	18	0	0	19	0	0	0	0	0	0	2	1	143	0	0	146	348
5:15 PM	0	0	0	0	0	0	2	136	0	0	0	138	0	2	26	0	0	28	2	0	0	0	0	2	0	4	132	0	0	136	304
5:30 PM	0	0	0	0	0	0	0	184	0	0	0	184	4	1	18	0	0	23	0	1	0	2	0	3	2	4	106	1	0	113	323
5:45 PM	0	0	0	0	0	0	0	180	0	0	0	180	0	0	11	0	0	11	1	2	1	4	0	8	2	7	99	0	0	108	307
Total	2	0	0	0	0	2	2	681	0	0	0	683	5	3	73	0	0	81	3	3	1	6	0	13	6	16	480	1	0	503	1282
Grand Total	4	0	0	1	0	5	8	1292	0	0	0	1300	12	7	164	3	0	186	4	5	1	12	0	22	13	34	903	5	1	956	2469
Approach %	80.0	0.0	0.0	20.0	0.0		0.6	99.4	0.0	0.0	0.0		6.5	3.8	88.2	1.6	0.0		18.2	22.7	4.5	54.5	0.0		1.4	3.6	94.5	0.5	0.1		
Total %	0.2	0.0	0.0	0.0	0.0	0.2	0.3	52.3	0.0	0.0	0.0	52.7	0.5	0.3	6.6	0.1	0.0	7.5	0.2	0.2	0.0	0.5	0.0	0.9	0.5	1.4	36.6	0.2	0.0	38.7	
Exiting Leg Total	21						921						38						16						1473						2469
Cars	4	0	0	1	0	5	8	1265	0	0	0	1273	12	7	161	3	0	183	4	5	1	12	0	22	12	34	890	5	1	942	2425
% Cars	100.0	0.0	0.0	100.0	0.0	100.0	100.0	97.9	0.0	0.0	0.0	97.9	100.0	100.0	98.2	100.0	0.0	98.4	100.0	100.0	100.0	100.0	0.0	100.0	92.3	100.0	98.6	100.0	100.0	98.5	98.2
Exiting Leg Total	21						908						38						15						1443						2425
Heavy Vehicles	0	0	0	0	0	0	0	27	0	0	0	27	0	0	3	0	0	3	0	0	0	0	0	0	1	0	13	0	0	14	44
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.1	0.0	0.0	1.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	1.4	0.0	0.0	1.5	1.8
Exiting Leg Total	0						13						0						1						30						44

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

4:45 PM	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:45 PM	0	0	0	0	0	0	1	171	0	0	0	172	1	1	23	3	0	28	0	0	0	2	0	2	2	2	117	1	0	122	324
5:00 PM	2	0	0	0	0	2	0	181	0	0	0	181	1	0	18	0	0	19	0	0	0	0	0	0	2	1	143	0	0	146	348
5:15 PM	0	0	0	0	0	0	2	136	0	0	0	138	0	2	26	0	0	28	2	0	0	0	0	2	0	4	132	0	0	136	304
5:30 PM	0	0	0	0	0	0	0	184	0	0	0	184	4	1	18	0	0	23	0	1	0	2	0	3	2	4	106	1	0	113	323
Total Volume	2	0	0	0	0	2	3	672	0	0	0	675	6	4	85	3	0	98	2	1	0	4	0	7	6	11	498	2	0	517	1299
% Approach Total	100.0	0.0	0.0	0.0	0.0		0.4	99.6	0.0	0.0	0.0		6.1	4.1	86.7	3.1	0.0		28.6	14.3	0.0	57.1	0.0		1.2	2.1	96.3	0.4	0.0		
PHF	0.250	0.000	0.000	0.000	0.000	0.250	0.375	0.913	0.000	0.000	0.000	0.917	0.375	0.500	0.817	0.250	0.000	0.875	0.250	0.250	0.000	0.500	0.000	0.583	0.750	0.688	0.871	0.500	0.000	0.885	0.933
Cars	2	0	0	0	0	2	3	662	0	0	0	665	6	4	83	3	0	96	2	1	0	4	0	7	6	11	494	2	0	513	1283
Cars %	100.0	0.0	0.0	0.0	0.0	100.0	100.0	98.5	0.0	0.0	0.0	98.5	100.0	100.0	97.6	100.0	0.0	98.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0	99.2	100.0	0.0	99.2	98.8
Heavy Vehicles	0	0	0	0	0	0	0	10	0	0	0	10	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4	0	0	4	16
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0	2.4	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	1.2	
Cars Enter Leg	2	0	0	0	0	2	3	662	0	0	0	665	6	4	83	3	0	96	2	1	0	4	0	7	6	11	494	2	0	513	1283
Heavy Enter Leg	0	0	0	0	0	0	0	10	0	0	0	10	0	0	2	0	0	2	0	0	0	0	0	0	0	4	0	0	4	16	
Total Entering Leg	2	0	0	0	0	2	3	672	0	0	0	675	6	4	85	3	0	98	2	1	0	4	0	7	6	11	498	2	0	517	1299
Cars Exiting Leg	9						501						13						9						751						1283
Heavy Exiting Leg	0						4						0						0						12						16
Total Exiting Leg	9						505						13						9						763						1299

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



Cars

	TD Bank Entrance							Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total		
	from North							from East						from Southeast						from South						from West								
	Right	Thru	Bear Left	Left	U-Turn	Total		Right	Thru	Left	Hard Left	U-Turn	Total		Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total		Hard Right	Right	Thru	Left	U-Turn	Total		Right	Bear Right	Thru		Left	U-Turn
4:00 PM	0	0	0	0	0	0	2	164	0	0	0	166	3	1	22	0	0	26	0	2	0	1	0	3	2	4	106	0	0	112	307			
4:15 PM	2	0	0	0	0	2	2	120	0	0	0	122	1	1	19	0	0	21	1	0	0	2	0	3	2	4	94	3	0	103	251			
4:30 PM	0	0	0	1	0	1	1	141	0	0	0	142	2	1	26	0	0	29	0	0	0	1	0	1	0	8	97	0	1	106	279			
4:45 PM	0	0	0	0	0	0	1	168	0	0	0	169	1	1	23	3	0	28	0	0	0	2	0	2	2	2	117	1	0	122	321			
Total	2	0	0	1	0	3	6	593	0	0	0	599	7	4	90	3	0	104	1	2	0	6	0	9	6	18	414	4	1	443	1158			
5:00 PM	2	0	0	0	0	2	0	180	0	0	0	180	1	0	18	0	0	19	0	0	0	0	0	0	2	1	142	0	0	145	346			
5:15 PM	0	0	0	0	0	0	2	135	0	0	0	137	0	2	24	0	0	26	2	0	0	0	0	2	0	4	132	0	0	136	301			
5:30 PM	0	0	0	0	0	0	0	179	0	0	0	179	4	1	18	0	0	23	0	1	0	2	0	3	2	4	103	1	0	110	315			
5:45 PM	0	0	0	0	0	0	0	178	0	0	0	178	0	0	11	0	0	11	1	2	1	4	0	8	2	7	99	0	0	108	305			
Total	2	0	0	0	0	2	2	672	0	0	0	674	5	3	71	0	0	79	3	3	1	6	0	13	6	16	476	1	0	499	1267			
Grand Total	4	0	0	1	0	5	8	1265	0	0	0	1273	12	7	161	3	0	183	4	5	1	12	0	22	12	34	890	5	1	942	2425			
Approach %	80.0	0.0	0.0	20.0	0.0		0.6	99.4	0.0	0.0	0.0		6.6	3.8	88.0	1.6	0.0		18.2	22.7	4.5	54.5	0.0		1.3	3.6	94.5	0.5	0.1					
Total %	0.2	0.0	0.0	0.0	0.0	0.2	0.3	52.2	0.0	0.0	0.0	52.5	0.5	0.3	6.6	0.1	0.0	7.5	0.2	0.2	0.0	0.5	0.0	0.9	0.5	1.4	36.7	0.2	0.0	38.8				
Exiting Leg Total	21						908						38						15						1443	2425								

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

4:45 PM	TD Bank Entrance							Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total		
	from North							from East						from Southeast						from South						from West								
	Right	Thru	Bear Left	Left	U-Turn	Total		Right	Thru	Left	Hard Left	U-Turn	Total		Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total		Hard Right	Right	Thru	Left	U-Turn	Total		Right	Bear Right	Thru		Left	U-Turn
4:45 PM	0	0	0	0	0	0	1	168	0	0	0	169	1	1	23	3	0	28	0	0	0	2	0	2	2	2	117	1	0	122	321			
5:00 PM	2	0	0	0	0	2	0	180	0	0	0	180	1	0	18	0	0	19	0	0	0	0	0	0	2	1	142	0	0	145	346			
5:15 PM	0	0	0	0	0	0	2	135	0	0	0	137	0	2	24	0	0	26	2	0	0	0	0	2	0	4	132	0	0	136	301			
5:30 PM	0	0	0	0	0	0	0	179	0	0	0	179	4	1	18	0	0	23	0	1	0	2	0	3	2	4	103	1	0	110	315			
Total Volume	2	0	0	0	0	2	3	662	0	0	0	665	6	4	83	3	0	96	2	1	0	4	0	7	6	11	494	2	0	513	1283			
% Approach Total	100.0	0.0	0.0	0.0	0.0		0.5	99.5	0.0	0.0	0.0		6.3	4.2	86.5	3.1	0.0		28.6	14.3	0.0	57.1	0.0		1.2	2.1	96.3	0.4	0.0					
PHF	0.250	0.000	0.000	0.000	0.000	0.250	0.375	0.919	0.000	0.000	0.000	0.924	0.375	0.500	0.865	0.250	0.000	0.857	0.250	0.250	0.000	0.500	0.000	0.583	0.750	0.688	0.870	0.500	0.000	0.884	0.927			
Entering Leg	2	0	0	0	0	2	3	662	0	0	0	665	6	4	83	3	0	96	2	1	0	4	0	7	6	11	494	2	0	513	1283			
Exiting Leg	9						501						13						9						751	1283								
Total	11						1166						109						16						1264	2566								

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 4:00 PM
 End Time: 6:00 PM



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

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	3	8	
4:15 PM	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	10	
4:30 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	8		
4:45 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	
Total	0	0	0	0	0	0	0	18	0	0	0	18	0	0	1	0	0	1	0	0	0	0	0	1	0	9	0	0	10	29	
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	8
5:30 PM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	8		
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	
Total	0	0	0	0	0	0	0	9	0	0	0	9	0	0	2	0	0	2	0	0	0	0	0	0	0	4	0	4	15		
Grand Total	0	0	0	0	0	0	0	27	0	0	0	27	0	0	3	0	0	3	0	0	0	0	0	0	1	0	13	0	0	14	44
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	92.9	0.0	0.0	44
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.4	0.0	0.0	0.0	61.4	0.0	0.0	6.8	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	29.5	0.0	0.0	31.8
Exiting Leg Total	0						13						0						1						30						44
Buses	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	5	16	
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.7	0.0	0.0	0.0	40.7	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	30.8	0.0	0.0	35.7	36.4	
Exiting Leg Total	0						4						0						1						11						16
Single-Unit Trucks	0	0	0	0	0	0	0	11	0	0	0	11	0	0	3	0	0	3	0	0	0	0	0	0	0	8	0	0	8	22	
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.7	0.0	0.0	0.0	40.7	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	57.1	50.0	
Exiting Leg Total	0						8						0						0						14						22
Articulated Trucks	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6		
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	0.0	0.0	0.0	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	7.1	13.6	
Exiting Leg Total	0						1						0						0						5						6

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

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	3	8	
4:15 PM	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	10	
4:30 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	8		
4:45 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	
Total Volume	0	0	0	0	0	0	0	18	0	0	0	18	0	0	1	0	0	1	0	0	0	0	0	1	0	9	0	0	10	29	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	90.0	0.0	0.0	44	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.643	0.000	0.000	0.000	0.643	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.563	0.000	0.000	0.625	0.725	
Buses	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4	12	
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.4	0.0	0.0	0.0	44.4	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	33.3	0.0	0.0	40.0	41.4	
Single-Unit Trucks	0	0	0	0	0	0	0	6	0	0	0	6	0	0	1	0	0	1	0	0	0	0	0	0	0	5	0	0	5	12	
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.6	0.0	0.0	50.0	41.4	
Articulated Trucks	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5		
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	10.0	17.2	
Buses	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4	12	
Single-Unit Trucks	0	0	0	0	0	0	0	6	0	0	0	6	0	0	1	0	0	1	0	0	0	0	0	0	0	5	0	0	5	12	
Articulated Trucks	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5		
Total Entering Leg	0	0	0	0	0	0	0	18	0	0	0	18	0	0	1	0	0	1	0	0	0	0	0	0	1	0	9	0	0	10	29

PDI File #: **239716 B**
 Location: **N: TD Bank Entrance S: Crest Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



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

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
Buses	0						3						0						1						8	12					
Single-Unit Trucks	0						5						0						0						7	12					
Articulated Trucks	0						1						0						0						4	5					
Total Exiting Leg	0						9						0						1						19	29					

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



Buses

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	5
4:15 PM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	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	1
Total	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4	12
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Grand Total	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	5	16
Approach %	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	0.0	0.0	0.0	0.0		20.0	0.0	80.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.8	0.0	0.0	0.0	68.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	25.0	0.0	0.0	31.3	
Exiting Leg Total	0						4						0						1						11						16

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

4:00 PM	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	5
4:15 PM	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
4:45 PM	0	0	0	0	0	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	1
Total Volume	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4	12
% 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		0.0	0.0	0.0	0.0	0.0		25.0	0.0	75.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.000	0.500	0.600
Entering Leg	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4	12
Exiting Leg	0						3						0						1						8						12
Total	0						11						0						1						12						24

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



Single-Unit Trucks

	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	0	0	3	5
4:45 PM	0	0	0	0	0	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	1
Total	0	0	0	0	0	0	0	6	0	0	0	6	0	0	1	0	0	1	0	0	0	0	0	0	0	0	5	0	0	5	12
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	5	0	0	0	5	0	0	2	0	0	2	0	0	0	0	0	0	0	0	3	0	0	3	10
Grand Total	0	0	0	0	0	0	0	11	0	0	0	11	0	0	3	0	0	3	0	0	0	0	0	0	0	0	8	0	0	8	22
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	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	50.0	0.0	0.0	13.6	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4	0.0	0.0	36.4	
Exiting Leg Total	0						8						0						14						22						

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

4:00 PM	TD Bank Entrance						Main Street (Route 62)						Old Bridge Road						Crest Street						Main Street (Route 62)						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
4:15 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	0	0	3	5
4:45 PM	0	0	0	0	0	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	1
Total Volume	0	0	0	0	0	0	0	6	0	0	0	6	0	0	1	0	0	1	0	0	0	0	0	0	0	0	5	0	0	5	12
% 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	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		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.750	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.417	0.600
Entering Leg	0	0	0	0	0	0	0	6	0	0	0	6	0	0	1	0	0	1	0	0	0	0	0	0	0	0	5	0	0	5	12
Exiting Leg	0						5						0						7						12						
Total	0						11						1						12						24						

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



Articulated Trucks

	TD Bank Entrance						Main Street (Route 62)					Old Bridge Road					Crest Street					Main Street (Route 62)					Total									
	from North						from East					from Southeast					from South					from West														
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	2	
4:30 PM	0	0	0	0	0	0	0	2	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	
4:45 PM	0	0	0	0	0	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	0	1	
Total	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	5	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	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	0	1	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	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	0	1	
Grand Total	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	6	
Approach %	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	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0				
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.3	0.0	0.0	0.0	83.3	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	16.7	0.0	0.0	16.7						
Exiting Leg Total	0						1					0					0					5					6									

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

4:00 PM	TD Bank Entrance						Main Street (Route 62)					Old Bridge Road					Crest Street					Main Street (Route 62)					Total								
	from North						from East					from Southeast					from South					from West													
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	2
4:30 PM	0	0	0	0	0	0	0	2	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	2	
4:45 PM	0	0	0	0	0	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	
Total Volume	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	5
% 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		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.250	0.000	0.000	0.250				0.625	
Entering Leg	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	5
Exiting Leg	0						1					0					0					4					5								
Total	0						5					0					0					5					10								

PDI File #: **239716 B**
 Location: **N: TD Bank Entrance S: Crest Street**
 Location: **E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	TD Bank Entrance								Main Street (Route 62)								Old Bridge Road								Crest Street								Main Street (Route 62)								Total								
	from North								from East								from Southeast								from South								from West																
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SE	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SE	Total									
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2								
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2								
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2								
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0										
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0										
Exiting Leg Total	0								2								0								0								2																

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

4:00 PM	TD Bank Entrance								Main Street (Route 62)								Old Bridge Road								Crest Street								Main Street (Route 62)								Total
	from North								from East								from Southeast								from South								from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SE	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SE	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250		
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Exiting Leg	0								2								0								0								2								
Total	0								2								0								0								4								

PDI File #: 239716 B
 Location: N: TD Bank Entrance S: Crest Street
 Location: E: Main Street (Route 62) W: Main Street (Route 62) SE: Old Bridge Road
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



Pedestrians

	TD Bank Entrance								Main Street (Route 62)								Old Bridge Road								Crest Street								Main Street (Route 62)								Total													
	from North								from East								from Southeast								from South								from West																					
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SE	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SE	Total														
4:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	6	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1		
Total	0	0	0	0	0	0	2	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	1	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	
Grand Total	0	0	0	0	0	0	8	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0
Approach %	0	0	0	0	0	0	88.9	11.1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	66.7		0	0	0	0	0	0	75	25		0	0	0	0	0	0	100	0		0	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	47.1	5.88	52.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.88	11.8	17.6	0	0	0	0	0	0	17.6	5.88	23.5	0	0	0	0	0	0	5.88	0	5.88										
Exiting Leg Total	9								0								3								4								1																					

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

	TD Bank Entrance								Main Street (Route 62)								Old Bridge Road								Crest Street								Main Street (Route 62)								Total											
	from North								from East								from Southeast								from South								from West																			
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SE	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SE	Total												
4:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	0	0	0	0	7	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	87.5	12.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	66.7		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	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	0.583	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000								
Entering Leg	0	0	0	0	0	0	7	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	8								0								3								1								0																			
Total	16								0								6								2								0																			

PDI File #: 239716 C
 Location: N: Baker Avenue S: Baker Avenue
 Location: E: Trashology Entrance W: #300 (Concord Meadows) Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM



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

Cars and Heavy Vehicles (Combined)

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					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	7	0	0	7	0	0	0	0	0	0	19	5	0	24	1	0	0	0	1	32
7:15 AM	1	10	0	0	11	0	0	0	0	0	0	55	17	0	72	3	0	1	0	4	87
7:30 AM	0	9	0	0	9	0	0	0	0	0	0	47	28	0	75	4	0	0	0	4	88
7:45 AM	0	9	0	0	9	0	0	0	0	0	0	67	34	0	101	4	0	0	0	4	114
Total	1	35	0	0	36	0	0	0	0	0	0	188	84	0	272	12	0	1	0	13	321
8:00 AM	1	15	0	0	16	1	0	0	0	1	0	42	19	0	61	7	0	0	0	7	85
8:15 AM	1	26	0	0	27	0	0	0	0	0	0	45	21	0	66	2	0	1	0	3	96
8:30 AM	1	26	0	0	27	0	0	0	0	0	0	39	25	0	64	9	0	1	0	10	101
8:45 AM	1	24	0	0	25	0	0	0	0	0	0	42	40	0	82	9	0	0	0	9	116
Total	4	91	0	0	95	1	0	0	0	1	0	168	105	0	273	27	0	2	0	29	398
Grand Total	5	126	0	0	131	1	0	0	0	1	0	356	189	0	545	39	0	3	0	42	719
Approach %	3.8	96.2	0.0	0.0		100.0	0.0	0.0	0.0		0.0	65.3	34.7	0.0		92.9	0.0	7.1	0.0		
Total %	0.7	17.5	0.0	0.0	18.2	0.1	0.0	0.0	0.0	0.1	0.0	49.5	26.3	0.0	75.8	5.4	0.0	0.4	0.0	5.8	
Exiting Leg Total	360					0					165					194					719
Cars	5	120	0	0	125	0	0	0	0	0	0	341	188	0	529	39	0	3	0	42	696
% Cars	100.0	95.2	0.0	0.0	95.4	0.0	0.0	0.0	0.0	0.0	0.0	95.8	99.5	0.0	97.1	100.0	0.0	100.0	0.0	100.0	96.8
Exiting Leg Total	344					0					159					193					696
Heavy Vehicles	0	6	0	0	6	1	0	0	0	1	0	15	1	0	16	0	0	0	0	0	23
% Heavy Vehicles	0.0	4.8	0.0	0.0	4.6	100.0	0.0	0.0	0.0	100.0	0.0	4.2	0.5	0.0	2.9	0.0	0.0	0.0	0.0	0.0	3.2
Exiting Leg Total	16					0					6					1					23

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

8:00 AM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	1	15	0	0	16	1	0	0	0	1	0	42	19	0	61	7	0	0	0	7	85
8:15 AM	1	26	0	0	27	0	0	0	0	0	0	45	21	0	66	2	0	1	0	3	96
8:30 AM	1	26	0	0	27	0	0	0	0	0	0	39	25	0	64	9	0	1	0	10	101
8:45 AM	1	24	0	0	25	0	0	0	0	0	0	42	40	0	82	9	0	0	0	9	116
Total Volume	4	91	0	0	95	1	0	0	0	1	0	168	105	0	273	27	0	2	0	29	398
% Approach Total	4.2	95.8	0.0	0.0		100.0	0.0	0.0	0.0		0.0	61.5	38.5	0.0		93.1	0.0	6.9	0.0		
PHF	1.000	0.875	0.000	0.000	0.880	0.250	0.000	0.000	0.000	0.250	0.000	0.933	0.656	0.000	0.832	0.750	0.000	0.500	0.000	0.725	0.858
Cars	4	87	0	0	91	0	0	0	0	0	0	161	104	0	265	27	0	2	0	29	385
Cars %	100.0	95.6	0.0	0.0	95.8	0.0	0.0	0.0	0.0	0.0	0.0	95.8	99.0	0.0	97.1	100.0	0.0	100.0	0.0	100.0	96.7
Heavy Vehicles	0	4	0	0	4	1	0	0	0	1	0	7	1	0	8	0	0	0	0	0	13
Heavy Vehicles %	0.0	4.4	0.0	0.0	4.2	100.0	0.0	0.0	0.0	100.0	0.0	4.2	1.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	3.3
Cars Enter Leg	4	87	0	0	91	0	0	0	0	0	0	161	104	0	265	27	0	2	0	29	385
Heavy Enter Leg	0	4	0	0	4	1	0	0	0	1	0	7	1	0	8	0	0	0	0	0	13
Total Entering Leg	4	91	0	0	95	1	0	0	0	1	0	168	105	0	273	27	0	2	0	29	398
Cars Exiting Leg	163					0					114					108					385
Heavy Exiting Leg	8					0					4					1					13
Total Exiting Leg	171					0					118					109					398

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Cars

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					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	7	0	0	7	0	0	0	0	0	0	17	5	0	22	1	0	0	0	1	30
7:15 AM	1	9	0	0	10	0	0	0	0	0	0	53	17	0	70	3	0	1	0	4	84
7:30 AM	0	9	0	0	9	0	0	0	0	0	0	44	28	0	72	4	0	0	0	4	85
7:45 AM	0	8	0	0	8	0	0	0	0	0	0	66	34	0	100	4	0	0	0	4	112
Total	1	33	0	0	34	0	0	0	0	0	0	180	84	0	264	12	0	1	0	13	311
8:00 AM	1	15	0	0	16	0	0	0	0	0	0	40	19	0	59	7	0	0	0	7	82
8:15 AM	1	25	0	0	26	0	0	0	0	0	0	43	21	0	64	2	0	1	0	3	93
8:30 AM	1	25	0	0	26	0	0	0	0	0	0	37	24	0	61	9	0	1	0	10	97
8:45 AM	1	22	0	0	23	0	0	0	0	0	0	41	40	0	81	9	0	0	0	9	113
Total	4	87	0	0	91	0	0	0	0	0	0	161	104	0	265	27	0	2	0	29	385
Grand Total	5	120	0	0	125	0	0	0	0	0	0	341	188	0	529	39	0	3	0	42	696
Approach %	4.0	96.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	64.5	35.5	0.0		92.9	0.0	7.1	0.0		
Total %	0.7	17.2	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	49.0	27.0	0.0	76.0	5.6	0.0	0.4	0.0	6.0	
Exiting Leg Total						0					159					193					696

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

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	1	15	0	0	16	0	0	0	0	0	0	40	19	0	59	7	0	0	0	7	82
8:15 AM	1	25	0	0	26	0	0	0	0	0	0	43	21	0	64	2	0	1	0	3	93
8:30 AM	1	25	0	0	26	0	0	0	0	0	0	37	24	0	61	9	0	1	0	10	97
8:45 AM	1	22	0	0	23	0	0	0	0	0	0	41	40	0	81	9	0	0	0	9	113
Total Volume	4	87	0	0	91	0	0	0	0	0	0	161	104	0	265	27	0	2	0	29	385
% Approach Total	4.4	95.6	0.0	0.0		0.0	0.0	0.0	0.0		0.0	60.8	39.2	0.0		93.1	0.0	6.9	0.0		
PHF	1.000	0.870	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.936	0.650	0.000	0.818	0.750	0.000	0.500	0.000	0.725	0.852
Entering Leg	4	87	0	0	91	0	0	0	0	0	0	161	104	0	265	27	0	2	0	29	385
Exiting Leg						0					114					108					385
Total						0					379					137					770

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



PRECISION
D A T A
INDUSTRIES, LLC

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

Class:

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

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					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	2	0	0	2	0	0	0	0	0	2
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Total	0	4	0	0	4	1	0	0	0	1	0	7	1	0	8	0	0	0	0	0	0
Grand Total	0	6	0	0	6	1	0	0	0	1	0	15	1	0	16	0	0	0	0	0	0
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	93.8	6.3	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	26.1	0.0	0.0	26.1	4.3	0.0	0.0	0.0	4.3	0.0	65.2	4.3	0.0	69.6	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	16					0					6					1					23
Buses	0	4	0	0	4	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0
% Buses	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	100.0	0.0	37.5	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	5					0					4					1					10
Single-Unit Trucks	0	2	0	0	2	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0
% Single-Unit	0.0	33.3	0.0	0.0	33.3	100.0	0.0	0.0	0.0	100.0	0.0	53.3	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	9					0					2					0					11
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	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	13.3	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	2					0					0					0					2

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

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Total Volume	0	4	0	0	4	1	0	0	0	1	0	7	1	0	8	0	0	0	0	0	0
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	87.5	12.5	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.250	0.000	0.875	0.250	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.813
Buses	0	3	0	0	3	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0
Buses %	0.0	75.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9	100.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	53.8
Single-Unit Trucks	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0
Single-Unit %	0.0	25.0	0.0	0.0	25.0	100.0	0.0	0.0	0.0	100.0	0.0	28.6	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	30.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	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	28.6	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	15.4
Buses	0	3	0	0	3	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0
Single-Unit Trucks	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0
Total Entering Leg	0	4	0	0	4	1	0	0	0	1	0	7	1	0	8	0	0	0	0	0	0
Buses	3					0					3					1					7
Single-Unit Trucks	3					0					1					0					4
Articulated Trucks	2					0					0					0					2
Total Exiting Leg	8					0					4					1					13

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

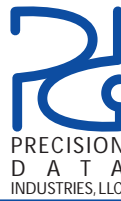
Buses

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					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	1	0	0	1	0	0	0	0	0	1	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	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	
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2	
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Total	0	3	0	0	3	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	7	
Grand Total	0	4	0	0	4	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	10	
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0		0.0	0.0	0.0	0.0			
Total %	0.0	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	10.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total						5					0					4					1	10

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

8:00 AM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2	
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Total Volume	0	3	0	0	3	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	7	
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	75.0	25.0	0.0		0.0	0.0	0.0	0.0			
PHF	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.875	
Entering Leg	0	3	0	0	3	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	7	
Exiting Leg						3					0					3					1	7
Total						6					0					7					1	14

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Single-Unit Trucks

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					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	1	0	0	1	0	0	0	0	0	1
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	1	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	1	0	0	1	0	0	0	0	0	0
8:30 AM	0	1	0	0	1	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	1	0	0	1	0	0	0	0	0	0
Total	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0
Grand Total	0	2	0	0	2	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	0
Approach %	0.0	100.0	0.0	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	18.2	0.0	0.0	18.2	9.1	0.0	0.0	0.0	9.1	0.0	72.7	0.0	0.0	72.7	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total						9					0					2					0

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

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					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	1	0	0	1	0	0	0	0	0	0
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0
% Approach Total	0.0	100.0	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		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.583
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0
Exiting Leg						6					0					1					0
Total						7					0					7					0

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Articulated Trucks

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Approach %	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	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total						2					0										2

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

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					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	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
% Approach Total	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		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Exiting Leg						2					0										2
Total						2					0										4

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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 508-875-0100 datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Baker Avenue								Trashology Entrance								Baker Avenue								#300 (Concord Meadows) Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1	0	0	0	0	0	0	1	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	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	1	0	0	0	0	0	0	1	1	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	1	2	
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	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			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	50.0			
Exiting Leg Total	0								0								1								1	2							

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

	Baker Avenue								Trashology Entrance								Baker Avenue								#300 (Concord Meadows) Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1	0	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250			
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
Exiting Leg	0								0								1								0	1							
Total	0								0								1								1	2							

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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Pedestrians

	Baker Avenue								Trashology Entrance								Baker Avenue								#300 (Concord Meadows) Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1	0	1	1	1	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1	1	1	1	
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	1	1	2	2	2	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50				
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	50	50	100			
Exiting Leg Total	0								0								0								2								2

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

	Baker Avenue								Trashology Entrance								Baker Avenue								#300 (Concord Meadows) Driveway								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		
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	1	0	1	1	1	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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	1	1	1	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0				
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.500		
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	
Exiting Leg	0								0								0								2								2
Total	0								0								0								4								4

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Cars and Heavy Vehicles (Combined)

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	48	0	0	49	0	0	0	0	0	0	29	6	0	35	28	0	0	0	28	112
4:15 PM	1	25	0	0	26	0	0	0	0	0	0	27	8	0	35	18	0	2	0	20	81
4:30 PM	0	58	0	0	58	0	0	0	0	0	0	30	3	0	33	16	0	0	0	16	107
4:45 PM	1	41	0	0	42	0	0	0	0	0	0	17	8	0	25	24	0	0	0	24	91
Total	3	172	0	0	175	0	0	0	0	0	0	103	25	0	128	86	0	2	0	88	391
5:00 PM	0	43	0	0	43	0	0	0	0	0	0	27	2	0	29	19	0	1	0	20	92
5:15 PM	1	35	0	0	36	0	0	0	0	0	0	16	9	0	25	24	0	0	0	24	85
5:30 PM	2	23	0	0	25	0	0	0	0	0	0	24	5	0	29	13	0	1	0	14	68
5:45 PM	0	24	0	0	24	0	0	0	0	0	0	14	3	0	17	17	0	1	0	18	59
Total	3	125	0	0	128	0	0	0	0	0	0	81	19	0	100	73	0	3	0	76	304
Grand Total	6	297	0	0	303	0	0	0	0	0	0	184	44	0	228	159	0	5	0	164	695
Approach %	2.0	98.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	80.7	19.3	0.0		97.0	0.0	3.0	0.0		
Total %	0.9	42.7	0.0	0.0	43.6	0.0	0.0	0.0	0.0	0.0	0.0	26.5	6.3	0.0	32.8	22.9	0.0	0.7	0.0	23.6	
Exiting Leg Total	189					0					456					50					695
Cars	6	297	0	0	303	0	0	0	0	0	0	183	43	0	226	158	0	5	0	163	692
% Cars	100.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	99.5	97.7	0.0	99.1	99.4	0.0	100.0	0.0	99.4	99.6
Exiting Leg Total	188					0					455					49					692
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	3
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.3	0.0	0.9	0.6	0.0	0.0	0.0	0.6	0.4
Exiting Leg Total	1					0					1					1					3

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

4:00 PM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	48	0	0	49	0	0	0	0	0	0	29	6	0	35	28	0	0	0	28	112
4:15 PM	1	25	0	0	26	0	0	0	0	0	0	27	8	0	35	18	0	2	0	20	81
4:30 PM	0	58	0	0	58	0	0	0	0	0	0	30	3	0	33	16	0	0	0	16	107
4:45 PM	1	41	0	0	42	0	0	0	0	0	0	17	8	0	25	24	0	0	0	24	91
Total Volume	3	172	0	0	175	0	0	0	0	0	0	103	25	0	128	86	0	2	0	88	391
% Approach Total	1.7	98.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	80.5	19.5	0.0		97.7	0.0	2.3	0.0		
PHF	0.750	0.741	0.000	0.000	0.754	0.000	0.000	0.000	0.000	0.000	0.000	0.858	0.781	0.000	0.914	0.768	0.000	0.250	0.000	0.786	0.873
Cars	3	172	0	0	175	0	0	0	0	0	0	102	24	0	126	85	0	2	0	87	388
Cars %	100.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	99.0	96.0	0.0	98.4	98.8	0.0	100.0	0.0	98.9	99.2
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	3
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	0.0	1.6	1.2	0.0	0.0	0.0	1.1	0.8
Cars Enter Leg	3	172	0	0	175	0	0	0	0	0	0	102	24	0	126	85	0	2	0	87	388
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	3
Total Entering Leg	3	172	0	0	175	0	0	0	0	0	0	103	25	0	128	86	0	2	0	88	391
Cars Exiting Leg	104					0					257					27					388
Heavy Exiting Leg	1					0					1					1					3
Total Exiting Leg	105					0					258					28					391

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Cars

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	48	0	0	49	0	0	0	0	0	0	29	6	0	35	27	0	0	0	27	111
4:15 PM	1	25	0	0	26	0	0	0	0	0	0	27	8	0	35	18	0	2	0	20	81
4:30 PM	0	58	0	0	58	0	0	0	0	0	0	30	3	0	33	16	0	0	0	16	107
4:45 PM	1	41	0	0	42	0	0	0	0	0	0	16	7	0	23	24	0	0	0	24	89
Total	3	172	0	0	175	0	0	0	0	0	0	102	24	0	126	85	0	2	0	87	388
5:00 PM	0	43	0	0	43	0	0	0	0	0	0	27	2	0	29	19	0	1	0	20	92
5:15 PM	1	35	0	0	36	0	0	0	0	0	0	16	9	0	25	24	0	0	0	24	85
5:30 PM	2	23	0	0	25	0	0	0	0	0	0	24	5	0	29	13	0	1	0	14	68
5:45 PM	0	24	0	0	24	0	0	0	0	0	0	14	3	0	17	17	0	1	0	18	59
Total	3	125	0	0	128	0	0	0	0	0	0	81	19	0	100	73	0	3	0	76	304
Grand Total	6	297	0	0	303	0	0	0	0	0	0	183	43	0	226	158	0	5	0	163	692
Approach %	2.0	98.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	81.0	19.0	0.0		96.9	0.0	3.1	0.0		
Total %	0.9	42.9	0.0	0.0	43.8	0.0	0.0	0.0	0.0	0.0	0.0	26.4	6.2	0.0	32.7	22.8	0.0	0.7	0.0	23.6	
Exiting Leg Total					188					0					455					49	692

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

4:00 PM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	48	0	0	49	0	0	0	0	0	0	29	6	0	35	27	0	0	0	27	111
4:15 PM	1	25	0	0	26	0	0	0	0	0	0	27	8	0	35	18	0	2	0	20	81
4:30 PM	0	58	0	0	58	0	0	0	0	0	0	30	3	0	33	16	0	0	0	16	107
4:45 PM	1	41	0	0	42	0	0	0	0	0	0	16	7	0	23	24	0	0	0	24	89
Total Volume	3	172	0	0	175	0	0	0	0	0	0	102	24	0	126	85	0	2	0	87	388
% Approach Total	1.7	98.3	0.0	0.0		0.0	0.0	0.0	0.0		0.0	81.0	19.0	0.0		97.7	0.0	2.3	0.0		
PHF	0.750	0.741	0.000	0.000	0.754	0.000	0.000	0.000	0.000	0.000	0.000	0.850	0.750	0.000	0.900	0.787	0.000	0.250	0.000	0.806	0.874
Entering Leg	3	172	0	0	175	0	0	0	0	0	0	102	24	0	126	85	0	2	0	87	388
Exiting Leg					104					0					257					27	388
Total					279					0					383					114	776

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



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

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

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	3
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	3
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	66.7	100.0	0.0	0.0	0.0	33.3	33.3
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	0.0	66.7	33.3	0.0	0.0	0.0	33.3	33.3
Exiting Leg Total	1					0					1					1					3
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
% Buses	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	50.0	100.0	0.0	0.0	0.0	100.0	66.7
Exiting Leg Total	1					0					1					0					2
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
% Single-Unit	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	50.0	0.0	0.0	0.0	0.0	0.0	33.3
Exiting Leg Total	0					0					0					1					1
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 04:00 PM to 06:00 PM begins at:

4:00 PM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	3
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	66.7	100.0	0.0	0.0	0.0	33.3	33.3
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.375
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
Buses %	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	50.0	100.0	0.0	0.0	0.0	100.0	66.7
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Single-Unit %	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	50.0	0.0	0.0	0.0	0.0	0.0	33.3
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	1	0	0	1	1	0	0	0	1	2
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
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	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	3
Buses	1					0					1					0					2
Single-Unit Trucks	0					0					0					1					1
Articulated Trucks	0					0					0					0					0
Total Exiting Leg	1					0					1					1					3

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Buses

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	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	50.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	50.0	
Exiting Leg Total	1					0					1					0					2

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

4:00 PM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
Exiting Leg	1					0					1					0					2
Total	1					0					2					1					4

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Single-Unit Trucks

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					0					1	1				

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

4:00 PM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Exiting Leg	0					0					0					1	1				
Total	0					0					1					1	2				

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Articulated Trucks

	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

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

4:00 PM	Baker Avenue					Trashology Entrance					Baker Avenue					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **239716 C**
 Location: **N: Baker Avenue S: Baker Avenue**
 Location: **E: Trashology Entrance W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Bicycles (on Roadway and Crosswalks)

	Baker Avenue								Trashology Entrance								Baker Avenue								#300 (Concord Meadows) Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	4	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	5	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	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	0	0	0	0	0	1	1	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	6	
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0						
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	100.0				
Exiting Leg Total	0								0								6								0	6							

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

	Baker Avenue								Trashology Entrance								Baker Avenue								#300 (Concord Meadows) Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	4	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	5	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0						
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313	0.000	0.000	0.000	0.000	0.000	0.313	0.313				
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	5		
Exiting Leg	0								0								5								0	5							
Total	0								0								5								0	10							

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Cars and Heavy Vehicles (Combined)

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	24	40	0	0	64	0	0	0	0	0	0	9	1	0	10	0	0	3	0	3	77
7:15 AM	18	59	0	0	77	0	0	0	0	0	0	19	3	0	22	1	0	2	0	3	102
7:30 AM	33	56	0	0	89	0	0	0	0	0	1	19	2	0	22	3	0	11	0	14	125
7:45 AM	56	50	0	0	106	0	0	0	0	0	0	29	4	0	33	0	0	3	0	3	142
Total	131	205	0	0	336	0	0	0	0	0	1	76	10	0	87	4	0	19	0	23	446
8:00 AM	44	45	1	0	90	0	0	0	0	0	0	26	1	0	27	2	0	13	0	15	132
8:15 AM	49	48	0	0	97	0	0	0	0	0	1	25	4	0	30	3	0	9	0	12	139
8:30 AM	39	55	0	0	94	0	0	0	0	0	2	20	3	0	25	6	0	15	0	21	140
8:45 AM	41	66	1	0	108	0	0	0	0	0	4	31	5	0	40	4	0	19	0	23	171
Total	173	214	2	0	389	0	0	0	0	0	7	102	13	0	122	15	0	56	0	71	582
Grand Total	304	419	2	0	725	0	0	0	0	0	8	178	23	0	209	19	0	75	0	94	1028
Approach %	41.9	57.8	0.3	0.0		0.0	0.0	0.0	0.0		3.8	85.2	11.0	0.0		20.2	0.0	79.8	0.0		
Total %	29.6	40.8	0.2	0.0	70.5	0.0	0.0	0.0	0.0	0.0	0.8	17.3	2.2	0.0	20.3	1.8	0.0	7.3	0.0	9.1	
Exiting Leg Total	253					10					438					327					1028
Cars	304	413	2	0	719	0	0	0	0	0	8	164	21	0	193	18	0	73	0	91	1003
% Cars	100.0	98.6	100.0	0.0	99.2	0.0	0.0	0.0	0.0	0.0	100.0	92.1	91.3	0.0	92.3	94.7	0.0	97.3	0.0	96.8	97.6
Exiting Leg Total	237					10					431					325					1003
Heavy Vehicles	0	6	0	0	6	0	0	0	0	0	0	14	2	0	16	1	0	2	0	3	25
% Heavy Vehicles	0.0	1.4	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	7.9	8.7	0.0	7.7	5.3	0.0	2.7	0.0	3.2	2.4
Exiting Leg Total	16					0					7					2					25

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

8:00 AM	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	44	45	1	0	90	0	0	0	0	0	0	26	1	0	27	2	0	13	0	15	132
8:15 AM	49	48	0	0	97	0	0	0	0	0	1	25	4	0	30	3	0	9	0	12	139
8:30 AM	39	55	0	0	94	0	0	0	0	0	2	20	3	0	25	6	0	15	0	21	140
8:45 AM	41	66	1	0	108	0	0	0	0	0	4	31	5	0	40	4	0	19	0	23	171
Total Volume	173	214	2	0	389	0	0	0	0	0	7	102	13	0	122	15	0	56	0	71	582
% Approach Total	44.5	55.0	0.5	0.0		0.0	0.0	0.0	0.0		5.7	83.6	10.7	0.0		21.1	0.0	78.9	0.0		
PHF	0.883	0.811	0.500	0.000	0.900	0.000	0.000	0.000	0.000	0.000	0.438	0.823	0.650	0.000	0.763	0.625	0.000	0.737	0.000	0.772	0.851
Cars	173	211	2	0	386	0	0	0	0	0	7	96	11	0	114	14	0	54	0	68	568
Cars %	100.0	98.6	100.0	0.0	99.2	0.0	0.0	0.0	0.0	0.0	100.0	94.1	84.6	0.0	93.4	93.3	0.0	96.4	0.0	95.8	97.6
Heavy Vehicles	0	3	0	0	3	0	0	0	0	0	0	6	2	0	8	1	0	2	0	3	14
Heavy Vehicles %	0.0	1.4	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	5.9	15.4	0.0	6.6	6.7	0.0	3.6	0.0	4.2	2.4
Cars Enter Leg	173	211	2	0	386	0	0	0	0	0	7	96	11	0	114	14	0	54	0	68	568
Heavy Enter Leg	0	3	0	0	3	0	0	0	0	0	0	6	2	0	8	1	0	2	0	3	14
Total Entering Leg	173	214	2	0	389	0	0	0	0	0	7	102	13	0	122	15	0	56	0	71	582
Cars Exiting Leg	150					9					225					184					568
Heavy Exiting Leg	8					0					4					2					14
Total Exiting Leg	158					9					229					186					582

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	24	39	0	0	63	0	0	0	0	0	0	7	1	0	8	0	0	3	0	3	74					
7:15 AM	18	58	0	0	76	0	0	0	0	0	0	17	3	0	20	1	0	2	0	3	99					
7:30 AM	33	56	0	0	89	0	0	0	0	0	1	17	2	0	20	3	0	11	0	14	123					
7:45 AM	56	49	0	0	105	0	0	0	0	0	0	27	4	0	31	0	0	3	0	3	139					
Total	131	202	0	0	333	0	0	0	0	0	1	68	10	0	79	4	0	19	0	23	435					
8:00 AM	44	45	1	0	90	0	0	0	0	0	0	24	1	0	25	2	0	13	0	15	130					
8:15 AM	49	46	0	0	95	0	0	0	0	0	1	23	3	0	27	3	0	8	0	11	133					
8:30 AM	39	54	0	0	93	0	0	0	0	0	2	19	3	0	24	6	0	15	0	21	138					
8:45 AM	41	66	1	0	108	0	0	0	0	0	4	30	4	0	38	3	0	18	0	21	167					
Total	173	211	2	0	386	0	0	0	0	0	7	96	11	0	114	14	0	54	0	68	568					
Grand Total	304	413	2	0	719	0	0	0	0	0	8	164	21	0	193	18	0	73	0	91	1003					
Approach %	42.3	57.4	0.3	0.0		0.0	0.0	0.0	0.0		4.1	85.0	10.9	0.0		19.8	0.0	80.2	0.0							
Total %	30.3	41.2	0.2	0.0	71.7	0.0	0.0	0.0	0.0	0.0	0.8	16.4	2.1	0.0	19.2	1.8	0.0	7.3	0.0	9.1						
Exiting Leg Total						237					10					431					325					1003

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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	44	45	1	0	90	0	0	0	0	0	0	24	1	0	25	2	0	13	0	15	130					
8:15 AM	49	46	0	0	95	0	0	0	0	0	1	23	3	0	27	3	0	8	0	11	133					
8:30 AM	39	54	0	0	93	0	0	0	0	0	2	19	3	0	24	6	0	15	0	21	138					
8:45 AM	41	66	1	0	108	0	0	0	0	0	4	30	4	0	38	3	0	18	0	21	167					
Total Volume	173	211	2	0	386	0	0	0	0	0	7	96	11	0	114	14	0	54	0	68	568					
% Approach Total	44.8	54.7	0.5	0.0		0.0	0.0	0.0	0.0		6.1	84.2	9.6	0.0		20.6	0.0	79.4	0.0							
PHF	0.883	0.799	0.500	0.000	0.894	0.000	0.000	0.000	0.000	0.000	0.438	0.800	0.688	0.000	0.750	0.583	0.000	0.750	0.000	0.810	0.850					
Entering Leg	173	211	2	0	386	0	0	0	0	0	7	96	11	0	114	14	0	54	0	68	568					
Exiting Leg						150					9					225					184					568
Total						536					9					339					252					1136

PDI File #: 239716 D
 Location: N: Baker Avenue Extension S: Baker Avenue Extension
 Location: E: 150 Driveway W: #300 (Concord Meadows) Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 7:00 AM
 End Time: 9:00 AM



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

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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
Total	0	3	0	0	3	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	11
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	6
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	1	0	2	4
Total	0	3	0	0	3	0	0	0	0	0	0	6	2	0	8	1	0	2	0	3	14
Grand Total	0	6	0	0	6	0	0	0	0	0	0	14	2	0	16	1	0	2	0	3	25
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	87.5	12.5	0.0		33.3	0.0	66.7	0.0		
Total %	0.0	24.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	56.0	8.0	0.0	64.0	4.0	0.0	8.0	0.0	12.0	
Exiting Leg Total	16					0					7					2					25
Buses	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	1	0	2	0	3	9
% Buses	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0	18.8	100.0	0.0	100.0	0.0	100.0	36.0
Exiting Leg Total	5					0					4					0					9
Single-Unit Trucks	0	3	0	0	3	0	0	0	0	0	0	9	2	0	11	0	0	0	0	0	14
% Single-Unit	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	64.3	100.0	0.0	68.8	0.0	0.0	0.0	0.0	0.0	56.0
Exiting Leg Total	9					0					3					2					14
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	8.0
Exiting Leg Total	2					0					0					0					2

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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	6
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	0	1	0	2	4
Total Volume	0	3	0	0	3	0	0	0	0	0	0	6	2	0	8	1	0	2	0	3	14
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	75.0	25.0	0.0		33.3	0.0	66.7	0.0		
PHF	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.500	0.000	0.667	0.250	0.000	0.500	0.000	0.375	0.583
Buses	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	2	0	3	6
Buses %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	12.5	100.0	0.0	100.0	0.0	100.0	42.9
Single-Unit Trucks	0	1	0	0	1	0	0	0	0	0	0	4	2	0	6	0	0	0	0	0	7
Single-Unit %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	66.7	100.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	50.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	12.5	0.0	0.0	0.0	0.0	0.0	7.1
Buses	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	2	0	3	6
Single-Unit Trucks	0	1	0	0	1	0	0	0	0	0	0	4	2	0	6	0	0	0	0	0	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Entering Leg	0	3	0	0	3	0	0	0	0	0	0	6	2	0	8	1	0	2	0	3	14
Buses	3					0					3					0					6
Single-Unit Trucks	4					0					1					2					7
Articulated Trucks	1					0					0					0					1
Total Exiting Leg	8					0					4					2					14

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Buses

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	1	0	0	1	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	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
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
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	0	0	0	0	1	0	1	0	2	2
Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	2	0	3	6
Grand Total	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	1	0	2	0	3	9
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		33.3	0.0	66.7	0.0		
Total %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	11.1	0.0	22.2	0.0	33.3	
Exiting Leg Total	5					0					4					0					9

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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
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	0	0	0	0	1	0	1	0	2	2
Total Volume	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	2	0	3	6
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		33.3	0.0	66.7	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.500	0.000	0.375	0.750
Entering Leg	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	2	0	3	6
Exiting Leg	3					0					3					0					6
Total	5					0					4					3					12

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Single-Unit Trucks

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2
Total	0	1	0	0	1	0	0	0	0	0	0	4	2	0	6	0	0	0	0	0	7
Grand Total	0	3	0	0	3	0	0	0	0	0	0	9	2	0	11	0	0	0	0	0	14
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	81.8	18.2	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	21.4	0.0	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0	64.3	14.3	0.0	78.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	9					0					3					2					14

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

7:00 AM	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total Volume	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
% Approach Total	0.0	100.0	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		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.875
Entering Leg	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
Exiting Leg	5					0					2					0					7
Total	7					0					7					0					14

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Articulated Trucks

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	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	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
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
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
Approach %	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	100.0
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Exiting Leg Total	2					0					0					0					2	

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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					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		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	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
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	2
% Approach Total	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	100.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	2
Exiting Leg	2					0					0					0					2	
Total	2					0					2					0					4	

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Baker Avenue Extension							150 Driveway							Baker Avenue Extension							#300 (Concord Meadows) Driveway							Total			
	from North							from East							from South							from West										
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total				
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0							0							0							0										

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

7:00 AM	Baker Avenue Extension							150 Driveway							Baker Avenue Extension							#300 (Concord Meadows) Driveway							Total			
	from North							from East							from South							from West										
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total				
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0										
Total	0							0							0							0										

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Pedestrians

	Baker Avenue Extension								150 Driveway								Baker Avenue Extension								#300 (Concord Meadows) Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Approach %	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		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg Total	0								1								0								0								1

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

7:00 AM	Baker Avenue Extension								150 Driveway								Baker Avenue Extension								#300 (Concord Meadows) Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.250			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250			
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Exiting Leg	0								1								0								0								1
Total	0								2								0								0								2

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Cars and Heavy Vehicles (Combined)

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	9	28	0	0	37	0	0	0	0	0	0	41	6	0	47	6	1	40	0	47	131
4:15 PM	11	20	0	0	31	1	0	0	0	1	0	47	3	0	50	6	0	31	0	37	119
4:30 PM	9	31	0	0	40	2	0	0	0	2	0	66	4	0	70	5	0	59	0	64	176
4:45 PM	13	15	0	0	28	2	0	0	0	2	0	44	3	0	47	10	1	42	0	53	130
Total	42	94	0	0	136	5	0	0	0	5	0	198	16	0	214	27	2	172	0	201	556
5:00 PM	12	21	1	0	34	1	1	0	0	2	2	53	3	0	58	4	0	45	0	49	143
5:15 PM	8	14	0	0	22	0	0	0	0	0	0	39	2	0	41	1	0	20	0	21	84
5:30 PM	6	14	0	0	20	0	0	0	0	0	0	44	5	0	49	5	0	36	0	41	110
5:45 PM	7	12	0	0	19	0	0	0	0	0	0	29	2	0	31	1	0	24	0	25	75
Total	33	61	1	0	95	1	1	0	0	2	2	165	12	0	179	11	0	125	0	136	412
Grand Total	75	155	1	0	231	6	1	0	0	7	2	363	28	0	393	38	2	297	0	337	968
Approach %	32.5	67.1	0.4	0.0		85.7	14.3	0.0	0.0		0.5	92.4	7.1	0.0		11.3	0.6	88.1	0.0		
Total %	7.7	16.0	0.1	0.0	23.9	0.6	0.1	0.0	0.0	0.7	0.2	37.5	2.9	0.0	40.6	3.9	0.2	30.7	0.0	34.8	
Exiting Leg Total	666					5					193					104					968
Cars	75	154	1	0	230	6	1	0	0	7	1	362	26	0	389	38	2	297	0	337	963
% Cars	100.0	99.4	100.0	0.0	99.6	100.0	100.0	0.0	0.0	100.0	50.0	99.7	92.9	0.0	99.0	100.0	100.0	100.0	0.0	100.0	99.5
Exiting Leg Total	665					4					192					102					963
Heavy Vehicles	0	1	0	0	1	0	0	0	0	0	1	1	2	0	4	0	0	0	0	0	5
% Heavy Vehicles	0.0	0.6	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	50.0	0.3	7.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.5
Exiting Leg Total	1					1					1					2					5

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

4:15 PM	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:15 PM	11	20	0	0	31	1	0	0	0	1	0	47	3	0	50	6	0	31	0	37	119
4:30 PM	9	31	0	0	40	2	0	0	0	2	0	66	4	0	70	5	0	59	0	64	176
4:45 PM	13	15	0	0	28	2	0	0	0	2	0	44	3	0	47	10	1	42	0	53	130
5:00 PM	12	21	1	0	34	1	1	0	0	2	2	53	3	0	58	4	0	45	0	49	143
Total Volume	45	87	1	0	133	6	1	0	0	7	2	210	13	0	225	25	1	177	0	203	568
% Approach Total	33.8	65.4	0.8	0.0		85.7	14.3	0.0	0.0		0.9	93.3	5.8	0.0		12.3	0.5	87.2	0.0		
PHF	0.865	0.702	0.250	0.000	0.831	0.750	0.250	0.000	0.000	0.875	0.250	0.795	0.813	0.000	0.804	0.625	0.250	0.750	0.000	0.793	0.807
Cars	45	87	1	0	133	6	1	0	0	7	1	210	12	0	223	25	1	177	0	203	566
Cars %	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	50.0	100.0	92.3	0.0	99.1	100.0	100.0	100.0	0.0	100.0	99.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	7.7	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.4
Cars Enter Leg	45	87	1	0	133	6	1	0	0	7	1	210	12	0	223	25	1	177	0	203	566
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
Total Entering Leg	45	87	1	0	133	6	1	0	0	7	2	210	13	0	225	25	1	177	0	203	568
Cars Exiting Leg	393					3					112					58					566
Heavy Exiting Leg	0					1					0					1					2
Total Exiting Leg	393					4					112					59					568

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Cars

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	9	27	0	0	36	0	0	0	0	0	0	41	5	0	46	6	1	40	0	47	129					
4:15 PM	11	20	0	0	31	1	0	0	0	1	0	47	3	0	50	6	0	31	0	37	119					
4:30 PM	9	31	0	0	40	2	0	0	0	2	0	66	4	0	70	5	0	59	0	64	176					
4:45 PM	13	15	0	0	28	2	0	0	0	2	0	44	3	0	47	10	1	42	0	53	130					
Total	42	93	0	0	135	5	0	0	0	5	0	198	15	0	213	27	2	172	0	201	554					
5:00 PM	12	21	1	0	34	1	1	0	0	2	1	53	2	0	56	4	0	45	0	49	141					
5:15 PM	8	14	0	0	22	0	0	0	0	0	0	38	2	0	40	1	0	20	0	21	83					
5:30 PM	6	14	0	0	20	0	0	0	0	0	0	44	5	0	49	5	0	36	0	41	110					
5:45 PM	7	12	0	0	19	0	0	0	0	0	0	29	2	0	31	1	0	24	0	25	75					
Total	33	61	1	0	95	1	1	0	0	2	1	164	11	0	176	11	0	125	0	136	409					
Grand Total	75	154	1	0	230	6	1	0	0	7	1	362	26	0	389	38	2	297	0	337	963					
Approach %	32.6	67.0	0.4	0.0		85.7	14.3	0.0	0.0		0.3	93.1	6.7	0.0		11.3	0.6	88.1	0.0							
Total %	7.8	16.0	0.1	0.0	23.9	0.6	0.1	0.0	0.0	0.7	0.1	37.6	2.7	0.0	40.4	3.9	0.2	30.8	0.0	35.0						
Exiting Leg Total						665					4					192					102					963

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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:15 PM	11	20	0	0	31	1	0	0	0	1	0	47	3	0	50	6	0	31	0	37	119					
4:30 PM	9	31	0	0	40	2	0	0	0	2	0	66	4	0	70	5	0	59	0	64	176					
4:45 PM	13	15	0	0	28	2	0	0	0	2	0	44	3	0	47	10	1	42	0	53	130					
5:00 PM	12	21	1	0	34	1	1	0	0	2	1	53	2	0	56	4	0	45	0	49	141					
Total Volume	45	87	1	0	133	6	1	0	0	7	1	210	12	0	223	25	1	177	0	203	566					
% Approach Total	33.8	65.4	0.8	0.0		85.7	14.3	0.0	0.0		0.4	94.2	5.4	0.0		12.3	0.5	87.2	0.0							
PHF	0.865	0.702	0.250	0.000	0.831	0.750	0.250	0.000	0.000	0.875	0.250	0.795	0.750	0.000	0.796	0.625	0.250	0.750	0.000	0.793	0.804					
Entering Leg	45	87	1	0	133	6	1	0	0	7	1	210	12	0	223	25	1	177	0	203	566					
Exiting Leg						393					3					112					58					566
Total						526					10					335					261					1132

PDI File #: 239716 D
 Location: N: Baker Avenue Extension S: Baker Avenue Extension
 Location: E: 150 Driveway W: #300 (Concord Meadows) Driveway
 City, State: Concord, MA
 Client: VHB/ A. Domogala
 Site Code: 15630.00
 Count Date: Thursday, November 16, 2023
 Start Time: 4:00 PM
 End Time: 6:00 PM



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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	3
Grand Total	0	1	0	0	1	0	0	0	0	0	1	1	2	0	4	0	0	0	0	0	5
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		25.0	25.0	50.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	20.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	40.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	1					1					1					2					5
Buses	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
% 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	50.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	20.0
Exiting Leg Total	0					0					0					1					1
Single-Unit Trucks	0	1	0	0	1	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	4
% Single-Unit	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	50.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	80.0
Exiting Leg Total	1					1					1					1					4
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 04:00 PM to 06:00 PM begins at:

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		33.3	33.3	33.3	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.375
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	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	3
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0	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	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	3
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	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	3
Buses	0					0					0					0					0
Single-Unit Trucks	1					1					1					1					3
Articulated Trucks	0					0					0					0					0
Total Exiting Leg	1					1					0					1					3

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Buses

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					1					1

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

4:00 PM	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Exiting Leg	0					0					0					1					1
Total	0					0					1					1					2

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



PRECISION
 D A T A
 INDUSTRIES, LLC

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

Single-Unit Trucks

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	1	0	0	1	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	4
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		33.3	33.3	33.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0	25.0	25.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	1					1					1					1					4					

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

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		33.3	33.3	33.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	3
Exiting Leg	1					1					0					1					3					
Total	1					1					3					1					6					

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Articulated Trucks

	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0					0					0					0					0

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

4:00 PM	Baker Avenue Extension					150 Driveway					Baker Avenue Extension					#300 (Concord Meadows) Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0					0					0					0					0
Total	0					0					0					0					0

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Bicycles (on Roadway and Crosswalks)

	Baker Avenue Extension								150 Driveway								Baker Avenue Extension								#300 (Concord Meadows) Driveway								Total						
	from North								from East								from South								from West														
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total								
4:00 PM	2	0	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	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	2	0	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	0	0	0	0	0	0	0	0	0	2
Total	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Approach %	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	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total %	66.7	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	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	2							0							0							4							6										

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

	Baker Avenue Extension								150 Driveway								Baker Avenue Extension								#300 (Concord Meadows) Driveway								Total						
	from North								from East								from South								from West														
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total								
4:00 PM	2	0	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	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	2	0	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	0	0	0	0	0	0	0	0	0	2
Total Volume	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
% Approach Total	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500		
Entering Leg	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Exiting Leg	0							0							0							4							4										
Total	4							0							0							4							8										

PDI File #: **239716 D**
 Location: **N: Baker Avenue Extension S: Baker Avenue Extension**
 Location: **E: 150 Driveway W: #300 (Concord Meadows) Driveway**
 City, State: **Concord, MA**
 Client: **VHB/ A. Domogala**
 Site Code: **15630.00**
 Count Date: **Thursday, November 16, 2023**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Pedestrians

	Baker Avenue Extension								150 Driveway								Baker Avenue Extension								#300 (Concord Meadows) Driveway							
	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg Total	0								0								0								0							

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

	Baker Avenue Extension								150 Driveway								Baker Avenue Extension								#300 (Concord Meadows) Driveway							
	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg	0								0								0								0							
Total	0								0								0								0							

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Count Adjustments

Massachusetts Highway Department
 Statewide Traffic Data Collection
 2019 Weekday Seasonal Factors

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

Round off:

0-999 = 10

>1000 = 100

U = Urban

R = Rural

1 - Interstate

2 - Freeway and Expressway

3 - Other Principal Arterial

4 - Minor Arterial

5 - Major Collector

6 - Minor Collector

7 - Local Road and Street

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

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

Volume Comparison - 2022 v. 2023

Concord Turnpike (Route 2) east of Reformatory Circle

Time Period	Volume	Difference	Adjustment Factor	Notes
DAILY				
February 2023, Tues-Thurs	48,787			Does not include dates past 2/9 due to lack of acceptable data
February 2022, Tues-Thurs	46,434	-5%	1.05	Does not include 2/22-2/24 due to vacation week
February 2022, Count Day	46,104	-5%	1.06	
AM PEAK (7-9 AM)				
February 2023, Tues-Thurs	6,378			Does not include dates past 2/9 due to lack of acceptable data
February 2022, Tues-Thurs	6,320	-1%	1.01	Does not include 2/22-2/24 due to vacation week
February 2022, Count Day	6,272	-2%	1.02	
PM PEAK (4-6 PM)				
February 2023, Tues-Thurs	7,187			Does not include dates past 2/9 due to lack of acceptable data
February 2022, Tues-Thurs	6,822	-5%	1.05	Does not include 2/22-2/24 due to vacation week
February 2022, Count Day	6,727	-6%	1.07	

Source: MassDOT MS2 Portal

Volume by Hour by Day for 2/1/2022 - 2/28/2022
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM

District :
Roadbed : ML
Location ID : 403

County : Middlesex
Location : ELM STREET
Lane Direction : 2-WAY

Community : Concord
Route : 2

Collection Type : HPMS

2/2022																												Tues-Thurs Average		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		28	Total
12-1A	413	535	243	248	270	395	403	232	205	258	262	389	395	269	233	226	237	257	405	467	264	234	225	251	349	220	397	228	8,510	287
1-2A	392	298	117	134	134	200	171	108	131	108	139	227	191	130	127	114	120	123	241	215	142	129	94	129	177	129	221	133	4,574	168
2-3A	419	235	95	115	134	144	175	79	89	101	101	148	159	105	110	76	117	116	134	147	97	93	75	98	145	108	170	114	3,699	147
3-4A	353	276	178	153	115	138	344	124	149	164	152	146	133	166	170	166	183	180	204	131	178	188	171	173	171	128	145	173	4,952	196
4-5A	750	489	429	374	212	173	534	397	417	401	408	203	140	451	463	445	428	385	214	144	227	458	399	389	273	198	132	495	10,028	469
5-6A	1,821	1,682	1,510	1,079	467	338	1,701	1,491	1,610	1,568	1,462	510	252	1,378	1,676	1,621	1,619	1,358	485	283	723	1,594	1,528	1,528	498	507	266	1,565	32,120	1,622
6-7A	2,737	2,750	2,534	1,784	1,037	855	2,633	2,458	2,482	2,656	2,530	1,064	674	2,339	2,719	2,838	2,630	2,366	947	687	1,572	2,571	2,607	2,558	780	1,101	759	2,691	55,359	2,645
7-8A	3,262	3,217	3,136	1,837	1,288	1,204	3,180	3,119	3,116	3,181	3,143	1,446	934	2,943	3,312	3,246	3,160	2,972	1,363	894	1,757	3,187	3,077	3,144	765	1,444	953	3,191	67,471	3,194
8-9A	3,165	3,116	3,046	1,475	1,642	1,429	2,935	3,026	3,252	3,011	3,547	1,801	1,197	3,045	3,204	3,199	3,112	2,995	1,804	1,258	1,941	3,031	3,087	3,149	649	1,797	1,363	3,088	69,364	3,126
9-10A	2,701	2,637	2,694	1,276	1,987	1,825	2,456	2,686	2,860	2,905	2,744	2,210	1,525	2,641	2,881	2,820	2,883	2,681	2,223	1,647	2,263	2,751	2,703	2,767	599	2,170	1,693	2,689	65,917	2,785
10-11A	2,356	2,520	2,348	1,316	2,352	2,241	2,285	2,287	2,517	2,540	2,703	2,678	1,845	2,385	2,456	2,448	2,381	2,573	2,604	2,156	2,504	2,531	2,711	2,919	459	2,362	2,172	2,371	65,020	2,428
11-12A	2,410	2,435	2,421	1,277	2,589	2,501	2,277	2,328	2,571	2,620	2,762	2,949	2,207	2,274	2,404	2,391	2,517	2,688	2,790	2,551	2,646	2,542	2,696	2,896	510	2,607	2,535	2,368	67,762	2,455
12-1P	2,421	2,639	2,516	1,366	2,636	2,722	2,325	2,432	2,644	2,665	2,768	3,131	2,589	2,237	2,475	2,492	2,549	2,877	2,953	2,642	2,703	2,642	2,816	3,058	574	2,745	2,922	2,456	70,995	2,537
1-2P	2,561	2,669	2,623	1,336	2,733	2,665	2,420	2,520	2,765	2,610	3,031	3,124	2,586	2,545	2,611	2,678	2,582	2,936	2,861	2,688	2,731	2,664	2,990	3,028	681	2,800	2,785	2,499	72,722	2,624
2-3P	3,062	3,252	3,153	1,727	2,793	2,707	2,881	3,107	3,224	3,240	3,337	3,179	2,417	3,055	3,134	3,112	3,128	3,294	2,829	2,516	2,996	2,958	3,250	3,427	904	2,736	2,804	3,072	81,294	3,157
3-4P	3,541	3,411	3,278	1,599	2,543	2,802	2,896	3,242	3,374	3,380	3,610	3,130	2,522	3,373	3,340	3,329	3,445	3,505	2,661	2,576	3,090	3,195	3,407	3,584	911	2,623	2,794	3,354	84,515	3,371
4-5P	3,309	3,384	3,203	1,604	2,537	2,706	3,075	3,362	3,224	3,296	3,599	2,998	2,408	3,336	3,333	3,554	3,295	3,605	2,626	2,490	2,940	3,186	3,408	3,523	992	2,668	2,588	3,435	83,684	3,329
5-6P	3,495	3,514	3,370	1,449	2,473	2,598	3,166	3,495	3,629	3,414	3,773	2,806	2,254	3,028	3,405	3,686	3,432	3,774	2,474	2,410	2,820	3,105	3,542	3,641	1,048	2,707	2,474	3,222	84,204	3,493
6-7P	2,505	2,871	3,078	1,336	2,286	2,085	2,177	2,590	3,092	3,068	3,155	2,359	1,792	2,444	2,585	2,708	2,815	3,253	2,198	1,944	2,204	2,389	2,755	3,277	1,015	2,119	2,075	2,476	68,651	2,812
7-8P	1,827	1,762	1,953	1,218	1,759	1,758	1,592	1,755	1,822	1,797	2,080	1,649	1,130	1,680	1,857	1,808	1,834	2,177	1,522	1,522	1,585	1,531	1,897	2,267	780	1,651	1,536	1,562	47,311	1,824
8-9P	1,448	1,484	1,380	777	1,435	1,395	1,154	1,323	1,378	1,363	1,406	1,447	934	1,341	1,441	1,250	1,327	1,371	1,219	1,237	1,206	1,182	1,313	1,690	632	1,324	1,242	1,246	35,945	1,377
9-10P	1,163	1,107	1,046	745	1,279	960	924	919	1,089	1,019	1,180	1,166	742	1,016	1,072	994	1,023	1,081	1,024	900	857	1,050	989	1,321	486	1,142	822	915	28,031	1,048
10-11P	998	940	696	488	1,124	749	571	729	796	839	940	980	841	630	739	835	790	970	928	667	643	743	765	953	484	1,036	610	702	22,186	818
11-12P	793	514	468	395	703	573	391	454	487	513	700	687	623	504	445	517	497	640	709	482	412	417	499	634	375	762	400	498	15,092	521
Total:	47902	47737	45515	25108	36528	35163	42666	44263	46923	46717	49532	40427	30490	43315	46192	46553	46104	48177	37418	32654	38501	44371	47004	50404	14257	37084	33858	44543	1,149,406	46434

included in Tues-Thurs average
excluded from Tues-Thurs average

Volume by Hour by Day for 2/1/2023 - 2/28/2023
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM

District :
Roadbed : ML
Location ID : 403

County : Middlesex
Location : ELM STREET
Lane Direction : 2-WAY

Community : Concord
Route : 2

Collection Type : HPMS

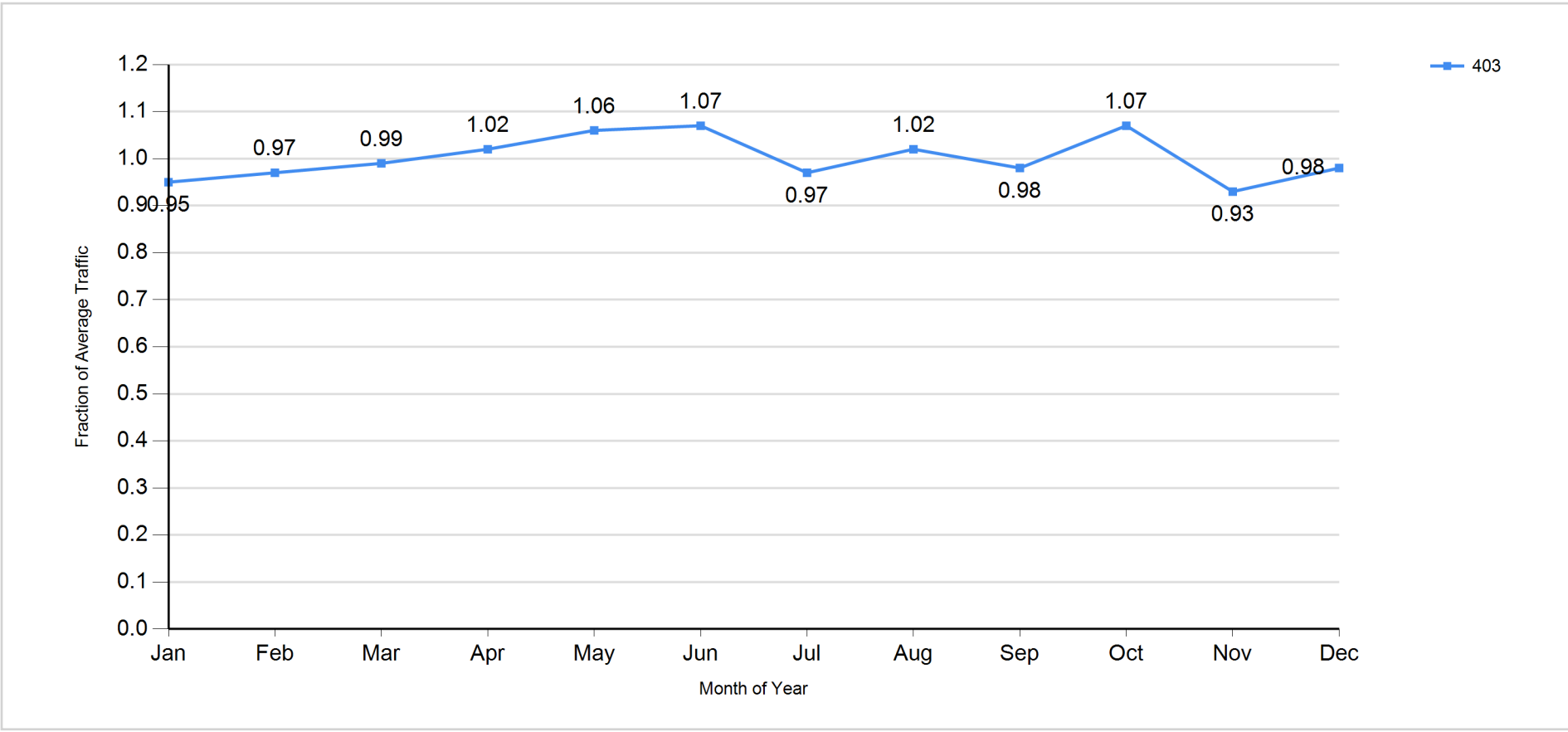
2/2023																
	1	2	3	4	5	6	7	8	9	10	11	12	15	16	17	Total
12-1A	242	243	410	376	378	218	238	224	260	282	513	400	253	218	231	4,486
1-2A	103	144	200	210	229	136	111	143	108	157	377	235	130	113	110	2,506
2-3A	104	95	178	119	130	81	111	95	88	108	385	173	96	94	115	1,972
3-4A	165	154	248	121	145	157	140	147	146	175	168	150	149	149	153	2,367
4-5A	421	456	497	181	128	489	460	449	430	421	233	156	359	343	327	5,350
5-6A	1,775	1,665	1,494	423	333	1,667	1,732	1,602	1,624	1,517	536	272	947	994	877	17,458
6-7A	2,472	2,584	2,624	860	841	2,656	2,675	2,632	2,645	2,586	1,223	770	1,658	1,738	1,614	29,578
7-8A	3,178	3,149	3,318	1,037	1,154	3,158	3,071	3,170	3,163	2,964	1,502	987	2,207	2,228	1,982	36,268
8-9A	3,185	3,267	2,870	1,267	1,529	3,130	3,164	3,258	3,286	3,096	1,866	1,348	2,264	2,272	2,115	37,917
9-10A	2,921	2,827	2,407	1,603	1,877	2,683	2,796	2,917	2,865	2,772	2,187	1,809	2,085	2,034	1,944	35,727
10-11A	2,566	2,589	2,299	1,937	2,332	2,406	2,462	2,511	2,882	2,501	2,521	2,178	1,852	1,849	1,778	34,663
11-12A	2,639	2,575	2,417	1,997	2,701	2,347	2,477	2,521	2,458	2,703	2,763	2,521	1,911	1,870	1,977	35,877
12-1P	2,714	2,745	2,482	2,297	3,012	2,374	2,850	2,631	2,680	2,704	2,975	2,807	1,930	1,963	2,102	38,266
1-2P	2,783	2,715	2,709	2,297	3,077	2,495	3,349	2,843	2,685	3,066	3,065	2,874	2,019	2,071	2,146	40,194
2-3P	3,115	3,186	3,112	2,369	2,992	2,969	3,899	3,249	3,307	3,199	2,996	2,754	2,317	2,427	2,390	44,281
3-4P	3,301	3,332	3,244	2,485	3,036	3,217	3,962	3,408	3,271	3,355	2,884	2,575	2,430	2,446	2,422	45,368
4-5P	3,376	3,666	3,310	2,381	2,964	3,389	3,850	3,345	3,281	3,315	2,925	2,788	2,444	2,349	2,406	45,789
5-6P	3,445	4,090	3,005	2,303	2,633	3,179	3,878	3,509	3,497	3,560	2,625	2,531	2,517	2,575	2,587	45,934
6-7P	3,378	4,040	2,434	1,929	2,245	2,374	3,684	3,054	2,820	2,984	2,217	1,906	2,227	2,152	2,160	39,604
7-8P	1,985	2,035	1,670	1,547	1,694	1,679	2,297	1,992	1,983	2,029	1,763	1,157	1,459	1,477	1,461	26,228
8-9P	1,585	1,671	1,266	1,273	1,380	1,241	1,497	1,471	1,398	1,490	1,474	937	1,121	1,178	1,023	20,005
9-10P	1,122	1,213	1,059	1,075	923	850	1,005	1,093	1,044	1,234	1,262	941	869	993	847	15,530
10-11P	902	915	903	1,165	613	671	693	881	783	1,107	1,101	1,022	696	683	822	12,957
11-12P	553	619	604	682	474	404	449	677	552	810	764	673	476	450	602	8,789
Total:	48030	49975	44760	31934	36820	43970	50850	47822	47256	48135	40325	33964	34416	34666	34191	627,114

Tues-Thurs Average
241
122
99
150
443
1,680
2,602
3,146
3,232
2,865
2,602
2,534
2,724
2,875
3,351
3,455
3,504
3,684
3,395
2,058
1,524
1,095
835
570
48787

included in Tues-Thurs average
 excluded from Tues-Thurs average

Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2018 - 12/31/2018
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM



Note: 2018 data shown because no 2019 data available for September through December

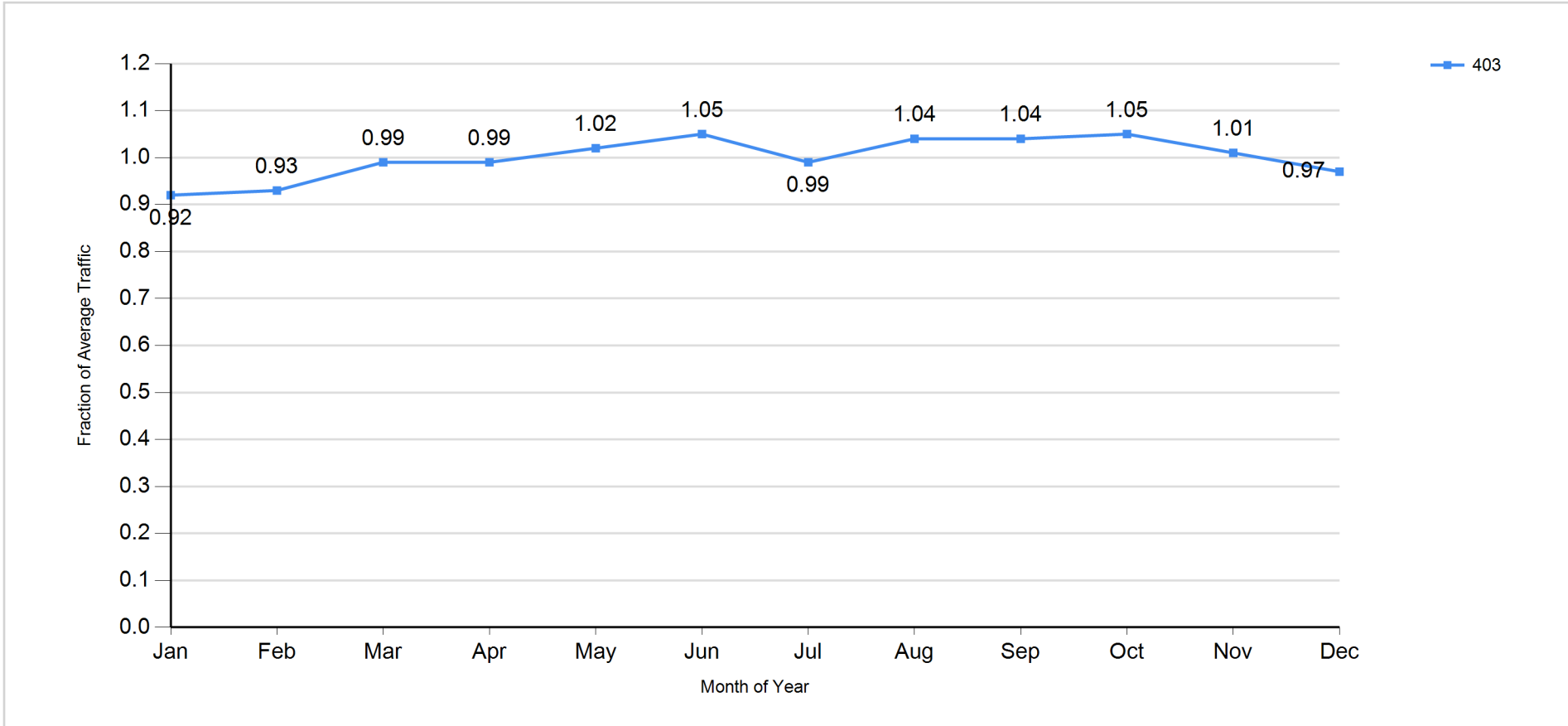
Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2018 - 12/31/2018
 Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM

Factor Group	Station	Weight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
U3	403	1	0.947	0.967	0.994	1.020	1.063	1.073	0.971	1.022	0.981	1.068	0.930	0.978
Average of Weighted Factors			0.947	0.967	0.994	1.020	1.063	1.073	0.971	1.022	0.981	1.068	0.930	0.978

Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2022 - 12/31/2022
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM





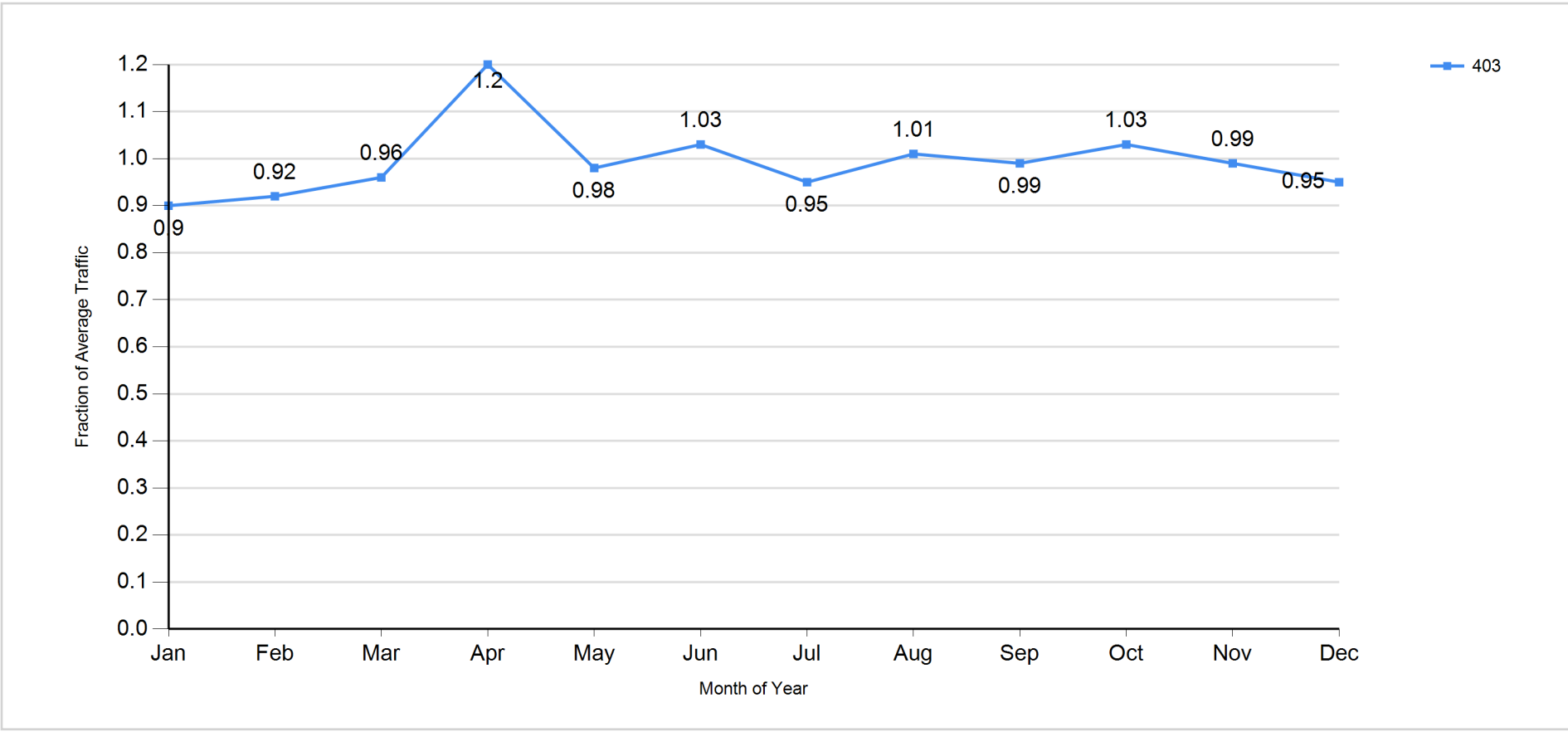
Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2022 - 12/31/2022
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM

Factor Group	Station	Weight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
U3	403	1	0.920	0.925	0.990	0.990	1.019	1.055	0.988	1.038	1.041	1.052	1.006	0.969
Average of Weighted Factors			0.920	0.925	0.990	0.990	1.019	1.055	0.988	1.038	1.041	1.052	1.006	0.969

Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2023 - 12/31/2023
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM



Massachusetts Highway Department

Traffic Pattern by Month for 1/1/2023 - 12/31/2023
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM

Factor Group	Station	Weight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
U3	403		0.902	0.916	0.960	1.198	0.982	1.030	0.946	1.008	0.991	1.029	0.988	0.951
	Average of Weighted Factors		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Count Comparison

COUNT COMPARISON

Project Name: 400 Baker Avenue
 Project No: 15630.00
 Location: Concord, MA
 Date: Nov 2023

Adjustment Factors	
AM	PM
1.05	1.10

INTERSECTION	MOVEMENT	FEB 2022 EXISTING VOLUMES - RAW		FEB 2022 EXISTING VOLUMES - ADJUSTED TO AVG 2023		NOV 2023 EXISTING VOLUMES - RAW		Adjusted 2022 vs. Raw 2023 comparison		
		7:30 AM	4:30 PM	AM	PM	8:00 AM	4:30 PM	AM	PM	
1. Route 62 (Main Street) at Baker Avenue/Cottage Street	Main Street (Route 62)									
	EB L	119	35	125	39	113	44	-12	5	
	EB T	595	414	625	456	582	449	-43	-7	
	EB R	40	28	42	31	19	35	-23	4	
	Main Street (Route 62)	WB L	5	5	5	6	5	6	0	-6
	WB T	247	614	259	677	321	699	62	22	
	WB R	66	25	69	28	77	31	8	3	
	Cottage Street	NB L	46	149	48	164	43	94	-5	-70
	NB T	100	35	105	39	98	33	-7	-6	
	NB R	6	6	6	7	5	6	-1	-1	
	Baker Avenue	SB L	8	83	8	91	28	62	20	-29
	SB T	35	50	37	55	34	63	-3	8	
SB R	33	134	35	148	62	152	27	4		
2. Main Street at Old Bridge Road/TD Bank Driveway	Main Street (Route 62)					2	1			
	EB L					566	493			
	EB T					40	19			
	EB R					2				
	Main Street (Route 62)	WB L				382	632			
	WB T					2	4			
	WB R					12	97			
	Crest Street	NB L				4	4			
	NB T					6	4			
	NB R						1			
	TD Bank Driveway	SB L					2			
	SB T									
SB R										
3. Baker Avenue at Site Driveway/Trashology Driveway	Site Driveway (300 Baker Avenue)					2	1	1	1	
	EB L	1		1						
	EB T					27	83	12	-4	
	EB R	15	87	15	87					
	Trashology Drive	WB L								
	WB T					1		1		
	WB R					105	22	24	-8	
	Baker Avenue	NB L	81	30	81	30	168	90	-32	21
	NB T	190	63	200	69					
	NB R					91	177	29	12	
	Baker Avenue	SB L					4	2	1	-1
	SB T	59	150	62	165					
SB R	3	3	3	3						
4. Baker Avenue Extension at Site Driveway	Site Driveway (300 Baker Avenue)					56	166			
	EB L					15	20			
	EB R					13	12			
	Baker Avenue Extension	NB L				109	204			
	NB T					214	81			
	SB T					173	42			
5. Concord Turnpike (Route 2) at Baker Avenue Extension	Concord Turnpike (Route 2)					283	179	-93	23	
	EB L	358	142	376	156	1376	1166	22	-24	
	EB T	1289	1080	1354	1190	274	32	-4	-22	
	EB R	265	49	278	54	1036	1224	-39	18	
	Concord Turnpike (Route 2)	WB T	1023	1094	1075	1206	79	22	-13	-10
	WB R	88	29	92	32	83	141	8	-90	
	Baker Avenue Extension	NB L	71	210	75	231	32	79	6	14
	NB T	25	59	26	65	28	66	12	9	
	NB R	15	52	16	57	6	19	-3	8	
	Elm Street	SB L	9	10	9	11	143	54	12	3
	SB T	125	46	131	51					
	TOTAL		3268	2771	3433	3054				

blue text = growth rate not applied to driveways yellow = May 2023 volumes from 798 Elm St TIA red text = adjusted 2022 volumes much higher

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



MBTA Fitchburg Line Schedule

FITCHBURG LINE

FALL/WINTER SCHEDULE Effective October 2, 2023

SKI

Wachusett Mountain ski area operates a shuttle between the ski area and Wachusett station during Winter months to connect to these trains which feature a specifically modified coach equipped with racks for ski and snowboard equipment. The ski train will operate on weekends starting December 9th and on Wednesdays starting January 3rd.

Monday to Friday

Inbound to Boston

ZONE	STATION	TRAIN #	AM								PM										
			400	402	404	482	406	408	410	486	414	490	418	494	422	424	498	426	428	430	432
8	Wachusett	♻️	4:25	5:20	6:15	-	7:15	8:20	9:25	-	11:25	-	1:25	-	3:25	4:35	-	6:10	7:30	9:25	10:55
8	Fitchburg	♻️	4:33	5:28	6:23	-	7:23	8:28	9:33	-	11:33	-	1:33	-	3:33	4:43	-	6:20	7:38	9:33	11:03
8	North Leominster	♻️	4:40	5:35	6:30	-	7:30	8:35	9:40	-	11:40	-	1:40	-	3:40	4:50	-	6:27	7:45	9:40	11:10
8	Shirley		4:48	5:43	6:38	-	7:38	8:43	f 9:48	-	f 11:48	-	f 1:48	-	f 3:48	f 4:58	-	f 6:35	f 7:53	f 9:48	11:18
8	Ayer		4:53	5:48	6:43	-	7:43	8:48	9:53	-	11:53	-	1:53	-	3:53	5:03	-	6:40	7:58	9:53	11:23
7	Littleton/Route 495	♻️	5:01	5:56	6:51	7:01	7:51	8:56	10:01	11:01	12:01	1:01	2:01	3:01	4:01	5:11	5:48	6:48	8:06	10:01	11:31
6	South Acton	♻️	5:07	6:02	6:57	7:07	7:57	9:02	10:07	11:07	12:07	1:07	2:07	3:07	4:07	5:17	5:54	6:54	8:12	10:07	11:37
5	West Concord	♻️	5:11	6:06	-	7:11	8:01	9:06	10:11	11:11	12:11	1:11	2:11	3:11	4:11	5:21	5:58	6:58	8:16	10:11	11:41
5	Concord		5:15	6:11	-	7:16	8:05	9:10	10:15	11:15	12:15	1:15	2:15	3:15	4:15	5:25	6:02	7:02	8:20	10:15	11:45
4	Lincoln		5:21	6:17	-	7:22	8:11	9:16	f 10:21	f 11:21	f 12:21	f 1:21	f 2:21	f 3:21	f 4:21	f 5:31	f 6:08	f 7:08	f 8:26	f 10:21	11:51
3	Kendal Green		5:27	6:23	-	7:28	8:17	9:22	f 10:27	f 11:27	f 12:27	f 1:27	f 2:27	f 3:27	f 4:27	f 5:37	f 6:14	f 7:14	f 8:32	f 10:27	11:57
2	Brandeis/Roberts	♻️	5:30	6:27	-	7:32	8:21	9:26	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:40	6:17	7:17	8:35	10:30	12:00
2	Waltham	♻️	5:34	6:31	-	7:36	8:25	9:30	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:44	6:21	7:21	8:39	10:34	12:04
1	Waverley		5:39	6:36	-	7:41	8:30	9:35	f 10:39	f 11:39	f 12:39	f 1:39	f 2:39	f 3:39	f 4:39	f 5:49	f 6:26	f 7:26	f 8:44	f 10:39	12:09
1	Belmont		5:41	6:38	-	7:44	8:32	9:37	f 10:41	f 11:41	f 12:41	f 1:41	f 2:41	f 3:41	f 4:41	f 5:51	f 6:28	f 7:28	f 8:46	f 10:41	12:11
1A	Porter Square	♻️	5:47	6:44	7:23	7:50	8:38	9:43	10:47	11:47	12:47	1:47	2:47	3:47	4:47	5:57	6:34	7:34	8:52	10:47	12:17
1A	North Station	♻️	6:03	7:01	7:40	8:07	8:55	10:00	11:03	12:03	1:03	2:03	3:03	4:03	5:03	6:13	6:49	7:50	9:08	11:03	12:33

Monday to Friday

Outbound from Boston

ZONE	STATION	TRAIN #	AM					PM													
			481	403	405	407	485	411	489	415	493	419	421	497	423	425	427	429	431	433	435
1A	North Station	♻️	5:40	6:20	7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:40	4:25	4:55	5:30	6:30	7:30	9:00	10:30	11:50
1A	Porter Square	♻️	5:50	6:30	7:40	8:40	9:40	10:40	11:40	12:40	1:40	2:40	3:50	4:35	5:05	5:40	6:40	7:40	9:10	10:40	12:00
1	Belmont		f 5:55	f 6:35	f 7:45	f 8:45	f 9:45	f 10:45	f 11:45	f 12:45	f 1:45	2:45	3:55	4:40	-	5:45	6:45	7:45	f 9:15	f 10:45	12:05
1	Waverley		f 5:57	f 6:37	f 7:47	f 8:47	f 9:47	f 10:47	f 11:47	f 12:47	f 1:47	2:47	3:57	4:42	-	5:47	6:47	7:47	f 9:17	f 10:47	12:07
2	Waltham	♻️	6:02	6:42	7:52	8:52	9:52	10:52	11:52	12:52	1:52	2:52	4:02	4:47	-	5:53	6:52	7:52	9:22	10:52	12:12
2	Brandeis/Roberts	♻️	6:05	6:45	7:55	8:55	9:55	10:55	11:55	12:55	1:55	2:55	4:05	4:50	-	5:56	6:55	7:55	9:25	10:55	12:15
3	Kendal Green		f 6:09	f 6:49	f 7:59	f 8:59	f 9:59	f 10:59	f 11:59	f 12:59	f 1:59	2:59	4:09	4:54	-	6:00	6:59	7:59	f 9:29	f 10:59	12:19
4	Lincoln		f 6:14	f 6:54	f 8:04	f 9:04	f 10:04	f 11:04	f 12:04	f 1:04	f 2:04	3:04	4:14	4:59	-	6:05	7:04	8:04	f 9:34	f 11:04	12:24
5	Concord		6:19	6:59	8:09	9:09	10:09	11:09	12:09	1:09	2:09	3:09	4:19	5:04	-	6:10	7:09	8:09	9:39	11:09	12:29
5	West Concord	♻️	6:23	7:03	8:13	9:13	10:13	11:13	12:13	1:13	2:13	3:13	4:23	5:09	-	6:15	7:13	8:13	9:43	11:13	12:33
6	South Acton	♻️	6:28	7:08	8:18	9:18	10:18	11:18	12:18	1:18	2:18	3:18	4:28	5:14	5:30	6:20	7:18	8:18	9:48	11:18	12:38
7	Littleton/Route 495	♻️	6:38	7:15	8:25	9:25	10:27	11:25	12:27	1:25	2:27	3:25	4:35	5:24	5:37	6:28	7:25	8:25	9:55	11:25	12:45
8	Ayer		-	7:23	8:33	9:33	-	11:33	-	1:33	-	3:33	4:43	-	5:45	6:36	7:33	8:33	10:03	11:33	12:53
8	Shirley		-	f 7:28	f 8:38	f 9:38	-	f 11:38	-	f 1:38	-	3:38	4:48	-	5:50	6:41	7:38	8:38	f 10:08	f 11:38	12:58
8	North Leominster	♻️	-	7:37	8:47	9:47	-	11:47	-	1:47	-	3:47	4:57	-	5:59	6:50	7:47	8:47	10:17	11:47	1:07
8	Fitchburg	♻️	-	7:45	8:55	9:55	-	11:55	-	1:55	-	3:55	5:05	-	6:07	6:59	7:56	8:56	10:25	11:55	1:15
8	Wachusett	♻️	-	7:58	9:08	10:08	-	12:08	-	2:08	-	4:08	5:19	-	6:21	7:13	8:10	9:10	10:38	12:08	1:28

Schedules may change in the event of severe weather
During weather events, these symbols will communicate service level and impact on passengers. Service level for the following day will be announced mid afternoon the prior day.

- REGULAR SERVICE**
Trains will operate on a normal schedule
- STORM SERVICE**
Trains will operate on a reduced schedule. It will be available on MBTA.com and in Boston stations.
- NO SERVICE**
No passenger service on Commuter Rail.

Keep in Mind:
This schedule will be effective from October 2, 2023 and will replace the schedule of May 22, 2023.

Holiday Service
On Thursday, November 23rd, 2023 (Thanksgiving Day), Friday, November 24th, 2023 (day after Thanksgiving), Monday, December 25th, 2023 (Christmas Day), Monday, January 1st, 2024 (New Year's Day), and on Monday, February 19th, 2024 (President's Day) all lines will operate on a weekend schedule.

On Monday, October 16th, 2023 (Columbus Day), Monday, January 15th, 2024 (Martin Luther King Jr. Day), and on Monday, April 15th, 2024 (Patriots' Day), all lines will operate on a regular weekday schedule.

Weekend

Inbound to Boston

ZONE	STATION	SATURDAY TRAIN #	AM					PM											
			1400	1402	1404	1406	1408	1410	1412	1414	2400	2402	2404	2406	2408	2410	2412	2414	
8	Wachusett	♻️	5:05	8:05	10:30	12:30	2:30	4:30	6:30	9:00	♻️	5:13	8:13	10:38	12:38	2:38	4:38	6:38	9:08
8	Fitchburg	♻️	5:13	8:13	10:38	12:38	2:38	4:38	6:38	9:08	♻️	5:20	8:20	10:45	12:45	2:45	4:45	6:45	9:15
8	North Leominster	♻️	5:20	8:20	10:45	12:45	2:45	4:45	6:45	9:15	♻️	f 5:28	f 8:28	f 10:53	f 12:53	f 2:53	f 4:53	f 6:53	9:23
8	Shirley		f 5:28	f 8:28	f 10:53	f 12:53	f 2:53	f 4:53	f 6:53	9:23		5:33	8:33	10:58	12:58	2:58	4:58	6:58	9:28
8	Ayer		5:33	8:33	10:58	12:58	2:58	4:58	6:58	9:28	♻️	5:41	8:41	11:06	1:06	3:06	5:06	7:06	9:36
7	Littleton/Rte495	♻️	5:41	8:41	11:06	1:06	3:06	5:06	7:06	9:36	♻️	5:47	8:47	11:12	1:12	3:12	5:12	7:12	9:42
6	South Acton	♻️	5:47	8:47	11:12	1:12	3:12	5:12	7:12	9:42	♻️	5:51	8:51	11:16	1:16	3:16	5:16	7:16	9:46
5	West Concord	♻️	5:51	8:51	11:16	1:16	3:16	5:16	7:16	9:46		5:55	8:55	11:20	1:20	3:20	5:20	7:20	9:50
5	Concord		5:55	8:55	11:20	1:20	3:20	5:20	7:20	9:50		f 6:01	f 9:01	f 11:26	f 1:26	f 3:26	f 5:26	f 7:26	9:56
4	Lincoln		f 6:01	f 9:01	f 11:26	f 1:26	f 3:26	f 5:26	f 7:26	9:56		f 6:06	f 9:06	f 11:31	f 1:31	f 3:31	f 5:31	f 7:31	10:02
3	Kendal Green		f 6:06	f 9:06	f 11:31	f 1:31	f 3:31	f 5:31	f 7:31	10:02	♻️	6:10	9:10	11:35	1:35	3:35	5:35	7:35	10:05
2	Brandeis/Roberts	♻️	6:10	9:10	11:35	1:35	3:35	5:35	7:35	10:05	♻️	6:14	9:14	11:39	1:39	3:39	5:39	7:39	10:09
2	Waltham	♻️	6:14	9:14	11:39	1:39	3:39	5:39	7:39	10:09		f 6:19	f 9:19	f 11:44	f 1:44	f 3:44	f 5:44	f 7:44	10:14

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Crash Data



INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Concord

COUNT DATE : Nov 2023

DISTRICT : 4

UNSIGNALIZED :

SIGNALIZED :

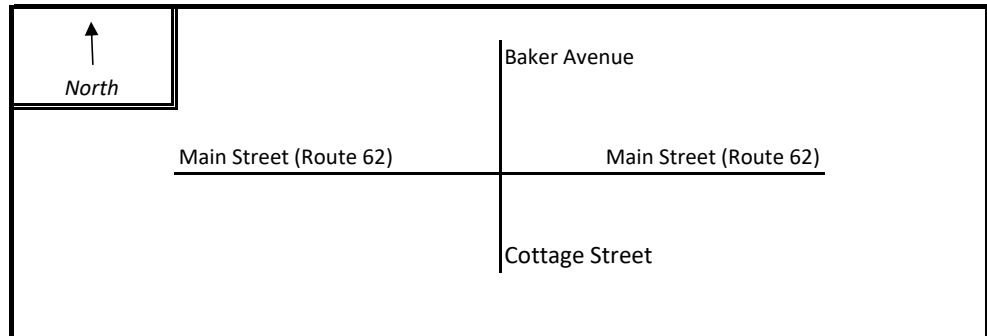
~ INTERSECTION DATA ~

MAJOR STREET : Main Street (Route 62)

MINOR STREET(S) : Baker Avenue

Cottage Street

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	530	730	135	275		1,670

" K " FACTOR :

INTERSECTION ADT (V) =
TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES :

OF YEARS :

AVERAGE # OF CRASHES PER
YEAR (A) :

CRASH RATE CALCULATION :

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

Comments : MassDOT Crash Data (2015-2019)
Project Title & Date: 15630.00 292 & 294 Baker Avenue



INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Concord

COUNT DATE : Nov 2023

DISTRICT : 4

UNSIGNALIZED : X
0.57

SIGNALIZED :
0.73

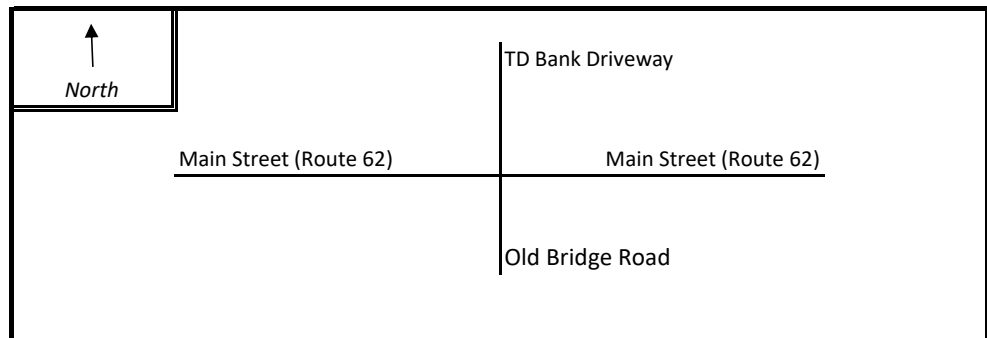
~ INTERSECTION DATA ~

MAJOR STREET : Main Street (Route 62)

MINOR STREET(S) : TD Bank Driveway

Old Bridge Road

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	515	640	105	5		1,265

" K " FACTOR : 0.090

INTERSECTION ADT (V) =
TOTAL DAILY APPROACH VOLUME : 14,056

TOTAL # OF CRASHES : 7

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (A) : 1.40

CRASH RATE CALCULATION : 0.27

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

Comments : MassDOT Crash Data (2015-2019)
Project Title & Date: 15630.00 292 & 294 Baker Avenue

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Concord

COUNT DATE : Nov 2023

DISTRICT : 4

UNSIGNALIZED : X
0.57

SIGNALIZED : 0.73

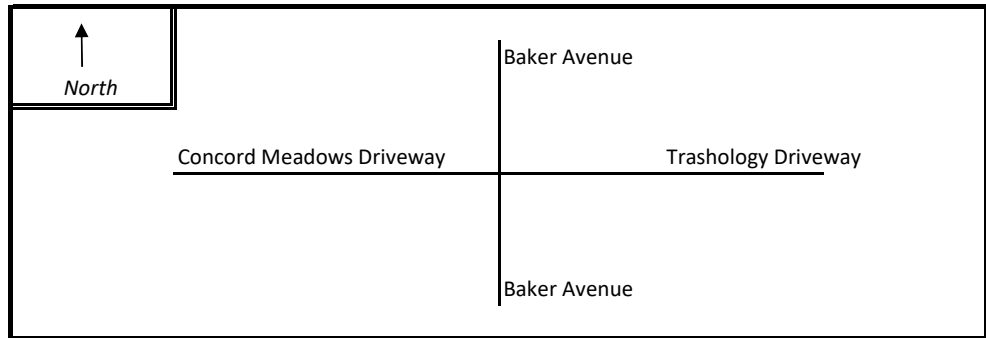
~ INTERSECTION DATA ~

MAJOR STREET : Baker Avenue

MINOR STREET(S) : Concord Meadows Driveway

Trashology Driveway

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	85		110	175		370

" K " FACTOR : 0.081

INTERSECTION ADT (V) =
TOTAL DAILY APPROACH VOLUME : 4,568

TOTAL # OF CRASHES : 2

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (A) : 0.40

CRASH RATE CALCULATION : 0.24

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

Comments : MassDOT Crash Data (2015-2019). K factor based on ATR on Baker Ave south of Concord Meadows driveway 4:30-5:30pm
 Project Title & Date: 15630.00 292 & 294 Baker Avenue



INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Concord

COUNT DATE : Nov 2023

DISTRICT : 4

UNSIGNALIZED : X
0.57

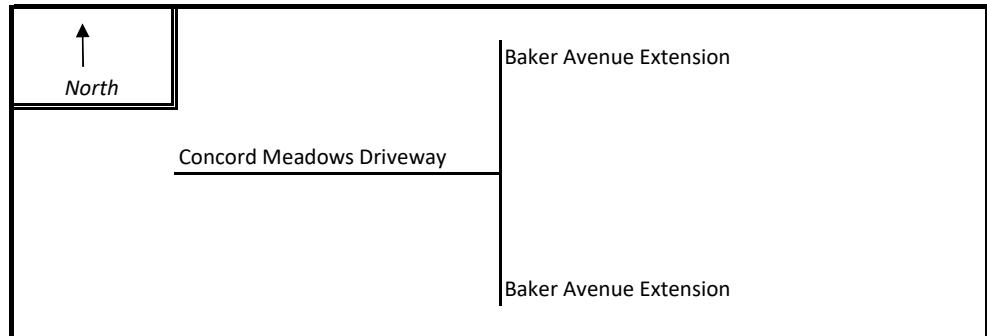
SIGNALIZED : 0.73

~ INTERSECTION DATA ~

MAJOR STREET : Baker Avenue Extension

MINOR STREET(S) : Concord Meadows Driveway

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	185		215	120		520

" K " FACTOR : 0.078

INTERSECTION ADT (V) =
TOTAL DAILY APPROACH VOLUME : 6,667

TOTAL # OF CRASHES : 0

OF YEARS : 5

AVERAGE # OF CRASHES PER
YEAR (A) : 0.00

CRASH RATE CALCULATION : 0.00

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

Comments : MassDOT Crash Data (2015-2019). K factor based on ATR on Baker Ave Ext south of Concord Meadows driveway 4:30-5:30pm
Project Title & Date: 15630.00 292 & 294 Baker Avenue



INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Concord

COUNT DATE : Feb 2022 (adjusted to 2023)

DISTRICT : 4

UNSIGNALIZED :

SIGNALIZED :
0.73

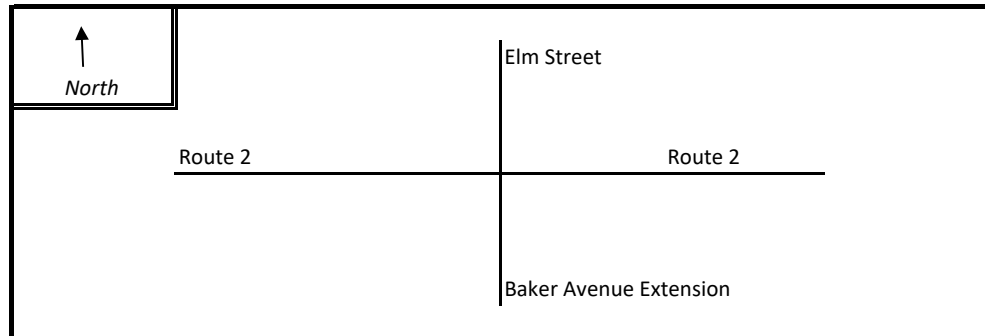
~ INTERSECTION DATA ~

MAJOR STREET : Concord Turnpike (Route 2)

MINOR STREET(S) : Baker Avenue Extension

Elm Street

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	1,400	1,235	350	60		3,045

" K " FACTOR :

INTERSECTION ADT (V) =
TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES :

OF YEARS :

AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

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

Comments : MassDOT Crash Data (2015-2019)
Project Title & Date: 15630.00 292 & 294 Baker Avenue

MassDOT Crash Data 2015-2020

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Time	Max Injury Severity Reported	Number of Vehicles	Police Agency Type	Age of Driver - Youngest Known	Age of Driver - Oldest Known	Driver Contributing Circumstances (All Drivers)	Light Conditions	Manner of Collision	Non-Motorist Type (All Persons)	Road Surface Condition	Total Fatalities	Total Non-Fatal Injuries	Vehicle Actions Prior to Crash (All Vehicles)	Vehicle Configuration (All Vehicles)	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Crash Report IDs	Most Harmful Event (All Vehicles)	Street Number	Roadway	Near Intersection Roadway
4016561	CONCORD	02/27/2015	Non-fatal injury	12:42 PM	Non-fatal injury - Non-incapacitating	2	Local police	21-24	55-64	D1: (No improper driving) / D2: (Disregarded traffic signs, signals, road markings),(Failed to yield right of way)	Daylight	Angle		Dry	0	1	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: N / V2: E	Clear	15-3130-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / COTTAGE ST	
4036104	CONCORD	04/17/2015	Non-fatal injury	5:44 PM	Non-fatal injury - Non-incapacitating	2	Local police	35-44	35-44	D1: (Disregarded traffic signs, signals, road markings),(Inattention) / D2: (No improper driving)	Daylight	Angle		Dry	0	2	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: S	Clear	15-6485-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / COTTAGE ST / BAKER AVE	
4053657	CONCORD	06/15/2015	Non-fatal injury	8:14 AM	Non-fatal injury - Possible	2	Local police	25-34	35-44	D1: (Other improper action) / D2: (No improper driving)	Daylight	Rear-end		Wet	0	1	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: N / V2: N	Rain	15-10933-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		COTTAGE ST / MAIN ST	
4077752	CONCORD	08/24/2015	Property damage only (none injured)	10:31 AM	No injury	2	Local police	55-64	55-64	D1: (No improper driving) / D2: (Distracted)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W	Cloudy	15-16287-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / BAKER AVE	
4099113	CONCORD	10/07/2015	Property damage only (none injured)	12:17 PM	No injury	2	Local police	25-34	55-64	D1: (Failed to yield right of way) / D2: (No improper driving)	Daylight	Head-on		Dry	0	0	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: S / V2: W	Clear	15-19716-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	1135	MAIN ST	
4099121	CONCORD	10/14/2015	Non-fatal injury	10:29 AM	Non-fatal injury - Possible	2	Local police	35-44	55-64	D1: (No improper driving) / D2: (Other improper action)	Daylight	Angle		Dry	0	1	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: N / V2: W	Clear	15-20283-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / BAKER AVE	
4104561	CONCORD	10/28/2015	Property damage only (none injured)	7:57 AM	No injury	2	Local police	16-17	35-44	D1: (No improper driving) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Turning left	V1:(Truck/trailer) / V2:(Passenger car)	V1: E / V2: W	Cloudy	15-21497-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	1134	MAIN STREET	BAKER AVENUE
4200310	CONCORD	06/02/2016	Property damage only (none injured)	2:44 PM	No injury	2	Local police	25-34	35-44	D1: (Other improper action) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	0	V1: Backing / V2: Slowing or stopped in traffic	V1:(Single-unit truck (2-axle, 6-tires)) / V2:(Passenger car)	V1: E / V2: E	Clear	16-12103-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / BAKER AVE	
4259565	CONCORD	10/05/2016	Property damage only (none injured)	3:42 PM	No injury	2	Local police	18-20	21-24	D1: (No improper driving) / D2: (Over-correcting/over-steering)	Daylight	Rear-end		Dry	0	0	V1: Turning left / V2: Turning right	V1:(Truck/trailer) / V2:(Passenger car)	V1: S / V2: S	Clear	16-22370-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / COTTAGE ST	
4435201	CONCORD	09/27/2017	Property damage only (none injured)	10:19 AM	No injury	2	Local police	25-34	55-64	D1: (No improper driving) / D2: (Followed too closely)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: W	Clear	17-25114-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	1134	MAIN ST	
4442455	CONCORD	10/07/2017	Property damage only (none injured)	2:21 PM	No injury	1	Local police	21-24	21-24	D1: (No improper driving)	Daylight	Sideswipe, same direction		Dry	0	0	V1: Parked	V1:(Passenger car)	V1: S	Clear	17-26069-AC	V1:(Collision with motor vehicle in traffic)	1135	MAIN ST	
4518950	CONCORD	03/22/2018	Property damage only (none injured)	7:24 AM	No injury	2	Local police	45-54	65-74	D1: (No improper driving) / D2: (Disregarded traffic signs, signals, road markings)	Daylight	Angle		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: E	Clear	18-7178-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		COTTAGE ST / MAIN ST	
4542341	CONCORD	05/07/2018	Property damage only (none injured)	7:05 AM	No injury	2	Local police	45-54	65-74	D1: (Inattention) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: E	Clear	18-11299-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN STREET / COTTAGE STREET	
4657856	CONCORD	09/16/2018	Property damage only (none injured)	9:41 AM	No injury	2	Local police	25-34	35-44	D1: (No improper driving) / D2: (Glare)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: E	Clear	18-23767-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / COTTAGE ST	
4658025	CONCORD	12/11/2018	Property damage only (none injured)	5:25 PM	No injury	2	Local police	35-44	65-74	D1: (Visibility obstructed) / D2: (Visibility obstructed)	Dark - lighted roadway	Sideswipe, opposite direction		Dry	0	0	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: N / V2: S	Clear	18-31751-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	1135	MAIN STREET Rte 62 E	COTTAGE STREET
4658030	CONCORD	12/18/2018	Non-fatal injury	10:54 AM	Non-fatal injury - Possible	2	Local police	55-64	75-84	D1: (No improper driving) / D2: (Failed to yield right of way)	Daylight	Angle		Dry	0	1	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: W	Clear	18-32415-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		COTTAGE STREET / MAIN STREET Rte SR62 E / BAKER AVENUE	
4745565	CONCORD	08/06/2019	Property damage only (none injured)	5:14 PM	No Apparent Injury (O)	2	Local police	21-24	25-34	D1: (Other improper action) / D2: (No improper driving)	Daylight	Sideswipe, same direction		Dry	0	0	V1: Changing lanes / V2: Slowing or stopped in traffic	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: N / V2: N	Clear	19-19924-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / BAKER AVE	
4837401	CONCORD	03/09/2020	Property damage only (none injured)	3:45 PM	No Apparent Injury (O)	1	Local police	65-74	65-74	D1: (Made an improper turn)	Daylight	Single vehicle crash		Dry	0	0	V1: Turning left	V1:(Passenger car)	V1: E	Clear	20-7081-AC	V1:(Collision with highway traffic sign post)	1135	MAIN ST	BAKER AVE
4854791	CONCORD	06/01/2020	Property damage only (none injured)	5:19 PM	No Apparent Injury (O)	2	Local police	35-44	55-64	D1: (No improper driving) / D2: (Other improper action)	Daylight	Angle		Dry	0	0	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: S / V2: W	Clear	20-15798-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / BAKER AVE	

MassDOT Crash Data 2015-2020

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Time	Max Injury Severity Reported	Number of Vehicles	Police Agency Type	Age of Driver - Youngest	Age of Driver - Oldest	Driver Contributing Circumstances (All Drivers)	Light Conditions	Manner of Collision	Non-Motorist Type (All Persons)	Road Surface Condition	Total Fatalities	Total Non-Fatal Injuries	Vehicle Actions Prior to Crash (All Vehicles)	Vehicle Configuration (All Vehicles)	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Crash Report IDs	Most Harmful Event (All Vehicles)	Street Number	Roadway	Near Intersection Roadway
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Main Street (Route 62) at Baker Avenue/Cottage Street (continued)

4876899	CONCORD	07/31/2020	Property damage only (none injured)	10:38 AM	No Apparent Injury (O)	2	Local police	25-34	55-64	D1: (No improper driving) / D2: (No improper driving)	Daylight	Front to Front		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: N	Clear	20-22843-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / BAKER AVE	
4906129	CONCORD	11/02/2020	Property damage only (none injured)	10:30 AM	No Apparent Injury (O)	3	Local police	21-24	55-64	D1: (No improper driving) / D2: (No improper driving) / D3: (Inattention)	Daylight	Rear-end		Dry	0	0	V1: Turning left / V2: Slowing or stopped in traffic / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car) / V3:(Passenger car)	V1: W / V2: W / V3: W	Cloudy	20-33527-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		MAIN ST / COTTAGE ST / BAKER AVE	

Main Street (Route 62) at Old Bridge Road/TD Bank Driveway

4001179	CONCORD	01/29/2015	Property damage only (none injured)	6:11 PM	No injury	2	Local police	25-34	45-54	D1: (No improper driving) / D2: (Visibility obstructed)	Dark - lighted roadway	Angle		Dry	0	0	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: W	Cloudy	15-1520-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		OLD BRIDGE RD / MAIN ST Rte 62 E / CREST ST	
4005121	CONCORD	02/05/2015	Non-fatal injury	9:29 AM	Non-fatal injury - Possible	2	Local police	25-34	55-64	D1: (No improper driving) / D2: (No improper driving)	Daylight	Rear-end		Snow	0	1	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: N / V2: N	Snow	15-1833-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / OLD BRIDGE RD	
4578781	CONCORD	07/31/2018	Property damage only (none injured)	8:07 AM	No injury	2	Local police	35-44	65-74	D1: (No improper driving) / D2: (Unknown)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: E	Clear	18-19322-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	1120	MAIN ST	
4673113	CONCORD	01/22/2019	Non-fatal injury	4:08 PM	Non-fatal injury - Non-incapacitating	2	Local police	45-54	65-74	D1: (No improper driving) / D2: (Visibility obstructed),(Failed to yield right of way)	Daylight	Angle		Dry	0	2	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: N	Clear	19-2077-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	1112	MAIN ST	OLD BRIDGE RD
4673635	CONCORD	03/01/2019	Property damage only (none injured)	6:17 PM	No injury	2	Local police	25-34	55-64	D1: (Unknown) / D2: (Unknown)	Dark - lighted roadway	Angle		Dry	0	0	V1: Entering traffic lane / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: N	Clear	19-5496-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST Rte 62 / OLD BRIDGE RD	
4719377	CONCORD	05/21/2019	Property damage only (none injured)	8:14 AM	No Apparent Injury (O)	3	Local police	35-44	45-54	D1: (No improper driving) / D2: (No improper driving) / D3: (Inattention)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E / V3: E	Clear	19-12678-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		MAIN ST / OLD BRIDGE RD	
4786319	CONCORD	11/07/2019	Non-fatal injury	5:34 PM	Suspected Minor Injury (B)	3	Local police	16-17	45-54	D1: (No improper driving) / D2: (No improper driving) / D3: (Disregarded traffic signs, signals, road markings)	Dusk	Front to Rear		Wet	0	1	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car) / V3:(Passenger car)	V1: N / V2: N / V3: N	Rain	19-28733-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		MAIN STREET Rte SR62 E	OLD BRIDGE ROAD
4928623	CONCORD	12/17/2020	Property damage only (none injured)	1:52 PM	No Apparent Injury (O)	2	Local police	25-34	45-54	D1: (No improper driving) / D2: (Failed to yield right of way)	Daylight	Angle		Snow	0	0	V1: Travelling straight ahead / V2: Entering traffic lane	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: W	Snow	20-38218-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		MAIN ST / OLD BRIDGE RD	

Baker Avenue at Concord Meadows Driveway

4578777	CONCORD	07/24/2018	Non-fatal injury	2:52 PM	Non-fatal injury - Possible	2	Local police	25-34	75-84	D1: (No improper driving) / D2: (Inattention)	Daylight	Angle		Dry	0	1	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: N	Clear	18-18719-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	300	BAKER AVE	
4673645	CONCORD	01/09/2019	Non-fatal injury	8:47 AM	Non-fatal injury - Possible	2	Local police	35-44	45-54	D1: (No improper driving) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	2	V1: Turning left / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	V1: N / V2: N	Clear	19-921-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	300	BAKER AVENUE	

Baker Avenue Extension at Concord Meadows Driveway

No crashes reported

MassDOT Crash Data 2015-2020

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Time	Max Injury Severity Reported	Number of Vehicles	Police Agency Type	Age of Driver - Youngest	Age of Driver - Oldest	Driver Contributing Circumstances (All Drivers)	Light Conditions	Manner of Collision	Non-Motorist Type (All Persons)	Road Surface Condition	Total Fatalities	Total Non-Fatal Injuries	Vehicle Actions Prior to Crash (All Vehicles)	Vehicle Configuration (All Vehicles)	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Crash Report IDs	Most Harmful Event (All Vehicles)	Street Number	Roadway	Near Intersection Roadway
4000088	CONCORD	01/15/2015	Non-fatal injury	7:15 AM	Non-fatal injury - Non-incapacitating	2	State police	25-34	35-44	D1: (Followed too closely) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	1	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: E	Not Reported	2015-0A3-000525	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 E	BAKER AVENUE EXTENSION
4031071	CONCORD	04/11/2015	Property damage only (none injured)	9:15 AM	No injury	2	State police	21-24	45-54	D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: E	Clear	2015-0A3-003495	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2A E / BAKER AVENUE EXTENSION	
4051032	CONCORD	06/05/2015	Property damage only (none injured)	4:35 PM	No injury	2	Local police	18-20	45-54	D1: (Failure to keep in proper lane or running off road) / D2: (No improper driving)	Daylight	Sideswipe, same direction		Dry	0	0	V1: Changing lanes / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: E	Clear	15-10209-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	0	CONCORD TPKE	
4073693	CONCORD	08/14/2015	Non-fatal injury	8:05 AM	Non-fatal injury - Non-incapacitating	2	State police	16-17	35-44	D1: (Inattention) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	2	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: E	Clear	2015-0A3-007839	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E	
4073694	CONCORD	08/14/2015	Non-fatal injury	8:30 AM	Non-fatal injury - Non-incapacitating	2	State police	25-34	45-54	D1: (Distracted) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	4	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W	Clear	2015-0A3-007840	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION / ELM STREET	
4077753	CONCORD	08/25/2015	Property damage only (none injured)	9:44 AM	No injury	2	Local police	25-34	45-54	D1: (Unknown) / D2: (Unknown)	Daylight	Sideswipe, same direction		Dry	0	0	V1: Travelling straight ahead / V2: Turning right	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E	Clear	15-16367-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	0	CONCORD TPKE	
4178205	CONCORD	04/11/2016	Non-fatal injury	8:57 PM	Non-fatal injury - Non-incapacitating	3	State police	25-34	45-54	D1: (No improper driving) / D2: (No improper driving) / D3: (Operating vehicle in erratic, reckless, careless, negligent or aggressive manner)	Dark - roadway not lighted	Sideswipe, same direction		Dry	0	3	V1: Travelling straight ahead / V2: Slowing or stopped in traffic / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W / V3: W	Cloudy	2016-0A3-003564	vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4182143	CONCORD	04/27/2016	Non-fatal injury	2:46 PM	Non-fatal injury - Non-incapacitating	3	State police	21-24	55-64	D1: (No improper driving)	Daylight	Rear-end		Dry	0	1	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic / V3: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W / V3: W	Clear	2016-0A3-004081	vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4264654	CONCORD	10/12/2016	Property damage only (none injured)	3:43 PM	No injury	2	State police	55-64	55-64	D1: (No improper driving) / D2: (Failure to keep in proper lane or running off road)	Daylight	Sideswipe, same direction		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E	Clear	2016-0A3-008944	vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 E	BAKER AVENUE EXTENSION
4287670	CONCORD	11/10/2016	Property damage only (none injured)	6:53 AM	No injury	4	State police	45-54	55-64	D1: (Followed too closely) / D2: (No improper driving) / D3: (No improper driving) / D4: (No improper driving)	Daylight	Rear-to-rear		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Travelling straight ahead / V4: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility)) / V4:(Passenger car)	V1: E / V2: E / V3: E / V4: E	Clear	2016-0A3-009727	vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic) / V4:(Collision with motor vehicle in traffic)		CONCORD Rte 2 E	BAKER AVENUE EXTENSION
4311502	CONCORD	12/19/2016	Property damage only (none injured)	5:15 PM	No injury	3	State police	18-20	35-44	D1: (Followed too closely) / D2: (No improper driving) / D3: (No improper driving)	Dark - roadway not lighted	Rear-end		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car) / V3:(Passenger car)	V1: W / V2: W / V3: W	Clear	2016-0A3-010833	vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4321964	CONCORD	01/26/2017	Non-fatal injury	8:45 AM	Non-fatal injury - Non-incapacitating	3	State police	25-34	65-74	D1: (No improper driving) / D2: (Inattention) / D3: (No improper driving)	Daylight	Sideswipe, same direction		Dry	0	1	V1: Slowing or stopped in traffic / V2: Travelling straight ahead / V3: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Passenger car)	V1: W / V2: W / V3: W	Cloudy	2017-0A3-000752	vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION / ELM STREET	
4321971	CONCORD	01/31/2017	Property damage only (none injured)	8:00 AM	No injury	3	State police	25-34	65-74	D1: (No improper driving) / D2: (No improper driving) / D3: (Followed too closely)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Passenger car)	V1: E / V2: E / V3: E	Clear	2017-0A3-000885	vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 E	BAKER AVENUE EXTENSION
4325409	CONCORD	02/06/2017	Non-fatal injury	3:30 PM	Non-fatal injury - Non-incapacitating	2	State police	55-64	65-74	D1: (Made an improper turn) / D2: (No improper driving)	Daylight	Head-on		Dry	0	1	V1: Turning left / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: E	Clear	2017-0A3-001063	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2A E / BAKER AVENUE EXTENSION	

MassDOT Crash Data 2015-2020

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Time	Max Injury Severity Reported	Number of Vehicles	Police Agency Type	Age of Driver - Youngest	Age of Driver - Oldest	Driver Contributing Circumstances (All Drivers)	Light Conditions	Manner of Collision	Non-Motorist Type (All Persons)	Road Surface Condition	Total Fatalities	Total Non-Fatal Injuries	Vehicle Actions Prior to Crash (All Vehicles)	Vehicle Configuration (All Vehicles)	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Crash Report IDs	Most Harmful Event (All Vehicles)	Street Number	Roadway	Near Intersection Roadway
4332598	CONCORD	02/28/2017	Non-fatal injury	8:31 PM	Non-fatal injury - Non-incapacitating	2	Local police	45-54	55-64	D1: (No improper driving) / D2: (Inattention),(Over-correcting/over-steering)	Dark - roadway not lighted	Rear-end		Dry	0	2	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: W	Clear	17-5237-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	1800	CONCORD TPKE Rte 2 W	BAKER AVE EXT
4337544	CONCORD	03/09/2017	Non-fatal injury	2:00 PM	Non-fatal injury - Non-incapacitating	2	State police	35-44	>84	D1: (No improper driving) / D2: (Followed too closely)	Daylight	Rear-end		Dry	0	1	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W	Clear	2017-0A3-001998	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4339366	CONCORD	03/07/2017	Non-fatal injury	3:51 PM	Non-fatal injury - Incapacitating	2	State police	25-34	55-64	D1: (No improper driving) / D2: (Made an improper turn)	Daylight	Angle		Dry	0	2	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: W	Clear	2017-0A3-001939	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2A E / BAKER AVENUE EXTENSION	
4346837	CONCORD	03/20/2017	Property damage only (none injured)	8:44 PM	No injury	2	State police	25-34	45-54	D1: (No improper driving) / D2: (Followed too closely)	Dark - roadway not lighted	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	V1: W / V2: W	Cloudy	2017-0A3-002327	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION	
4378365	CONCORD	05/26/2017	Property damage only (none injured)	9:40 AM	No injury	2	State police	18-20	25-34	D1: (Failed to yield right of way) / D2: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Turning left / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: S	Clear	2017-0A3-004372	V1:(Collision with motor vehicle in traffic) / V2:(Collision with light pole or other post/support)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION	
4378375	CONCORD	06/14/2017	Non-fatal injury	3:53 PM	Non-fatal injury - Non-incapacitating	2	State police	35-44	65-74	D1: (Followed too closely) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	1	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W	Clear	2017-0A3-004990	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4398849	CONCORD	07/26/2017	Property damage only (none injured)	8:28 PM	No injury	2	State police	25-34	35-44	D1: (No improper driving) / D2: (Followed too closely)	Dark - lighted roadway	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	V1: W / V2: W	Clear	2017-0A3-006229	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4410153	CONCORD	07/25/2017	Non-fatal injury	8:45 PM	Non-fatal injury - Non-incapacitating	2	State police	65-74	75-84	D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	Dark - lighted roadway	Angle		Dry	0	1	V1: Turning left / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: W	Clear	2017-0A3-006204	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4411574	CONCORD	07/28/2017	Property damage only (none injured)	6:50 AM	No injury	3	State police	25-34	55-64	D1: (Driving too fast for conditions) / D2: (Driving too fast for conditions) / D3: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Changing lanes / V2: Travelling straight ahead / V3: Slowing or stopped in traffic	V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W / V3: W	Clear	2017-0A3-006270	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION	
4415346	CONCORD	08/24/2017	Non-fatal injury	10:52 PM	Non-fatal injury - Possible	1	State police	35-44	35-44	D1: (Fatigued/asleep)	Dark - lighted roadway	Single vehicle crash		Dry	0	1	V1: Not reported	V1:(Light truck(van, mini-van, pickup, sport utility))	V1: W	Clear	2017-0A3-007157	V1:(Invalid Code Specified)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION Rte BAKER
4448793	CONCORD	11/03/2017	Property damage only (none injured)	10:43 PM	No injury	1	State police	35-44	35-44	D1: (No improper driving)	Dark - roadway not lighted	Single vehicle crash		Dry	0	0	V1: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility))	V1: W	Cloudy	2017-0A3-009716	V1:(Collision with animal - deer)		CONCORD TURNPIKE Rte 2 W	BAKER AVENUE EXTENSION
4456216	CONCORD	11/15/2017	Property damage only (none injured)	11:20 AM	No injury	2	State police	35-44	55-64		Daylight	Sideswipe, same direction		Dry	0	0	V1: Leaving traffic lane / V2: Leaving traffic lane	V1:(Single unit truck (2-axle, 6-tires)) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W	Clear	2017-0A3-010237	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		Rte 2 W	BAKER AVENUE EXTENSION
4467335	CONCORD	11/28/2017	Property damage only (none injured)	10:49 PM	No injury	3	Local police	21-24	35-44	D1: (No improper driving) / D2: (No improper driving) / D3: (Inattention)	Dark - roadway not lighted	Sideswipe, same direction		Dry	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Other e.g. farm equipment) / V3:(Passenger car)	V1: W / V2: W / V3: W	Clear	17-30581-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / ELM STREET / BAKER AVENUE EXTENSION	
4477150	CONCORD	12/19/2017	Property damage only (none injured)	6:07 PM	No injury	3	State police	25-34	75-84	D1: (No improper driving) / D2: (No improper driving) / D3: (Followed too closely)	Dark - roadway not lighted	Rear-end		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car) / V3:(Passenger car)	V1: E / V2: E / V3: E	Cloudy	2017-0A3-011565	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		Rte 2 E	BAKER AVENUE EXTENSION
4497934	CONCORD	02/06/2018	Property damage only (none injured)	4:47 PM	No injury	2	Local police	25-34	75-84	D1: (No improper driving) / D2: (Inattention)	Dusk	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: W	Clear	18-3089-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)	0	CONCORD TPKE	BARRETT'S MILL RD
4518399	CONCORD	03/15/2018	Property damage only (none injured)	10:10 AM	No injury	2	State police	35-44	65-74	D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Turning left / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: E	Cloudy	2018-0A3-002457	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte 2 E	BAKER AVENUE EXTENSION

MassDOT Crash Data 2015-2020

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Time	Max Injury Severity Reported	Number of Vehicles	Police Agency Type	Age of Driver - Youngest	Age of Driver - Oldest	Driver Contributing Circumstances (All Drivers)	Light Conditions	Manner of Collision	Non-Motorist Type (All Persons)	Road Surface Condition	Total Fatalities	Total Non-Fatal Injuries	Vehicle Actions Prior to Crash (All Vehicles)	Vehicle Configuration (All Vehicles)	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Crash Report IDs	Most Harmful Event (All Vehicles)	Street Number	Roadway	Near Intersection Roadway
4535358	CONCORD	05/04/2018	Property damage only (none injured)	3:10 PM	No injury	2	State police	21-24	35-44	D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: S / V2: E	Clear	2018-0A3-003941	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		BAKER AVENUE EXTENSION	CONCORD TURNPIKE
4557667	CONCORD	06/18/2018	Property damage only (none injured)	6:45 PM	No injury	2	State police	21-24	45-54	D1: (Failure to keep in proper lane or running off road)	Daylight	Sideswipe, opposite direction		Wet	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: E	Rain	2018-0A3-005524	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4558654	CONCORD	06/08/2018	Non-fatal injury	2:30 PM	Non-fatal injury - Non-incapacitating	2	State police	18-20	55-64	D1: (Made an improper turn) / D2: (No improper driving)	Daylight	Angle		Dry	0	1	V1: Turning left / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E	Cloudy	2018-0A3-005224	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4559172	CONCORD	06/22/2018	Property damage only (none injured)	11:00 AM	No injury	3	State police	35-44	65-74	D1: (Followed too closely) / D2: (No improper driving) / D3: (No improper driving)	Daylight	Rear-end		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Travelling straight ahead	V1:(van, pickup, sport utility) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E / V3: E	Clear	2018-0A3-005655	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4598799	CONCORD	09/13/2018	Property damage only (none injured)	2:20 PM	No injury	2	State police	45-54	65-74	D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Turning left / V2: Travelling straight ahead	V1:(van, pickup, sport utility) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: E	Cloudy	2018-0A3-008513	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4606851	CONCORD	10/09/2018	Property damage only (none injured)	8:00 AM	No injury	3	State police	25-34	35-44	D1: (No improper driving) / D2: (No improper driving) / D3: (Inattention)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic / V3: Travelling straight ahead	V1:(van, pickup, sport utility) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E / V3: E	Clear	2018-0A3-009337	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4620747	CONCORD	11/01/2018	Property damage only (none injured)	3:55 PM	No injury	2	State police	25-34	75-84	D1: (Other improper action) / D2: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: S / V2: E	Clear	2018-0A3-010216	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4642589	CONCORD	12/20/2018	Non-fatal injury	6:57 AM	Non-fatal injury - Non-incapacitating	2	State police	45-54	45-54	D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	Daylight	Angle		Dry	0	1	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(van, pickup, sport utility) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: S	Clear	2018-0A3-012165	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION / ELM STREET	
4650055	CONCORD	01/09/2019	Non-fatal injury	9:05 AM	Non-fatal injury - Non-incapacitating	2	State police	35-44	45-54	D1: (No improper driving) / D2: (Other improper action)	Daylight	Rear-end		Wet	0	1	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E	Clear	2019-0A3-000308	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4679202	CONCORD	03/14/2019	Property damage only (none injured)	5:00 PM	No Apparent Injury (O)	2	State police	18-20	55-64	D1: (Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	0	V1: Changing lanes / V2: Slowing or stopped in traffic	V1:(Motorcycle) / V2:(Passenger car)	V1: W / V2: W	Clear	2019-0A3-002487	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION / ELM STREET	
4689595	CONCORD	04/03/2019	Non-fatal injury	3:28 PM	Possible Injury (C)	2	State police	35-44	65-74	D1: (Made an improper turn) / D2: (No improper driving)	Daylight	Angle		Dry	0	2	V1: Turning left / V2: Travelling straight ahead	V1:(van, pickup, sport utility) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: S / V2: E	Clear	2019-0A3-003123	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION	
4711956	CONCORD	05/20/2019	Non-fatal injury	11:25 AM	Suspected Minor Injury (B)	2	State police	25-34	45-54	D1: (No improper driving) / D2: (Made an improper turn)	Daylight	Angle		Dry	0	3	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: S	Clear	2019-0A3-004720	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4728538	CONCORD	07/23/2019	Property damage only (none injured)	3:27 PM	No Apparent Injury (O)	2	State police	25-34	65-74	D1: (Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) / D2: (No improper driving)	Daylight	Rear-end			0	0	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: W / V2: W	Cloudy	2019-0A3-006981	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION	BAKER AVENUE
4736414	CONCORD	08/07/2019	Non-fatal injury	1:05 PM	Suspected Minor Injury (B)	2	State police	35-44	45-54	D1: (No improper driving) / D2: (Disregarded traffic signs, signals, road markings)	Daylight	Angle		Dry	0	1	V1: Travelling straight ahead / V2: Turning left	V1:(Passenger car) / V2:(Passenger car)	V1: E / V2: S	Clear	2019-0A3-007476	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4772511	CONCORD	11/05/2019	Non-fatal injury	5:12 PM	Possible Injury (C)	2	State police	25-34	25-34	D1: (No improper driving) / D2: (Failed to yield right of way)	Dusk	Angle		Wet	0	1	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(van, pickup, sport utility) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: S	Cloudy	2019-0A3-010349	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	

MassDOT Crash Data 2015-2020

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Time	Max Injury Severity Reported	Number of Vehicles	Police Agency Type	Age of Driver - Youngest	Age of Driver - Oldest	Driver Contributing Circumstances (All Drivers)	Light Conditions	Manner of Collision	Non-Motorist Type (All Persons)	Road Surface Condition	Total Fatalities	Total Non-Fatal Injuries	Vehicle Actions Prior to Crash (All Vehicles)	Vehicle Configuration (All Vehicles)	Vehicle Travel Directions (All Vehicles)	Weather Conditions	Crash Report IDs	Most Harmful Event (All Vehicles)	Street Number	Roadway	Near Intersection Roadway
4788932	CONCORD	12/14/2019	Property damage only (none injured)	12:10 AM	No Apparent Injury (O)	2	State police	25-34	35-44	D1: (No improper driving) / D2: (No improper driving)	Dark - lighted roadway	Rear-end		Wet	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W	Cloudy/Rain	2019-0A3-011707	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / ELM STREET	
4789538	CONCORD	12/07/2019	Property damage only (none injured)	7:50 AM	No Apparent Injury (O)	2	State police	21-24	75-84	D1: (Followed too closely) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E	Clear	2019-0A3-011503	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	BAKER AVENUE EXTENSION
4789544	CONCORD	12/09/2019	Property damage only (none injured)	3:35 PM	No Apparent Injury (O)	2	State police	45-54	55-64		Daylight	Angle		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead	V1:(Passenger car) / V2:(Passenger car)	V1: N / V2: E	Cloudy	2019-0A3-011553	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	Rte BAKER
4789557	CONCORD	12/17/2019	Property damage only (none injured)	6:19 AM	No Apparent Injury (O)	3	State police	25-34	65-74	D1: (Driving too fast for conditions) / D2: (No improper driving) / D3: (No improper driving)	Dark - roadway not lighted	Rear-end		Snow	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic / V3: Slowing or stopped in traffic	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E / V3: E	Snow	2019-0A3-011804	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4799089	CONCORD	12/28/2019	Property damage only (none injured)	11:39 PM	No Apparent Injury (O)	2	State police	35-44	55-64	D1: (No improper driving) / D2: (Inattention)	Dark - roadway not lighted	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	V1: W / V2: W	Clear	2019-0A3-012162	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD Rte SR2 W / BAKER AVENUE EXTENSION	
4799121	CONCORD	01/05/2020	Non-fatal injury	5:55 PM	Possible Injury (C)	2	State police	18-20	25-34	D1: (Made an improper turn) / D2: (No improper driving)	Dusk	Angle		Dry	0	2	V1: Turning left / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: E	Clear	2020-0A3-000160	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4807068	CONCORD	01/09/2020	Property damage only (none injured)	3:28 PM	No Apparent Injury (O)	3	State police	25-34	45-54	D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving) / D3: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Passenger car)	V1: S / V2: E / V3: N	Clear	2020-0A3-000259	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with light pole or other post/support)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION / ELM STREET	
4814887	CONCORD	01/30/2020	Property damage only (none injured)	1:00 PM	No Apparent Injury (O)	2	State police	35-44	75-84	D1: (Failed to yield right of way) / D2: (No improper driving)	Daylight	Head-on		Dry	0	0	V1: Turning left / V2: Travelling straight ahead	V1:(Bus (seats for 16 or more, including driver)) / V2:(Passenger car)	V1: S / V2: N	Clear	2020-0A3-000907	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4826553	CONCORD	01/09/2020	Non-fatal injury	10:49 AM	Suspected Minor Injury (B)	3	Local police	45-54	65-74	D1: (Made an improper turn) / D2: (No improper driving) / D3: (No improper driving)	Daylight	Head-on		Dry	0	3	V1: Turning left / V2: Travelling straight ahead / V3: Slowing or stopped in traffic	V1:(Passenger car) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: E / V3: N	Clear	20-914-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic) / V3:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION	
4828587	CONCORD	01/31/2020	Property damage only (none injured)	10:18 AM	No Apparent Injury (O)	2	State police	35-44	75-84	D1: (Failed to yield right of way) / D2: (No improper driving)	Daylight	Angle		Dry	0	0	V1: Turning left / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	V1: N / V2: S	Clear	2020-0A3-000939	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 W / BAKER AVENUE EXTENSION / ELM STREET	
4872505	CONCORD	08/03/2020	Property damage only (none injured)	4:50 AM	No Apparent Injury (O)	2	State police	25-34	25-34	D2: (Other improper action)	Dark - roadway not lighted	Rear-end		Dry	0	0	V1: Travelling straight ahead / V2: Parked	V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: E / V2: E	Clear	2020-0A3-007582	V1:(Collision with parked motor vehicle) / V2:(Collision with motor vehicle in traffic)		CONCORD Rte SR2 E / ELM STREET	ELM STREET
4876802	CONCORD	08/12/2020	Property damage only (none injured)	5:27 PM	No Apparent Injury (O)	2	Local police	65-74	75-84	D1: (No improper driving) / D2: (Physical impairment)	Daylight	Rear-end		Dry	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	V1: E / V2: E	Clear	20-24249-AC	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD TURNPIKE Rte SR2 E / BAKER AVENUE EXTENSION	
4880714	CONCORD	08/13/2020	Property damage only (none injured)	4:45 PM	No Apparent Injury (O)	2	State police	25-34	65-74	D1: (Other improper action) / D2: (No improper driving)	Daylight	Rear-end		Dry	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	V1: W / V2: W	Clear	2020-0A3-007874	V1:(Collision with motor vehicle in traffic) / V2:(Collision with motor vehicle in traffic)		CONCORD Rte SR2 W / BAKER AVENUE EXTENSION	BAKER AVENUE EXTENSION

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Road Safety Audit

ROAD SAFETY AUDIT

Route 2 at Baker Avenue Extension & Elm Street

Town of Concord

February 4, 2020

Prepared For:
MassDOT



Prepared By:
VHB
101 Walnut Street
Watertown, MA 02472



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Background

The Federal Highway Administration (FHWA), defines a Road Safety Audit (RSA) as the formal safety examination of an existing or future road or intersection by an independent, multidisciplinary team. The purpose of an RSA is to identify potential safety issues and possible countermeasures to improve safety considering all roadway users. As part of the Massachusetts Department of Transportation's (MassDOT) Road Safety Audit guidelines, RSAs are required for Highway Safety Improvement Program (HSIP) eligible locations and should be conducted prior to the development of the 25-percent design submission or prior to the submission of a Draft Environmental Impact Report for a project of regional impact. This RSA evaluates the signalized intersection of Route 2 at Baker Avenue Extension and Elm Street in Concord, Massachusetts, as shown in Figure 1. This intersection has been identified by MassDOT as a HSIP High Crash Cluster for 2014-2016. A HSIP-eligible location is defined as a crash cluster based on crash incidence and severity that ranks within the top 5% of each Regional Planning Agency. This intersection is also a study area intersection for the Route 2 Corridor Study ranging from Fitchburg to Lincoln, Massachusetts.

Project Data

A Road Safety Audit was conducted for the Route 2 at Baker Avenue Extension and Elm Street intersection on February 4, 2020. The pre- and post-audit meetings were held at Concord's Department of Planning and Land Development located at 141 Keyes Road, Concord, Massachusetts. A copy of the agenda for the meeting is provided in Appendix A. The Road Safety Audit team, as shown in Table 1, comprised of representatives from State, Regional, and local agencies, included a cross-section of engineers, planners, and law enforcement fields. A complete list of the contact information of all attendees can be found in Appendix B.

Table 1: Participating Audit Team Members

Audit Team Member	Agency/Affiliation
Marcia Rasmussen	Concord Planning and Land Development
Ron Holsinger	Concord Police Department
Peter Morawick	Massachusetts State Police
Sean Hodgdon	Massachusetts State Police
Jeremy Sweeney	Massachusetts State Police
Walter Latta	Concord Fire Department
Stephen Dookran	Concord Public Works
Nathan Chin	Concord Public Works
Justin Richardson	Concord Public Works
Arnav Duarah	MassDOT Traffic & Safety
Christopher Ng	MassDOT Traffic & Safety
Michelle Deng	MassDOT Traffic & Safety
Sara Timoner	MassDOT District 4
Timothy Paris	MassDOT District 4
Chenyuan Wang	CTPS/Boston Region MPO
Adam Prichard	VHB
Keith Weners	VHB
Marvey Mathurin	VHB

Prior to the meeting, VHB distributed a copy of the agenda, crash diagrams, crash summary tables, and a safety prompt list to all RSA attendees. Crash diagrams and summary tables for 2013-2017 crash data were compiled from state police crash reports obtained from the Massachusetts Department of Transportation (MassDOT). All attendees were encouraged to visit the study area intersection prior to the meeting.

The meeting at the Department of Planning and Land Development started with a brief description of the agenda of the RSA meeting, followed by introductions and a description of the RSA process. During the pre-audit meeting, using the crash materials and safety prompt list provided in advance, VHB facilitated the discussion of existing safety issues with all RSA attendees. RSA attendees were encouraged to bring their local knowledge and expertise to the discussion on existing safety and operational issues for the study area intersection.

Following the pre-audit meeting, the audit team visited the intersection as a group to identify additional safety concerns. After the field visit, the team returned to Concord's Department of Planning and Land Development to discuss potential solutions, ranging from short-term to long-term, and low cost to high cost countermeasures for each identified safety concern.

Project Location and Description

Route 2 runs east to west from the New York state border to Boston. Route 2 is classified as an urban principal arterial under MassDOT jurisdiction. General land use in the study area along route 2 is commercial. In the study area, Route 2 maintains two travel lanes in each direction. Route 2 is a limited access highway. Shoulders are provided but are limited in width. Pedestrian and bicycle accommodations are not provided alongside Route 2 within the study area. The speed limit varies along Route 2, but within the study area, the regulated speed limit is 25 mph west of the intersection, 40 mph at the intersection, and 45 mph east of the intersection. The speed limits are established by Special Speed Regulation #7484 dated July 25, 1990 and Special Speed Regulation #7484-B dated July 24, 2019. The Route 2 at Baker Avenue extension and Elm Street intersection lies between the Concord Rotary and the Route 2 at Main Street (Route 62) intersection. There are no sidewalks, crosswalks or bicycle facilities in the vicinity of the intersection.

Baker Avenue Extension runs north to south and connects Elm Street to Baker Avenue which connects to the Cottage Street at Main Street (Route 62) intersection. Baker Avenue Extension is classified as a local road under the Town of Concord's jurisdiction. Land use along Baker Avenue Extension is commercial, which consists of the Residence Inn Marriot Hotel, multiple doctor offices and local businesses. Baker Avenue Extension runs with one travel lane in each direction and expands to three lanes in the northbound direction at the Route 2 intersection. Shoulders are only provided leading up to the Route 2 intersection beginning approximately 330' from the stop line. Pedestrian and bicycle accommodations are not provided along Baker Avenue Extension. In the proximity of the intersection, Baker Avenue Extension has a posted speed limit of 25 mph.

Elm Street runs east to west from Main Street (Route 62) to Route 2 at Baker Ave Extension and Route 2 westbound. In the study area, Elm Street is classified as an urban minor arterial under MassDOT jurisdiction. Land use along Elm Street is mostly residential east of the study area and is commercial to the north of the study area intersection. Elm Street provides one travel lane in each direction. Shoulders are provided west of the Route 2 westbound off-ramp to Elm Street eastbound. Elm Street provides a north side sidewalk that runs the entire length of Elm Street tying into Main Street (Route 62) and the Concord Rotary. There are no bicycle accommodations along Elm Street. Elm Street also connects to Route 2 westbound via a merge on the western part of the study area. Within the study area, Elm Street does not have a regulated speed, but it does merge onto Route 2 westbound that has a posted speed limit of 40 mph.

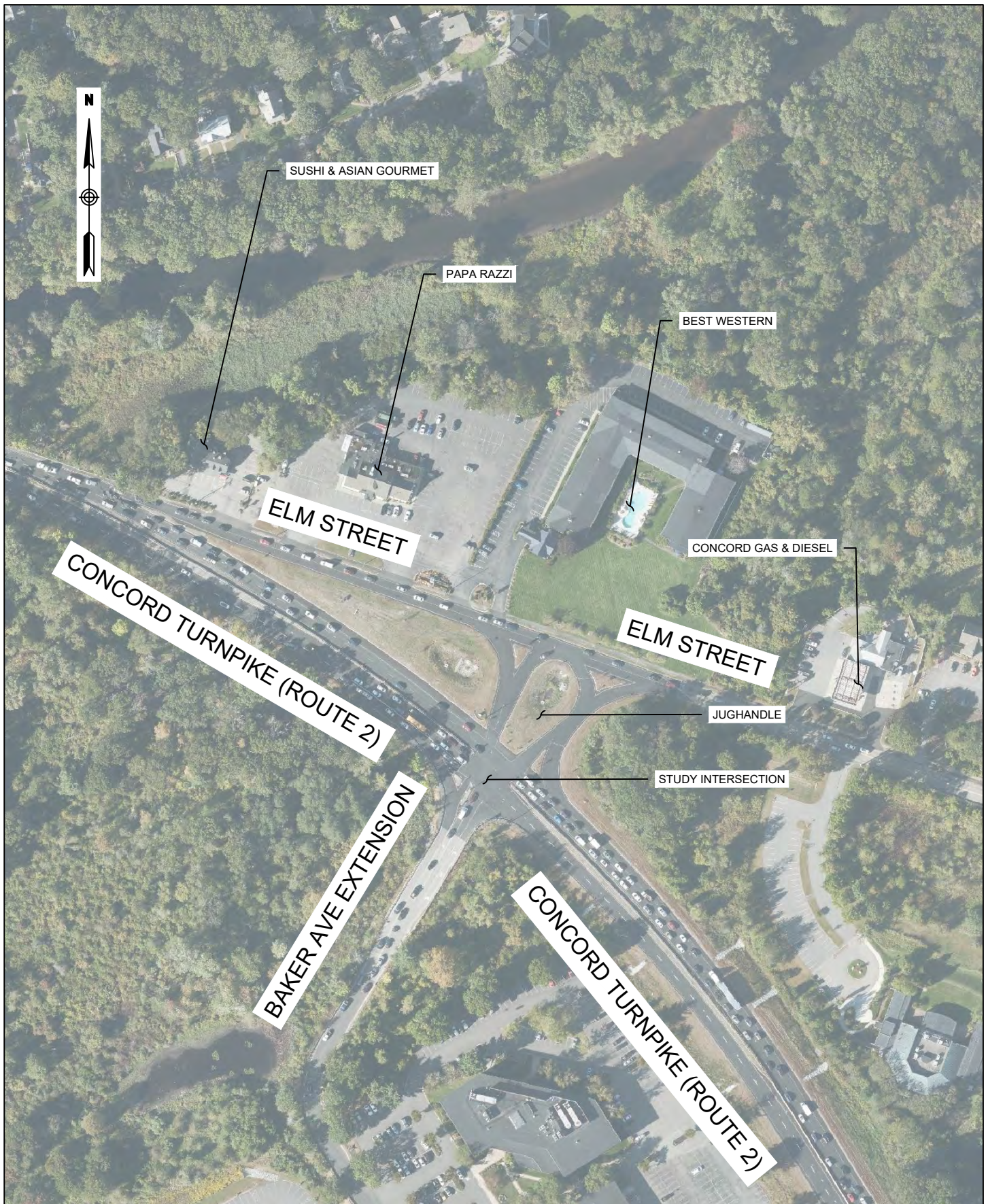
The Route 2 westbound approach consists of two through lanes and a channelized right-turn lane that is under yield control. Left turns for Route 2 westbound are prohibited. The Route 2 eastbound approach consist of an exclusive left-turn lane that is controlled by a protected phase, two through lanes and a channelized right-turn lane that is under yield control. In the study area, Route 2 is separated by a median and guardrail. The Baker Avenue Extension approach consists of an exclusive left-turn lane, a through lane, and an exclusive right-turn lane. The Baker Avenue Extension exclusive left-turn lane is a permissive movement. The Elm Street approach consists of an exclusive left-turn lane and a through lane. The Elm Street exclusive left-turn lane is a permissive movement. The merge from Elm Street to Route 2 westbound is under yield control.

Crash Data

Crash data provided by MassDOT show 57 crashes occurred at or near the intersection of Route 2 at Baker Avenue Extension and Elm Street from January 2013 to December 2017. Crash data summaries and collision diagrams are provided in the Appendix.

The most prevalent crash type was rear-ending crashes, accounting for 53% of the total crashes at the intersection. Angle crashes were the second most frequent, accounting for 21% of crashes, and sideswipe, same direction crashes were third, accounting for 16%. The most frequent crash incidents to occur involve a westbound vehicle along Route 2, prior to the intersection, rear-ending another westbound travelling vehicle (12 instances). The second most frequent crash incidents to occur involve a westbound vehicle on Elm Street at the Route 2 westbound merge, prior to the merge, rear-ending another westbound travelling vehicle (5 instances). The third most frequent crash incidents to occur involved an eastbound vehicle on Route 2, prior to the intersection, rear-ending another eastbound travelling vehicle (4 instances). No crashes involved pedestrians or bicyclists at the intersection during the four years (2013 to 2017).

75% of crashes at the intersection occurred during daylight, 86% of crashes occurred during clear weather conditions and 97% of crashes occurred when the roadway surface was dry. Additionally, the day with the highest number of crashes (26%) occurred on Thursday, and the two highest time periods were 2 pm to 4 pm (21%) and 4 pm to 6 pm (17%). The summer and winter months have lower occurrences of crashes compared to the fall and spring months. While not identified in the reports, this could be due to solar glare and was mentioned as a potential contributor to crashes.



0 100 200 Feet



Locus Map
Road Safety Audit
Route 2 at Baker Avenue Extension / Elm St
Concord, Massachusetts

Figure 1

Audit Observations and Potential Safety Enhancements

During the RSA meeting, prior to the field visit, a brief introduction of the RSA process was presented to the audit team members. The members of the audit team were asked to discuss the existing issues that may affect safety at the intersection using the provided crash data and summaries. The audit team then visited the study area intersection, at which time observations of various safety concerns and deficiencies were identified and documented. Provided below is a list of the safety concerns that were identified during the RSA for the intersection along with potential enhancements identified during the RSA.

Safety Issue #1: Roadway Geometry and Lane Usage

Audit team members noted that most of the crashes experienced at the Route 2 at Baker Avenue Extension and Elm Street intersection were rear ends prior to the intersection on the Route 2 westbound approach. It was mentioned that these occurrences could be due to confusion with drivers who may be attempting to turn left onto Baker Avenue Extension. The Route 2 westbound left turn is



Image 1: Route 2 Westbound Approach

prohibited, and the approach provides a “No Left Turn” sign. Drivers attempting to get to Baker Avenue Extension may not understand that they must utilize the right-turn jughandle facility. This could create confusion and lead to vehicles abruptly stopping on Route 2 which induces a rear end (crashes 7, 10, 11, 18, 23, 26, 32, 37, 41, 43, 44, 49), a sideswipe (crashes 31, 38, 50, 55, 56) type crash in response to vehicles attempting to switch into the right lane from one of the through lanes, or turning movement type crashes (crashes 12, 40, 42) with Route 2 eastbound traffic.

Audit team members noted that the jughandle design at from Route 2 to Elm Street could cause a hazard to eastbound traffic on Elm Street and the traffic that is reversing direction from Route 2. The jughandle geometry does not provide an adequate offset from the edge of Elm Street’s eastbound lane, which in turn pushes traffic to use Elm Street’s eastbound lane. This result creates conflicts with oncoming Elm Street eastbound vehicles that potentially can lead to head-on collisions. Another issue the audit team members noted was how traffic stopped at the jughandle leads to stacking of vehicles. The jughandle only provides roughly a 165’ storage lane for vehicles coming from both the eastbound and westbound approaches. This condition is a clearance issue that creates a queue that blocks the Route 2 westbound approach. The crash data does not indicate



Image 2: Jughandle

that any crash occurred in relation to these geometric design issues at the jughandle during the study period.

Audit team members noted that there is a grade issue on Baker Avenue Extension and at the jughandle as the vehicles approach Route 2. The jughandle southbound approach has a positive slope that reaches the crest on all approaches at the intersection. In relation, Baker Ave Extension opposing the jughandle has a vertical sight distance issue in seeing oncoming vehicles. Vehicles struggle to see if a vehicle is approaching the intersection from the jughandle southbound right through lane until they meet the center of the intersection which resulted in crash 46.

Audit team members noted that the westbound approach on Route 2 has both horizontal and vertical curvature. The westbound approach has a slight downgrade towards the intersection, which could be difficult for heavy vehicles to slow down when approaching a red signal if they are not prepared to slow down for the intersection, increasing the potential for rear-end and turning movement type crashes.

Audit team members noted that the southbound approach from the jughandle necks down leading up to the Route 2 intersection and that the through lane on the right has a slight offset from the receiving lane. This could lead to confusion for drivers that are not familiar with the intersection.

Audit team members noted that there are merging and driveway concerns for vehicles travelling on Elm Street westbound to merge onto Route 2 westbound. Members noted that the merge condition is difficult, due to the combination of the short acceleration length (approximately 60 feet),



Image 3: Elm Street Merge

and the acute merge angle from a yield condition with the mainline traffic travelling 40 mph. This short acceleration lane and yield control condition could be a contributing factor to sideswipe type crashes (crashes 30, 35). The other type of crash that can occur are rear-end type crashes (crashes 4, 9, 13, 16, 24) when a driver approaches the acute merge angle and takes eyes away from the front to look left for an oncoming traffic gap to merge into.

Potential Enhancements:

- Evaluate the feasibility of eliminating the signal and making Baker Avenue Extension right-in/right-out only. This recommendation would potentially reduce delay along Route 2, but in turn would limit Elm Street to only accessing Route 2 through the westbound merge and Baker Avenue Extension to accessing Route 2 through the eastbound approach. Elm Street traffic that desires to travel eastbound on Route 2 would be forced to enter the Concord Rotary to the west and reverse direction.
- Consider grade separating Route 2 and Baker Avenue Extension. Providing grade separation would eliminate the conflicts due to approaching the signal.

- Consider eliminating the left turn restriction currently on Route 2 westbound and provide a left turn lane. Providing a left-turn lane would provide for drivers wanting to access Baker Avenue Extension, which would make the jughandle redundant.
- Consider eliminating the Elm Street merge onto Route 2 westbound. This recommendation would eliminate the sideswipe and rear-end accidents occurring at the merger but would require the redesigning of the jughandle southbound to allow a right turn at the Route 2 intersection.
- Consider redesigning the Elm Street merge location to be more perpendicular to Route 2. This recommendation would provide better sightlines for merging traffic and would potentially reduce the rear-end issue at that location. The speed differential between Route 2 and the merge location might increase the level of difficulty for drivers accessing Route 2.
- Consider eliminating and/or reducing the driveway openings at Asian Gourmet, Papa Razzi and Best Western on Elm Street. There are numerous wide driveways increasing the number of conflict points.
- Consider evaluating the curvature, both horizontal and vertical, for the westbound approach to the signal. Modifying the curvature for the westbound approach could improve sight distance.
- Consider redesigning the U-turn on the jughandle so that it doesn't enter Elm Street.

Safety Issue #2: Traffic Operations

Audit team members noted that drivers making the illegal left turn from Route 2 westbound to Baker Avenue Extension have claimed that their GPS has guided them in that direction instead of guiding them to the jughandle. This incorrect guidance could lead to sudden stops in that left through lane and can lead to potential sideswipe, rear-end, and turning movement accidents (crashes 7, 10, 11, 12, 18, 23, 26, 31, 32, 37, 40, 41, 42, 43, 44, 49, 50, 55). The geometry at the intersection has not been changed since at least 1995, so it is unlikely that drivers are given the directions to take an illegal left by GPS.

Audit team members noted that five angle crashes (crashes 1, 17, 20, 29, 48) occurred during the study period yellow/all-red clearance times occurred. These types of crashes could be a result of driver frustration in the area.

Audit team members noted that Baker Avenue Extension and jughandle run on the same phase with both approaches providing permissive left turns. This situation could lead to crashes (crash 46) due to the slope on the jughandle and vertical sight distance issue.

Audit team members discussed the eastbound left-turn crashes (crashes 20 and 48). Audit team members noted that this protected movement creates a delay along Route 2 both eastbound and westbound.

Audit team members noted that this intersection is a little less than a mile west from the Emerson Hospital and about 1800' east of the state police barracks, so the use of traffic signal pre-emption is used more than the average. Considering there are limited shoulders, and that lanes are roughly 11' wide, it is difficult for emergency vehicles to pass during an emergency event when traffic volumes are high.

Potential Enhancements:

- Consider communicating with local businesses along Baker Avenue Extension to inform their new and future customers/patients about how to properly access Baker Avenue Extension. The recommendation could guide drivers travelling westbound on Route 2 to turn left on Main Street (Route 62) or to use the jughandle.
- Evaluate and confirm appropriate yellow and all-red clearance times on all approaches.
- Consider adjusting the signal timing to provide split phases for Baker Avenue Extension and jughandle approaches. Split phases would provide dedicated phases for each approach, resulting in less turning movement crashes and conflicts. This recommendation could increase delay for the intersection at the signal.
- Consider providing protected left turns for the northbound and southbound approaches. This would result in less turning movement crashes and conflicts.
- Consider prohibiting eastbound left-turns. This recommendation would help reduce delay at the intersection and provide Route 2 westbound with more green time.
- Consider widening the shoulders on both sides, to allow for emergency vehicles to pass through the intersection during an emergency event.

Safety Issue #3: Signage, Signals and Pavement Markings

Audit team members noted that advanced and warning signage could be improved on Route 2 and the jughandle southbound to reduce confusion and prepare drivers of a signal up ahead. The lane use sign that is provided on Route 2 westbound isn't clear and doesn't inform drivers what the actual lane assignments are. There are no diagrammatic signs along Route 2 eastbound and westbound to inform drivers of lane assignments and to potentially slow down.

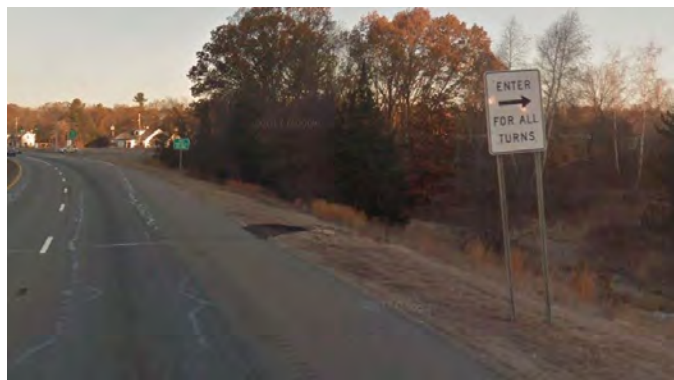


Image 4: Signage for Jughandle

There are signal ahead signs approximately 1000 feet from the intersection in both directions. Also, signs placed on Route 2 might not be large enough as they are difficult to read considering that the speed limit is 40 mph. Audit team members noted that the route 2 westbound approach provides signage indicating that all turns are handled with the channelized right-turn. Two of those signs were provided for the westbound approach, one at 1000 ft and another one at 500 ft before the approach.

Audit team members noted that signal visibility and alignment need improvement throughout the intersection. Signals facing Route 2 westbound approach are very difficult to see considering the horizontal curve prior to the intersection and the solar glare that occurs during the evening period. In addition the westbound signals are positioned over the far right through lane, and there is not an overhead signal for the left through lane. The placement of overhead signals is not MUTCD compliant and could cause confusion as to what type of indication a driver is approaching. This could contribute in rear-

end and turning movement crashes (crashes 1, 7, 10, 11, 18, 20, 23, 26, 32, 37, 41, 43, 44, 48, 49). The overhead signal heads do not have backplates, which could aid drivers signal visibility perception. Also, signals attached to the span sway a significant amount when experiencing mild or tough winds and that also lessens signal visibility. The jughandle approach is lacking an overhead signal. The post-mounted signals for the southbound approach are difficult to see with the uphill slope combined with trucks going through the intersection.

Potential Enhancements:

- Consider installing diagrammatic and LED Red signal ahead signs on Route 2 east and westbound. Diagrammatic signs will limit lane assignment confusion and help guide drivers to the lane of their desired movement. "Signal Ahead 'Red'" signs will notify drivers to slow down approaching the intersection.
- Evaluate signs along Route 2 to enhance sign visibility and understanding of posted signs.
- Evaluate updating signs that pertain to the jughandle movement. All signs should be MUTCD compliant.
- Evaluate pavement markings and signage for U-turns at the jughandle intersection with Elm Street. Pavement markings to consider are dotted white extension lines through the intersection for turning vehicles.
- Consider installing mast arms and backplates with retroreflected strips on signal heads. This recommendation will increase driver sight distance and allow the signal heads to be more visible to drivers approaching the intersection. Installing mast arms will also benefit signals from shifting and swaying in harsher wind conditions. Backplates will resolve the solar glare issue and allow for better visibility.

Safety Issue #4: Lack of Pedestrian and Bicycle Accommodations

There are no pedestrian or bicycle accommodations at the intersection except for a sidewalk on the north side of Elm Street. Audit team members noted that locals and the community desire to have a safe crossing across Route 2 from Elm Street to Baker Avenue Extension in order to gain access by foot, bike, or wheelchair to the commercial businesses along Baker Avenue Extension or West Concord. There were no crashes involving a pedestrian or bicyclist during the 5-year study period. An audit team member noted that the regional planning agency and the Town of Concord have embarked on a Pedestrian and Bicyclist Study. Any recommendations should be coordinated with the study once complete.

Potential Enhancements:

- Consider adding sidewalk and a crosswalk that connects Elm Street to Baker Avenue Extension. This recommendation would require adding pedestrian phasing.
- Consider adding bicycle facilities to the intersection, including bike lanes or separated bike paths, or a shared use path. This recommendation would require a roadway widening in the desired proposed shared-use path locations.

Safety Issue #5: Lighting

It was noted that 24.5% of crashes occurred during dark conditions. During the site visit, it was observed that only Baker Avenue Extension provided overhead lighting at the intersection. Elm Street westbound has scattered overhead lighting that run adjacent to the roadway. The site visit was conducted during daylight hours, and the effectiveness of the lighting was not evaluated.

Potential Enhancements:

- Consider evaluating the existing lighting at the intersection. If lighting appears to be inadequate, consider adding additional lighting to the intersection to improve visibility during low-light periods.
- Consider regular maintenance of pavement markings and signage to ensure that enough reflectivity is available for drivers during low-light periods.

Summary of Road Safety Audit

Following the site visit and discussion of existing safety issues, audit team members were asked to consider various safety related improvements. The audit team members were encouraged to consider both short-term and long-term improvements for each of the existing safety issues. Each improvement considered has been categorized as short-term, mid-term, or long-term based on the definitions shown in Table 2. Additionally, a cost category has been assigned to each improvement based on the parameters set forth in Table 2. The safety payoff is a subjective judgement of the potential effectiveness of the safety recommendations listed below.

Table 2: Estimated Time Frame and Costs Breakdown

Time Frame		Costs	
Short-Term	<1 Year	Low	≤\$10,000
Mid-Term	1-3 Years	Medium	\$10,001-\$50,000
Long-Term	>3 Years	High	>\$50,000

A list of each potential safety enhancement for the intersection is provided below in Tables 3 – 7

Table 3: Potential Safety Enhancement Summary – Roadway Geometry and Lane Usage

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Roadway Geometry and Lane Usage	Evaluate the feasibility of eliminating the signal and making Baker Avenue Extension right-in/right-out only. This recommendation would potentially reduce delay along Route 2, but in turn would limit Elm Street to only accessing Route 2 through the westbound merge and Baker Avenue Extension to accessing Route 2 through the eastbound approach. Elm Street traffic that desires to travel eastbound on Route 2 would be forced to enter the Concord Rotary to the west and reverse direction.	High	Mid-Term	High	MassDOT
	Consider grade separating Route 2 and Baker Avenue Extension. Providing grade separation would eliminate the conflicts due to approaching the signal.	High	Long-Term	High	MassDOT
	Consider eliminating the left turn restriction currently on Route 2 westbound and provide a left turn lane. Providing a left-turn lane would provide for drivers wanting to access Baker Avenue Extension, which would make the jughandle redundant.	Low	Long-Term	High	MassDOT
	Consider eliminating the Elm Street merge onto Route 2 westbound. This recommendation would eliminate the sideswipe and rear-end accidents occurring at the merger but would require the redesigning of the jughandle southbound to allow a right turn at the Route 2 intersection.	Medium	Long-Term	High	MassDOT

Table 3: Potential Safety Enhancement Summary – Roadway Geometry and Lane Usage (Continued)

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Roadway Geometry and Lane Usage	Consider redesigning the Elm Street merge location to be more perpendicular to Route 2. This recommendation would provide better sightlines for merging traffic and would potentially reduce the rear-end issue at that location. The speed differential between Route 2 and the merge location might increase the level of difficulty for drivers accessing Route 2.	Medium	Long-Term	High	MassDOT
	Consider eliminating and/or reducing the driveway openings at Asian Gourmet, Papa Razzi and Best Western on Elm Street. There are numerous wide driveways increasing the number of conflict points.	Low	Long-Term	Low	MassDOT
	Consider evaluating the curvature, both horizontal and vertical, for the westbound approach to the signal. Modifying the curvature for the westbound approach could improve sight distance.	High	Long-Term	High	MassDOT
	Consider redesigning the U-turn on the jughandle so that it doesn't enter Elm Street.	High	Long-Term	High	MassDOT

Table 4: Potential Safety Enhancement Summary – Traffic Operations

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Traffic Operations	Consider communicating with local businesses along Baker Avenue Extension to inform their new and future customers/patients about how to properly access Baker Avenue Extension. The recommendation could guide drivers travelling westbound on Route 2 to turn left on Main Street (Route 62) or to use the jughandle.	Low	Short-Term	Low	Town of Concord
	Evaluate and confirm appropriate yellow and all-red clearance times on all approaches.	Low	Short-Term	Low	MassDOT
	Consider adjusting the signal timing to provide split phases for Baker Avenue Extension and jughandle approaches. Split phases would provide dedicated phases for each approach, resulting in less turning movement crashes and conflicts. This recommendation could increase delay for the intersection at the signal.	Medium	Short-Term	Low	MassDOT
	Consider providing protected left turns for the northbound and southbound approaches. This would result in less turning movement crashes and conflicts.	Low	Mid-Term	Low	MassDOT
	Consider prohibiting eastbound left-turns. This recommendation would help reduce delay at the intersection and provide Route 2 westbound with more green time.	High	Mid-Term	High	MassDOT
	Consider widening the shoulders on both sides, to allow for emergency vehicles to pass through the intersection during an emergency event.	Low	Long-Term	High	MassDOT

Table 5: Potential Safety Enhancement Summary – Signage, Signals, and Pavement Markings

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Signage, Signals, and Pavement Markings	Consider installing diagrammatic and LED Red signal ahead signs on Route 2 east and westbound. Diagrammatic signs will limit lane assignment confusion and help guide drivers to the lane of their desired movement. "Signal Ahead 'Red'" signs will notify drivers to slow down approaching the intersection.	Medium	Short-Term	Low	MassDOT
	Evaluate signs along Route 2 to enhance sign visibility and understanding of posted signs.	Medium	Short-Term	Low	MassDOT
	Evaluate updating signs that pertain to the jughandle movement. All signs should be MUTCD compliant.	Low	Short-Term	Low	MassDOT
	Evaluate pavement markings and signage for U-turns at the jughandle intersection with Elm Street. Pavement markings to consider are dotted white extension lines through the intersection for turning vehicles.	Low	Short-Term	Low	MassDOT
	Consider installing mast arms and backplates with retroreflected strips on signal heads. This recommendation will increase driver sight distance and allow the signal heads to be more visible to drivers approaching the intersection. Installing mast arms will also benefit signals from shifting and swaying in harsher wind conditions. Backplates will resolve the solar glare issue and allow for better visibility.	Medium	Long-Term	High	MassDOT

Table 6: Potential Safety Enhancement Summary – Substandard Pedestrian and Lack of Bicycle Accommodations

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Substandard Pedestrian and Lack of Bicycle Accommodations	Consider adding sidewalk and a crosswalk that connects Elm Street to Baker Avenue Extension. This recommendation would require adding pedestrian phasing.	Medium	Long-Term	High	MassDOT
	Consider adding bicycle facilities to the intersection, including bike lanes or separated bike paths, or a shared use path. This recommendation would require a roadway widening in the desired proposed shared-use path locations.	Medium	Long-Term	High	MassDOT

Table 7: Potential Safety Enhancement Summary – Lighting

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Jurisdiction
Lighting	Consider evaluating the existing lighting at the intersection. If lighting appears to be inadequate, consider adding additional lighting to the intersection to improve visibility during low-light periods.	Low	Long-Term	High	MassDOT
	Consider regular maintenance of pavement markings and signage to ensure that enough reflectivity is available for drivers during low-light periods.	Low	Short-Term	Low	MassDOT

Appendix A. RSA Meeting Agenda

Agenda

Road Safety Audit

Concord, MA

Route 2 at Baker Ave Extension & Elm Street

Meeting Location: Department of Planning & Land Development

141 Keyes Road, Concord, MA

February 4th, 2020

1:00 PM – 4:00 PM

Type of meeting:	High crash location – Road Safety Audit
Attendees:	Invited participants to comprise a multidisciplinary team
Please bring:	Thoughts and enthusiasm!!

1:00 PM	Welcome and Introductions
1:15 PM	Discussion of Safety Issues <ul style="list-style-type: none">• Crash history, speed regulations, recent and existing projects – all provided in advance• Existing geometries and conditions
2:15 PM	Site Visit <ul style="list-style-type: none">• Drive to the intersection of Route 2 at Baker Avenue Extension & Elm Street• As a group, identify areas for improvement
3:15 PM	Discussion of Potential Improvements <ul style="list-style-type: none">• Discuss observations and finalize safety issue areas• Discuss potential improvements and finalize recommendations
4:00 PM	Adjourn for the Day – but the RSA has not ended

Instructions for Participants:

- Before attending the RSA on February 4th, participants are encouraged to drive/walk through the intersection and complete/consider elements on the RSA Prompt List with a focus on safety.
- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, but are reminded that the synergy that develops and respect for others' opinions are key elements to the success of the overall RSA process.
- After the RSA meeting, participants will be asked to comment and respond to the document materials to assure it is reflective of the RSA completed by the multidisciplinary team.

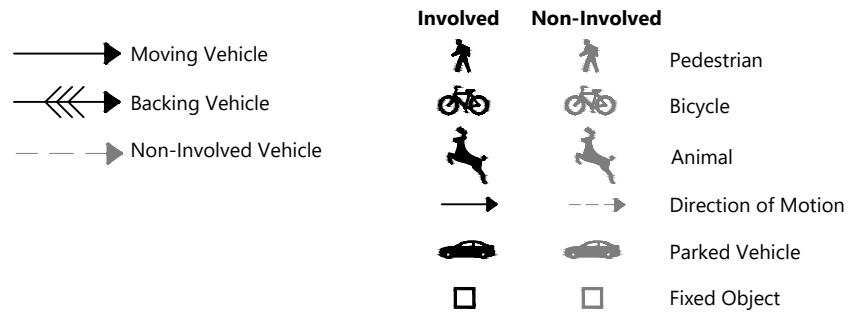
Appendix B. RSA Audit Team Contact List

Participating Audit Team Members

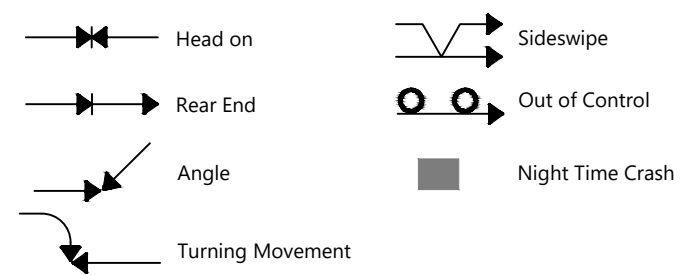
Audit Team Member	Agency/Affiliation	Email
Marcia Rasmussen	Concord Planning and Land Development	mrasnussen@concordma.gov
Ron Holsinger	Concord Police Department	rholsinger@concordma.gov
Peter Morawick	Massachusetts State Police	peter.morawick@pol.state.ma.us
Sean Hodgdon	Massachusetts State Police	sean.hodgdon@pol.state.ma.us
Jeremy Sweeney	Massachusetts State Police	jeremy.sweeney@pol.state.ma.us
Walter Latta	Concord Fire Department	wlatta@concordma.gov
Stephen Dookran	Concord Public Works	sdookran@concordma.gov
Nathan Chin	Concord Public Works	nchin@concordma.gov
Justin Richardson	Concord Public Works	jrichardson@concordma.gov
Arnav Duarah	MassDOT Traffic & Safety	arnav.duarah@state.ma.us
Christopher Ng	MassDOT Traffic & Safety	christopher.ng@state.ma.us
Michelle Deng	MassDOT Traffic & Safety	michelle.deng@state.ma.us
Sara Timoner	MassDOT District 4	sara.timoner@state.ma.us
Timothy Paris	MassDOT District 4	timothy.paris@state.ma.us
Chenyuan Wang	CTPS/Boston Region MPO	cwang@ctps.org
Adam Prichard	VHB	aprichard@vhb.com
Keith Wengers	VHB	kwengers@vhb.com
Marvey Mathurin	VHB	mmathurin@vhb.com

Appendix C. Detailed Crash Data

SYMBOLS



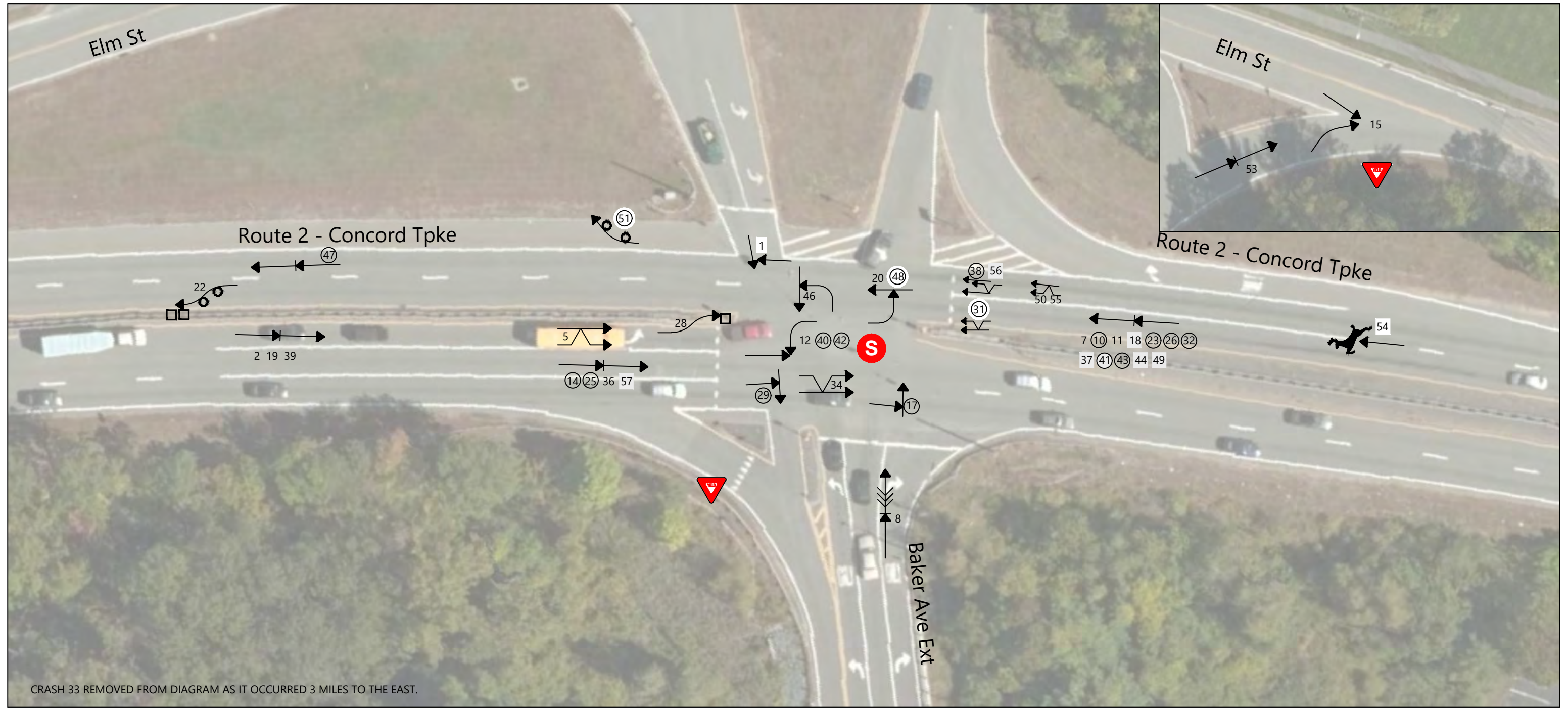
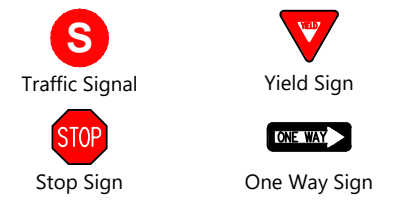
TYPES OF CRASH



SEVERITY



TRAFFIC CONTROL



Source of Crash Reports: MassDOT

Not to Scale



Crash Diagram (2013-2017 Crash Data)
Route 2 @ Baker Ave Ext & Elm St
Concord, MA

SYMBOLS

	Involved	Non-Involved	
			Pedestrian
			Bicycle
			Animal
			Direction of Motion
			Parked Vehicle
			Fixed Object

TYPES OF CRASH

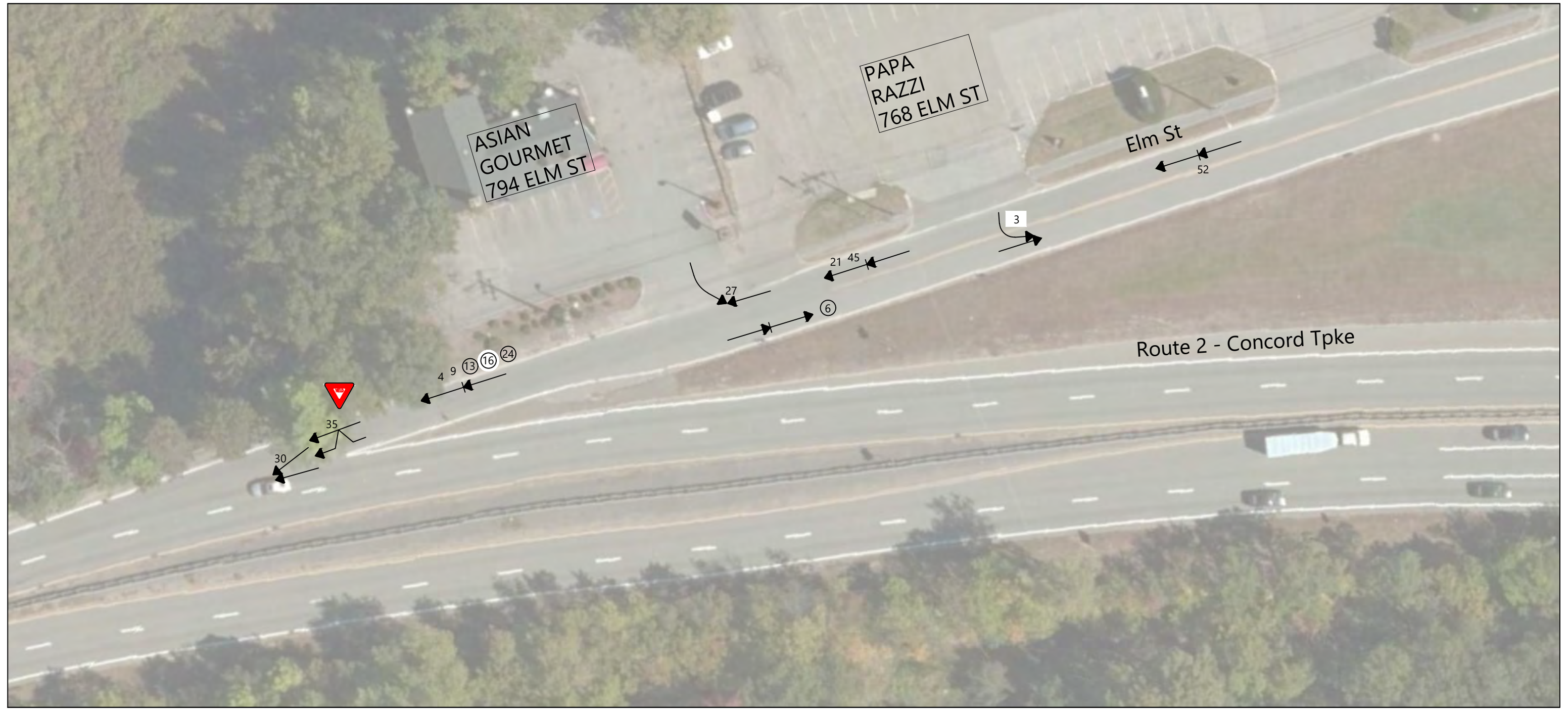
	Head on		Sideswipe
	Rear End		Out of Control
	Angle		Night Time Crash
	Turning Movement		

SEVERITY

	Injury
	Fatal
	Property Damage Only

TRAFFIC CONTROL

	Traffic Signal		Yield Sign
	Stop Sign		One Way Sign



Source of Crash Reports: MassDOT



Not to Scale



Crash Diagram (2013-2017 Crash Data)
Route 2 WB @ Elm St
Concord, MA

Crash Data Summary Table
Route 2 at Baker Ave Ext & Elm St, Concord, MA
2013-2017

Crash Diagram Ref #	Crash Date	Crash Day	Time of Day	Manner of Collision	Light Condition	Weather Condition	Road Surface	Driver Contributing Code	Injury Severity	D1 Age	D2 Age	D3 Age	D4 Age	Comments
#	mm/dd/yy	Day	hh:mm	Type	Type	Type	Type	Type	Type	#	#	#	#	
1	02/01/13	Friday	7:22 PM	Angle	Dark - lighted roadway	Clear	Dry	Disregarded traffic signs, signals, road markings	No Injury	49	43			V1 was traveling southbound on Elm Street and attempted to make the left-turn onto Route 2 EB. V2 was traveling on Route 2 WB, ran a red light, and collided with V1.
2	02/21/13	Thursday	2:30 PM	Rear-end	Daylight	Clear	Dry	Inattention	No Injury	81	42	28	27	V2, V3, and V4 were stopped at a red light traveling eastbound on Route 2. V1 failed to stop and rear-ended V2 who subsequently rear-ended V3, who rear-ended V4.
3	02/26/13	Tuesday	6:12 PM	Angle	Dark - lighted roadway	Clear	Dry	Other improper action	No Injury	42	62			V1 was traveling eastbound on Elm Street. V2 was exiting Papa Razzi's parking lot and attempted to make the left-turn onto Elm Street when V2 collided with V1.
4	03/26/13	Tuesday	3:22 PM	Rear-end	Daylight	Clear	Dry	Other improper action	No Injury	47	37			V2 was traveling westbound on Route 2 when V2 rear-ended V1.
5	03/27/13	Wednesday	3:45 PM	Sideswipe, same direction	Daylight		Dry	Failed to yield right of way	No Injury	45	39			V1 was traveling eastbound on Route 2. V2 was waiting in the Route 2 EB left-turn lane when V1 cut into the left-turn lane and struck V2.
6	07/25/13	Thursday	8:07 AM	Rear-end	Daylight	Clear	Dry	Operating vehicle in erratic, reckless, careless, negligent, or aggressive manner	Non-fatal injury	49	51	64		V1 was traveling eastbound on Route 2A. V1 was distracted by animal in roadway then rear-ended V2, causing V2 to rear-end V3.
7	8/19/13	Monday	6:15 PM	Rear-end	Daylight	Clear	Dry	Glare	No Injury	56	23			V1 was traveling westbound on Route 2 and, due to solar glare, rear-ended V2.
8	8/21/13	Wednesday	10:51 AM	Head on	Daylight	Clear	Dry	No improper driving	No Injury	34	63			V1, a construction vehicle, was operating in the construction lane. V2 was stopped in the construction lane, unaware that the lane was for construction vehicles only. V1 hit V2 backed into V1.
9	9/18/13	Wednesday	4:48 PM	Rear-end	Daylight	Clear	Dry	Other improper action	No Injury	47	38	38	34	V1, V2, and V3 were stopped in traffic on Elm Street waiting to merge onto Route 2 WB. V4 was traveling on Elm Street and was unable to stop, rear-ending V3. This caused V3 to rear-end V2 and V2 to rear-end V1.
10	3/4/14	Tuesday	10:44 AM	Rear-end	Daylight	Clear	Dry	Fatigued/asleep	Non-fatal injury	16	Unknown	45		V3 was traveling westbound on Route 2 when V3 rear-ended V2. As a result, V2 rear-ended V1.
11	3/18/14	Tuesday	5:35 PM	Rear-end	Daylight	Clear	Dry	Inattention	No Injury	38	54			V1 rear-ended V2 traveling westbound on Route 2.
12	7/7/14	Monday	2:14 PM	Angle	Daylight	Clear	Dry	Disregarded traffic signs, signals, road markings	No Injury	22	19			V1 was traveling eastbound on Route 2 through the intersection of Baker Avenue Ext. V2 was traveling westbound on Route 2 and attempted to make an illegal U-turn onto Route 2 EB. V2 struck V1 causing V1 to go off the roadway and strike the guardrail.
13	7/22/14	Tuesday	5:00 PM	Rear-end	Daylight	Clear	Dry	Inattention	Non-fatal injury	55	21			V2 was traveling westbound in the area of 794 Elm Street when V2 rear-ended V1 who had slowed for traffic.
14	9/18/14	Thursday	8:30 AM	Rear-end	Daylight	Clear	Dry	Disregarded traffic signs, signals, road markings	Non-fatal injury	43	34	30		V1 was traveling eastbound on Route 2 and attempted to make a left-turn onto Baker Avenue from the through-only lane. V2 had been traveling behind V1 on Route 2 and rear-ended V2. V3 then rear-ended V2.
15	10/3/14	Friday	5:48 PM	Angle	Daylight	Clear	Dry	Inattention	No Injury	27	70			V1 was traveling eastbound on Elm Street. V2 was exiting off of Route 2 onto Elm Street and struck V1.
16	10/9/14	Thursday	6:55 PM	Rear-end	Dark - lighted roadway	Clear	Dry	Followed too closely	Non-fatal injury	21	61			V2 was traveling westbound on Elm Street and was stopped waiting to merge onto Route 2 WB. V1 rear-ended V2.
17	10/26/14	Sunday	1:06 PM	Angle	Daylight	Clear	Dry	Disregarded traffic signs, signals, road markings	Non-fatal injury	26	58			V2 was traveling northbound on Baker Avenue Ext. V1 was traveling eastbound on Route 2 and failed to stop at a red light, striking V2.
18	12/23/14	Tuesday	6:05 AM	Rear-end	Dark - roadway not lighted	Clear	Dry	Distracted	No Injury	62	21			V2 was traveling westbound on Route 2 when V2 rear-ended V1.
19	1/15/15	Thursday	7:15 AM	Rear-end	Daylight		Dry	Followed too closely	No Injury	26	37			V1 was traveling eastbound on Route 2 when V1 rear-ended V2.
20	4/11/15	Saturday	9:15 AM	Angle	Daylight	Clear	Dry	Disregarded traffic signs, signals, road markings	No Injury	50	24			V2 was traveling eastbound on Route 2 and attempted to make the left-turn onto Baker Avenue Ext. V1 was traveling on Route 2 westbound and failed to stop at the red light, striking V2.
21	6/10/15	Wednesday	5:46 PM	Rear-end	Daylight	Clear	Dry	Inattention	No Injury	59	47			V2 was traveling westbound on Elm Street and rear-ended V1.
22	6/12/15	Friday	5:48 AM	Single vehicle crash	Daylight	Clear	Dry	Operating vehicle in erratic, reckless, careless, negligent, or aggressive manner	No Injury	20				V1 was traveling westbound on Route 2 when the operator of V1 fell asleep and crashed into the center median. The operator of V1 was under the influence.
23	7/2/15	Thursday	6:07 PM	Rear-end	Daylight	Clear	Dry	Inattention	Non-fatal injury	26	53			V2 was traveling westbound on Route 2 when V2 rear-ended V1. V2 fled the scene.
24	8/3/15	Monday	4:54 PM	Rear-end	Daylight	Cloudy	Dry	Inattention	Non-fatal injury	54	34	72		V3 was traveling westbound on Elm Street when V3 rear-ended V2, causing V2 to rear-end V1. V1 and V2 were stopped at the time waiting to merge onto Route 2.
25	8/14/15	Friday	8:05 AM	Rear-end	Daylight	Clear	Dry	Inattention	Non-fatal injury	38	17			V1 was traveling eastbound on Route 2 when V1 rear-ended V2.
26	8/14/15	Friday	8:30 AM	Rear-end	Daylight	Clear	Dry	Distracted	Non-fatal injury	25	52			V1 was traveling eastbound on Route 2 when V1 rear-ended V2.

Crash Data Summary Table

Route 2 at Baker Ave Ext & Elm St, Concord, MA
2013-2017

Crash Diagram Ref #	Crash Date	Crash Day	Time of Day	Manner of Collision	Light Condition	Weather Condition	Road Surface	Driver Contributing Code	Injury Severity	D1 Age	D2 Age	D3 Age	D4 Age	Comments
#	mm/dd/yy	Day	hh:mm	Type	Type	Type	Type	Type	Type	#	#	#	#	
27	9/3/15	Thursday	6:41 PM	Angle	Daylight	Clear	Dry	Operating vehicle in erratic, reckless, careless, negligent, or aggressive manner	No Injury	25	32			V1 was traveling outbound on Elm Street and was stopped in traffic waiting to merge onto Route 2 WB. V2 was exiting from a parking lot and attempted to turn left towards Elm Street inbound. V2 struck V1. The operator of V2 was under the influence.
28	11/5/15	Thursday	7:15 AM	Single vehicle crash	Daylight	Clear	Dry	Made an improper turn	No Injury	43				V1 was traveling eastbound on Route 2 and attempted to turn left onto Elm Street, striking a signal pole.
29	11/12/15	Thursday	2:38 PM	Angle	Daylight	Rain	Wet	Disregarded traffic signs, signals, road markings	Non-fatal injury	36	67			V1 was traveling eastbound on Route 2. V2 was traveling southbound on Elm Street through the intersection and failed to stop at the red light, striking V1.
30	12/3/15	Thursday	2:00 PM	Sideswipe, same direction	Daylight	Clear	Dry	Failed to yield right of way	No Injury	36	50			V2 was traveling westbound on Route 2. V1 was traveling westbound on Elm Street and was attempted to merge onto Route 2. V1 struck V2 while attempting to merge.
31	4/11/16	Monday	8:57 PM	Sideswipe, same direction	Dark - roadway not lighted	Cloudy	Dry	Operating vehicle in erratic, reckless, careless, negligent, or aggressive manner	Non-fatal injury	26	37	47		V1, V2, and V3 were traveling westbound on Route 2. V3 attempted to turn left, striking V2. V3 continued to turn left, striking V1. V3 then took a sharp left and hit the guardrail of the off-ramp to Route 2 EB.
32	4/27/26	Monday	2:46 PM	Rear-end	Daylight	Clear	Dry	No improper driving	Non-fatal injury	42	59	24		V3 was traveling westbound on Route 2 when V3 rear-ended V2. As a result, V2 rear-ended V1.
33														CRASH REMOVED. OCCURRED OUTSIDE OF STUDY AREA.
34	10/12/16	Wednesday	3:43 PM	Sideswipe, same direction	Daylight	Clear	Dry	Failure to keep in proper lane or running off road	No Injury	57	Unknown			V2 was traveling eastbound on Route 2. V2 veered out of their lane of travel, striking V1 in the adjacent lane of travel. V2 fled the scene.
35	11/10/16	Thursday	10:14 AM	Sideswipe, same direction	Daylight	Clear	Dry	Other improper action	No Injury	89	78			V2 was stopped on Elm Street waiting to merge onto Route 2 WB. V1 attempted to go around V2, sideswiping V2.
36	11/10/16	Thursday	6:53 AM	Rear-end	Daylight	Clear	Dry	Followed too closely	No Injury	64	45	64	56	V1 was traveling eastbound on Route 2 when V1 rear-ended V2, causing V2 to rear-end V3, and V3 to rear-end V4.
37	12/19/16	Monday	5:15 PM	Rear-end	Dark - roadway not lighted	Clear	Dry	Followed too closely	No Injury	20	25	41		V2 was traveling westbound on Route 2 when V2 braked suddenly. This caused V1 to rear-end V2 which caused V2 to rear-end V3.
38	1/26/17	Thursday	8:45 AM	Sideswipe, same direction	Daylight	Cloudy	Dry	Inattention	Non-fatal injury	57	71	32		V2 and V1 were stopped in adjacent lanes of travel on Route 2 westbound. V3 was unable to stop and rear-ended both V1 and V2.
39	1/31/17	Tuesday	8:00 AM	Rear-end	Daylight	Clear	Dry	Followed too closely	No Injury	67	33	50		V3 was traveling eastbound on Route 2 when V3 rear-ended V2, causing V2 to rear-end V1.
40	2/6/17	Monday	3:30 PM	Angle	Daylight	Clear	Dry	Made an improper turn	Non-fatal injury	58	65			V2 was traveling eastbound on Route 2 through the intersection of Route 2 at Baker Avenue Ext. V1 was traveling westbound on Route 2 and attempted to make an illegal left-turn, striking V2.
41	2/28/17	Tuesday	8:31 PM	Rear-end	Dark - roadway not lighted	Clear	Dry	Inattention	Non-fatal injury	45	56			V2 was traveling westbound on Route 2 when V2 rear-ended V1.
42	3/7/17	Tuesday	3:51 PM	Angle	Daylight	Clear	Dry	Made an improper turn	Non-fatal injury	28	58			V2 was traveling eastbound on Route 2 through the intersection of Route 2 at Baker Avenue Ext. V1 was traveling westbound on Route 2 and attempted to make an illegal left-turn, striking V2.
43	3/9/17	Thursday	2:00 PM	Rear-end	Daylight	Clear	Dry	Followed too closely	Non-fatal injury	42	88			V2 was traveling westbound on Route 2 when V2 rear-ended V1.
44	3/20/17	Monday	8:44 PM	Rear-end	Dark - roadway not lighted	Cloudy	Dry	Followed too closely	No Injury	51	34			V2 was traveling westbound on Route 2 when V2 rear-ended V1.
45	5/22/17	Monday	6:08 PM	Rear-end	Daylight	Rain	Wet	Inattention	No Injury	56	58			V1 was traveling westbound on Elm Street and attempting to merge onto Route 2 WB. V1 rear-ended V2.
46	5/26/17	Friday	9:40 AM	Angle	Daylight	Clear	Dry	Failed to yield right of way	No Injury	20	33			V2 was traveling southbound on Baker Avenue Ext through the intersection of Route 2 at Baker Avenue Ext. V1 was traveling northbound on Baker Avenue Ext. and attempted to turn left onto Route 2 WB, striking V2.
47	6/14/17	Wednesday	3:53 PM	Rear-end	Daylight	Clear	Dry	Followed too closely	Non-fatal injury	74	38			V2 was traveling eastbound on Route 2 when V2 rear-ended V1.
48	7/25/17	Tuesday	8:45 PM	Angle	Dark - lighted roadway	Clear	Dry	Disregarded traffic signs, signals, road markings	Non-fatal injury	75	69			V1 was traveling eastbound on Route 2 and attempted to make an illegal left-turn on a red arrow onto Route 2 WB. V2 was traveling westbound on Route 2 and collided with V1.
49	7/26/17	Wednesday	8:28 PM	Rear-end	Dark - lighted roadway	Clear	Dry	Followed too closely	No Injury	38	32			V2 was traveling westbound on Route 2 when V2 rear-ended V1.
50	7/28/17	Friday	6:50 AM	Sideswipe, same direction	Daylight	Clear	Dry	Driving too fast for conditions	No Injury	39	27	58		V3 was stopped at a red light on Route WB. V1 and V2 were traveling westbound on Route 2. V1 lost control of their vehicle hit V3 and then hit V2.

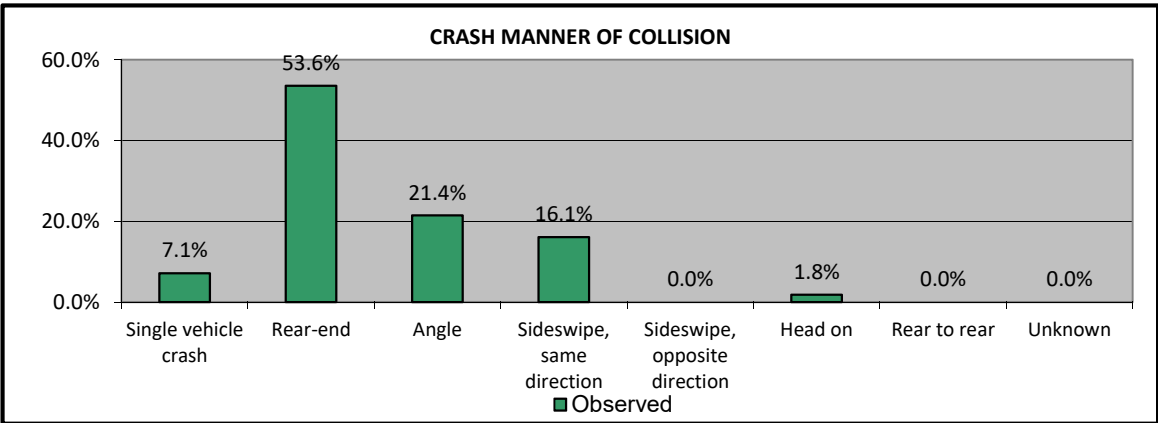
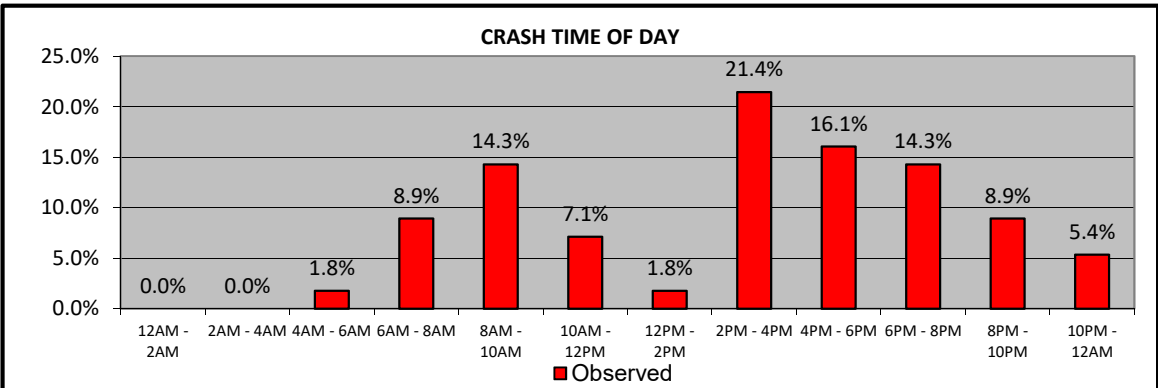
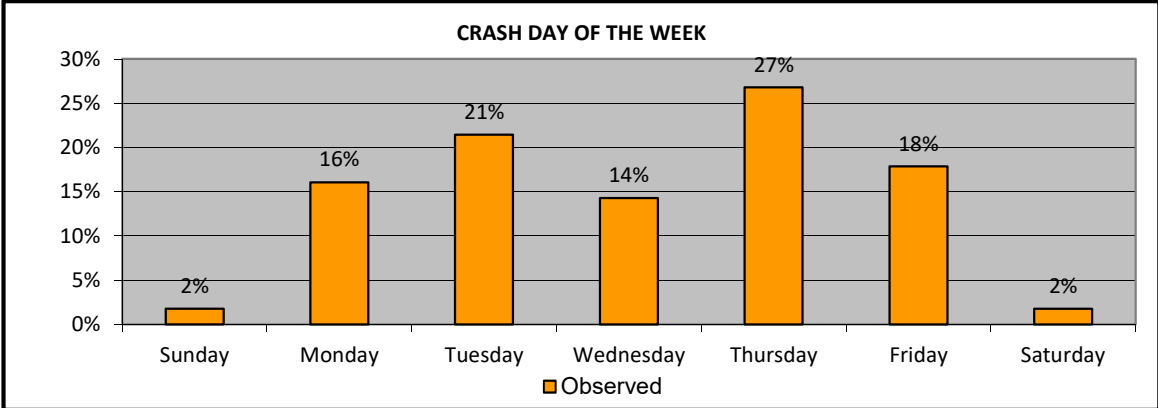
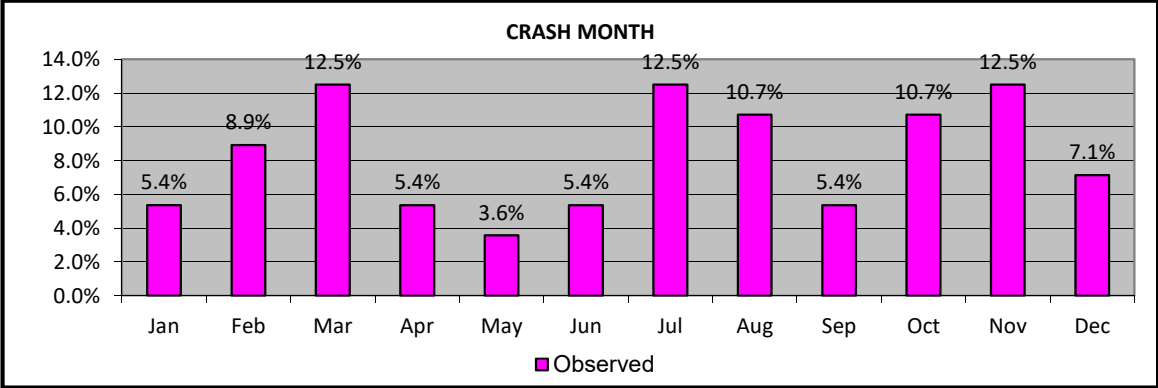
Crash Data Summary Table

Route 2 at Baker Ave Ext & Elm St, Concord, MA
2013-2017

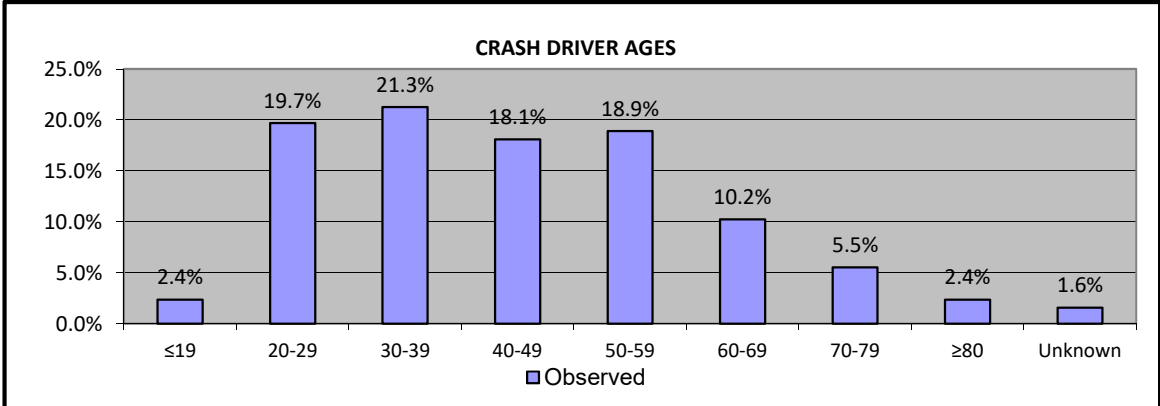
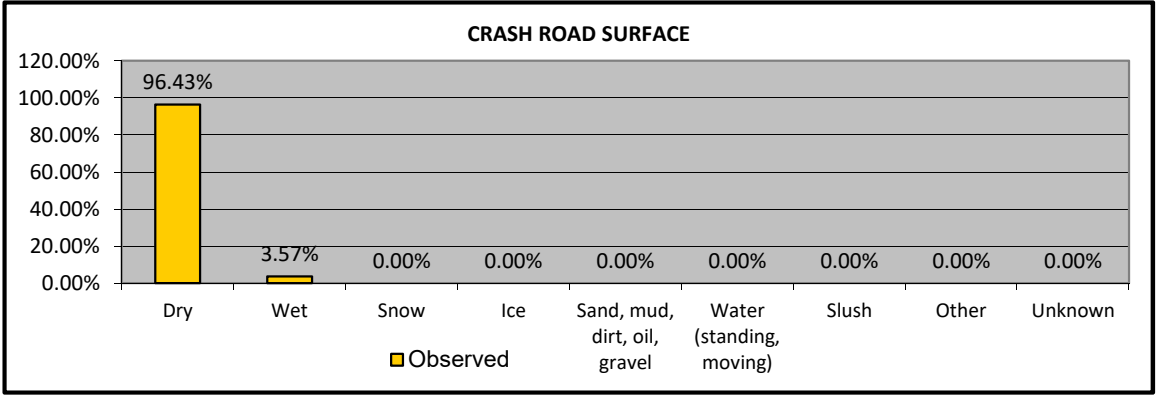
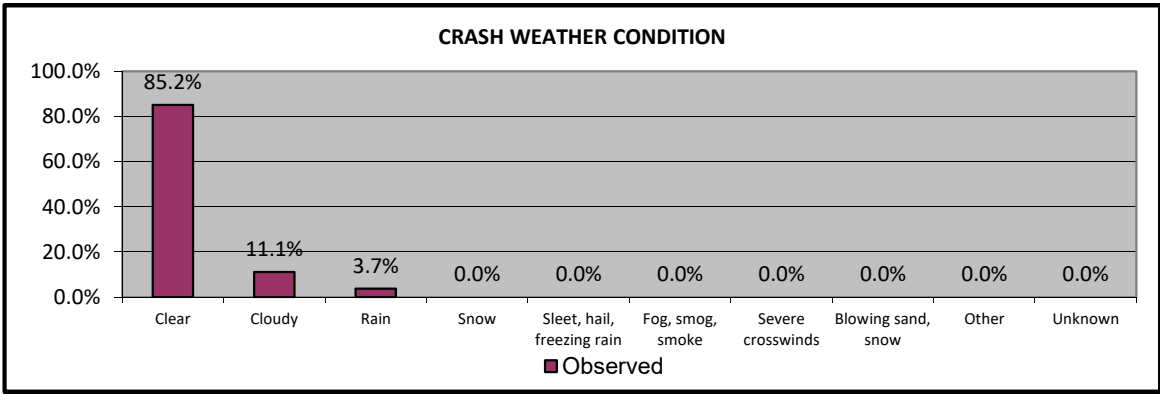
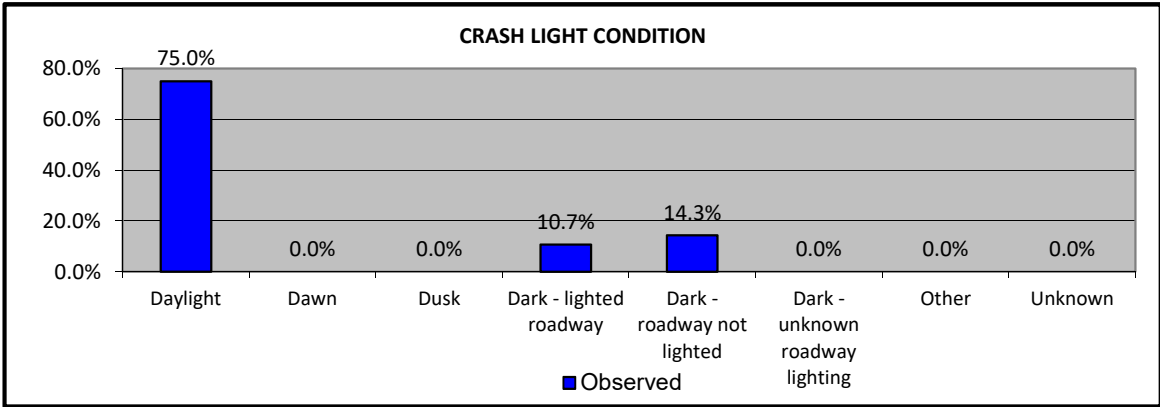
Crash Diagram Ref #	Crash Date	Crash Day	Time of Day	Manner of Collision	Light Condition	Weather Condition	Road Surface	Driver Contributing Code	Injury Severity	D1 Age	D2 Age	D3 Age	D4 Age	Comments
#	mm/dd/yy	Day	hh:mm	Type	Type	Type	Type	Type	Type	#	#	#	#	
51	8/24/17	Thursday	10:52 PM	Single vehicle crash	Dark - lighted roadway	Clear	Dry	Fatigued/asleep	Non-fatal injury	42				V1 was traveling westbound on Route 2 when V1 ran off the road into a drainage ditch.
52	10/27/17	Friday	4:41 PM	Rear-end	Daylight	Clear	Dry	Inattention	No Injury	46	34	66		V3 was traveling westbound on Elm Street when V3 rear-ended V2, causing V2 to rear-end V1.
53	10/27/17	Friday	5:53 PM	Rear-end	Daylight	Clear	Dry	Operating vehicle in erratic, reckless, careless, negligent, or aggressive manner	No Injury	48	62			V1 was traveling westbound on Elm Street and attempting to merge onto Route 2 WB. V1 rear-ended V2.
54	11/3/17	Friday	10:43 PM	Single vehicle crash	Dark - roadway not lighted	Cloudy	Dry	No improper driving	No Injury	35				V1 was traveling westbound on Route 2 when V1 hit a deer.
55	11/15/17	Wednesday	11:20 AM	Sideswipe, same direction	Daylight	Clear	Dry		No Injury	58	42			V1 and V2 were traveling westbound on Route 2. V1 and V2 sideswiped on another.
56	11/28/17	Tuesday	10:49 PM	Sideswipe, same direction	Dark - roadway not lighted	Clear	Dry	Inattention	No Injury	29	35	24		V1 and V2 were stopped at a red light traveling westbound on Route 2. V3 failed to stop and drove between V1 and V2, striking both vehicles.
57	12/19/17	Tuesday	6:07 PM	Rear-end	Dark - roadway not lighted	Cloudy	Dry	Followed too closely	No Injury	26	48	75		V3 was traveling eastbound on Route 2 when V3 rear-ended V2, causing V2 to rear-end V1.

Summaries based on crash reports obtained from MassDOT.

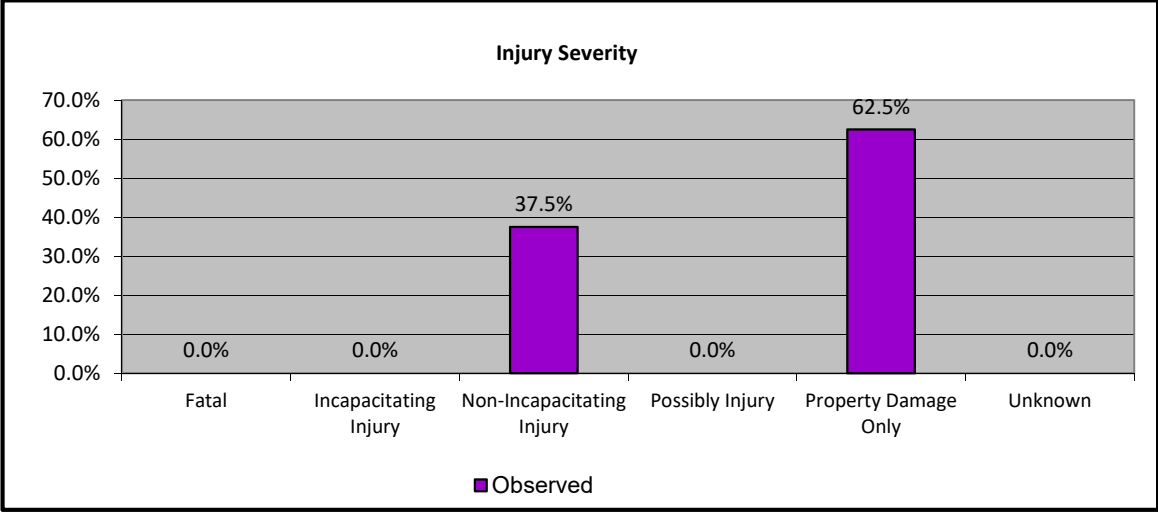
Crash Data Summary Charts Route 2 at Baker Ave Ext & Elm St, Concord, MA



Crash Data Summary Charts
Route 2 at Baker Ave Ext & Elm St, Concord, MA

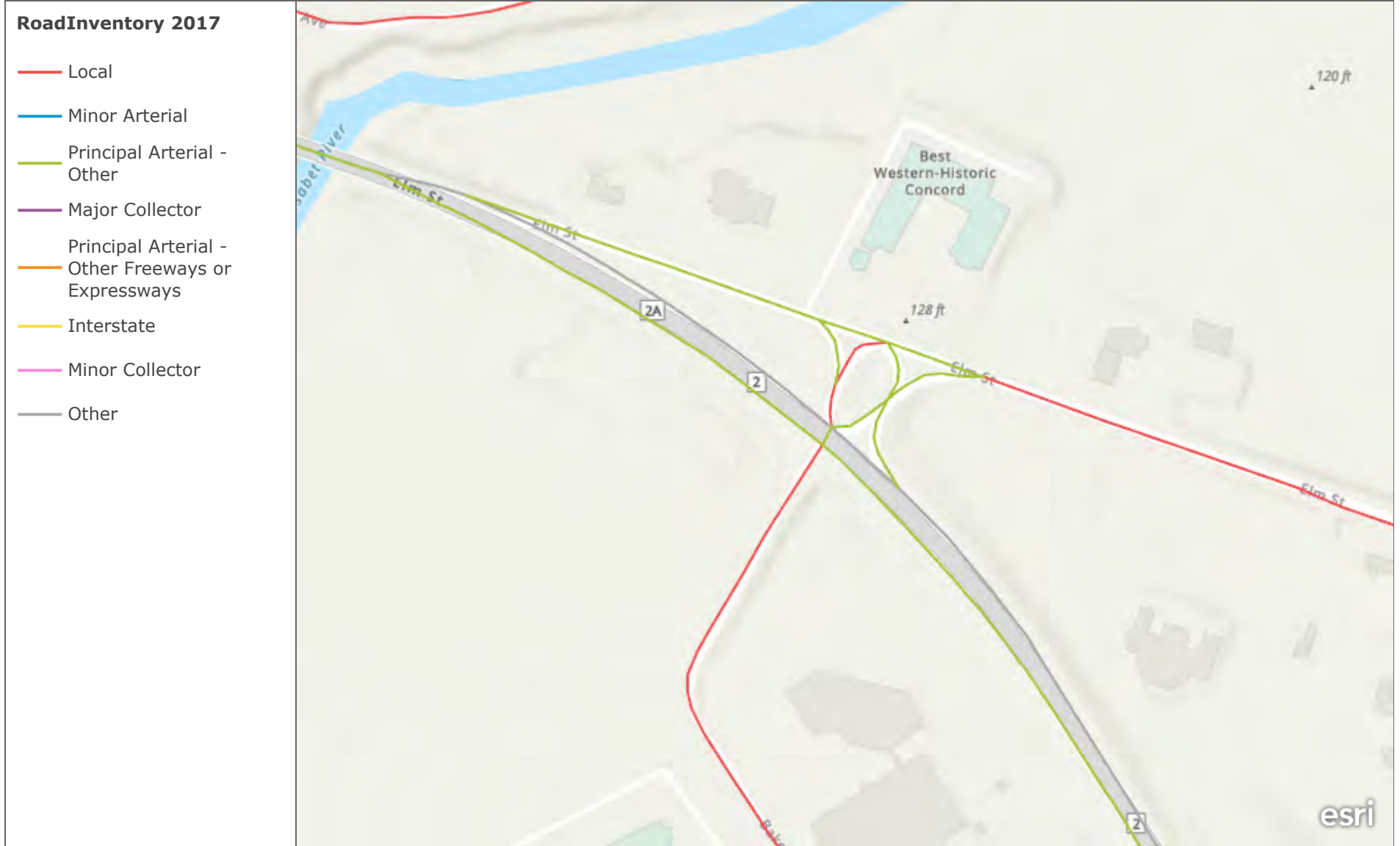


Crash Data Summary Charts
Route 2 at Baker Ave Ext & Elm St, Concord, MA



Appendix D. Additional Resources

My Map



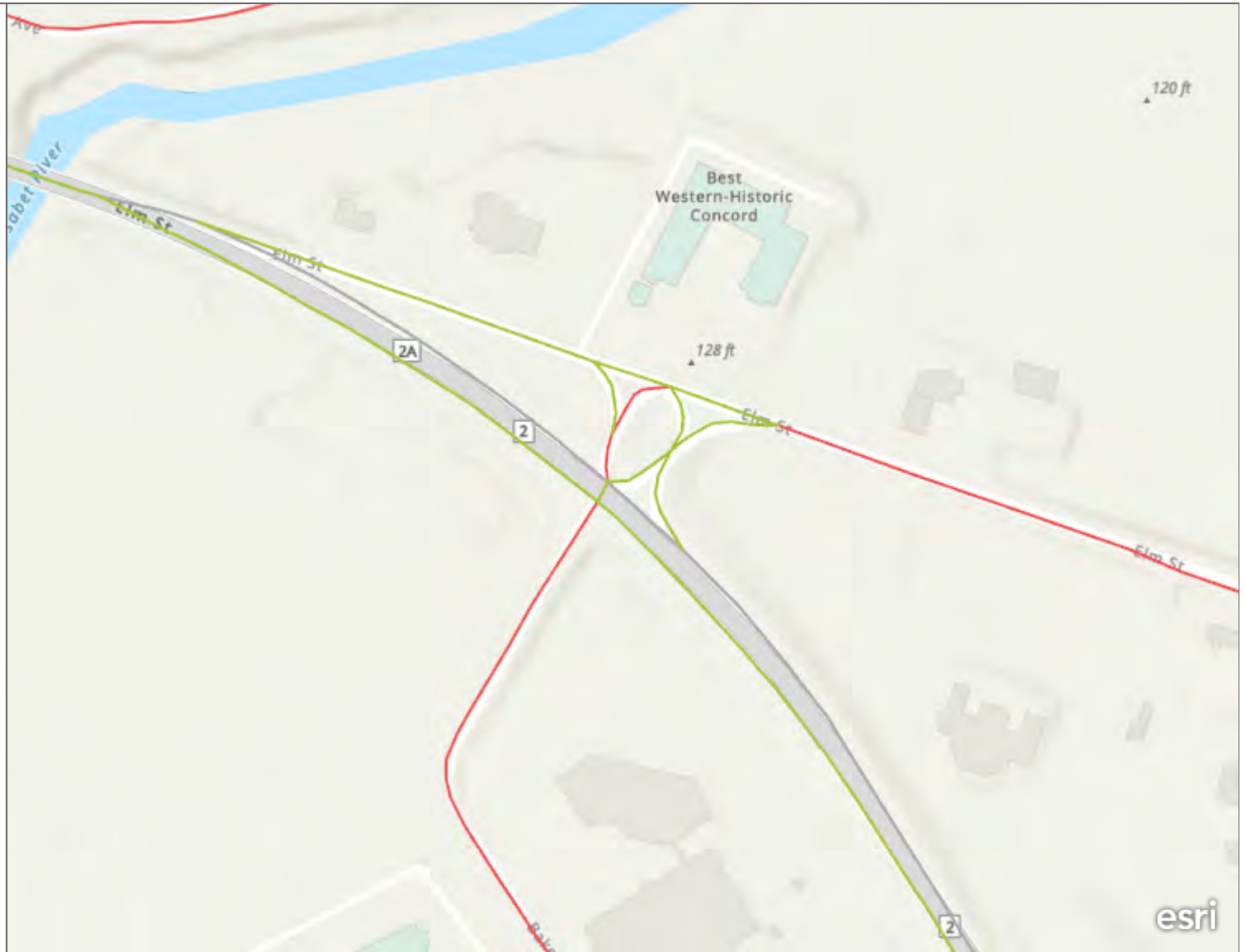
300ft

Esri Community Maps Contributors, MassGIS, BuildingFootprintUSA, Esri, HERE, Garmin, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

My Map

RoadInventory 2017

- City or Town accepted road
- Unaccepted by city or town
- Massachusetts Department of Transportation
- Department of Conservation and Recreation
- State Park or Forest
- Private
- US Air Force
- State Institutional
- Massachusetts Port Authority
- State college or university
- Other



300ft

Esri Community Maps Contributors, MassGIS, BuildingFootprintUSA, Esri, HERE, Garmin, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Carlisle

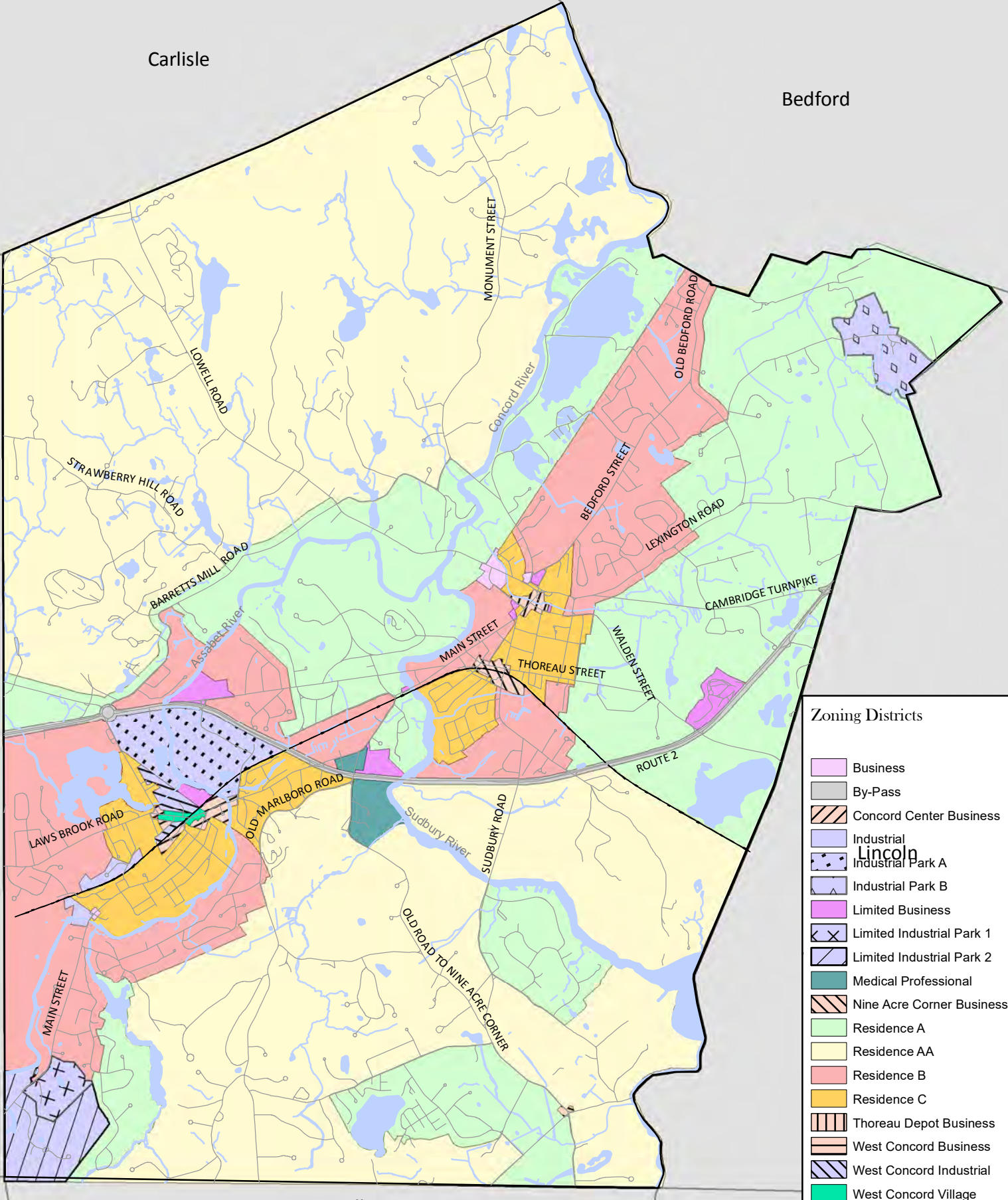
Bedford

Acton

Maynard

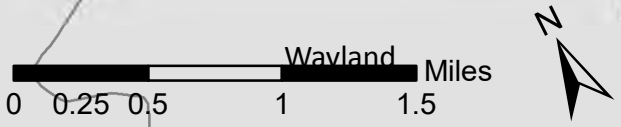
Sudbury

Sudbury Zoning Map



Zoning Districts

- Business
- By-Pass
- Concord Center Business
- Industrial Lincoln
- Industrial Park A
- Industrial Park B
- Limited Business
- Limited Industrial Park 1
- Limited Industrial Park 2
- Medical Professional
- Nine Acre Corner Business
- Residence A
- Residence AA
- Residence B
- Residence C
- Thoreau Depot Business
- West Concord Business
- West Concord Industrial
- West Concord Village



GEOMETRIC DESIGN	
Issue	Comment
A. Speed – (Design Speed; Speed Limit & Zoning; Sight Distance; Overtaking)	
<p>Are there speed-related issues along the corridor? Please consider the following elements:</p> <ul style="list-style-type: none"> • Horizontal and vertical alignment • Posted and advisory speeds • Driver compliance with speed limits • Approximate sight distance • Safe passing opportunities 	
B. Road alignment and cross section	
<p>With respect to the roadway alignment and cross-section please consider the appropriateness of the following elements:</p> <ul style="list-style-type: none"> • Functional class (Urban Principal Arterial) • Delineation of alignment; • Widths (lanes, shoulders, medians); • Sight distance for access points; • Cross-slopes • Curbs and gutters • Drainage features 	
C. Intersections	
<p>For intersections along the corridor please consider all potential safety issues. Some specific considerations should include the following:</p> <ul style="list-style-type: none"> • Intersections fit alignment (i.e. curvature) • Traffic control devices alert motorists as necessary • Sight distance and sight lines seem appropriate • Vehicles can safely slow/stop for turns • Conflict point management • Adequate spacing for various vehicle types • Capacity problems that result in safety problems 	
D. Auxiliary lanes	
<ul style="list-style-type: none"> • Do auxiliary lanes appear to be adequate? • Could the taper locations and alignments be causing safety deficiencies? • Are shoulder widths at merges causing safety deficiencies? 	

E. Clear zones and crash barriers	
<p>For the roadside the major considerations are clear zone issues and crash barriers. Consider the following:</p> <ul style="list-style-type: none"> • Do there appear to be clear zones issues? <ul style="list-style-type: none"> — Are hazards located too close the road? — Are side slopes acceptable? • Are suitable crash barriers (i.e, guard rails, curbs, etc.) appropriate for minimizing crash severity? • Barrier features: end treatments, visibility, etc. 	
F. Bridges and culverts – (if necessary)	
<p>Are there specific issues related to bridges and culverts that may result in safety concerns?</p>	
G. Pavement – (Defects, Skid Resistance, and Flooding)	
<ul style="list-style-type: none"> • Is the pavement free of defects including excessive roughness or rutting, potholes, loose material, edge drop-offs, etc. that could result in safety problems (for example, loss of steering control)? • Does the pavement appear to have adequate skid resistance, particularly on curves, steep grades and approaches to intersections? • Is the pavement free of areas where flooding or sheet flow of water could contribute to safety problems? • In general, is the pavement quality sufficient for safe travel of heavy and oversized vehicles? 	
H. Lighting (Lighting and Glare)	
<p>It is important to consider to the impacts of lighting. Some specifics include the following:</p> <ul style="list-style-type: none"> • Is lighting required and, if so, has it been adequately provided? • Are there glare issues resulting from headlights during night time operations or from sunlight? 	

TRAFFIC CONTROL DEVICES	
Issue	Comment
I. Signs	
<p>Signage is a critical element in providing a safe roadway environment. Please consider the following:</p> <ul style="list-style-type: none"> • Are all current signs visible (consider both night and day)? Are they conspicuous and clear? Are the correct signs used for each situation? • Does the retroreflectivity or illumination appear satisfactory? • Are there any concerns regarding sign supports? 	
J. Traffic signals	
<ul style="list-style-type: none"> • If present, do the traffic signals appear to be designed, installed, and operating correctly? • Is the signal processing the traffic efficiently? • Is the controller located in a safe position? (where it is unlikely to be hit, but maintenance access is safe) • Is there adequate sight distance to the ends of possible vehicle queues? 	
K. Marking and delineation	
<ul style="list-style-type: none"> • Is the line marking and delineation: <ul style="list-style-type: none"> — appropriate for the function of the road? — consistent along the route? — likely to be effective under all expected conditions? (day, night, wet, dry, fog, rising and setting sun, oncoming headlights, etc.) • Are centerlines, edgelines, and lane lines provided? If not, do drivers have adequate guidance? 	

ROADWAY ACTIVITY	
Issue	Comment
<p>With respect to roadway activity please consider safety elements related to the following:</p> <ul style="list-style-type: none"> • Pedestrians • Bicycles • Public transportation vehicles and riders • Emergency vehicles • Commercial vehicles • Slow moving vehicles 	

ENVIRONMENTAL CONSIDERATIONS	
Issue	Comment
Weather & Animals	
<p>From an environmental perspective it is important to consider any potential impacts. Most notably is likely to be the impacts of weather or animals, including:</p> <ul style="list-style-type: none"> • Possible effects of rain, fog, snow, ice, wind on design features. • Has snow fall accumulation been considered in the design (storage, sight distance around snowbanks, etc.)? • Are there any known animal travel/migration routes in surrounding areas which could affect design? 	

Appendix E. Road Safety Audit References

Road Safety Audit References

Massachusetts Traffic Safety Toolbox, Massachusetts Highway Department,
www.mhd.state.ma.us/safetytoolbox.

Road Safety Audits, A Synthesis of Highway Practice. NCHRP Synthesis 336. Transportation Research Board, National Cooperative Highway Research Program, 2004.

Road Safety Audits. Institute of Transportation Engineers and U.S. Department of Transportation, Federal Highway Administration, www.roadwaysafetyaudits.org.

FHWA Road Safety Audit Guidelines. U.S. Department of Transportation, Federal Highway Administration, 2006.

Road Safety Audit, 2nd edition. Austroads, 2000.

Road Safety Audits. ITE Technical Council Committee 4S-7. Institute of Transportation Engineers, February 1995.

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024

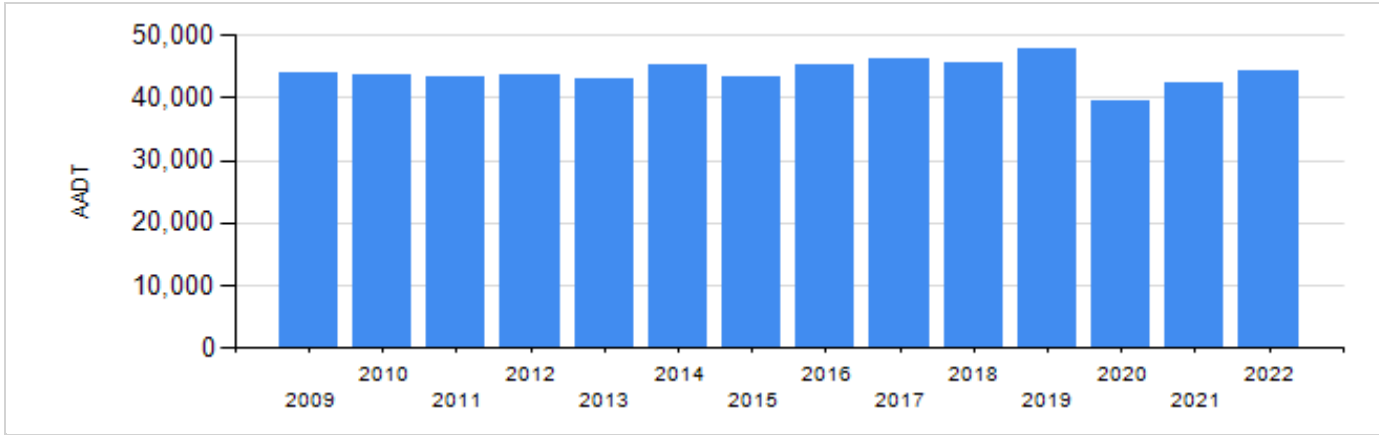


Historical Traffic Growth



AADT by Year Comparison for 1/1/2009 - 12/31/2022
Criteria: Location ID = 403, From 1/1/1900 To 12/31/2049 12:00:00 AM

District: Location ID: 403
County: Middlesex **Located On:** ELM STREET **LRS ID:** SR2 EB
Community: Concord **At:** REFORMATORY CIRCLE **LRS Point:** 121.2132



Year	AADT	% Change YOY
2009	44,145	1.1%
2010	43,592	-1.3%
2011	43,434	-0.4%
2012	43,615	0.4%
2013	42,945	-1.5%
2014	45,307	5.5%
2015	43,202	-4.6%
2016	45,131	4.5%
2017	46,307	2.6%
2018	45,632	-1.5%
2019	47,823	4.8%
2020	39,406	-17.6%
2021	42,380	7.5%
2022	44,364	4.7%

0.8% 2009-2019

0.2% 2012-2022

NOTE: Red text means percent change is >20%

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Background Developments

BACKGROUND DEVELOPMENT ASSUMPTIONS

Project Name: 400 Baker Avenue
 Project No: 15630.00
 Location: Concord, MA
 Date: Nov 2023

INTERSECTION	MOVEMENT	BACKGROUND DEVELOPMENTS										ROADWAY IMPROVEMENTS		TOTAL BACKGROUND DEVELOPMENTS	
		768 ELM ST		794 ELM ST		13B COMMONWEALTH AVE - RESIDENTIAL		13B COMMONWEALTH AVE - RETAIL		166 COMMONWEALTH AVE		MAIN STREET SIGNAL		AM	PM
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM		
1. Route 62 (Main Street) at Baker Avenue/Cottage Street															
Main Street (Route 62)	EB L EB T EB R					2	6	1	1	1	1			4	8
Main Street (Route 62)	WB L WB T WB R					2	6		1	1	5			3	12
Cottage Street	NB L NB T NB R														
Baker Avenue	SB L SB T SB R														
2. Main Street at Old Bridge Road/TD Bank Driveway															
Main Street (Route 62)	EB L EB T EB R					2	6	1	1	1	1			4	8
Main Street (Route 62)	WB L WB T WB R					2	6		1	1	5	5	5	5	12
Crest Street	NB L NB T NB R														
TD Bank Driveway	SB L SB T SB R														
3. Baker Avenue at Site Driveway/Trashology Driveway															
Site Driveway (300 Baker Avenue)	EB L EB T EB R														
Trashology Drive	WB L WB T WB R														
Baker Avenue	NB L NB T NB R														
Baker Avenue	SB L SB T SB R														
4. Baker Avenue Extension at Site Driveway															
Site Driveway (300 Baker Avenue)	EB L EB R														
Baker Avenue Extension	NB L NB T														
Baker Avenue Extension	SB T SB R														
5. Concord Turnpike (Route 2) at Baker Avenue Extension															
Concord Turnpike (Route 2)	EB L EB T EB R	87	43	63	22									150	65
		-38	-16	-55	-19									-93	-35
Concord Turnpike (Route 2)	WB T WB R	-22	-14	-50	-17									-72	-31
Baker Avenue Extension	NB L NB T NB R	59	35	57	19									116	54
Elm Street	SB L SB T	68	38	60	21									128	59

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Trip Generation

TRIP GENERATION SUMMARY

292 & 294 Baker Avenue
 Concord, MA
 15630.00

LUC SIZE	Full Build					
	Residential ¹					
	Gross Trips	Person Trips ²	Vehicle Trips ³	Transit Trips	Walk/Bike Trips	WFH Trips
		1.18	1.00			
Weekday Daily						
Enter	456	538	430	54	-	54
Exit	<u>456</u>	<u>538</u>	<u>430</u>	<u>54</u>	<u>-</u>	<u>54</u>
Total	912	1,076	860	108	-	108
Weekday Morning Peak Hour						
Enter	18	21	17	2	-	2
Exit	<u>59</u>	<u>70</u>	<u>56</u>	<u>7</u>	<u>-</u>	<u>7</u>
Total	77	91	73	9	-	9
Weekday Evening Peak Hour						
Enter	48	57	46	6	-	6
Exit	<u>31</u>	<u>37</u>	<u>30</u>	<u>4</u>	<u>-</u>	<u>4</u>
Total	79	94	76	10	-	10

¹ Trip generation estimate based on ITE LUC 220 (Multifamily Housing (Mid-Rise)), using fitted curve equations.

² VOR rates for person trips based on Summary of Travel Trends, 2017 National Household Travel Survey, USDOT FHWA.

³ Residential VOR rates based on US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Census Tract 3611, Census Block Group :

MODE SHARE & VOR ASSUMPTIONS

292 & 294 Baker Avenue
 Concord, MA
 15630.00

MODE SHARE

Mode Share	Full Build Mode Splits
	Residential ¹
Drive	80%
Transit	10%
Walk / Bike	0%
<u>WFH</u>	<u>10%</u>
Total	100%

¹ Based on US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Census Tract 3611, Census Block Group 3.

VOR

	ITE Raw Vehicle Trips to Person Trips ¹	Local Person Trips to Vehicle Trips ²
Residents	1.18	1.00

¹ Based on Summary of Travel Trends, 2017 National Household Travel Survey, USDOT FHA, Table 16.

² Residential VOR based on US Census Bureau, 2016-2020 American Community Survey 5-Year Estimates, Census Tract 3611, Census Block Group 3.

ITE TRIP GENERATION WORKSHEET
(11th Edition)

LANDUSE: Multifamily Housing (Mid-Rise) - Not Close to Rail Transit: 4-10 stories
LANDUSE CODE: 221 Independent Variable --- Number of Dwelling Units
SETTING/LOCATION: General Urban/Suburban
JOB NAME: 292 & 294 Baker Avenue 201 units
JOB NUMBER: 15630.00

WEEKDAY

RATES:	# Studies	R ²	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	11	0.93	4.54	3.76	5.40	201	60	330	50%	50%
AM PEAK OF GENERATOR	23	0.89	0.35	0.13	0.53	226	21	1,168	26%	74%
PM PEAK OF GENERATOR	22	0.93	0.39	0.19	0.60	221	21	1,168	60%	40%
AM PEAK (ADJACENT ST)	30	0.91	0.37	0.15	0.53	173	26	490	23%	77%
PM PEAK (ADJACENT ST)	31	0.91	0.39	0.19	0.57	169	26	490	61%	39%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	913	457	457	912	456	456
AM PEAK OF GENERATOR	70	18	52	70	18	52
PM PEAK OF GENERATOR	78	47	31	80	48	32
AM PEAK (ADJACENT ST)	74	17	57	77	18	59
PM PEAK (ADJACENT ST)	78	48	31	79	48	31

SATURDAY

RATES:	# Studies	R ²	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	5	0.91	4.57	4.03	5.31	250	140	330	50%	50%
PEAK OF GENERATOR	5	0.92	0.39	0.34	0.43	250	140	330	51%	49%

TRIPS:


	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	920	460	460	922	461	461
PEAK OF GENERATOR	78	40	38	81	41	40

SUNDAY

RATES:	# Studies	R ²	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	5	0.85	3.77	3.06	4.24	250	140	330	50%	50%
PEAK OF GENERATOR	5	0.79	0.32	0.26	0.42	250	140	330	55%	45%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	758	379	379	748	374	374
PEAK OF GENERATOR	64	35	29	70	38	31

MEANS OF TRANSPORTATION TO WORK	
	
Note: The table shown may have been modified by user selections. Some information may be missing.	
DATA NOTES	
TABLE ID:	B08301
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2020
DATASET:	ACSDT5Y2020
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Workers 16 years and over
FTP URL:	None
API URL:	https://api.census.gov/data/2020/acs/acs5
USER SELECTIONS	
TABLES	B08301
GEOS	Block Group 3; Census Tract 3611; Middlesex County; Massachusetts
EXCLUDED COLUMNS	None
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	
PIVOT COLUMNS	None
PIVOT MODE	Off
ROW GROUPS	None
VALUE COLUMNS	None
WEB ADDRESS	https://data.census.gov/table?q=b08301&g=1500000US250173611003&tid=ACSDT5Y2020.B08301
TABLE NOTES	<p>Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2020, the 2020 Census provides the official counts of the population and housing units for the nation, states, counties, cities, and towns. For 2016 to 2019, the Population Estimates Program provides estimates of the population for the nation, states, counties, cities, and towns and intercensal housing unit estimates for the nation, states, and counties.</p> <p>Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.</p> <p>Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.</p> <p>Source: U.S. Census Bureau, 2016-2020 American Community Survey 5-Year Estimates</p> <p>Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not</p> <p>Workers include members of the Armed Forces and civilians who were at work last week.</p> <p>2019 ACS data products include updates to several categories of the existing means of transportation question. For more information, see: Change to Means of Transportation.</p> <p>The 2016-2020 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.</p> <p>Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.</p>

	<p>Explanation of Symbols:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.**** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the</p>
COLUMN NOTES	None

Table: ACSDT5Y2020.B08301

	Block Group 3, Census Tract 3611, Middlesex County, Massachusetts		
Label	Estimate	Margin of Error	
Total:	397	±148	
Car, truck, or van:	303	±157	
Drove alone	303	±157	
Carpooled:	0	±13	
In 2-person carpool	0	±13	
In 3-person carpool	0	±13	
In 4-person carpool	0	±13	
In 5- or 6-person carpool	0	±13	
In 7-or-more-person carpool	0	±13	
Public transportation (excluding taxicab):	41	±54	
Bus	0	±13	
Subway or elevated rail	0	±13	
Long-distance train or commuter rail	41	±54	
Light rail, streetcar or trolley (carro público in Puerto Rico)	0	±13	
Ferryboat	0	±13	
Taxicab	0	±13	
Motorcycle	0	±13	
Bicycle	0	±13	
Walked	0	±13	
Other means	0	±13	
Worked from home	53	±54	
Residential Mode Split Calculation	Estimate	Percentage	Final Mode Split
Auto	303	76%	80%
Transit	41	10%	10%
Bike/Walk	0	0%	0%
WFH	53	13%	10%
Total	397	100%	100%
VOR Calculation	Estimate	Percentage	VOR
1	303	100%	1.00
2	0	0%	
3	0	0%	
4	0	0%	
5 to 6	0	0%	
7	0	0%	
Total	303	100%	

ITE TRIP GENERATION WORKSHEET
 (11th Edition, 2021)

LANDUSE: Research & Development Center Trip Type --- Vehicle
LANDUSE CODE: 760 Independent Variable --- 1,000 Sq. Feet Gross Floor Area
SETTING/LOCATION: General Urban/Suburban
JOB NAME: 292 & 294 Baker Avenue (By-Right) **FLOOR AREA (KSF):** 90
JOB NUMBER: 15630.00

WEEKDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	22	0.89	11.08	3.48	24.95	179	22	705	50%	50%
AM PEAK (ADJACENT ST)	39	0.70	1.03	0.17	3.73	173	10	800	82%	18%
PM PEAK (ADJACENT ST)	39	0.70	0.98	0.13	4.13	173	10	800	16%	84%

TRIPS:	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	997	499	499	1,121	560	560
AM PEAK (ADJACENT ST)	93	76	17	105	86	19
PM PEAK (ADJACENT ST)	88	14	74	101	16	85

SATURDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	19	0.68	1.91	0.18	6.96	165	22	650	50%	50%
PEAK OF GENERATOR	13	0.65	0.24	0.08	0.71	146	46	608	Not Available	

TRIPS:	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	172	86	86	222	111	111
PEAK OF GENERATOR	22	--	--	26	--	--

SUNDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	19	--	1.18	0.13	4.18	165	22	650	50%	50%
PEAK OF GENERATOR	13	--	0.16	0.05	0.64	146	46	608	Not Available	

TRIPS:	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	106	53	53	--	--	--
PEAK OF GENERATOR	14	--	--	--	--	--

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Trip Distribution

Trip Distribution Calculations

Journey to Work					Total of Residence							Cumulative Total							
Home	Work	Count	Percent of Total	Cumulative Total	Route 2 (west)	Cottage St (south)	Old Bridge Rd (south/east)	Route 62 (west)	Route 62 (east)	Elm St (east)	Total	Route 2 (west)	Cottage St (south)	Old Bridge Rd (south/east)	Route 62 (west)	Route 62 (east)	Elm St (east)	Total	
Concord town, Middlesex County, Massachusetts	Concord town, Middlesex County, Massachusetts	2,530	35.7%	35.7%		10%	5%	35%	30%	20%	100%	0.0%	3.6%	1.8%	12.5%	10.7%	7.1%	35.7%	
Concord town, Middlesex County, Massachusetts	Boston city, Suffolk County, Massachusetts	1,250	17.6%	53.4%			5%		95%		100%	0.0%	0.0%	0.9%	0.0%	16.8%	0.0%	17.6%	
Concord town, Middlesex County, Massachusetts	Waltham city, Middlesex County, Massachusetts	600	8.5%	61.8%					95%		100%	0.0%	0.0%	0.4%	0.0%	8.0%	0.0%	8.5%	
Concord town, Middlesex County, Massachusetts	Cambridge city, Middlesex County, Massachusetts	520	7.3%	69.2%			5%		95%		100%	0.0%	0.0%	0.4%	0.0%	7.0%	0.0%	7.3%	
Concord town, Middlesex County, Massachusetts	Acton town, Middlesex County, Massachusetts	240	3.4%	72.5%	100%						100%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	
Concord town, Middlesex County, Massachusetts	Burlington town, Middlesex County, Massachusetts	215	3.0%	75.6%					90%	10%	100%	0.0%	0.0%	0.0%	0.0%	2.7%	0.3%	3.0%	
Concord town, Middlesex County, Massachusetts	Lexington town, Middlesex County, Massachusetts	215	3.0%	78.6%					90%	10%	100%	0.0%	0.0%	0.0%	0.0%	2.7%	0.3%	3.0%	
Concord town, Middlesex County, Massachusetts	Newton city, Middlesex County, Massachusetts	145	2.0%	80.7%			5%		95%		100%	0.0%	0.0%	0.1%	0.0%	1.9%	0.0%	2.0%	
Concord town, Middlesex County, Massachusetts	Bedford town, Middlesex County, Massachusetts	115	1.6%	82.3%				25%	75%	100%	100%	0.0%	0.0%	0.0%	0.0%	0.4%	1.2%	1.6%	
Concord town, Middlesex County, Massachusetts	Natick town, Middlesex County, Massachusetts	115	1.6%	83.9%		50%			50%		100%	0.0%	0.8%	0.0%	0.0%	0.8%	0.0%	1.6%	
Concord town, Middlesex County, Massachusetts	Wellesley town, Norfolk County, Massachusetts	100	1.4%	85.3%			5%		95%		100%	0.0%	0.0%	0.1%	0.0%	1.3%	0.0%	1.4%	
Concord town, Middlesex County, Massachusetts	Sudbury town, Middlesex County, Massachusetts	95	1.3%	86.7%		100%					100%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	1.3%	
Concord town, Middlesex County, Massachusetts	Arlington town, Middlesex County, Massachusetts	85	1.2%	87.9%			5%		95%		100%	0.0%	0.0%	0.1%	0.0%	1.1%	0.0%	1.2%	
Concord town, Middlesex County, Massachusetts	Watertown Town city, Middlesex County, Massachusetts	80	1.1%	89.0%			5%		95%		100%	0.0%	0.0%	0.1%	0.0%	1.1%	0.0%	1.1%	
Concord town, Middlesex County, Massachusetts	Billerica town, Middlesex County, Massachusetts	75	1.1%	90.0%				25%	75%	100%	100%	0.0%	0.0%	0.0%	0.0%	0.3%	0.8%	1.1%	
Concord town, Middlesex County, Massachusetts	Cheimsford town, Middlesex County, Massachusetts	70	1.0%	91.0%		100%					100%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	
Concord town, Middlesex County, Massachusetts	Westford town, Middlesex County, Massachusetts	70	1.0%	92.0%		100%					100%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	
Concord town, Middlesex County, Massachusetts	Carlisle town, Middlesex County, Massachusetts	60	0.8%	92.9%					25%		100%	0.6%	0.0%	0.0%	0.0%	0.2%	0.0%	0.8%	
Concord town, Middlesex County, Massachusetts	Framingham town, Middlesex County, Massachusetts	60	0.8%	93.7%		100%					100%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.8%	
Concord town, Middlesex County, Massachusetts	Hudson town, Middlesex County, Massachusetts	60	0.8%	94.6%		25%		75%			100%	0.0%	0.2%	0.0%	0.6%	0.0%	0.0%	0.8%	
Concord town, Middlesex County, Massachusetts	Lincoln town, Middlesex County, Massachusetts	60	0.8%	95.4%			5%		100%		105%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.9%	
Concord town, Middlesex County, Massachusetts	Maynard town, Middlesex County, Massachusetts	60	0.8%	96.3%		25%		75%			100%	0.0%	0.2%	0.0%	0.6%	0.0%	0.0%	0.8%	
Concord town, Middlesex County, Massachusetts	Wayland town, Middlesex County, Massachusetts	50	0.7%	97.0%			50%			50%	100%	0.0%	0.4%	0.0%	0.0%	0.4%	0.0%	0.7%	
Concord town, Middlesex County, Massachusetts	Tewksbury town, Middlesex County, Massachusetts	45	0.6%	97.6%		50%			25%	25%	100%	0.3%	0.0%	0.0%	0.0%	0.2%	0.2%	0.6%	
Concord town, Middlesex County, Massachusetts	Needham town, Norfolk County, Massachusetts	45	0.6%	98.2%			5%		95%		100%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.6%	
Concord town, Middlesex County, Massachusetts	Nashua city, Hillsborough County, New Hampshire	45	0.6%	98.9%	100%						100%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	
Concord town, Middlesex County, Massachusetts	Danvers town, Essex County, Massachusetts	40	0.6%	99.4%					95%		100%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.6%	
Concord town, Middlesex County, Massachusetts	Medford city, Middlesex County, Massachusetts	40	0.6%	100.0%			5%		95%		100%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.6%	
												7%	7%	4%	14%	58%	10%	100%	
Source: CTPP 2012-2016 Journey to Work data												FINAL	10%	5%	5%	15%	55%	10%	100%

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Synchro Capacity Analyses



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕		↖	↗	
Traffic Volume (vph)	115	580	20	5	320	75	45	100	5	30	35	60
Future Volume (vph)	115	580	20	5	320	75	45	100	5	30	35	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		0	50		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1836	0	0	1777	0	0	1775	0	1805	1626	0
Flt Permitted	0.534				0.992			0.849		0.789		
Satd. Flow (perm)	975	1836	0	0	1764	0	0	1529	0	1499	1626	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		5			35						86	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		634			188			608			900	
Travel Time (s)		14.4			4.3			16.6			24.5	
Confl. Peds. (#/hr)	2		5	5		2	1					1
Confl. Bikes (#/hr)			2			3						
Peak Hour Factor	0.95	0.95	0.95	0.85	0.85	0.85	0.89	0.89	0.89	0.70	0.70	0.70
Heavy Vehicles (%)	4%	3%	0%	40%	4%	0%	5%	3%	40%	0%	3%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	632	0	0	470	0	0	169	0	43	136	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Total Split (s)	41.0	41.0		41.0	41.0		19.0	19.0		19.0	19.0	
Total Split (%)	68.3%	68.3%		68.3%	68.3%		31.7%	31.7%		31.7%	31.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0			5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	24.4	24.4			24.4			10.7		10.7	10.7	
Actuated g/C Ratio	0.62	0.62			0.62			0.27		0.27	0.27	
v/c Ratio	0.20	0.55			0.42			0.41		0.11	0.27	
Control Delay	6.7	9.1			7.1			19.5		16.3	9.5	
Queue Delay	0.0	0.0			0.0			0.0		0.0	0.0	
Total Delay	6.7	9.1			7.1			19.5		16.3	9.5	
LOS	A	A			A			B		B	A	
Approach Delay		8.7			7.1			19.5			11.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	13	90			55			32		7	9	
Queue Length 95th (ft)	39	200			115			102		26	34	
Internal Link Dist (ft)		554			108			528			820	
Turn Bay Length (ft)	75									50		
Base Capacity (vph)	829	1563			1506			682		669	773	
Starvation Cap Reductn	0	0			0			0		0	0	
Spillback Cap Reductn	0	0			0			0		0	0	
Storage Cap Reductn	0	0			0			0		0	0	
Reduced v/c Ratio	0.15	0.40			0.31			0.25		0.06	0.18	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 39.2
 Natural Cycle: 40
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 9.7
 Intersection LOS: A
 Intersection Capacity Utilization 80.7%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 10: Cottage St./Baker Ave. & Route 62



Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	575	40	2	390	2	10	0	5	0	0	0
Future Vol, veh/h	2	575	40	2	390	2	10	0	5	0	0	0
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	84	84	84	75	75	75	92	92	92
Heavy Vehicles, %	0	3	5	0	3	0	33	0	17	2	2	2
Mvmt Flow	2	639	44	2	464	2	13	0	7	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	470	0	-	640	0	0	1113	640	1120	1117	469	
Stage 1	-	-	-	-	-	-	644	644	-	473	473	-
Stage 2	-	-	-	-	-	-	469	474	-	647	644	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.43	6.5	6.37	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.5	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.5	-	6.12	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.797	4	3.453	3.518	4.018	3.318
Pot Cap-1 Maneuver	1102	-	0	954	-	-	162	209	450	184	207	594
Stage 1	-	-	0	-	-	-	414	471	-	572	558	-
Stage 2	-	-	0	-	-	-	520	561	-	460	468	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1098	-	-	953	-	-	161	207	450	180	205	592
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	207	-	180	205	-
Stage 1	-	-	-	-	-	-	412	469	-	569	555	-
Stage 2	-	-	-	-	-	-	518	558	-	452	466	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	24.5	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	205	1098	-	953	-	-	-
HCM Lane V/C Ratio	0.098	0.002	-	0.002	-	-	-
HCM Control Delay (s)	24.5	8.3	0	8.8	-	-	0
HCM Lane LOS	C	A	A	A	-	-	A
HCM 95th %tile Q(veh)	0.3	0	-	0	-	-	-

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	25	0	0	1	105	170	0	0	90	5
Future Vol, veh/h	2	0	25	0	0	1	105	170	0	0	90	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	25	25	25	83	83	83	88	88	88
Heavy Vehicles, %	0	0	0	0	0	100	1	4	0	0	4	0
Mvmt Flow	3	0	34	0	0	4	127	205	0	0	102	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	568	566	107	581	569	205	110	0	0	205	0	0
Stage 1	107	107	-	459	459	-	-	-	-	-	-	-
Stage 2	461	459	-	122	110	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	7.2	4.11	-	-	4.1	-	-
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	4.2	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	437	436	953	428	435	640	1486	-	-	1378	-	-
Stage 1	903	811	-	586	570	-	-	-	-	-	-	-
Stage 2	584	570	-	887	808	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	401	393	951	382	392	640	1484	-	-	1378	-	-
Mov Cap-2 Maneuver	401	393	-	382	392	-	-	-	-	-	-	-
Stage 1	814	809	-	529	515	-	-	-	-	-	-	-
Stage 2	524	515	-	855	806	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.7	2.9	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1484	-	-	863	640	1378	-	-
HCM Lane V/C Ratio	0.085	-	-	0.043	0.006	-	-	-
HCM Control Delay (s)	7.7	0	-	9.4	10.7	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	0	0	-	-

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	Y	
Traffic Vol, veh/h	55	15	15	110	215	175
Future Vol, veh/h	55	15	15	110	215	175
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	77	77	76	76	90	90
Heavy Vehicles, %	4	7	15	6	1	0
Mvmt Flow	71	19	20	145	239	194

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	521	336	433	0	0
Stage 1	336	-	-	-	-
Stage 2	185	-	-	-	-
Critical Hdwy	6.44	6.27	4.25	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-
Follow-up Hdwy	3.536	3.363	2.335	-	-
Pot Cap-1 Maneuver	512	695	1061	-	-
Stage 1	719	-	-	-	-
Stage 2	842	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	502	695	1061	-	-
Mov Cap-2 Maneuver	502	-	-	-	-
Stage 1	705	-	-	-	-
Stage 2	842	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1061	-	534	-	-
HCM Lane V/C Ratio	0.019	-	0.17	-	-
HCM Control Delay (s)	8.5	0	13.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

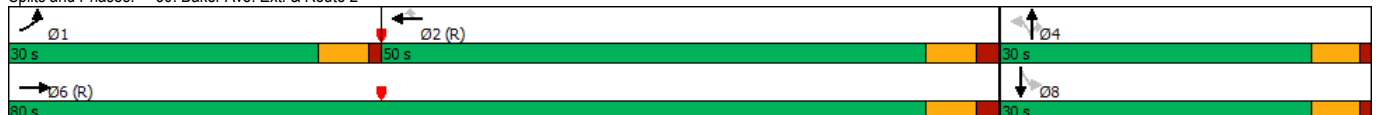


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗			↖↗	↖	↖	↖	↖	↖	↖	↖
Traffic Volume (vph)	375	1355	280	0	1075	90	75	25	15	10	130	0
Future Volume (vph)	375	1355	280	0	1075	90	75	25	15	10	130	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		250	200		200	0		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3371	0	0	3406	1568	1736	1827	1615	1480	1881	0
Flt Permitted	0.950						0.545			0.734		
Satd. Flow (perm)	1770	3371	0	0	3406	1568	996	1827	1615	1143	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48				96			79			
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		476			2464			521			212	
Travel Time (s)		8.1			42.0			14.2			5.8	
Peak Hour Factor	0.96	0.96	0.96	0.94	0.94	0.94	0.69	0.69	0.69	0.93	0.93	0.93
Heavy Vehicles (%)	2%	5%	1%	0%	6%	3%	4%	4%	0%	22%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	391	1703	0	0	1144	96	109	36	22	11	140	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	1	6			2			4			8	
Permitted Phases						2	4		4	8		
Detector Phase	1	6			2	2	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	6.0	10.0			10.0	10.0	6.0	6.0	6.0	6.0	6.0	
Minimum Split (s)	11.0	26.0			26.0	26.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	30.0	80.0			50.0	50.0	30.0	30.0	30.0	30.0	30.0	
Total Split (%)	27.3%	72.7%			45.5%	45.5%	27.3%	27.3%	27.3%	27.3%	27.3%	
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	2.0			2.0	2.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0			6.0	6.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	29.4	83.0			48.6	48.6	16.0	16.0	16.0	16.0	16.0	
Actuated g/C Ratio	0.27	0.75			0.44	0.44	0.15	0.15	0.15	0.15	0.15	
v/c Ratio	0.83	0.67			0.76	0.13	0.76	0.14	0.07	0.07	0.51	
Control Delay	54.2	8.9			31.0	4.7	74.5	39.3	0.5	37.9	48.8	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	54.2	8.9			31.0	4.7	74.5	39.3	0.5	37.9	48.8	
LOS	D	A			C	A	E	D	A	D	D	
Approach Delay		17.3			29.0			57.2			48.0	
Approach LOS		B			C			E			D	
Queue Length 50th (ft)	250	255			366	0	75	22	0	7	92	
Queue Length 95th (ft)	#449	428			470	32	94	37	0	22	144	
Internal Link Dist (ft)		396			2384			441			132	
Turn Bay Length (ft)	350					250	200		200			
Base Capacity (vph)	472	2555			1506	746	226	415	428	259	427	
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.83	0.67			0.76	0.13	0.48	0.09	0.05	0.04	0.33	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 30 (27%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 24.4
 Intersection Capacity Utilization 79.8%
 Intersection LOS: C
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 30: Baker Ave. Ext. & Route 2





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔			↔			↔		↔	↔	
Traffic Volume (vph)	45	450	35	0	700	30	95	35	5	60	65	150
Future Volume (vph)	45	450	35	0	700	30	95	35	5	60	65	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		0	50		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1858	0	0	1853	0	0	1788	0	1805	1659	0
Flt Permitted	0.179							0.617		0.728		
Satd. Flow (perm)	340	1858	0	0	1853	0	0	1139	0	1383	1659	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		10			5						158	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		634			188			608			900	
Travel Time (s)		14.4			4.3			16.6			24.5	
Confl. Peds. (#/hr)	3		4	4		3	3					3
Confl. Bikes (#/hr)			2			1						
Peak Hour Factor	0.86	0.86	0.86	0.90	0.90	0.90	0.88	0.88	0.88	0.89	0.89	0.89
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	1%	3%	17%	0%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	564	0	0	811	0	0	154	0	67	242	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0		23.0	23.0	
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%		38.3%	38.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	25.9	25.9		25.9	25.9		12.0	12.0		12.0	12.0	
Actuated g/C Ratio	0.53	0.53		0.53	0.53		0.25	0.25		0.25	0.25	
v/c Ratio	0.29	0.57		0.82	0.82		0.55	0.20		0.46	0.46	
Control Delay	12.2	10.5		18.8	18.8		25.4	17.3		9.8	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.2	10.5		18.8	18.8		25.4	17.3		9.8	9.8	
LOS	B	B		B	B		C	B		A	A	
Approach Delay		10.6		18.8	18.8		25.4			11.4	11.4	
Approach LOS		B		B	B		C			B	B	
Queue Length 50th (ft)	7	91		165	165		41	16		21	21	
Queue Length 95th (ft)	30	187		#438	#438		91	43		68	68	
Internal Link Dist (ft)		554		108	108		528			820	820	
Turn Bay Length (ft)	75							50				
Base Capacity (vph)	236	1294		1289	1289		446	542		746	746	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.22	0.44		0.63	0.63		0.35	0.12		0.32	0.32	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 48.5
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 15.5
 Intersection LOS: B
 Intersection Capacity Utilization 71.4%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Cottage St./Baker Ave. & Route 62



Intersection												
Int Delay, s/veh	9.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↔			↕			↕	
Traffic Vol, veh/h	1	495	20	0	635	5	95	5	5	1	0	2
Future Vol, veh/h	1	495	20	0	635	5	95	5	5	1	0	2
Conflicting Peds, #/hr	6	0	3	3	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	85	85	85	38	38	38
Heavy Vehicles, %	0	1	0	0	1	0	3	0	0	0	0	0
Mvmt Flow	1	563	23	0	722	6	112	6	6	3	0	5
Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	734	0	-	-	-	0	1293	1299	563	1302	1296	731
Stage 1	-	-	-	-	-	-	565	565	-	731	731	-
Stage 2	-	-	-	-	-	-	728	734	-	571	565	-
Critical Hdwy	4.1	-	-	-	-	-	7.13	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.527	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	880	-	0	0	-	-	139	163	530	139	164	425
Stage 1	-	-	0	0	-	-	508	511	-	416	430	-
Stage 2	-	-	0	0	-	-	413	429	-	509	511	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	876	-	-	-	-	-	137	162	530	133	163	423
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	162	-	133	163	-
Stage 1	-	-	-	-	-	-	507	510	-	413	428	-
Stage 2	-	-	-	-	-	-	408	427	-	497	510	-
Approach	EB	WB			NB			SB				
HCM Control Delay, s	0	0			103.1			20.2				
HCM LOS					F			C				
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1						
Capacity (veh/h)	143	876	-	-	-	245						
HCM Lane V/C Ratio	0.864	0.001	-	-	-	0.032						
HCM Control Delay (s)	103.1	9.1	0	-	-	20.2						
HCM Lane LOS	F	A	A	-	-	C						
HCM 95th %tile Q(veh)	5.7	0	-	-	-	0.1						

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	85	0	0	0	20	90	0	0	175	2
Future Vol, veh/h	1	0	85	0	0	0	20	90	0	0	175	2
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	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	92	92	92	85	85	85	77	77	77
Heavy Vehicles, %	0	0	0	2	2	2	5	1	2	0	0	0
Mvmt Flow	1	0	97	0	0	0	24	106	0	0	227	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	383	383	229	431	384	106	230	0	0	106	0	0
Stage 1	229	229	-	154	154	-	-	-	-	-	-	-
Stage 2	154	154	-	277	230	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.15	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.245	-	-	2.2	-	-
Pot Cap-1 Maneuver	579	553	815	535	550	948	1320	-	-	1498	-	-
Stage 1	778	718	-	848	770	-	-	-	-	-	-	-
Stage 2	853	774	-	729	714	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	571	542	815	465	540	948	1320	-	-	1498	-	-
Mov Cap-2 Maneuver	571	542	-	465	540	-	-	-	-	-	-	-
Stage 1	763	718	-	832	755	-	-	-	-	-	-	-
Stage 2	837	759	-	643	714	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	0	1.4	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1320	-	-	811	-	1498	-	-
HCM Lane V/C Ratio	0.018	-	-	0.121	-	-	-	-
HCM Control Delay (s)	7.8	0	-	10	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0	-	-

Intersection						
Int Delay, s/veh	5.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	165	20	10	205	80	40
Future Vol, veh/h	165	20	10	205	80	40
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	73	73	77	77	77	77
Heavy Vehicles, %	0	0	8	1	0	0
Mvmt Flow	226	27	13	266	104	52

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	422	130	156	0	0
Stage 1	130	-	-	-	-
Stage 2	292	-	-	-	-
Critical Hdwy	6.4	6.2	4.18	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.272	-	-
Pot Cap-1 Maneuver	592	925	1388	-	-
Stage 1	901	-	-	-	-
Stage 2	762	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	585	925	1388	-	-
Mov Cap-2 Maneuver	585	-	-	-	-
Stage 1	891	-	-	-	-
Stage 2	762	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	0.4	0
HCM LOS	C		

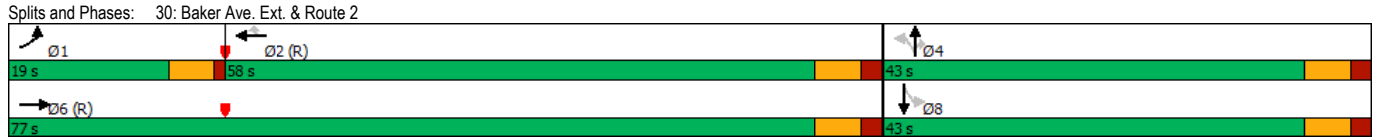
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1388	-	609	-	-
HCM Lane V/C Ratio	0.009	-	0.416	-	-
HCM Control Delay (s)	7.6	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗			↖↗	↖	↖	↖	↖	↖	↖	↖
Traffic Volume (vph)	155	1190	55	0	1205	30	230	65	55	10	50	0
Future Volume (vph)	155	1190	55	0	1205	30	230	65	55	10	50	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		250	200		200	0		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3517	0	0	3574	1615	1805	1900	1615	1805	1900	0
Flt Permitted	0.950						0.706			0.707		
Satd. Flow (perm)	1787	3517	0	0	3574	1615	1341	1900	1615	1343	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				73			73			
Link Speed (mph)		40			40			25				25
Link Distance (ft)		476			2464			521				212
Travel Time (s)		8.1			42.0			14.2				5.8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.84	0.84	0.84	0.64	0.64	0.64
Heavy Vehicles (%)	1%	2%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	1311	0	0	1268	32	274	77	65	16	78	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	1	6			2			4				8
Permitted Phases						2	4		4	8		
Detector Phase	1	6			2	2	4	4	4	8		8
Switch Phase												
Minimum Initial (s)	6.0	10.0			10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)	11.0	26.0			26.0	26.0	22.0	22.0	22.0	22.0		22.0
Total Split (s)	19.0	77.0			58.0	58.0	43.0	43.0	43.0	43.0		43.0
Total Split (%)	15.8%	64.2%			48.3%	48.3%	35.8%	35.8%	35.8%	35.8%		35.8%
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None	None		None
Act Effct Green (s)	14.6	78.6			59.1	59.1	29.4	29.4	29.4	29.4		29.4
Actuated g/C Ratio	0.12	0.66			0.49	0.49	0.24	0.24	0.24	0.24		0.24
v/c Ratio	0.75	0.57			0.72	0.04	0.84	0.17	0.14	0.05		0.17
Control Delay	72.5	13.4			28.5	0.1	63.9	34.3	6.6	31.5		34.3
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	72.5	13.4			28.5	0.1	63.9	34.3	6.6	31.5		34.3
LOS	E	B			C	A	E	C	A	C		C
Approach Delay		20.0			27.8			49.4				33.9
Approach LOS		B			C			D				C
Queue Length 50th (ft)	121	272			415	0	201	47	0	9		48
Queue Length 95th (ft)	#235	396			540	1	258	75	24	18		57
Internal Link Dist (ft)		396			2384			441				132
Turn Bay Length (ft)	350					250	200		200			
Base Capacity (vph)	225	2307			1758	832	413	585	548	414		585
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.72	0.57			0.72	0.04	0.66	0.13	0.12	0.04		0.13

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 27.2
 Intersection LOS: C
 Intersection Capacity Utilization 75.5%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕			↕			↕		↔	↕	↔
Traffic Volume (vph)	125	630	20	5	345	80	50	105	5	30	40	65
Future Volume (vph)	125	630	20	5	345	80	50	105	5	30	40	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		0	50		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1836	0	0	1778	0	0	1780	0	1805	1631	0
Flt Permitted	0.531				0.993			0.853		0.754		
Satd. Flow (perm)	969	1836	0	0	1767	0	0	1541	0	1433	1631	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		5			33						71	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		634			188			608			900	
Travel Time (s)		14.4			4.3			16.6			24.5	
Confl. Peds. (#/hr)	2		5	5		2	1					1
Confl. Bikes (#/hr)			2			3						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	3%	0%	40%	4%	0%	5%	3%	40%	0%	3%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	707	0	0	467	0	0	173	0	33	114	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Total Split (s)	40.0	40.0		40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	26.6	26.6		26.6	26.6		11.3	11.3		11.3	11.3	
Actuated g/C Ratio	0.64	0.64		0.64	0.64		0.27	0.27		0.27	0.27	
v/c Ratio	0.22	0.60		0.41	0.41		0.42	0.09		0.23	0.23	
Control Delay	7.0	10.1		7.1	7.1		20.4	16.8		9.8	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.0	10.1		7.1	7.1		20.4	16.8		9.8	9.8	
LOS	A	B		A	A		C	B		A	A	
Approach Delay		9.6		7.1	7.1		20.4	11.3		11.3	11.3	
Approach LOS		A		A	A		C	B		B	B	
Queue Length 50th (ft)	16	112		57	57		37	6		8	8	
Queue Length 95th (ft)	46	254		133	133		104	28		46	46	
Internal Link Dist (ft)		554		108	108		528	820		820	820	
Turn Bay Length (ft)	75							50				
Base Capacity (vph)	776	1472		1422	1422		705	656		785	785	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.48		0.33	0.33		0.25	0.05		0.15	0.15	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 41.7
 Natural Cycle: 45
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 10.2
 Intersection LOS: B
 Intersection Capacity Utilization 85.5%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 10: Cottage St./Baker Ave. & Route 62



Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	620	45	5	420	2	10	0	5	0	0	0
Future Vol, veh/h	2	620	45	5	420	2	10	0	5	0	0	0
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	5	0	3	0	33	0	17	2	2	2
Mvmt Flow	2	674	49	5	457	2	11	0	5	0	0	0

Major/Minor	Major1		Major2		Minor1		Minor2				
Conflicting Flow All	463	0	0	724	0	0	1172	700	1177	1200	462
Stage 1	-	-	-	-	-	-	704	704	-	472	472
Stage 2	-	-	-	-	-	-	468	473	-	705	728
Critical Hdwy	4.1	-	-	4.1	-	-	7.43	6.5	6.37	7.12	6.52
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.5	-	6.12	5.52
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.5	-	6.12	5.52
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.797	4	3.453	3.518	4.018
Pot Cap-1 Maneuver	1109	-	-	888	-	-	147	193	415	168	185
Stage 1	-	-	-	-	-	-	382	443	-	573	559
Stage 2	-	-	-	-	-	-	521	562	-	427	429
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1105	-	-	887	-	-	146	190	415	164	182
Mov Cap-2 Maneuver	-	-	-	-	-	-	146	190	-	164	182
Stage 1	-	-	-	-	-	-	380	441	-	570	553
Stage 2	-	-	-	-	-	-	517	556	-	420	427

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	26.2	0
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	186	1105	-	-	887	-	-	-
HCM Lane V/C Ratio	0.088	0.002	-	-	0.006	-	-	-
HCM Control Delay (s)	26.2	8.3	0	-	9.1	0	-	0
HCM Lane LOS	D	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	25	0	0	1	105	180	0	0	95	5
Future Vol, veh/h	2	0	25	0	0	1	105	180	0	0	95	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	100	1	4	0	0	4	0
Mvmt Flow	2	0	27	0	0	1	114	196	0	0	103	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	533	532	108	543	534	196	110	0	0	196	0	0
Stage 1	108	108	-	424	424	-	-	-	-	-	-	-
Stage 2	425	424	-	119	110	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	7.2	4.11	-	-	4.1	-	-
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	4.2	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	461	456	951	454	455	648	1486	-	-	1389	-	-
Stage 1	902	810	-	612	590	-	-	-	-	-	-	-
Stage 2	611	590	-	890	808	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	429	416	949	412	415	648	1484	-	-	1389	-	-
Mov Cap-2 Maneuver	429	416	-	412	415	-	-	-	-	-	-	-
Stage 1	823	808	-	559	539	-	-	-	-	-	-	-
Stage 2	558	539	-	865	806	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10.6	2.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1484	-	-	871	648	1389	-	-
HCM Lane V/C Ratio	0.077	-	-	0.034	0.002	-	-	-
HCM Control Delay (s)	7.6	0	-	9.3	10.6	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0	0	-	-

Intersection

Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	Y	
Traffic Vol, veh/h	55	15	15	120	230	175
Future Vol, veh/h	55	15	15	120	230	175
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, %	4	7	15	6	1	0
Mvmt Flow	60	16	16	130	250	190

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	507	345	440	0	0
Stage 1	345	-	-	-	-
Stage 2	162	-	-	-	-
Critical Hdwy	6.44	6.27	4.25	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-
Follow-up Hdwy	3.536	3.363	2.335	-	-
Pot Cap-1 Maneuver	522	687	1054	-	-
Stage 1	713	-	-	-	-
Stage 2	862	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	514	687	1054	-	-
Mov Cap-2 Maneuver	514	-	-	-	-
Stage 1	702	-	-	-	-
Stage 2	862	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1054	-	543	-	-
HCM Lane V/C Ratio	0.015	-	0.14	-	-
HCM Control Delay (s)	8.5	0	12.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

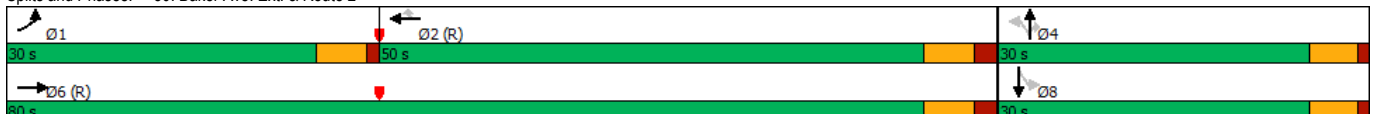


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗			↖↗	↖	↖	↖	↖	↖	↖	↖
Traffic Volume (vph)	550	1360	300	0	1080	210	80	25	15	140	140	0
Future Volume (vph)	550	1360	300	0	1080	210	80	25	15	140	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		250	200		200	0		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3368	0	0	3406	1568	1736	1827	1615	1480	1881	0
Flt Permitted	0.950						0.543			0.740		
Satd. Flow (perm)	1770	3368	0	0	3406	1568	992	1827	1615	1152	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52				221			79			
Link Speed (mph)	40				40			25				25
Link Distance (ft)	476				2464			521				212
Travel Time (s)	8.1				42.0			14.2				5.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	5%	1%	0%	6%	3%	4%	4%	0%	22%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	598	1804	0	0	1174	228	87	27	16	152	152	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	1	6			2			4				8
Permitted Phases						2	4		4	8		
Detector Phase	1	6			2	2	4	4	4	8		8
Switch Phase												
Minimum Initial (s)	6.0	10.0			10.0	10.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	11.0	26.0			26.0	26.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	30.0	80.0			50.0	50.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	27.3%	72.7%			45.5%	45.5%	27.3%	27.3%	27.3%	27.3%	27.3%	27.3%
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	2.0			2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.0			6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None	None	None	None
Act Efect Green (s)	30.9	79.9			44.0	44.0	19.1	19.1	19.1	19.1	19.1	19.1
Actuated g/C Ratio	0.28	0.73			0.40	0.40	0.17	0.17	0.17	0.17	0.17	0.17
v/c Ratio	1.20	0.73			0.86	0.30	0.51	0.09	0.05	0.76	0.47	0.47
Control Delay	145.4	11.7			38.1	4.3	50.3	36.0	0.3	66.4	44.5	44.5
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.4	11.7			38.1	4.3	50.3	36.0	0.3	66.4	44.5	44.5
LOS	F	B			D	A	D	D	A	E	D	D
Approach Delay		45.0			32.6			41.2			55.4	
Approach LOS		D			C			D			E	
Queue Length 50th (ft)	~522	338			393	3	56	16	0	103	97	97
Queue Length 95th (ft)	#801	513			488	50	103	39	0	167	152	152
Internal Link Dist (ft)		396			2384			441			132	
Turn Bay Length (ft)	350					250	200		200			
Base Capacity (vph)	497	2461			1362	759	225	415	428	261	427	427
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.73			0.86	0.30	0.39	0.07	0.04	0.58	0.36	0.36

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 30 (27%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.20
 Intersection Signal Delay: 41.5
 Intersection LOS: D
 Intersection Capacity Utilization 90.6%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 30: Baker Ave. Ext. & Route 2





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕		↖	↗	
Traffic Volume (vph)	50	490	40	0	765	30	100	40	5	65	70	160
Future Volume (vph)	50	490	40	0	765	30	100	40	5	65	70	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		0	50		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1858	0	0	1853	0	0	1791	0	1805	1660	0
Flt Permitted	0.155							0.583		0.718		
Satd. Flow (perm)	294	1858	0	0	1853	0	0	1078	0	1364	1660	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		12			6						165	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		634			188			608			900	
Travel Time (s)		14.4			4.3			16.6			24.5	
Confl. Peds. (#/hr)	3		4	4		3	3					3
Confl. Bikes (#/hr)			2			1						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	1%	3%	17%	0%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	576	0	0	865	0	0	157	0	71	250	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Total Split (s)	40.0	40.0		40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0			5.0			5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	28.4	28.4		28.4	28.4		12.2	12.2		12.2	12.2	
Actuated g/C Ratio	0.56	0.56		0.56	0.56		0.24	0.24		0.24	0.24	
v/c Ratio	0.33	0.56		0.84	0.84		0.61	0.22		0.48	0.48	
Control Delay	13.2	9.7		18.9	18.9		31.1	19.5		10.8	10.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.2	9.7		18.9	18.9		31.1	19.5		10.8	10.8	
LOS	B	A		B	B		C	C		B	B	
Approach Delay		10.0		18.9	18.9		31.1	12.7				
Approach LOS		A		B	B		C	B				
Queue Length 50th (ft)	8	104		206	206		47	19		23	23	
Queue Length 95th (ft)	32	180		#403	#403		#117	49		77	77	
Internal Link Dist (ft)		554		108	108		528			820	820	
Turn Bay Length (ft)	75							50				
Base Capacity (vph)	208	1323		1318	1318		333	421		627	627	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.26	0.44		0.66	0.66		0.47	0.17		0.40	0.40	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 51.1
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 16.0
 Intersection LOS: B
 Intersection Capacity Utilization 76.3%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Cottage St./Baker Ave. & Route 62



Intersection												
Int Delay, s/veh	10.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	540	20	5	695	5	100	5	5	1	0	2
Future Vol, veh/h	1	540	20	5	695	5	100	5	5	1	0	2
Conflicting Peds, #/hr	6	0	3	3	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	1	0	3	0	0	0	0	0
Mvmt Flow	1	587	22	5	755	5	109	5	5	1	0	2
Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	766	0	0	612	0	0	1372	601	1379	1388	764	
Stage 1	-	-	-	-	-	-	603	603	-	774	774	-
Stage 2	-	-	-	-	-	-	769	776	-	605	614	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.13	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.527	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	856	-	-	977	-	-	123	146	504	123	144	407
Stage 1	-	-	-	-	-	-	484	492	-	394	411	-
Stage 2	-	-	-	-	-	-	392	410	-	488	486	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	852	-	-	975	-	-	121	143	503	117	141	405
Mov Cap-2 Maneuver	-	-	-	-	-	-	121	143	-	117	141	-
Stage 1	-	-	-	-	-	-	482	490	-	391	405	-
Stage 2	-	-	-	-	-	-	386	404	-	476	484	-
Approach	EB	WB			NB			SB				
HCM Control Delay, s	0	0.1			133.1			21.5				
HCM LOS					F			C				
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	126	852	-	-	975	-	-	222				
HCM Lane V/C Ratio	0.949	0.001	-	-	0.006	-	-	0.015				
HCM Control Delay (s)	133.1	9.2	0	-	8.7	0	-	21.5				
HCM Lane LOS	F	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	6.3	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	85	0	0	0	20	95	0	0	190	2
Future Vol, veh/h	1	0	85	0	0	0	20	95	0	0	190	2
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	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	2	5	1	2	0	0	0
Mvmt Flow	1	0	92	0	0	0	22	103	0	0	207	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	355	355	208	401	356	103	209	0	0	103	0	0
Stage 1	208	208	-	147	147	-	-	-	-	-	-	-
Stage 2	147	147	-	254	209	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.15	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.245	-	-	2.2	-	-
Pot Cap-1 Maneuver	604	574	837	560	570	952	1344	-	-	1502	-	-
Stage 1	799	734	-	856	775	-	-	-	-	-	-	-
Stage 2	860	779	-	750	729	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	596	564	837	492	560	952	1344	-	-	1502	-	-
Mov Cap-2 Maneuver	596	564	-	492	560	-	-	-	-	-	-	-
Stage 1	785	734	-	841	762	-	-	-	-	-	-	-
Stage 2	845	766	-	667	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	0	1.3	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1344	-	-	833	-	1502	-	-
HCM Lane V/C Ratio	0.016	-	-	0.112	-	-	-	-
HCM Control Delay (s)	7.7	0	-	9.9	0	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	-	0	-	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕		↔
Traffic Vol, veh/h	165	20	10	220	85	40
Future Vol, veh/h	165	20	10	220	85	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	8	1	0	0
Mvmt Flow	179	22	11	239	92	43
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	375	114	135	0	0	
Stage 1	114	-	-	-	-	
Stage 2	261	-	-	-	-	
Critical Hdwy	6.4	6.2	4.18	-	-	
Critical Hdwy Stg 1	5.4	-	-	-	-	
Critical Hdwy Stg 2	5.4	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.272	-	-	
Pot Cap-1 Maneuver	630	944	1413	-	-	
Stage 1	916	-	-	-	-	
Stage 2	787	-	-	-	-	
Platoon blocked, %	-	-	-	-	-	
Mov Cap-1 Maneuver	624	944	1413	-	-	
Mov Cap-2 Maneuver	624	-	-	-	-	
Stage 1	908	-	-	-	-	
Stage 2	787	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	13	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1413	-	648	-	-	
HCM Lane V/C Ratio	0.008	-	0.31	-	-	
HCM Control Delay (s)	7.6	0	13	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	1.3	-	-	

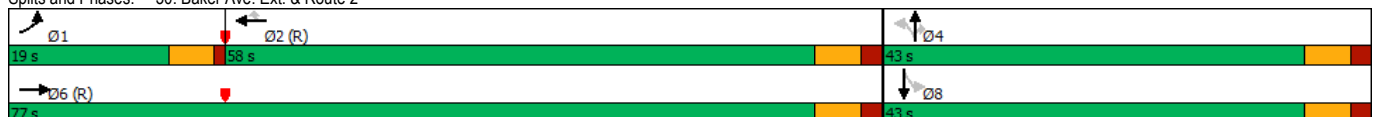


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗			↖↗	↖	↖	↖	↖	↖	↖	↖
Traffic Volume (vph)	230	1240	60	0	1260	85	245	70	60	70	55	0
Future Volume (vph)	230	1240	60	0	1260	85	245	70	60	70	55	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		250	200		200	0		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3518	0	0	3574	1615	1805	1900	1615	1805	1900	0
Flt Permitted	0.950						0.718			0.708		
Satd. Flow (perm)	1787	3518	0	0	3574	1615	1364	1900	1615	1345	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				74			73			
Link Speed (mph)		40			40			25				25
Link Distance (ft)		476			2464			521				212
Travel Time (s)		8.1			42.0			14.2				5.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	250	1413	0	0	1370	92	266	76	65	76	60	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	1	6			2			4				8
Permitted Phases						2	4		4	8		
Detector Phase	1	6			2	2	4	4	4	8		8
Switch Phase												
Minimum Initial (s)	6.0	10.0			10.0	10.0	6.0	6.0	6.0	6.0	6.0	
Minimum Split (s)	11.0	26.0			26.0	26.0	22.0	22.0	22.0	22.0	22.0	
Total Split (s)	19.0	77.0			58.0	58.0	43.0	43.0	43.0	43.0	43.0	
Total Split (%)	15.8%	64.2%			48.3%	48.3%	35.8%	35.8%	35.8%	35.8%	35.8%	
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None	None	None	
Act Effct Green (s)	22.5	79.5			52.0	52.0	28.5	28.5	28.5	28.5	28.5	
Actuated g/C Ratio	0.19	0.66			0.43	0.43	0.24	0.24	0.24	0.24	0.24	
v/c Ratio	0.75	0.61			0.89	0.12	0.82	0.17	0.15	0.24	0.13	
Control Delay	62.5	13.8			39.5	6.9	62.9	34.9	6.6	36.6	34.0	
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	62.5	13.8			39.5	6.9	62.9	34.9	6.6	36.6	34.0	
LOS	E	B			D	A	E	C	A	D	C	
Approach Delay		21.1			37.5			48.7			35.4	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	185	298			503	8	196	47	0	48	37	
Queue Length 95th (ft)	#401	447			608	39	274	81	28	84	67	
Internal Link Dist (ft)		396			2384			441			132	
Turn Bay Length (ft)	350					250	200		200			
Base Capacity (vph)	334	2332			1548	741	420	585	548	414	585	
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0			0	0	0	0	0	0	0	
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	
Reduced v/c Ratio	0.75	0.61			0.89	0.12	0.63	0.13	0.12	0.18	0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 31.2
 Intersection Capacity Utilization 82.0%
 Intersection LOS: C
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 30: Baker Ave. Ext. & Route 2





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕		↖	↗	
Traffic Volume (vph)	130	630	20	5	345	90	50	105	5	65	45	75
Future Volume (vph)	130	630	20	5	345	90	50	105	5	65	45	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		0	50		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1836	0	0	1773	0	0	1780	0	1805	1628	0
Flt Permitted	0.524				0.994			0.847		0.753		
Satd. Flow (perm)	957	1836	0	0	1764	0	0	1530	0	1431	1628	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		5			37						82	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		634			188			608			900	
Travel Time (s)		14.4			4.3			16.6			24.5	
Confl. Peds. (#/hr)	2		5	5		2	1					1
Confl. Bikes (#/hr)			2			3						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	3%	0%	40%	4%	0%	5%	3%	40%	0%	3%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	707	0	0	478	0	0	173	0	71	131	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Total Split (s)	40.0	40.0		40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	26.7	26.7		26.7	26.7		11.3	11.3		11.3	11.3	
Actuated g/C Ratio	0.64	0.64		0.64	0.64		0.27	0.27		0.27	0.27	
v/c Ratio	0.23	0.60		0.42	0.42		0.42	0.18		0.26	0.26	
Control Delay	7.1	10.1		7.1	7.1		20.5	17.6		9.8	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	7.1	10.1		7.1	7.1		20.5	17.6		9.8	9.8	
LOS	A	B		A	A		C	B		A	A	
Approach Delay		9.6			7.1		20.5			12.5		
Approach LOS		A			A		C			B		
Queue Length 50th (ft)	16	112			58		37			14	10	
Queue Length 95th (ft)	48	254			136		104			49	50	
Internal Link Dist (ft)		554			108		528			820		
Turn Bay Length (ft)	75									50		
Base Capacity (vph)	766	1470			1419		699			654	789	
Starvation Cap Reductn	0	0			0		0			0	0	
Spillback Cap Reductn	0	0			0		0			0	0	
Storage Cap Reductn	0	0			0		0			0	0	
Reduced v/c Ratio	0.18	0.48			0.34		0.25			0.11	0.17	

Intersection Summary
 Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 41.8
 Natural Cycle: 45
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 10.4
 Intersection LOS: B
 Intersection Capacity Utilization 86.1%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 10: Cottage St./Baker Ave. & Route 62



Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	650	50	5	430	2	10	0	5	0	0	0
Future Vol, veh/h	2	650	50	5	430	2	10	0	5	0	0	0
Conflicting Peds, #/hr	4	0	1	1	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	3	5	0	3	0	33	0	17	2	2	2
Mvmt Flow	2	707	54	5	467	2	11	0	5	0	0	0

Major/Minor	Major1		Major2		Minor1		Minor2		Minor2			
Conflicting Flow All	473	0	0	762	0	0	1217	735	1223	1248	472	
Stage 1	-	-	-	-	-	-	739	739	-	482	482	-
Stage 2	-	-	-	-	-	-	478	483	-	741	766	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.43	6.5	6.37	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.43	5.5	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.43	5.5	-	6.12	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.797	4	3.453	3.518	4.018	3.318
Pot Cap-1 Maneuver	1099	-	-	859	-	-	137	181	396	156	173	592
Stage 1	-	-	-	-	-	-	365	427	-	565	553	-
Stage 2	-	-	-	-	-	-	514	556	-	408	412	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1095	-	-	858	-	-	136	178	396	152	170	590
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	178	-	152	170	-
Stage 1	-	-	-	-	-	-	364	425	-	562	547	-
Stage 2	-	-	-	-	-	-	510	550	-	401	410	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	27.8	0
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	174	1095	-	-	858	-	-	-
HCM Lane V/C Ratio	0.094	0.002	-	-	0.006	-	-	-
HCM Control Delay (s)	27.8	8.3	0	-	9.2	0	-	0
HCM Lane LOS	D	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	70	0	0	1	120	180	0	0	95	5
Future Vol, veh/h	2	0	70	0	0	1	120	180	0	0	95	5
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	100	1	4	0	0	4	0
Mvmt Flow	2	0	76	0	0	1	130	196	0	0	103	5
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	565	564	108	600	566	196	110	0	0	196	0	0
Stage 1	108	108	-	456	456	-	-	-	-	-	-	-
Stage 2	457	456	-	144	110	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	7.2	4.11	-	-	4.1	-	-
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	4.2	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	439	438	951	416	436	648	1486	-	-	1389	-	-
Stage 1	902	810	-	588	572	-	-	-	-	-	-	-
Stage 2	587	572	-	864	808	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	405	394	949	354	392	648	1484	-	-	1389	-	-
Mov Cap-2 Maneuver	405	394	-	354	392	-	-	-	-	-	-	-
Stage 1	812	808	-	530	516	-	-	-	-	-	-	-
Stage 2	529	516	-	795	806	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	9.3			10.6			3.1			0		
HCM LOS	A			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1484	-	-	915	648	1389	-	-				
HCM Lane V/C Ratio	0.088	-	-	0.086	0.002	-	-	-				
HCM Control Delay (s)	7.7	0	-	9.3	10.6	0	-	-				
HCM Lane LOS	A	A	-	A	B	A	-	-				
HCM 95th %tile Q(veh)	0.3	-	-	0.3	0	0	-	-				

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	65	15	15	120	230	180
Future Vol, veh/h	65	15	15	120	230	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, %	4	7	15	6	1	0
Mvmt Flow	71	16	16	130	250	196
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	510	348	446	0	0	
Stage 1	348	-	-	-	-	
Stage 2	162	-	-	-	-	
Critical Hdwy	6.44	6.27	4.25	-	-	
Critical Hdwy Stg 1	5.44	-	-	-	-	
Critical Hdwy Stg 2	5.44	-	-	-	-	
Follow-up Hdwy	3.536	3.363	2.335	-	-	
Pot Cap-1 Maneuver	520	684	1049	-	-	
Stage 1	710	-	-	-	-	
Stage 2	862	-	-	-	-	
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	512	684	1049	-	-	
Mov Cap-2 Maneuver	512	-	-	-	-	
Stage 1	699	-	-	-	-	
Stage 2	862	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	13	0.9		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1049	-	537	-	-	
HCM Lane V/C Ratio	0.016	-	0.162	-	-	
HCM Control Delay (s)	8.5	0	13	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.6	-	-	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘		↖	↗	↖	↗	↘	↖	↗	↘
Traffic Volume (vph)	550	1360	300	0	1080	210	85	30	15	140	140	0
Future Volume (vph)	550	1360	300	0	1080	210	85	30	15	140	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		250	200		200	0		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1770	3368	0	0	3406	1568	1736	1827	1615	1480	1881	0
Flt Permitted	0.950						0.543			0.736		
Satd. Flow (perm)	1770	3368	0	0	3406	1568	992	1827	1615	1146	1881	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52				221			79			
Link Speed (mph)	40				40			25				25
Link Distance (ft)	476				2464			521				212
Travel Time (s)	8.1				42.0			14.2				5.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	5%	1%	0%	6%	3%	4%	4%	0%	22%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	598	1804	0	0	1174	228	92	33	16	152	152	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	1	6			2			4				8
Permitted Phases						2	4		4	8		
Detector Phase	1	6			2	2	4	4	4	8		8
Switch Phase												
Minimum Initial (s)	6.0	10.0			10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)	11.0	26.0			26.0	26.0	21.0	21.0	21.0	21.0		21.0
Total Split (s)	30.0	80.0			50.0	50.0	30.0	30.0	30.0	30.0		30.0
Total Split (%)	27.3%	72.7%			45.5%	45.5%	27.3%	27.3%	27.3%	27.3%		27.3%
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	2.0			2.0	2.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	6.0			6.0	6.0	5.0	5.0	5.0	5.0		5.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None	None		None
Act Efect Green (s)	30.9	79.9			44.0	44.0	19.1	19.1	19.1	19.1		19.1
Actuated g/C Ratio	0.28	0.73			0.40	0.40	0.17	0.17	0.17	0.17		0.17
v/c Ratio	1.21	0.73			0.86	0.30	0.53	0.10	0.05	0.76		0.47
Control Delay	146.2	11.7			38.1	4.3	51.7	36.4	0.3	66.6		44.4
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	146.2	11.7			38.1	4.3	51.7	36.4	0.3	66.6		44.4
LOS	F	B			D	A	D	D	A	E		D
Approach Delay		45.2			32.6			42.3				55.5
Approach LOS		D			C			D				E
Queue Length 50th (ft)	~523	340			393	3	59	20	0	102		97
Queue Length 95th (ft)	#801	513			488	50	108	45	0	168		152
Internal Link Dist (ft)		396			2384			441				132
Turn Bay Length (ft)	350					250	200		200			
Base Capacity (vph)	496	2460			1362	759	225	415	428	260		427
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	1.21	0.73			0.86	0.30	0.41	0.08	0.04	0.58		0.36

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 30 (27%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 41.7
 Intersection LOS: D
 Intersection Capacity Utilization 90.6%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 30: Baker Ave. Ext. & Route 2





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↕			↕		↖	↗	
Traffic Volume (vph)	55	490	40	0	765	60	100	40	5	80	70	165
Future Volume (vph)	55	490	40	0	765	60	100	40	5	80	70	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	0		0	0		0	50		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1805	1858	0	0	1844	0	0	1791	0	1805	1658	0
Flt Permitted	0.138							0.564		0.714		
Satd. Flow (perm)	262	1858	0	0	1844	0	0	1043	0	1357	1658	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		12			11						165	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		634			188			608			900	
Travel Time (s)		14.4			4.3			16.6			24.5	
Confl. Peds. (#/hr)	3		4	4		3	3					3
Confl. Bikes (#/hr)			2			1						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	2%	0%	1%	3%	17%	0%	0%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	576	0	0	897	0	0	157	0	87	255	0
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		11.0	11.0		11.0	11.0	
Total Split (s)	40.0	40.0		40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%		66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		None	None	
Act Effct Green (s)	29.6	29.6		29.6	29.6		12.4	12.4		12.4	12.4	
Actuated g/C Ratio	0.56	0.56		0.56	0.56		0.24	0.24		0.24	0.24	
v/c Ratio	0.41	0.55		0.86	0.86		0.64	0.27		0.49	0.49	
Control Delay	16.9	9.5		20.4	20.4		33.6	20.5		11.3	11.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.9	9.5		20.4	20.4		33.6	20.5		11.3	11.3	
LOS	B	A		C	C		C	C		B	B	
Approach Delay		10.2		20.4	20.4		33.6				13.6	
Approach LOS		B		C	C		C				B	
Queue Length 50th (ft)	10	107		226	226		50	25		26	26	
Queue Length 95th (ft)	42	180		#476	#476		#120	58		80	80	
Internal Link Dist (ft)		554		108	108		528			820	820	
Turn Bay Length (ft)	75							50				
Base Capacity (vph)	182	1295		1285	1285		312	406		612	612	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.33	0.44		0.70	0.70		0.50	0.21		0.42	0.42	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 52.5
 Natural Cycle: 50
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 17.1
 Intersection LOS: B
 Intersection Capacity Utilization 80.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Cottage St./Baker Ave. & Route 62



Intersection												
Int Delay, s/veh	12.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	555	20	5	725	5	100	5	5	1	0	2
Future Vol, veh/h	1	555	20	5	725	5	100	5	5	1	0	2
Conflicting Peds, #/hr	6	0	3	3	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	1	0	3	0	0	0	0	0
Mvmt Flow	1	603	22	5	788	5	109	5	5	1	0	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	799	0	0	628	0	0	1421	1428	617	1428	1437	797
Stage 1	-	-	-	-	-	-	619	619	-	807	807	-
Stage 2	-	-	-	-	-	-	802	809	-	621	630	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.13	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.527	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	833	-	-	964	-	-	113	136	494	114	135	390
Stage 1	-	-	-	-	-	-	474	483	-	378	397	-
Stage 2	-	-	-	-	-	-	376	396	-	478	478	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	829	-	-	962	-	-	111	134	493	108	133	388
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	134	-	108	133	-
Stage 1	-	-	-	-	-	-	472	481	-	375	391	-
Stage 2	-	-	-	-	-	-	371	390	-	466	476	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			163.1			22.6		
HCM LOS							F			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	116	829	-	-	962	-	-	208				
HCM Lane V/C Ratio	1.031	0.001	-	-	0.006	-	-	0.016				
HCM Control Delay (s)	163.1	9.3	0	-	8.8	0	-	22.6				
HCM Lane LOS	F	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	6.9	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	110	0	0	0	55	95	0	0	190	2
Future Vol, veh/h	1	0	110	0	0	0	55	95	0	0	190	2
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	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	2	5	1	2	0	0	0
Mvmt Flow	1	0	120	0	0	0	60	103	0	0	207	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	431	431	208	491	432	103	209	0	0	103	0	0
Stage 1	208	208	-	223	223	-	-	-	-	-	-	-
Stage 2	223	223	-	268	209	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.15	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.245	-	-	2.2	-	-
Pot Cap-1 Maneuver	538	520	837	488	516	952	1344	-	-	1502	-	-
Stage 1	799	734	-	780	719	-	-	-	-	-	-	-
Stage 2	784	723	-	738	729	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	519	496	837	403	492	952	1344	-	-	1502	-	-
Mov Cap-2 Maneuver	519	496	-	403	492	-	-	-	-	-	-	-
Stage 1	761	734	-	743	685	-	-	-	-	-	-	-
Stage 2	747	689	-	633	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	0	2.9	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1344	-	-	832	-	1502	-	-
HCM Lane V/C Ratio	0.044	-	-	0.145	-	-	-	-
HCM Control Delay (s)	7.8	0	-	10.1	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	-	0	-	-

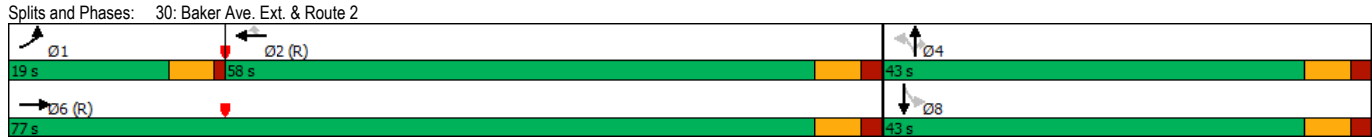
Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			Y	Y	
Traffic Vol, veh/h	170	20	10	220	85	50
Future Vol, veh/h	170	20	10	220	85	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	8	1	0	0
Mvmt Flow	185	22	11	239	92	54
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	380	119	146	0	0	
Stage 1	119	-	-	-	-	
Stage 2	261	-	-	-	-	
Critical Hdwy	6.4	6.2	4.18	-	-	
Critical Hdwy Stg 1	5.4	-	-	-	-	
Critical Hdwy Stg 2	5.4	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.272	-	-	
Pot Cap-1 Maneuver	626	938	1400	-	-	
Stage 1	911	-	-	-	-	
Stage 2	787	-	-	-	-	
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	620	938	1400	-	-	
Mov Cap-2 Maneuver	620	-	-	-	-	
Stage 1	903	-	-	-	-	
Stage 2	787	-	-	-	-	
Approach	EB	NB		SB		
HCM Control Delay, s	13.2	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1400	-	643	-	-	
HCM Lane V/C Ratio	0.008	-	0.321	-	-	
HCM Control Delay (s)	7.6	0	13.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	1.4	-	-	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗			↖↗	↖	↖	↖	↖	↖	↖	↖
Traffic Volume (vph)	230	1240	65	0	1260	85	250	75	60	70	60	0
Future Volume (vph)	230	1240	65	0	1260	85	250	75	60	70	60	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	0		250	200		200	0		0
Storage Lanes	1		0	0		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1787	3514	0	0	3574	1615	1805	1900	1615	1805	1900	0
Flt Permitted	0.950						0.715			0.704		
Satd. Flow (perm)	1787	3514	0	0	3574	1615	1358	1900	1615	1338	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				74			73			
Link Speed (mph)		40			40			25				25
Link Distance (ft)		476			2464			521				212
Travel Time (s)		8.1			42.0			14.2				5.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	2%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	250	1419	0	0	1370	92	272	82	65	76	65	0
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	1	6			2			4				8
Permitted Phases						2	4		4	8		
Detector Phase	1	6			2	2	4	4	4	8		8
Switch Phase												
Minimum Initial (s)	6.0	10.0			10.0	10.0	6.0	6.0	6.0	6.0		6.0
Minimum Split (s)	11.0	26.0			26.0	26.0	22.0	22.0	22.0	22.0		22.0
Total Split (s)	19.0	77.0			58.0	58.0	43.0	43.0	43.0	43.0		43.0
Total Split (%)	15.8%	64.2%			48.3%	48.3%	35.8%	35.8%	35.8%	35.8%		35.8%
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	1.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	5.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Recall Mode	None	C-Max			C-Max	C-Max	None	None	None	None		None
Act Efect Green (s)	22.0	79.0			52.0	52.0	29.0	29.0	29.0	29.0		29.0
Actuated g/C Ratio	0.18	0.66			0.43	0.43	0.24	0.24	0.24	0.24		0.24
v/c Ratio	0.76	0.61			0.89	0.12	0.83	0.18	0.15	0.24		0.14
Control Delay	64.2	14.1			39.5	6.9	63.5	34.8	6.6	36.2		34.0
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	64.2	14.1			39.5	6.9	63.5	34.8	6.6	36.2		34.0
LOS	E	B			D	A	E	C	A	D		C
Approach Delay		21.6			37.5			49.0				35.2
Approach LOS		C			D			D				D
Queue Length 50th (ft)	187	306			503	8	200	50	0	47		40
Queue Length 95th (ft)	#401	450			608	39	281	86	28	84		71
Internal Link Dist (ft)		396			2384			441				132
Turn Bay Length (ft)	350					250	200		200			
Base Capacity (vph)	327	2316			1548	741	418	585	548	412		585
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.76	0.61			0.89	0.12	0.65	0.14	0.12	0.18		0.11

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 31.5
 Intersection LOS: C
 Intersection Capacity Utilization 82.3%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.



NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024

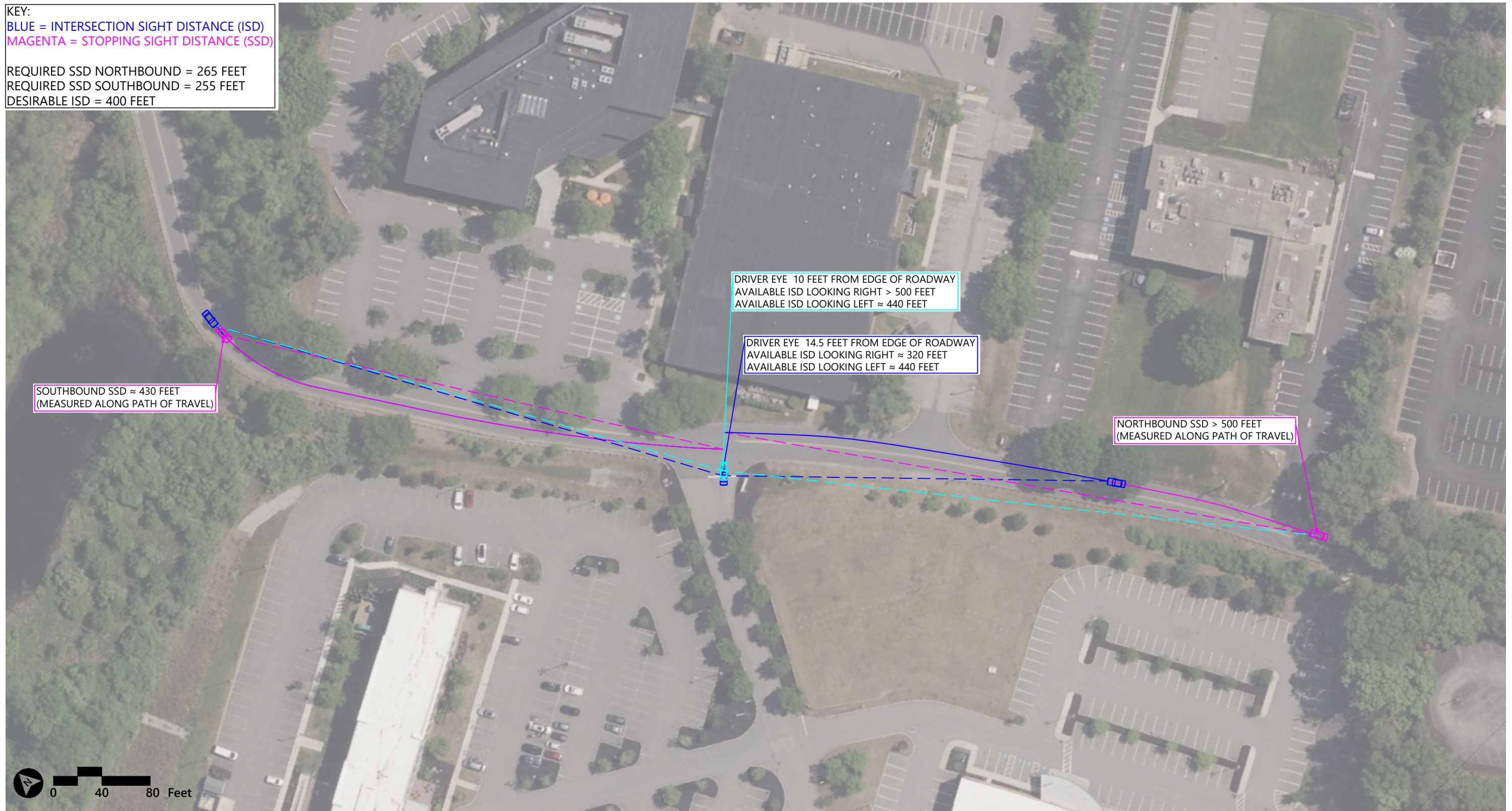


Sight Distance Analysis

Sight Distance: Baker Avenue Extension Driveway

Baker Avenue | Concord, Massachusetts

KEY:
BLUE = INTERSECTION SIGHT DISTANCE (ISD)
MAGENTA = STOPPING SIGHT DISTANCE (SSD)
REQUIRED SSD NORTHBOUND = 265 FEET
REQUIRED SSD SOUTHBOUND = 255 FEET
DESIRABLE ISD = 400 FEET



NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Parking Analysis

Parking Calculations

ITE Parking Generation Manual, 6th Edition

LUC: 221 - Multifamily Housing - 2+ BR (Mid-Rise)
Independent Variable: Dwelling Units
Time Period: Weekday (Monday - Friday)
Setting/Location: General Urban/Surburban (<1/2 mile to rail transit)

Dwelling Units: 201

Parking Demand	Rate	Demand	Based on 7 studies
Min:	0.64	129	
33rd Percentile:	0.97	195	
Average:	1.14	229	
85th Percentile:	1.42	285	
Max:	1.45	291	
Parking Supply	Rate	Supply	Based on 6 sites
Average:	1.5	302	Average peak parking occupancy 74%

**TOWN OF CONCORD, MA ZONING BYLAW
RECOMMENDATION INFORMATIONAL SHEET**



THE TOWN OF
CONCORD
MASSACHUSETTS

SUBJECT: OFF-STREET PARKING TABLE IV – RESIDENTIAL USES

Text from Town of Concord Zoning Bylaw (Amended through Annual Town Meeting – May 2022) - Section 7.7.2 – Parking and Loading Requirements

7.7.2.1 Required Spaces: Table IV, Minimum Parking, indicates the minimum number of parking spaces required for each principal use.

EXISTING LAND USE: Single- and two-family dwelling and planned residential development.

CURRENT REQUIREMENT: Two (2) spaces per dwelling unit or one and one-half (1-½) spaces per dwelling unit for subsidized low- and moderate-income housing or elderly housing developments.

OVERALL DISCUSSION: According to the 2014 data from the Metropolitan Area Planning Council (MAPC) Motor Vehicle Census, Concord residents, on average, own fewer vehicles than residents in neighboring towns with an average of 1.71 vehicles per household. This suggests that a closer examination of parking supply vs. demand for residential land uses. With the advent of more remote or telework conditions, the ability to purchase items online for delivery, and the success of rail-hailing services, many persons have chosen to live without a personal vehicle. The Bylaw is written to cover all residential uses under a single umbrella where historical data shows parking demand to vary over different types of residential land uses.

TEC RECOMMENDATION: Modify Table IV to separate typical residential development types and modify the minimum required parking space based on the separated residential development types.

1. PROPOSED LAND USE: Single-Family Dwelling or Two-Family Dwelling

RECOMMENDED REQUIREMENT: Two (2) spaces per dwelling unit (inclusive of garage if applicable)

DISCUSSION: Typical neighborhood home or duplex. No change from current Bylaw.

2. PROPOSED LAND USE: Multifamily Housing or Planned Residential Development or Subsidized Low- and Moderate-Income Housing

RECOMMENDED REQUIREMENT: One and one-half (1.5) spaces per dwelling unit

DISCUSSION: For each use, ITE (industry standard) 85th percentile peak parking demand estimates at or below 1.5 spaces per dwelling unit with highest value at 1.59 spaces per dwelling unit for LUC 220 – Multifamily Housing Low-Rise on a weekday which would

potentially include visitor traffic. Still remains higher than both Town of Lincoln and Town of Lexington.

OTHER CONSIDERATIONS: Consider providing the minimum requirement for parking based on the bedroom count. For a one (1) bedroom unit – require one (1) parking space, for a two (2) bedroom unit – require 1.5 spaces per dwelling unit, for a 3+ bedroom unit – require two (2) or 2.5 parking spaces per unit.

3. PROPOSED LAND USE: Senior Adult Housing Development

RECOMMENDED REQUIREMENT: One (1) space per dwelling unit (inclusive of garage if applicable)

DISCUSSION: ITE (industry standard) 85th percentile peak parking demand estimates at or below 0.67 spaces per dwelling unit which is greater than Town of Lexington at 0.5 space per dwelling unit. Maintain higher level based on lower opportunity for public transportation options outside of key Town areas.



Attachment A

ITE Parking Demand – Housing Rates

ITE Parking Generation, 6th Edition
85th Percentile Peak Parking Demand
Housing (Not Close to Rail Transit)

UNITS

<u>ITE Land Use</u>		<u>Weekday 85th</u>	<u>Saturday 85th</u>
LUC 217	Multifamily Low-Rise (1BR)	1.27	
LUC 218	Multifamily Mid-Rise (1 BR)	0.91	
LUC 219	Multifamily High-Rise (1 BR)	0.68	
LUC 220	Multifamily Low-Rise (2+ BR)	1.59	1.44
LUC 221	Multifamily Mid-Rise (2+ BR)	1.45	1.14
LUC 222	Multifamily High-Rise (2+ BR)	1.19	

BEDROOMS

<u>ITE Land Use</u>		<u>Weekday 85th</u>	<u>Saturday 85th</u>	<u>2BR</u>	<u>3BR</u>
LUC 200	Multifamily Low-Rise (2+ BR)	0.86	0.88	1.76	2.64
LUC 221	Multifamily Mid-Rise (2+ BR)	0.88	0.77	1.76	2.64
LUC 222	Multifamily High-Rise (2+ BR)	1.19		2.38	3.57

UNITS

<u>ITE Land Use</u>		<u>Weekday 85th</u>	<u>Saturday 85th</u>
LUC 223	Affordable Housing (Income)	1.4	1.19
LUC 223	Affordable Housing (Senior)	0.8	0.6
LUC 252	Senior Adult Housing - Multifamily	0.67	

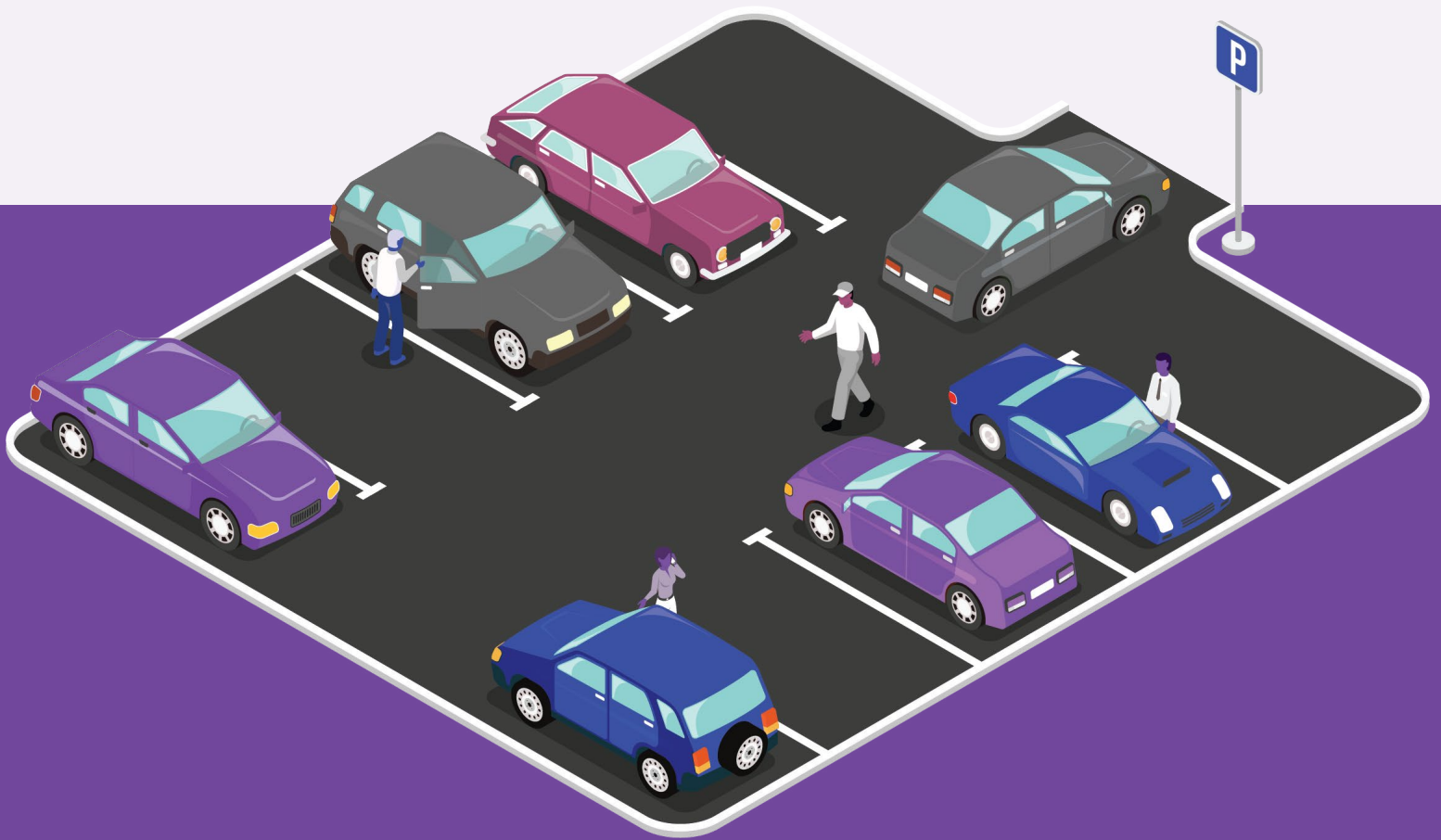
BEDROOMS

<u>ITE Land Use</u>		<u>Weekday 85th</u>	<u>Saturday 85th</u>	<u>2BR</u>	<u>3BR</u>
LUC 223	Affordable Housing (Income)	0.81	0.27	1.62	2.43
LUC 223	Affordable Housing (Senior)	0.85		1.7	2.55
LUC 252	Senior Adult Housing - Multifamily			0	0

Memorandum to Members of WestMetro HOME Consortium

WestMetro Parking Utilization Study

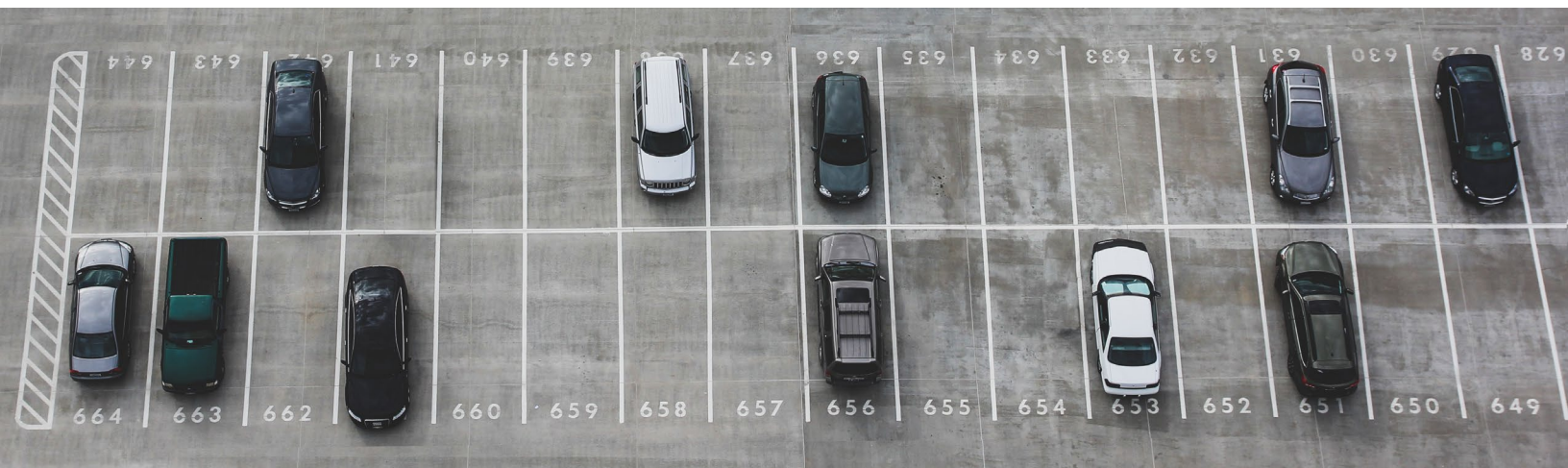
Perfect Fit Parking Initiative, Phase 4



**Metropolitan Area
Planning Council**

July 2023





Memorandum

Background

The WestMetro HOME Consortium approached MAPC in 2021 to request a parking utilization study at multifamily housing developments in the Consortium’s member municipalities west of Boston (Bedford, Belmont, Brookline, Concord, Framingham, Lexington, Natick, Needham, Newton, Sudbury, Waltham, Watertown, and Wayland). The Consortium was motivated to pursue this study by their Analysis of Impediments to Fair Housing (2021-2025), which contends that excessive parking requirements are a barrier to multifamily housing development and recommends that municipalities reconsider their residential parking standards. In an August 20, 2021 memo regarding these issues, Consortium members noted that “requiring more off-street parking than needed to meet demand unnecessarily increases development costs and may, particularly when combined with other regulatory requirements, discourage such development.”

As part of its [Perfect Fit Parking Initiative](#), MAPC previously conducted three phases of parking utilization research at multifamily housing sites in Greater Boston between 2015 and 2020. Phases 1 and 2 collectively examined nearly 200 sites in 14 Inner Core municipalities (including 10 sites in the Consortium municipalities of Newton, Waltham and Watertown), while Phase 3 examined an additional 20 sites in four North Shore municipalities.

The Phase 1 and Phase 2 results showed that only 70% of the off-street parking spaces provided at multifamily developments were occupied during peak hours (in the middle of the night), while Phase 3 similarly found only 76% parking utilization during peak hours.

Detailed statistical modeling of the Phase 1 and Phase 2 results further found that parking supply was the single largest factor associated with parking demand — the more spaces provided, the more cars were parked there, all other things being equal. The analysis also found that good transit access to jobs and the presence of deed-restricted affordable units were both associated with reduced parking demand.

WestMetro Data Collection

Through a new round of Perfect Fit Parking research (hereafter referred to as “Phase 4”), the Consortium sought to better understand patterns of parking availability and utilization in their region, with the goal of creating more equitable and data-driven approaches to local parking policy. Data collection for the Phase 4 study took place during 2022 and replicated the methodology used in the prior phases of MAPC’s parking utilization research. (All the Consortium’s member municipalities participated in the study except for Wayland.) Municipal staff used an MAPC-provided survey to collect baseline data on multifamily housing sites from local property owners and managers. The staff then conducted overnight weeknight parking counts at sites to get data on peak parking utilization.

Over 40 sites were covered by both the property surveys and the overnight parking counts, with 36 sites across six municipalities having sufficient data for full analysis (including the same statistical modeling used in Phases 1 and 2). **Table 1** shows the average parking supply, average parking demand, and average parking utilization percentage for each municipality, as well as the averages across all municipalities. These figures were calculated as follows:

Parking supply per unit: the total number of parking spaces divided by the total number of housing units

Parking demand per unit: the number of occupied parking spaces divided by the number of occupied housing units

Parking utilization: the number of occupied parking spaces divided by the total number of parking spaces

Table 1. Average Parking Supply, Demand, and Utilization by Municipality¹

Municipality	Number of Sites	Parking Supply Per Unit (Total Spaces / Total Units)	Parking Demand Per Unit (Occupied Spaces / Occupied Units)	Parking Utilization % (Occupied Spaces / Total Spaces)
Brookline	2	0.80	0.65	87%
Concord	3	2.32	1.05	53%
Needham	2	1.59	0.62 ²	62%
Newton	10	1.52	0.83	50%
Sudbury	2	1.40	0.98	71%
Watertown	17	1.45	0.99	62%
All Sites	36	1.58	1.00	61%

The parking supply, demand, and utilization figures varied by municipality. Parking supply ranged from 0.80 spaces/unit in Brookline to 2.32 spaces/unit in Concord, parking demand ranged from 0.62 spaces/unit in Needham to 1.05 spaces/unit in Concord, and parking utilization ranged from 50% in Newton to 87% in Brookline. In every municipality and at every development, parking was oversupplied, with fewer than one-third of spaces being used in some cases. Those municipalities with the most parking per unit had the lowest utilization, meaning developers had to build hundreds of parking spaces that are not needed.

Overall, just 61% of the off-street parking spaces were utilized during peak hours — an even lower percentage than was observed during the first three phases of MAPC’s Perfect Fit Parking research. The discrepancy between the average parking supply of 1.58 spaces/unit and the average parking demand of 1.00 spaces/unit further highlights that parking is overbuilt at the Phase 4 sites studied, to the detriment of providing more housing units (including more affordable units), improved transit access, and increased open space.

1 The figures for individual municipalities in Table 1 are unweighted averages of local site-level data.

2 At one of the Needham sites, municipal staff were unable to count parked vehicles inside the garage. Parking utilization for this site was therefore calculated as surface vehicles observed divided by surface spaces. However, the parking demand calculation could not be similarly adjusted, and was therefore omitted from the municipal summary. Thus the parking demand of 0.62 spaces/unit for Needham reported in Table 1 is based only on the single site which had complete data. Parking utilization and parking supply statistics for Needham reflect survey data from both sites.

Analysis

To better understand the factors influencing parking demand across the Consortium municipalities, MAPC incorporated the results into the statistical model that was previously used in the Phase 1 and Phase 2 studies. This model is designed to predict parking demand per unit as a function of 25 building and neighborhood variables, which are summarized below in **Table 2**. MAPC ran the model in one configuration with just the Phase 4 data and in another configuration that included the Phase 4 data along with the broader regional dataset from the previous three phases. (The Phase 3 data were modeled for the first time ever as part of the latter configuration.)

Both model configurations produced results consistent with previous phases of MAPC's research. **Specifically, the same three variables explain most of the variation in parking demand: parking supply, transit access to jobs³, and housing affordability.** Increased parking supply again was the dominant factor associated with increased parking demand, with each additional parking space per unit associated with an increase of 0.22 parked cars per household for the Phase 4 data alone.

Similarly, increased numbers of jobs accessible by transit and increased percentages of deed-restricted affordable units were again associated with reduced parking demand. The impact of transit-accessible jobs was very small, but statistically significant: every 100,000 additional jobs accessible by a 30-minute transit ride from the site was associated with a decrease in parking demand of 0.06 cars per household. The impact of affordable units was much larger: a one percent increase in the share of affordable units in the building was associated with a decrease in parking demand of 0.26 cars per household. This is likely a reflection of a correlation between vehicle ownership and income, but nonetheless remains a statistically significant finding of the analysis.

3 While the study model did not include the presence of bus stops within a half-mile of the sites as a variable, the transit access variable included jobs accessible from the sites via all transit modes (bus, subway, rail).

Table 2. Evaluated Building and Neighborhood Characteristics

Building Features	Parking Features	Built Environment	Socioeconomic Context
<ul style="list-style-type: none"> Percentage of units that are affordable Year of construction Average bedroom count Average rent or purchase price Number of units in building Housing Tenure 	<ul style="list-style-type: none"> Presence of bicycle parking Parking Cost Ratio of parking cost to monthly rent cost per bedroom Ratio of parking cost to monthly rent cost per unit Percent of provided parking spaces that are garaged Ratio of garage to surface parking spaces Parking supply 	<ul style="list-style-type: none"> Number of jobs accessible by 30-minute transit trip Neighborhood population density Neighborhood employment density Neighborhood population and employment density (cumulative) Presence of MBTA commuter rail station within half-mile Presence of MBTA rapid transit station within half-mile WalkScore® 	<ul style="list-style-type: none"> Median annual income (Census tract) Average household size for rental households (Census tract) Average household size for ownership households Share of households in U.S. Census tract that are renter-occupied Share of households in U.S. Census tract with zero vehicle

Recommendations

While multifamily housing sites in suburban locations may have higher parking demand than sites in more transit-accessible locations in the Inner Core, MAPC’s parking utilization research — now including the Phase 4 study — has consistently found that parking is oversupplied at these sites throughout Greater Boston. As such, the same policy prescriptions noted in earlier phases of Perfect Fit Parking research are applicable to the WestMetro HOME Consortium member municipalities as well.

These recommendations include the following:

<p>Shifting from parking minimums to maximums</p>	<p>Reducing parking ratios</p>	<p>Unbundling parking from housing costs</p>	<p>Exploring strategies for shared parking</p>
--	---------------------------------------	---	---

The results of MAPC’s statistical modeling provide further insights into how municipalities might more specifically target their parking policies. Given that increased jobs accessible by transit and percentages of affordable units are associated with reduced parking demand, cities and towns can require less parking at transit-oriented sites and enable lower parking requirements in exchange for more affordable units.

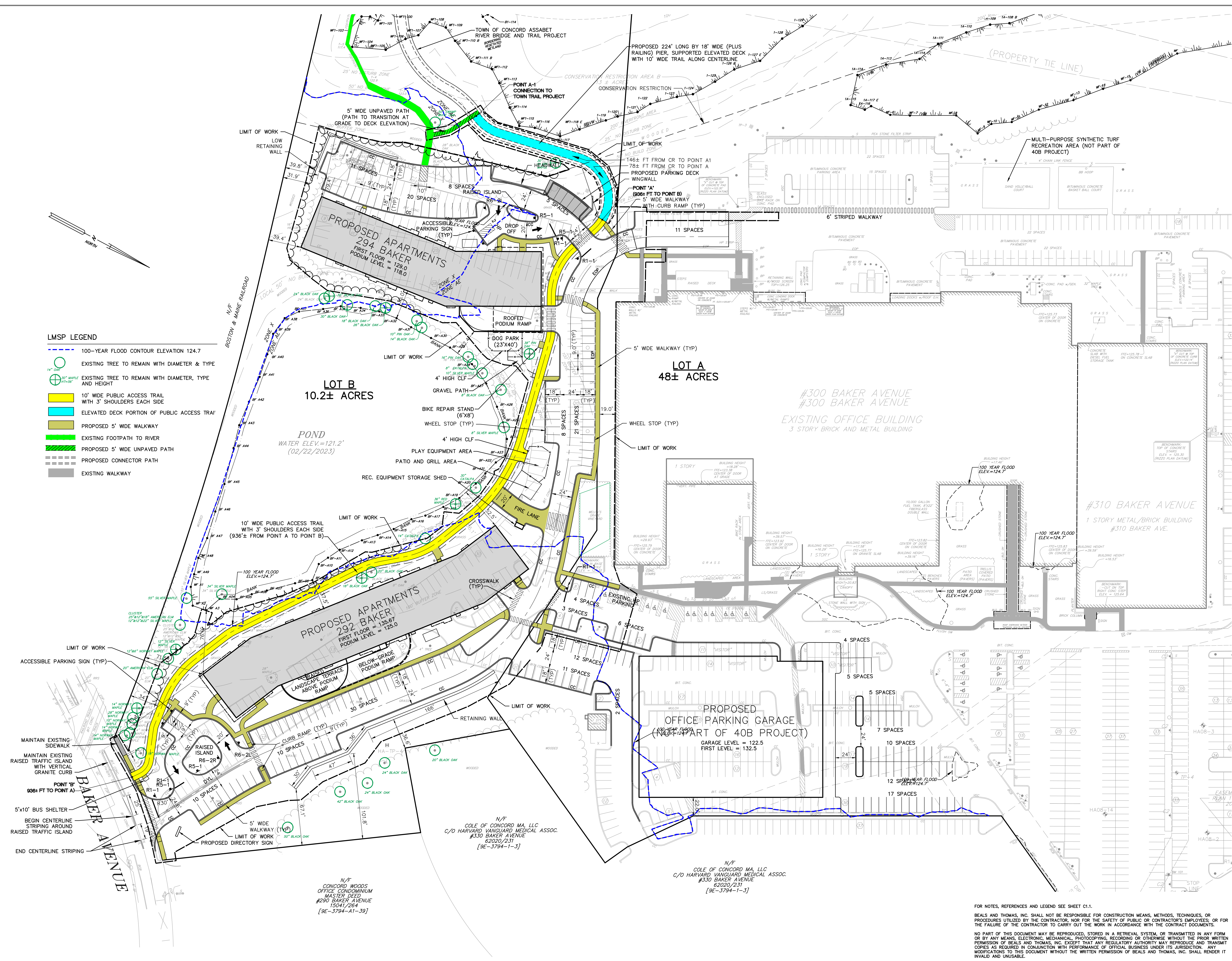
Conclusion

The Perfect Fit Parking Phase 4 study marks another contribution to an increasingly robust regional dataset that highlights opportunities to right-size parking in line with affordable housing and transit goals. MAPC looks forward to continuing to work with the Consortium municipalities, as well as other cities and towns in Greater Boston, to implement data-driven local parking reforms that advance equity and access.

NOVO Riverside Commons – 292 & 294 Baker Avenue, Concord, Massachusetts
Ref: 15630.00
January 2, 2024



Site Plan



- LMSF LEGEND**
- 100-YEAR FLOOD CONTOUR ELEVATION 124.7
 - EXISTING TREE TO REMAIN WITH DIAMETER & TYPE
 - ⊕ EXISTING TREE TO REMAIN WITH DIAMETER, TYPE AND HEIGHT
 - 10' WIDE PUBLIC ACCESS TRAIL WITH 3' SHOULDERS EACH SIDE
 - ELEVATED DECK PORTION OF PUBLIC ACCESS TRAIL
 - PROPOSED 5' WIDE WALKWAY
 - EXISTING FOOTPATH TO RIVER
 - PROPOSED 5' WIDE UNPAVED PATH
 - PROPOSED CONNECTOR PATH
 - EXISTING WALKWAY

PREPARED FOR:

TAURUS INVESTMENT HOLDINGS, LLC

TWO INTERNATIONAL PLACE
BOSTON, MASSACHUSETTS 02110



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BEALS AND THOMAS, INC.
144 Turnpike Road, Suite 210
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

NO.	DATE	DESCRIPTION
5		
4		
3		
2	12/18/2023	NOTICE OF INTENT
1	07/31/2023	REVISION
0	05/22/2023	PEL SUBMISSION
	ISSUE DATE	DESCRIPTION

PROJECT:

NOVO RIVERSIDE COMMONS
292 & 294 BAKER AVENUE
CONCORD, MASSACHUSETTS

SCALE: 1" = 40' DATE: MAY 22, 2023

METERS: 0 10 20 30 40 50 60 70 80 90 100
FEET: 0 20 40 60 80 100

LAYOUT AND MATERIALS SITE PLAN

B+T JOB NO. 2063.27

B+T PLAN NO. 206327P1170-001

C21

FOR NOTES, REFERENCES AND LEGEND SEE SHEET C1.1.

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